Cold Spring, Hot Foundry: An Archaeological Exploration of the West Point Foundry’s Paternal Influence Upon the Village of Cold Spring and its Residents

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COLD SPRING, HOT FOUNDRY:
AN ARCHAEOLOGICAL EXPLORATION
OF THE WEST POINT FOUNDRY’S PATERNAL INFLUENCE
UPON THE VILLAGE OF COLD SPRING AND ITS RESIDENTS

A Dissertation Presented
by

ELIZABETH M. NORRIS

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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ANTHROPOLOGY
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The journey of my dissertation began long ago and its completion has been aided by hundreds of individuals. I will try to acknowledge as many of those I can with a few words here, and hope that any I may have forgotten will forgive the oversight (this is the last thing I wrote of the 500+ monstrosity that follows).

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ABSTRACT

COLD SPRING, HOT FOUNDRY: AN ARCHAEOLOGICAL EXPLORATION OF THE WEST POINT FOUNDRY’S PATERNAL INFLUENCE UPON THE VILLAGE OF COLD SPRING AND ITS RESIDENTS

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This dissertation explores the nineteenth century paternal relationship between industrialists and their predominantly skilled workers in a small northern community. As an archaeological analysis, artifacts such as houses and ceramics demonstrate the economic and consumption patterns observable throughout the United States during its industrialization. Discussion centers around the West Point Foundry, which operated in the Village of Cold Spring from 1818 to 1911 and originally owned half of the village’s property and employed half of its workers. Privately owned, it manufactured a variety of iron products including heavy ordnance for both the country’s Navy and Army.

Methodological analysis paired documentary research, landscape and spatial analysis, and a reanalysis of several related archaeological collections from different social and economic classes of workers and owners. The Foundry and village is placed within a broader context of religious tolerance, paternalistic control, community planning and architecture, market accessibility, and worker turnover. It shows that the industrial paternalism of West
Point Foundry owners was evident in Cold Spring’s development and generally decreased over the course of the nineteenth century. Among other signs, paternalism was visible in company housing built in half the area and the provision of land for a majority of local churches.

Unlike other industrial communities where ceramic patterns can be explained by paternalism, consumption patterns better explain the ceramics archaeologically recovered from several Foundry related households. West Point Foundry worker ceramic assemblages display an abundance of tea wares and predominantly more bowls than plates, suggesting a diet that favored less expensive cuts of meat and investment in limited types of ceramics. An electronically attached Excel file details the original state of assemblages examined (WPFceramicsOriginal.xls) and a second one details the final analysis of assemblages including vessel lists (WPFceramicsEN.xls). Economic indexes and capital consumption patterns in this industrial community as well as others explored were lower than their urban counterparts. Based on existing research by archaeologists, historians, anthropologists, architects, and urban designers, this research suggests different cultural practices within a single manufacturer industrial community from those in rural or urban contexts.
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CHAPTER I

A NINETEENTH CENTURY AMERICAN INDUSTRIAL COMMUNITY AND ITS INHABITANTS

I.1. “Neat and Tasty Buildings, With Comfortable Homes and Happy Firesides”

A variety of scholars have studied and examined industrial communities in the United States including historians, architects, anthropologists, and archaeologists. Each of these disciplines utilizes various methods and resources to answer a range of questions important to their discipline. At the root of all archaeological investigations are physical items: the largest examples include entire communities or landscapes, the smallest can be a single pottery sherd. Within the Village of Cold Spring, New York there are homes and churches that sheltered workers, managers, and owners as they made a living from the West Point Foundry and supported a household that purchased consumer goods. What follows is an investigation of village space and material culture associated with West Point Foundry workers, how that changed over time, what remains in the present, and how workers responded to the cultural and economic pressures of the nineteenth century.

The phrase “Neat and Tasty Buildings, With Comfortable Homes and Happy Firesides” was originally published in an article about Cold Spring in a Peekskill newspaper the Highland Eagle, on March 27, 1852 (Eagle 1852). An unknown nineteenth century author captured the full sentiment of the village’s feeling and alluded to the physical manifestations of such feelings in “buildings” and “comfortable homes.” The full article described businesses, schools, and a short part regarding Gouverneur Kemble’s contribution to the village and the Foundry. With the mention of Kemble,
one begins to wonder about his influence in the community outside of the Foundry. One also ponders about the furnishings, appliances, utensils, and serving wares inside a comfortable home and the location of that house within Cold Spring. Understanding these comfortable homes and the larger nineteenth century, American industrial community of which they were a part, needs to address the relationship between the West Point Foundry and the Village of Cold Spring.

The fundamental question of this dissertation is what was the extent and nature of West Point Foundry owner/managerial control of the workers in the domestic setting of Cold Spring? I approach this topic at two analytically levels, namely that of the entire village and specifically within individual village households. At the village level, I investigate who was responsible for the layout of the village itself, its road patterns and associated names, its housing stock and church construction. The role of religion and religious freedom in Cold Spring is contextualized and considered. Architectural characteristics of workers’ and owners/managers’ homes and their location within the landscape are also considered within a wider context of other contemporary American industrial villages. At the household level I focus on ceramic assemblages associated with different workers as well as those of the owners/managers. These assemblages are assessed to address questions about the occupational history of each structure as well as the ways ceramics were being used to manifest the occupants’ positions within the social hierarchy of this industrial community. West Point Foundry ceramics are also compared to ceramic assemblages from other industrial settings. The results of the village and household comparisons positions Cold Spring within the range of variation that has been observed by industrial and historical archaeologists and architectural
historians. The results are insights about industrial villages’ patterns and comments on the methods used by archaeologists to address questions of social process in industrializing communities.

Key to studying the social processes at Cold Spring is the notion of industrial paternalism in the minds of the owners/managers. For instance, Beaudry and Mrozowski found this to structure important practices at Lowell, Massachusetts in the early nineteenth century (1987a). They define the formal type of paternalism seen at Lowell as company control over all aspects of workers’ lives including guiding and protecting workers’ morals. Lowell companies set hours of work and leisure, number of boarders per room, type of dishes, sanitary conditions, times and types of meals, the surrounding landscape, a set of rules including the consumption of alcohol, and mandatory religious services. Equally important are Miller’s (1991) and Leone’s (1999a) use of ceramics to understand how workers and owners/managers presented themselves inside their home and to the rest of the world, providing insight into the reach of paternalism beyond the factory. Thus, how did life at Cold Spring differ from that structured by an overweening sense of paternalism? How was this manifest in the layout of the village and the consumption patterns of the owners/managers and the workers?

I.2. Setting the Scene: Cold Spring & the West Point Foundry

The 0.6 square mile Village of Cold Spring was incorporated in 1846 along the eastern bank of the Hudson River, approximately fifty miles north of New York City. By the point of incorporation, the village was home to 3,000 individuals, about a third of whom found employment at the West Point Foundry. The rest were employed by a
variety of companies in transportation, supplementary service and supply businesses, and as domestics within households. Overall, the population was young and contained a number of immigrants, many of whom worked at the Foundry. The village’s intimate connection to both the Hudson River and West Point Foundry were undeniable in the nineteenth century.

The West Point Foundry was one of four heavy ordnance facilities spread across the country that were responsible for supplying the federal government ordnance and ammunition. Unlike their government run counterparts in armories, heavy ordnance facilities were privately owned and therefore individually competed for government contracts. By the 1840s the Foundry was approaching its third decade of manufacturing. Gouverneur Kemble and his associates located the West Point Foundry in a small valley where a brook that fed the Hudson River provided water power. The Foundry consisted of a variety of shops, within which workers performed a part of the iron manufacturing process. Workers produced a variety of products including heavy ordnance, cotton and sugar machinery, cylinders, gudgeons, cranks, and flanges. The company was vertically integrated as it controlled every step of the iron process from the mine to the market (Martin 2001). The Village of Cold Spring was home to a majority of Foundry workers as well as its owners throughout the Foundry’s history.

The West Point Foundry maintained an open paternalistic policy but controlled only certain aspects of workers’ daily life. Since the Foundry had constructed its facility in a farming area, it had to create a community to help retain its workforce. The Foundry or its owners provided many services to its workers, including boats that occasionally serviced the village, a school for employees and their children, land for
several churches, a company store, various types of worker housing, and of course several hundred jobs. Company paternalism did not prevent workers from leaving nor blacklisted those who decided to move; it did not restrict businesses in the village nor did owners engage in local politics beyond the establishment of the village. The Foundry owned the half of Cold Spring that was south of Main Street and primarily used this land to construct its industrial facility and housing. When reincorporated in the 1840s, West Point Foundry associates permitted the sale of properties, allowing for piecemeal development later in that century.

The Village of Cold Spring was not completely dominated by the Foundry’s paternalistic relationship because of other, independent sources of income in the small settlement: the Hudson River as a transportation and communication route, railroad traffic and maintenance after the 1840s, businesses selling and providing goods and services, and residences that employed housekeepers and seamstresses. The Foundry was the primary employer for men, but when combined, other sources of employment rivaled its dominance. Moreover, although the Foundry and its leadership helped establish the village separate from the rest of the town, it did not dominate local politics once Cold Spring was established. Thus while the relationship between the Foundry and its employees was paternalistic, the extent of the Foundry’s paternalism outside of the industrial facility declined over time and never fully dominated the entire Cold Spring experience.

In comparison to other industrial communities, Cold Spring and the West Point Foundry are outstanding examples of nineteenth century, single-industry locations. Foundry owners and managers constantly interacted with their workforce inside of the
West Point Foundry as well as around the Village of Cold Spring. The nature of that relationship has physical manifestations within the remaining landscape. Housing and religious facilities clearly illustrate the village’s growth and change over time. Archaeology has yielded information on the consumption patterns of workers and their participation in nineteenth century economic expectations and capitalist consumption. An elaboration on the types of questions pursued in the present investigation highlight the appropriateness of the documentary and artifactual evidence from Cold Spring and the West Point Foundry for exploring this case of American industrialization.

I.3. Questioning the Evidence

In order to examine the extent and nature of West Point Foundry owner and managerial control in the domestic setting of Cold Spring, this dissertation has explored the material evidence of who conceived and built the village, the village’s change over time, and how people situated in different class positions lived out their lives in this built environment. The research questions were organized to address the processes that affected the layout of the village and the ways individual households constructed their social positions through their ceramic consumption practices.

Several questions emerged about the design of the village and how it changed over the nineteenth century. Did the designers and developers of the village follow models from other factory locations or did they develop their own plan? Did owners and managers of the Foundry, such as Gouverneur Kemble and Robert Parrott, help design the streets and houses of Cold Spring? Were the finances of the Foundry used to subsidize construction of the housing and did worker housing mirror the class relations in the Foundry? When were significant additions to housing variety and village
infrastructure built and who was responsible for their construction? How did the Foundry’s financial investment into Cold Spring change over time? Did the village grow in a smooth way or were moments of growth followed by plateaus of little change and even decline? How did these periods relate to the growth, change, and decline of the West Point Foundry, the primary employer? What other factors beyond the Foundry influenced the development of Cold Spring? How does the current village’s appearance reflect its nineteenth century origins and development?

These questions about the forces shaping the layout of the village can also be pursued at the scale of individual households. In particular, several archaeological collections of ceramics excavated from Foundry workers’ households should shed light on workers lives in Cold Spring. For instance, what were the historical values of individual ceramics within each collection? Do the assemblages reflect an ideal consumption pattern or something related to American industrial communities in general? What role did access to various markets play in the availability of ceramics in Cold Spring? How are the collections comparable to each other as well as other archaeological assemblages in similar industrial contexts?

I.4. Finding Some Answers

The dissertation proceeds to address these questions with the following organization. Following the current introduction, Chapter II outlines the different methodologies and procedures used to investigate the village as well as several individual ceramic assemblages. Village level analysis combined information from primary and secondary documents along with a survey of a portion of the Village’s contemporary built environment. An archaeological perspective on the village allowed
the focus to remain on tangible manifestations of power relationships in such structures as houses and churches. A second avenue of research was into ceramic assemblages and their ability to indicate time, consumption patterns, and socio-economic status. Ceramics remain one of the best sources of evidence in archaeology, particularly historical and industrial archaeology, given their pervasive nature in the archaeological record. The choice of sites, the creation of vessel lists, and the methods used to assess these assemblages are covered in this second chapter.

Following the methods and procedures is a review in Chapter III of relevant literature for this industrializing nineteenth century community. The chapter begins with an examination of paternalism and its different forms throughout the nineteenth century. It continues with an exploration of how anthropologists, historians, archaeologists, architects, and urban designers examine communities, particularly those associated with industries. Many of the ideas and frameworks developed by archaeologists and anthropologists explored in Chapter III remain critical throughout the dissertation. The fourth chapter details the history of the West Point Foundry and Cold Spring.

The history of the Foundry and the village are framed within twenty year segments. The periodization was not neat, but pragmatic and facilitated by the available data. These periods create the foundation for the housing discussion in the fifth chapter and the ceramic discussion in the sixth chapter with each data set giving slightly different periods. The West Point Foundry was incorporated in 1818 at the beginning of the first twenty-year period and Cold Spring was officially incorporated as a village in the 1840s. The Foundry was most productive manufacturing ordnance around the
clock during the Civil War and both the company and village suffered after the loss of most government orders with the War’s end. The last quarter of the nineteenth century was typified by decline with a short burst of energy when it was acquired by another iron company around the turn to the twentieth century. Chapter IV concludes with a historical characterization of this New York, foundry village.

The best artifacts at the village level that typify the relationship between the Foundry, its owners, and its workers were houses and churches as described in Chapter V. The Foundry and its owners constructed a significant quantity of workers’ housing south of Main Street including many examples that still exist in the twenty-first century. The Kembles, Parrotts, and their families also helped to establish five out of the six places of worship located within the village. Chapter V also contains the influence of Foundry owners in establishing several churches. Finally religious freedom or lack thereof is explored in the textile industry of the northeast, Pennsylvania, and Massachusetts placing the Cold Spring religious tolerance placed on the more tolerable end of the range of possibilities. Whether one refers to these artifacts as houses or homes and churches or parishes helps to indicate the importance of those who built them versus those who used them.

The examples of how West Point Foundry owners helped to influence workers outside of work continues in the examination of ceramics in Chapter VI. After a review of household scale processes that produce ceramic assemblages, the chapter examines two explanations that help to model ceramic patterns visible in the archaeological record. The first is that ceramics can be economically related to each other in terms of their cost over time and thereby reflect a household’s ability to purchase certain wares.
The second centers around capitalist consumption of wares where households increasingly were interested and able to consume a wider variety of decorations and forms in the quest to emulate upper classes. Households from different class segments associated with the West Point Foundry either subscribed to or deviated from these ideals. The greatest attention is focused on two West Point Foundry households with preliminary results from other types of households that have had received less archaeological attention. A summary of West Point Foundry ceramic assemblages wraps up the chapter.

Chapter VII places the West Point Foundry and the Village of Cold Spring into a wider context of nineteenth century industrial communities. Ceramic assemblages from Harpers Ferry, West Virginia, Fayette, Michigan, and Lowell, Massachusetts demonstrate that those from the West Point Foundry are indeed similar to other industrial communities. The housing in communities such as Fredonia, New York, Oxford, New Jersey, and Hopedale, Connecticut each have elements that are also seen in Cold Spring, but none contain the clear distinction seen in Cold Spring between former company owned properties and private development.

These comparisons help identify Cold Spring and the West Point Foundry as a distinctive and significant example of an American, single-industry community of the nineteenth century. A combination of interrelated features in the village and Foundry physically illustrate the relationships between workers and owners over the nineteenth century. The dissertation concludes in Chapter VIII with a review of Cold Spring’s and the West Point Foundry’s unique combination and suggests avenues for future research.
into the village and at the Foundry, work worthy of this significant nineteenth century American industrial community and its inhabitants.

The Appendixes supplement information presented in the dissertation. Appendix I, Appendix II, and Appendix III are all historic document transcriptions of a deed from 1864, two Census of Manufacturing from 1860 and 1870, and an annual account from 1907 to 1908. Appendix IV, Appendix V, and Appendix VI all relate to ceramics with Appendix IV describing the accompanying electronic catalog, Appendix V describing original catalogs from other archaeologists with my notes, and Appendix IV containing supplemental data for other ceramic assemblages discussed in the dissertation.
CHAPTER II

METHODOLOGIES & PROCEDURES

II.1. Introduction

This dissertation focuses on the relationships between workers and owners at the West Point Foundry as physically manifested in the community of Cold Spring. Particular interest is paid to the characteristics of paternalism and whether or not paternalistic overtones remained constant or shifted over the course of the nineteenth century. Documentary and archaeological evidence were used to study worker and owner relations at the West Point Foundry. Both are extremely fragmentary yet complimentary as the former tends to favor the owners’ perspective while the latter has the potential to provide information about the both the owners and the workers. Given their incomplete nature and abilities to highlight either group, the use of both in combination has yielded more information for the current investigation.

An historical approach into the available primary documentary sources and secondary literature was used to examine worker and owner relationships within Cold Spring. The results of studying the secondary literature culminate in a literature review chapter containing authors who have guided and inspired the current research. Primary sources included company and worker correspondence, period maps, deeds, censuses, newspapers, tax records, village and town records, and early histories of the county. Parish records, some newspapers, probate inventories, title searches, store ledgers, and government documents do not factor into the following analysis. The historical approach resulted in a chapter outlining historical background information about the West Point Foundry and the Village of Cold Spring. This chapter has been largely
influenced by the Foundry ownership and management as their perspectives dominate the surviving literature.

The dissertation goes on to complement this information through an investigation of the material record. Examining the development of the village provides insight into what owners believed they were doing and how workers of various economic and social means fit into and reacted to such development. Thus, the second method used in this dissertation was archaeological in nature and is contained in two chapters. On the broadest scale, the village was considered an artifact that was modified over time (Upton 1992); at a much more narrow scale, several ceramic assemblages provided comparisons and contrasts between owners and workers. Observations of the current building fabric of the large scale of the village coupled with documentary evidence highlight how the present landscape was created in the nineteenth century in Chapters IV and V. In Chapter VI, the ceramic assemblages from a number of domestic locations adjacent to the West Point Foundry were archaeologically studied to establish chronology, wealth, and participation in the emerging consumer market. These assemblages were collected from different sites whose occupants ranged across the full spectrum of West Point Foundry workers.

During the investigation into the West Point Foundry a balance was sought between evidence illuminating the perspective of the owners/management and that of the workers. The two separate approaches outlined here tended to favor one side of this comparison over the other. Documentary evidence, including an extensive family archive of original Foundry owners, sheds light primarily on the owner and management class. A limited number of historical documents relating directly or
indirectly to workers allowed some understanding of their perspective, but not enough to be able to fully comprehend their nineteenth century experience.

Material evidence of the past provides another opportunity to investigate the experiences of members of these two different social positions. The physical landscape of Cold Spring itself, including its houses and religious facilities, was initially explored and combined with documentary evidence to develop an understanding of the development of the village at large. More indicative of the domestic lives of small groups of workers were ceramic assemblages. Several ceramic collections were available from the West Point Foundry of the various social positions, including skilled, semiskilled, and unskilled workers as well as the owners and management. Comparison between these various assemblages provides a richer understanding of worker experiences and also how different groups related to each other outside of the factory walls. The West Point Foundry had a profound influence on Cold Spring and the methodology and procedures outlined below illustrate how the present study has come to describe the integration of a single industry within its surrounding community.

Like many studies in archaeology, the evidence for the present investigation is voluminous and often comes from confusing contexts. For instance, I analyzed over fourteen thousand ceramics from eleven sites, collected by fifty archaeologists over the course of eighteen years. Artifacts and housing styles varied at different rates from the profitability of local industrial enterprises and population censuses. As a result, I had to develop somewhat arbitrary time frames within which to capture the data from these disparate sources. In addition, archaeologists ranged in their methods to investigate the various deposits (arbitrary and/natural levels for example) and did not allow for the
identification of similar kinds of depositional units. As a result, the samples compared from site to site and excavation team to excavation team were also somewhat arbitrary. All the same, these analytical time and space frameworks had value for an initial study of the social processes shaping Cold Spring.

Methodology and procedures used to create Chapters III, IV, and portions of V are covered under the first part of the current chapter about primarily literature investigations into the Village of Cold Spring. The methodology and procedures surrounding the ceramics analysis of Chapter VI and portions of Chapter VII were covered in a later section of this chapter. Information from both the documentary and material approaches was then compared to one another and were used to place the West Point Foundry and Cold Spring in the context of other archaeological investigations of industrial-community relations in the nineteenth century in a comparative Chapter VII.

II.2. Village Methodology & Procedure

The data used to assess the broad scale of the village relied primarily on documents and a partial survey of the material remains in the village’s present landscape. Prior to primary literature and architectural examination was a review of secondary sources. Secondary literature from anthropology, history, archaeology, architecture, and urban design was reviewed with the intention of finding comparisons and methodology to apply to the Village of Cold Spring. Of particular importance was the concept of paternalism and its expression within industrial communities. Secondary consideration was given to the impact of economics and consumption on the physicality of Cold Spring. Such concepts were then applied to primary literature about the village including deed records, historic maps, and nineteenth century censuses. The effect of
paternalism at the village scale is most evident in the active role of Foundry owners in the building and maintenance of housing and the establishment of several houses of worship.

From an examination of deeds came patterns in the changes in ownership, location of properties, and their fluctuating costs. The physical impact of paternalism became readily apparent while exploring the West Point Foundry’s property deeds and their sale. At the county courthouse in Carmel, New York, each transaction of the West Point Foundry as grantor (listed in a deed record index) was examined for date of sale, location, and price. An analysis of these deeds allowed generalizations to be made about the village and how the Foundry controlled and sold significant portions of its domestic property. Patterns in the sale of properties were visible in the dates of sale as well as their amounts over the course of the nineteenth century.

From maps and an architectural survey came evidence of changes to the physical landscape of the village over time. The impact of industrialization and transportation on a small community is still visible in the present landscape. Housing booms when the Foundry had expanded production or the abandonment of earlier docks after the railroad cut off their access were not only observed but dated and discussed later when considering the area’s history. Such increases in housing were readily recorded in historic maps as well as deeds and are still visible on the current landscape as observed in an architectural survey. Maps and architectural research helped to trace the physical growth of the community and its decline.

Census records were used to gather general information on the size of the population, number of families, and number of households. Aggregates for these
variables were not directly reported in the census because prior to 1846 when Cold Spring was part of Philipstown. As a result, such figures were obtained by hand calculation from the town data. For instance, some statistics were tabulated by lifting the number directly from the numerator and others were developed by counting the number of pages for Cold Spring and multiplying it by the number of people listed per page. The results are tabulated and discussed in the Chapter IV.

The project also explored the social and demographic makeup of the Village of Cold Spring during the nineteenth century. Over the course of the nineteenth century, census takers recorded more and more details about individuals and households. In 1820 only heads of households were recorded and members of the household were recorded within a range of years. The detail in amount and quality of data recorded over the next three censuses culminated in a census that recorded every person and basic information about who they were in 1850. That census was the first to record exact age, employment, literacy, and country of origin for each person. The 1850 and 1860 censuses also recorded families and households, allowing a glimpse into the extent of boarders or non-family members within each household. Detailed analysis of the federal manuscript census just before the Civil War provided important information to understand the village during its peak in production at the West Point Foundry (Census 1860).

The formation of several religious facilities within the community provided information on management’s community building and worker control as well as on community fractioning. Houses of worship around the village were material expressions of how owners related to their workers (financially assisting to build
churches) and workers religious pluralism (six different houses of worship). Research to formulate and assess hypotheses about this topic was based primarily on deed research and secondary sources. What still require exploration are individual parish records, many of which remain in the community. This rich resource is extensive and remained outside of the present investigation given its vast extent and time constraints.

Examples of primary and secondary material appear in captions and parenthetical references throughout the text and the dissertation’s bibliography. Archives explored during this dissertation research included the Putnam County Historical Society & Foundry School Museum, a private collection of family papers in New York State, the Putnam County Historian’s Office, the New York Historical Society, the New York Public Library, the Butterfield Library in Cold Spring, the Peekskill Public Library, and the Desmond-Fish Library of Garrison. The extent of work done in these locations included hours spanned over years of research, yet it should not be considered exhaustive.

Even with the extensive research into primary records undertaken up to the present, additional information has yet to be explored. Newspapers were only scanned to investigate a known topic within a known period. Generally speaking, one article or fact of interest would result from approximately three or four hours of reading the historic papers. Given the number of years the Foundry was in operation, additional time still needs to be spent reading local newspaper accounts from the nineteenth century, particularly those at the Putnam County Historian’s Office and the Peekskill Library. Newspapers are often the most fruitful sources for community studies.
Census reports contain a plethora of information about the community, but the challenges and time investment in their full exploration over the entire period of the Foundry’s history was unrealistic. Analysis included here about the 1860 census should be replicated for subsequent censuses of the latter part of the nineteenth century. Additionally, future research should concentrate on utilizing this resource as a primary way to create a database of West Point Foundry workers. Generating a list of workers, years, occupation, and pay for the entire ninety-five year history would provide an extensive resource. In addition to census records, worker information was also captured in documents currently at the Putnam County Historical Society & Foundry School Museum and within a private collection of a Kemble family descendant. That private collection of West Point Foundry papers remains to be explored to its fullest extent beyond just collecting worker information (Foundry 1700s-1900s).

Research into the Village of Cold Spring has been conducted by the author in conjunction with Michigan Technological University’s Industrial Archaeology program. Data presented in this dissertation has been collected by the author over the course of an eight year period. During that time the author constantly tacked between secondary, primary, and material resources. For example, a letter from a blacksmith at the West Point Foundry to his Irish family provided insight into a boarding house as well as general working conditions and worker attitude as it changed over time (Wylie 1849; Wylie 1851). Additional literature and archaeological analysis led archaeologists to believe the boarding house referred to in Wylie’s letters was the East Bank House. This alteration between sources allowed for observations based on one source to be compared to those in another. The results of the village research are contained
primarily within Chapters IV and V of this dissertation; Cold Spring and the West Point Foundry are compared to other locations in Chapter VII.

II.3. Ceramic Methodology & Procedure

The relationship between workers and owners/managers was particularly illuminated through the study of ceramics assemblages. Archaeologists have developed theories and related analyses about how such assemblages disclose the effects of economics, capitalism, and orderliness. The way in which the Foundry controlled workers within their homes, particularly in the consumption of ceramics, was a reflection of how owners practiced paternalism and workers experienced it over time. The ceramic assemblages totaled 14,525 sherds representing 1,041 total minimum vessels and were left by different workers at the West Point Foundry. Although these families lived within a small, industrial community their experience of life in the nineteenth century was shared by others around the country as explored in Chapter VII.

Two general social tendencies within American society can be used to study the relationships between different members or groups of society. There are wealth differences that become manifested in mass culture, partially fueled by industrialization and its ability to mass produce items. Ceramics clearly demonstrated differences in cost and one’s ability to purchase items. George Miller (Miller 1980; Miller 1991) developed an index to assess the relative value of ceramics from different assemblages and time periods. Beyond simply the value of a ceramic assemblage, Mark Leone has developed a quantitative means to analyze ceramic assemblages and assess a household’s subscribing to the rules of capitalist consumption (Leone 1999a). An examination of these two tendencies of household participation in the emerging market
economy provides the ability to comment on the relationships and integration of the working class with the upper class associated with the West Point Foundry.

The ceramic assemblages provide a glimpse into the intimate scale of domestic life and how different people associated with the Foundry were involved in paternalistic relations. Did the owners engage in similar dining and display patterns as the workers or are visible differences in quantity and quality noticeable in the ceramic assemblages (Beaudry, et al. 1991; Mrozowski 2000)? Were workers building a materiality in their homes that reflected a commitment to capitalist consumption or did they engage with patterns at odds with such notions (Leone 1999a; Shackel 1996a)?

The two primary collections used in the ceramics analysis were from Rascal Hill and the East Bank House. In addition to these there were smaller assemblages from the Gouverneur Kemble estate, the William Kemble estate, and the neighborhood known as Vinegar Hill. Grossman and Associates were responsible for the excavations of Rascal Hill and Gouverneur Kemble while Michigan Technological University excavated the others. Within each assemblage and across assemblages, the study looked for patterns in cost, consumption, decoration, and form over time. Was the materiality of Foundry worker domestic life similar or different from that of the owners? Was the materiality of Foundry worker daily life similar or different from that of each other? Each of these topics will be discussed further in the chapter on ceramics, Chapter VI.

Approximately fifty individuals have participated in the recovery of the collections included in this study over an eighteen year period. Their methods of excavation, documentation, archiving, and description generally followed modern standard archaeological practices. For example, each investigation collected and
cataloged all artifacts recovered from a quarter inch screen. However, there was inevitable variation in precise application of archaeological principles that created complications for working with this set of assemblages. I reanalyzed all 14,525 sherds from the collections to assure consistency in description, terminology, and categorization and established 1,041 total minimum vessels for five separate assemblages. The analysis of the Rascal Hill House #2 collections occurred over a three month period followed by a five month period of analysis of the East Bank House ceramic assemblage (see Appendix IV).

Both analyses began with culling ceramic artifacts from their general collections and transcribing and expanding on their ceramic data in electronic spreadsheets (see Appendix V). Artifacts were culled from the general Grossman collection and checked against inventories published by Grossman (Grossman 1990; Grossman 1992; Grossman 1993). To my surprise, 1,022 additional ceramic sherds were recovered beyond the original 3,020 listed in Grossman’s reports, creating the total number of ceramic sherds analyzed from house #2 to be 4,042. Grossman had not developed a vessel count for his assemblage. The East Bank House collection was larger with 5,096 ceramics but with a vessel count by Michael Deegan from only one season’s worth of excavations. That vessel list would have to be refined and expanded to account for an additional and more extensive season of excavation. The author completed inventories and built excel spread sheets representing a more detailed analysis of these assemblages (see Appendix IV and the attached electronic file WPFceramicsEN.xls).

The analyses of economic value and capitalist consumption are best conducted with vessel counts rather than with sherd counts. Ideally, an archaeologist creates a
minimum number of individual (MNI) vessels that represent the smallest number of dishes represented by each assemblage. Grossman did not create a minimum vessel count for the Rascal Hill assemblages, (Grossman 1990; Grossman 1993) so I developed a minimum vessel count for the collection from the duplex archaeologically referred to as Rascal Hill Building #2. I used the same process to designate vessels from the East Bank House.

I first pulled all the ceramic rim sherds from the collections. Then, using Deegan’s typology that distinguished paste, decoration, and glaze (see Deegan 2006: 95-101, 188-197; Hillis 2001 for elaboration) I created groupings of rim sherds of similar decorations (see Figure 2.1). Any sherds that directly fit together were grouped as their own vessel lot. The remaining sherds were assessed for their thickness and diameter to help distinguish different vessel shapes. I measured rim diameters to the nearest half inch and evaluated cross-sections and angle of rim profiles for vessel types. Those with characteristics similar to already identified vessel lots were added to those lots as potentially part of those vessel lots and designated with a “?” after the vessel number. New vessel lots were created on the basis of dissimilar thickness and diameter within the groupings based on similar paste, decoration, and glaze. Even single sherds would count as a vessel lot if they had distinctive thicknesses and diameters. Finally, I reassessed the lots and discounted any vessel lot that was based on sherds that were too small or only slightly different from another vessel lot to be confidently identified as a unique vessel and thus counted as an MNI.

The Rascal Hill assemblage originally contained 455 vessels but upon the elimination of small sherds and chipped rims, 390 remained to count as the MNI.
present analysis built on the 220 vessels determined by Deegan from the first season of East Bank House analysis (Deegan 2006). I reassigned some of Deegan’s 220 vessels when the rim sherd was not sufficient to determine diameter, it was too small (smaller than a pinky finger nail), or on reexamination it was determined not to be a rim sherd. For the East Bank House, the vessel count was increased to 444, with the MNI numbering 370 (Norris, et al. 2008).
Based on depositional and contextual information gleaned from reports, the MNI vessels were assigned to periods. These assignments predominantly corresponded with the vessels’ period of manufacture based on its specific ware and decoration. The
stratigraphy was used as the starting point to assign periods as many vessels and decorative types during the nineteenth century were manufactured for more than a twenty year period. Grossman’s contextual data proved to be problematic because of ambiguities in archaeological reports and a lack of clear stratigraphic analysis. Original paperwork from the 1991 field season was also unavailable. There is a noticeable complexity of stratigraphy between the different seasons of excavations that Grossman never clarified in his texts (see eastern side of the structure in Figure 2.2). Excavations done during the 1993 season in areas previously excavated in 1991 were presumed to be underneath the soils removed in 1991. Similar laws of superposition were applied when Grossman’s reports lacked specific information for depositional contexts.

Within the reports, Grossman verbally divided the assemblage and excavation units into eastern or western half of the duplex or inside and outside. I found it often impossible to clearly link vessels to these divisions as Grossman never listed specific units for either half. There were a number of cross-mends between artifacts Grossman classified as belonging to separate phases, halves, or locations suggesting that the analytical distinctions Grossman made did not correspond to distinctions in how these areas were historically used. Even though the foundation is divided into thirds, Grossman never addressed the exact location of the split of the basement between east and west halves of the duplex. Two excavation units, CX 250 and CX 255 crossed the central walls and according to his reports there was no distinction made between artifacts found on either side of the wall in those units (see Figure 2.2). The complexity of Grossman’s stratigraphy was clearly illustrated by these challenges, however enough
information was available to confidently assign vessels to periods regardless of east or west, inside or outside.

Figure 2.2: Plan Map of Grossman’s Rascal Hill House #2. (Drawn by E. Norris based on (Grossman 1991) Project Map #12 and (Grossman 1993) Figure 4:38)
Grossman identified a general phasing of three periods that parallel the dates 1820s-1840s, 1840s-1860s, and 1860s-1880s. Based on stratigraphic descriptions in reports, the first period includes Building #2’s construction (house foundations and builders’ trenches), and deposits in front (south) yard middens below the period associated with the Civil War. The middle period yielded artifacts in middens in the front yard as well as on living surfaces inside the house foundation. The final period was on top of the middle period in all locations but also included the house’s destruction and surface debris, particularly from the hillside above. Based on this general phasing and the known manufacturing dates for ceramic vessels or other artifacts, I assigned vessels to each period.

The contextual association of vessels at the East Bank House was based on the different stages of the house construction based on archaeological and excavation data (Norris, et al. 2008). Archaeological excavations from the house’s initial construction (1820s-1840s) phase included units that identified its foundation, the construction of a cistern, and one privy. As will be developed in Chapter VI, a Foundry engineer or manager lived in the East Bank house during this period. The East Bank House then became a boarding house (1850s-1870s), during which time the cistern was filled with trash, another privy was constructed, and an addition was put on the north side of the main house foundation. Late in the nineteenth century, the enlarged house was reduced to its original construction, abandoned, and burnt to the ground. Vessels were sorted according to periods of occupation: single family house (c. 1820s-1840s), boarding house (1850s-1880s), and single family house (1890s-1910s). These three occupational
periods provide the general framework for analysis of assemblages from the East Bank House as well as for the comparison to the other assemblages considered in this study.

The stratigraphy of both Rascal Hill #2 and the East Bank House allowed for a separation of construction, occupation, and abandonment events of the structures. These events provided a framework in which to evaluate ceramic and other temporarily diagnostic artifacts. From this information, periods of roughly twenty years in length were used to correlate the archaeological information with documentary information. Thus the following analysis uses the general pragmatic periods 1820s-1830s, 1840s-1850s, 1860s-1870s, 1880s-1890s, and 1900s-1910s at each location. Comparison between the Rascal Hill #2, the East Bank House, the two Kembles’ houses, and Vinegar Hill houses was possible using similar if imperfect periods.

Archaeological investigation into the William Kemble estate, Gouverneur Kemble property, and Vinegar Hill were designed to confirm the presence of nineteenth century archaeological features, not to fully excavate around or in foundations. None of the resulting assemblages appear to confidently illustrate the households they represent. Three small excavation units were placed around the yard of Gouverneur Kemble’s to confirm the presence of nineteenth century artifacts. Next door, William Kemble excavations were designed to uncover broad landscape use and change rather than focusing on discrete, artifact-rich deposits. The Vinegar Hill assemblage was a combination of several single family households within the same neighborhood, again from contexts that were not discrete or fully understood. The Kembles’ and Vinegar Hill’s ceramics are only a fraction of those collected from Rascal Hill or the East Bank House. The seven structures of Vinegar Hill combined yielded 2,348 sherds and 214
vessels or an average of 30 per household. The Gouverneur Kemble property yielded 106 sherds and 20 vessels; the William Kemble property yielded 347 sherds and 42 vessels. Preliminary analyses of these collections are presented in this dissertation, but the results are provisional due to the smaller sample size and limited survey methods. Additional archaeological investigations should be undertaken at each to ensure a representative sample that is more comparable to the East Bank House and Rascal Hill sites.

Each of the assemblages associated with the West Point Foundry contain their own advantages and disadvantages. One major advantage of comparing ceramics is the variety of workers in different social classes contained within the sites over an extended period of time. Kemble properties provide an assemblage and understanding of owners; the East Bank house provides information on early management; Rascal Hill provides insight into skilled workers; the East Bank House and Vinegar Hill provide information on workers of various but unknown skill levels. Another advantage was the consistency of analysis done by one individual over a relatively short period of time. Also the personal involvement of the author in most of the archaeology used in the analysis was an advantage. The author participated in the William Kemble, Vinegar Hill, and East Bank House excavations.

A disadvantage of using these various ceramic assemblages was the need to reanalyze the collections to various degrees and standardize their associated vessel counts. Another disadvantage is the discrepancy between the representative nature of these collections and the number of households represented in each. Arbitrarily dividing the East Bank House and Rascal Hill #2 assemblages into twenty year periods
attempted to take into account the number of households represented. In the relatively small Vinegar Hill assemblage, seven different structures were combined and represented by the vessel count thus creating a homogenous unit of different households in a neighborhood, an assumption that future work may prove to be unwarranted. The present ceramic assemblages of both Kemble properties did not appear to be accurate representations of those households given the limited archaeology done to date. The anticipation that members of the wealthiest class in Cold Spring would have had very extensive and potentially expensive ceramics remains unconfirmed. Another disadvantage was the different archaeological methodologies used in these projects, particularly those of Grossman, that were not transparent given the nature of published reports and inaccessibility of field notes.

II.4. Conclusions

As will be developed further in this dissertation, the paternalistic relationship between owners/management of the West Point Foundry and their workers in the Village of Cold Spring decreased over the course of company’s history. This observable shift speaks volumes about the local community, but it was set within a larger context of social trends and potential responses. Within the nineteenth century, social trends in American society manifested themselves in workers’ and ownerships’ response to disparities in wealth and choice. Overall, two observable impacts upon the material evidence will be explored in the subsequent chapters: the relative wealth of various households and their participation in mass consumption. Of course these operated at different levels in the past, and some are more observable than others in different materials or at different scales. Thus a combination of resources (census,
correspondence, maps, newspapers, deeds, photographs, and secondary sources) and material types (houses, churches, and ceramics) allows for a more complete picture of the nineteenth century experience in Cold Spring. Only through such a combination can we hope to explain observations about the differences between workers and owners at the West Point Foundry.
CHAPTER III

INDUSTRIAL & HISTORICAL ARCHAEOLOGIES

III.1. Summary of Research

Industrial archeologists have traditionally focused on industrial production; historical archeologists working on industrial sites have concerned themselves primarily with locations of social life within industrial landscapes. With research interests in both disciplines, this investigation will concentrate on the workers’ spaces associated with the West Point Foundry. The Village of Cold Spring contains homes, churches, and schools that sheltered workers, managers, and owners as they made a living from the Foundry. The question guiding my investigation of the Village spaces and material culture concerns the extent and nature of West Point Foundry owner/managerial control of the workers in the domestic setting of Cold Spring.

This research merges industrial archaeology with anthropological historical archaeology to explore Cold Spring by working with two very different scales of artifacts. At the broadest scale the dissertation will examine the entire Village of Cold Spring as an artifact that people conceived, built, experienced, and modified over the nineteenth century. At a tighter scale are ceramics from specific home sites associated with the West Point Foundry to understand people’s consumption at the level of individual households. Considering these two extremes will create a richer understanding of the people who lived and experienced an earlier Cold Spring and broaden the analysis typically undertaken by industrial and historical archaeologists alike.
III.2. Literature Review: Introduction

Within the frameworks and findings of other anthropological, archaeological, historical, and architectural projects, this case study provides additional information of an industrial community dominated by a single industry. Anthropologists of work and industry, historical archaeologists, industrial archaeologists, and labor historians have all examined portions of industrial production’s social networks. Anthropologists of work and industry explore the nature and dynamics of industrial society, culture, politics, economics, and psychology including the process of industrialization. Most industrial archaeologists concentrate on the technological aspects of the industrial past, only briefly acknowledging industrial society at large. Historical archaeologists involved in places such as Lowell, Massachusetts and Harpers Ferry, Virginia have focused chiefly on the domestic side of industrialization. Labor historians study the development of unions, class relations, or general worker experiences within industrial society, while a number of historians examine the process of industrialization. Some of the communities investigated by archaeologists have been studied by architects as well. Only a fraction of architects have examined the historical implications of industrialization on architecture. Most of this literature has provided me with background information and illustrations of how to explore the social side of the industrial past. Using methods from these varied subject areas, the current research will explore the impact of owner/managerial paternalism, economics, and capitalism on housing development and artifact use within the single-company industrial community of Cold Spring.
III.3. Paternalism

Many scholars in the disciplines discussed in this chapter use the concept of industrial paternalism to describe interactions between management and owners to their workers in nineteenth century industrial communities. For purposes of this study, all references to paternalism are to industrial paternalism. Industrial paternalism was a relationship modeled on the family, but between individuals with no necessary familial ties. Just as in families, there was an imbalance in the social and economic power held by owner and managers versus workers. Like a father, the owner/manager provided some or all of his workers’ needs such as employment, supplies at a store, housing, church, school, and recreation or entertainment. The extent of control and amount of benevolence within a community depended on each individual industrialist. Workers, like children, were expected to follow the dictates of the owners/managers or face consequences. However unlike the family where children on day could become parents themselves, unequal power relationships persisted in paternal communities and prevented the vast majority of workers from altering their social or economic position. Paternalism for some Marxist scholars was viewed as an obstacle to developing class consciousness of the exploitation of worker labor. Others viewed the paternal relationship as a step in the shift from an agrarian to industrial society that reproduced familiar relationships already known (Dublin 1979; Scranton 1984: 237).

Paternalism controlled workers in a variety of ways that maintained control within the hands of the owners/managers. Most paternal communities contained either informal or formal policing, seen in Cold Spring where the life of the Foundry overlapped with the life of the village. For instance, worker behavior was standardized
through the ringing of Foundry bells to call workers to and from work. The bell that used to ring at the top of the West Point Foundry office building remains in the community and is on display at the local school. Owners in industrial communities also had the power to institute consequences to punish disobedient workers through fines, dismissals, blacklisting, and eviction. Most often, the response of individual, unorganized workers was to quit and move from the community.

Philip Scranton outlined three different varieties of paternalism within the American textile industry: formal, familial, and fraternal (Scranton 1984). The formal style exemplified by Lowell, Massachusetts was a very controlling and closed form. Lowell mill owners, for example, provided their primarily unskilled workers with moral guidance, housing, and payment in cash. A fatherly boss would supervise the predominantly female workforce. The camaraderie seen in early formal paternal communities shifted after the middle of the nineteenth century when economic pressures caused increased speed and demand on workers. Around the same time, the primary group of employees shifted from native born to immigrant. In formal paternalism, workers in textile mills manufactured bulk staple goods in large-scale operations, which were located in regional satellite cities, and operated by a low skill work force.

In familial facilities, low skill workers manufactured batch staple goods in moderate-scale operations, which were located in small towns and rural sites. Within familial industrial relationships, payment for work was often company vouchers redeemable at the company store, helping the enterprise to stabilize its profits. Housing often did not exist and the company needed to build structures to attract and retain
workers, often from the same family. Workers supplemented their income with farming and saw industrial proprietors as local elite, who essentially replaced the plantation owner in southern mill towns.

The *fraternal* style included owners/managers who had gained knowledge from working within the industrial system and then began their own manufacturing facility. A largely skilled male workforce made batch specialty goods in moderate scale operations located in urban neighborhoods. These facilities focused on special processes and most began as spin-offs and remained as partnerships rather than incorporations. Fraternal paternalism complicated family patriarchy with the powerful father in family labor contexts where managers and agents had power over kin and offspring who also participated in the workforce. There also appears to be a stabilized workforce and the opportunity for economic prosperity in textile operating under fraternal paternalism as seen in Philadelphia (Scranton 1984: 254). The paternalism exerted by owners of the West Point Foundry in Cold Spring appears to have been of the fraternal style.

The three different forms of paternalism and their use in industrial communities changed throughout the nineteenth century. In the textile industry, formal paternalism faded by the 1840s as economic factors and public attitudes of worker and owner relationships changed. Within the cotton industry of the south during the last quarter of the nineteenth century, owners exploited racism, individualism, low education, social Darwinism, and nobless oblige in the paternalistic mill village system to defeat worker attempts at change (McLaurin 1971). Within all industries, changes in transportation helped to connect formerly isolated communities and weakened paternal actions after
initial establishment. Access to markets and an increase in the connection to other sources allowed workers more opportunities and often reduced the obligations of companies. Paternalism “married profit with the preservation of the customary duties and status of community leaders” (Scranton 1984: 239). Some paternal owners felt a benevolent and genuine obligation to provide for their workers. Others wanted to help guarantee a stable workforce and be able to punish those who challenged their power. Still others negotiated their social positions as elite industrialists through the power that paternal relationships afforded them. Whatever the reason, paternalism in a variety of forms could be seen in nineteenth through even twentieth century industries within the United States. Worker reactions to paternal situations ranged with skill levels so that those more skilled like at the West Point Foundry were less affected and less likely to respond to paternal constraints than unskilled workers in isolated industrial communities.

III.4. Anthropologists

For at least the last fifty years, anthropologists have explored various aspects of industrialization and work (Holzberg and Giovannini 1981; Keesing, et al. 1957; Wallman and Commonwealth 1979). Anthropologists of industry since the sixties have tried to answer questions concerning a Western perception of industrialization that may be mirrored in currently developing countries (see for example Geertz 1963; Kim 1997; Parry, et al. 1999; Rofel 1992; Rothstein and Blim 1992). Other anthropologists of work have long applied anthropological techniques such as participant observation to current industrial settings beginning before the 1950s as summarized in an edited volume by Eliot Chapple (1953). This trend has continued into the present mostly
through members of the Society for Applied Anthropology (Moberg 2002; Paolisso 2002).

The Society for the Anthropology of Work (AAA 2009b) a division of the American Anthropological Association, publishes the journal *Anthropology of Work Review*. For over twenty-five years, that journal has published articles on all facets of studying work in cultural and linguistic anthropology, archaeology, and occasionally physical anthropology (AAA 2009a). Topics of inquiry have included immigrant and migrant employment, management and worker relations, gender studies with focuses on female workers and masculinity, international companies and globalization effects on workforces, capitalism’s impact on workers, cultural practices and industrialization, experiential learning, worker identity, and unemployment (topics from *AWR* 2000-2009 publications).

Some anthropologists explore the industrialization process: the prerequisites of industrialization, the influence of cultural and social values on industrialization, institutional flexibility regarding industrialization and mechanization, and the general impact of industrialization on social groups and communities (Holzberg and Giovannini 1981). Anthropologists engaged in the industrial impact on groups of people are of critical importance to the present inquiry of Cold Spring society. Among others, works by Anthony Wallace explained industry and its machines within a larger context of industrial social history; June Nash explored two very different places in the modern global economy using the method of participant observation.

Writing in his flowing narrative style, Anthony Wallace examined the process of industrialization in historical contexts (1978; 1981). Wallace’s texts are rich with
documentary evidence of worker and management relationships influenced by religious and ethnic differences. He also explains technology in such a way as to allow readers to understand its associated social impacts. He approaches the industrial revolution based on Thomas Kuhn’s theoretical model of cultural change, where changes happen through paradigmatic shifts (Kuhn 1972). Each shift consists of five components: innovation, core development, exploitation, functional consequences, and rationalization. In Rockdale, Wallace leads the reader through changes in machinery and industrialization of cotton textiles that directly impact and are impacted by the people who experience such change within Kuhn’s five components (Wallace 1978).

The village of Rockdale was financed by cotton entrepreneurs and blossomed from its early beginning as a collection of mill hamlets in southeastern Pennsylvania. During the early part of the nineteenth century, owners turned into a cohesive managerial class rooted in biblical strictures. These managers embraced deskilling technology, eventually allowing them to dominate mill operators economically. Such technological change and economic stasis stirred conflict between managers and workers. The managerial class used their fundamental religious fervor to counter union activities and the political consciousness of the working class. Managers introduced moral order in mills and thus created an ethical system for workers; they also helped perpetuate the ideal of management skills as a pathway for success. Social forces originally outside of Rockdale that helped the managers’ cause included the Second Great Awakening and “Christian industrialism” prior to the Civil War. Christian industrialism was a connection between Christian religious values such as hard work and moral probity (Wallace 1978: 395). By the middle of the nineteenth century
Wallace argues that both workers and managers shared a common ideology. Owners in Rockdale thereby provided the economic, religious, and technological leadership that helped direct the workers and their families.

Wallace used a similar historical and anthropological approach toward another part of southeastern Pennsylvania for his St. Clair study (1981). As in Rockdale, Wallace’s explanation of anthracite mining, including its technological and geological challenges, illustrates how management ignored available data in their quest for profit. Wallace explores St. Clair’s development by considering early owner families and colliery operators, detailing their relations and connections. He then illustrates how this management class was so acquisitive and arrogant that they failed to acknowledge mining limitations and problems of the “doomed industry.” Instead, management insisted that challenges to profit were a result of failed tariffs, careless miners, and Irish trouble makers. Although Wallace dabbles in the development of mine unions, worker safety, ethnic divisions, and formation of a middle class, he really does not thoroughly integrate how workers changed the evolution of St. Clair. St. Clair focuses more on the owners, not the workers. This may be a result of the available historical resources that primarily provide the managerial point of view with the exception of census records and their limited information. Indeed, Wallace’s use of census records is particularly interesting as they are peppered throughout his texts (Wallace 1978: 33-34; Wallace 1981: 130-133, 367-375).

The central role of family and familial ties in both of Wallace’s narratives is parallel to observations about other nineteenth century industries. The concentration of wealth in certain social classes was regularly maintained through marriage. Without
inheriting any wealth, working class families could not survive solely on one income and thus relied on multiple family members to work. Families of the cotton managerial class are prominent in *Rockdale*, just as mine owners and collier operators took leading roles in *St. Clair*. Although both *Rockdale* and *St. Clair* are accounts of early nineteenth-century industries, the major difference between Wallace’s two accounts is their result. Rockdale ended as a functioning industrialized society while St. Clair illustrated the worst of mistakes and unlearned lessons.

Unlike Wallace who based his analysis almost exclusively on historical references, June Nash combines historical references with participant observation to gather data for her major publications. Nash examined industrial production in Pittsfield, Massachusetts in *From Tank Town to High Tech* and the social makeup of Bolivian mining in *We Eat the Mines and the Mines Eat Us* (1979; 1989; 1993). Documentary and oral resources about Pittsfield, Massachusetts highlighted the culture of industrial workers, and the effects of this culture on the global corporation General Electric, GE (Nash 1989). Nash uses Gramsci’s notion of hegemony to understand GE’s corporate hold on the town of Pittsfield (Gramsci 1971). Hegemony is the ability of one group to convince another of its social, economic, and political position. She describes the Pittsfield community’s relationship to the military-industrial complex, family, government mediation, and industrial restructuring by recounting the workers’ experiences through their own words. *From Tank Town to High Tech* provides readers with a clear and sympathetic understanding of industrial workers and the ways a working class community can impact a large corporation in the twentieth century.
Nash wrote about Massachusetts based on her earlier ethnography of an industrial community in Bolivia. In *We Eat the Mines & the Mines Eat Us*, Nash applies a Marxist theoretical model that examines the modes of production of a tin mining community (1979; 1993). As the title suggests, members of that community have a contradictory consciousness. They are economically dependent on the mines and those who control the means of production, yet at the same time, they risk their lives to receive payment for the labor that supports their families (Nash 1993: ix). Nash successfully intertwines Marxist theories of class consciousness, union formation, and the accumulation of capital with real miners and their families in this community. She documents how the current mining community attempts to harmonize older traditions with industrial capitalism through their culture, particularly their religion. Mine workers strike a balance between traditional religious practices and Catholicism in their daily lives at home, work, and annually during “Carnival.” As is the case for most mining communities, paternalism is critical to the survival of the miners and their families: company stores provided basic necessities like flour and sugar, company houses consisted of one to four rooms with restricted electricity and community water supply, a bus helped transport workers from non-company homes located further away, private schools provided better education than public ones, and family health care (Nash 1993: 91-99). Possibly because of the differences in methods and data available to each, Nash’s contemporary ethnographic portrait of workers is clearly more detailed in comparison to Wallace’s.

Several other anthropologists have written lengthy case studies of industrial societies or work space (Holzberg and Giovannini 1981: 331). Some, like Wallace and
Nash, consider urban settings (e.g. Cunnison 1966), and others choose to define a broader social context such as the nation state (e.g. Lander 1976), or even the world system (Wolfe 1977). Rex Lucas’ sociological comparison of single industry towns in Canada explores the impact of the mining, milling, and rail industries in the twentieth century that are comparable to nineteenth century industries like iron foundries (Lucas 1971).

Lucas describes four structural stages of community development that appear to be parallel to the development of small, single industry, nineteenth century towns. Lucas bases his information on interviews, statistical data, and site visits. The first stage of “construction” literally involves building the community. For twentieth century Canada, a group of construction workers had the exclusive job of building, yet construction in earlier centuries may not have included such a specialized workforce. During the second stage, “recruitment,” a company acquired workers of appropriate age (both single and married) from various or specific social and ethnic backgrounds. Reasons for the high mobility of the working population were the same in the twentieth century as they were in the nineteenth: “the isolation of the community, the facilities offered, the expectations of the single personnel, and the wives of the married men,” can account for a frequently shifting population (Lucas 1971: 69). The third stage within community development is “transition” when companies transfer sole responsibility of housing, social planning, financial institutions, and other amenities to the community. This transition relinquishes paternal control over workers’ lives. Finally, communities enter a “maturity” stage characterized by an aging population who is less mobile, shifting education expectations, and environmental change. These four
sociologically observed stages of the twentieth century can be anthropologically applied to the historic setting of Cold Spring (see Chapter IV).

**III.5. Historians**

Anthropologists of industry and work share a common data set with historians of labor but both approach their subjects from different angles. Anthropologists have human relationships and/or ethnographic data at the core of their research, thinking of communities within the wider perspective of global industrialization. Although they overlap, labor historians develop texts specifically within the larger trajectory of American history focusing on group behavior, focusing on changes in institutions, such as union development (Brody 1993) and/or social aspects of laboring societies (Gutman and Bell 1987). While some labor historians document large social changes (Frisch and Walkowitz 1983; Thompson 1966) others deal with specific communities (Brecher, et al. 1982; Cassity 1989; Greenberg 1985). Culture, gender, and race are current, vibrant sub-topics in the exploration of industrial society (Blewett 1988; Kent, et al. 1993; Walsh 1999) as are class issues (Arnesen, et al. 1998; Berlanstein 1993).

Martin H. Blatt and Martha Norkunas’s *Work, Recreation, and Culture* explored both labor union and cultural studies (Blatt and Norkunas 1996). This edited volume discussed the success and failures of mainstream labor organizations as well as wider social movements linked to labor (1996: xiii). For example, Milton Cantor maintained that nineteenth century education was a means to promote American cultural hegemony among working class, immigrant children (Cantor 1996a). In another essay about the nineteenth century, Cantor discussed the importance and prominence of social lodges and fraternal associations in urban society (Cantor 1996b).
Historians have also investigated more general changes in America brought about by industrialization. For example, Brian Greenberg’s *Worker and Community* describes the response of Albany’s inhabitants to industrialization (1985). Greenberg argues that out of a free labor ideology, Albany’s leaders developed a “community consciousness” instead of a consciousness aligned with class, while workers experienced a combination of both class and community consciousness. With a focus on prison contract labor, Greenberg discusses economic actions as well as social, political, and cultural associations developed over the course of the nineteenth century in response to industrialization.

Jonathan Prude’s approach to industrialization is at the smaller level of town politics. In *The Coming of Industrial Order*, Prude argues that opposition was a part of the very nature of industrialization (1999). Moreover, industrialization in America, especially the American textile industry, did not always lead toward urbanization. Thus his relationship between small populations and a budding industry are particularly of interest. His text explores the conflicts between employers and employees as well as the town and its mills. By focusing within one industry and several towns of southeastern Massachusetts, Prude demonstrates the transition of rural America from a predominantly farming economy into an industrial one. First, the transition includes agriculture being supplemented with other incomes and then shifting toward commercialization. Parallel to these developments, the textile industry moved from predominantly outwork operations into consolidated factories. Operatives of the cotton and woolen mills responded in a variety of ways to such changes from collective strikes to individually moving away. The coming of industrial order consisted of the local
economy slowly shifting toward a market economy. Although the orientations of historians are aligned with the anthropologists discussed above, neither group is as object-oriented as archaeologists or architects.

III.6. Archaeologists

Both industrial and historical archaeology have artifacts at the core of their research inquiries. Industrial archaeology is the documentation, study, interpretation, and preservation of the physical remains of industrially related artifacts, sites, and systems within their cultural and historical contexts. It differs from historical archaeology by emphasizing industrial production and its material impacts. From examinations of oversized, derelict industrial sites to hand-held industrial products, industrial archaeologists are constantly challenged to expand inquiries beyond physical remains. On the other hand, historical archaeologists have shied away from industrial sites and rarely consider that domestic locations associated with an industry were intimately tied to that industry. They instead concentrate on living conditions and social relationships beyond the factory walls. Although the same individuals occupying places of industry also have homes, for an archaeologist to focus on industrial communities and the domestic side of industrialization we must turn our attention to those in historical archaeology. Given the fact that the same people occupy both domestic and industrial locations, archaeology would benefit from combining information from both of these realms. Training in industrial and historical archaeology provides the background necessary to conduct an investigation that balances industrial artifacts with the people who created or used those items in a nineteenth century iron foundry village.
Industrial archaeologists explore technological aspects of the past from large landscapes to specific workplaces. Introductory texts on industrial archaeology begin by outlining the history of the field and then explore the components of different industries, such as their raw materials, final products, transportation, fuel supplies, and structures (Gordon and Malone 1994; Palmer and Neaverson 1998). The journal for the Society for Industrial Archeology, IA, also considers these topics (SIA 2009). Social and temporal aspects of the industrial past frequently intersect with more technical discussions, yet most arguments are built around technology and its change, with less focus on the impact of industry on people.

Various forms of field work, including identifying, recording, surveying, and excavating places of production, and using documentary resources, provide avenues to explore the industrial past, particularly its processes, through material culture (Hardesty 2000; Palmer 1995; Palmer and Neaverson 1998). Traditionally technological aspects and artifacts were the focal point as evident in IA (for recent examples see Gordon 2000; Holley 2001; Meniketti 2006). Yet there are other possible avenues of exploration into the industrial past (Hyde 2001). For example, some industrial archaeologists focus attention on the processes involved in technological development (Barnwell, et al. 2004; Gordon 1996; Jacony 1998; Kemp 1993) while others discuss landscape development (Alfrey and Clark 1993; Hardesty 1985; Palmer and Neaverson 1994; White 2006) or even the transfer of technology (Landon and Tumberg 1996). Industrial archaeologists have also focused on sites of extraction (Dixon 1994; Hardesty 1988), transportation (Rutsch 1995), water as a resource (Malone 2005), and manufacturing (Martin 1991; Morrell 1995); since Cold Spring was a manufacturing
site, that literature will become paramount in the present investigation. Some critics say that “industrial archaeologists have failed to appreciate the importance of individuals and family networks to the industries that they study” (Casella 2005: 49). The social lives of workers have primarily been the focus of historical archaeologists such as those investigating Lowell and Harpers Ferry.

Historical archaeologists have recently focused on the lives of the people who own and work at industrial facilities. Mary Beaudry, Stephen Mrozowski, and others examined the Boott Cotton Mill and its associated housing in Lowell, Massachusetts (Beaudry 1989; Beaudry 1993; Beaudry and Mrozowski 1988; Mrozowski and Beaudry 1990; Mrozowski, et al. 1996). In addition to these publications, several volumes were prepared for the National Park at Lowell: *Interdisciplinary Investigations of the Boott Mills, Lowell, Massachusetts, Volumes One through Three*: 1. Life at the Boarding Houses; 2. *The Boarding House System as a Way of Life*; and 3. *The Kirk Street Agent's House* (Beaudry and Mrozowski 1987a; Beaudry and Mrozowski 1987b; Beaudry and Mrozowski 1989). The Lowell investigations ranged from individual management homes to the yards of worker tenements and boarding houses. Part of their research has focused on how the company’s ideology affected domestic construction, maintenance, and supply that dictated different standards of living between workers and managers. In Lowell several architects have investigated the corporate approach to construction as well (Coolidge 1993; Gross 1988).

Based on archaeological evidence, the housing for Boott Mill workers was, for a time, an efficient built environment that reinforced the mill’s hierarchy and reflected corporate ideology. Other companies in Lowell such as the Hamilton Mills adopted
similar policies to those at the Boott Mills, particularly with the boarding houses and
to worker unrest in the 1830s and 1850s (see Chapters 5 and 10 “The Boardinghouse” and
“Housing and Families” respectively in Dublin 1979). Lowell provides a useful if
imperfect comparison to Cold Spring discussed further in Chapter VII.

The key value expressed by owners towards the workers in Lowell was formal
or corporate paternalism. Beaudry and Mrozowski defined corporate paternalism as the
company controlling all manners of workers’ lives, guiding and protecting workers’
morals. Thus the company set and policed living conditions including hours of work
and leisure, number of boarders per room, type of dishes, sanitary conditions, times and
types of meals, the surrounding landscape, a set of rules including the consumption of
alcohol, and mandatory religious services. With changes in both technology and profit
at the mills, the company’s attention to and control of workers’ housing also shifted.
By the 1840s, immigrants were replacing mill girls and companies controlled fewer
aspects of immigrant lives. By the end of the nineteenth century, corporate paternalism
no longer dominated Lowell society, and its workers were a mix of children and adults,
women and men. The changes in conditions were archaeologically detectable: the
uniformity of dish sets, sanitary conditions, and yard landscapes declined as factories
began to expect immigrant workers to provide for themselves.

The archaeological investigation of communities has been a major focus at
another industrial National Park in West Virginia. Paul Shackel has conducted
archaeological research to enhance the general understanding of Harpers Ferry’s
historic and industrial development (Shackel 1996a; Shackel 1996b; Shackel 2000).
Several domestic locations near to the armory provided archaeological data sets that are
directly comparable to those from the West Point Foundry. In the reports

*Archaeological Views of the Upper Wager Block, A Domestic and Commercial Neighborhood of Harpers Ferry, Interdisciplinary Investigations of Domestic Life in Government Block B: Perspectives on Harpers Ferry’s Armory and Commercial District, and Domestic Responses to Nineteenth-Century Industrialization: An Archaeology of Park Building 48, Harpers Ferry National Historical Park* Shackel and his team explored worker and management housing (Halchin 1994a; Shackel 1993b; Shackel 1994b). Harpers Ferry constantly struggled to provide enough housing for its workers as all the land in the town was owned either by the government or the Wager family. The development of the town was limited and buildings frequently contained multiple functions over the course of their history. For example, the master armorer house was turned into a boarding house later; another structure was a house, a boarding house, and a saloon. In *Culture Change and the New Technology*, Shackel describes how the Armory was contrived to reflect a pastoral setting during industrialization and urbanization prior to the 1830s (Shackel 1996a). Like the anthropologists of work and industry discussed above, Shackel focuses his attention on the process of industrialization but extends his analysis to include its material impact in workers’ domestic lives.

Shackel outlines the shift in armory work from artisans with worker autonomy, through the introduction of piecework, and the impact of interchangeable parts. Such technological alterations in combination with changes between military and civilian leadership helped establish a new factory discipline dominated by surveillance technologies. Shackel’s discussion of this shift from craft to factory production also
includes the impact of such changes on households where industrial manufacturing and domestic activities mixed before houses were strictly used for domestic purposes. This shift was observable in the artifacts recovered from a worker dwelling and may also illustrate two workers’ philosophies of work and the industrial process.

Harpers Ferry’s landscape was a material expression of industrial ideology at a broader scale. Like other anthropologists, Shackel also includes socially relevant aspects of Harpers Ferry development such as schools, churches, and social relations. Paralleling the government take-over of the facility in 1841, the built environment of Harpers Ferry became rationalized and full of order, uniformity, and regularity. For example, during the 1830s, the Ordnance Department prohibited the private construction of new housing on government property to ensure and regulate consistency in size, material, and designs. By the Civil War, this rationalized and orderly landscape deteriorated as industrial activities took precedence over landscape maintenance, especially within the town of Harpers Ferry. Although Shackel and Beaudry/Mrozowski integrate industrial change into their examinations of the industrial communities, neither focuses on the architectural styles of those locations.

III.7. Architects

Industrialization transformed the economy and market in radical ways, among these, John Garner attests it also impacted architecture. Garner researched model company towns and their development (1984; 1974). His discussion of architecture in company towns was based on two earlier studies, one about Lowell from the 1940s (Coolidge 1967 [1942]; Coolidge 1993) and another about “garden cities” from the 1960s (Creese 1966; Creese 1992). Garner defines model company towns as those
constructed and then supervised by a single business enterprise (Garner 1974: 1). Garner focuses intensely on one town, Hopedale, Massachusetts and its specific morphology, paternalism, and housing (for supplemental material to Garner’s research, see Spann 1992). He also briefly examines the specific reasons for other towns in New England that underwent transitions between several stages of development detailed below. Paternalism, according to Garner, stemmed from the Protestant work ethic and “noblesse oblige” of owners. Labeled as the “guiding hand” for industrial owners, paternalism changed from attracting laborers to industry into controlling and protecting laborers. For Garner, one of the most obvious places to observe paternalism was in the landscape.

Different types of settlements around industry vary in size and corporate control. For example the level of paternalism varied according to location and industry with differences reflected in housing architecture. Garner explores the change from “industrial village” or “industrial settlement” into “company town” or “corporate town” and then the later development of “garden cities” and “new towns.” An industrial village consists of approximately a dozen homes of workers from one mill. Such villages can morph into an industrial settlement, which consists of a couple of hundred people also tied to a single mill. The key element to this stage of development is a small population housed in a limited number of buildings around a single mill. Examples of industrial villages and settlements can be seen dotted across the northeast. Given the correct economic, geographic, and transportation circumstances, industrial villages can morph into company towns. For Garner, company towns have a population in the thousands and are architecturally planned, owned, and maintained by one
company. Pullman is an example of a company town. They develop in isolation within an emerging industrial setting (Garner 1984: 11).

Corporate towns contain multiple enterprises, house tens of thousands of people, and lack complete order or control by one entity. Excellent examples of corporate towns are Lowell and Holyoke, Massachusetts. Garden cities are large populations that share a common industry and communitarian principal. Such cities developed late in the nineteenth century in the Midwest where space was available. Finally, Garner’s new towns are satellite towns that surround one company or industry. Such towns result in the need for additional space and only develop with appropriate transportation options. Cold Spring seems to be an example of a cross between Garner’s “industrial village” and “company town.” The West Point Foundry paternally influenced the village as a whole including a significant portion of house construction and availability of sale, impact on construction of religious facilities, and the incorporation of adjacent villages.

### III.8. Urban Designers

The concept and history of a company town or village was the focus of Margaret Crawford’s *Building the Workingman's Paradise* (1999). Crawford considered the construction of company towns, defined by the *Encyclopedia of Social Sciences* as “a community inhabited chiefly by the employees of a single company or group of companies which also owns a substantial part of the real estate and houses” (as quoted in Crawford 1999: 1). Although the text primarily discusses the development of company towns in the twentieth century, the historical context of her argument is imperative to understanding and placing Cold Spring within an appropriate context.
Crawford asserted that some employers used the company town as an aspect of paternalism to regulate its workers and accommodate or attract specific groups of workers and structure their dependence on the company. Within this framework of settlement and employment particularly between 1790 and 1850, owners struggled to balance their profit from the market with social responsibility including religious, ethical, and democratic principles. Workers, technology, and employer power all influence the development of six types of company towns (mill village, corporate city, lumber camp, mining town, industrial suburb, and satellite city). Each of these types do not span the entire history of company towns, so Crawford focuses her efforts on model towns and cities of the nineteenth century as precursors to the twentieth century, the focus of her text.

Paterson, New Jersey and Humphreysville, Connecticut were both model towns. In Paterson the attempt to attract those not employed by agriculture by allowing workers to rent, purchase with mortgage, or purchase a lot fell short of industrialists’ expectations. The monopoly of industry coupled with worker unrest culminated in 1793 when the first strike and lockout in the country occupied Patterson. Humphreysville, in contrast, contained a small, rurally isolated industry that employed daughters of farmers and male orphans. Within this context, David Humphrey assumed the authority of the parent and provided housing, school, daily regime, and rewards or punishments to his workers. The paternalist relationship between Humphrey and his employees was not a nurturing one, but demanded their loyalty and subservience and narrowly avoided overt labor unrest such as a strike (Crawford 1999: 17).
Crawford noted how the landscape of textile production, particularly that near Slater’s Mill in Rhode Island and Lowell, Massachusetts, helped pave the way for later nineteenth century “improved towns” spread across New England. For these examples, the extent of paternalism influenced the formality and coherence of planning. In Rhode Island, small mill owners sponsored churches where attendees were encouraged to adopt an industrial work ethic and value obedience, deference, and industry (Crawford 1999: 21). Paternalistic actions included first constructing housing of various types (duplexes, cottages, tenements, and boarding houses) and a company store followed by churches, schools, and commercial buildings. Workers would sign contracts and be at the mercy of foremen. They protested their situation by absenteeism or leaving the job and area all together. In Lowell, the corporation planned the city for control, but not benevolence. Their urban planning included a regulated landscape immediately adjacent to the factory and an area for the city next to that. Unlike the company store where Rhode Islanders had certificates to make purchases, Lowell employees were paid in cash. Increasing the speed of production and repeated wage cuts brought the difference of classes into focus. Companies in Lowell did not construct any additional houses after the middle of the nineteenth century.

According to Crawford, New England industrialized in the 1840s spreading across the rest of the United States over the following four decades. The textile industrialization was followed by the iron and steel industries. The establishment of industrial communities in isolated locations encouraged paternal control by individual capitalists. The amount and extent of control became particularly evident when strikes or labor organization disrupted relationships between owners and workers. Some
industries dominated by skilled workers resulted in communities where company power was not so evident. Some communities maintained that paternalism was a viable response to the tensions between owners and managers. Towns including Whitinsville, Hopedale, and Ludlow in Massachusetts, Peace Dale, Rhode Island, Willimantic and South Manchester in Connecticut all advertised themselves paternalistic communities. These towns were located in rural areas for waterpower; they experienced rapid growth between the 1850s and 1880s; and they generally housed over 1,000 employees who lived next to their employer in multiple styles of houses on paved and landscaped streets. Relationships dominated by paternalism early in the nineteenth century were replaced by Christian stewardship, laissez-fair individualism, and profit sharing later in that century (Crawford 1999: 32-33).

III.9. Conclusion

Historical examinations into the domestic lives of working class Americans have developed a range of understandings about ways in which owners and managers inserted themselves into the domestic lives of the workers. One primary relationship structure was industrial paternalism where owners, like fathers, provided some or most of workers’ basic needs, such as a job, store, housing, church, and school, in exchange for work and loyalty. Different disciplines including anthropology, history, archaeology, architecture, and urban design have approached industrialization, especially in the United States. For example, Wallace not only examined the differences between workers and owners/managers but also how such differences affected their relationships. He concentrated on management with access to their historic documents such as diaries. Differences of religion, ethnicity, and social status...
eventually were resolved in Rockdale or were devastating in St. Clair. Nash inquired into the industrial worker culture and its impact on the global, corporate hegemony of General Electric. She was most interested in the harmonization of capitalism with tradition particularly evident in Bolivian tin mines. Most of her data came from participant observation, but her description of the company mining town and paternalism in that area is directly comparable to data from Cold Spring.

Historical archaeologists Beaudry and Mrozowski inquired into the material differences between workers and managers outside of the factory walls through archaeology and documentary research. They also asked how the company’s ideology affected domestic construction, maintenance, and supply. Finally, Shackel examined the differences between groups in the industrial landscape and consumer choices in domestic items. His analysis centered on archaeological and historical evidence. In several ways, the current investigation into Cold Spring and specifically the West Point Foundry will be informed by all of the above. Using the approaches typified by historians, anthropologists, archaeologists, and architects, the following chapters explore the industrial community of the Foundry in Cold Spring. Within the range of industrial communities and companies engaged in harnessing the power of industry, Cold Spring and the West Point Foundry remain a well preserved nineteenth century example. The tensions between owners and workers engaged in a paternalistic relationship will be brought into focus in the following chapters beginning with a history of the village and Foundry.
CHAPTER IV
HISTORY OF THE WEST POINT FOUNDRY
IN THE COLD SPRING COMMUNITY

IV.1. Introduction

This chapter addresses a variety of questions to investigate worker and owner/management relations over the nineteenth century. These relationships impacted the physical extent and contents of Cold Spring as a community in a material way. Questions under exploration include how did observable paternalism change over the course of the nineteenth century? What are the patterns visible from deed records as to the development of the Village? What was Cold Spring and the West Point Foundry like during the Civil War? Does the level of corporate paternalism observed at larger industrial centers such as Lowell mirror that in Cold Spring (Beaudry and Mrozowski 1989; Garner 1984; Garner 1974; Hardesty 1994; McGuire and Paynter 1991)? Why did the Foundry curtail production in the latter part of the nineteenth century and how did that effect the village’s fabric? What impact did the Cornell Company have on the village and was the company paternalistic to its employees?

In order to answer these questions, the following chapter is roughly divided into thematically organized sections about the West Point Foundry and the Village of Cold Spring. It begins with the setting of Cold Spring within the Hudson Highlands. The history of the village and the Foundry are chronologically divided throughout this chapter into roughly twenty year periods. Although arbitrary, each twenty year period illustrates the tempo of change observed at a local scale that carries over into observations about ceramic assemblages recovered from Foundry associated housing
discussed later in the dissertation. The temporal divisions are more pragmatic than neat time lines. The chapter highlights the extent that company owners meddled in wider village affairs and in the lives of their workers outside of the factory. It begins with general background about the West Point Foundry history, including the two prominent owners, and a brief explanation of the company’s iron manufacturing processes. Following that is a section on the origins of Cold Spring.

The chapter continues into the next period: the 1840s and 1850s. Foundry history describes how the sale of land as dictated by its investors substantially impacted the development and incorporation of Cold Spring. The next period around the Civil War presents a view of the Foundry at the height of its production including a strike in 1864. The 1860 census provides the demographics of the Village of Cold Spring. The chapter concludes with the postwar period (1870s-1910s), the general down turn of production at the Foundry, and shrinking of the community during the latter part of the nineteenth century. The Cornell Company is also discussed in this section, including its impact on the village near the turn to the twentieth century. When compared to secondary literature on demographic trends in the nineteenth century, Cold Spring appears to be typical of small communities dominated by a single industry. The details of its demography, industry, and history comprise the rest of this chapter to familiarize the reader with the particulars of this nineteenth century community.

IV.2. Cold Spring in the Hudson Highlands

Cold Spring sits on the eastern bank of the Hudson River approximately 55 miles north of New York City and 100 miles south of Albany (see Figure 4.01). The closest sizable municipalities are 20 miles away; to the east is Carmel, the county seat
with a population of about 33,000 people, and Poughkeepsie is located the same
distance to the north with approximately 45,000 people. Cold Spring is also located
upstream and across the river from the United States Military Academy at West Point.
The current population in the village of Cold Spring is approximately 2,000 people and
that figure has been relatively consistent for most of the twentieth century.

Figure 4.01: Cold Spring’s Location on an Area Map in Relationship to Important
New York Towns and Cities. (Google Maps, modified by E. Norris, 2008)

Cold Spring is situated within the Hudson Highlands near Storm King Mountain
and Crows Nest on the east side of the Hudson River (see Figure 4.02). To the north of
Cold Spring is Bull Hill and Breakneck Mountain, the latter of which was appropriately
named for animals that fell from the cliff in the nineteenth century. Guidebooks for
visitors traveling up the Hudson River from the nineteenth century clearly state the
location of Cold Spring within this dramatic landscape. Cold Spring “is a village upon
a hill-side, above which rises the stately granite crown of Bull Hill – called by classical

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f olks Mt. Taurus. Standing upon the terrace at Undercliff, and looking across the river, we see *old Cro’ Nest* and *Storm King,*” (emphasis original, Colt 1871). This dramatic landscape provided convenient targets for ordnance testing by those at the military academy in West Point as well as a private foundry located in the Village of Cold Spring. A map providing three dimensional perspectives from the 1960s highlighted the relevant historic and geographic areas of interest close to Cold Spring (see Figure 4.03, Bienberg c. 1960).

![Cold Spring](image)

**Figure 4.02: View of the Hudson Highlands Looking South. Storm King Mountain is on the far right with Crows Nest behind it; Breakneck on the left is blocking the view of Cold Spring. (Photograph by E. Norris, 2007)**
Figure 4.03: Robert Bienberg’s *Philipstown: The Hudson Highlands, New York*, c. 1960. (Putnam County Historical Society & Foundry School Museum)
The village got its name from a spring of water that was known to have yielded cold water to those stopping for refreshment. The area was well known by travelers up the river who would stop at a spring currently buried under the railroad tracks just to the north of Main Street. Undoubtedly this spring was also known by Native American groups, especially the Wappengers, resident in the area at the time of European colonization. Major modifications to this area of the Hudson Valley landscape did not occur until the nineteenth century. Beginning in 1817 the West Point Foundry replaced a few farms on the eastern side of the Hudson River with the incorporated Village of Cold Spring. What formed over that century was a company town: a small settlement predominately controlled by one company that employed most of the area’s male working population. The Foundry was named after the most prominent landscape feature of the area (see Figure 4.03).

During the nineteenth century, the Village of Cold Spring contained the West Point Foundry, Foundry workers, transportation (river or railroad) workers, households, religious facilities, and supplementary community businesses. Its boom period was during the Civil War when the manufacture of heavy ordnance for Union forces demanded around the clock manufacturing. When the Foundry saw difficult economic times in the latter part of the nineteenth century and went into receivership, the village suffered as well. A resurgence in the area’s economic vitality occurred around the turn of the twentieth century with the arrival of the J.B. & J.M. Cornell Company, iron manufacturers still in business today. The current footprint of today’s Cold Spring was born in the nineteenth century with over two hundred buildings belonging to historic districts. Central to understanding this community is an exploration of the extent that
the owners and managers of the Foundry played in this village’s physical formation and its development over the nineteenth century.

IV.3. The Foundry: Establishment & Consolidation (1817-1830s)

The following West Point Foundry history is divided into approximate twenty year blocks. During this first period, the West Point Foundry was established in both Cold Spring and New York City but by the end of it, the Foundry had been combined in Cold Spring. The following section discusses location, transportation, incorporation, physical extent, basic processes, products, and leadership, during the origin and early West Point Foundry history.

The location of the Foundry in Cold Spring provided several natural resources necessary for foundry operations including water, sand, ore, and wood (Rutsch, et al. 1979: 16-18). The Foundry’s location was also strategically placed in the northeastern section of the country, upriver from the already established Military Academy. It was one of four foundries spread across the nation, with others also manufacturing heavy ordnance for the government established in Pittsburgh, Georgetown, and Richmond. The New York operations were placed in a narrow valley carved out by Margaret’s Brook, which drains into the Hudson River. The brook, later renamed Foundry Brook, supplied necessary water power by dropping one hundred feet over a distance of two thousand feet (Rutsch, et al. 1979). A sawmill located on the brook provided the means to cut local timber for early construction (Pelletreau 1975 [1886]: 551). The West Point Foundry is also situated on the Hudson River, which facilitated easy transportation for raw materials and finished products alike. The Hudson Valley contained natural moulding sand that is fine-grained and includes a small portion of clay allowing it to
retain its shape and accept molten iron. Nearby, in the Hudson Highlands was an abundance of iron ore that foundry workers could smelt. Some ore for the West Point Foundry came from the present Fahnstock State Park and was transported to the Foundry via wagons down a road that roughly follows the modern New York State Route 301. Finally, the area was covered in hardwood forests that were used either in construction or to make charcoal to fuel furnaces and forges.

Transportation networks within the Hudson River Valley contributed to the establishment of the Foundry and its expansion over the first half of the nineteenth century. The West Point Foundry’s location on the Hudson River facilitated transportation of materials and finished products both north and south. Transportation options also increased with the opening of several canals that provided access to the Midwest and the interior of several adjacent states including the Champlain Canal (1823), Erie Canal (1825), Delaware & Hudson Canal (1828), Delaware & Raritan Canal (1834), and the Morris Canal (1838). The West Point Foundry owned its own sloops to travel these waterways and hired teams to haul material over land. In addition to the Hudson River, two railroads also provided alternative means of transporting raw materials and finished products, one of which continues to operate in the village today.

An act of the New York State legislator incorporated the West Point Foundry Association on April 15, 1818 with a capital of $100,000 (Pelletreau 1975 [1886]: 559). The Association was comprised of Gouverneur Kemble, William Kemble, Nicholas Gouverneur, Joseph G. Swift, Henry Brevoort, Jr., James Renwick, John R. Renwick, Henry Cary, Charles G. Smedburg, Robert I. Fenwick, and William Young. This amount would translate into a capital of $1.5-1.8 million United States dollars in the
year 2005 (Williamson 2008). The incorporation established Gouverneur Kemble as the President of the association and William Young as its first superintendent. Gouverneur Kemble would continue to be involved in Foundry operations throughout the majority of its history.

G. Kemble was a member of the Free and Accepted Masons (Pelletreau 1975 [1886]: 563). The Association received a significant financial advance on its first order of ordnance and projectiles from the Navy. Its continued relationship to the government was a part of the origins of a military/industrial complex beyond the scope of the present investigation. Frederick Philipse and Samuel Gouverneur and wife (Gouverneur Kemble’s uncle and aunt) sold the Foundry land to Henry Brevoort, Jr. and James Renwick, both original members of the initial Association. This plot of land encompassed everything south of Rock Street or Main Street to just south of Foundry Brook as well as from the shore of the Hudson River inland to the east to encompass 178 acres of land and 27 acres of marsh. None of the land under the control of the Association could be sold under its first incorporation. This stipulation was important for the village’s development as will be discussed in the next chapter, Chapter V, about the village’s housing.

In 1817 Gouverneur Kemble oversaw the construction of a handful of buildings within which “the making and manufacturing of iron and brass, and are engaged in the extensive works and machinery for the making of cannon, cannon balls, and other ordnance” (Association 1818). The original buildings included a blacksmith shop, boring mill, molding shop, and pattern shop. Around 1820, the facility had expanded to include an office. The buildings were arranged in the shape of an “L” within the narrow
river valley. In 1827 the company built a cold blast iron furnace to smelt iron ore with charcoal and added a coalhouse for storage purposes (Covert 1946: 25; Kotlensky 2007; Rutsch, et al. 1979: 77; Timms 2005; Wilson 1886: 27). Millwrights designed and expanded the West Point Foundry operations geographically, allowing production to flow smoothly through the site. Production began with the smelting operation furthest upstream, then proceeded to the blacksmith shop or moulding and machine operations parallel to each other further downstream, and finished with ship or rail transportation of finished products.

In the 1830s the complex in Cold Spring expanded to three moulding houses (the largest one containing two, twenty-foot deep sand casting pits and cranes to move items), two cupola houses not extensively used, a boring mill, an office building, a turning shop, two blacksmith shops, a pattern house, a coalhouse, a blast furnace, a well for fire control, water-powered grinding stones in a grindstone shop, and a store (Rutsch, et al. 1979: 56-69). There was a Foundry school built in the 1830s for apprentice and worker education, (which would later become the Putnam County Historical Society & Foundry School Museum). At the West Point Foundry the primary means of production including the smelting and casting of iron began in Cold Spring, but finishing shops in New York City on Broad Street provided the means of assembling and shipping final products (Blake 1849: 245). In 1838, the New York and Cold Spring branches of the West Point Foundry were combined, integrating the technology and manpower into one area at Cold Spring. This was not unusual as the cost of land in New York City was becoming more expensive (Stott 1983). At that point, many Foundry workers from the New York facility moved with their families up
the Hudson, expanding the population of Philipstown, particularly the Villages of Cold Spring and Nelsonville. This combination of facilities had a major impact on the housing, as will be discussed in the next chapter.

Account books from the Foundry in 1826 suggest that unskilled to skilled workers were paid anywhere between $0.17 and $1.17 per day amounting to as low as $5 but up to $35 per month (Foundry 1817-1878). These pay ranges were approximately in line with other iron manufacturing facilities in the United States (Kuczynski 1943). The paternalistic nature of the West Point Foundry towards their workers was never stated in company policy outright. Hints at their relationship to some workers, however, can be interpreted from indentures made with young apprentices. West Point Foundry apprentices were boys between 14 and 17 usually hired for a four or five year period. The Foundry paid for their lodging, some night schooling, and also allowed them from $11 to $13 per month. Given the paternal nature of apprenticeship in general, the following quote should be understood as an extreme example of paternalistic relations between management and workers, but standardized into printed apprentice forms dating to 1825.

During all which time, the said apprentice shall faithfully serve the said The West Point Foundry Association, their secrets keep, and lawful commands obey; he shall do them no damage, nor see it done by others, without giving notice thereof; their goods he shall not waste, embezzle, nor lend; he shall not at any time absent himself from their service without leave; he shall not play at cards, dice, or any unlawful game, nor commit fornication, or contract matrimony, within the said term; he shall not frequent Taverns, Ale Houses, Dancing Houses, or Play Houses, but in all things demean and behave himself as a good and faithful apprentice during the said term (Foundry 1817-1825).

The rules by which apprentices contracted with the West Point Foundry limited their activities outside of work prohibiting them from drinking, gambling, marriage, and sex.
Over the course of the nineteenth century the West Point Foundry participated in different parts of the iron manufacturing process that will be simplified here. The manufacturing of cast iron began with extracting iron from iron ore, a process known as smelting. In a tall, stone blast furnace (as high as forty feet and lined with firebricks) workmen combined ore, fuel, and flux. Flux, often limestone, was a reducing agent, which chemically combined with undesirable material such as silica to free the iron from its ore. Depending on the chemical composition of the ore and the type of fuel, workers adjusted different amounts of each. Iron masters designed blast furnaces to circulate blasts of air through the mix of ore, fuel, and flux to maintain hot temperatures. Iron furnaces needed to reach a temperature above 2,200 degrees Fahrenheit (1,200° C) in order to separate the iron from the ore (Kotlensky 2007: 27). Charcoal was the original fuel used in this process, but later in the nineteenth century, anthracite or bituminous coal and coke were choice fuels. Molten iron sank to the furnace’s bottom, exited the furnace, and flowed down a path into perpendicular slots to create pig iron. Pig iron could be remelted in another furnace and poured into a variety of molds. The West Point Foundry initially set up its operations to use pig iron. Between 1827 and the 1840s or 1850s they operated a blast furnace and blowing engine to smelt iron ore as well (Kotlensky 2007; Timms 2005).

In the moulding or casting shop, workers impressed wooden patterns into sand moulds to create a void for molten metal. Sand molds could be contained in boxes, known as flasks, or were built right into the sand floor of a moulding shop. After melting the pig iron in a furnace, workers filled the moulds with the hot metal, and then allowed the casting to cool for as much as a few days. Once cool, the cast could be
machined in a machine shop and fitted to other iron parts to create a finished product. Alternatively to cast iron was wrought iron made by blacksmiths who would heat iron and pound it into various shapes. Cast iron could be poured and machined, but wrought iron was harder and stronger. The West Point Foundry’s ability to create large-scale products with cast and wrought iron components gave it a competitive advantage.

In the 1820s and 1830s, the Foundry produced complex machinery and engines for the cotton and sugar industries. During this time, heavy ordnance consisted of cannons which shot projectiles at a relatively level flight, mortars which had a very high trajectory, and howitzers that were in between at a medium high trajectory (Manucy 1949). Ordnance production at the West Point Foundry in the early part of the nineteenth century was primarily smooth bore cannons of the Columbiad design and their carriages. The Foundry manufactured guns of a variety of sizes measured by projectiles ranging between eight and twenty-four pounds or nine and eleven inch diameters of barrel openings. In an 1821 broadside advertisement, the Foundry listed a variety of products and their ability to manufacture unique items of iron and brass to order from a cupola, which was considered to manufacture higher quality items than those straight from a blast furnace.


LIST OF WHEEL PATTERNS NOW ON HAND, AND DAILY INCREASING. (emphasis original, Foundry 1821)

Among the machines manufactured at the West Point Foundry were cotton presses and equipment for southern states and specially designed mills to process sugar in Austria.
Nova Scotia, and the Caribbean (Isleib and Chard 2000: 15). The Foundry was active in constructing some of the first locomotives in the United States in the early 1830s. Under the direction of David Matthew, a railroad mechanic, the Foundry manufactured one of the first locomotives built in this country: the Best Friend (1830), as well as the West Point (1831), the DeWitt Clinton (1831), the South Carolina (1832), the Phoenix (1832), and the Experiment (1832) (Rutsch, et al. 1979: 41; White 1968: 21). Matthew became a locomotive superintendent at the Utica & Schenectady Railroad by 1836, thereby minimizing the West Point Foundry’s involvement in future locomotive manufacturing.

Two individuals were primarily responsible for the Foundry’s early and continued success: Gouverneur Kemble (Johnson and Malone 1937: 316-317; Unknown 1963: 290) and Robert Parrott. Gouverneur Kemble was the organizer of the original West Point Foundry Association and is believed to have had experience in mercantile trade and higher level military connections (Raoul 1936; Rutsch, et al. 1979: 30; Walton 2007). Kemble’s first name, Gouverneur, was his mother’s maiden name, a family of landowners in the Hudson River Valley. Some of his father’s family members were New York City merchants. Gouverneur Kemble graduated from Columbia College in 1803 but was not believed to be trained in metallurgy or engineering. Robert Parrott was a graduate from the Military Academy at West Point and an Ordinance Officer assigned to the West Point Foundry before resigning his military position to design ordnance. Both individuals clearly influenced the success of the Foundry through their leadership, personal connections, and ingenuity.
Under Gouverneur Kemble, the West Point Foundry began operations in 1817, focused on producing ordnance for the Navy. The Foundry flourished under his control, increasing the number of employees to approximately 300 and producing a variety of products. Gouverneur Kemble affectionately and paternally was called the “Father of Cold Spring,” and “patriarch of the village” (Floyd-Jones 1946: 3, 5 respectively). He graduated from Columbia College and was a prominent member of literary and social circles of his time. Gouverneur Kemble opened a store to supply his workers with household goods. The 1840s map possibly illustrates this store (or the stable) in between domestic structures and the Foundry shops (Unknown 1840s). The store’s dates of operation are unknown, but it is reasonable to believe that it was sometime during the first half of the nineteenth century when supplemental suppliers were few. He passed control to his successor in 1836 and was elected to the House of Representatives in 1837 and the following term. Long before Gouverneur Kemble died in 1875, he ensured that the Foundry was securely in the hands of another competent individual, Robert Parrott.

Robert Parrott’s (Johnson and Malone 1937: 260-261; Pelletreau 1975 [1886]: 621-622; Unknown 1963: 396) association with the West Point Foundry began through the Military Academy at West Point. He graduated third in his class of 1824 and by 1836 he was a Captain of Ordnance at the Military Academy whose military assignment included inspecting ordnance production at the West Point Foundry. Conversations between Kemble and Parrott resulted in Parrott leaving the military to be the Foundry’s superintendent in Cold Spring. Robert Parrott then focused his energy on ordnance development, eventually patenting the “Parrott Gun” in 1861. Parrott would become
Kemble’s brother-in-law and the family maintained considerable local influence within the community.

By 1840 the West Point Foundry was located on the Hudson River which helped to provide local sources of raw materials and the primary route of transportation that was complimented by a simplified road system. The Foundry had been incorporated for twenty-two years and consisted of a handful of Cold Spring buildings, which were the combined facilities of the New York and Cold Spring shops. Within these, workers performed most iron processes from smelting iron ore to finishing final products. Under the leadership of Kemble and Parrott, workers made products of cast and wrought iron and brass including ordnance, sugar mills, locomotives, and railing. The Foundry would spend the next two decades leading up to the Civil War continuing to train skilled workers to manufacture quality finished products in Cold Spring.

IV.4. Origins of a Village (1817-1830s)

In order to examine the origins of the Village of Cold Spring prior to its incorporation, attention should be paid to early local history, a close examination of the 1820 census, and transportation road networks that impacted local inhabitants. This time represents the community’s “construction” period (Lucas 1971). The eighteenth century European history of this village began with the King of England granting Adolph Philipsé land, who in turn permitted settlers to be tenants for the first years, only requiring them to pay the taxes (Blake 1849: 145-146). This system allowed for farming to begin and a few structures to be built. One settler, David Hustis, settled in 1730 close to Garrison, about four miles south of Cold Spring. A descendant of this Hustis family, David Hustis, was known to have worked at the Foundry in 1837
(Foundry 1837b) and G. and Elijah Hustis hauled materials and products to and from the Foundry also in the 1830s (Foundry 1800s-a; Foundry 1817-1878). Thomas Davenport, who arrived in the United States from England in 1617, constructed the first house in what was to become Cold Spring in 1769 (Blake 1849: 149; Pelletreau 1975 [1886]: 557). This structure was close to the primary intersection in the village where New York State Routes 9D and 301 intersect today. The Gouverneur family established an estate in what would become the village within the first quarter of the nineteenth century.

Significant construction within the area to become Cold Spring commenced in conjunction with the West Point Foundry in 1817. In fact, Pelletreau writes “The village of Cold Spring, now the largest in the county, had no existence previous to the time when the works of the West Point Foundry were established here, in 1818” (Pelletreau 1975 [1886]: 557). The Centennial History of the Village of Cold Spring states that its population grew so much with the establishment of the Foundry that by 1819 the school had expanded by 200% (Floyd-Jones 1946: 3).

A sense of the composition of Cold Spring can be retrieved from closely studying early manuscript censuses. Census takers were told to question each dwelling house or the head of every family (Gauthier 2002: 6-7). Cold Spring was the largest concentration of manufacturing in Philipstown in 1820 and the Foundry employed predominantly young and foreign born men; the surrounding community contained individuals engaged in agriculture or commerce. The pages where manufacturing, foreigners, and commerce are concentrated most likely indicated Cold Spring in the 1820 census.
The area that would become Cold Spring was included in Philipstown and by the 1820 census, all of Philipstown contained 3,712 people (Census 1820). By following the logic outlined above, two adjacent pages of the 1820 census tallied 553 people who probably lived in Cold Spring. Within this group are listed 123 males over the age of sixteen, 32 foreigners not naturalized, 82 workers engaged in manufacturing, and 5 workers engaged in commerce. These figures are the highest concentrations of foreigners, manufacturing, and young males in all of Philipstown, suggesting the location of what would become Cold Spring. It is also probable that most of the individuals listed as manufacturing were employed by the Foundry. Unfortunately the census record from 1830 was destroyed by fire and therefore does not exist for the area for additional comparisons during this period.

Transportation networks for the small concentration of people around Cold Spring were tied predominantly to the Hudson River. The Foundry owned its own sloops and employed their captains. These sloops were known to have carried Foundry supplies and products as well as material for a company store (Foundry 1817-1840s). Traveling over land became increasingly available as roads slowly began to appear throughout Philipstown (see Figure 4.04). In 1823, a road, currently New York State Route 9D, was established north from Cold Spring to Breakneck Ridge where there were a few houses (Pelletreau 1975 [1886]: 561). This road would eventually continue north past Breakneck Ridge to Fishkill landing in Beacon. The Philipstown turnpike, built between 1812 and 1815 (Blake 1849: 213; Pelletreau 1975 [1886]: 139), crossed from Cold Spring to the east all the way to Carmel, the county seat about twenty miles away. This transportation route was used to haul charcoal and iron ore from the interior
of the county to Cold Spring and its furnaces. Market Street was laid out in 1817 from Main Street to its south, hugging what was then the eastern shore of the Hudson River (Pelletreau 1975 [1886]: 558-559). Pelletreau also states that Kemble Avenue, which stretched from Main Street to the Foundry, was opened to transport goods to the Foundry by land probably by 1819 or 1820, although no specific date is given (Pelletreau 1975 [1886]: 559). There was a gate where Kemble Avenue intersected Main Street, but it was not standing in 1886.

Figure 4.04: Map of Cold Spring Highlighting Transportation Routes. (Google map, modified by E. Norris, 2008)

What is commonly referred to as the bottom of Main Street (between the railroad tracks and the river) was previously known as the Cold Spring Basin. In the fall of 1836, this area was filled in and two years later in 1838, Main Street was straightened to its present form. Upon interpreting Pelletreau’s description, coming
from the east, Main Street formally ran from around the hill on which the old Dutch Reform Church stood (current library) to the north of the old Methodist Church (current hardware store) and then straightened out to its present course near Kemble Avenue (Floyd-Jones 1946; Mekeel 1946; Pelletreau 1975 [1886]: 562; Schevtchuk Armstrong 2008).

During this first period of the village’s industrial history, the Foundry owned a significant part of village land. Owners also controlled some of the traffic of the waterfront with their own sloops, and the consumer market with their own company store. However, the level of paternalism experienced in Cold Spring was not the same as in other industrial communities such as those established around coal, lumber, or mining where the company owned everything. Main Street of Cold Spring housed merchants and businesses that could cater to the needs of villagers. Some roads such as Kemble Avenue had a direct tie to the Foundry, but other routes including the major north-south and east-west ones were constructed independently of Foundry owners. The Foundry opened a store and school during this early period, both of which probably heavily influenced workers (Cantor 1996a). The initial settlement of the area reflected significant Foundry influence, but over time, the need, benefits, and desire of the company to maintain such paternal control waned.

IV.5. Foundry’s Continuation (1840s-1850s)

The two decades before the Civil War challenged the Foundry and its operations. A panic in the late 1830s and the combination of the New York City facility to Cold Spring placed a financial strain on operations. During this time, the price of living across the country continued to rise. The general increase in prices across the
country over the 1840s and 1850s was not matched in wages except in the metal trades and the woodworking trades (Foner 1947; Kuczynski 1943). Iron millwrights and blacksmiths were the highest paid at $1.50 a day or just above, while common laborers only made $0.89 in 1851. The Foundry reincorporated and saw increased transportation options, which affected site development and products. The West Point Foundry’s initial incorporation lasted from 1818 until 1845 and was extended for a year. Kemble was able to gain sole control of the operation during this period in between incorporations and he named Robert Parrott as vice president (Rutsch, et al. 1979: 100). The first incorporation had prevented the sale of association property. Foundry trustees, however, eliminated that prescription in the reincorporation in 1849 as described in an 1864 deed (see Appendix I). The West Point Foundry’s second incorporation probably accounts for the sale over 20 Foundry-owned properties on the single day of June 24th, 1849. The West Point Foundry Association’s deed sales appear to be evenly conducted during the nineteenth century as they spread throughout many deed books in an index organized according to date recorded not the date of sale. Upon examination of each sale, the pattern of sales from one day in June in 1849 became clear. Foundry owners did not continue their control over extensive amounts of property, suggesting a decline in their paternalistic hold on their workers.

Although the Foundry was the first in America to manufacture steam engines for the railroad in the 1830s, it did not see a railroad in its own area until 1848. Owners of the Foundry invested in this rail line because of its immense transportation benefits. This improvement in transportation options cut the Foundry off from its direct access to the Hudson River. Foundry owners decided to construct a 600 foot dock to reach out
into the river beyond the railroad line (see Figure 4.05). Rail transportation along the New York – Hudson Line directly connected Cold Spring to Albany and New York City, the latter being a major port on the eastern seaboard (see Figure 4.05). The transportation network across the nation indirectly enabled the Foundry to tap into many more markets. Five years earlier in 1843, the Erie Railroad had connected Cold Spring to coal fields in Pennsylvania but it was not until after the middle of the nineteenth century that canals and railroads provided the Foundry with alternative fuel sources and market access.

Figure 4.05: View of Cold Spring from Crows Nest With Main Street Heading Uphill, Left of Center. Dock (1848) built because the railroad (from right) cut off an earlier dock. (Putnam County Historical Society & Foundry School Museum)

In the 1840s and 1850s, the West Point Foundry continued to expand into a sophisticated operation, possibly one of the largest and most important in the nation. The 1840 Federal Census of Manufacturers does not list the Foundry individually but it was clearly included. Listed under Philipstown “Manufacturers” is $200,000 value of machinery manufactured by 350 men, and on the same line are 74 cannons produced (Census 1840b). Another source indicates that in 1840 the West Point Foundry
employed 400 men who worked three air furnaces and three cupola furnaces within an iron foundry, brass foundry, pattern shop, blacksmith shop, machine shop, and boiler shop (Barber and Howe 1841). The blast furnace was also still functioning during this period, but possibly shut down in 1847 although appearing on a map from 1853 (see Figure 4.06, Bevan). This same map illustrates the works to include multiple pattern houses and a fire pumping house, an expansive moulding or casting shop, multiple turning houses, a weigh house near the railroad, a straw house, a carpenter’s shop, and several coal or other storage buildings. These expanded works generally allowed the flow of iron from the northern part of the valley south toward the railroad or river for transportation.
Figure 4.06: Plan View of the West Point Foundry by Bevan, 1853 with Production Generally Flowing From Top to Bottom. *(Putnam County Historical Society & Foundry School Museum)*
During the 1840s and 1850s, the Foundry cast high- and low-pressure stationary steam engines and boilers, a variety of mill equipment and machinery, boilers, kettles, box stoves and ovens, wheels, plumber blocks, gudgeons, shafts, cranks, flanges, rough machinery castings, water pipes, hydraulic cylinders, and pipeline elbows for the Croton water supply system for New York City and the Brooklyn dry dock (Barber and Howe 1841; Rutsch, et al. 1979: 39, 85, 124). The Foundry also produced the marine engines and boilers for the frigates *Missouri* and *Mississippi* and for the steamships *Erie*, *Champlain*, *Rochester*, and *Swallow* (Isleib and Chard 2000: 15; Rutsch, et al. 1979: 85). The Foundry workers built an iron ship, the steam revenue cutter, *Spencer*, in 1844 (Blake 1849: 245). These products required active “recruitment” of workers and help top pinpoint Lucas’ second phase of industrial community development (Lucas 1971).

Yet, the Foundry’s primary product was heavy ordnance and that focus intensified with the addition of former Ordnance Inspector Robert Parrott as supervisor to the works in the late 1830s. Prior to the outbreak of the Civil War, workers at the West Point Foundry vertically cast Rodman’s gun as well as Columbian and Dahlgren cannons. All of these designs were smooth bore cannons that were relatively strong and easy to manufacture *en mass*. In the 1850s, Parrott experimented with improving cast iron ordnance production, which culminated in his patent of the Parrott Gun on October 1, 1861 (Parrott 1861). To manufacture the Parrott Gun, blacksmiths welded several coiled bars of wrought iron together to form a cylinder. Machinists turned the cylinder and shrunk it onto the breech of a cast gun to help prevent bursting and allowing larger quantities of explosives to propel projectiles farther. Parrott gun projectiles ranged between ten and four hundred pounds and were key ordnance during the Civil War.
IV.6. Incorporation: The Hustle & Bustle of Life & Death in Two Villages (1840s-1850s)

Just prior to the Foundry’s reincorporation, the Village of Cold Spring became incorporated on April 22, 1846. Gouverneur Kemble had an active role in Cold Spring’s incorporation, although exact descriptions of the following positions remain unknown (Philipstown 1829-1864). From 1844 through 1847 Kemble was the Town Superintendent a position that appears to relate to Philipstown. Also during 1845 he became the Supervisor, a position that only existed the year of and prior to the village’s incorporation. In 1846, the year that the Cold Spring incorporated, Caleb Hustis was the Supervisor. Hustis was listed on the 1840 census as engaged in agriculture and probably represented the interests of farmers in the area (Census 1840a). In 1848 Robert Parrott replaced Kemble as Superintendent, after which neither individual served in local government again. The superintendent position continued to be filled throughout the nineteenth century and it does not appear that later town officers were associated with the Foundry (however systematic confirmation of that is virtually impossible as a complete list of all West Point Foundry employees during its 93 years of operation cannot possibly be created from the available records). Kemble recognized the dominance of Cold Spring in Philipstown’s government and helped to insure its approval of incorporation by being both Town Superintendent and Supervisor during the period of the village’s incorporation.

Incorporation of the village provided its own jurisdiction, independent of the rest of Philipstown, whose economy was otherwise overwhelmingly agricultural and its politics therefore dominated by agricultural concerns. There was a board of trustees that provided the leadership and establishment of village regulations. Among other
items listed in the initial incorporation, the village trustees regulated care for streets and sidewalks, a fire department, appointed a clerk to record and post items, appointed a treasurer, purchased land for the benefit of the public, and collected taxes (Village 1846). The heavy concentration of workers in manufacturing and population density rationalized the political establishment of a village that had already existed in spirit, if not in government.

The establishment of Nelsonville as a separate but adjacent village of about 400 people was probably due to a mixture of politics, egos, and religion (Schévetchuk Armstrong 2008). Nelsonville became a village by a vote of 58 yes to 33 no in a referendum that passed on October 12, 1855. The political formation of Nelsonville deserves further study, but preliminary research suggests religious factionalism may have been a factor. In the middle of the 1850s this religious friction resulted in the formation of a Dutch Reform Church. Multiple Protestant faiths did not want to mix with Catholics, the largest minority group in Cold Spring at the time. The Protestants established a cemetery in Nelsonville across the street from the old cemetery but did not allow any Catholics to be buried in the new cemetery (see Figure 4.07, Beers, et al. 1867). The old cemetery near town hall contained early settlers from the 1700s including Baptists and Presbyterians. Catholics who passed away in the village later in the nineteenth century through the 1880s were also buried in the old cemetery.
Owners and management of the Foundry actively participated in the religious faction between the two villages. On June 21, 1853 Frederick Philipse, Adolph N. Gouverneur, Samuel W. Gouverneur, and William Moore conveyed a lot on Cedar Street to Episcopal, Presbyterian, Methodist, and Baptist as a “burial ground for all persons who are or may be inhabitants of Philipstown, except the Religious denomination called Roman Catholic” (Pelletreau 1975 [1886]: 573-574). This fear of the Catholics possibly factored into the establishment of the adjacent village of Nelsonville. Generations later at the turn of the century, the center of the Catholic
population was still described as Fair Street of Cold Spring. In 1862 the Cold Spring Cemetery Company formed on October 11 when members of the West Point Foundry community including Gouverneur Kemble, Robert Parrott, Gouverneur Paulding, Peter Lawson, Osmond Baxter, and others from the village were named its trustees. The land for this newest cemetery was purchased from John R. Murray. By this point in the Cold Spring community had outgrown its two smaller cemeteries.

The 1850 Federal Census was the first after incorporation and Cold Spring had a population of 2,244 (Census 1850). Approximately three quarters of them were born in New York State, a fifth in Ireland, and the rest from England (3.5%), other states in the United States (2.5%), Scotland (2%), France (1%), and the other 1% from Germany, Switzerland, Denmark, Spain, Canada, Cuba, Puerto Rico, Guadeloupe, Sardinia, and Italy combined. Five years later the State of New York issued a census and reported Cold Spring’s population to be steady at 2,237 (Census 1855). The 1850 census also reflects a major transportation shift: the railroad had arrived in Cold Spring in 1848. Gouverneur Kemble was an advocate and had some stock in the Hudson River railroad (Foundry 1876). “The course of modern improvement [railroad] has destroyed,” the spring of “particular freshness,” (Pelletreau 1975 [1886]: 557). Although it may have destroyed one portion of the village’s identity, it brought with it a far greater connection to a variety of markets. The Village of Cold Spring during the 1840s and 1850s was full of foundry, river, railroad, and service industry workers. During these twenty years, the Foundry had an influence on the incorporation of Cold Spring, the religious factionalism that probably contributed to the establishment of the adjacent Village of Nelsonville, a new cemetery, and the railroad. Foundry owners saw it in their own
interests to advocate for such community changes that included benevolent paternalism towards workers.

IV.7. Height of Production: West Point Foundry During the 1860s

The West Point Foundry became the primary manufacturer of Parrott cannon and projectiles during the Civil War. (For more detail see Rutsch: 95-97, which includes portions of R. Parrott’s testament at the 1865 Joint Senate Committee on the Conduct and Expenditure of War.) These rifled cannon with a reinforced, wrought iron breech could deliver specialized projectiles further and more accurately than most other weapons of their time. Production and demand for the Parrott gun was as much as a million dollars a year during the Civil War, with approximately 2,500 guns built over the course of the War. The Parrott expanding projectiles developed in 1861 had a brass ring cast on the projectile to help in accuracy (Johnson and Malone 1937: 261). Parrott guns also included a machined bore with grooves to set the projectile spinning as it left the barrel. This spin increased the accuracy of the projectile. In 1860, the Foundry only manufactured 10 pounders, a number referring to the weight of the projectile. Within the next year larger guns including 20 and 30 pounders were regularly produced. Later, Parrott cannons and shot reached 300 and even 400 pounds (Pelletreau 1975 [1886]: 560-561). The Parrott cannons and their projectiles of shot or shell were the primary product manufactured by the West Point Foundry during the Civil War.

In addition to his Foundry activity, Parrott was the superintendent of Philipstown schools for a number of years and also a judge. In such capacities he continued to influence and control workers actions by passing judgments on their actions and supervising their children’s education including its content, regulations, and
financing. This allowed Parrott to promote American cultural hegemony among the village’s children (Cantor 1996a). Parrott continued to operate the West Point Foundry after the Civil War until 1867, when nephews of Kemble took over operations. Before he left, Parrott commissioned the construction of a new office within the Foundry complex in 1865. Built as a beacon of production and administrative authority on the site, the office continued to be used by various twentieth-century businesses. Today, it endures as the last standing structure of the West Point Foundry (see Figure 4.08).

Figure 4.08: The West Point Foundry Office Building, Constructed in 1865 from Civil War Profits and an Illustration of the Foundry’s Prosperity. (Photograph by E. Norris, 2006)

The Federal Census of Manufacturing in 1860 listed the West Point Foundry as owned and operated by Robert Parrott (see Appendix II for a full transcription, Hughs 1860). It included a foundry, blacksmith, and boiler shop, water and steam power, and raw materials of iron, coal, copper, tin, and lumber. The company had a capital
investment of $240,000 and manufactured the same in products (approximately $4.5 million today), employed 342 men that they paid $11,000 (approximately $208,000 today, Williamson 2008). Thus the average worker salary was $32 annually or just under $3 per month.

The West Point Foundry Association made a huge profit during the Civil War of over four million 1860’s dollars. If inflation is considered, this would amount to $43 million in the year 2005 (Williamson 2008). One measurement of the Foundry’s assets were the amount paid in taxes, which spiked in 1864 to be over twice that ever paid in the five years prior to the War combined (see Figure 4.09). This prosperity was illustrated in the construction of an office building in 1865 (see Figure 4.08). Yet the construction of structures was not limited to within the Foundry’s manufacturing facility as will be discussed in the next chapter about houses built by Parrott.

![Taxes Paid by the West Point Foundry](Figure 4.09: Taxes Paid by the West Point Foundry, 1858-1879. Data Unavailable for Years Not Illustrated with a Bar. (Philipstown 1858-1880) Note that $5,000 from 1865 is worth at least ten times as much today according to www.measuringworth.com. (Williamson 2008)
County histories, such as those by Blake and Pelletreau, told of a benevolent company that treated their workers fairly, yet a strike that shut the facility down for two and a half days suggests otherwise. On March 13, 1864 workers walked out of the West Point Foundry. The *New York Times* covered the story stating that 300 primarily Catholic (likely to have been Irish) workers formed a Laboring Men’s Union and convinced the other 900 Foundry workers to strike (Times 1864a). As common laborers, the company paid them nine to ten shillings per diem and the workers demanded eighteen shillings. The Catholic priest in the village assembled the strikers at his church and spoke of disappointment in their actions as Mr. Parrott was a “kind-hearted gentleman, [who] would do what was just and honorable.” The priest convinced the men to see Mr. Parrott, who told them to return home if they were not there to return to work. The group dispersed and men could “be seen on the corners of the streets and in the grog-shops of this usually quiet village.” There was fear of damage to property and injury of striking workers and the foundry school teachers left the village. The community was more subdued on Sunday, especially after 120 men of the military were called in for reinforcement Saturday afternoon (Times 1864b). Work resumed under military guard and people were allowed into the Foundry with a pass. Little else is known about the reasons for the strike, the identity of the three or four men arrested for the action, and the general worker perspective of the event.

We can gather a notion of working conditions from correspondence between an Irish blacksmith and his family in the 1850s. David Wylie arrived in New York City after traveling 32 days from Belfast on April 13, 1847. By early June, he had heard of work up the Hudson River at the West Point Foundry and having no job prospects in the
city, headed to Cold Spring. He writes to his brother about the Foundry’s facilities and specifically the blacksmith shop where he and two hundred other men toiled in front of furnaces. He wrote about a typical day, boarding with two other men, and the entertainment they produced after working in the Foundry. David Wylie appears on the 1840 and 1850 census, but in the short span of only four years, the tone of his letters drastically changed. Where he once described “As far as the eye can reach there is nothing but mountains all of rocks with trees growing to their tops,” (Wylie 1849) he later called a “barren wilderness” (Wylie 1851).

I have got nothing of news for to write here. I gave you all the particulars of this barren wilderness before. I am always working in the same place, nothing for to do but work, eat & sleep. There is no places [sic] of amusement, no enjoyment like what I have been used to, nothing to gladden the heart for to make us forget our labour [sic] and our toil (Wylie 1851).

Worker correspondence has not been retained by the local historical society, and no other correspondence is known at this point other than that provided by Wylie’s family descendants. Records from the company itself are also missing from the 1860s. Given that the Foundry was contracting with the military to manufacture ordnance, documents from the period probably were burnt to maintain secrecy during the time of war. The only accounts of the strike that survive were from newspapers, a medium with a tone suggesting the control of the owners/managers. The village historian, Donald H. MacDonald suggested that Parrott explained details about the strike to the newspaper (MacDonald 2006).

On March 20, newspapers reported that disagreement came from “a certain class of the employees of the West Point Foundry, on account of the inadequate wages paid them. While the staples of life have arisen to an exorbitant point, the rewards of labor
here, as generally, have not increased in proportion to the ascending prices of the
necessaries of life” (Democrat 1864). Approximately one hundred and fifty men at noon
on a Friday walked off their jobs and convinced most of the rest of Foundry employees
to join them, rendering the hum of factory machines to stop for the whole weekend.
The primary reason cited in the newspaper for the strike was inadequate wages.

Nearly one-half of these now employed are green men and they are earning from
one dollar thirteen cents to two dollars twenty-five cents per day. A great part of
these may be regarded as apprentices, since a certain amount of experience is
necessary before they are competent to earn ordinary wages. Hence when it is
said that they get only nine shilling per day, those who do not know the facts
blame Mr. Parrott for not paying them more, while in fact he is paying them
really more than they actually earn.
The mechanics employed, who are perfectly satisfied with their wages,
are able to earn and are paid from $2.25 to $3.25 per day. (Democrat 1864)

The worker unrest may have been a result of factory conditions as well.

Conditions in the workplace probably had become worse with additional workers
cramped into the same workspace to turn around the government’s demand for heavy
ordnance. On March 12, eight days before the strike, the Highland Democrat reported
an accident involving three Irish workers that was the fifth instance in an unknown
period of time. Early on the day of the accident, one man tried to balance a weight but
could not do so successfully and was lifted into the air. He suffered a broken leg and
bruises. The newspaper goes on to state that the same accident repeated later in the day
causing injury to two more men, one of which broke his collar bone. There may have
been an increase in the pace of work to help keep up with wartime demand.
Undoubtedly such conditions contributed to worker unrest that resulted in the walk out.
Paterick [sic] Eagen was sorely bruised, and one of his legs broken, the 5th inst.,
at the West Point Foundry. He was assisting to balance a long lever with heavy
weights attached, when the equilibrium was accidentally changed, and he was
carried up and precipitated some twenty feet, resulting in painful injuries to his
person. Later in the day the same accident was repeated, and Peter Corcoran and Peter Flaharty, both injured; the former had his collar-bone broken, and both were sorely bruised (Democrat 1864).

A company of infantry men were called to the Foundry on Saturday to help protect its government and private property. They arrested four of the strike leaders and took them to West Point to await prosecution. The rest of the article went on to praise the efforts of Parrott to aid his workers over the general course of operations, yet one must decide for oneself whether such praise is truthful or a form of propaganda during a time of unrest. Many statements throughout the article suggest the paternal nature of the Foundry.

The unknown newspaper author notes how the West Point Foundry takes care of its employees and their health (at least one medical doctor was indeed employed by the Foundry during the 1860s). Company records do not exist to confirm whether the worker or the company was responsible to pay for doctor services but the company did provide medical care. According to the text there was some type of insurance policy where widows or maimed workers continued to receive financial help even after their or their relative’s employment had stopped. The company remained open in difficult financial times to continue the employment of its workforce and paid their best workers a premium wage. A school benefited workers’ families and Foundry owners financially supported religious facilities on an annual basis. Yet during the Civil War, the owners also secured their own profits through product sales and selling some workers’ housing. The bias of the newspapers was apparent in the following excerpt.

It has been one of the features of the West Point Foundry Company in its past history, to take care of its employees in all emergencies that arise. Those connected with the establishment who have been maimed for life, temporarily
afflicted or any way disqualified for labor while in the service of the company are with the greatest solicitude taken care of and made comfortable. There are now quite a number of widows and decrepid [sic] persons, that have been permitted for years to draw their subsistence from the generous proprietors of the Foundry. It has been the aim of the company to make the interest of their workmen and their own a mutual concern, and hence they have sought to make the situation of their employees a permanent one, by the most valuable inducements that could be offered. While they seldom give the highest wages to second rate men, at the same time when business lulls in other places and other establishment [sic] stop work, they manage to give their men employment even to their own detriment. The consequence is that many of the employees in the Foundry are men of comfortable means, intellegent [sic], established citizens, and highly respected.

A free day and night School is kept for the exclusive benefit of the families of the workmen. And if they will not attend school they are hired to, by prizes and other inducements. A sanitary arrangement is made by which the best of medical care is provided and every wholesome [sic] provision is made for the health and comfort of those employed. Besides an annual sum of money is given towards the support of every christain [sic] church in the vicinity. There are no business institutions in the country that will compare with the West Point Foundry in its regard and attention to the best interest of its employees. The older workmen and those who understand the high and generous intentions of Mr. Parrott, know these facts and no inducements could be offered sufficient to draw them from the establishment (Democrat 1864).

The four workers arrested from the strike were held for seven weeks without a trial, could not return to their homes, and were forced along with their families from the Cold Spring area (Foner 1947: 329). The strike at the West Point Foundry was the largest illustration of the power difference in the paternalistic relationship between owners and workers. Although the reason behind the strike from a worker’s perspective remained unknown, this collective action by the workers demonstrated that all of their wants were not being met. Their resort to walking out of shops stopped production, but ultimately did not change the situation or their relationship to owners. With government backing, the owners were able to swiftly defeat the action and the hum of furnaces resumed.

The strike in Cold Spring at the West Point Foundry in March of 1864 was not the only job action during the Civil War (Foner 1947: 328). Prices for consumer goods
during the war were often inflated, leading workers to question why capitalists were able to make huge profits in manufacturing war items when they had to struggle with the rise in their cost of living. The Alder Gultch Strike of miners happened in May 1863 over the price of flour (Athearn 1960); and the coal strike in Missouri raised the price of coal. Union generals appealed to the demands of employers with Major-General William Rosecrans issuing a general order that prohibited men engaged in war production to organize or picket or else be blacklisted. In May of 1864, iron foundry men struck in California (Stow 1863-1869). Other strikes happened in Tioga County, Pennsylvania; by the engineers of the Reading Railroad; and 200 mechanics from Tennessee that were arrested and deported. The economic challenges of the Civil War benefited some such as the owners of the West Point Foundry and not so much others such as soldiers or industrial workers across the country.

IV.8. Cold Spring & the 1860 Census

The growth of the area around the Foundry was documented the best and most regularly in census records. Through an examination of the Village’s demography, one can appreciate the impact of the Foundry and its owners on the community’s employment, population diversity, ages, boarding situation, and social structure. According to the 1860 census 2,770 people lived in the Village of Cold Spring, 500 more than a decade earlier (Census 1860). Of those, half of the Village were 20 years old or younger (1,391 out of the 2,770). Another quarter of the population was between the ages of 21 and 35 (see Figure 4.10). Only 1% of the village’s population was over 70 years old. About 13% of Cold Springers over the age of 25 (155 people) could not read or write. We know that there were foundry workers, workers for the railroad and
river boats, and workers in and around the village. So what was life like in the village during the prosperity experienced due to ordinance demands during the Civil War? Where did villagers come from, what were their jobs, who went to school, to what extent did the Foundry dominate the economy?

![Figure 4.10: Age Pie Graph of the Village of Cold Spring in 1860. (Based on E. Norris’ tabulations of the 1860 census)](image)

To begin an answer to such questions, let us return to a general description of the county from William Blake. Blake clearly stated in his preface that narrow and limited sources could have yielded defective information; however, his ability to capture life in that county was unprecedented until 1886 when William Pelletreau wrote his own county history. Blake’s earlier description of Cold Spring quoted above and the following one about Foundry workers in the village were likely based on first hand observations since he signed his preface from Cold Spring. Blake however does not appear in either the 1850 or 1860 census for the village. In the following, Blake
describes the relationship between the Foundry, its workers, and the village including a
ten hour work day, lack of religious or political control by the owners, and the
Foundry’s dominance over the local community.

Under the supervision of these gentlemen, everything moves on with the
regularity of clock-work. The men receive their wages every two weeks; and
work but ten hours per day. If the necessity of the work requires them to work
longer, they are paid accordingly. In the blacksmith shop, the fire is not out of
the furnaces for weeks; one gang [emphasis original] of men working through
the night until morning, when their places are supplied by another gang during
the day. The means and appliances sometimes attempted to be used by other
manufacturing establishments to control the political sentiments of their
workmen, are not countenanced here. From the most finished workman, down to
the smallest boy who twists a rope of straw, there is the most perfect freedom of
thought and action in everything appertaining to a man’s religious and political
faith.

This institution is the life of Cold Spring Village and Nelsonville, and,
‘with more truth than fiction,’ it may be said, it feeds all, clothes all, and
supports all (Blake 1849: 244-245).

Of the 2,770 Cold Springers, about 73% were born in New York State, an
overwhelming majority. The largest foreign born population came from Ireland (17%),
England (3%), Scotland (1.7%), and Germany (1%). The state of Connecticut
accounted for about 1% of the population. A few others came from Canada and France
(with a combined total of 1%). The remaining two percent of Cold Spring’s population
in 1860 were from Massachusetts, Pennsylvania, Virginia, Vermont, Ohio, Prussia,
New Hampshire, Switzerland, Wisconsin, Puerto Rico, Belgium, Russia, Rhode Island,
North Carolina, Maryland, Illinois, Florida, Delaware, and Cuba. For those listed as
born in New York, many of them (570) were first generation Americans with at least
one parent born abroad; a vast majority (460) of those being from a family of at least
one parent listed as Irish. Adding together the foreign born and their first generation
children, they made up almost half (44%) of Cold Spring. Only a dozen African
Americans are listed in Cold Spring’s 1860 Census: the Crawford family who owned and operated a saloon and Ophelia Sutton and Estella Van Duser who lived on Constitution Island with the Warner family. The only Chinese-American female listed in Cold Spring’s 1860 census was Harriet Odell a 45-year-old woman married to Abizer, a New York born day laborer.

The 1860 census described nationality, school attendance, literacy, some financial information, and occupation. Based on the 895 people who had an occupation recorded, my estimation of workers for the West Point Foundry was 479; the Census of Manufacturers for that same year listed 342 workers at the West Point Foundry; production during the Civil War probably reached as many as 1,100 workers (Hughes 1860; Unknown 1864). The discrepancy between these figures probably is a result of slightly overestimating workers at the Foundry solely based on job descriptions in the census (there were 10 blacksmiths working in the village as listed on the Census of Manufacturers, independent of the West Point Foundry (Hughes 1860)). One would expect the workforce to fluctuate, as the huge demand for heavy ordnance from the West Point Foundry increased over the following year and the course of the Civil War.

Who were these working men and what would they do in the Foundry? One illustration of the variety of Foundry workers was captured by John Ferguson Weir in his 1864 painting *The Gun Foundry* (see Figure 4.11). As a famous work of art to art historians and others familiar with the Hudson River Valley, *The Gun Foundry* can also be a primary resource regarding ordnance production and conditions in an industrial facility. Weir studied the Foundry over several years and balanced the industrial side of his images with workers. Within the Foundry were workers of various skill levels and
investment, reflected in the amount of pay they received. People depicted in *The Gun Foundry* included the owners like Kemble and superintendent Parrott (seated at the far right; labeled 1); management/skilled worker (center; labeled 2) such as the man involved in cannon casting, but not doing most dangerous or strenuous jobs; semi-skilled workers (left of center, labeled 3) skimming off top of ladle or stoking the fire; two teams of general laborers hoisting a crane (center, back) or tipping ladle (far left, labeled 4); and apprentices or workers in training such as the young man kneeling (right of center, labeled 5).

![Image of The Gun Foundry by John Ferguson Weir showing different levels of workers: Owners (1), Managers (2), Skilled Workmen (3), Laborers (4), and Apprentices (5).](image)

**Figure 4.11: The Gun Foundry by John Ferguson Weir Showed Different Levels of Workers: Owners (1), Managers (2), Skilled Workmen (3), Laborers (4), and Apprentices (5). (Putnam County Historical Society & Foundry School Museum, modified by E. Norris, 2007)**

In the 1860 census, fifty-five percent of those between the ages of 16 and 50 were listed as having an occupation. The largest part of Cold Spring’s workforce was
day laborers, or unskilled laborers (145 or 16% of the workforce). These men (and one woman, read about Adelia below) worked hard shoveling coal, piling sand, and moving finished products at the Foundry around the clock during the Civil War. Ninety-nine were Irish and 42 were born in New York. With knowledge of the types of processes and shops within the West Point Foundry, the 1860 census job descriptions include a number of workers from individual Foundry shops: boilermakers (52), blacksmiths (49), finishers (39), machinists (37), moulders (33), engineers (24), carpenters (20), clerks (20), patternmakers (16), turners (14), stone cutters (10), masons (7), boring millers (5), foremen (5), chipper (4), iron businessmen (4), planers (2), watchmen (2), foundry worker [probably an apprentice as he is 15 and goes to school too] (1), stableman (1), and a timekeeper (1) (see Figure 4.12). Although some of these workers, like the 10 blacksmiths mentioned above and two carpenters, may have had their own shops in Cold Spring for the general public as indicated in the Census of Manufacturers, all the rest of these workers were at the West Point Foundry and born in New York state (Hughes 1860).
Workers at the Foundry came from a variety of backgrounds, including many that were foreign and New York born. The shops with the most Irishmen were the boilermaker shop (23/52), blacksmith shop (16/49), and moulding shop (8/33). There were twice as many Scottish (7) as other foreign workers in the finishing shop and an equal mix (3 each) of English, German, and Irish workers. Another diverse shop was the machine shop. In addition to those machinists born in New York, there were five English and five more Scottish machinists, three Irish, two Germans and two Puerto Ricans, and a French machinist. All of the West Point Foundry pattern makers in 1860 were born in New York. In total, the West Point Foundry at the time of the 1860 census appears to have employed 491 workers or 55% of Cold Spring’s workforce. Some accounts claim that at its peak during the Civil War, the Foundry employed double and
perhaps even triple that amount. Records from that time period to confirm the number of workers are not available in the known collections.

Outside of the Foundry, workers engaged in a variety of jobs. There were 25 merchants (one Russian and one Irish), 18 boatmen, 17 farm laborers working for 5 farmers, 16 brick makers (almost all living under one roof and Canadian), 13 butchers, 11 painters, 10 stone cutters, 9 teaming/teamsters, 7 each of masons and tinsmiths, 5 lawyers, 4 each of hotel owners, cabinet makers, and tailors. Of the 13 shoemakers, there were three German and three Irish. Gardeners (12) were overwhelmingly Irish workers, and half of the 10 grocers were Irish. Three of the tailors were German and only one was from New York. Thirteen men associated with the railroad included general workers (4), car men (3), flagmen (3), a conductor, a switchman, and trackman. Seven clergymen headed Episcopal, Methodist, Dutch Reform, and Roman Catholic religious congregations. Two of the three waiters were Irish. There were four physicians, two dentists, and two druggists. The other 89 workers included bakers, a barber, a lumber merchant, contractors, a watchmaker, workers on or near the water on sloops and ships or ferries, financial men such as bankers and an accountant, newspaper/journal editors, those related to transportation such as harness or wagon and wheel makers, those that worked at the seven saloons, and a postmaster.

In 1860, a total of 123 females out of the 1,438 (about 12%) found employment doing household chores, related to clothing, or teaching. Their jobs revolved around maintaining other people’s households 46% [domestics (48), housekeepers (7), laundress (1), cook (1)], producing and mending clothing 45% [tailoress (29), dressmaker (21), milliner or hat maker (3), seamstress (2)], and teaching 8%. Most
women in 1860 were domestics 39%. Of these 48 women, two were African-American, 14 others were born in New York, 27 were Irish, 3 were English, and one came from Scotland and another from Germany. Just under a quarter of working women were New York-born tailoress except for two English women, while about 17% were dressmakers. According to the Census of Manufacturers, there were also 4 females employed at a paper manufactory. A total of 10 women were listed as being teachers, three specifically noted as teaching in the village or elsewhere, including Connecticut. Of the 562 households listed in 1860, there were 73 that had women as the primary head of the household but only three have an occupation listed (dressmaker, housekeeper, and Cold Spring teacher). Some of these were likely to have been widows of iron workers. Females listed as the head of the household who had boarders included one housekeeper, and 11 others who did not have an occupation listed. Most of those households with women at the head had children working, but 19% decided to take in boarders for a little more income.

The year of 1860 witnessed 632 children between the ages of 19 and 5 attending school (although a two year-old is also listed as going to school). There were more little girls (325) than boys (307) attending school, probably because more little girls were living in the village (106 more women and girls residing here than men and boys). There were 15 teachers also listed, about a third of them male and two-thirds females. At least four of these teachers taught in Cold Spring, as well as John Lyle a 60 year old Scottish man who taught at a select school (perhaps the Foundry School on Chestnut Street), Margaret Fay, a 22 year-old, taught in Connecticut, and Henry Maxen a 41 year-old music teacher.
The population pyramid for 1860 Cold Spring is slightly skewed, although it maps the percent of the population that was under the ages listed at the side (see Figure 4.13). There were a total of 1,438 females and 1,332 males, and more young females than males, perhaps a reflection of birthrates. Notice the male side is not as gradual as the female. The larger number of males in their 40s and 50s were probably employed at the Foundry. Thirty-two people or sixteen couples were married in 1860. Small peaks in population toward the left of the population pyramid, especially with little girls, indicate how young the population of Cold Spring was at the onset of the Civil War (see Figure 4.13). Remember that half of the population was under the age of 20 and 80% under 40. West Point Foundry workers had families and this census is tracking the beginning of a second working generation born in New York having children of their own. The 1860s probably mark Cold Spring’s “transition” period between original “recruitment” of male workers and a “mature” community (Lucas 1971).

Figure 4.13: Population pyramid for the Village of Cold Spring. Percent of males (x axis) of each age group (y axis) on the left and percent of females (x axis) of each age group (y axis) on the right. (Based on figures from Census 1860)
A few individuals broke traditional gender barriers. Adelia Horton (20) was the only female day laborer listed and most likely worked with her brother, Lewis Horton (26) who was a teamster for hauling. Although women in 1860 dominate the occupation of domestics, two men are also listed as such and the households they work in partially account for their label. James Welch, an 18 year-old Irishman worked for the wealthiest merchant in Cold Spring, W.H. Wells. James was listed as a domestic along with Mary Welch who was an 18 year-old Irishwoman. They were likely to have been twins or married given their same last name. James most likely was a footman or perhaps a gardener for Wells while Mary was in charge of meals and household chores. There also was Edwin Rose, a 36 year-old man who is also listed as a “domestic” in the Warner household of Constitution Island, who may have driven a carriage or rowed a boat in addition to domestic tasks.

Cold Spring in the 1860s contained foundry workers, railroad workers, butchers, painters, domestics, seamstresses, Americans, Irish, German, French, English, and school children. Most individuals were under the age of forty and literate. Many worked at the Foundry while others worked within the village. This demographic view of the Cold Spring provided information on its workforce, but little about the physical environment of the village including where people lived and worshiped, which will be explored in the next chapter.
IV.9. The Foundry’s Downfall (1870s-1880s) & A Short-Lived Renewal Under the Cornell Company (1890s-1910s)

During the 1870s and 1880s the West Point Foundry facility was being leased by Paulding, Kemble, & Company. That firm comprised of Gouverneur Kemble’s nephews: Gouverneur Paulding, Peter Kemble, James N. Paulding, and Gouverneur Kemble, Jr. After Parrott’s death, all of his rights, title, and interest in the West Point Foundry property went to these four men. The Pauldings, Kembles, and others such as Colin Tolmie sustained a heightened position within Cold Spring society. Although the need for heavy ordnance had dramatically decreased after the Civil War, Paulding, Kemble, & Company maintained the facilities to manufacture such goods in the hopes of future federal government contracts (Rutsch, et al. 1979: 115-116). The government instead turned to recently expanded steel facilities in areas like Pittsburgh. Steel, a form of iron, was much stronger than either cast or wrought iron and its mass production became practical in the 1870s with the processes developed by Henry Bessemer and Carl Wilhelm Siemens. The West Point Foundry facility was very similar to that seen in the 1860s except for the addition of the 1865 office building and a pattern shop built directly across the brook from the new office.

The 1870 Federal Census of Manufacturing lists the assets of Paulding Kemble & Company (see Appendix II for a full transcription, Census 1870a). At this point, the Foundry was powered by waterwheels and employed 440 men who made an average of $560 per year or $62,000 adjusted for wage inflation (Williamson 2008). The company also annually manufactured $385,200 and produced a total of $772,000. Products had shifted from cannons to wheels, stoves, and railing.
The panic of 1873 financially strained the company and family correspondence suggests that none of the nephews possessed the same financial acuity of either Gouverneur Kemble or Robert Parrott. The 1880 census listed Cold Spring as having 2,111 people and Nelsonville 541 inhabitants (Census 1880). The West Point Foundry property was foreclosed in 1887 and went into receivership under Gouverneur Paulding in 1889 (Rutsch, et al. 1979: 118-119). Annual reports on file in the County Historian’s Office detail the financial difficulties experienced in the latter part of the nineteenth century (see Table 4.01). Notice the decline in assets over time and the radical drop in capital stock between 1886 and 1890. Regardless of these figures, the indebtedness of the company never exceeds its assets, allowing the company to still be financially viable.

Table 4.01: Table to Summarize the Annual Reports of the West Point Foundry Association 1885-1896. (Original figures from (Foundry 1885-1896) and adjusted figures in brackets are for 2005 inflation rounded to the thousand from www.measuringworth.com (Williamson 2008))

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital Stock</th>
<th>Cash</th>
<th>Indebtedness</th>
<th>Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1885</td>
<td>$630,000 [$12,539,000]</td>
<td>$500 [$10,000]</td>
<td>$395,511</td>
<td>[$7,870,000] $629,500 [$12,530,000]</td>
</tr>
<tr>
<td>1886</td>
<td>$630,000 [$12,905,000]</td>
<td>$500 [$10,000]</td>
<td>$411,269.97</td>
<td>[$8,425,000] $629,500 [$12,895,000]</td>
</tr>
<tr>
<td>1890</td>
<td>$50,000</td>
<td>[$1,059,000]</td>
<td>$18,691.10</td>
<td>[$396,000]</td>
</tr>
<tr>
<td>1892</td>
<td>$50,000 [$1,038,000]</td>
<td>$50,000</td>
<td>$102,010.87</td>
<td>[$2,118,000] $126,333</td>
</tr>
<tr>
<td>1893</td>
<td>$50,000</td>
<td>[$1,038,000]</td>
<td>$62,000</td>
<td>[$1,287,000] $130,000</td>
</tr>
<tr>
<td>1894</td>
<td>$50,000</td>
<td>[$1,078,000]</td>
<td>$72,000</td>
<td>[$1,552,000] $140,000</td>
</tr>
<tr>
<td>1895</td>
<td>$50,000</td>
<td>[$1,088,000]</td>
<td>$41,000</td>
<td>[$892,000] $100,000</td>
</tr>
<tr>
<td>1896</td>
<td>$50,000</td>
<td>[$1,078,000]</td>
<td>$48,500</td>
<td>[$1,046,000] $98,500</td>
</tr>
</tbody>
</table>

During the early 1890s, the Cold Spring Iron Works occupied the site of the West Point Foundry. The primary occupant of the property near the turn of the century was the J.B. and J. M. Cornell Company (Sanborn 1887; Sanborn 1897; Sanborn 1905; Sanborn 1912). The Cornell Company used the old iron facility to continue their own ironworking business in operation in New York and New Jersey. In Cold Spring, they
designed new electric traveling cranes, expanded existing structures, and added several shops. For example, around the turn of the century the machine shops were rearranged and enlarged.

The Cornell Company added a Japanning shop for metal furniture as well as a bridge shop to the works in 1905 during an extensive new construction campaign. They also constructed a bridge shop on reclaimed land from the marsh. The buildings throughout the valley became “linear clusters of attached buildings sandwiched between the surrounding steep hillsides and Foundry Brook” (Rutsch, et al. 1979: 126, see Figure 4.14). In 1911 the Cornell brothers and their company headquarters moved to New York City to an office at 26th Street and 11th Avenue. The Cornell Brothers expanded the West Point Foundry’s original property and facilities extensively and leased a portion of it in 1905 to the Baldwin Steel Company and the Cornell Art Metal Company. The Cornell Construction Company occupied the property in 1912.

Figure 4.14: The Extent of the Cornell Company Facility in Cold Spring, c. 1910. (Putnam County Historical Society & Foundry School Museum)
Along with changes in the industrial valley came an increase in students in the school. “The school house, which seemed so spacious at first, was soon outgrown – probably because of the many new families brought here by the Cornell foundry” (Tait 1946: 22). The social structure of a company town with the Foundry as its primary leadership and economic base continued into the twentieth century with the Cornell Company.

In the twentieth century, the West Point Foundry site was home to a variety of industries. The J.B. and J. M. Cornell Iron Company occupied the premises from 1897 through 1912 (see Figure 4.14). Products of the Cornell Company included bridges, store fronts (for example, 450 Broadway, New York City), and a variety of iron furniture including benches and coat racks. Other operations that occupied the site during the twentieth century include a construction company, silk dying works, pearl button factory, a nut and bolt factory, chemical distribution center, and an automotive recycling center. Buildings that were not used during these twentieth-century industries fell into ruin or were knocked down. Today, much of the structural brick ruins remain but usable metal and machines were scrapped out during the years around both World Wars.

By mid-century, the West Point Foundry was no more than crumbling ruins dominated by vegetation and a lone standing office building. Recognition of the site’s historical importance did not happen until 1973 when the Foundry was nominated to the National Registrar of Historic Places in response to interest in the site as a potential
hotel location. This nomination was followed by an extensive report headed by the industrial archaeologist Edward Rutsch in 1979 (Rutsch, et al. 1979).

Little activity occurred at the Foundry until the 1990s when Scenic Hudson Land Trust, Inc. acquired the 87 acres that included the West Point Foundry and its surrounding cove. As an environmental organization, Scenic Hudson’s initial attraction to the site was to preserve and protect its natural and historical resources that had been threatened by an adjacent nickel and cadmium battery factory. This site is an example of Scenic Hudson’s commitment to restoring, protecting, and preserving the natural riverfront of the Hudson River for the public. In the early 1990s, the Environmental Protection Agency cleaned the adjacent property of battery contaminants, while it also dredged and replanted Foundry Cove Marsh. Prior to removing the soil, Joel Grossman Associates conducted an archaeological study in the marsh as well as along the Haul Road, now known as Old Foundry Road, excavating six domestic structures (Grossman 1993). Michigan Technological University reviewed both Rutsch’s and Grossman’s excavations prior to engaging in archaeological activity in the twenty-first century.

IV.10. A Shrinking Village (1870s-1880s) with a Burst of Renewal (1890s-1910s)

The Village of Cold Spring faced challenging times once the primary contracts for ordnance ceased after the Civil War. Profits and the value of the aging West Point Foundry decreased as reflected in taxes paid (see Figure 4.09). Gouverneur Kemble and Robert Parrott both passed away (Kemble on September 18, 1875 and Parrott on December 24, 1877). Their leadership in the Foundry as well as the Village of Cold Spring was missed. Yet the community of Cold Spring continued through its decline.
This latter quarter of the nineteenth century represented what Lucas described as a community’s “maturity” phase (1971).

Fires swept through parts of the village: in 1862 the south side of Main Street was damaged and on July 7, 1875 the same area but specifically including just above the tracks was completely consumed by fire. This latter fire came at a loss of $47,000 or if you adjust for inflation to 2005 the loss was approximately $810,000 (Pelletreau 1975 [1886]: 563; Williamson 2008). Construction to replace these structures occurred in the businesses district, but little new construction occurred in the village’s domestic sector until around the turn of the century. Preliminary census analysis points to some interesting trends in Cold Spring’s population, dwelling numbers, and families (see Figure 4.15 and Figure 4.16). Census generalizations are challenging as instructions and definitions changed over the course of census taking. For example, the definitions of a household or family changed from being the group of people supported by a head as defined in the 1850 census to those tied together by a common roof and table in 1880 (Smith 1992: 437). Ten years after the beginning of the Civil War, Cold Spring’s population was at its highest: 3,100 people of 653 families residing in 443 houses (Census 1870b). In 1880, Cold Spring and Nelsonville had a combined total of approximately 2,650 people listed as residing in 430 houses and composing of 539 families in the census (Census 1880). This population figure is down from the 1870 statistics that indicate a height in Cold Spring’s population. The average number of people per house was 7 in 1870 and only 6.2 in 1880.
By 1900 there were about 2,000 people in 400 dwellings containing 476 families or 5 people per house (Census 1900). Thus it is clear that within the last twenty years sharing one’s household with boarders was no longer desired, necessary, or demanded.
given the decline of the Foundry. Cowie suggested that households with boarders and/or servants were indicative of the class of its occupants (Cowie 2008: 133-135). Cold Spring’s decline in boarders appears to contrast with the coal fields of Pennsylvania where between twenty and thirty immigrant men would share the house of a miner and his family (Maclean 1908).

By 1910, the population in Cold Spring was only around 1,700 people with even fewer families (335) sharing homes (312) thus averaging 5.45 people per house (Census 1910). The number of dwellings in Cold Spring did not equal number of families within those dwellings until 1910. This trend of declining boarders in Cold Spring specifically at the turn of the twentieth century was not in isolation. Scholars have agreed that income increases and cultural changes about boarding had changed across the United States after the turn of the century (Harris 1992; Modell and Hareven 1973).

In the latter part of the nineteenth century, the West Point Foundry was much less paternalistic in the village than observed earlier that century due to a decline in the iron industry and a rise in other larger metal centers. Economic challenges and changes in the demand for cast or wrought iron translated into a Cold Spring economy that was less dependent on one industry. Although the Cornell Company continued industrialization within the community, their influence on that community was minimal. There was an overall decrease in paternalistic behavior by Foundry owners after the passing of Kemble and Parrott, allowing whichever villagers remained in Cold Spring more independence than the generation before.
IV.11. Conclusions on the History of a Foundry Village

The natural resources available along the Hudson River made this region, including Putnam County, a viable location for iron production in the nineteenth century. With strong leaders controlling these resources, overseeing production and distribution, the West Point Foundry succeeded in manufacturing a wide variety of cast iron products in the first half of the nineteenth century. Products of the Foundry still exist in New York, Pennsylvania, Florida, Puerto Rico, and other locations yet to be documented. The relationship between the Foundry and its surrounding communities was firmly intertwined: village construction and population paralleled the Foundry’s success. Foundry managers influenced the Village of Cold Spring’s incorporation, and the establishment and maintenance of cemeteries and schools. Cold Spring remains a prime example of Garner’s industrial settlement turned village and almost a company town (Garner 1984). Over the course of the nineteenth century most paternalistic actions ceased and company control declined. This trend is most visible in the Villages churches and houses. The following chapter will explore the extent that owners helped to establish and construct housing and religious facilities in the Village of Cold Spring.
CHAPTER V
OWNERS BUILDING HOUSES & CHURCHES;
WORKERS LIVING IN HOMES & PARISHES

V.1. Introduction

The history of the West Point Foundry and Village of Cold Spring presented in the previous chapter highlights the parallels between these two seemingly separate institutions. Foundry owners developed two persistent sets of social relations that will be explored in the present chapter that helped to strengthen and maintain a community of foundry workers. The paternal use of housing and aiding multiple church constructions provides the context in which to understand the mutual relationship between the employer and the community. The materiality of houses and churches for the owners is placed in contrast to workers living in homes and parishes. Both housing and churches were instrumental to the historic and present identity of Cold Spring and are physical representations of the paternal nature of the Foundry within the village. Moreover the economics behind the construction and consumption of housing and churches changed over the course of the nineteenth century. One factor in design of the houses was the consideration of women, who were not employed by the Foundry but needed to stabilize an all male workforce. This chapter intends to establish the case study in more detail so it can be placed into a broader history of nineteenth century industrialism in a later comparative chapter.

Where and when were houses constructed by the West Pont Foundry located? To what extent did Foundry owners help finance the establishment of various places of worship? How did each of these paternalistic policies change over the time periods
identified in the previous chapter? Owners were bound by rules of the West Point Foundry Association and over time they made sure their investments continued to benefit the company and altered policies when necessary. Information about worker response to this situation was limited; the number of workers apparently demanded a variety of religious facilities and extensive housing over the course of the nineteenth century, with certain periods of increased demand. Workers also purchased properties and homes when they were financially able and when owners made those properties available.

The nature of manager and worker relations at the West Point Foundry revolved around the concept of paternalism already discussed in Chapter III. Americans had witnessed the negative ramifications of industrialization in European nations in the eighteenth century. Particularly unsettling was the formation of a poor, uneducated working class who occupied cramped and unsanitary urban conditions. Americans vowed to avoid the European pattern by relying upon paternalism. Paternalist industrialists to some extent played the role of a father in their workers lives. They controlled the workplace (hours, pay, conditions, and opportunities) but also often opted to control workers lives outside of the factory (housing, stores, transportation, recreational and religious facilities). This chapter will explore the nature of the paternalistic behavior exerted by Gouverneur Kemble, Robert Parrott, and the other owners of the West Point Foundry. The Village of Cold Spring was never fully paternalistic because the Foundry only made up a portion of its property, inhabitants, and economy. The Hudson River, the railroad, and businesses along Main Street prevented complete dependence of the Cold Spring inhabitants on a single company.
The chapter is divided into two chronologically organized sections on housing and religion. The same time periods from the previous chapter on history continue to be used in this chapter on housing. The first section details housing in the village from 1820s through 1830s with primary source examples of what was built and when. A section covering Kemble and Parrott housing of the 1840s and 1850s uses both primary sources and a consideration of structures that are still present today to explore company housing during this period. In the 1860s, Parrott continued to sell, rent, and build additional company houses around the village. Following the housing discussion is a section on the establishment of six different religious facilities throughout the village until 1869. A comparison of the religious tolerance in Cold Spring to other industrial communities wraps up the chapter. Through both company housing and churches, the owners exerted their paternalism while workers used those facilities to create homes and parishes in their community.

V.2. Company Housing in Cold Spring (1820s-1830s)

Within the 1820s and through the 1830s, a community of approximately 1,500 people lived and worked in businesses on Main Street, the Foundry, and in private homes. The Village of Cold Spring today has over two hundred buildings from the nineteenth century contained within a National and/or a Local Historic District(s). Many of these houses and/or businesses date to the first half of the nineteenth century when the village was expanding along with the growing facilities at the West Point Foundry. Generally, the West Point Foundry Association or the Gouverneurs (Gouverneur and William Kemble’s maternal family) owned the land between the river on the west, North Street on the north, Foundry Brook on the south, and Peekskill Road
on the east (see Figure 4.04). What follows is an examination of available maps, company correspondence, and the village to highlight early company housing.

Between the Foundry’s construction in 1817 and the 1830s, construction in the Village of Cold Spring gradually increased. The Centennial History Commission of Cold Spring from 1946 described the origins of the area. “Thus a prosperous village was reclaimed from the wilderness about Cold Spring though at first on somewhat circumscribed territory, since all the houses for the use of its employees were built by the West Point Foundry Association upon its own property” (Floyd-Jones 1946: 3). An unsigned diary, most likely Gouverneur Kemble’s (Walton 2007), records on June 10, 1817 (only four days from the beginning of the diary) that the author is “determined to plan the workmen’s houses on the hill behind those already built” (Kemble [?] 1817). The very next day, the author states “Laid out ground for a street of workmen’s houses behind 1st built. Opened ground for one of 40 by 18 ft.” Unfortunately, neither of these locations can be narrowed down on the present landscape. Again on June 17, 1817 Kemble spoke of how he “laid out the ground for another house in second range.” A contract dated September 9, 1817 with Ruben Travis documented the delivery of sand to building and “all the demands of said work” for houses at the Foundry. Thus it is clear that the Foundry financed the construction of some houses for its workers in 1817 on Foundry owned land, although the exact location of this construction remains unknown.

The Foundry continued to expand products throughout the 1820s advertising the superiority of its products as being “cast from the cupola” (Foundry 1821). A report about houses dated to July 19, 1827 lists approximately 30 people paying between
nothing, $0.84, and $5 for rent in any given month (see Figure 5.01, Foundry 1820s-1830s). In February of 1832 only 24 structures are listed on a housing document with about 37 heads of households (Foundry 1820s-1830s). This list probably includes mostly duplexes because individuals were listed with the same number and an A or B. People in 1832 are paying as little as $1.67 and as much as $3.37 for their rent. But the number of houses built by the company and rented out to workers was soon to increase dramatically in only a few years.

Figure 5.01: List of Workers Housing, 1827, from West Point Foundry Association Papers. (Putnam County Historical Society & Foundry School Museum)
In 1838, the New York branch of the West Point Foundry combined with the facilities in Cold Spring. This move was connected to the departure of William Young and William Kemble and the increased responsibilities given to Robert Parrott. The combination of industrial facilities greatly expanded the Foundry shops, but also had a significant impact on the settlement’s footprint. A man who was a resident of Cold Spring from 1819 corroborated the idealized history set forth by the Centennial Historical Commission. Martin Wilson had moved to Cold Spring as a teenager and wrote his first-person account almost fifty or sixty years later. Wilson provides a general view of life in Cold Spring over most of the nineteenth century. He detailed the company’s decision to build workers’ housing in Cold Spring and Nelsonville to be rented at a profit. Wilson also notes that some workers built their own homes.

I have not quite done with the foundry. As I have already said the most of the castings for machinery were rough cast, and sent to New York by water in summer and by land in winter. They then conceived the idea of moving the finishing and smithing works to Cold Spring. Here they had plenty of room of their own. But where could they get houses for their men to live in. Houses must be provided. Mr. Gouverneur was consulted, and was assured that if he would put up a number of houses they would be rented at a profit by the foundry. Accordingly about 1837, a contract was made to build twenty-four double houses; some to be at Nelsonville, but mostly at Cold Spring, near the houses belonging to James Sterling and Selah Post in Furnace Street. The houses occupied by Michael Craton and Alexander Spalding are among them. Then preparations were completed to receive the families of the workingmen of the finishing and smithing departments from New York. This moving made a large increase in the traffic and general business of the place. The twenty-four houses built by Mr. Gouverneur were soon occupied, and others came and built houses for themselves. The price of building lots at this time was as low as $4 per foot. In a few years the price went up from $12 to $15 per foot (Wilson 1886: 29-31).

The combination of workers from the New York City into the Cold Spring community undoubtedly put a strain on the available housing stock, necessitating construction
around the village beginning in the 1830s. The above source states that 24 houses were built, but others suggest numbers up to fifty. In either account, the Gouverneur family appears to have played some roll in addition to the West Point Foundry.

The large number of operatives employed in the foundry caused a rapid growth in the village, and about this time the Foundry Association contracted with a Mr. Whitmarsh to build fifty tenement houses. A great increase in the number of houses in the village was made in 1839, when the Gouverneurs began to sell small lots for building purposes, and a new and enlarged school house was built (Pelletreau 1975 [1886]: 562)

Indeed Aliah Whitmarsh’s description of some structures he was hoping to build in 1838 was found within a private collection. Whitmarsh’s description of the proposed housing details size, number of rooms including a separate kitchen, layout, materials, style, and cost. The height and footprint dimensions could be used to identify where the structures may have been built for between $20,000 and $30,000 if adjusted for inflation to 2005 (Williamson 2008). The use of Greek elements as the exterior style points to the revival of similar architecture popular between 1825 and the Civil War (McAlester and McAlester 1984).

Specification for a house for the West Point Foundry

**Size** – Front part 24 by 30 feet. Back part 17 by 24 feet with Piazza 6 by 18 feet

**windows** – As many windows as marked on the plan presented, of 12 lights each 9 by 13 of best English crown glass with 2 windows in the cellar of 6 lights each, Cellar under the front part

Cellar Wall [written in margin next to this line] only with well laid stone wall 4 ½ feet high laid in mortar & 30in high of good weather Brick or axe-heised[?] stone; foundation for the chimney in front part to be two Brick piers projecting from the cellar walls – the rooms to be situated according to the plan presented – (unless it should be necessary to reverse the whole plan) in the principal floor rooms let these be two coats of good plastering; one white coat; Above, one coat, & whitewashed. Covering to be good Merchantable white pine siding – Roof covered with good Merchantable white pine shingles & 1in boards edge to edge – Cornine & finish of the outside of the house to be suitable, and of
the Grecian order or Stile [sic]. Piazza as the plan with white pine floor. Inside finish to be generally very plain, best in the two rooms on the main floor and half, to have double-faced Architraves – but above in the same room single-faced Architraves – The Kitchen to be ceiled up to the windows sills. Door outside 1 ¾in and also in the principal part below but all the other Door 1 ½ in thick – the 1 ½ in Door to be butt- & Bead one side. The gutters to the front part to be lined, with tin, and suitable tin conductors, - conductors to the Back part also – a suitable – scuttle on the roof – with presses[?] and cupboards and a pantry where drawn on the plan presented. – The front part two stories height - of 9 ft & 8 feet in the clear between timbers. The Back posts Part[?] 10 ft high. – let it be painted (the wood work) with two coats of white lead paint – let there be good rim[?] locks on invisible handle[?] locks on the outside and all the principal doors inside – to be chimney piews [sic] to 4 rooms made plain and blacked resembling Black Marble – to be a suitable outhouse 3 ½ by 4 ½ feet Square –

A house of the description above given, I could build for – thirteen hundred & seventy five dollars – but if it must come within twelve hundred D[ol][lar]s there would have to be a reduction of 2 feet in the width of the front part and 4 feet in the length of the Back part (which would include the Back stairs) and also the Piazza, must be left out - & in this case the side light, in the front Door must be left out in consequence of the narrow hall, but have a sash over the Door

I will build those houses after the plan presented. So far as this Specification agrees with it and according to this specification – for the first sum mentioned above: but if the reduction afterwards mentioned is made it may come at twelve hundred, but I should rather build them by the day I think I could give you perfect satisfaction.

Yours Respectfully
Aliah Whitmarsh
[02 May 1838]
(Foundry 1820s-1830s)

Although Whitmarsh specified house dimensions and elements that could possibly identify the structures he built in the present day fabric of Cold Spring, the author was unable to identify a current house in the village as one constructed by Whitmarsh. Moreover there was no surviving group of housing amounting to twenty-
five or fifty in any single style, let alone a Greek revival in either Cold Spring or Nelsonville. Given the known Foundry construction of housing on Kemble Avenue, Rock Street, and Furnace Street, it is probable that some structures on those roads were Whitmarsh’s (see Figure 5.02). The duplexes and single family houses on Kemble Avenue are believed to date to the 1830s and were undoubtedly constructed by the Foundry or one of its owners and then rented out (see Figure 5.03).

Figure 5.02: Google Map of Cold Spring’s Streetscape with Probable Locations of Nineteenth and Early Twentieth Century Foundry Houses Still Standing. *(Google Maps, modified by E. Norris, 2008)*
Correspondence between Frederick Philipse, the original land owner, and Gouverneur Kemble mention the sale of some of the houses used by Foundry workers. In a letter between Philipse and Kemble, there was discussion on the lease rate and its correspondence to rent prices. Gouverneur Kemble and his brother William appeared to control the economics of the housing situation even though Philipse was the actual owner, indicating the power of the Foundry owners within the village.

I recollect perfectly the observation to which you refer, now that you have alluded to it – On which conversation was in regard to the Houses, which I introduced by promising as I have already written you - & then added “that nothing was got settled or concluded as to the time we were to keep the Houses at the service of the Foundry” – that if a purchaser came forward you had left an at liberty to sell (to which you then added I must supply others) and upon the whole therefore I would suggest whether it would not be best for the Foundry to take the lease at a reduced rate – You certainly did not then seem to view this as shuffling or retreating from my pledged engagements - & for the obvious reason
that [Camm?] on [sendd?] would note have justified it – on the contrary we parted as I thought agreeing in the principle & you were to talk with your Brother on the subject – that is the rate of rent to be that the Foundry might assumed. [15 September 1837] – Frederick Philipse, NY to Hon. GK

(fully transcribed May 24, 2008 by Steven A. Walton, Kemble Family Papers, Private Collection, Foundry 1837a)

By the late 1830s, the Village of Cold Spring has grown significantly in parallel to the West Point Foundry’s expansion. The population had almost tripled from approximately 550 people in 1820 to about 1,500 in 1830. The primary employer for the area was the Foundry, and they constructed houses for their workers as early as 1817. Over the course of the 1820s and 1830s, at least one or two dozen workers houses have left scattered paper trails in company documents including rental lists and correspondence about house construction. The housing stock of the village before the middle of the nineteenth century was one paternalistically dominated by Foundry ownership and worker occupation for half of the area soon to be incorporated as a village (see Figure 5.04, Bevan 1853).
Figure 5.04: 1853 Bevan Map of the Village of Cold Spring. Outlining the Approximate Boundaries of the West Point Foundry Properties (Southeast) and Estate of M. Gouverneur (Northwest). (Putnam County Historical Society & Foundry School Museum, modified by E. Norris, 2008)

Given the general lack of structures prior to this period in the area, the West Point Foundry and its owners were primarily responsible for creating housing for its workforce. There was a consumer demand for housing that increased as the Foundry facilities expanded. The Foundry, however, was constrained by what it could construct.
Given its incorporation, it could not sell any property upon which it built workers housing. The Foundry would also have to maintain any structures it built during this earliest period. By building structures that would be more suitable to nuclear families rather than boarding houses, Foundry owners attempted to attract workers with families who they hoped would provide a stable workforce. The influence of gender and feminine needs translated in structures that could accommodate cooking facilities, especially separate kitchens like Whitmarsh was contracted to construct. Regardless of where they constructed these houses, the Foundry’s original incorporation prevented any sale of its property, a fact at the center of the next section.

V.3. Neat & Tasty Buildings: The Houses that Kemble & Parrott Built (1840s-1850s)

During the two decades leading up to the Civil War, the Village of Cold Spring continued to expand to accommodate increased production at the West Point Foundry. Within this period the Village of Cold Spring incorporated and the West Point Foundry reincorporated. Understanding these changes and their impacts on the fabric of the village requires an examination of primary documents. Two primary collections of West Point Foundry documents are a private collection in the state of New York and those at the Putnam County Historical Society & Foundry School Museum. Within these collections are several documents (that have survived over time) relating to workers housing such as rent accounts and correspondence regarding leasing workers’ housing. County deed records, the census, and town minutes help clarify the relationships between the Foundry, the village, and Philipstown. From these sources we begin to see that worker housing was both an asset and a challenge for the Foundry’s
management who negotiated through both the incorporation of the village and reincorporation of the company.

With an increase in Foundry men, service industry workers, and transportation options in the 1840s and 1850s came structures around the village to accommodate these new workers and businesses. The value of real estate increased as demand for housing and land surpassed its supply. This increase in commercialism and well-established nexus of different transportation routes placed Cold Spring in a class by itself along a ten mile stretch of the eastern bank of the Hudson River. Blake summarized the state of the village well in 1849:

Within the last few years the village [of Cold Spring] has grown rapidly, and is still increasing as fast, perhaps, as any other on the East Bank of the Hudson. The West Point Foundry, located here, has been the main cause of its flourishing condition; and within the last five years its building lots have doubled in value...If we may be allowed the expression, it is the commercial metropolis of the county, and is the principal freighting depot, on the east side of the river, between the Dutchess [sic] and Westchester line. (Blake 1849: 159)

A newspaper article written just three years later relates the role of the Foundry, Gouverneur Kemble, and housing construction in this period of explosive growth. The continuation of increased property values had been augmented with company improvement of roads. Of particular interest is the characterization of workers under Kemble’s management as gathering their families and lives around their foundry work. The unknown newspaper author describes how the company has rewarded the hard work of its employees with appropriate homes complete with fire hearths.

Within the last five or six years [from 1846 or 1847 through 1852] this village has grown rapidly and it is still steadily increasing in inhabitants, businesses, and the value of real estate. Dwelling houses for the last two years have been almost constantly going up, and the corporation have [sic] been active in improving the streets and the general aspect of the place. The West Point Foundry situated on the eastern section is the heart and life of the village. It
affords employment generally to about six hundred men. Under the superintendence of the Hon. Gouverneur Kemble, since the year 1817, it has been the nucleus around which the hearty mechanics have gathered their families, their interests and their homes. Neat and tasty buildings, with comfortable homes and happy firesides, have been erected as the reward of constant application and honest labor (Eagle 1852).

The description of workers’ houses in this quote illustrates the tie between work and home. Archaeologists frequently have made a clear division between these two areas, but in the nineteenth century the two were intimately linked by the workers who occupied them both and their close proximity to each other.

Cold Spring today is more than simply a nod to its industrial past and those who worked and lived in the village. A preliminary survey south of the area known as lower Main Street and including portions of New York State Route 9D/Chestnut Street showed almost three quarters of the housing and business stock dates to the nineteenth century (Norris, et al. 2006-2007). About a quarter of those structures were built in the 1820s and 1830s, with just under half of them dating to before the Civil War. A total of 138 buildings were surveyed, which included one constructed prior to 1820s. Structures dating between 1815 and 1840 numbered 31 while 35 buildings dated between the 1840s through 1860s. Twenty-eight structures survive from the latter part of the nineteenth century and 43 during the twentieth and twenty-first centuries. Not all of these historic structures are included in either the national or local historic districts, even contiguous properties to the current districts.

This area contains a significant quantity of structures (22%) built before 1840 during a period when the land was owned by the West Point Foundry Association. According to a condition of the first incorporation, land was not able to be sold; the company’s second incorporation in 1845 provided for such a transaction (Association
1818). The earliest map of Cold Spring dates to the 1840s and it was more speculation as streets that never existed are illustrated on the map (see Figure 5.05, Unknown 1840s). The map probably was a speculative plan of how the area could continue its development, especially as items were labeled “proposed road,” “proposed pier,” and “proposed site for the village hotel on public square.” At the top of this map is the following statement:

The Lands designated hereon for street avenues, public square, and other public purposes; and also, the springs and streams of water on the premises, are reserved by the Proprietor as private property, with the right of diverting or otherwise disposing of such springs and streams; and of changing or discontinuing such streets, square, &c. &c. But where a Lot is sold fronting on any Street not opened, the purchaser will be entitled to a right of way over the same, from such Lot to the nearest public Highway. The right of soil being in all [lot]s retained where not specially conveyed (emphasis original, Unknown 1840s).

Given the properties laid out on the map, this map was drawn to sell off portions of the Gouverneur Estate, with the Foundry property not yet available for development or sale. Two maps from the middle of the 1850s contain somewhat conflicting depictions of the village (Bevan 1853; O’Connor 1854). Given that so many current houses suggest construction dates prior to the earliest maps, an examination of historic documents as well as the historic village landscape is in order to fully explore the construction of Cold Spring and its connection to the Foundry.
Figure 5.05: 1840s Map of the Village of Cold Spring with Crossed Out Streets and Parks that Never Materialized and the Foundry Store or Stable. (Putnam County Historical Society & Foundry School Museum, modified by E. Norris, 2008)
Full information regarding the exact location of structures or how the housing fit into the wider finances of the Foundry remains unknown. Yet one can begin to piece together the number of properties owned by the Foundry, rent prices in comparison to worker income, or the sale of properties from the owner class to workers. Two pages of rent accounts in the early 1840s detailed between 40 and 50 properties owned by the Foundry and rented (Foundry 1800s-b). As these documents just tally rents due, it is not possible to place the location of these houses on a map. Like those documented in the 1820s, most properties have an A & B listing suggesting duplex occupations (Figure 5.01). Records of May and September from 1840 recorded that Foundry workers rented their houses for between $3.86 and $6 per month; the majority listed rented for $4 per month. These numbers were a slight increase from the 1820s but amounted to approximately one quarter to one third of an average West Point Foundry worker’s salary. This figure is higher than the 12% to 15% of wages for those renting in small textile towns in New England (Crawford 1999: 35). At this point in the company’s history, the Foundry was collecting monthly receipts between $167 and $200 for rent. Within the 1840 census, several groups of these workers were found adjacent to one another; however adjacent listings were not locatable on available maps.

A clear distinction between property belonging to the West Point Foundry Association and that belonging to the owner/management of the Association is difficult to distinguish in the historical documents. Although the West Point Foundry paid its workers a relatively high salary, they took a higher percent of that back in rent than other industrial locations. A letter from Frederick Philipse (a stockholder in the West Point Foundry and original owner of property in the area) to Gouverneur Kemble of
February 23, 1843 suggests that by the 1840s the housing stock was presenting opportunities of income.

I [Frederick Philipse] proposed to substitute, the sale of some of the Houses, which he [William Kemble] seemed to prefer – Will You [Gouverneur Kemble] & he [William Kemble] Confer together & if the Company will take the Houses now unsold on Kemble Avenue & 1 adjacent on Rock Street making 14 and more if you write. I will sell them at $500 each – being about the fare cost, exclusion of lots – the contract price was $450 each [?] which [?] had extra charges - & as also did work with our own people for cellar & e– So that I shall scarcely [sic] get a cent for the lots. (Foundry 1841-1844)

Later in the same letter, Philipse stated that “- in the present depressed[sic] state of business & diminished number of workmen the Assocn. would secure a good income from them – the present rents are 728.1.” This figure of just over 700 is difficult to interpret. The collection could have been for rent only, but for what time span of 1843? If it was per month, it would be a figure four and a half times that collected only fifteen years earlier. If this figure was indeed the Foundry’s collection for one month, and the average 1840 household paid $4 per month, then the Foundry owned over 150 units in the Village in 1843. This quantity of units seems quite high and thus Philipse’s figure may have been a combination of properties owned by the Association and the owners/managers of the Foundry. The 728.1 could have been per year, so $60.67 was collected per month and that would mean that there were only 15 units that Philipse referred to in the above letter.

Philipse’s figure could also be a combination of sales and rent. West Point Foundry properties sold on Chestnut streets for $200 and Cherry Street for $100 in 1849 (Unknown 1850s-1860s: 205 and 187, respectively). Later in 1869 those on Parrott Street ran for $250 (Unknown 1860s-1870s-b: 370, 373) and in 1870 on Parsonage for $200 (Unknown 1860s-1870s-c: 239) and then one year later for $240 (Unknown
1870s: 361). Notice, though these sales were after the date of Philipse’s letter, directly linking West Point Foundry property sale to the reincorporation of the Association in 1845.

The Foundry continued to grow in size placing a financial strain on the company exasperated by the panic of 1837. By the middle of the 1840s, members of the Association were reconsidering the benefits to continued ownership of worker houses. The preceding letter between Philipse and Kemble was one example of this reconsideration recorded in correspondence between shareowners. A stronger example to shift policy was crafted into the new Association bylaws, which would allow for the sale of property.

The above are 1840s examples of housing for the majority of Foundry men and their families: sales of smaller properties with single or duplex homes on them built by the Foundry or its owners. By the 1850s wealthier members of the community were looking to construct their own homes. Management allowed for private design and construction for some community members while controlling the majority of construction and land of semi-skilled and unskilled workers’ houses. Lots as much as five times the size of those sold to regular workers were concentrated on Paulding Avenue and sold as places to construct managerial houses. The Pauldings were related through marriage to the Gouverneurs and in the latter part of the nineteenth century they partially controlled Foundry operations. Construction of wealthier properties by Foundry community members did not begin until the 1850s when the Foundry sold land along Paulding Avenue at prices that suggest structures did not exist. For example one sale stated that only $700 was paid for approximately 6,000 square feet (Unknown
1840s-1850s: 326); another recorded that $500 paid for approximately 3,000 square feet (Unknown 1840s-1860s: 31).

In Lowell, Massachusetts management’s opulent homes were put in the path between workers’ homes and the factory (Gross 1988). In Cold Spring, Paulding Avenue is tucked into the village’s streetscape (see Figure 5.02). Yet other houses, such as Gouverneur Kemble’s, William Kemble’s, and Robert Parrott’s, were situated on an extensive amount of land and were visible from several vantage points, but most specifically the Hudson River. Workers walking to the Foundry could travel a variety of paths to arrive at work, many of which would not pass by one of the owners’ houses (see Figure 5.06). In fact, workers could easily avoid management houses by taking an alternative route to the Foundry that had entrances down Kemble Avenue, near Chestnut Street, off Bank Street, and on the eastern side of Foundry Brook.

Workers under the direction of Robert Parrott were poised at the middle of the century in an incorporated village that barely resembled its original form. The village’s growing population demanded the construction of new houses, many of which survive today. Some of these structures were duplexes or located on Main Street with apartments located above businesses. Primary documents from owners’ correspondence have combined with period maps to give us a sense of the scale and quantities of construction up to this time. Yet nothing that was experienced on the eve of the Civil War compared to the intensity of ordnance production during the first half of the 1860s. Accompanying this intensity in manufacturing were additional workers who required somewhere to call a home.
Figure 5.06: Nineteenth Century Workers’ and Management Housing in Relation to the Foundry. Smaller Solid Pentagons Represent General Location of Workers’ Houses, Hollow Pentagons Indicate General Location of Management Homes, Pentagons with Initials Indicate Owners (Robert Parrott, Gouverneur Kemble, and William Kemble). (Google Maps, modified by E. Norris, 2008)

V.4. Parrott’s Housing Crunch of the 1860s

With the amount of growth in facilities and employees experienced at the West Point Foundry, how did the Foundry and the Village cope with the need for additional houses? Like Kemble before him, Parrott took it upon the corporation to increase the available houses for his workers and used the company’s or his own land to construct appropriate single family structures. This marks a shift in the company’s housing from the construction of both single and duplex units. The Foundry built single family structures to attract workers with families, specifically wives, who could provide stability to the workforce. Parrott’s actions continued the paternalistic relationship of
the Foundry to its workers including building homes. At some point in the 1860s,
Robert Parrott constructed ten houses on Parrott Street, a block away from Paulding
Avenue (see Figure 5.07). Yet the level of paternalism was not to the point where the
Foundry wanted to maintain rental properties as many properties were also sold off
during this period.

![Figure 5.07: Parrott Street Housing, Northeast Side Constructed in 1860s.](Photograph by E. Norris, 2007)

Using the procedures outlined in the earlier chapter on methodology, an
observation on the names of roads around Cold Spring sheds some light on the divisions
of classes and their associated power. Owners of the Foundry such as Kemble and
Parrott named roads within the original West Point Foundry property. Their
designation of *avenue* versus *street* in Cold Spring was purposeful to differentiate
between areas allocated for workers versus management. Workers housing of single or
duplex units can be found on Parrott Street, Parsonage Street, Cherry Street, Furnace Street, Bank Street, Rock Street, and Pine Street. Large properties owned by people including Foundry managers and wealthy merchants were located on Paulding Avenue, Mountain Avenue, Northern Avenue, and Morris Avenue. Although there are some exceptions to this observation (Parrott himself lived on Chestnut Street and part of Kemble Avenue had workers’ housing), in general the designation was a subtle way to indicate the size of houses and therefore the class of inhabitant that originated within the West Point Foundry, but was seen across the Cold Spring landscape.

Parrott rented the houses on Parrott Street to Foundry workers throughout his lifetime and his estate continued to collect rent into the 1870s. A key factor in the sale of housing built by the Foundry was a deed dated May 25, 1864 in which Gouverneur Kemble, Robert Parrott, Gouverneur Paulding, and William Kemble were designated as grantors for all Foundry land (see Appendix I for full transcription of Deed Liber 40 page 408, Unknown 1850s-1860s: 408). This allowed only a handful of owners/managers to control the final disposal of West Point Foundry Association property instead of the entire board of trustees as in earlier sales. This spurred such a backlog in deeds that some Cold Spring sales in 1864 were not recorded by the county until 1870.

The sale of Foundry domestic properties ranged in prices from $100 to $250 and possibly included a house on the lot. Parrott Street sales included an 1864 deed recorded in 1870 and other deeds recorded 1866 and 1868 for $250 of properties on the northeastern side Parrott Street (Unknown 1850s-1860s: 40; Unknown 1850s-1870s: 268; Unknown 1860s-1870s-a: 305, 557; Unknown 1860s-1870s-b: 370, 373; Unknown
Those sold a block to the north on Parsonage Street were a bit less expensive at $200 in 1870 (Unknown 1860s-1870s-c: 239). In 1860, Parrott’s real estate was estimated at $60,000, such sales were a very small percent of his holdings. Cold Spring’s centennial history credits Robert Parrott with “beatifying the village, the building of suitable homes for his employees, and the extending of relief to human necessities whenever they were made apparent” (Floyd-Jones 1946: 6). One known way that Parrott contributed to the wellbeing of some workers was to pay the taxes of widows and soldiers in Philipstown during the Civil War. On “January 28, 1865 [the] Hon. Robert P. Parrott, of West Point Foundry, has paid the taxes of all the widows and of the soldiers absent to the war, residing in Philipstown. This is but one of the many good acts flowing from his generous heart and kindly hand” (Floyd-Jones 1946: 6).

The *Highland Democrat* reported on January 2, 1864 that “Last summer, Mr. Parrott, finding it impossible to provide accommodations for the increasing number of his workmen, among other arrangements, had a *barge* [italics original] moored in the river near by the Foundry dock and fitted up for a boarding house” (Democrat 1864). This short account suggests that Parrott had a direct hand in managing housing of some Foundry workers.

During the 1860s the villages of Cold Spring and Nelsonville grew significantly toward the east with the density of housing increased on Parrott Street, Parsonage Street, and into Nelsonville (see Figure 5.06). A comparison between the 1854 map (see Figure 5.04, O’Connor) and that of an 1867 map (see Figure 4.07, Beers, et al.) clearly illustrates the massive growth of the Foundry during the time of the Civil War. The Civil War saw a spike in the workforce at the Foundry that ran most operations
around the clock in three shifts. The West Point Foundry itself had to expand the size of its operations to accommodate Navy and Army orders for Parrott guns amounting to over $1,000,000 per year (United States 1800s-a; United States 1800s-b). In the face of enormous profit, discontent over their own wages increased among workers, which culminated in a strike and challenged the images recorded in newspapers, centennial and county histories, and managerial correspondence. As some of the Foundry managers benefited from the economic success experienced during the 1860s, their descendants who controlled operations the next decade as the Paulding, Kemble & Company did not fare as well.

Women contributed to household income by housing boarders as 72 households in Cold Spring (13%) had female or male boarders in 1860. This percentage is just slightly lower than those in other Hudson Valley communities who ranged 17% to 20% (Modell and Hareven 1973). For the purposes of this inquiry, boarders were considered people unrelated to the household family who had an occupation listed outside of the household, thus no one labeled as a domestic was counted as a boarder. Males who worked at the West Point Foundry and occasionally their families amounted to 77 people in 33 households. Many boarders shared similar employment with that of a core family member. Also 32 households boarded 83 people who had occupations other than those in the West Point Foundry. An additional 7 households with 30 people had a mix of Foundry workers and other workers. Over sixty percent (44 households) had either one or two individuals boarding with them. This pattern was in stark contrast to that of Lowell, Massachusetts where entire blocks were allocated to boardinghouses or blocks of overseers’ tenements, both structures containing multiple units (Clancey 1989).
The increase of workers during the Civil War placed a strain on available housing in Cold Spring and Nelsonville. Robert Parrott helped to alleviate demand by constructing some structures or procuring housing in other ways. Many of these were single family units appealing to the opposite gender than that employed at the Foundry itself. Families also found that boarders could raise some household income and allow females to financially contribute to the family’s budget without leaving the home. Yet the village and its streetscape clearly indicated who was living where: streets or avenues, size of yard and structure, and proximity to the Foundry or river divided the houses in Cold Spring. At the height of Foundry production, the village was its fullest, but the end of the Civil War marked the end of that prosperity that was shared by some more than others.

V.5. Cold Spring’s Company Housing Concludes: The Cornell Company Years

As the Foundry underwent financial difficulties with the decline in iron demands across the country in the 1880s, owners continued to rely on rent as a source of income. A 1880s diary, written by one of William Kemble’s sons, documents rent collection of $3, $4, $5 or $7 per month (Kemble 1880). John Murry paid $3; William Lawrence paid $4; early in 1880 a man named Murphy paid $5 while later Arthur Thompson paid the same amount; and John Brooke paid $7 for September, October, and November. These figures are not that different from other prices listed earlier in nineteenth century documents, but the number of individuals renting has drastically decreased suggesting the sale of many Foundry rental homes and lots. The economics surrounding real estate, the housing market, and consumer demand was extremely tight when the
Foundry closed its doors later in the 1880s. This trend did not change until the Cornell Company purchased the property in 1898.

To help alleviate the housing strain when industry returned to Cold Spring in the late 1890s, the Cornell Company constructed a row of houses on a portion of their own property on Parrott Street opposite to those built by Robert Parrott almost fifty years earlier in the 1860s (see Figure 5.08). These structures on the southwestern side of Parrott Street were smaller than earlier company constructed counterparts across the street. Termed “cottages” (Foundry 1800s-c) these were part of a larger group of housing developed around the turn of the century as model homes that incorporated balloon frame construction. L. I. Mekeel, an architect in Cold Spring published a 1907 *Portfolio of Modern Houses and Cottages* that he designed and had constructed in Cold Spring (Mekeel 1907, from the Collection of Mrs. Janet Rust, Cold Spring, New York). Mekeel designed the homes to range from $2,200 to $7,500 and used his portfolio to take orders. Some of these structures still exist in Cold Spring today such as design number 12 found at 196 Main Street and design number 15 a two stories and attic frame cottage from page 29 found today at 5 Fishkill Avenue.
Rent from housing during this last period of Foundry history was quite important to the West Point Foundry. An annual account (1907-1908) from the Foundry trustees demonstrates how the once dominant manufacturing facility had been reduced to real estate interests (see Appendix III for full transcription, Foundry 1817-1875, 1907-1908). Multiple entries under receipts include the sale of one house, rent from four different properties, and interest on deferred payments of rent. Expenditures on insurance premiums on the Foundry and other houses amounted to 10% of the budget. Also listed under expenditures were repairs to houses and commissions to renting agents. In 1907, activities of the West Point Foundry no longer include manufacturing transactions.
The housing situation in Cold Spring radically changed when the Cornell Company moved from the area by 1912 as the last builder of company housing. The economic situation of the village remained steady or declined over the twentieth century. Unlike rapidly developing urban areas, members of this small community could not afford to build significant numbers of new structures. Instead, the maintenance of the buildings and its location on a commuter rail allowed for many of the structures to remain intact and most were unaltered.

Over the course of the nineteenth century industrial companies and their owners provided extensive housing options to their workers in the community of Cold Spring. The economics and consumption of housing in the Village of Cold Spring was fundamentally dependent on the Foundry’s success and ability to supply the demand. Women within foundry families were catered to through single family housing units. Documents that have survived provide consistent information on the benefits and drawbacks of housing for the ownership, but often it is the workers’ story within Cold Spring’s housing situation that remains cloudy. Workers consistently purchased properties, but such actions were still somewhat controlled by the Foundry in terms of timing of sales and prices. Workers also shifted around the community, for those that were listed on multiple census records. Like across the nation, many Cold Springers voiced their opinions by leaving the area completely. Another material source, ceramics, will provide us additional information to elaborate our understanding of workers response to the paternal actions of the Foundry in the following chapter. In a similar nature that housing represented the paternal actions of West Point Foundry
owners, the religious facilities in Cold Spring were heavily influenced and made possible by the Kembles, Gouverneurs, and Parrots.

V.6. Religions in Cold Spring and Other Industrial Communities

Religion played a role in the relations between factory owners and the community in many nineteenth century industrial communities. The role of religion within early industrial communities is well known from historical investigations and often financial assistance to religious institutions derived solely from individual industries. Religion was generally favored by early industrialists because it reinforced qualities favored by industrialism, such as hard work and moral order. For some, religion provided the means to cope with the dangers brought on by industry. In Cornwall, for example, the number of deaths caused by accidents or lung disease in tin and copper mines was understood in part by religion.

Religion provided consolidation and acceptance, allowing the community to comprehend the tragedy and risk often brought by industry and specifically mining (Rule 1998). By coining terms such as Christian and evangelical paternalism, many, such as Anthony Wallace, June Nash, Mary Beaudry and Stephen Mrozowski, have made the connection between religious virtue and worker qualities favored by early industrialists. Yet each historic situation lent itself to a group of specific situations where individual industrialists actively decided the extent that they would support or encourage the practice of religion among their workers. At one extreme were industrial owners encouraging and funding a multitude of religious facilities; at the other extreme owners only invested in their own parish.
V.6.1. Establishing Places of Worship in Cold Spring (1817-1869)

A major component in the formation of the Foundry community was the incorporation and construction of different religious houses of worship within the village. Gouverneur Kemble, Robert Parrott, William Young, the Gouverneur family, and the West Point Foundry Association all significantly contributed to the construction of several churches in Cold Spring. Religious ceremonies in the late 1810s and the 1820s for the Baptist, Episcopal, and Presbyterian denominations were held in the pattern shop (the boring mill’s second story) of the West Point Foundry (Adams 1963). “William Young was the superintendent of the West Point Foundry, and being a north of Ireland man, was liberal in all his religious views, although a Presbyterian; so the pattern shop was made free for all. His desire was that we should not be heathens,” (Wilson 1886: 9). The number of attendees soon outgrew the pattern shop space and community members sought other options.

Six different congregations (Baptist, Catholic, Episcopal, Methodist, Presbyterian, and Dutch Reform) practiced in Cold Spring over the nineteenth century. The Union Church provided space free to all Protestant denominations. Funding for a Union Church began in 1825. A committee composed of Gouverneur Kemble (Episcopalian), William Davenport (Baptist), Elisha Nelson (Methodist), and William Young (Presbyterian) helped raise the funds. Recall that both Kemble and Young were managers/owners of the Foundry. Oliver Elwell, a carpenter and builder (who also erected the first Foundry buildings) built the Union Church on the Hudson River across from the present-day railroad overpass on Lunn Terrace Drive (Adams 1963). Yet the demands for use of this one structure were too great. The Presbyterians organized a
congregation in 1828 and being the most numerous, they occupied the Union Church on Sunday mornings. The Methodists chose to primarily gather at Thomas Sutton’s house because of competition for the space on Sunday mornings. Today the Presbyterian parish has a home on the north side of Main Street, just south of the Baptist church. The lot formally held the Foundry stables, which were reported to have burnt down and subsequently relocated into the Foundry proper (Mosher 1946: 24). The Baptist church was organized in Cold Spring in March 1829. A structure was constructed in 1831 on a lot given by the Philipse Estate (Main Street, south side, Nelsonville) and consecrated December 25, 1833.

Gouverneur Kemble and Robert Kemble were members of the Episcopal Church, which they financially supported over the course of their lifetimes. The parish was incorporated in 1840 and a structure built a year later where Cathryn’s grill at 91 Main Street currently is located. The church used to be in “a brick structure which stood upon a fine lot” (Pelletreau 1975 [1886]: 565). Robert Parrott wrote to the Vestry of St. Mary’s offering to present not only the land for a new church, but also money to build one in September of 1867. A meeting was held at the West Point Foundry in June of that same year to consider Parrott’s offer. When the parish constructed another church on the corner of Main Street and Chestnut Street, its font and pulpit were stored at the old Foundry barns where they were destroyed by fire. The bell that rang above the Main Street church was taken to the Foundry and melted in a crucible (Adams 1963). Robert Parrott gifted to the parish the three acre lot for the current church on the corner of Main Street and Chestnut Street. An additional gift from Parrott, Gouverneur Kemble, Gouverneur Paulding, and Frederick P. James financed the building’s
construction, designed by the architect George E Harney. St. Mary’s Episcopal Church was finished in 1868 and its first wardens were Gouverneur Kemble and Robert Parrott; the first marriage in the new structure was between Robert Parrott and Mary Kemble.

Even though Kemble and Parrott were Episcopalians, they provided the means of establishing and maintaining the Catholic Church in Cold Spring as well. Thomas Kincade Wharton designed the Roman Catholic chapel now known as The Chapel of Our Lady of Restoration, built for the Catholic workers with the assistance of Kemble and The West Point Foundry Association in 1833 (Wharton 1832). The church was located on Foundry property and sits today at 45 Market Street across from the train station. As part of a discussion about Gouverneur Kemble, Wharton’s diary adds that “He [G.K.] and I designed it together and indeed it is the very first architectural design I was ever engaged on” (Wharton 1832: 207).

Planning for the chapel began as early as 1830. The Westchester and Putnam Sentinel newspaper of June 3, 1830 states “We are informed that Gouverneur Kemble, Esq. of Cold-Spring president of the company of the West Point Foundary [sic], has given to the Catholics of Cold-Spring, Putnam County, an eligible site for a Church, on the Banks of the Hudson, and also a considerable sum of money towards its erection” (Sentinel 1830). Another 1830s newspaper account alludes to G. Kemble’s generosity in helping to establish a religious institution other than his own.

Mr. Kemble is a Protestant, and so are we, but this shall not prevent our bearing testimony to the liberal and philanthropic spirit, which, overlooking the metaphysical refinements of religion resorts to its spirit, and essence, and recognizes all the worshippers of one creator, and one Savior of the world as fellow Christians, who, however, may differ in modes and forms, look up to the same eternal source in this life and the life everlasting” (The New York Mirror, 1834 as quoted in Adams 1963).
There is a close tie between the establishment of these different religious institutions and community members associated with the West Point Foundry (Table 5.01). Gouverneur Kemble, owner and Foundry superintendent for the first thirty years, helped to construct the Episcopal and Catholic Churches. Robert Parrott, owner and superintendent after Kemble, helped reconstruct the Catholic Church, donated the land and helped construct the Episcopal Church, sponsored the Methodist Church, and sold the land cheaply to the Presbyterian Church. Samuel and Mary Gouverneur, the aunt and uncle of Gouverneur and William Kemble, frequently sold at a low price or donated their land where six churches were built in Cold Spring. Foundry ownership/management’s outward support of different religious viewpoints suggests their paternalistic desire to provide amenities for a stabilized workforce outside of the factory walls. The role of religious diversity in the 1855 incorporation of Nelsonville was discussed in Chapter IV.
Table 5.01: Establishment of Cold Spring Religious Institutions and the Financial Influence of Foundry Owners/Managers (Adams 1963; Pelletreau 1975 [1886]).

<table>
<thead>
<tr>
<th>Religion</th>
<th>Date Est.</th>
<th>Present Location</th>
<th>Prior Land Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union (Baptist, Episcopal, Methodist, Presbyterian)</td>
<td>1825</td>
<td>25 Market Street</td>
<td>Samuel &amp; Mary Gouverneur</td>
</tr>
<tr>
<td>Baptist</td>
<td>1831</td>
<td>245 Main Street</td>
<td>Samuel &amp; Mary Gouverneur (Old Philipse estate)</td>
</tr>
<tr>
<td>Catholic</td>
<td>1833</td>
<td>45 Market Street</td>
<td>Samuel &amp; Mary Gouverneur; Gouverneur Kemble (construction); Robert Parrott (reconstruction)</td>
</tr>
<tr>
<td>Methodist</td>
<td>1833</td>
<td>216 Main Street</td>
<td>Samuel &amp; Mary Gouverneur</td>
</tr>
<tr>
<td>Episcopal</td>
<td>1841</td>
<td>91 Main Street</td>
<td>Samuel &amp; Mary Gouverneur</td>
</tr>
<tr>
<td>Dutch Reform</td>
<td>1855</td>
<td>10 Morris Avenue</td>
<td>William H. Wells (merchant; 1860 census)</td>
</tr>
<tr>
<td>Episcopal</td>
<td>1868</td>
<td>1 Chestnut Street</td>
<td>Robert Parrott; Robert Parrott &amp; Gouverneur Kemble (construction)</td>
</tr>
<tr>
<td>Methodist</td>
<td>1868</td>
<td>12 Orchard Street</td>
<td>Mary Gouverneur estate; Robert Parrott (sponsor)</td>
</tr>
<tr>
<td>Presbyterian</td>
<td>1869</td>
<td>10 Academy Street with Parsonage on Furnace Street</td>
<td>Robert Parrott</td>
</tr>
</tbody>
</table>

V.6.2. Comparisons to Other Industrial Communities

The Kembles’ strategy of funding religious institutions is similar with those found within early textile industries where the moral integrity and character of those working in the new factory system was a major concern of owners. As Jedediah Tracy detailed in 1827 “let it be felt by the owners that it is always for their interest to support religion, schools, and all those institutions which promote good morals, and diffuse information among the operatives and their families” (Kulik, et al. 1982: 366). Tracy
went further to describe the industrial achievements of Troy as a location where education and industrial virtue are rewarded by civilization and happiness.

[Troy] grows up a healthy population, is favourable [sic] to early schooling and good education, and early habits of industry; stimulants to enterprise, economy, and frugality in living, and saving the products of their labour [sic] – and at the same time the organisation [sic] of these establishments in villages, being necessary for their success, they are placed in a more favourable [sic] situation for the cultivation of moral and religious character, without which, civilised [sic] man is still a savage, and a very limited degree of human happiness attained (Kulik, et al. 1982: 366; White 1836b).

A decade later, in his Memoir of Samuel Slater from 1836, George White characterized civility and Christianity in the same breath. White attributed these virtues as saving and reclaiming the lives of the poor, illiterate, and unemployed. Families working in early textile industries were described as lacking religion among other things noted in the following excerpt.

originally from places where the general poverty precluded schools and public worship, brought up illiterate and without religious instruction, and disorderly and vicious in consequence of their lack of regular employment, have been transplanted to these new creations of skill and enterprise; and by the ameliorating effects of study, industry, and instruction, have been reclaimed, civilized, Christianized (Kulik, et al. 1982: 345-346; White 1836a).

Employers in many developing industrial communities in New England saw religion as a positive influence. They promoted religion whether in harmony with established beliefs of the workforce or not.

As an American example, the manufacturers of Rockdale attempted in one way or another to accommodate the variety of religious beliefs in the area, including Baptists, Methodists, Presbyterians, Swedenborgians, and Catholics in the district (Wallace 1978: 318). The active mill owners and manufacturers involved in building new religious institutions tended to be evangelicals. For example, the Calgary Church
established in Rockdale was Episcopalian and its formation was aided in large part by the Smith family who were local capitalists. The 1834 meeting at which individuals agreed to establish a congregation and begin the process of establishing a church was held at the nail mill. Smith was elected to the building committee and also was friend to the architect who designed the Calgary church in a Gothic style. Although the congregation would gather for worship in the basement of the structure, the lack of pews and unfinished first floor prevented the parish from collecting pew dues. Smith’s connection to important members of the Protestant Episcopal Church in Pennsylvanian allowed him to call upon them to help finish the church. He was not only a parishioner, but also a warden in 1841. As in other locations, the religious support of punctuality, sobriety, and subordination was welcomed within the manufacturing facilities of Rockdale.

Rockdale and its manufacturers and workers subscribed to what was known as Christian Industrialism (Wallace 1978: 397). This theory provided that economic harmony could exist between agriculture and manufacturing, capital and labor if certain ideals were followed. A primary ideal was that moral reform and Christian benevolence should help the capitalist be a steward of wealth on behalf of the community. Other ideals included necessary hierarchical relations between parents and children, employer and employee, and the different social classes. Christian Industrialism promoted economic growth that elevated people socially, morally, and spiritually to a true Christian commonwealth.

Religion continued to be important in a twentieth century industrial community of Pittsfield, Massachusetts (Nash 1989). Nash explored the hegemonic control of
General Electric’s twentieth century manufacturing. The first Catholic Church in Pittsfield was St. Joseph’s in 1844. Like those in Cold Spring, this church was constructed with “money donated from the leading industrial entrepreneurs” (Nash 1989: 46). Local churches in Pittsfield were differentiated by ethnicity with one for the Irish, Italian, French Canadian, and Polish. In the twentieth century, the Catholic presence was felt in union meetings. In Nash’s texts, religion played a significant role in the industrial communities. For industrialists, it often was another form of control; for workers it was a coping mechanism.

The strategy found in Cold Spring’s industrialists contrasts to those employed by the Boott Mills in the support of churches in Lowell, Massachusetts. The corporate paternalism exerted there was one of the most formal witnessed around the country in the early part of the nineteenth century. Like Cold Spring, Lowell mill owners granted land so churches could be built for employees. In 1826 the Episcopal Church of St. Anne’s was built, and Kirk Boott who financed its construction demanded that all of the operatives attend and contribute $0.375 per month for its upkeep (Coolidge 1993: 41-42). Lowell owners went beyond policies known at the West Point Foundry by demanding that workers attend church and financially support its maintenance.

Unlike Cold Spring, the provision of St. Clair religious facilities was up to the finances of membership and parishioners rather than the local industrial owners. Typically, a congregation organized under a nearby church and held meetings in private homes until enough people could pool funds to purchase a lot and construct the church (Wallace 1981: 160). The Welsh built the first churches in the town in the 1840s including a church for Welsh Congregationalists in 1840, one for Calvinists in 1846,
and a third church for Baptist in 1847. Other denominations followed suit including a
Primitive Methodist Church (1847), Methodist Episcopal (1849), German Roman
Catholic (1852), and Irish Roman Catholic (1846). The owners were helpful in the
establishment of Methodist Churches, but perhaps because they lived elsewhere, they
saw little benefit or need for other denominations. Wallace points out that all of the
churches were east of First Street while all of the taverns were west of First Street. This
spatial divide points to the dichotomy between tavern and tabernacle where industrial
workers either frequented one or the other. The most obvious spatial division based on
religion in Cold Spring was its relationship to the adjacent village of Nelsonville and
how the Protestants carved out separate space from the Catholics both in life and death
(as touched upon in Chapters IV and V).

Nineteenth century industrial communities experienced a range of religious
patterns that were primarily dependent on individuals within the dominant company.
Some found it wise to invest in facilities to help stabilize the workforce (Rockdale),
while others (St. Clair) only financed their preferred institution. Industrial capitalism to
a degree valued religious notions of thrift and loyalty, while simultaneously allowing
workers to manage their weekly wages in a respectable manner (Jones 1974). Workers
wanted to demonstrate self-respect rather than saving or spending funds on utility.
Whether the paternalism of an owner/company came in the form of various religious
facilities (Cold Spring) or a mandate to participate in religion (Lowell), the examination
of industrialization in America is inseparable from the power relations surrounding
religious practice.
V.7. Conclusions on Houses & Churches Or Homes & Parishes

The West Point Foundry ownership felt a compulsion and need to provide its workers with housing and to help establish churches of several denominations. Perhaps it was to help retain a productive and stable work force. Perhaps it was seen as a moral obligation. Perhaps it was for economic profit. More than likely it was a combination of these and other factors. The importance was the active role Foundry owners played in constructing about half of the Village of Cold Spring and their family controlling the rest. This was a very typical company town dominated by a one company and its industry. The West Point Foundry insured housing for some of its workers through construction and rent, an overt form of paternalism.

The Village of Cold Spring resembled other company towns with half of the village containing multiple types of company housing, a Main Street full of businesses to support the community, and a number of churches. Given that the village grew up simultaneously with the Foundry, Foundry owners had a clean slate for domestic construction. Housing for Foundry workers included duplexes and single family houses on small lots lining streets adjacent to the facility. Workers’ houses could be multiple apartments or duplexes, but single family homes were more ideal and exclusively constructed in the middle of the nineteenth century by the Foundry. The single family houses built by the West Pont Foundry in Cold Spring for their most valued workers were typified by small footprints on minimal sized lots, often with porches. Management and Foundry owners resided in slightly larger structures with extensive yards on avenues. The vernacular architecture used by the Foundry is visible
throughout the village’s fabric with builders not formally trained and a few locally established architects as responsible for their design.

The physicality of structures themselves or the land they are built on does not constitute a community. People, and predominantly workers, changed houses into homes, churches into parishes. Under the paternalistic conditions outlined above and in the previous chapter about the community’s history, workers found different options to establish their homes and multiple parishes that would fit their religious preferences. Their reaction to this situation is not fully understood from the documentary and material record discussed above. Our understanding of workers, their experiences, opinions, and lives is limited to a handful of primary documents. Sparse information can be gathered from newspapers, correspondence, and census records, but in contrast to the records of owners, the quality and quantity of information is lacking. Based on the documentary record, a clear understanding of the paternalistic nature of the West Point Foundry owners and managers is more readily available. In order to explore workers’ perceptions such as that of respectability, we will turn to the material culture of their households. Material evidence, especially archaeologically recovered collections that could indicate something like a respectable table, will be able to provide workers with an additional voice.
CHAPTER VI

CERAMIC ASSEMBLAGES AS REFLECTIONS OF HOUSEHOLDS

VI.1. Introduction

Documentary sources do not provide us with an in depth understanding of the workers in the relationships between management and workers at the West Point Foundry, especially with regards to how those relationships were negotiated in people’s lives outside of the Foundry. The nature of preservation in abandoned houses generally dictates archaeological assemblages full of ceramic pieces that withstand decomposition. Artifacts such as ceramics reflect consumer choices or lack thereof and also frequently dominate archaeological household assemblages. Although ceramics can be considered an individualized expression of consumption, they are common to all households. In comparison to each other, assemblages especially in company towns like Cold Spring can reflect the level of a company’s paternalism or control of household or workers’ independent consumption.

Ceramic assemblages from any given archaeological site are a complex reflection of at least two different levels of processes: settlement location and individual people. On top of these are the complexities of archaeological deposits and recovery in general (Schiffer 1996). For example, each industrial community was a unique combination of industry, access to markets, and level/type of paternalism or other owner/worker relations. Each household within an industrial community had a specific economic means, point in the life cycle, social tastes and aspirations, ethnic makeup, traditions and/or heirlooms, number of inhabitants and families, personal choice and values, and marketing campaigns (De Cunzo 1987). Every site provides another
opportunity to understand the combination of these factors and can be further complicated by a rapid turnover of occupants.

Ceramics have been at the core of historical archaeology studies of households’ consumption patterns. This chapter explores 14,525 household ceramics represented by 1,041 minimum vessels as material evidence of such relationships (see Appendix IV and Appendix V as well as Supplemental Files WPFceramicsEN.xls and WPFceramicsOriginal.xls). Several different households from multiple buildings will be described and analyzed to address the following questions. How do the collections compare to each other? What are the historic values of individual ceramics within each collection? Are consumer trends evident in the different collections as consumption changed over time? Can we confidently attribute meaning from those ceramics about their owners? For example, do the assemblages resemble a capitalist ideal that demonstrates differences in class or are there too many factors at play? What role did access to various markets play in the availability of ceramics in Cold Spring?

Within each domestic structure, prior archaeological analysis suggested assemblages could be divided into approximately twenty year periods. These pragmatic, temporal divisions roughly align with prosperity or decline within the West Point Foundry as explored in the Chapter IV: initial development and expansion (1817-1830s), build up and war prosperity (1840s-mid 1860s), production and ownership shifts with general decline (mid 1860s-1880s). Given that different archaeologists excavated each collection with varying amounts of contextual control, the following description and analysis pieces together multiple assemblages to the best abilities of the author.
Archaeologists have explained nineteenth century ceramic assemblages as a reflection of economics, capitalism, consumption, or some combination of these and other factors. George Miller began looking at ceramics through an economic analysis in the 1980s (Miller 1980; Miller 1991). Mark Leone did not believe that economics could solely account for the changes visible over the nineteenth century. Leone suggests that shifts in household assemblages and orderliness are a reflection of the capitalist notions of time routines and work disciplines (Leone 1999a). Other studies conclude that household assemblages are a reflection of consumption (Beaudry 1989; Beaudry and Mrozowski 1988; Bond 1989a; Dutton 1989; Mrozowski, et al. 1996; Rodenhiser and Dutton 1987; Shackel 1996a). The present analysis uses economic and capitalist indexes to make comparisons across time at the West Point Foundry. Additional comparisons across space will happen in the next chapter, Chapter VII.

Of primary concern in this chapter are the differences between owners/managers and workers: whether workers subscribe to a similar stance as the owners/managers or defy such a position. Throughout its history, the West Point Foundry employed skilled, semi-skilled, and unskilled workers as well as engineers, managers, and owners. The position of workers should be expressed through goods they purchased and used in their daily lives, particularly the houses and ceramics that they consumed. As seen in the previous chapter, this complex hierarchy was reflected to some extent in the available housing in Cold Spring and Nelsonville. Let us turn to archaeological analysis of household scale processes that negotiate consumption and status within the area immediately surrounding the West Point Foundry.
VI.2. West Point Foundry Households

Different theoretical approaches to ceramic assemblages could be tested at the West Point Foundry given its rich archaeological assemblages and variety of workers with various economic means and the same access to wares. Located on the Hudson River only fifty miles from a major eastern port, the area of Cold Spring had access to the same types of wares as New York City. After 1840, New York City became an important supplier of ceramics throughout the country (Majewski and O'Brien 1987: 179). Water transportation was reduced in colder months, but since the West Point Foundry owned its own set of boats and sleds, the village remained connected to a variety of markets and can be considered within an area of high access (Riordan and Adams 1985). In 1848 the Hudson River Railroad, on the eastern side of the Hudson River bank, reached Cold Spring and further expanded transportation options. Thus both water and land transportation connected the village to a wide area throughout the nineteenth century.

There are several neighborhoods associated with the West Point Foundry in the surrounding villages of Cold Spring and Nelsonville. Of these, four of five are still on Scenic Hudson’s property and are immediately adjacent to the West Point Foundry industrial facility (see Figure 6.01, O’Connor 1854): Rascal Hill (west/northwest), East Bank House (east/southeast), Gouverneur Kemble’s house (not on Scenic Hudson property), William Kemble’s house (far west/ far southwest), and Vinegar Hill (far east/ far northeast). The entire spectrum of Foundry workers was contained in these different households: William and Gouverneur Kemble being original owners and at the top of the economic scale; Rascal Hill with skilled workers in duplexes; the East Bank House
with highly skilled, semi-skilled, and unskilled laborers in a single family or a boarding house; and Vinegar Hill’s single family homes of skilled or unskilled workers. The two closest to the Foundry (Rascal Hill and East Bank House) have seen extensive archaeological investigations and provide substantial ceramic assemblages that can be subjected to different theoretical analyses. The others have only been archaeologically explored to a limited scope and are preliminarily discussed late in this chapter.

Figure 6.01: O’Connor Map, 1854. William Kemble’s House is Far Left, Rascal Hill Houses Are Labeled “Foundry Houses” In Center, the East Bank House Just Above the “Pattern House” and to the Left of “West Point Foundry”, and Vinegar Hill Top Right. (Putnam County Historian’s Office)

A comparison of the originally company built West Point Foundry domestic structures’ square footage when first constructed provides a nice introduction to the company’s investment in each structure (the following discussion was modified from a similar one in Deegan 2006: 143). The largest domestic structure of this group was Gouverneur Kemble’s, a two story house of 4290 square feet for one of the West Point Foundry owners (see Figure 6.02). The one and a half storied structure called the East
Bank House followed at 2518.5 square feet. The two story structure of William Kemble’s house was third with 2322 square feet. The one and a half storied Vinegar Hill house (Feature 76) was 1417.5 square feet and ranked fourth. The smallest structure was a one and a half story Rascal Hill #2 at only 720 square feet. A comparison between square footage does not suggest that it directly correlates to social or economic status of a structure’s residents. Later additions of the structure would expand the square footage over time. There appeared to be a significant difference, close to twice as large, between management’s single family homes (East Bank House and both Kembles) and worker single or duplex homes (Vinegar Hill, Rascal Hill) (see Figure 6.02).

![Figure 6.02: Square Footage for Different West Point Foundry Houses.](image)
VI.2.1. History of Rascal Hill

Rascal Hill was a neighborhood of six houses along the north/northwestern valley hillside of the West Point Foundry. The houses were undoubtedly constructed prior to 1820 as suggested by an unsigned diary (Kemble [?] 1817), other historic references (see below), and the archaeological assemblage (Grossman 1990; Grossman 1993). They were duplexes or single family structures with one containing an early office for the Foundry. Occupants had the financial means to import a variety of ceramics, toys, and specialty instruments. These items along with the houses’ proximity to the Foundry suggest the occupants as being skilled laborers or perhaps the heads of Foundry complexes. Given the known documents, attempts to link specific structures in Cold Spring, including those of Rascal Hill, to individual employees of the Foundry from census and map records has proven impossible. Like other domestic structures on Foundry property, those of Rascal Hill were abandoned with the Foundry’s decline and probably were not standing in the twentieth century.

Although the earliest map of the Rascal Hill neighborhood dates to the 1840s (Unknown 1840s), an unsigned diary believed to be Gouverneur Kemble’s states that housing for workers was a part of the initial Foundry construction, and perhaps even included these structures. Evidence for Rascal Hill’s early construction includes such passages as “[d]etermined to plan the workmen’s houses on the hill behind those already built” from June 10, 1817 and “laid out ground for a street of Workmen’s Houses behind 1st built – opened ground for one of 40 by 18 ft” the following day (Kemble [?] 1817). William Blake made a similar passing reference to workers’ housing in his History of Putnam County. After listing the different buildings in the
Foundry complex in 1849 he writes “in addition, the Association also own a large number of houses and building lots in the village, and on the high grounds adjacent to the Foundry” (Blake 1849: 242). Blake also describes the neighborhoods and points to the origin of their names.

Vinegar Hill and Mount Rascal. — two ridges lying parallel with each other; the former on the east side, and the latter on the west side of the West Point Foundry. They form the sides of the Foundry brook where it empties into the Hudson. It is said they were named by William Youngs [sic] Esquire who formerly was a manager in the Foundry after two places bearing those names in Ireland (Blake 1849: 163).

Another primary source referencing the neighborhood of Rascal Hill stems from Marvin Wilson who was a resident of Cold Spring beginning in 1819 and author of a short text of the village’s earliest history in 1886.

I will now take the reader to the West Point Foundry. A cluster of houses, called Rascal Hill, was built, and occupied by the families of the workmen of the Foundry. The basement of the building nearest the foot of the hill was used as the office of the Foundry. At that time the large molding house, the enormous chimney and furnaces, the large water wheel, (perhaps the largest in America,) was in full operation. It was called a cannon foundry, and there was no other like it in America (Wilson 1886: 7).

The 1854 O’Connor map labels the steep geographic feature to the south of the neighborhood as Mount Rascal and the five or six buildings are identified as “Foundry houses” (see Figure 6.01, O’Connor 1854). The configuration of the roadway in the O’Connor map suggests that it does not run immediately adjacent to most of the structures, but on the downward side of them. Standing stone walls and leveled areas observed on site in the twentieth century do not fully support this depiction of the road configuration.

The Beers map from 1867 indicates a slightly different group of roads that more closely resembles current site observations (see Figure 6.03, Beers, et al. 1867). A
Foundry stable has been added to the area as well as an outline of individual lots for the houses. In 1979, industrial archaeologist Edward Rutsch combined several map resources made by the Sanborn Insurance Company in the late nineteenth through the twentieth century into one map (Sanborn 1887; Sanborn 1897; Sanborn 1905; Sanborn 1912; Sanborn 1927; Sanborn 1937). Rutsch’s combined map illustrates the extent of the Foundry in 1905, and it does not include any structures in the Rascal Hill neighborhood because Sanborn did not include that area in its survey (Rutsch 1979; Sanborn 1905). However on the 1927 Sanborn map, one building along a “road that is not named or defined” in the Rascal Hill and stable neighborhood is labeled as two stories tall and used for storage (Sanborn 1927). This structure is likely the stable given its size, height, and location; the area is depicted as empty in the 1937 map suggesting the building’s destruction sometime over the previous decade (Sanborn 1937).

Figure 6.03: Beers Map, 1867. Note the Changed Road Configuration, the Addition of Another Building and a Stable, and the Outline of Lots on Rascal Hill. (Patrick Martin, Michigan Technological University)
Joel Grossman’s excavations of the Rascal Hill buildings in the 1990s suggested four phases/components of the location’s occupation: pre Civil War/construction (1820-1856), Civil War/occupation (1857-1876), post Civil War/destruction (1877-1894), and the final destruction of the community after 1894 (Grossman 1993: 28). These phases/components were the results of combining Strata Groups identified as “stratigraphically identifiable physical deposits” (Grossman 1993: 26) and components or Strata Groups that “reflected aspects of site formation” (Grossman 1993: 29). This division roughly parallels those established by this author for comparisons across other West Point Foundry archaeological assemblages. Grossman asserts further that there was a distinguishable difference between the eastern and western halves of each duplex structure. The present analysis tests Grossman’s initial assertions that this group of housing was for skilled workers at the Foundry who were of moderate means and could afford toys, scientific instruments, and some imported and expensive ceramics. Moreover, this ceramic assemblage will be compared to a contemporary assemblage across the Foundry valley recovered from the East Bank House.

VI.2.2. History of the East Bank House

The East Bank House is located on a terrace on the eastern/southeastern side of the West Point Foundry valley. Given its considerable size in comparison to other domestic structures in the Village (it was the second largest square footage of the five houses considered here) and location adjacent to and associated with an industrial complex, the home most likely was constructed by the company for a Foundry manager or engineer (Norris, et al. 2008). Originally built toward the onset of the Foundry, the house had a T-shaped floor plan and stood one or one and a half stories tall with its
primary facade facing towards the river, or south/southwest. Later additions to the structure were made to convert it into a boarding house sometime toward the middle of the nineteenth century. These modifications included an addition to the north, another privy, and change in the location of the primary water supply from the side of the house to elsewhere in the yard. After the Civil War and the Foundry’s downfall in the latter part of the nineteenth century, the house was modified again to remove some of the boarding house additions and to revert the house back to single family occupancy. Soon after the turn of the century, the structure was abandoned and it burnt down in 1919 (Recorder 1919).

The first illustration of the building was drawn by Thomas Kelah Wharton in November of 1832. Wharton sketched three different parts of Cold Spring: a view of the Foundry works from Constitution Island (between Cold Spring and the Military Academy at West Point), another view of the Foundry from the East Bank House terrace, and Gouverneur Kemble’s house. Wharton was born in 1814, a native of England who came to the United States in about 1830. Wharton trained as an architect and eventually had a distinguished career in New Orleans, passing away in the 1860s. He was invited to the Hudson Valley by Colonel Thayer at West Point who introduced him to Gouverneur Kemble. His friendship with Gouverneur Kemble supported his early training and contacts in society, which he recorded over the course of a few weeks in his diary from the 1830s. The three sketches of Cold Spring mentioned above can be found in this diary on file at the New York Public Library (Wharton 1832). Wharton’s sketch from Constitution Island illustrates a one or one and a half story building that faces south with a central door and two windows on the southern facade (see Figures
There is a raised porch also on the southern facade and a gable roof with two chimneys on the gable ends of the house.

Figure 6.04: Wharton Sketch from Constitution Island, 1832 with Arrow Pointing at the East Bank House. *(New York Public Library modified by E. Norris)*

Figure 6.05: East Bank House, Detail of Wharton Sketch, 1832. *(New York Public Library)*
A map of Constitution Island, located to the southeast of the Foundry from 1836 contains a minimal indication of the East Bank House (see Figure 6.06, Eastman 1836). This document only provides a distant plan view of the terrace, but clearly puts it in perspective and in relation to the valley of the Foundry and its surrounding neighborhoods or households. Also illustrated on this early map are plan views of William Kemble’s house, Gouverneur Kemble’s house, the Foundry, the East Bank House, and Vinegar Hill suggesting the contemporaneous nature of these domestic structures in an early point of the Foundry’s history.

![Constitution Island Map, 1836](image)

Figure 6.06: Constitution Island Map, 1836. It Clearly Illustrated William and Gouverneur Kemble’s Properties as well as the Vinegar Hill Neighborhood with the East Bank House also Illustrated Just Downstream from Vinegar Hill. *(Private collection, New York State modified by E. Norris)*

The next documentary evidence that can reasonably be attributed to the East Bank House was written by an Irish blacksmith, David Wylie, to Andrew Wylie and the
rest of his family in Belfast on June 4\textsuperscript{th}, 1849 that remains in the private collection of Barbara Smith (Wylie 1849). After migrating to the United States in search of employment and not finding much in New York City, Wylie came to the Foundry on a recommendation by his friend, and later roommate, Farrell Dorrity. He was a blacksmith with the company for almost a decade before moving from Cold Spring with his wife and two children, all born in Ireland.

I will tell you how I spend my time here, I board with Farrell Dorrity and Henry Scully in a very handsome house a little above the foundry. You may guess what sort of a place the foundry is situated when we come up from it by ladder. We have a room to ourselves, we arise in the mornings at six o’clock, washes ourselves and get breakfast, goes to work at 7oc[lock], gets dinner at 12oc, goes back at loc[lock] and works to 6oc[lock]. Comes home, gets supper after putting on some dry clothes, then we spend the evenings generally in our room, Henry plays fiddle and Farrell sings (Wylie 1849).

By the 1850 census, Wylie is living with multiple families in the same household, while Dorrity moved out of the boarding house to live with his family in a single family home nearby to Wylie; Henry Scully is about 10 years older than the others and in 1850 he and his wife are living with four of their own children and two other children, all of whom are attending school. If these three men are any indication of typical boarding house tenants, the boarding situation was as short as possible. Workers like Dorrity and Scully appeared to prefer single family housing and boarded only temporarily.

A map from 1854 known as the O’Connor Map, showed the East Bank House as a T-shaped building with a broad front on the south side and a narrower extension to the north (see Figure 6.01, O’Connor 1854). The house is situated on a road that leads from the Hudson River east/northeast towards Nelsonville. This is the only map of two that include the house, which often was not included because of its location on Foundry property above the industrial operations. An undated photo of Cold Spring taken from
Crow’s Nest on the west side of the Hudson River is believed to date to the latter part of
the nineteenth century (Figure 6.07). It shows a two story T-shaped structure, although
it does not show any addition to the back or northern facade that was archaeologically
uncovered.

![East Bank House](image)

**Figure 6.07: Detail of a Photograph of East Bank House Looking East/Southeast
from Across the Hudson River on Crow’s Nest, Late Nineteenth Century.**

*Putnam County Historical Society & Foundry School Museum
modified by E. Norris*

One of the most detailed descriptions of the structure stems from a newspaper
account of its destruction in 1919. A reporter for the *Cold Spring Recorder* on May 16
did not get all details about the structure correct (such as its construction date) but did
describe many interesting aspects of the house’s occupation and function over time
(Recorder 1919).

At one o’clock last night the fire alarm called out members of the fire
department who responded promptly and were soon in force to the scene of the
conflagration with apparatus all ready for business. However, owing to the
distance of the fire from the village hydrants it was not possible to connect up
with the village water system and the building burned to the ground.
It was the old foundry company’s house located on the road running in from the iron bridge, a building erected back in 1844 for the use of one of the company’s engineers, and since then used as a boarding house and as a private residence, until some years ago when it was abandoned altogether.

It was a completely large wooden house with three separate chimneys, two of which contained old fashion fire places. Located back in the woods a natural amphitheater with giant trees in the foreground, the burning house furnished such a scene that would be the despair of the cameraman. No moving picture concern ever staged so spectacular and so gorgeous a conflagration.

There was not a great deal of money value at stake, as the building had been offered for sale for $25, and those who came to put out the fire remained to see the display of fireworks staged by the fire king himself, with all the wealth of his command of vivid coloring and of varying form of roaring, rolling flame and of gleaming shafts of fire (Recorder 1919).

From this newspaper account we learn that East Bank House was a boarding house and that it was unoccupied before the fire. When combined with the archaeological evidence, the history of the East Bank House could be summarized as having three periods of occupation: single family house, boarding house, and single family house. The first is suspected to be an engineer’s occupation of the structure between its construction in the 1820s and its conversion to a boarding house for single, Foundry workers of various skill levels living with someone, probably a woman with her family. There also may have been children living at the East Bank House sometime in the 1840s. In the 1880s the structure appears to have reverted back into a single family house of lesser means than the structure’s original occupant and was abandoned before it caught fire in 1919.

VI.3. West Point Foundry Ceramic Assemblages

The West Point Foundry Association had several houses within the community of Cold Spring over which they had direct influence. Two such locations immediately adjacent to the industrial complex and within the current boundaries of the West Point
Foundry Preserve owned by Scenic Hudson afford a unique opportunity to examine that relationship and influence: Rascal Hill #2 and the East Bank House. Archaeologists named both locations, although there is one historic reference to the houses on Rascal Hill without any detail as to number (Wilson 1886: 7). Joel Grossman headed excavations at Rascal Hill #2 (noted by Grossman as Building #2 on the Haul Road, both names were created during the Marathon Battery clean up; for purposes of this study, the historic name and modern number are used) between 1991 and 1993; investigations at the East Bank House were conducted by Patrick Martin, Timothy Scarlett, and Samuel Sweitz and the Michigan Technological University’s Industrial Archaeology program 2005 and 2006. Both excavations yielded significant quantities of artifacts and comparable ceramic assemblages that illuminate differences in economics and orderliness within the homes of West Point Foundry workers.

After evaluating archaeological collections from Grossman’s Rascal Hill excavations that consisted of six different structures and between 2,000 and 5,000 ceramic sherds from each, Rascal Hill #2 was determined to be the best example from the entire assemblage of approximately 25,000 ceramic sherds and six structures. In comparison to other duplexes, Rascal Hill #2 yielded a wide variety of identified manufacturers, vessel types and decoration, and an assemblage of sherds. Of the six different structures Grossman identified, Rascal Hill #2 had the least well defined construction component (between 1780 and 1940) and several artifacts dating to around 1899, the latest of any Rascal Hill structure (Grossman 1993: 39-40). The eastern basement of Rascal Hill #2 contained a dirt floor while its western basement was dry-laid brick for at least one quarter of the floor. There was also a dry laid brick porch or
walkway outside of the western entrance of bricks into the cellar as well as a brick staircase into the eastern basement.

The East Bank House was located on an isolated terrace that historically had a tie to the West Point Foundry. Michigan Technological University’s investigations of that terrace have been conducted in a controlled manner following natural and occasionally arbitrary stratigraphy. Field school participants excavated approximately twenty percent of the area immediately adjacent to the foundation. Of the terrace, a grid of shovel test pits yielded a sampling of approximately one hundred square meters or approximately two to three percent of the half an acre house lot. The author’s participation in those excavations allowed easy access to and facilities for the study of the collection in Michigan. Both collections had many examples of the same types of wares, some of which were easier to date than others based on makers marks or decoration like transfer prints (Samford 1997).

VI.3.1. Rascal Hill #2’s Ceramic Assemblage

Joel Grossman and Associates excavated Rascal Hill #2 over two seasons. In 1989 they conducted a phase I sensitivity evaluation that included extensive excavations along the eastern side of structure #2 (Grossman 1990). Then during the winter of 1991 and 1992 they returned for more extensive excavations both inside and outside of the structure (Grossman 1993). The documentary history outlined above did not clearly indicate the occupants of Rascal Hill. The ceramic assemblage in combination with other artifacts allowed a more refined view of the types of occupants that included semi-skilled male Foundry workers and their families. A total of 4,042 sherds represented a minimum of 387 vessels from Rascal Hill #2.
Grossman identified three periods: pre Civil War, Civil War, and post Civil War. Generally, these parallel the dates 1820s-1840s, 1840s-1860s, and 1860s-1880s. Period 1 (1820s-1840s) included 98 vessels: 31 bowls, 29 cups, 10 plates, 26 saucers, and 2 pitchers. Various types of decoration exist within the collection: green and blue feathered edge plates and saucers, transfer prints of various colors, annular wares, undecorated vessels, and gilt. Only two pitchers with annular decoration were found as well as one red ware bowl and two yellow ware plates.

Period 2 (1840s-1860s) before and around the Civil War had 173 vessels associated with it: 54 bowls, 54 cups, 25 plates, 36 saucers, 3 pitchers, and 1 teapot. A plurality of these (81) had a cobalt glaze. Although undecorated creamwares were a part of this period, serving plates were decorated with various motifs including pie crust red ware, gilt decorated porcelain, green and blue feathered edge, and bowls decorated with annular bands, hand painted, and transfer print in blue, black, brown, red, and purple. A teapot was made of red ware with a dark brown glaze and molded annular decoration while the three pitchers were either annular or blue transfer print. The largest percentage of undecorated creamware vessels (creamy paste and slight greenish glaze) for the house was found during this period (12 vessels or 6.8%).

Period 3 (1860s-1880s) after the Civil War, contained 116 vessels: 34 bowls, 40 cups, 13 plates, 25 saucers, 2 pitchers, 1 chamber pot, and 1 jug. Of the three periods, the most ironstone (11%) and porcelain (15%) vessels were found from Period 3 with thirteen of the former and seventeen of the latter. In addition to the variety of vessel types, Period 3 contained different decorative motifs: decal, gilt, annular, hand painted, and a variety of transfer print and flow (blue, black, brown, and red). The chamber pot
and one pitcher were made from a yellow ware while the other pitcher was hand painted and annular molded. The jug was gray stoneware with brown Albany slip.

A number of maker’s marks were recovered from Rascal Hill #2 including several international examples from Austria, France, England, as well as the United States. The base of a teacup was labeled “Austria” in red transfer print while another broken base only had “Aus...” also in red. A porcelain teacup manufactured between 1842-1898 was labeled “LIMOGES” in red and “ELITE L FRANCE” in green transfer print (Kovel and Kovel 1953). A porcelain saucer labeled “CH Field Haniland” was also from France and dated to 1882 (CX 235.02, Period 3, Coysh and Henrywood 1982; Godden 1964). Also a blue transfer print marked with “LUCERNE...” (CX 238.02, Period 3) in a scroll cartouche may be in reference to the Swiss canton capital of the same name on the River Reuss near Lake Lucerne, although the maker is unidentified (Coysh and Henrywood 1982).

Several examples in Rascal Hill #2’s assemblage came from England and its Staffordshire potteries. There is a brown transfer print vessel with part of the William Adams & Sons of the Staffordshire potteries that read “…RANTED” from Fea. 246.01, CX 253.05 that dates to the first half of the nineteenth century (Godden 1964). On a blue transfer print plate the bottom was impressed with “…HN RIDG…” that dates to between 1830 and 1855 (CX 250.07, Period 1 or 2, Godden 1964). A blue transfer print marked with “J.G. ALCOCK…COBRIDGE” (CX 238.02) was manufactured between 1853 and 1861 from one of the Staffordshire potteries (Godden 1964). Also dating to the same period and region was a blue transfer print, possibly flow blue, vessel manufactured by Thomas, John, and Joseph Mayer of the Furlong Works and Dale Hall.
Pottery, Burslem, that refers to Oregon and is stamped “OREGO…” “CHINESE POR…” “T.J. & J…” “LON…” (CX 250.02, Period 2, Coysh and Henrywood 1982; Godden 1964).

Other English potteries were also well represented in Rascal Hill #2 of the Rascal Hill neighborhood, particularly vessels from Wedgewood and Davenport (Godden 1964). There was a black transfer print and impressed makers mark from Wedgewood “J. WEDGEWOOD…PEARL…. HINA…” (CX 235.05, Period 1, Wetherbee 1980). From the United States there were two definitive examples including marked “…ED STA…” from CX 255.03, possibly Period 1 and “…D ST…” from CX 238.01, Period 3. A lightning type porcelain stopper, embossed with “M.Clune. Peekskill N.Y.” (CX 203.02, Period 2), although not kitchen ceramics suggests more local markets. For additional unidentified maker’s marks, please see Table 6.01 where CX 200 stands for the excavation unit (see Figure 2.02) and the last two numbers were stratigraphic level.

Table 6.01: Table of Maker’s Marks from Rascal Hill #2. Table continued on Next Page.

<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>PERIOD</th>
<th>MATERIAL</th>
<th>MAKER’S MARK</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX 255.03</td>
<td>Period 1</td>
<td>Whiteware</td>
<td>Impressed “…ED STA…” for United States</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 241.04</td>
<td>Period 1</td>
<td>Whiteware</td>
<td>Imprinted “F”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 241.04</td>
<td>Period 1</td>
<td>Whiteware</td>
<td>Black transfer print “ENOA”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 236.05</td>
<td>Period 1</td>
<td>Whiteware</td>
<td>Blue transfer print “…RRAN…”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 255.03</td>
<td>Period 1</td>
<td>Whiteware</td>
<td>Blue transfer print of a Staffordshire maker’s mark “…ER LONGPO…”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 250.07</td>
<td>Period 1 or 2</td>
<td>Whiteware</td>
<td>Blue transfer print plate the bottom impressed with “…HN RIDG…”</td>
<td>1830 - 1855</td>
</tr>
<tr>
<td>CX 253.05/ Fea. 246.01</td>
<td>Period 1 or 2</td>
<td>Whiteware</td>
<td>Brown transfer print William Adams &amp; Sons of the Staffordshire potteries “…RANTED”</td>
<td>Pre 1850</td>
</tr>
<tr>
<td>CX 202.02</td>
<td>Period 2</td>
<td>Whiteware</td>
<td>Impressed “Davenport 3 [impressed anchor symbol] 6”</td>
<td>1836</td>
</tr>
<tr>
<td>CX 252.02</td>
<td>Period 2</td>
<td>Whiteware</td>
<td>Impressed anchor in circle, partial “Davenport” with a “4”</td>
<td>1840s</td>
</tr>
</tbody>
</table>
### Table 6.01 (continued): Table of Maker’s Marks from Rascal Hill #2.

<table>
<thead>
<tr>
<th>Code</th>
<th>Period</th>
<th>Type</th>
<th>Description</th>
<th>Date/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX 235.05</td>
<td>2</td>
<td>Whiteware</td>
<td>Black transfer print and impressed makers mark from Wedgewood “J. WEDGWOOD…PEARL…...HINA…”</td>
<td>1847</td>
</tr>
<tr>
<td>CX 238.02</td>
<td>2</td>
<td>Whiteware</td>
<td>Blue transfer print “J.G. ALCOCK…COBRIDGE” Staffordshire potteries</td>
<td>1853 and 1861</td>
</tr>
<tr>
<td>CX 230.03</td>
<td>2</td>
<td>Ironstone</td>
<td>Black transfer print “WARRANTED” with “<em>.</em>._. &amp; CO” in a ribbon</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 252.02</td>
<td>2</td>
<td>Ironstone</td>
<td>Black transfer print “…STONE”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 202.03</td>
<td>2</td>
<td>Whiteware</td>
<td>Brown transfer print “N” and “…gland” for England</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 236.03</td>
<td>2</td>
<td>Whiteware</td>
<td>Impressed “5”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 250.01</td>
<td>2</td>
<td>Whiteware</td>
<td>Blue transfer print “…CL…” “…WARRANT…”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 254.02</td>
<td>2</td>
<td>Whiteware</td>
<td>Impressed “17” and black “9” or “6”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 205.01</td>
<td>2</td>
<td>Whiteware</td>
<td>“Clew's Staffordshire”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 250.02</td>
<td>2</td>
<td>Whiteware</td>
<td>Blue transfer print, Oregon and is stamped “OREGO…” “CHINESE POR…” “T.J. &amp; J…” “LON…” Thomas, John, and Joseph Mayer of the Furlong Works and Dale Hall Pottery, Burslem</td>
<td>Unknown</td>
</tr>
<tr>
<td>STP 3</td>
<td>2</td>
<td>Whiteware</td>
<td>Blue transfer print “…SLEM” for Burslem, England</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 203.02</td>
<td>2</td>
<td>Porcelain</td>
<td>Lightning type stopper, embossed with “M.Clune. Peekskill N.Y.”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 209.03</td>
<td>3</td>
<td>Porcelain</td>
<td>Teacup “LIMOGES” in red and “ELITE L FRANCE” in green transfer print</td>
<td>1842-1898</td>
</tr>
<tr>
<td>CX 235.02</td>
<td>3</td>
<td>Porcelain</td>
<td>“CH Field Haniland” from France</td>
<td>1882</td>
</tr>
<tr>
<td>CX 225.03</td>
<td>3</td>
<td>Whiteware</td>
<td>Blue transfer print maker's mark “…affordshire” with crown clews</td>
<td>Post 1818</td>
</tr>
<tr>
<td>CX 235.02</td>
<td>3</td>
<td>Whiteware</td>
<td>Blue transfer print plate “ROSELLE J.M. &amp; SON” for John Meirt &amp; Son, a Staffordshire potter</td>
<td>Post 1848</td>
</tr>
<tr>
<td>CX 204.03</td>
<td>3</td>
<td>Whiteware</td>
<td>Red transfer print “…TH…”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 203.01</td>
<td>3</td>
<td>Whiteware</td>
<td>Impressed “D &amp; D”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 237.01</td>
<td>3</td>
<td>Whiteware</td>
<td>Black transfer print “…D” “…HIN…” probably for China</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 203.03</td>
<td>3</td>
<td>Whiteware</td>
<td>“R” and a partial letter O?</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 203.02</td>
<td>3</td>
<td>Ironstone</td>
<td>Red “G” and “No. 2…”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 204.04</td>
<td>3</td>
<td>Whiteware</td>
<td>Red transfer print teacup “Austria”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 230.01</td>
<td>3</td>
<td>Whiteware</td>
<td>Red transfer print teacup “Austria”</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 238.02</td>
<td>3</td>
<td>Whiteware</td>
<td>Blue transfer print marked with “LUCERNE…” from France</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 237.02</td>
<td>3</td>
<td>Ironstone</td>
<td>Black transfer “IRON…” and “10 Davenport” impressed</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 260.01</td>
<td>3</td>
<td>Whiteware</td>
<td>Impressed Davenport over anchor</td>
<td>Unknown</td>
</tr>
<tr>
<td>CX 238.01</td>
<td>3</td>
<td>Whiteware</td>
<td>“…D ST…” for United States</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
All three periods had the same basic types of vessels (see Figure 6.08). The major difference between the periods was an increase in vessel count during Period 2, probably due to the increased number of workers at the West Point Foundry around the time of the Civil War. Also noticeable over time is a slight increase in vessel variety during Period 3 to include a chamber pot and a jug. This constancy in percent of assemblages over time suggests that the same types of workers remained in the Rascal Hill neighborhood throughout its entire occupation. These workers purchased ceramics from England, Austria, France, and the United States. They had twice to three times the number of bowls to plates, suggesting a greater reliance on less expensive stews and soups, rather than more expensive cuts of meat (Reitz 1987; Schulz and Gust 1983). As the documentary evidence suggested, Rascal Hill was probably the home of skilled or semi-skilled male Foundry workers and their families who were able to purchase some foreign tableware or bring it with them possibly as a family heirloom and who diversified the number of their vessels over time. The consistency of this assemblage over time, though, is quite remarkable.
VI.3.2. East Bank House’s Ceramic Assemblage

From the 2005 and 2006 field seasons, excavators collected 5,095 ceramic sherds from over a possible four hundred vessels with a minimum vessel count of 370. In total there were 20 excavation units, most measuring two by two meters and 65 shovel test pits at five meter intervals across the house’s terrace (see Figure 6.09). There were generally three periods of occupation noted by Deegan and redefined by the 2006 field season (Deegan 2006: 163-164). The ceramic assemblages parallel the historic documentation of the site outlined above.
Figure 6.09: Plan View of East Bank House Shovel Test Pits and Excavation Units. Note that Not All STPs Are Labeled. Grid Increases to the East and North.  
(E. Norris, 2008)
Period 1 (roughly 1820-1840) included the initial construction of the East Bank House and its occupation by at least one Foundry engineer and his family. Ceramics from this period included 57 vessels: 15 consumption bowls, 15 saucers, 13 cups, 12 consumption plates, one serving plate, and one crock. Note the equal number of bowls to plates in comparison to at least twice as many bowls as plates recovered from Rascal Hill #2. Varying amounts of decoration were found on these vessels including undecorated and molded vitreous wares, blue and purple transfer printed vessels, blue and green feather edged saucers and plates, floral hand painted saucers and plates, Rockingham glaze on the crock, and eleven porcelain vessels, including five cups, some undecorated and some decorated with gilt or hand painted floral designs. The assemblage was dominated by cobalt-glazed and vitreous vessels, and had the highest percent of porcelain (19%) and cups (23%) out of the three periods. Only one crock and one ironstone saucer were recovered from this Period 1. Also lacking from Period 1’s assemblage was evidence of any chamber pots, pitchers, tea pots, or jugs.

The Period 2 (1840s through 1880s) consists of the boarding house phase of East Bank House occupation. Ceramics from this period includes 141 vessels: 26 consumption bowls, 9 serving bowls, 38 saucers, 24 cups, 25 consumption plates, 6 serving plates, 4 pitchers, 3 chamber pots, 3 jugs, 2 crocks, and one teapot. Note the increase in serving vessels, something suggestive of common meals for larger numbers. There was an equal number of plates to bowls in Period 2 suggesting meals consisting of higher cost cuts of meat (Reitz 1987; Schulz and Gust 1983). Decorative motifs included undecorated cream and copper-tinted glaze wares; brown slip buff and gray stoneware; molded or undecorated ironstone; annular or undecorated yellow ware;
refined red ware teacups and yellow slip red ware serving plates; undecorated, blue transfer print, molded, and scalloped porcelain vessels; annular, hand painted, molded, paneled, and undecorated vitreous wares; annular, black and blue transfer print and flow, blue feather edge, molded, paneled, and undecorated cobalt and clear vessels. Of particular note from Period 2 was the yellow and red ware serving vessels, lack of porcelain, and abundance of cobalt glazed vessels (43%).

Period 3 (roughly 1880s-1919) was from the closing of the Foundry through the house’s destruction. Ceramics from this period include 172 vessels: 37 consumption bowls, 2 serving bowls, 51 saucers, 26 cups, 39 consumption plates, 9 serving plates, 2 chamber pots, 5 jugs, and one crock. Decorative motifs included undecorated cream ware; scalloped, molded, annular copper ware; brown slip and undecorated stonewares; undecorated ironstone; molded yellow ware; undecorated, scalloped, molded, and gilt decal porcelain; undecorated, annular, molded, hand painted, decal, and transfer print vitreous ware; black and blue and red and brown transfer print, blue and green feather edge, annular, molded, hand painted, paneled, and undecorated cobalt and clear vessels.

Of the maker’s marks that were identified from the 2005 and 2006 assemblage, at least three came from New Jersey and the rest from England (see Figure 6.10). There are several examples of Etruria wares manufactured by Ott & Brewer in Trenton, New Jersey between 1863 and 1893 (DeBolt 1994: 108). Also present is the mark of Prospect Hill Pottery, operating from 1872 through 1894 in Trenton, stamped with Dale and Davis (DeBolt 1994: 120-121). The Willets Manufacturing mark dates between 1879-1909 (DeBolt 1994: 163). British marks included patent office marks, many Davenports, and one from John Maddock & Sons (Neale 2005).
Period 1 (roughly 1820-1840) was an assemblage dominated by consumption rather than serving or hygiene vessels. The boarding house, Period 2, (1840s through 1880s) likely had a greater need for storage vessels than either of the other periods as evident in this variety of vessels and wares. The last assemblage associated with a single family household (roughly 1880s-1919) has a balance of storage and serving vessels, in between the other two periods. The variety in this assemblage was a reflection of its size, changes in decorative motifs on ceramics by the twentieth century,
and the variety of East Bank House occupants. This Period 3 was likely to consist of multiple households during the Cornell Company’s occupation of the West Point Foundry, although this is difficult to confirm given the lack of a documentary record for this company house.

Unlike the Rascal Hill #2, the East Bank House showed very different types of vessels during its three periods (see Figure 6.11). The increase of vessel types during the Period 2 was probably due to the increased number of workers at the West Point Foundry and the needs of the boarding house around the time of the Civil War. Between the engineer household and the boarding house there was an increase from five types of vessels to nine including pitchers, teapots, and chamber pots. This inconstancy in percent of vessels at the East Bank House during the three periods corroborates the documentary history of the structure’s changing inhabitants.

Figure 6.11: Pie Graphs of East Bank House Vessel Types According to Period.
Inhabitants of the East Bank House only purchased ceramics from England and the United States, unlike those at Rascal Hill who imported from a variety of other countries. There also were slightly lower percentages of cups found at the East Bank House indicating the importance of tea and coffee consumption is lower at the East Bank House than at Rascal Hill #2. There also almost twice as many plates in the East Bank House assemblages than across the valley, suggesting a difference in diet of the inhabitants, regardless of the structure’s use as a single family house or boarding house (Schulz and Gust 1983).

VI.4. West Point Foundry Ceramics & Theoretical Applications

Two analyses will be used to gain some insight into the owner/managers, the skilled workers, and the unskilled workers cultural positions relative to one another. The economic index proposed by Miller provides insight into the value of the ceramic assemblage, a measure of the relative disposable income of each group. The capital consumption index proposed by Leone assesses the degree to which an assemblage reflects the self disciplining features of individualism, cultural fetishism, and hence the degree of participation of the household in the consumption practices of mass consumer capitalism. Only through a combination of these approaches can one begin to understand each of these class positions and the processes surrounding their formation, thereby understanding how the owners impacted the daily lives of the workers.

VI.4.1. West Point Foundry Ceramics & Economic Theory

Miller’s economic ceramic analysis evaluates the cost of differently decorated wares against one another, highlighting the changes in the value of ceramic vessels over
and refined economic evaluation of ceramics from the nineteenth century. Thus, this
second publication points out and accounts for the decline in prices and changes in
tariffs that affected ceramic value. Miller’s analysis of ceramic vessels began with
establishing a minimum vessel count for each assemblage that spans no more than
twenty years. Then according to decoration on the bowls, plates, and cups, one uses his
index to find an appropriate year and its corresponding index value. This index value,
unique to the vessel type, size, decoration, and year, is multiplied by the number of
corresponding vessels. By summing together all the results of bowls, plates, and cups
one has the average index value for the collection. Thus different assemblages can be
compared to one another based on the value of their ceramic vessels.

Miller’s economic analysis was used to develop comparable indexes for the
assemblages for each of the nineteenth century periods from Rascal Hill #2 and the
East Bank House. These estimations were conservative with vessels that did not have a
Corresponding equivalent in Miller’s economic index being counted as an undecorated
vessel. Thus, the economic index does not take into consideration any yellowware, red
ware, or stoneware vessels outside of tableware or tea ware. The index does not count
different vessel types such as chamber pots, jugs, crocks, teapots, or pitchers. These
preparation and personal vessel types and their implication on assemblages and their use
will be explored through the capitalist consumption analysis that follows.

The ceramics from Rascal Hill #2 resulted in an index of 2.41 for Period 1 of
occupation (1820-1840) from a total of 101 vessels: 43 plates and saucers, 32 bowls,
and 26 cups. This was the highest economic index of Rascal Hill #2’s occupation.
Period 2 (1840-1860) had a lower index of 1.93 based on 169 vessels: 61 plates and saucers, and 54 of each bowls and cups. Period 3 of the duplex Rascal Hill #2 had the lowest index of 1.63. This Period 3 index calculation was based on 111 vessels including: 37 plates and saucers, 34 bowls, and 40 cups. Please refer to Table 6.02 for the detailed calculations of these economic indexes.

Table 6.02: Rascal Hill #2 Economic Index Calculations. Table continued on Next Page.

<table>
<thead>
<tr>
<th>a. #2 = Duplex Period 1 (1820s-1840s) = (101) Economic 2.41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plates &amp; Saucers</td>
</tr>
<tr>
<td>(5) Undecorated = 1x5</td>
</tr>
<tr>
<td>(1) Vitreous &amp; Ironstone = 2.03</td>
</tr>
<tr>
<td>(7) Porcelain = 3x7</td>
</tr>
<tr>
<td>(19) Transfer Print = 3.09x6 + 3.27x11 + 3.22x2</td>
</tr>
<tr>
<td>(1) Willow = 3.08</td>
</tr>
<tr>
<td>(6) Shell = 1.43x4 + 1.3 + 1.35</td>
</tr>
<tr>
<td>(4) Underline = 1.91x3 + 1.74</td>
</tr>
<tr>
<td>Bowls</td>
</tr>
<tr>
<td>(5) Undecorated = 1</td>
</tr>
<tr>
<td>(3) Porcelain = 2.5x3</td>
</tr>
<tr>
<td>(13) Transfer Print = 2.8x13</td>
</tr>
<tr>
<td>(4) Hand Painted = 1.63x4</td>
</tr>
<tr>
<td>(6) Dipped = 1.2x6</td>
</tr>
<tr>
<td>(1) Sponge = 1.11</td>
</tr>
<tr>
<td>Cups</td>
</tr>
<tr>
<td>(2) Vitreous &amp; Ironstone = 2.11x2</td>
</tr>
<tr>
<td>(4) Porcelain = 4.07x4</td>
</tr>
<tr>
<td>(8) Transfer Print = 2.91x8</td>
</tr>
<tr>
<td>(6) Hand Painted = 1.49x6</td>
</tr>
<tr>
<td>(6) Dipped = 1.5x6</td>
</tr>
</tbody>
</table>
Table 6.02 (continued): Rascal Hill #2 Economic Index Calculations.

a. #2 = Duplex Period 2 (1840s-1860s) = (169) Economic 1.93

<table>
<thead>
<tr>
<th>Plates &amp; Saucers</th>
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<tbody>
<tr>
<td>(17) Undecorated = 1x17</td>
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<tr>
<td>(3) Porcelain = 3x3</td>
<td>9</td>
</tr>
<tr>
<td>(20) Transfer Print = 2.13x2 + 2.25x5 + 2.24x8 + 2.3x2 + 2.34x2 + 3.05</td>
<td>45.76</td>
</tr>
<tr>
<td>(2) Flow = 2.87 + 2.52</td>
<td>5.39</td>
</tr>
<tr>
<td>(1) Willow = 1.41</td>
<td>1.41</td>
</tr>
<tr>
<td>(3) Hand Painted = 1.56x3</td>
<td>4.68</td>
</tr>
<tr>
<td>(12) Shell = 1.14x3 + 1.2x3 + 1.47 + 1.16x4 + 1.17</td>
<td>14.3</td>
</tr>
<tr>
<td>(3) Underline = 1.91x3</td>
<td>5.73</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Bowls</th>
<th>(54)</th>
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</thead>
<tbody>
<tr>
<td>(10) Undecorated = 1x10</td>
<td>10</td>
</tr>
<tr>
<td>(1) Vitreous &amp; Ironstone = 2.43</td>
<td>2.43</td>
</tr>
<tr>
<td>(19) Transfer Print = 2.5x19</td>
<td>47.5</td>
</tr>
<tr>
<td>(15) Hand Painted = 1.54x15</td>
<td>23.1</td>
</tr>
<tr>
<td>(9) Dipped = 1.17x9</td>
<td>10.53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cups</th>
<th>(54)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(9) Undecorated = 1x9</td>
<td>9</td>
</tr>
<tr>
<td>(1) Vitreous &amp; Ironstone = 2.11</td>
<td>2.11</td>
</tr>
<tr>
<td>(4) Porcelain = 4.07x4</td>
<td>16.28</td>
</tr>
<tr>
<td>(29) Transfer Print = 2.91x26 + 3.17x3</td>
<td>85.17</td>
</tr>
<tr>
<td>(3) Hand Painted = 1.49x3</td>
<td>4.47</td>
</tr>
<tr>
<td>(8) Dipped = 1.5x8</td>
<td>12</td>
</tr>
</tbody>
</table>

b. #2 = Duplex Period 3 (1860s-1880s) = (111) Economic 1.63

<table>
<thead>
<tr>
<th>Plates &amp; Saucers</th>
<th>(37)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(8) Undecorated = 1x8</td>
<td>8</td>
</tr>
<tr>
<td>(3) Vitreous &amp; Ironstone = 2.3 + 1.89 + 1.95</td>
<td>6.14</td>
</tr>
<tr>
<td>(7) Porcelain = 3.92x5 + 3 + 5.06</td>
<td>27.66</td>
</tr>
<tr>
<td>(13) Transfer Print = 1.4x2 + 1.25x3 + 1.22x4 + 1.52 + 1.33x3</td>
<td>16.94</td>
</tr>
<tr>
<td>(2) Hand Painted = 1.75x2</td>
<td>3.5</td>
</tr>
<tr>
<td>(3) Shell = 1.5x3</td>
<td>3.45</td>
</tr>
<tr>
<td>(1) Band &amp; Line = 1.16</td>
<td>1.16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bowls</th>
<th>(34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10) Undecorated = 1x10</td>
<td>10</td>
</tr>
<tr>
<td>(4) Vitreous &amp; Ironstone = 2.35x4</td>
<td>9.4</td>
</tr>
<tr>
<td>(2) Porcelain = 2.54x2</td>
<td>5.08</td>
</tr>
<tr>
<td>(11) Transfer Print = 2x11</td>
<td>22</td>
</tr>
<tr>
<td>(2) Hand Painted = 1.37x2</td>
<td>2.74</td>
</tr>
<tr>
<td>(5) Dipped = 1.14x5</td>
<td>5.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cups</th>
<th>(40)</th>
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<tbody>
<tr>
<td>(5) Undecorated = 1x5</td>
<td>5</td>
</tr>
<tr>
<td>(6) Vitreous &amp; Ironstone = 1.86x6</td>
<td>11.16</td>
</tr>
<tr>
<td>(8) Porcelain = 2.2x8</td>
<td>17.6</td>
</tr>
<tr>
<td>(12) Transfer Print = 1.27x12</td>
<td>15.24</td>
</tr>
<tr>
<td>(4) Hand Painted = 1.16x4</td>
<td>4.64</td>
</tr>
<tr>
<td>(5) Dipped = 1.22x5</td>
<td>6.1</td>
</tr>
</tbody>
</table>
During Period 1 of the East Bank House, when it was occupied by an engineer (1820s-1840s), an economic index of 3.07 was calculated for 56 vessels including 28 plates and saucers, 15 bowls, and 13 cups. Period 2, the boarding house phase, saw a considerable drop in the value of economic index of 1.59 and 1.60. Vessels from the 1840s-1860s totaled 62 and included 37 plates and saucers, 15 bowls, and 10 cups. Vessels from the 1860s-1880s totaled 75 and included 41 plates and saucers, 20 bowls, and 14 cups. Unfortunately, Miller’s economic index does not include data to calculate an index for the final years (Period 3) of East Bank House occupancy. However, if quantity of porcelain vessels is any indication of wealth, the final period of occupation contained the highest percentage of porcelain of any East Bank House period, thus making it somewhat surprisingly of high value. For further detail of the breakdown of each index, see Table 6.03.

**Table 6.03: East Bank House Economic Index Calculations. Table continued on Next Page.**

<table>
<thead>
<tr>
<th>Plates &amp; Saucers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(9) Undecorated = 1x9</td>
<td>9</td>
</tr>
<tr>
<td>(3) Vitreous &amp; Ironstone = 2.03x3</td>
<td>6.09</td>
</tr>
<tr>
<td>(6) Porcelain = 7.14x6</td>
<td>42.84</td>
</tr>
<tr>
<td>(4) Transfer Print = 3.22x2 + 3.09 + 3.27</td>
<td>12.8</td>
</tr>
<tr>
<td>(2) Willow =2.72x2</td>
<td>5.44</td>
</tr>
<tr>
<td>(4) Shell = 1.33+ 1.35 + 1.38 + 1.17</td>
<td>5.23</td>
</tr>
<tr>
<td>Bowls</td>
<td></td>
</tr>
<tr>
<td>(6) Vitreous &amp; Ironstone = 1.6 + 2.3x5</td>
<td>13.1</td>
</tr>
<tr>
<td>(6) Transfer Print = 2.8x6</td>
<td>16.8</td>
</tr>
<tr>
<td>(2) Hand Painted = 1.63x2</td>
<td>3.26</td>
</tr>
<tr>
<td>(1) Sponge = 1.11</td>
<td>1.11</td>
</tr>
<tr>
<td>Cups</td>
<td></td>
</tr>
<tr>
<td>(1) Vitreous &amp; Ironstone =2.08</td>
<td>2.08</td>
</tr>
<tr>
<td>(5) Porcelain =14.5x2 + 2 + 1.8x2</td>
<td>34.6</td>
</tr>
<tr>
<td>(7) Transfer Print = 3.4x5 + 1 + 1.8</td>
<td>19.8</td>
</tr>
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</table>
Table 6.03 (continued): East Bank House Economic Index Calculations.

b. EBH = Boarding House I, 1840s-1860s = \textbf{(62) Economic 1.59}

<table>
<thead>
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<td>(13) Undecorated = 1x13</td>
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<tr>
<td>(8) Vitreous &amp; Ironstone = 2.3 + 2.03x3 + 2.09 + 2.11 + 2.05x2</td>
<td>14.66</td>
</tr>
<tr>
<td>(2) Porcelain = 3.4 + 3.92</td>
<td>7.32</td>
</tr>
<tr>
<td>(5) Transfer Print = 2.24x4 + 2.25</td>
<td>11.21</td>
</tr>
<tr>
<td>(1) Flow = 2.84</td>
<td>2.84</td>
</tr>
<tr>
<td>(1) Willow = 1.41</td>
<td>1.41</td>
</tr>
<tr>
<td>(2) Hand Painted = 1.56x2</td>
<td>3.12</td>
</tr>
<tr>
<td>(5) Shell = 1.14x3 + 1.16 + 1.17</td>
<td>5.75</td>
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<table>
<thead>
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<tbody>
<tr>
<td>(7) Undecorated = 1x7</td>
<td>7</td>
</tr>
<tr>
<td>(2) Vitreous &amp; Ironstone = 2.43x2</td>
<td>4.86</td>
</tr>
<tr>
<td>(1) Porcelain</td>
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<tr>
<td>(1) Transfer Print = 2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>(4) Dipped = 1.17x4</td>
<td>4.68</td>
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</table>

<table>
<thead>
<tr>
<th>Cups</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Undecorated = 1x3</td>
<td>3</td>
</tr>
<tr>
<td>(4) Vitreous &amp; Ironstone = 2.08x4</td>
<td>8.32</td>
</tr>
<tr>
<td>(1) Transfer Print = 2.91</td>
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<tr>
<td>(1) Hand Painted = 1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>(1) Luster = 2</td>
<td>2</td>
</tr>
</tbody>
</table>

c. EBH = Boarding House II, 1860s-1880s = \textbf{(75) Economic 1.60}

<table>
<thead>
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<th>Plates &amp; Saucers</th>
<th></th>
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<tbody>
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<td>(12) Undecorated = 1x12</td>
<td>12</td>
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<tr>
<td>(10) Vitreous &amp; Ironstone = 1.95x6 + 1.77x2 + 1.89 + 1.76</td>
<td>18.89</td>
</tr>
<tr>
<td>(2) Porcelain = 3.92x2</td>
<td>7.84</td>
</tr>
<tr>
<td>(7) Transfer Print = 2.95 + 2.24 + 2.3x3 + 2.13x2</td>
<td>12.09</td>
</tr>
<tr>
<td>(1) Flow = 2.84</td>
<td>2.84</td>
</tr>
<tr>
<td>(2) Willow = 1.22x2</td>
<td>2.44</td>
</tr>
<tr>
<td>(2) Hand Painted = 1.58x2</td>
<td>3.16</td>
</tr>
<tr>
<td>(5) Shell = 1.10x4 + 1.2</td>
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<table>
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<td>(7) Undecorated = 1x7</td>
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<tr>
<td>(3) Vitreous &amp; Ironstone = 2.35x3</td>
<td>7.05</td>
</tr>
<tr>
<td>(2) Porcelain = 2.54x2</td>
<td>5.08</td>
</tr>
<tr>
<td>(2) Transfer Print = 2x2</td>
<td>4</td>
</tr>
<tr>
<td>(1) Flow = 1.58</td>
<td>1.58</td>
</tr>
<tr>
<td>(5) Dipped = 1.14x5</td>
<td>5.7</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Cups</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) Undecorated = 1x4</td>
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</tr>
<tr>
<td>(5) Vitreous &amp; Ironstone = 2.11x5</td>
<td>10.55</td>
</tr>
<tr>
<td>(1) Transfer Print = 2.72</td>
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<td>(1) Flow = 2.83</td>
<td>2.83</td>
</tr>
<tr>
<td>(1) Hand Painted = 1.31</td>
<td>1.31</td>
</tr>
<tr>
<td>(1) Sponge = 1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>(1) Luster = 2</td>
<td>2</td>
</tr>
</tbody>
</table>
The Miller’s economic indexes indicate an interesting parallel between the values of ceramics from these two different structures. Recall that the Rascal Hill neighborhood was presumed by Grossman to be that of skilled workers. The East Bank House was first the house of a highly skilled worker (an engineer and his family), and later occupied by skilled and/or semi-skilled and/or unskilled workers. Rank ordering the economic indexes provides further insight on these occupants (see Table 6.04). The highest index is that of the East Bank House in the first period when it was occupied by the engineer, a completely plausible result. The second highest was Period 1 occupation at Rascal Hill #2, a result consistent with this being a skilled worker neighborhood. There is a significant drop off in the index for the Rascal Hill #2 Period 2 occupation, suggesting a change in the class of the occupants from skilled to semi and/or unskilled workers. Rascal Hill #2 Period 3 is occupied by people of similar status to those boarding at the East Bank House in Period 2, with nearly identical values, nearly half that of the engineer household and 0.8 points lower than the highest value for the skilled workers at Rascal Hill #2.

### Table 6.04: Rank Ordering of Economic Indexes from Rascal Hill #2 and East Bank House Assemblages.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Economic Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>East Bank Period 1 Engineer</td>
<td>3.07</td>
</tr>
<tr>
<td>Second</td>
<td>Rascal Hill Period 1 Skilled? Worker Duplex</td>
<td>2.41</td>
</tr>
<tr>
<td>Third</td>
<td>Rascal Hill Period 2 Skilled? Worker Duplex</td>
<td>1.93</td>
</tr>
<tr>
<td>Fourth</td>
<td>Rascal Hill Period 3 Skilled? Worker Duplex</td>
<td>1.63</td>
</tr>
<tr>
<td>Fifth</td>
<td>East Bank Period 2 Boarding House II</td>
<td>1.60</td>
</tr>
<tr>
<td>Sixth</td>
<td>East Bank Period 2 Boarding House I</td>
<td>1.59</td>
</tr>
</tbody>
</table>
From these numbers we can surmise that the households immediately surrounding the Foundry in this study were initially constructed for certain types of skilled or semi-skilled workers. Over time, the same structures shifted to house probably a greater number of semi-skilled and unskilled workers. Increases in transportation options for goods (railroad in 1848) and thus market availability cannot account for this shift. Instead decreasing ceramic indexes over time indicate decreasing value as well, probably attributed to the shift in workers and indicative of their corresponding wages and abilities to purchase ceramics. Fourteen other examples of industrial communities that used Miller’s index averaged an index of 2.16 ranking most of the West Point Foundry workers below that average (De Cunzo 1987; Heberling 1987; LeeDecker, et al. 1987).

Some households selectively invested in certain wares, such as tea wares, and to investigate this possibility, a cup economic index was calculated separately. If one calculated an economic index solely on cups, there were only two periods where households had a lower index relating to cups than the overall assemblage (see Table 6.05). Both of the cup economic indexes that were lower than the total index occurred at Rascal Hill #2 during the first and last periods. Perhaps most households at the East Bank House and the Civil War period of Rascal Hill #2 invested in more expensive tea wares, which meant that they often entertained for tea rather than dinner. The ceramics from the boarding house period of the East Bank House were more a reflection of the boarding house keeper and/or the company who probably served coffee and tea with meals rather than the working occupants. For the residents of Period 1 and Period 3 at
Rascal Hill #2, cups for tea and coffee were not more expensive than their entire set of dishes and these households chose not to selectively invest in more expensive tea wares.

**Table 6.05: Total and Cup Economic Indexes from Rascal Hill #2 and the East Bank House.**

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Economic Index</th>
<th>Cup Economic Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Bank Period 1</td>
<td>3.07</td>
<td>4.34</td>
</tr>
<tr>
<td>Engineer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rascal Hill Period 1</td>
<td>2.41</td>
<td>2.13</td>
</tr>
<tr>
<td>Skilled Worker Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Bank Period 2</td>
<td>1.59</td>
<td>1.8</td>
</tr>
<tr>
<td>Boarding House I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rascal Hill Period 2</td>
<td>1.93</td>
<td>2.39</td>
</tr>
<tr>
<td>Skilled Worker Duplex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Bank Period 2</td>
<td>1.60</td>
<td>1.78</td>
</tr>
<tr>
<td>Boarding House II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rascal Hill Period 3</td>
<td>1.63</td>
<td>1.49</td>
</tr>
<tr>
<td>Skilled Worker Duplex</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**VI.4.2. West Point Foundry Ceramics & Index of Capitalist Consumption**

In a chapter in *Historical Archaeologies of Capitalism*, Leone revisited theories surrounding household consumption posed by other archaeologists, namely James Deetz and George Miller. Deetz (1977) suggested that the general acceptance of a Georgian or modern world view can account for changes in ceramics while Miller (1991), as noted above, proposed that price determines consumption. Leone suggests that there is a complexity in household consumption that cannot be simply explained by a universal world view or economics. Leone proposes that people were shifting through early and developing capitalist systems as renters/buyers, workers/owners making adaptations and expressing their assessment of their changing social positions through their consumption of goods.
Leone builds on the work of E.P. Thompson (work and time discipline), Foucault (personal and individual discipline), and other archaeologists like McGuire (capitalism and historical archaeology) (Foucault 1979; Leone 1995; McGuire 1992; Thompson 1967). Capitalism, to assure a market for its manufactures, had to be simultaneously creating consumption habits among its workers that would lead toward acquiring property and material goods like ceramics, as well as producing those goods under the discipline of regular routines. The onset of regular time routines introduced by clocks was parallel to work routines that dominated factory life but were first learned in childhood at dining room tables. In these ways, Leone argues that within capitalist societies we are constantly taught to watch ourselves; teaching and watching becoming two sides of the same operation (Leone 1999a: 204). The unequal distribution of wealth in capitalist societies did not result in violence or chaos because time routines and a disciplined way of thinking and acting caught most workers in the practices of capitalist consumption.

Drawing on Marx, Leone defines one description of nineteenth century consumption as “commodity fetishism” (Leone 1999b: 15-17). Items, commodities, made by individual people are given life and value through exchange. Yet such items in the age of mass production seemed trivial and were purposely masked as to who was responsible for their production (capitalists and/or workers). The social relations between people became expressed in the relations between things. Leone suggests that it was the ideology of individualism that dictated the level of orderliness within a ceramic assemblage. A higher index of orderliness denotes a greater likelihood of individualism and a noticeable level of etiquette in the household.
Individualism, etiquette, commodity fetishism, and participation in the market for a household were expressed in the material culture of dish sets over the course of the nineteenth century. Leone develops an index as an experiment to track the degree to which a household is participating in the consumptive patterns of capitalism. A household with more decoration, more vessels, and a greater variety of vessel forms would yield a higher index indicative of high participation in capital consumption ideals. Trends in Leone’s datasets indicated that all households did not change in the same direction or at the same rate. Thus, he argues, there were multiple responses to capitalist consumption, not the singular patterns presumed by Miller’s economic logic or Deetz’s adoption of a single world view. Using and building on Leone’s methodology to assess the West Point Foundry collection helps to explore the effectiveness and limitations of a capital consumption index and provides insight into the extent to which workers of various sorts at the Foundry were engaged in capitalist time and order disciplines.

The formula set out by Leone (Leone 1999a: 197) begins with a minimum vessel count that is divided by the number of ware types plus the number of primary decorative techniques. This result is then multiplied by the number of different vessel forms to achieve an index of self discipline and resultant orderliness in each household. It can be represented by the following formula:

\[
\text{Minimum Vessels} \times \frac{\text{Vessel Forms}}{(\text{Ware types} + \text{Decorative Techniques})}
\]

When the number of vessel forms or the number of vessels increases, the index would increase. However as the number of ware types and decorative techniques increases, suggesting a move away from sets and towards a less orderly table, the index will
decrease. The index measures the extent that individuals were subscribing to capitalist ideals of matching sets, full of a variety of vessel forms rather than purchasing single items of whatever design and decoration technique.

Leone (1999: Table 2) calculates this index on the basis of the tableware (plates of various sizes, dining bowls, pitchers, and serving vessels), the tea wares (cups, saucers, teapots, sugar canisters, etc.), food preparation (bowls, churns, crocks, jugs, and pans), and personal use (chamber pots, basins, and spittoons). Of particular interest to Leone were the indexes developed for the tableware, as these most closely track his notions about the relation between table settings, self discipline, and the adoption of the value systems of consumer capitalism. The following tables report indexes for similar categories at Rascal Hill #2 (see Table 6.06) and the East Bank House (see Table 6.07). In addition, some tables report a total index for the assemblage, something Leone did not calculate. When making comparisons to Leone’s study the tableware value will be used. Again, keep in mind that the study uses arbitrary twenty year intervals and that the documentary materials do not allow for linking specific assemblages with specific occupants or individual households.

The earliest households from either side of the Foundry valley in the 1820s through 1840s were not very orderly. Period 1 of the skilled worker duplex on Rascal Hill #2 had a total index of 19.2 (see Table 6.06). In Rascal Hill #2, Period 2 resulted in the highest orderly index for the house at 33.4, although that number was lower than the East Bank Houses indexes. Period 3 calculated to be only 31, a number that coincides with Grossman’s observation that households on Rascal Hill retained ceramics long after their style had gone out of fashion (Grossman 1993). If you study the Rascal Hill
tableware values you have very similar values for Periods 1 and 2, with the slight increase for Period 3 due to the decline in the number of decorative plus ware types.

Table 6.06: Index of Capital Consumption for Tablewares, Tea Wares, Preparation Wares, and Personal Wares for Rascal Hill #2 Ceramics.

<table>
<thead>
<tr>
<th>Rascal Hill #2</th>
<th>Minimum</th>
<th>Type</th>
<th>Decoration</th>
<th>Form</th>
<th>Formula</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820s-1840s</td>
<td>100</td>
<td>8</td>
<td>18</td>
<td>5</td>
<td>100/(8+18) x5</td>
<td>19.2</td>
</tr>
<tr>
<td>Tablewares</td>
<td>29</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>29/(4+9) x3</td>
<td>6.69</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>55</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>55/(4+8) x2</td>
<td>9.17</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>16/(1+1) x1</td>
<td>8.00</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0.00</td>
</tr>
<tr>
<td>1840s-1860s</td>
<td>156</td>
<td>9</td>
<td>19</td>
<td>6</td>
<td>156/(9+19) x6</td>
<td>33.4</td>
</tr>
<tr>
<td>Tablewares</td>
<td>36</td>
<td>7</td>
<td>9</td>
<td>3</td>
<td>36/(7+9) x3</td>
<td>6.75</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>92</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>92/(4+8) x3</td>
<td>23.00</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>28</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>28/ (3+5) x1</td>
<td>3.50</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0.00</td>
</tr>
<tr>
<td>1860s-1880s</td>
<td>115</td>
<td>8</td>
<td>18</td>
<td>7</td>
<td>115/(8+18) x7</td>
<td>31</td>
</tr>
<tr>
<td>Tablewares</td>
<td>32</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>32/(4+7) x3</td>
<td>8.72</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>64</td>
<td>5</td>
<td>13</td>
<td>2</td>
<td>64/(5+13) x2</td>
<td>7.11</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>18</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>18/(3+4) x2</td>
<td>5.14</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.50</td>
</tr>
</tbody>
</table>

When you divide each of the periods into tablewares, tea wares, preparation wares, and personal wares, Leone’s observation of different households changing inconsistently over time is supported (Leone 1999a: 211). The highest number for preparation vessels was present in the 1820s-1840s at Rascal Hill #2. Tea wares appear to be a large investment in the 1840s-1860s at Rascal Hill #2 with an index of 23 (see Table 6.06). The overall total capital consumption index for Rascal Hill #2 follows the same pattern seen in tea ware vessels as those were the largest portion of the assemblage (see Figure 6.12). This suggests that tea consumption and investment in dishes was more important to the Rascal Hill #2 residents in the middle of the nineteenth century than later or than their counterparts living at the East Bank House.
Over the course of the nineteenth century, the capital consumption index of the East Bank House increased rapidly during the first half and then slowed to a slight increase. The engineer’s occupation at the East Bank House had an index of 19 in Period 1, just slightly lower than that of Rascal Hill #2’s Period 1. The introduction of a boarding house with a wide variety of vessel forms and decorative motifs as well as the single family occupation of the East Bank House toward the end of the nineteenth century translated into a capitalist index of more than double that of the engineer (see Table 6.07). For the boarding house period, the number was 40.7 and during the last single family occupation it was 48.4. Perhaps this is a reflection of improvements in transportation networks, variety of styles available, or multiple households occupying the East Bank House in its later periods. The larger capital consumption index certainly seems at odds with the presumed shift towards lower paid semi and/or unskilled workers derived from the documentary information. The tableware index almost doubles between the figure for the 1820s-1840s and 1840s-1860s probably due to the tripling in the number of vessels, the slight increase in the number of forms, and the
slight increase in the number of decorative plus ware types. Again, this may be due to the increase in the number of vessels needed to serve a larger number of residents during its use as a boarding house. As expected with the national rise of available forms and decorations, the capitalist consumption index increases over the nineteenth century at the East Bank House (see Figure 6.13).

Table 6.07: Index of Capital Consumption for Tablewares, Tea Wares, Preparation Wares, and Personal Wares for East Bank House Ceramics.

<table>
<thead>
<tr>
<th>East Bank House</th>
<th>Minimum</th>
<th>Type</th>
<th>Decoration</th>
<th>Form</th>
<th>Formula</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1820s-1840s</strong></td>
<td>57</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td>57/(6+12) x 6</td>
<td>19.0</td>
</tr>
<tr>
<td>Tablewares</td>
<td>21</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>21/(3+6) x 3</td>
<td>7.00</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>28</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>28/(3+6) x 2</td>
<td>6.22</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>8/(3+4) x 2</td>
<td>2.29</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x 0</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>1840s-1880s</strong></td>
<td>137</td>
<td>10</td>
<td>27</td>
<td>11</td>
<td>137/(10+27) x 11</td>
<td>40.7</td>
</tr>
<tr>
<td>Tablewares</td>
<td>47</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>47/(6+8) x 4</td>
<td>13.43</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>62</td>
<td>7</td>
<td>12</td>
<td>3</td>
<td>62/(7+12) x 3</td>
<td>9.79</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>25</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>25/(4+7) x 3</td>
<td>6.82</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3/(2+1) x 1</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>1880s-1920s</strong></td>
<td>172</td>
<td>9</td>
<td>23</td>
<td>9</td>
<td>172/(9+23) x 9</td>
<td>48.4</td>
</tr>
<tr>
<td>Tablewares</td>
<td>67</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>67/(4+10) x 3</td>
<td>14.36</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>77</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>77/(3+9) x 2</td>
<td>12.83</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>26</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>26/(3+5) x 3</td>
<td>9.75</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2/(1+2) x 1</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Figure 6.13: East Bank House Capital Consumption Indexes. Note that the Middle of Each Time Period Is Graphed. Based on Figures from Table 6.07.

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The indexes for tablewares increased, even slightly, over time at the East Bank House. Recall the different compositions of the households: from a single family to the boarding house and then a single family at the end of the nineteenth century. The capital consumption index associated with personal wares was the highest at the East Bank House of any West Point Foundry assemblage due to the largest number of personal wares recovered. The increase in the preparation vessels’ capital consumption index is a reflection of types of households, the importance of preparation vessels to the household, and the small quantity of preparation vessels recovered from the West Point Foundry in general. The last family that occupied the East Bank House had a very high capital consumption index and an abundance of porcelain vessels.

Leone’s application of this formula to individual households proved to be difficult to execute at the West Point Foundry as many domestic structures contained an unknown turnover of households and arbitrary twenty year periods were superimposed on the dataset for the best available comparative analysis. Yet the application of the formula to less than ideal datasets is exactly what Leone designed it to do. Households observed by Leone did not change in only one direction, nor did they illustrate the effects of any single trend equally (Leone 1999a: 211). The two tableware capital consumption indexes at the West Point Foundry became more orderly over time, with only slight increases at the East Bank House between the middle and latter part of the nineteenth century and at Rascal Hill #2 from the beginning to the middle part of the nineteenth century. Thus the earlier households at Rascal Hill #2 and the latter ones at the East Bank House had similar tableware consumption patterns.
In comparison to what Leone calculated for middle class families in Annapolis, Maryland, the orderly factor of West Point Foundry households was still only half of what Leone published (see Table 6.08). These indexes are generally lower than either a contemporary Annapolis poorer family at the Victualing Warehouse and early renters at the Charles Carroll House. The Hyde/Thompson House in Annapolis, believed to house upper middle class families during the second half of the nineteenth century, had a consumption index six times that of the highest index associated with the West Point Foundry. Even the household of free middle-class African Americans in the Maynard-Burgess House had an index twice that of any seen from the Foundry. The Jonas Green Printshop contained a family struggling to maintain its middle class status during the early part of the nineteenth century. The Greens appeared to consume tablewares to help uphold that social position, with an index of 80 during the first half of the nineteenth century. Those in the West Point Foundry community, either in their minds or on their tables, did not appear to fully subscribe to capitalist notions of consumption during the nineteenth century like their urban counterparts in places like Annapolis.

Table 6.08: Index of Capital Consumption for Tablewares from West Point Foundry (Shaded) and Annapolis Excavations (Leone 1999a: 197).

<table>
<thead>
<tr>
<th></th>
<th>Rascal Hill #2</th>
<th>East Bank House</th>
<th>Hyde/Thompson House</th>
<th>Victualing Warehouse</th>
<th>Jonas Green Print shop</th>
<th>Maynard-Burgess House</th>
<th>Charles Caroll House</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800-1850</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1820s-1840s</td>
<td>6.69</td>
<td>7.00</td>
<td>11</td>
<td>26</td>
<td>80</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>1840s-1860s</td>
<td>6.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1840s-1880s</td>
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<td></td>
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<td></td>
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<tr>
<td>1850-1900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1860s-1880s</td>
<td>8.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880s-1920s</td>
<td>14.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VI.5. Preliminary Results of Other West Point Foundry Collections

Three other households in properties adjacent to the West Point Foundry Preserve have been excavated to a limited extent. Preliminary historical and archaeological evidence suggest that these households represent at least two other segments of the West Point Foundry workforce: owners (Gouverneur Kemble and William Kemble households) and unskilled laborers (Vinegar Hill single family housing). Both of these locations were depicted on an 1836 map and were thus an early part of Foundry housing built by the company (see Figure 6.06, Eastman 1836). Each of these three areas will be discussed for preliminary analysis, although the limited amount of excavation did not provide assemblages of comparable vessel quantities to those from Rascal Hill #2 or the East Bank House. Thus the following results from Gouverneur Kemble’s, William Kemble’s, and Vinegar Hill households’ assemblages should be considered preliminary analysis that will need adjustment if additional archaeology is conducted at these areas beyond 2008.

VI.5.1. Gouverneur Kemble

Gouverneur Kemble was the primary individual responsible for the West Point Foundry’s success. As the Association’s first president and a major stockholder until his death, Gouverneur Kemble resided very close to Foundry operations at the end of Kemble Avenue on an estate that included a grapery (see Figure 6.01). G. Kemble was intimately involved in the Foundry between 1817 and the 1837 when he moved to Washington D. C. to be a congressman for the state of New York. He spent two terms there, maintaining his house in Cold Spring, and returned permanently to the Hudson River Valley until his death in 1876. Given his relationship as president, financier, and
eventual owner of the Foundry, G. Kemble’s household would be expected to fall within the highest economic bracket of the Cold Spring community.

The house’s exact construction date remains unknown, however its earliest depiction in primary sources is 1832 by T. K. Wharton (see Figure 6.14). It was originally constructed as a T-shaped structure that later had an addition added to the southwest. Gouverneur Kemble passed away in the 1870s, but the house remained in the family for several generations. By the time Gouverneur Kemble III passed away in the twentieth century, the house was unoccupied and not in good repair.

The house is said to be more than 100 years old, and consists of a three story frame building, containing fifteen rooms and an attic. The house has not been occupied for more than twenty-five years, except for a few rooms used by the caretaker…. The main house is 55 feet long by 34 feet in width, to which has been added an extension 25 feet in length by 22 feet in width, and consists of three rooms without modern improvements (Selleck 1939).

Julia Kemble, Gouverneur Kemble’s niece-in-law passed away in 1911 and the property was valued at $4,500. At that time, the appraiser stated that the house was “not in very good repair” and that a tenant’s house is also “vacant and in bad condition.” (1911) Although not the same appearance as that depicted by Wharton, the estate and particularly its house foundation remain on a hillside above Foundry Cove on the avenue named after him making it an ideal archaeological candidate.
Joel Grossman conducted very limited archaeological excavations at Gouverneur Kemble’s property prior to the EPA clean up (Grossman 1992). Grossman’s three excavation units yielded 396 total artifacts, only 100 of which were ceramic sherds from the phase IB investigation. These sherds were from three excavation units in the yard of the primary house. Generally Grossman attributed the historic nineteenth century layer to be contained between eighteen and twenty-four inches from the surface (Grossman 1992: 4). This layer rested upon a sterile, sandy, cobble, glacial till layer from the Pleistocene. Test unit 901 was located on the bluff edge and probably excavated through a midden deposit. Unit 902 uncovered a buried cast iron pipe that had been excavated into a sandy gravel matrix probably before 1850. The third unit, 903, was close to the twentieth century Marathon Battery plant and did not yield the same concentration of historic artifacts. Grossman believed its general
lack of nineteenth century cultural materials was a result of the area being stripped in the twentieth century by a battery plant (Grossman 1992: 6).

The ceramic sherds recovered from Grossman’s three units represented at least 30 unique vessels most being identifiable to a reasonable degree of vessel type and function. Half of the total vessels were whiteware with decorations of transfer prints, molded motifs, or undecorated. Other vessels included yellow ware, red ware, and porcelain. Grossman recovered the same type of red ware plate with yellow slip also found at the East Bank House. The present archaeological investigations allowed for the site to be divided into three nineteenth century periods and a fourth period consisting of the twentieth century when the property was unoccupied.

For the period between the 1820s and the 1840s, there were six vessels: a salt glazed earthenware, and a brown crock or jug, an ironstone bowl, a porcelain saucer, and a blue transfer print cup and saucer. The 1850s through the 1870s was represented by twelve vessels including blue transfer print bowls, a saucer and plate; an undecorated bowl and an annular decorated bowl; two red ware slip plates with pie crust edging; a hand painted, scalloped, porcelain bowl; a cream colored pie plate or deep dish; and two stoneware storage vessels. The late part of the nineteenth century (1880s-1900) consisted of three vessels a brown transfer print vessel, a blue transfer print cup, and a shell or feather edge blue saucer. The twentieth century was represented by seven vessels with over half being earthenwares or serving vessels like a teapot. There was also a molded annular cup, an undecorated saucer, and a transfer printed plate. The sample archaeology conducted by Grossman yielded a limited number of vessels from
the Gouverneur Kemble household. An interesting observation of this small sample was the high quality of sherds recovered indicating a relatively well off household.

Calculation of Miller’s economic index indicated a value of 2.46, ranking it below the earliest period under the engineer of East Bank House by 0.58 and above the Rascal Hill #2 by only 0.05. By the middle of the nineteenth century, the economic index associated with Gouverneur Kemble drops dramatically to 1.89. This places Gouverneur Kemble’s household below the skilled workers of Rascal Hill #2 (1.93) but above the boarding house workers at the East Bank House (1.59). The economic means of the Gouverneur Kemble household was probably the largest in the community, a fact not reflected by the small amount of ceramics collected.

Calculations regarding a total index of capital consumption yielded extremely low results: 3.42 for the first period, 6.0 for the second, 3.0 for the third, and 3.11 for the twentieth century (see Figure 6.15). Comparing the total index of capital consumption for Rascal Hill #2 (Table 6.06) and East Bank (Table 6.07) with those for Gouverneur Kemble’s assemblage (Table 6.09) it can be seen that the lowest capital consumption figures for the two West Point Foundry households discussed above were between three and sixteen times larger than that calculated for Gouverneur Kemble’s assemblage. Such low figures are probably not a reflection of the Kemble consumption decisions but more an illustration of an inadequate data set to reflect household activities. Calculations within each of the different types of wares proved to include even fewer vessels (see Figure 6.15 and Table 6.09) and resulted in numbers clustered well below others calculated for West Point Foundry assemblages. Although the overall trend in table and preparation wares followed that seen in the total capital
consumption index, tea wares run almost opposite and zero personal wares were recovered making that index a constant value.

**Figure 6.15: Gouverneur Kemble’s Capital Consumption Indexes.** Note that the Middle of Each Time Period Is Graphed. Based on Figures from Table 6.09.

**Table 6.09: Index of Capital Consumption for Tablewares, Tea Wares, Preparation Wares, and Personal Wares for Gouverneur Kemble Ceramics.**

<table>
<thead>
<tr>
<th>Gouverneur Kemble</th>
<th>Minimum</th>
<th>Type</th>
<th>Decoration</th>
<th>Form</th>
<th>Formula</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1820s-1840s</strong></td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>6/(4+3) x4</td>
<td>3.42</td>
</tr>
<tr>
<td>Tablewares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.5</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3/(2+2) x2</td>
<td>1.5</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2/(1+2) x1</td>
<td>0.67</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td><strong>1850s-1870s</strong></td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>12/(5+5) x5</td>
<td>6.0</td>
</tr>
<tr>
<td>Tablewares</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>7/(3+3) x2</td>
<td>2.33</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.5</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>4/(3+2) x2</td>
<td>1.6</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td><strong>1880s-1900s</strong></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3/(1+2) x3</td>
<td>3</td>
</tr>
<tr>
<td>Tablewares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.5</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2/(1+2) x2</td>
<td>1.33</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td><strong>20th Century</strong></td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>7/(3+6) x4</td>
<td>3.11</td>
</tr>
<tr>
<td>Tablewares</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3/(2+2) x1</td>
<td>0.75</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3/(1+2) x2</td>
<td>2</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.5</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
</tbody>
</table>
Leone acknowledges that his samples “may be too small or incommensurable” and the vessels recovered from the Gouverneur Kemble property do not accurately reflect his known status or realistic expectations of his needs of weekly entertaining (Leone 1999a: 214). For such events, the Kemble table would have seated up to fifteen individuals, had multiple courses, and an array of specialized and multiple sized dishes probably in matched sets. This should be reflected in a higher capital consumption index because of an increase in number of forms, and a decrease in the number of ware types and decorative techniques. An illustration of the capital consumption index of tablewares demonstrates the extremely small archaeological sample recovered from a household that weekly entertained multiple course dinner parties (see Figure 6.16).

**West Point Foundry Tableware Capital Consumption Indexes**

![Figure 6.16: West Point Foundry Tableware Capital Consumption Indexes.](image)

Even if one combined all of the periods for the Gouverneur Kemble household, the numbers for the indexes would still be unusual in comparison to other archaeological collections from the area. Given the limited number of sherds and
overwhelming quantity of storage or preparation vessels, the current collection is probably not an accurate representation of the G. Kemble household, which consisted of a bachelor who was the owner of the West Point Foundry and his servants. In the 1860 census, Gouverneur Kemble was listed as heading the household consisting of his nephew Gouverneur Paulding, an Irish waiter James Martin, and an Irish domestic Nancy Burns. During much of the nineteenth century, Gouverneur Kemble hosted regular Saturday dinners where he entertained guests, thus the recovery of so few ceramic vessels was surprising. At present the house is privately owned making additional excavations in the near future unlikely.

VI.5.2. William Kemble

William Kemble was one of the Foundry’s first owners, and operated the New York City branch of Foundry operations prior to the 1840s. His house, known as “The Cottage” sits on the same terrace as his brother but closer to the West Point Foundry dock rather than the main Foundry complex. The house was most likely constructed in the 1830s when William moved with the Beach Street operations to consolidate in Cold Spring. The house or property was included on several maps of the village including the 1836 Constitution Island map (Eastman 1836), the 1854 O’Connor map (O’Connor 1854), the 1867 Beers atlas (Beers, et al. 1867), the 1876 Reed map (Reed 1876), and the 1891 Watson map (Watson 1891). Unfortunately, the structure is not included on any Sanborn Fire Insurance Maps of Cold Spring between the 1880s and 1930s. The house was also illustrated by Louis Mayer in the 1920s depicting a porch very similar to that drawn by Wharton of his brother’s house (see Figures 6.17 and 6.18).
Figure 6.17: Eastern Facade of the William Kemble House by Louis Mayer of Cold Spring. A Charcoal Drawing from the 1920s. *(Putnam County Historical Society & Foundry School Museum)*

Figure 6.18: Present Day View of the Eastern Facade of the William Kemble House. *(Photograph by E. Norris, 2009)*
A crew from Michigan Tech investigated the William Kemble property during the summer of 2007, which included 65 shovel test pits (STPs) scattered across the terrace at intervals of 15-20 meters apart (Norris and Martin 2007). These resulted in 621 artifacts including 56 pieces of ceramics from at least 12 different vessels. Contained in this assemblage were vessels made of porcelain, yellow ware, buff stoneware, ironstone, and whiteware. A variety of decorative techniques were also present in the collection included decal, annular decoration, transfer print, and undecorated wares. Additional excavation in 2008 yielded 292 ceramic sherds and expanded the vessel count to 42.

Much like his brother’s, the William Kemble assemblage is indicative of the highest economic group within Cold Spring in the nineteenth century. However, unlike Gouverneur, the William Kemble household included many children and it remains the only standing domestic structure of West Point Foundry owners. Children’s toys such as marbles and toy ceramic tea wares archaeologically document their presence. Given the duration of the site’s occupation and a better understanding of specific households, additional and more intense archaeological investigations should continue in the future.

Given the nature of excavations including shovel test pits with less stratigraphic control, the current artifact assemblage was divided into three periods. Period 1 (1830s-1870s) was associated with the site’s occupation by William Kemble and his children. Period 2 (1880s-1930s) was associated with both the Paulding and the Campbell families. Period 3 (1940s-present) was associated with the Campbells, the property’s most recent occupants. Sixteen vessels were associated with Period 1 including 2 bowls, 3 cups, 2 saucers, 7 plates, and 3 storage vessels. Whitewares (see Figure 6.19)
dominated the assemblage but there was also buff stonewares and a red ware cup (see Figure 6.20), ironstone, and several porcelain plates (see Figure 6.21). Decoration styles included undecorated, annular, blue and black transfer print, shell or feather edge, and hand painted.
Period 2 lasted between the 1880s and the 1930s and consisted of nineteen vessels including 3 bowls, 4 cups, 1 saucer, and 9 plates. Period two included whiteware (Figure 6.19), ironstone, buff stoneware, red ware, and porcelain (see Figure 6.21) vessels with annular, transfer print, feather or shell edge, hand painted, decal, slip, and molding. Period 3 from the 1940s into the present is represented by only four vessels: a molded buff jug, an ironstone stoneware vessel, a molded annular bowl, and a scalloped paneled ironstone vessel.

Miller’s economic index was only calculated for Period 1 at 2.54. This figure was problematic due to the period lasting sixty years, three times Miller’s recommended duration. Like Gouverneur Kemble’s economic scaling index, William Kemble’s was lower than expected and placing it higher than Gouverneur’s and Rascal Hill #2, but still lower than the engineer’s family at the East Bank House by 0.5. Additional archaeological excavations would undoubtedly yield a more balanced indication of William Kemble and his descendants’ economic means.
Calculations for the capital consumption indexes also were extremely low.
Period 1 yielded an index of 8, Period 2 an index of 8.7 and a 2 for Period 3 (see Table 6.10). William’s numbers were slightly higher than Gouverneur’s, but both were significantly below the others calculated from West Point Foundry collections. This was likely tied to a low minimum vessel count. William Kemble’s assemblage was dominated by plates representing 43.7% of the assemblage, another indication of the collection’s imbalance. Calculations of the tableware capital index generally increased over the nineteenth century at the William Kemble property (see Table 6.10 and Figure 6.22). Comparisons to other West Point Foundry assemblages yielded an imbalance and totally skewed perspective of the two Kemble brothers’ households.

Table 6.10: Index of Capital Consumption for Tablewares, Tea Wares, Preparation Wares, and Personal Wares for William Kemble Ceramics.

<table>
<thead>
<tr>
<th>William Kemble</th>
<th>Minimum</th>
<th>Type</th>
<th>Decoration</th>
<th>Form</th>
<th>Formula</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1820s-1870s</strong></td>
<td>16</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>$16/(5+9) \times 7$</td>
<td>8.00</td>
</tr>
<tr>
<td>Tablewares</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>$8/(2+4) \times 2$</td>
<td>2.67</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>$5/(2+3) \times 2$</td>
<td>2</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>$3/(1+2) \times 1$</td>
<td>1</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0/(0+0) \times 0$</td>
<td>0</td>
</tr>
<tr>
<td><strong>1880s-1930s</strong></td>
<td>19</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>$19/(6+7) \times 6$</td>
<td>8.7</td>
</tr>
<tr>
<td>Tablewares</td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>$12/(5+5) \times 3$</td>
<td>3.6</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>$5/(2+3) \times 2$</td>
<td>2</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>$2/(2+2) \times 2$</td>
<td>1</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0/(0+0) \times 0$</td>
<td>0</td>
</tr>
<tr>
<td><strong>1940s-1990s</strong></td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>$4/(3+3) \times 3$</td>
<td>2</td>
</tr>
<tr>
<td>Tablewares</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>$2/(1+2) \times 1$</td>
<td>0.67</td>
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<tr>
<td>Tea Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0/(0+0) \times 0$</td>
<td>0</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>$2/(2+2) \times 2$</td>
<td>1</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0/(0+0) \times 0$</td>
<td>0</td>
</tr>
</tbody>
</table>
A final indication of the inadequate number of minimum vessels for capital consumption indexes to accurately reflect a household was observable during the calculation of preparation wares at the William Kemble property. Over its entire history, the capital consumption index for preparation wares was a consistent index of 1 (see Figure 6.23). This consistency was the only one recorded at any of the Annapolis and West Point Foundry locations, except when no vessels were recovered. One of the beauties of the capital consumption index is its ability to illustrate changes in capital consumption patterns. The William Kemble assemblage is not large enough yet to demonstrate such changes. The ceramic assemblage does not match the documents for the William Kemble property or its inhabitants. Limited archaeology yielded contexts that were not systematically understood and few ceramics associated with extended time periods. A calculation for the indexes combining all time periods yielded extreme values with a very low capital index (6.26) and a very low proportion of storage and
preparation vessels. These unusual observations are probably more a reflection of inadequate samples rather than the behavior of the Kemble or Campbell families.

### West Point Foundry Preparation Ware Capital Consumption Indexes

![West Point Foundry Preparation Ware Capital Consumption Indexes](image)

**Figure 6.23: West Point Foundry Preparation Ware Capital Consumption Indexes.**

#### VI.5.3. Vinegar Hill

Located on the banks of Foundry Brook between the second and third dams, Vinegar Hill sits on the northernmost fringe of the West Point Foundry complex. The site is approximately seven and three-quarters acres, confined to the eastern shore of the brook, between the dams and large stone walls that divide Foundry land from the neighboring properties. The earliest depiction of the Vinegar Hill neighborhood occurs on a 1836 map, which illustrates five structures (see Figure 6.06, Eastman 1836). By 1854, there were seven small houses on the site accommodating an unknown number of people (see Figure 6.01, O’Connor 1854). The site was probably initially settled for the purpose of workers’ housing as Vinegar Hill existed within the boundary of the West
Point Foundry Association lands and an undated historic photograph contains the inscription, “Last remaining house (Foundry) on Vinegar Hill” (see Figure 6.24).

Figure 6.24: An Undated Photograph of A House on Vinegar Hill. Labeled by Museum Staff “LAST REMAINING HOUSE (Foundry) on Vinegar Hill” and “Old Foundry Bridge.” (Putnam County Historical Society & Foundry School Museum)

The name Vinegar Hill has an Irish connection, specifically named for the Irish Rebellion of 1798. In the Battle of Vinegar Hill, the British crown soundly defeated Irish insurgents. William Young, the first superintendent of the West Point Foundry, was from Northern Ireland (Rutsch, et al. 1979). Vinegar Hill was also the name of one neighborhood in Brooklyn, New York, specifically named to attract Irish immigrant workers during the early nineteenth century. Owners or managers of the West Point Foundry such as William Young may have named this site Vinegar Hill for this same
reason, to attract Irish workers and their families, or it may have been a name given to the community by its inhabitants themselves. Recall that in 1860 the Irish were the largest immigrant group in Cold Spring.

There are three small stone structural ruins visible on Vinegar Hill’s current ground surface, as well as several stone-lined privies similar to those at the East Bank House. Subsurface testing and excavation has discovered several more buried structures as well as refuse middens and other buried archaeological domestic features. In total, nineteen surface features were designated for assessment and documentation. Ten features were depressions in the ground surface that could possibly be privy vaults, five features were the remains of houses, one rectangular stone-lined privy vault, one circular stone-lined privy vault, one surface scatter of artifacts, and the old bridge abutments which date to circa 1840. A total of 1,325 ceramic sherds were recovered from the Vinegar Hill neighborhood, but those artifacts originated from at least five different structures and an unknown number of households. Analysis of rim sherds suggests there are few porcelain and red ware vessels (2 each), only one ironstone vessel, and almost ten or fifteen times the number of whiteware vessels. Although each individual household could only be represented by two to ten vessels, collectively the neighborhood purchased a significantly larger quantity of whiteware vessels, possibly indicative of their purchasing abilities.

Given the current quantity of factors influencing this assemblage (six or seven different structures, unknown number of households, and minimal excavation throughout the neighborhood) the following analysis was preliminary and suggestive for additional excavation. The entire Vinegar Hill assemblage was considered one single
sample and divided into three periods: 1830s-1860s, 1870s-1900s, and the twentieth century. During the first two periods, Vinegar Hill was occupied by the families of Foundry workers. By the twentieth century, the neighborhood had been abandoned, buildings were either destroyed or collapsed after disuse, and neighbors used the area for their modern trash. Period 1 contained 86 vessels, Period 2 had 84 and only 41 vessels represented Period 3. These figures average out about ten vessels per structure dating to each extended period.

Period 1 assemblage dating from the 1830s to the 1860s contained 13 bowls, 17 cups, 39 saucers, 15 plates, 1 crock, and 1 jug. These included 1% buff earthenware (1), 3.5% each of red ware (3) and ironstone (3), 7% porcelain (6), and a 85% majority of whitewares (73). Several vessels were undecorated but most contained some decoration, including transfer print, molding, scalloped, feather or shell edge, paneled, hand painted, decal, and gilded or a combination of two or three such decorative styles. The overwhelming abundance of saucers in this assemblage was probably a reflection of the sample size rather than an indication of use patterns, although it begs further investigation into Irish tea and coffee consumption patterns.

Period 2 from the 1870s through the 1900s represented the last occupation of the neighborhood with only a single structure remaining by the turn of the century. A total of 84 vessels included 11 bowls, 14 cups, 47 saucers, 8 plates, 3 pitchers, and 1 Rockingham yellowware tea vessel. Like the first period, there was an overabundance of saucers in the Period 2 Vinegar Hill assemblage. Wares included 1% of red ware (1), 2% buff earthenware (2), 5% of each ironstone (4) and porcelain (4), and a 87% majority of whitewares (73). Decorative motifs such as paneled, feather or shell edge,
scalloped, molded, annular, transfer print, gilded, hand painted, and decal were all noted in this period. Similar to Vinegar Hill’s Period 1 many vessels contained two or three of these decoration styles.

Period 3 of Vinegar Hill ceramics dated to the twentieth century and was primarily full of modern trash. A total of 41 vessels included 4 bowls, 3 cups, 20 saucers, 9 plates, 2 pitchers, 2 jugs, and 1 decorative vase. Ware types were limited to 2% of each grey stoneware (1), buff stoneware (1), and red ware (1); 10% porcelain (4); 15% ironstone (6); and 69% whitewares (28). Decoration motifs included decal and gild, molded, scalloped, transfer print, feather or shell edge, annular, and undecorated. Many of the plates and saucers contained multiple decoration motifs.

Although Period 1 lasts for fifty years, an average of economic indexes indicates that the assemblage had an index close to 2.23. This places Vinegar Hill above any period for Rascal Hill #2 and the boarding house periods of the East Bank House and below the engineer’s occupation of the East Bank House. If Vinegar Hill contained Irish workers who were primarily unskilled foundry workers, as suggestive of its name, then the high economic index contradicted their believed economic means. A more likely explanation of the situation would be that such a high economic index resulted from an extended time period for multiple households and an unrepresentative archaeological sample and/or an abundance of saucers or tea ware vessels, which may have seen a concentration of economic resources.

The capital consumption index for each period was calculated to be 39.7 for Period 1, 24.4 for Period 2, and 20.5 for Period 3. These numbers are within the range of those observed at both the East Bank House and Rascal Hill #2. Period 1 is much
higher than either of the other West Point Foundry households that were calculated for about 19, but it is a longer period with the Vinegar Hill assemblage and represents many more households. Unlike either of the other two extensive Foundry excavations, the consumption index declines over the nineteenth century, practically by half (see Figure 6.25 and Table 6.11). This decline may be indicative of the decline in the neighborhood as well as consumption patterns in general. The pattern of capital indexes related to tea wares at the Vinegar Hill neighborhood was high with a peak in the latter quarter of the nineteenth century (see Figure 6.25). This peak in the middle of the location’s occupation was similar to that recovered from Rascal Hill #2, but much later. Ideally only one household would be explored archaeologically in detail to yield its changes over time and make a more comparable sample to the other West Point Foundry structures in the future.

![Vinegar Hill Capital Consumption Index](image)

**Figure 6.25:** Vinegar Hill’s Capital Consumption Indexes. Note that the Middle of Each Time Period Is Graphed. Based on Figures from Table 6.11.
Table 6.11: Index of Capital Consumption for Tablewares, Tea Wares, Preparation Wares, and Personal Wares for Vinegar Hill Ceramics.

<table>
<thead>
<tr>
<th>Vinegar Hill</th>
<th>Minimum</th>
<th>Type</th>
<th>Decoration</th>
<th>Form</th>
<th>Formula</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820s-1860s</td>
<td>86</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>86/(6+7) x6</td>
<td>39.7</td>
</tr>
<tr>
<td>Tablewares</td>
<td>22</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>22/(3+7) x2</td>
<td>4.4</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>56</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>56/(3+7) x2</td>
<td>11.2</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>8/(3+3) x3</td>
<td>4</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td>1870s-1900s</td>
<td>84</td>
<td>5</td>
<td>12</td>
<td>5</td>
<td>84/(5+12) x5</td>
<td>24.4</td>
</tr>
<tr>
<td>Tablewares</td>
<td>17</td>
<td>3</td>
<td>8</td>
<td>3</td>
<td>17/(3+8) x3</td>
<td>4.64</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>62</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>62/(3+7) x3</td>
<td>18.6</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5/(2+3) x1</td>
<td>1</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0/(0+0) x0</td>
<td>0</td>
</tr>
<tr>
<td>20th Century</td>
<td>41</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>41/(6+6) x6</td>
<td>20.5</td>
</tr>
<tr>
<td>Tablewares</td>
<td>13</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>13/(3+5) x3</td>
<td>4.87</td>
</tr>
<tr>
<td>Tea Wares</td>
<td>23</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>23/(3+4) x2</td>
<td>6.57</td>
</tr>
<tr>
<td>Preparation Wares</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4/(4+2) x2</td>
<td>1.33</td>
</tr>
<tr>
<td>Personal Wares</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1/(1+1) x1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Figure 6.26: West Point Foundry Tea Wares Capital Consumption Indexes.

Although the few ceramics from Vinegar Hill could not provide the same quantity and quality of data as that found at Rascal Hill #2 or the East Bank House,
some generalizations about the neighborhood could be suggested. The economic means of the neighborhood may be higher than anticipated from the expectations of unskilled Irish laborer’s purchasing power. The unusual over representation of saucers deserves the exploration of tea wares and their consumption in this worker neighborhood. Capitalist consumption for the neighborhood’s inhabitants reduces over time. This trend is unique at the West Point Foundry and is contrary to the greater abundance and variety of vessels available in the market. The unusual pattern regarding the capital consumption index for Vinegar Hill requires additional ceramic vessels to confirm neighborhood patterns of declining consumption over the nineteenth century. Additional archaeology with tight stratigraphic control is required to confirm or refine these suggestions and increase the quantity of vessels from any single household making this assemblage more comparable to other associated with the Foundry.

VI.6. Cold Spring Ceramics Conclusions

The proceeding analysis of ceramic assemblages from workers and owners associated with the West Point Foundry indicated differences in wealth (economic index) and subscription to individualism and commodity fetishism (capital consumption index). The relationship between the working class and the upper class in Cold Spring could be described as somewhat similar due to market availability, but shifting over time. Proportions of vessel types and decorative motifs were quite similar across different households. Economic indexes for the two largest assemblages, Rascal Hill #2 and the East Bank House, were in line with documentary information about occupants, and those from smaller assemblages, Gouverneur and William Kemble and Vinegar Hill, are not consistent with expectations from other sources. Consumption of the
variety of goods generally increased over the nineteenth century, however household participation within the capitalist market differed between locations and households.

The proportion of vessels in each collection also differed only slightly and point to what workers were eating. Archaeological interpretive methodologies have associated bowls with diets composed of liquid based foods that can be made at a low cost and plates with cuts of meat that generally were more expensive (Schulz and Gust 1983). The consistent distribution of cups, bowls, plates, and saucers at Rascal Hill #2 demonstrates an unchanging diet throughout the nineteenth century. Yet in comparison to other West Point Foundry households, those from Rascal Hill #2 had an abundance of bowls. The slightly larger percentage of plates from the engineer’s occupation of the East Bank House could point to meals with meat or else the engineer’s higher economic means as in other locations where such correlations are noted (LeeDecker, et al. 1987). The East Bank House over the course of the nineteenth century continued to have at least twice the number of plates than bowls. The continued dominant presence of plates in the assemblage through the latter part of the nineteenth century suggests workers being provided a certain style and type of food during the boarding house period or perhaps inhabitants of a class able to purchase more expensive food than those inhabiting Rascal Hill #2.

The boarding house occupation of the East Bank House clearly contains a greater variety of vessel types and pastes, most pointedly including an increase in storage vessels needed to feed the workers. Also it is unclear who exactly owned the ceramics used in the boarding house, but it was more likely that a keeper or the company supplied the dishes rather than the single, male workers. The abundance of
saucers from Vinegar Hill could illustrate the importance of tea consumption with those residences. The same decoration patterns were noticed within different West Point Foundry assemblages, indicating that contemporary households tapped into the same markets for purchases from a limited number of stores in Cold Spring. Most of the red ware plates recovered from more than one West Point Foundry household were likely to be New York in origin. Makers’ marks from the Rascal Hill #2 assemblage contained a greater variety than those associated with the East Bank House, suggesting the high probability of the skilled workers residing at Rascal Hill #2 brought ceramics with them when they migrated to the United States. Nineteenth century trends in ceramic consumption were more readily apparent with collections where more extensive archaeology has been conducted and support conducting additional excavations at the other three sites.

Economic indexes demonstrate that workers who presumably had higher incomes spent a portion of that on higher end ceramics. This was found more frequently in porcelain tea wares rather than the formal porcelain dining plates or serving bowls of the Kemble properties. The engineer’s household had the highest index, indicating its consumption of more expensive ceramics; the index of Rascal Hill #2 declined over the nineteenth century, a trend that adds to the scant documentary records on the neighborhood, and is certainly consistent with a neighborhood moving towards abandonment. By the late nineteenth and early twentieth century the values at Rascal Hill #2 were comparable to those of the East Bank House boarding period and the single family that occupied the structure.
Capital consumption in both the East Bank House and Rascal Hill #2 between the 1820s and the 1840s was low, suggesting a lack of subscription to capitalist notions of individualism and commodity fetishism. During this period, there was also a Foundry store; however specific information about competition between the store and other stores in the village is unknown. The capital consumption index generally increases over time, possibly indicative of the wider nineteenth century trend in consumption or else indicative of additional availability of wares from multiple merchants outside of the foundry store (see Figure 6.27). The noticeable exception to this trend was Vinegar Hill where the capital consumption index decreased over time. One other exception to this trend was the decrease between Rascal Hill #2’s Period 2 and Period 3.

![Image: West Point Foundry Capital Consumption Index Totals](image)

*Figure 6.27: Total Capital Consumption Indexes for the West Point Foundry Assemblages.*
Perhaps the purchasing power of the Rascal Hill #2 households had decreased so much that consumption of vessels was no longer an option or perhaps their participation in capitalist consumption was no longer desirable. Variations of capitalist consumption indexes of tablewares, tea wares, preparation wares, and personal wares varied between households and across time. Tablewares generally followed patterns seen in the total consumption indexes. Spikes in an overall capital index were generally tied to spikes in capital consumption of tea wares as seen around the latter part of the nineteenth century at Rascal Hill #2 and Vinegar Hill. Preparation vessels varied between the needs of a boarding house or the desire of a single family to store and prepare for food at home.

Over the course of the nineteenth century, the Foundry relaxed its paternal control in Cold Spring’s housing. Based on the ceramic consumption of several community members, how were the paternalistic relationships negotiated in people’s lives outside of the Foundry? The original foundry owners generally committed to remain within the community and only slightly distinguished themselves from their workers (modest house size with extensive property; porcelain place sets but low range economic index). Before the Civil War, an engineer maintained the highest economic index, with skilled workers at Rascal Hill #2, the Kemble owners, and those living on Vinegar Hill ranking second. Some documentary evidence suggests that owners limited available ceramics within the company store, particularly during the earliest period when the store was known to be open. The extent to which owners distinguished themselves from the workers needs further exploration, given the sample bias that affected the study to date of the owners’ assemblages.
The ceramic analysis presented above benefited from one individual assessing multiple assemblages using the same criteria for identification and description of vessels. This consistency in methodology has allowed an assessment of two locations associated with the West Point Foundry and the development of hypotheses regarding further study at the sites of the owners and other workers. Both Vinegar Hill and the William Kemble property have demonstrated intact archaeological resources full of information. Details about the inhabitants of Vinegar Hill remain in question as ceramics collected to date suggest different social and economic status from the name. Exploration into single structures within the neighborhood has the potential to distinguish between households. The William Kemble property has the enormous potential to yield trash middens with nineteenth and early twentieth century ceramics, though finding them presents a significant challenge. A higher potential for yielding information about the owners would be the Gouverneur Kemble property. Already an archaeological site, Gouverneur Kemble’s cellar remains largely unexplored, and a shorter occupation of this site would be comparable to the other West Point Foundry domestic locations.

The temporal divisions of the ceramics discussed above and the methodology used to identify vessels allowed for the comparison of different archaeological assemblages collected more than a decade apart. By conducting such analyses, comparisons between different collections was possible and contributed to our understanding of the relationships between workers and employers in this small industrial community. Extensive analysis was possible for two locations and a preliminary result of others has begun to give shape to members of the West Point
Foundry and Cold Spring community. Comparing observations outlined here with other locations in the United States is the logical next step and will be addressed in the next chapter.
CHAPTER VII

A COMPARISON OF COLD SPRING & THE WEST POINT FOUNDRY TO NINETEENTH CENTURY COUNTERPARTS

VII.1. Introduction

Previous chapters developed a sense of the relationship between the Village of Cold Spring and the West Point Foundry and how it changed over time. The boom and bust of production paralleled the village’s population and demography fluctuations. The leadership of Kemble and Parrott was readily visible in Foundry operations, in establishing Cold Spring as a village, and in local religious institutions. The quantity, location, and size of houses for Foundry workers shifted over time under a general pattern of paternalism, ceasing after the Civil War with a pause in new construction except for a single known building episode at the turn of the twentieth century. As the area’s primary employer, the division between the West Point Foundry and the Village of Cold Spring was blurred throughout the nineteenth century.

So how do Cold Spring and the West Point Foundry compare to contemporary counterparts? Industrial communities shared the same general features (network of transportation routes, a main street full of businesses, variety of worker and owner housing, religious institutions, and an industrial facility), but were unique in their combination of elements. The experience at Cold Spring is better understood in contrast to other communities in the United States. The present chapter will place the village and Foundry within a wider context of industrial community ceramic assemblages and corporate sponsored community housing development. Patterns in economics and capital consumption of ceramic vessels have been interpreted from the
industrial communities of Harpers Ferry, West Virginia, Fayette, Michigan, and Lowell, Massachusetts. Housing stock and village layout have been studied in Fredonia, New York, Oxford, New Jersey, and Hopedale, Connecticut. The following comparisons explore the relationships between owners and workers in other locations and industries throughout the nineteenth century.

VII.2. Ceramics in Nineteenth Century Industrial Communities

The vessel types, tabulations in formulas, and general archaeological assemblages of different Cold Spring dwellings will be compared in the following to three specific locations that were chosen for their similarities in industry, time frame, extent of archaeology, and spectrum of households. Harpers Ferry, West Virginia provided archaeologically derived information on various class positions, including management and skilled workers, within an armory community. The government-sponsored armory manufactured small arms thus providing a parallel industry to the West Point Foundry’s heavy ordnance government contracts. Fayette, Michigan was comparable in terms of size, workforce of different skills and economic means, participation in iron manufacturing, and reliance on water transportation. Like Cold Spring, Lowell, Massachusetts was established during the first quarter of the nineteenth century and archaeologists have also explored the ways management influenced the development of the community, including investigations of management housing, a tenement, and a boarding house.

The following discussion will highlight historically relevant information for Harpers Ferry, Fayette, and Lowell and then study their ceramic assemblages to compare to the indexes calculated for the West Point Foundry in Chapter VI. Such
comparisons will help interpret the residents of Cold Spring as Foundry workers as well as allow for better understanding of the reliability and accuracy of the formulas used to study responses to life in industrializing communities. In the other locations explored here, documents allowed archaeologists to more concretely establish the class of inhabitants. Such information could suggest the class of those who lived as anonymous workers in West Point Foundry houses where there are no documents to complement the ceramic assemblages. The original archaeological terms and names used by the excavators in each location were retained in the following discussions.

To assist in comparing between sites, the occupants presumed to be responsible for the various ceramic assemblages from each site were given a class position based on their occupation. Table 7.01 summarizes the information on residents and their class positions. Such categorization is fraught with complexities when one more closely examines the data such as comparing assemblages from different periods. This is especially the case for many of the assemblages from the West Point Foundry, where associated documentation for these residences is limited and the turnover of workers was frequent. The associated class of some assemblages was even more questionable and is indicated with a “?”. Some communities did not have excavations that corresponded to each class listed below and these cells were left blank.
Table 7.01: Ceramic Assemblage Comparisons by Class Position and Location.

<table>
<thead>
<tr>
<th>Class Position</th>
<th>West Point Foundry</th>
<th>Harpers Ferry</th>
<th>Fayette</th>
<th>Lowell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Industry Owners</td>
<td>Gouverneur Kemble</td>
<td>William Kemble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper Level Managers of Large Industries</td>
<td>Beckham</td>
<td>Moor</td>
<td>Upper Class House</td>
<td>Agent’s Duplex</td>
</tr>
<tr>
<td>Middle Level Managers, Skilled Workers, &amp; Independent Small Scale Owners</td>
<td>East Bank House Period 1</td>
<td>Roeder</td>
<td>Hotel Yard &amp; Privy</td>
<td>Middle Class Houses</td>
</tr>
<tr>
<td>Semi-Skilled &amp;/or Unskilled Workers</td>
<td>East Bank House Periods 2 &amp; 3</td>
<td>Rascal Hill?</td>
<td>McGraw</td>
<td>Doran</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vinegar Hill?</td>
<td>Building #48 Context D</td>
<td>Building #48 Context E</td>
</tr>
<tr>
<td>Unskilled Workers</td>
<td>East Bank House Periods 2 &amp; 3</td>
<td>Rascal Hill?</td>
<td>McGraw</td>
<td>Doran</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vinegar Hill?</td>
<td>Building #48 Context D</td>
<td>Building #48 Context E</td>
</tr>
</tbody>
</table>

**VII.2.1. Harpers Ferry, West Virginia**

An excellent comparison to the West Point Foundry and Cold Spring was the small arms, government operated armory and its adjacent settlement of Harpers Ferry, in the present day West Virginia. Harpers Ferry was established after the Revolutionary War as one of two federal armories, the other being located in Springfield, Massachusetts. Archaeological exploration of Harpers Ferry has contributed significantly to understanding the industrial, managerial, landscape, and consumption practices of its nineteenth century inhabitants (Shackel 1996a). The community was quite isolated from most markets, relying solely on river barges and wagon
transportation until the arrival of the Chesapeake & Ohio Canal in 1833 and the
Baltimore & Ohio Railroad the following year (Lucas 1993a: 8.6). The armory and
these modes of transportation transformed the Harpers Ferry community and redefined
its relationship to the rest of the United States.

Archaeologists chose domestic areas to excavate located in close proximity to
the armory (see Figure 7.01). Given the complexity of various sites, time periods,
families, and locations, the reader should refer to Table 7.02 for further detail and to
Appendix V for graphic and numeric details of assemblages. Archaeological
investigations by Paul Shackel and others in 1989 and 1990 focused on the lower town,
described as “a microcosm of the changing lifeways of various classes of people
[master armorer, merchants, entrepreneurs, and boarders] in an early industrializing
community” (bracketed items listed by Shackel later on the same page, Shackel 1993a:
1.1). Excavations were conducted in Buildings #32-36, a master armorer turned
boarding house site (Lucas 1993a; Lucas 1993b); Building #16 and its adjacent
structures that included the outbuildings of a hotel later used as a house and saloon
(Larsen and Lucas 1994; Lucas 1994b); and Building #48, a house of foundry workers
(Lucas 1994a; Shackel 1994b, see Figure 7.01).
Comparisons to the West Point Foundry will be made between the assemblages based on their believed class positions as indicated in Table 7.02: upper level managers of large industries (light gray); middle level managers, skilled workers, and independent small scale owners (medium gray); and semi-skilled and/or unskilled workers (dark gray). Shifting between these presumably different levels of purchasing power and subscription to different material codes should be represented in their ceramic wares. The following analysis follows Harpers Ferry households along believed class positions and each individual assemblage is detailed in Appendix V.
Table 7.02: Summary of Harpers Ferry Excavations Shaded According to Class Position (Lighter Shading Is A Higher Class Position).

<table>
<thead>
<tr>
<th>Building #</th>
<th>Occupants</th>
<th>Time Frame</th>
<th>Deposit</th>
<th>#Vessels</th>
<th>Associated Context</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Beckham</td>
<td>1815-1830</td>
<td>yard</td>
<td>52</td>
<td>Context I 1815-1832</td>
<td>Master Armorer during craftsman manufacturing; Slaves and free African American in household</td>
</tr>
<tr>
<td>36</td>
<td>Moor</td>
<td>1830-1850</td>
<td>yard</td>
<td>62</td>
<td>Context II 1832-1852</td>
<td>Master Armorer till 1849 during standardized production; Slaves in household</td>
</tr>
<tr>
<td>16</td>
<td>Roeder</td>
<td>1844-1861</td>
<td>yard</td>
<td>150</td>
<td>Roeder 1840s-1860s</td>
<td>German Immigrant; bakery, confectionery</td>
</tr>
<tr>
<td>16, 15, 7, 5</td>
<td>Burleigh</td>
<td>1881-1914</td>
<td>yard, saloon, privy</td>
<td>61 36 14</td>
<td>Burleigh</td>
<td>Saloon (1885-1914)</td>
</tr>
<tr>
<td>South of 16</td>
<td>Hotel</td>
<td>1803-1837</td>
<td>privy (Feature 292), yard</td>
<td>70 62</td>
<td>Hotel Yard, Hotel Privy</td>
<td>Contained stable, doctor &amp; dentist office, artist</td>
</tr>
<tr>
<td>36</td>
<td>Hurst</td>
<td>1887-1920</td>
<td>yard</td>
<td>&lt;28</td>
<td>Context A 1890s</td>
<td>Servant in household for part of the time</td>
</tr>
<tr>
<td>32-35</td>
<td>McGraw</td>
<td>1870-1899</td>
<td>privy (Feature 99), privy (Feature 132)</td>
<td>&lt;28</td>
<td>Context A 1890s</td>
<td>Boarding house 1891-1899</td>
</tr>
<tr>
<td>32-35</td>
<td>Doran</td>
<td>1890-1942</td>
<td>privy (Feature 99)</td>
<td>43</td>
<td>Context B 1910-1930s</td>
<td>Boarding house converted to apartments 1911</td>
</tr>
<tr>
<td>48</td>
<td>Unknown</td>
<td>1821-1844</td>
<td>yard</td>
<td>111</td>
<td>Context E 1830-1844</td>
<td>Unknown occupations, probably Armory</td>
</tr>
<tr>
<td>48</td>
<td>Unknown</td>
<td>1844-1852</td>
<td>yard &amp; cellar</td>
<td>128</td>
<td>Context D 1844-1852</td>
<td>Carpenter, gunsmith, assistant jobbing smith, and unknown occupants</td>
</tr>
</tbody>
</table>

VII.2.1.1. Upper Level Managers of Large Industry

Upper level managers of the large industry in Harpers Ferry included the Armistead Beckham and Benjamin Moor households. Beckham was an early master armorer in Harpers Ferry between 1815 and 1830 when craftsmen drove the armory
manufacturing and skilled individuals were responsible for the construction of complete guns. Workers during this first period often took home their work to fill piecemeal quotas. In contrast between 1830 and 1849, Moor attempted to industrialize the armory and standardize its production, making use of interchangeable parts and assembly line manufacturing techniques adopted from the Springfield Armory. The archaeological assemblages of these households, as well as others throughout Harpers Ferry, indicate the impact that Moor had on rationalizing the landscape and limiting arms manufacturing to the armory itself. Both master armorer households contained slaves and the Beckham household also contained a freed African American. Whether or not these household members are archaeologically represented remains unknown. The Beckham and Moor households occupied the highest class position excavated to date in Harpers Ferry.

Analysis of Harpers Ferry’s industrial and social trends led to a distinction between the Beckham and Moor households. The Beckhams had several pie plates, storage vessels, and crocks or jugs made from earthenwares while the Moor wares were dominated by matching whiteware sets. The variety of ceramics recovered from the Beckham household, including earthenwares as a quarter of that assemblage, stand in stark contrast to those from the West Point Foundry of all class positions that had few to no earthenwares. This difference may show changing food preparation practices at Harpers Ferry, which were converging on those found throughout the class structure at the West Point Foundry. Also, the extensive presence of earthenwares may have been a reflection of freed or enslaved African Americans living in the Beckham household.
Both of these Harpers Ferry assemblages had more plates than were recovered from the West Point Foundry, especially the Moor household with 38% of its collection as plates in contrast to those recovered from the East Bank House (averaging 24%) and Rascal Hill (averaging 12%). The already noted underrepresentation of ceramics and particularly plates from the slightly higher positioned Kemble households of the West Point Foundry are yet another indication of the need for more extensive studies of these Foundry properties. The Moor assemblage included a number of tea vessels other than saucers and cups indicating the importance of tea consumption for the Moors and their guests. There were far fewer vessels (only about 15% of the largest two West Point Foundry collections) recovered from each of these upper level management Harpers Ferry households. Differences between the armorers’ assemblages and those of the West Point Foundry could be indicative of behaviors (eating more expensive cuts of meat from plates in Harpers Ferry versus less expensive liquid based meals at the Foundry) or archaeological methodology (in representation, identification, or analysis).

VII.2.1.2. Middle Level Managers, Skilled Workers, & Independent Small Scale Owners

Middle level managers, skilled workers, and independent small scale owners in Harpers Ferry included the Roeder, Burleigh, and Hurst households and a hotel. The German immigrant family of the Roeders proved to be one of the most interesting assemblages in Harpers Ferry. Roeder operated a confectionery and bakery in Harpers Ferry between the middle of the 1840s through the beginning of the Civil War. The abundance of storage vessels, smaller tea ware assemblage, and variety of decorative
motifs of the Roeders suggest an interesting consumption of ceramics by the immigrant family running a small business.

The Roeder assemblage (containing 127 vessels, the largest quantity of identified vessels in a Harpers Ferry assemblage) suggested that storage and preparation vessels at 24% remained an important part of their kitchen. The abundance of Roeder’s earthenwares could have been associated with the bakery. Harpers Ferry archaeologists also suggested that increased transportation to Harpers Ferry by 1850 provided its residents with higher quantities of fresh produce, eliminating the need of some storage vessels (Halchin 1994a; Shackel 1993a). Another possible explanation is archaeological where Harpers Ferry analysts over counted the number of preparation vessels by including each different body (as opposed to only rims) as a separate vessel.

Archaeologists suggest that the Roeders did not participate in the nineteenth century English-American fashion of tea consumption due to tea wares making up a small percentage of the assemblage at 31% (Halchin 1994c: 10.4-10.5). However, the Moor master armorer’s assemblage only contained 5% more tea wares than the Roeder’s household and the hotel privy and yard believed to be of the same economic class as the Roeders only had 20% and 30% tea wares respectively. One would expect both of these other assemblages to contain much higher percents of tea wares than the Roeders given either the higher status of the Moors or the hotel’s serving function. Roeder’s lack of participation in the wider nineteenth century movement for sets of matching dishes contrasted with their exceptionally high capitalist consumption index. Given the contradictory data, additional archaeological investigation into the Roeder
household could shed light into this German family’s participation and assimilation into American culture.

The Burleigh family lived in Harpers Ferry between 1881 and 1910 and operated a saloon that served both food and alcohol for most of that time. The Burleigh assemblage most resembles those from the West Point Foundry especially that of the East Bank House, in proportion of bowls, cups, plates, and saucers. The association of a saloon with the Burleigh family assemblage may help explain the similarity as both served food to large numbers of skilled and unskilled workers. The duration of the Burleigh family and their saloon along with the larger number of vessels from this assemblage make it quite comparable to the West Point Foundry, except that Foundry assemblages lacked the 18% of storage vessels recovered from the Burleigh assemblage. Another obvious difference between the two is the serving of alcohol at the Harpers Ferry saloon, but the Temperance Movement interrupted that portion of Burleigh’s business around the turn of the twentieth century. The dominance of molded vessels in the Burleigh assemblage was likely an indication of the cult of domesticity within the household (Rotman 2001; Wall 1994). The ceramics required at a saloon serving food were somewhat similar to those used at a boarding house.

Larsen suggested a similarity between the Burleigh assemblage from an independent small scale saloon and that of the boarding house for semi-skilled or unskilled laborers. Both locations had a business and a family residing on the same property and show similar distributions of tableware, tea ware, and utilitarian vessels. Yet there was not a considerably higher percentage of vessels associated with alcohol consumption recovered from the saloon in comparison to the boarding house. Larsen
explained this by the reuse of bottles at the saloon as well as effects of the Temperance Movement around the turn of the twentieth century in Harpers Ferry (Larsen 1994: 8.12-8.13). Harpers Ferry independent small scale owners who helped serve the community and armory workers included the Burleigh and Roeder households and the hotel.

The hotel for Harpers Ferry operated between 1803 and 1837 and acted as a place for lodging visitors to the armory as well as providing food and drinks to the local community (Halchin 1994b: 2.2). The hotel also included a stable and occasionally provided temporary offices for doctors, dentists, and even an artist (Larsen and Lucas 1994: 6.4). Like a boarding house, the assemblage may inadequately reflect the inhabitants of the hotel as the deposits belonged to the hotel and not the inhabitants. The people who were staying for such a short period at the hotel therefore did not deposit their own ceramics in the yard and the ceramics that remain are less indicative of their behaviors than of the hotel owners. Or perhaps the expected hotel’s high subscription to capitalist ideals fell short because deposits exist closer to the hotel that went unexplored archaeologically. Excavations investigated a privy deposit and also part of the yard behind the hotel. Each of these deposits had their own vessel lot and archaeological reports remain unclear as to the extent that cross-mends between these two major deposits from the same structure were attempted.

James and Elizabeth Hurst were in Harpers Ferry from 1887 to their deaths in 1920 but the ceramic assemblage recovered from their household only dates from the decade of the 1890s. After a bankruptcy around the turn of the century, the Hursts remained active in the community, including James as sheriff of Jefferson County for
three terms and Elizabeth planning successful social events. Their ceramic assemblage was typified by a variety in plate sizes and ceramic sets suggesting the formal segmentation of the Hurst’s dining routine and table. The surprisingly low capitalist consumption index (21.8) may be a reflection of the small number of vessel forms and may also be explained by the presence of a servant for part of the time, whose own personal assemblage may be included in the remains from the Hurst family. Harpers Ferry archaeologists suggested that multiple sets were represented, but the effect of this on the capital consumption index would depend on how well each set was sampled and represented in the vessels. The Hurst assemblage was a part of a context that may have been mixed with the McGraw assemblage associated with semi-skilled or unskilled workers to be discussed in the next section below.

VII.2.1.3. Working Class Households

As a working household, James McGraw and his family occupied Building #33 from the 1870s through the 1890s. In 1891, McGraw added on to his building to include a storeroom and thirty-room boarding house. Only eight years later, the McGraws went bankrupt and in 1899 William and Mary Ellen Doran purchased the property. The McGraw/Doran boarding house was converted into apartments in 1911. Unfortunately, it is unclear whether semi-skilled or unskilled laborers resided with McGraws and Dorans, but it is likely that whoever resided there worked at the armory.

The variety of tea vessels and their quantity coupled with many undecorated plates and a large number of storage vessels suggests that the McGraws and Dorans probably maintained appropriate wares for a boarding house in contrast to the Hurst family before them on the same property who used various sets and plates to formally
entertain at dinner. Approximately one third of the assemblage was tea related from the boarding house, including several vessels from one set. This may be due to the frequency of tea ware use by boarding house occupants and general social expectations. The East Bank House’s boarding house phase had around 45% of its assemblage as tea ware. Several transfer prints and porcelain sets were included in the McGraw/Doran assemblage. The presence of these ceramics may indicate the boarding house keeper’s personal ceramics as part of the working class and/or their business needs to keep up the propriety of the boarding house and its residents.

In a similar fashion to the McGraw/Doran location, Building #48 contained an unknown number and skill level of workers, some of whom found employment at the armory. Building #48 was a two-and-one-half story stone structure measuring 19 feet by 33 feet. Although William Smallwood was attributed as its constructor, occupants of Building #48 were not determined prior to the 1840s. Rent lists indicated several armory worker households occupying the enlarged house between 1841 and 1853 including a carpenter, gunsmith, and assistant jobbing smith, (Shackel 1994a: 4.2). From the second half of the nineteenth century, Building #48 housed additional families associated with the armory, including that of a machinist, households including boarders, a railroad worker household, and tenants who rented the property. Given the complexity of the site’s occupancy and length of occupation, only the earliest deposits of Contexts D and E were examined in detail for this investigation.

Harpers Ferry archaeologists used archival and artifactual evidence to suggest additional interpretations about Building #48’s Context D and Context E. The persistence of creamware in Context D into the 1840s & 1850s could have several
explanations. Perhaps the occupants’ low wages only allowed them to buy inexpensive wares, which creamware was by the middle of the nineteenth century. And/or perhaps the cream ware was an active choice of not emulating the current trends in ceramics.

Lack of records associated with earlier Context E make assertions more tenuous. If the Stope family, who occupied the site in the early 1840s, also lived there during the late 1830s, their household would have contained expensive ceramics, store goods, and brandy – items noted as their purchases in 1830s store ledgers. However Context E also contained two pronged forks, associated with left-handed eating, that were replaced by three and four pronged forks in the 1830s. The use of two pronged forks contrasted with the expensive and fashionable, high consumption index ceramics contained in Context E and may be indicative of a rejection of certain novelties but the embrace of others around the nineteenth century table or tables in Building #48.

VII.2.1.4. Indexes Calculations of Harpers Ferry Assemblages

Harpers Ferry archaeologists calculated Miller’s economic index for the Beckham household at 1.72 and the Moor household at 1.93 (see Table 7.03). These numbers correspond quite nicely with those found on Rascal Hill and slightly higher than those associated with the boarding house phase of the East Bank House (see Figure 7.02). However as the master armorer’s household in the highest class excavated in Harpers Ferry, the economic indexes of the Beckhams and Moors were lower than expected or observed in other industrial communities (Heberling 1987). Of course they are not nearly as low as that for the Kembles, but as noted in Chapter VI, this value is most likely the result of poor sampling of the Kemble properties. Also, as noted in the previous chapter, the economic index has not been developed by Miller for the last
quarter of the nineteenth century and therefore many of the Harpers Ferry assemblages were not calculated.

Table 7.03: Chronological Comparison Between the West Point Foundry (WPF) and Harpers Ferry (HF) Assemblages. Ranges Are From Original Miller and Leone Publications and Graphed in Figures 7.02 and 7.03 Respectively.

<table>
<thead>
<tr>
<th>Index/Location/Date</th>
<th>Economic Scaling (Miller range 1+)</th>
<th>Capitalist Consumption (Leone range 1-120)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Privy (HF) 1803-1837</td>
<td>Not Available</td>
<td>30.4</td>
</tr>
<tr>
<td>Hotel Yard (HF) 1803-1837</td>
<td>Not Available</td>
<td>17.7</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1820-1840</td>
<td>2.41</td>
<td>19.2</td>
</tr>
<tr>
<td>East Bank House (WPF) 1820-1840</td>
<td>3.07</td>
<td>19.0</td>
</tr>
<tr>
<td>Beckham (HF) 1815-1832</td>
<td>1.72</td>
<td>24.3</td>
</tr>
<tr>
<td>Context E (HF) 1821-1841/44</td>
<td>Not Available</td>
<td>96.0</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1840-1860</td>
<td>1.93</td>
<td>37.7</td>
</tr>
<tr>
<td>East Bank House (WPF) 1840-1860</td>
<td>1.59</td>
<td>40.7</td>
</tr>
<tr>
<td>Moor (HF) 1832-1852</td>
<td>1.93</td>
<td>23.6</td>
</tr>
<tr>
<td>Context D (HF) 1841/44-1852</td>
<td>Not Available</td>
<td>59.8</td>
</tr>
<tr>
<td>Roeder Family (HF) 1844-1861</td>
<td>Not Available</td>
<td>56.5</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1860-1880</td>
<td>1.63</td>
<td>31.0</td>
</tr>
<tr>
<td>East Bank House (WPF) 1860-1890</td>
<td>1.60</td>
<td>40.7</td>
</tr>
<tr>
<td>Burleigh (HF) 1881-1910</td>
<td>Not Available</td>
<td>37.0</td>
</tr>
<tr>
<td>East Bank House (WPF) 1890-1920</td>
<td>Not Available</td>
<td>48.4</td>
</tr>
<tr>
<td>Hurst (HF) 1890s</td>
<td>Not Available</td>
<td>21.8</td>
</tr>
<tr>
<td>Boarding House (HF) 1890s-1910</td>
<td>Not Available</td>
<td>42.4</td>
</tr>
<tr>
<td>McGraw/Doran (HF) 1910-1930s</td>
<td>Not Available</td>
<td>25.1</td>
</tr>
</tbody>
</table>
The capital consumption and economic indexes for the West Point Foundry and Harpers Ferry assemblages are presented in Table 7.03 and the economic index is visually represented in Figure 7.02. Table 7.03 is chronologically organized with the earliest assemblage listed first, regardless of their location. Figure 7.02 plots time on the x-axis and the economic index on the y-axis, using bars of differing fill to indicate assemblages from the West Point Foundry (WPF) and Harpers Ferry (HF).

Archaeologists who analyzed the Harpers Ferry collections suggested that the upper level managers of large industries (Beckham and Moor households) differed on degree of segmentation of formal dining practices (Lucas 1993a: 8.29). In Lucas’s calculation of segmentation of formal dining practices, the number of decorative motifs
was divided by the number of ware types and then multiplied by the number of plates with different diameters to indicate how many different size plates were represented in the collection. Lucas’ calculations suggest that the Moor household contained twice as high of a segmentation index, indicating the Moor household’s subscription to segmented dining practices, in contrast to the Beckham household.

Calculations using the capitalist consumption index developed by Leone only partially support this notion. The Moor household total capital consumption index was barely lower at 23.6 than the Beckham household index of 24.3 (see Table 7.03). Unlike Rascal Hill and Vinegar Hill, where tea wares explain the noticeable changes in capital consumption indexes fluctuations, the Beckham’s preparation vessels account for the difference between the Beckham and Moor indexes. Although Leone developed and used his capital consumption index on plates, an overall household’s total capital consumption index has been the most frequently used in the present analysis and has yielded noteworthy results. Lucas only used plates rather than the entire assemblage to describe formal dining segmentation.

When capital consumption indexes are calculated for tablewares, tea wares, and preparation wares, the Moor household, in contrast, had its highest capital consumption index of 12 for tablewares, a number that confirms Lucas’ observations (see Table 7.04). The Beckham household had the highest index of 12 for preparation ware. The Beckhams used significantly more preparation vessels (34% for the Beckhams and 19% for the Moors) than tea vessels (17% for the Beckhams and 34% for the Moors) while the Moor household was opposite. Though a third of the Moors assemblage was tea ware, it yielded their household’s lowest capital consumption index. Such differences
in ceramic assemblages between the two master armorers could be another indication of
the wider industrial changes of standardization and segmentation happening at the
Harpers Ferry armory and expressed on the Moor dining table where tableware was a
major investment.

**Table 7.04: Capital Consumption Indexes for Different Ware Types of Master
Armorer Households.**

<table>
<thead>
<tr>
<th>Ware Type</th>
<th>Beckham Context I</th>
<th>Moor Context II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tableware</td>
<td>(8 = (16/(2+2)) \times 2)</td>
<td>(12 = (24/(2+2)) \times 2)</td>
</tr>
<tr>
<td>Tea Ware</td>
<td>(3 = (9/(2+3)) \times 2)</td>
<td>(5.4 = (18/(3+7)) \times 3)</td>
</tr>
<tr>
<td>Preparation Ware</td>
<td>(12 = (21/(4+3)) \times 4)</td>
<td>(7.4 = (13/(4+3)) \times 4)</td>
</tr>
<tr>
<td><strong>CAPITAL CONSUMPTION TOTAL</strong></td>
<td><strong>24.3</strong></td>
<td><strong>23.6</strong></td>
</tr>
</tbody>
</table>

Four Harpers Ferry households from all class positions and across the nineteenth
century were remarkably similar to one another in their total capitalist consumption
index (McGraw/Doran at 25.1, Beckham at 24.3, Moor at 23.6, and Hurst at 21.8).
Recall that the Beckhams and Moors were master armorers and upper management of a
large industry from the first half of the nineteenth century and that their total capital
consumption indexes were lower than expected. The Hurst household was an
independent small scale owner in a middle class that had a shared context with the
McGraws while the McGraws/Dorans owned a boarding house that served semi-skilled
or unskilled workers. From the indexes, it appears that the early management and later
small scale owners/members of the middle class in Harpers Ferry subscribed to capital
consumption ideals in similar ways.

Harpers Ferry capital consumption indexes lie in between the total capital
consumption indexes calculated at the West Point Foundry in the middle to late
nineteenth century with early Harpers Ferry assemblages generally being low (see
Figure 7.03). The different households from Harpers Ferry are illustrated below with
white boxes in green colors and those from the West Point Foundry have white ovals in blue colors. There was a general scatter of most assemblages of total capital consumption indexes between 20 and 50. Outliers to this were the very low hotel yard 17.7, the Roeder assemblage from German bakers (56.5), and Context E (96.0) and Context D (59.8). Although the archaeological analysis provided at the conclusion of the hotel excavations suggested that the two assemblages were very similar and typical of a hotel from the period (Larsen and Lucas 1994: 6.4), a calculation of their index of capitalist consumption suggests otherwise. The yard assemblage yielded the lowest index of any Harpers Ferry or West Point Foundry assemblage at 17.7 and the privy with a total capital consumption index of 30.4.
The three highest total capital consumption indexes (Roeder, Context D, and Context E) also had the largest quantity of vessels in their archaeological assemblages from Harpers Ferry (see Figure 7.04). Recall that the most complete West Point Foundry assemblages from the East Bank House and Rascal Hill #2 had an average of 125 vessels per period that generally was only twenty years long. This all suggests that the number of vessels, aside from any measure of segmentation, can greatly affect the value of the capitalist consumption index.
The trend of later nineteenth century households to purchase a wider variety of ceramics and to subscribe more to the notion of consumption (Leone 1999a) is generally followed at the West Point Foundry but much more gradual at Harpers Ferry with a few exceptions (see Figure 7.03). The highest index of total capitalist consumption came from Context E and Context D associated with a variety of Harpers Ferry workers in the first half of the nineteenth century. Context E’s capital consumption index of 96.0 was five times that calculated for the East Bank House and Rascal Hill #2 for the same period. The general turnover of households within Building #48 could explain the high capital consumption index as each different household was likely to contain different ceramics. The Harpers Ferry boarding house had an index of 42.4, which was very similar to that of the East Bank House boarding house of 40.7. The Roeder family also had a high consumption index, probably related to their bakery and confectionary. With a total index of 56.5, this is three times that of the hotel and eight points higher than any other household index displayed in Figure 7.03. However
all of these total indexes, except that of Context E, are still well below what Leone has proposed as a tableware index of capitalist consumption for a middle class household from Annapolis, which he calculated in the 80s (Leone 1999a: 197).

**VII.2.1.5. Harpers Ferry Analysis & Conclusions**

Ceramic assemblages from the Harpers Ferry locations provided an interesting mix of households and businesses, workers of various skill levels associated with the armory, and of varying social and economic status. From the master armormers of Beckham and Moor to unknown occupants of Building #48, the ceramic assemblages reflect subscriptions to ideals of capitalist consumption and changes to available markets. Spanning the entire nineteenth century the assemblages are important to compare to the West Point Foundry as both locations engaged in skilled ordnance manufacturing. Table 7.02 summarized the complexity of the assemblages.

In general, the West Point Foundry collections had noticeably more bowls than those at Harpers Ferry, suggesting differentiated diets with those recovered from the West Point Foundry emphasizing stews and cheaper cuts of meat. Faunal assemblage analysis from the East Bank House of 4,060 identifiable specimens suggests that the diet was dominated by butchered sheep, goats, cattle, and pigs with a small percentage of chickens and geese. At times, this diet was supplemented by food available locally such as fish, turtle, and rabbit (Norris, et al. 2008: 86). Additional analysis is needed to highlight West Point Foundry workers food consumption. The rituals of tea and associated entertaining were consistently noted in both locations throughout the nineteenth century.
In comparison to the Foundry, the community of Harpers Ferry appears to have undergone significant changes that impacted its ceramic consumption. Major shifts in transportation translated into a wider variety of food goods and ceramics available in Harpers Ferry over time whereas at the West Point Foundry there was a wide and more consistent access to markets throughout the nineteenth century. Households that include serving food, such as boarding houses or hotels or saloons, were consistent in both locations and more a reflection of the owners and their business rather than the occupants. Residents adjacent to the Foundry appear to participate in more tea consumption and had assemblages with many more bowls in contrast to Harpers Ferry, where preparation and plates were more prevalent. The major disparity between storage vessels and types of tablewares in Harpers Ferry in comparison to those of the Foundry could be a reflection of the changing market situation in Harpers Ferry. The constant interaction with the market connection to the Hudson River perhaps required fewer storage vessels.

The number of similarities between the two industrial communities of Harpers Ferry and Cold Spring were fewer than the number of differences. Additional research would benefit to help tease out which explanations helped to shape the assemblages into noticeable differences between the two master armorer assemblages, the inhabitants of Building #48 and at the McGraw/Doran boarding house, and the small businesses of the Roeders and Burleighs in contrast to the hotel. Perhaps such answers could allow a better sense of what to expect from a West Point Foundry worker household, such as at Rascal Hill, Vinegar Hill, or East Bank House, or upper level owner households of the Kembles. Location and local environment, duration of operations, government
connections, transportation networks, worker turnover, manufacturing changes, and community size all had an impact on its skilled iron industry workforce and the kitchen ceramics they and their families used. Turning to a much clearer socially stratified and less skilled pig iron manufactory at Fayette could illuminate some of the remaining questions from the Harpers Ferry comparison.

VII.2.2. Fayette, Michigan

The company town of Fayette was located on the Garden Peninsula along the shore of Lake Michigan. Beginning in 1867 the Jackson Iron Company financed and controlled Fayette (Friggens 1973). Fayette ranked second in the manufacture of pig iron in the state of Michigan and operated until 1891. Although all of the town’s property was under Jackson Iron Company’s ownership, the town could be described as open allowing employees to stay or leave according to their personal decision, procure items from outside of the community, and conduct transactions in United States currency rather than a company issued script (Cowie 2008: 228). The company constructed the industrial facility as well as houses for its workers and management. It also controlled who could establish businesses in Fayette and how laws were enforced.

A three-tiered class system pervaded through the community and was visible in company pay rates, consumer behavior (reflected in ceramic consumption, grooming artifacts, and food remains), the built domestic environment, historic documents, and exposure to industrial pollution and household waste. There were approximately 250 workers and a total town population of up to 500 people. The upper class consisted of six households typified by the superintendent of the Jackson Iron Company and a doctor who paid between $5 and $7 in rent per month. Members of the middle class included
small store owners, tradesmen, and management who paid between $4 and $5 in rent. Unskilled workers lived downwind of the furnaces along a beach made of slag waste paying $1.50 to $3 in rent per month.

One newspaper reporter from the Mining Journal did not use the word class, but referred to three types of houses in his 1869 description of Fayette and its industrial pursuits (Journal 1869). Other accounts indicated how gender and age cut across different social and economic groups. As Cowie observed, “although residents were thoroughly immersed in class-based, cultural, and gendered habitus, they still maintained the creativity and freedom to improvise individual choices in a manner that illustrates the plurality of power, perhaps more so than resistance to it” (Cowie 2008: 237). Cowie described how in the group in the middle negotiated their position between the upper and working classes. The middle class lived more closely together in neighborhoods that resembled the upper class, but purchased beef and inexpensive cuts of meats like those of the working class. They also used canning jars to help conserve household needs. People of the middle class were able to purchase some medicines, but from closer locations than those purchased by the upper class. Some working class families living in the middle class neighborhood took in boarders to supplement income. Upward mobility appeared possible within this nineteenth century community (Cowie 2008: 227).

VII.2.2.1. Ceramics from Fayette Households

Domestic excavations at Fayette explored a hotel privy (Pletka 1993) and houses associated with laborers (Martin 1986). Cowie expanded the domestic excavations to include evidence from the superintenent’s house, skilled workers’ housing, and
unskilled laborer housing (Cowie 1996; Cowie 2008). For her dissertation, Cowie identified 122 ceramic vessels for these three classes: 19 for the upper class, 31 for the middle class, and 72 for the working class (these numbers were fewer than those described in Cowie’s master’s thesis). Her catalog did not designate individual pieces as representing vessels, and the methodology of designating vessels was not discussed in either her thesis or dissertation. As a result, I could not calculate an economic index and cannot be sure that the capital consumption indexes calculated below are strictly comparable to those from the West Point Foundry. The small size of the datasets may also be affecting the results and should be taken into consideration with the interpretations.

Cowie analyzed selected ceramic forms to illustrate how class and status intersected on Fayette’s dining tables based on Weber’s view of both class and status (1996: 4-5). She noted that the higher the class, the larger percentage of tea service items that were present. This observation indicated “the expenditure of cultural and economic capital, resulting in the acquisition and maintenance of social status” (Cowie 2008: 202). Vessels, such as flat plates and large serving vessels, and specialized tableware, such as platters or egg cups, suggested that the upper class ate meals with more expensive meat cuts and dishes designed inclusively for one purpose.

In contrast, soup plates, spoons, and inexpensive meats suitable for stews were found associated more with the middle and working class households. The middle class could only adopt certain dining practices of the upper class, making their consumption, for example of cuts of meat, more closely resemble the working class. Behavior of the industrial middle class negotiating a position that used strategies of the upper and
working classes has been observed by other archaeologists (Mrozowski 2000). The cultural capital that Fayette’s working class could spend on tea provided them with a higher status than their class position. Investing in tea wares was a practice observed by many in the working class from the West Point Foundry and Harpers Ferry as well (recall Table 6.05 and the economic values of tea cups at the Foundry). Individuals in the upper class of Fayette were in a league of their own with huge lawns, diverse ceramic vessel forms, expensive cuts of meat, and the most pleasant location on the peninsula.

Figure 7.05 presents the total capitalist consumption indexes for the assemblages from the West Point Foundry and for Cowie’s assemblages from Fayette that date from after the Civil War until 1891. Like the two Kemble assemblages, the Fayette upper class household had a low capital consumption index of 8.4, which was 0.3 points higher than William Kemble’s index. The middle class assemblage had a capital consumption index of 26.2, just above the same period at Vinegar hill and below the index calculated around the same time at Rascal Hill #2. The working class assemblages from Fayette yielded a capital consumption index of 38.1, which was very close but below the East Bank House’s contemporary assemblage and close to slightly earlier assemblages of Vinegar Hill and Rascal Hill #2.
Leone developed his model of capital consumption in the urban setting of Annapolis, while indexes from the West Point Foundry and Fayette suggest a different type of subscription to capital consumption. In both Fayette and the Foundry, the upper portions of industrial society have the lowest capital consumption indexes (see Figure 7.05). Perhaps this observation can be explained because the upper class sample sizes were very small, whereas the middle class and working class sample sizes were generally larger and therefore more indicative of behavioral differences. Alternatively, perhaps the concentration of low capital consumption indexes might indicate a class subscription to ideals wrapped in a local, industrial culture. Thus unlike households in Annapolis who used ceramics to distinguish themselves by their kitchen ceramics, the higher classes in remote industrial communities were not in competition with other elites and as a result did not have to oversubscribe to capitalist consumption standards.
in their dining room. Indicators such as house size, location, landscaping, and material coupled with employment and company power were enough to indicate their standing.

VII.2.2.2. Fayette Conclusions

Within the small communities of Fayette and Cold Spring, the social and economic status of individuals was tied to the company and often observable in the landscape. Cowie clearly defined neighborhoods stratified socially and physically on different elevations within the small Garden Peninsula. The parallels in Cold Spring’s landscape were not as neat, given the community’s larger size and longer occupation, yet housing distinctions and locations as described in Chapter V clearly existed between workers, owners, and management. Unlike their urban counterparts, the upper class of Fayette and the West Point Foundry did not need to confirm their already well-defined and recognized status at their dining table.

In contrast, the managers and workers in both communities helped to establish their positions through their ceramics. Due to financial constraints, the management and workers were often tied to focused investment, such as in a wider variety of tea wares or cuts of inexpensive meats. Such targeted purchases are visible in other industrial communities in the United States (De Cunzo 1987). This observation of lower capital consumption indexes for the upper managerial class of industrial communities was not supported by Harpers Ferry households Beckham and Moor who had indexes in the middle twenties, as opposed to those from Fayette and the West Point Foundry that were below ten. Perhaps the observation was a difference between northern and southern industries. Another explanation was archaeological related to inadequate sample size. Support for the impact of assemblage size will be further
explored in a comparison to the industrial community of Lowell, Massachusetts where workers and their housing were clearly unskilled or part of a small group of managers or overseers given the texture industry.

VII.2.3. Lowell, Massachusetts

The Boott Mills Corporation was incorporated on March 27, 1835 and located itself on 5.7 acres along the Merrimack River in what would become Lowell, Massachusetts about 30 miles northwest of Boston. In 1842 the company employed 950 female employees and 120 male employees who manufactured nine million yards of coarse cloth (Beaudry and Mrozowski 1987a). About a quarter of a century later in 1868 there were 1,020 females and 310 males who manufactured fourteen million yards of coarse cloth. Over the course of the nineteenth century, workers shifted from young, New England women to immigrant families.

Workers’ lives were centralized around the textile mill and its machinery, which divided the industrial process into a series of short, unskilled tasks supervised by a small group and managed by an agent. This is in stark contrast to the iron industry of Harpers Ferry and Cold Spring where very skilled to semi skilled workers dominated and unskilled laborers supplemented their work. The Boott Mills Corporation committed itself to providing housing and also formulated strict rules to regulate workers’ activities outside of the mill. Archaeological research at Lowell has examined the effects of industrialization and urbanization specifically in landscape alterations, worker experiences, and paternalistic company policy in the residential sphere.

Workers and managers shared housing immediately adjacent to the manufacturing and industrial core. These domestic structures exemplified corporate
paternalism, a company policy of twenty-four hour control. Paternalistic companies hoped to subdue labor unrest and retard the onset of conditions experienced in most industrial, urban European areas. The “corporate ideology that promoted social control as a mechanism for ensuring profit for a few fostered the development of a pervasive system that extended beyond the workplace and took charge of domestic, religious, and educational aspects of workers’ lives” in the Boott Mills (Beaudry and Mrozowski 1987c: 14). Conditions surrounding living quarters in Lowell were important for the image of the mills throughout the nineteenth century, but a downturn in the Northern textile economy dictated a loosening of managerial paternalism over the nineteenth century. Rows of boarding houses for the Boott Mills workers, along with end tenement units for the skilled workers and overseers, and the agents’ duplex for the top level managers, were all close together, separated from the mill buildings by the Eastern Canal (see Figure 7.06). This waterway provided power to the mills, removed waste from upriver, and provided drinking water for residents in the boarding houses.

Figure 7.06: The Boott Mill in Lowell, Massachusetts and Associated Archaeologically Explored Housing. (Google Map, modified by E. Norris, 2008)
The interlocking directorate of two Lowell companies built a relatively spacious duplex for their agents in 1847. These agents and their families (including variously some or no children, and between one and six domestics) occupied the structure until the early part of the twentieth century. Agents were active in the community and entertained guests frequently within their home. Tenements were located in the end unit of boarding house rows and housed skilled workers or overseers and their families. Unlike the agents’ house that was a duplex built with amenities, the tenement only had an ell added to expand kitchen facilities, financed by the occupants. Occupancy of boarding houses was shared between keepers and boarders. Widows or single women were keepers and they were Boott Mill employees, charged with upholding the rules and regulations of the corporation within the domestic sphere. They provided meals and general housekeeping activities (such as bedding laundry and general cleaning) in exchange for payment from boarders and company permission to use the boarding house. The boarders were generally unskilled mill workers.

Mill workers that lived in boarding houses had a restricted life. Individual boarding houses were typically dominated by one of the various social groups at Lowell, in general changing from American to foreign born, females to either males or females, and singles to families or singles over the course of the nineteenth century. Company policy dictated mill workers’ education and religious practice, hours of work, and abstention from alcohol. Lowell “workers took control where they could” which primarily was inside boarding houses (Mrozowski and Beaudry 1989: 290). With the help of keepers, they created common spaces full of nineteenth century material culture that were iconic representations of the middle class, such as carpets, pianos, wallpaper,
and upholstered chairs. Workers also exercised some control over the backyards of their boarding houses where they planted ivy, potted plants, and grape arbors (Mrozowski and Beaudry 1989: 282).

The company sold or tore down its mill housing beginning in the 1890s as the benefits to providing accommodations to workers waned. Some structures survive today and are part of the interpretation at the Lowell National Historical Park. A cooperative study by the National Park Service and Boston University allowed archaeological analysis of the Kirk Street agent’s house (Beaudry and Mrozowski 1987b), a tenement (Beaudry and Mrozowski 1989), and the Boott Mill boarding house (Beaudry and Mrozowski 1987a; Beaudry and Mrozowski 1989). The Boott Mills archaeological analysis allowed researchers to paint a more complete image of life in Lowell during the nineteenth century. Archaeologists used the ceramics found in Lowell to create an understanding of the life of mill agents and their families, tenement families of skilled workers, boarding house keepers, and unskilled boarders.

VII.2.3.1. Lowell Ceramics and their Indexes

The ceramics recovered from Lowell vary in their abilities to reflect the habits of agents, tenements, or boarders. Each individual assemblage from Lowell are detailed in Appendix V. The Boott Mills required boarding keepers to provide ceramics for boarders and often keepers served large groups from the mills at mealtimes. Unlike other workers in the boarding houses, tenements and agents had control over their domestic space, including kitchen artifacts, and were only limited by their finances. Excavations and analysis were done by a group of archaeologists from Boston University in two areas behind the agent’s house: excavation units in the yard close to
the house and a utility trench further from the house. Although for the agents’ house’s excavation units Lorinda Rodenhiser did not provide specific counts for plates, bowls, cups, or other vessels, David Dutton did for the utility trench and the two assemblages probably had similar percentages. The utility trench of 56 vessels has provided most of the data used in the following discussion. In order to compare the Lowell assemblages to those from the West Point Foundry, Harpers Ferry, or Fayette, a mix of published results as well as independent calculations were compiled.

From the utility trench assemblage for the agents’ house there was variety in vessel type, and there was a dominance of plates (45%) with only 10% of the assemblage as bowls. Both the tenement and the boarding house had more bowls than plates (tenement 26% bowls and 19% plates; boarding house 32% bowls and 25% plates). This suggests a difference in meals similar to that seen in other industrial communities like Fayette where the middle class diet more closely resembles that of the working class rather than a higher class. Dutton also calculated that although the forms of vessels in both the tenement and boarding house locations were similar, the number of vessels per person at the tenement was higher at 17.2 versus the average of 10.9 vessels per person at the boarding house (Dutton 1989: 101). Unfortunately the data available for the agents’ household is too problematic to calculate the number of vessels per person, but it would be expected to be even larger than that of the tenement.

Tea consumption patterns in Lowell continued to indicate the prevalence of that tradition with industrial workers. Documentary sources indicate that tea or coffee was served at the boarding house at every meal (Hareven 1987: 24). Unlike their West Point Foundry counterparts where there was a vast range of tea vessels from between 18%
and 66% of assemblages, the Lowell boarding house had 37% while the tenement had 45% of its assemblages as either cups or saucers. The tea wares in the tenement included three times more porcelain vessels than in the boarding house. The percentage of tea wares recovered from the boarding house at Lowell (37%) was in between that recovered from Harpers Ferry (28%) and the West Point Foundry (45%). For the tenements, participation in the tea ritual was indication of stability in married households. It also was a symbol of women’s management of the home, and the separation of home from work. The agent’s trench assemblage only had 27% of that collection as tea wares, a number that is low, likely reflecting the problematic nature of this sample.

Calculations for Miller’s economic indexes were done by Lowell archaeologists and are presented in Table 7.05 with comparisons to those from the Foundry. The value of 2.02 for the agent’s duplex comes from the occupation of the Bartlett family during the 1840s and 1850s, which made up 54% of the entire vessel assemblage (Rodenhiser and Dutton 1987: 82). The result for this upper management assemblage was surprisingly low, falling within the range of values associated with middle class households at Harpers Ferry and the West Point Foundry, and slightly less than the value of 2.07 calculated for the Lowell tenement (see Table 7.05 and Figure 7.07). This low value for the agent’s duplex may be due to the fact that the calculation did not include specific vessel sizes (potentially lumping saucers and plates together) and made use of mean ceramic dates for collections that spanned longer periods than Miller’s recommendation of twenty years (Dutton 1989: 100). The calculation did not address or account for a number of vessels that dated beyond the extent of Miller’s tabulations.
Table 7.05: Economic and Capital Consumption Indexes for Lowell and the West Point Foundry. Ranges Are From Original Miller and Leone Publications. (*Note that this Calculation Is an Average of a Problematic Inflated Vessel Count with a More Reasonable But Smaller Assemblage’s Index.)

<table>
<thead>
<tr>
<th>Index/Location/Date</th>
<th>Economic Scaling (Miller range 1+)</th>
<th>Capitalist Consumption (Leone range 1-120)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Bank House (WPF) 1820-1840</td>
<td>3.07</td>
<td>19.0</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1820-1840</td>
<td>2.41</td>
<td>19.2</td>
</tr>
<tr>
<td>Tenement (Lowell) 1830-1880</td>
<td>2.07</td>
<td>37.5</td>
</tr>
<tr>
<td>Agents’ (Lowell) 1840-1850</td>
<td>2.02</td>
<td>104.0*</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1840-1860</td>
<td>1.93</td>
<td>37.7</td>
</tr>
<tr>
<td>Boarding House (Lowell) 1830-1900</td>
<td>1.72</td>
<td>95.5</td>
</tr>
<tr>
<td>Rascal Hill (WPF) 1860-1880</td>
<td>1.63</td>
<td>31.0</td>
</tr>
<tr>
<td>East Bank House (WPF) 1860-1890</td>
<td>1.60</td>
<td>40.7</td>
</tr>
<tr>
<td>East Bank House (WPF) 1890-1920</td>
<td>Not Available</td>
<td>48.4</td>
</tr>
<tr>
<td>East Bank House (WPF) 1840-1860</td>
<td>1.59</td>
<td>40.7</td>
</tr>
</tbody>
</table>

Figure 7.07: Economic Indexes for Lowell and West Point Foundry Assemblages. (Illustration by E. Norris based on Lowell data from Table 6-4 (Dutton 1989: 100) and (Rodenhiser and Dutton 1987: 82))
The Lowell boarding house was calculated to have an economic index of 1.72 (see Figure 7.07). Because unskilled textile workers were the residents of the Lowell boarding houses but keepers provided those workers with ceramic assemblages it is difficult to know who is represented in the values for the boarding house. Undecorated whitewares dominated the assemblages with transfer prints and hand painted vessels being less prevalent. This economic index was the same as Harpers Ferry’s Beckham household, a result indicating either a surprisingly high value for the Lowell boarding house or a surprisingly low one for the Harper’s Ferry manager. This difference could be a result of limited Harpers Ferry markets or an inadequate sample. Given the similar access to markets in Massachusetts and New York, the workers in the boarding house at Lowell acted much like their working class counterparts at the West Point Foundry with similar economic indexes from the latter half of the nineteenth century. The notable difference was the general higher economic indexes of the more skilled iron workers at the West Point Foundry in comparison to the relatively unskilled clothing workers of Lowell. Industrial workers in Lowell as elsewhere invested in tea cups, saucers, and teapots made from more expensive materials, such as porcelain, to help increase their social standing when they could afford such purchases and the tenement occupants were able to purchase more than the boarding house keepers.

The capital consumption indexes for the Lowell assemblages were generally similar to what has been observed in the other industrial communities explored in this research with two obvious exceptions (see Figure 7.08). The indexes were graphed as consistent over time because Lowell archaeologists did not temporally divide assemblages. A complete list of vessels was unavailable to further break down capital
consumption indexes by wares as was possible for the West Point Foundry collection.

The Lowell boarding house was the highest at 95.5, followed by the tenement at 37.5 in the middle. The agents’ house capital consumption index ranged between 104 (using a problematic vessel count for entire assemblage) or 35.6 (utility trench assemblage only). The calculation of the agent’s consumption index requires additional explanation about its problematic nature.

**West Point Foundry and Lowell Total Capital Consumption Indexes**

![Graph showing capital consumption indexes over time for different assemblages from West Point Foundry and Lowell.](image)

Figure 7.08: Capital Consumption Indexes for Total Assemblages from the West Point Foundry and Lowell. Lowell Assemblages Represented as Consistent Over Entire Occupation Periods as Per Original Archaeological Analysis.
The capital consumption index for the agents’ house was a result of an overinflated minimum vessel count. As an undergraduate conducing analysis on excavation units behind the agents’ duplex, Rodenhiser used bases then rims and bodies to determine the number of vessels while Dutton does not detail his methods for designation of the artifacts recovered from a utility trench near the house (Rodenhiser and Dutton 1987). Lowell archaeologists did not mention attempts to cross-mend ceramic pieces at the agents’ house, even though the artifacts stemmed from the same yard, associated with the same structure and time period. This resulted in 728 vessels for the units and an additional 56 more for the trench. This number is overwhelmingly large given the total number of ceramics recovered from the units was only 5,187 and most likely the number does not represent a minimum vessel count required to calculate a capital consumption index. Recall that out of the 14,525 ceramics of West Point Foundry collections only 1,041 minimum vessels were calculated (7% of the collection versus 14% for Lowell agents’ assemblage). The agent’s duplex was calculated to be a high 104 (an average of both excavations) or 35.6 (utility trench alone). The 104 capital consumption index was the highest of any assemblage from any location included in this study. The utility trench of 35.6 was probably more indicative of the agent’s consumption and was located in the middle of other indexes from the Foundry, Harpers Ferry, and Fayette.

The Lowell tenement with a capitalist consumption index of 37.5 ranked approximately the same as the utility trench assemblage behind the Agents’ duplex. Since the tenement was attached to a row of boarding houses, tenement occupants probably were considered to be in a lower class than the agents who occupied a free
standing duplex on a slightly elevated terrace surrounded by a fence and yard. Recall that the tenement was home to a single family and that their ceramic needs would more likely resemble the agent’s than a boarding house.

The index for the boarding house was over twice these two amounts at 95.5. This high total index was only half a point less than a middle class household in Harpers Ferry and it ranks within the range of (urban) middle class households as identified by Leone who only measured plates (Leone 1999a: 197). Perhaps this surprisingly high value is indicative of the keepers’ investment in middle class ceramics, an indication of the importance of tablewares in their business. Recall that keepers owned boarding house assemblages and their purpose resembled hotels more than the typical single family household. Yet there is striking contrast between the Lowell boarding house capital consumption index (95.5) and that of the boarding house at the West Point Foundry (40.7) and Harpers Ferry (40.4). The high index at Lowell may also reflect that boarding houses in the more urban setting served more people at meal time than resided within the house. These indexes may also indicate the higher turnover of keepers and occupants at Lowell than other locations. The setting of Lowell in an urban part of Massachusetts likens these assemblages to Leone’s from Annapolis more than any of the other comparisons made here.

VII.2.3.2. Lowell Conclusions

Archaeological analysis of housing associated with the Lowell textile mills has broadened the historical narrative beyond that of “New England mill girls” to include the immigrant laborers of the nineteenth and twentieth centuries. Beaudry, Mrozowski and their team gathered specific information on various workers who lived in company
housing and their consumption patterns. For ceramics, agents’ households were able to purchase more vessels per individual but retained the same types of vessels as other workers in Lowell. Tenement families focused their purchasing power on tea wares buying more porcelain in that category and partaking in that middle and upper class activity. Boarding house keepers purchased primarily utilitarian and undecorated wares to allow boarders and mill workers to consume dishes rich in meat, starch, and fat. This analysis has paralleled similar trends in the ceramics observed at the West Point Foundry such as economic indexes and capitalist consumption with a few surprises explainable through archaeological analysis or behavioral differences.

Comparisons between a mill agent’s duplex, a tenement, and the boarding house aligned with Cowie’s observations at Fayette: middle class households were able to emulate upper class ideals in only certain domestic spheres. Most Lowell assemblages emphasized the importance of meat (beef, pork, and mutton) in the diet; fish probably were readily available locally before the Merrimack was dammed. The faunal assemblages from both middle class households in Fayette and Lowell were similar to each other and working class households in both locations, contradicting the notion that middle class households consume more expensive cuts of meat than the working class (Landon 1987a; Landon 1987b; Landon 1989). Perhaps differences were between the preparation of food or other ingredients such as spices and herbs used in middle-class meals that do not leave an archaeological signature. At the boarding house, meals included salted meats and canned goods to help economize. The sanitary conditions were effectively controlled by the company, but the archaeologically recovered
presence of rats and lead from annual whitewashing suggested some of the ongoing problems faced by the workers in the more urban environment.

VII.2.4. Ceramic Conclusions

The ceramic assemblages from Harpers Ferry, Fayette, and Lowell share some similarities and a few differences with those recovered from the West Point Foundry but leave a few questions unanswered. Depending on location, industry, and industrialist, different companies exerted different levels of control on their workers as reflected in their ceramic assemblages and documentary records.

The amount of control from companies or transportation networks on available ceramics varied between the different sites. The Jackson Iron Company limited the number of businesses that could offer goods to Fayette’s population and thus exerted indirect control on ceramics. The armory in Harpers Ferry did not control the number of businesses in town that sold ceramics, but the poor transportation networks directly impacted their availability. Lowell companies exerted significant control over the use of ceramics by limiting the financial means of boarding house keepers and mandating that keepers provided ceramics to their boarders. They allowed agents and tenement residents to purchase their own ceramics and they were able to take advantage of their access to the international markets through Boston. Cold Spring was well connected to available markets and workers appear to have been well paid in comparison to their counterparts at Lowell, Fayette, and Harpers Ferry. The owners of the West Point Foundry probably directly impacted the ceramics available through their company store, before it closed in the middle of the nineteenth century. Like other portions of their
paternalistic tendencies, the West Point Foundry owners relinquished control once the village was able to provide for families.

Ceramic comparisons were made along a believed class position summarized in Table 7.01. Beckham and Moor were running the Harpers Ferry armory and so are similar to the residents in the Lowell agents’ house and some of Fayette’s upper class assemblages. They are beneath the owners of the West Point Foundry, the Kembles. Burleigh, Roeder, and the hotel and some in the Fayette middle class are distinct from everyone else, as they are independent business people. They probably participated in the middle class in terms of consumption and certainly one would think buying into capitalist consumption practices like the East Bank House engineer, Lowell Tenements, and Fayette middle class associated with the local dominant industry. Semi-skilled or unskilled workers resided in the Lowell boarding houses, Fayette’s lower class neighborhood, Harpers Ferry boarding houses, Rascal Hill, Vinegar Hill, and the East Bank House boarding house, but it was probably more working class households and their keepers’ ceramics, rather than those of the boarders, that archaeologists recovered for some of these locations.

Parallels between skilled and unskilled workers as well as owners and managers can be seen across the sites. All assemblages contained tea wares, some emphasizing their importance with over a third of vessels recovered (Semi-Skilled &/or Unskilled: Vinegar Hill 67%, Rascal Hill 55%, Hurst/McGraw 49%, Building #48 48%, East Bank House 47%, and Lowell boarding house 37%; Middle Level Managers, Skilled workers, & Independent Small Scale Owners: Lowell tenement 45% and Burleigh 36%). Although there were differences in transportation networks and therefore available
ceramics, some of the same vessel designs, motifs, and even companies appeared from sites divided by 1,000 miles. Local markets as well as international ones were tapped by each of the industrial locations. None of the highest class positions had extensive archaeological collections making conclusions of their participation in capitalism and how they spent their funds on ceramics more tentative. Boarding houses, multiple family houses, and single family housing in general had frequent turnover as workers came and went and little documentary evidence of occupants’ habits regardless of location in the industrial communities of the Eastern, Midwest, or Southern United States.

Amidst the variety of wares types, decorative motifs, and forms, some interesting distinct patterns emerged from comparing these industrial sites. Differences in assemblage vessel forms, including proportions of cups, bowls, plates, and saucers, varied widely across the households. In general, there was an abundance of bowls and tea wares found at the Foundry, perhaps an indication that their dining patterns included stews and the importance of tea and its associated rituals to the Foundry workers and their families. Even though a sampling error appears to have yielded a limited number of vessels from owners/managers households, the quality of sherds recovered indicated their high status, even if the calculation of their economic and capitalist consumption indexes did not. Households also differed on the variety of utilitarian wares, with those from the Foundry having some of the fewest. Whether this was indicative of their consumption or how vessels were assigned is impossible to conclude.

Obvious differences in vessel designation, categorization, and analysis were present in the comparison between other assemblages and those from the West Point
Foundry. The importance of making such comparisons was to highlight consistencies and potential areas of discrepancy. Comparisons have been complicated by different archaeologists doing the ceramic analysis. Of note was the size of assemblages compared and the need for larger samples prior to making definitive statements about those households represented by only a few ceramics. Assemblages above fifty vessels and ideally closer to one hundred for approximately twenty years appeared to be sufficient for comparison, however sampling methodology and contexts play a key role.

So many factors impact the ceramics recovered from any given location that it is impossible to create an industrial community template of expectations based on perceived class positions. Some questions remain unanswered after these comparisons and remain for future research. Are the economic indexes of owners and managers really sampling errors? Is there a difference between capital consumption patterns in industrial communities as opposed to urban ones, specifically with the owners and managers who appear to consumption only a little? What were the direct influences of industrial companies on their workers’ consumables and did that change over the course of the nineteenth century?

The sheer durability of ceramics make it an ideal artifact category for archaeologists to analyze, but other forms of material culture, such as town plan and house architecture, can also reflect differences in power and social economic status, and it is to these comparisons that the next section is devoted.

VII.3. Single-Industry Communities & Their Housing

Cold Spring resembles many other nineteenth century communities dominated by a single industry. One of the main parallels between Cold Spring and other
industrial communities is their architecture and size. Such locations such as Fredonia, New York, Oxford, New Jersey, and Hopedale, Connecticut, each contain similar styles, neighborhoods, and industrial history. What differs between locations is the ways in which owners sought to influence their workers’ lives through the built domestic environment. One can think of the distinction between these comparative communities along a continuum based on degree and amount of planning (see Figure 7.09). At the extreme end of no planning and multiple industries each of which could only provide minimum influence is the town of Fredonia. Oxford was a planned community by one single company but such influence happened over an extended period of time and without professional help. Hopedale is at the opposite extreme with immense planning that included landscape architects hired by a single company.

![Figure 7.09: Continuum of Architectural Planning in Examined Industrial Communities.](image)

Recall that in Cold Spring, the West Point Foundry controlled development in only half of the village with the maternal family of the Foundry’s president controlling the other half. Foundry owners on their land south of Main Street decided where to place roads, what to name them as streets or avenues, what types of houses to build, and when to sell that property and its improvements. Owners relied heavily on vernacular
and simple architecture readily seen in other nineteenth century communities. The partial and unprofessional planning and eventual development of Cold Spring can be described as an owner-influenced and worker-used landscape.

VII.3.1. Fredonia, New York: Small Town Architecture with Minimal Planning

Fredonia, located 380 miles northwest of Cold Spring, is an example of a similar sized nineteenth century community with little to no company planning and influence. Fredonia covers just over five square miles and over 10,000 people call it their home today. European occupation of Fredonia began in 1803 with a downtown very similar to that seen in Cold Spring. In 1821 Fredonia was the home to the first gas well in the country and it became incorporated as a village by 1830. The first natural gas company was formed in Fredonia in the 1850s and provided light to many buildings on its Main Street with natural gas. Cold Spring’s gas company did not incorporate until a decade later. A small stream known as Canadaway Creek flows through the village towards Lake Erie, similar to Foundry Brook through Cold Spring. During the nineteenth century, Fredonia was approximately the same size as Cold Spring and drew on similar available architectural elements in New York.

An architectural survey of Fredonia from 1972 highlighted several vernacular architecture forms that are found throughout New York State (Reiff 1972). Architects John Jones from Wales and New York born Enoch Curtis resided in Fedonia during the nineteenth century and probably influenced its construction as local professionals (Reiff 1972: 12). Canadaway Creek provided the organic guidance for development as Main Street was laid out to cross the creek and streets running parallel to the creek were plotted to run perpendicular to Main Street. Most of the buildings along Main Street
today were constructed in the nineteenth century as two to three stories with room for a business on the ground floor and apartments located above. Along Fedonia’s side streets appeared simple gable-ended single family homes and replicas of cottages published by Andrew Jackson Downing the famous architect of the nineteenth century (1969 [1850]).

Several of the styles seen around Fredonia and Cold Spring include cottages and villas. Most that remain in Cold Spring are single family homes, like the Italian villa on Paulding Avenue (see Figure 7.10). These homes used brackets and wide eves, balconies, and railings that could have come out of a nineteenth century pattern book for carpenters, such as A. J. Bicknell’s Village Builder and Detail, Cottage and Constructive Architecture originally published in the early 1870s (Bicknell 1872; Bicknell 1873) or Thomas’ earlier text on working men’s architecture (Thomas 1848). Fredonia structures contain similar elements of style in their housing indicating New York State builders’ reliance in on such guidebooks.
Unlike Cold Spring where a single company dominated the economy, Fredonia had multiple employers and was surrounded by a farming community. In addition to the early gas company, Fredonia was home to the first dues paying grange of the grange movement and farming remains visible in the area today. Cold Spring’s property development south of Main Street was completely controlled by the West Point Foundry. This is half way in between Oxford’s dominance of company construction and Fredonia’s lack of much company influence.
VII.3.2. Oxford, New Jersey: The Cousin of Cold Spring

Along the continuum of paternal influence in Figure 7.09, Oxford, New Jersey was slightly more paternalistic than Cold Spring. Oxford was an iron community and is listed on the National Register of Historic Places as an industrial district. The Oxford Industrial District is comprised of close to 400 structures with more than half dating between 1850 and 1873. Like in Cold Spring, this period of domestic construction was also that of Oxford’s industrial expansion. Although the community was started before Cold Spring by about seventy years, the company that profited the most was the Oxford Iron Company, incorporated in 1859. Two adjacent furnaces still remain as testament to the industry that once was responsible for the economy of the entire local community (see Figure 7.11). The manufacturing of pig iron and all mining operations ceased in the 1960s, lasting much longer than the iron industry in Cold Spring. What is similar between the two small settlements is the influence of iron industrialists on worker housing and road names.
The names of streets and avenues in Oxford, as in Cold Spring, suggested the occupations of their inhabitants, with streets indicating workers residences and avenues occupied by management. Mechanic Street in 1871 was mapped with 23 duplexes and 27 single family structures, all built by the iron company. This contrasts with Washington and Belvidere Avenues where churches, doctors, and larger plots of land were laid out. The community was home to four churches: Methodist, Presbyterian, Catholic, and a Reform Church. There even is Furnace Brook that helped to power the nail factory, rolling mill, foundry, machine shop, and stave factory.

An architectural historian conducted a survey of the entire community to create housing types typical within the region and characteristic of Oxford. This survey helped to determine the boundaries of the National Register industrial district (Bertland
and Wolf 1991). One structure is described as a “two story, double pile, gabled roof dwelling with its gable end as the principal façade.” According to the National Register Nomination, this type of house is commonly found in New Jersey. In fact, the structures built on Parrott Street in Cold Spring by Robert Parrott for his workers in the 1860s only differ in the number of bays from a structure located on the south side of Mount Pisgah Avenue and listed in the Oxford National Register District (see Figure 7.12). The most notable similarity between the two houses was the pointed-arch window at the top of the gable. The specific Gothic Revival style house is listed as a frame, three-bay dwelling with the following description.

This house retains its box cornice with returns that is carried on the raking eaves, original fenestration pattern with 2/2 sash windows and point-arched gable window, and a hipped-roof porch. The asbestos siding and porch enclosure are the only exterior modifications (Bertland and Wolf 1991: 83).

Figure 7.12: Oxford House Listed on the National Register as Structure II-148. (Photo #63 from National Register Nomination, Andrew Wolf, 1988)
Another example of a structure that can be found in both Oxford (see Figure 7.13) and Cold Spring (see Figure 7.14) is that listed in Oxford as a three bay house. This house is a colonial revival embellished two story, double-pile dwelling with a side-hall plan and regular three bay façade (see Figure 7.13). It has clapboard siding and 2/2 sash windows (Bertland and Wolf 1991: 88). This type of house was described as widely distributed throughout the mid-Atlantic region and obviously stretches farther into parts of New York. The small footprint, porch, and close proximity to the street are typical to workers housing built by industrial companies in small nineteenth century industrial communities.

Figure 7.13: Oxford House Listed on the National Register as Structure II-164. (Photo #67 from National Register Nomination, Andrew Wolf, 1988)
The parallels between community size, peak in industrial production, product, housing type, and street designation is remarkable between Cold Spring and Oxford. Both have been listed on the National Register of Historic Places, although Oxford’s nomination was much more complete and inclusive of all relevant and surviving historic fabric. The owners of Oxford’s furnace exerted more paternalistic control on the surrounding settlement than Cold Spring as the sole land owners with the only means to
construct a community. Although the Oxford iron companies designed and built the town of Oxford, they did not involve formal architects and a master plan like their counterparts in Hopedale, Connecticut.

VII.3.3. Hopedale, Connecticut: Planned Community by Paternalistic Company

Hopedale was a prime example of a community dominated by a paternalistic company. The town was a model company town “constructed and afterward supervised by a single business enterprise” (Garner 1984: 1). Beginning with its conception, through its design, construction, and management one family controlled the industrial town. Hopedale was a communitarian failure taken over by the Draper family who manufactured textile machinery between 1856 and 1916. Two landscape architects helped to plan Hopedale’s housing, utilities, street layout, and community facilities including churches. The period from 1886 through 1916 saw the greatest expanse in domestic development and company success. Employment rose from 500 to 1,700 people and sales increased from $1,200,000 to almost $7,500,000 (Garner 1984: 124). Hopewell’s population was only 926 in 1886 living in 191 houses but it swelled to 2,663 in 1916 and 462 dwellings. The company built and owned the majority of houses and during that time the average number of people per household jumped from 4.8 to 6.2 (Garner 1984: 127). Paternal relations between the company and its workers clearly influenced housing in this community as in Cold Spring but to a greater extent.

The Drapers and their workers experienced and thought of the five and a half square miles of Hopedale in different ways. During the early portion of its existence, the Drapers focused construction and investment primarily on expanding the factory and industrial core. In less than twenty years, the Draper works expanded tenfold from
two to twenty buildings. Similar expansion happened in the West Point Foundry works
earlier in the nineteenth century when the New York and Cold Spring facilities
combined. Draper competitors were folded into separate divisions of the company
securing a monopoly on spindle manufacturing. Additional factory buildings were the
prominent masonry structures in Hopedale’s landscape, gracing Italianate and Second
Empire styles. The office building in Venetian style was constructed in 1880 and much
like the West Point Foundry’s office, it was a testament to the company’s success.

The Drapers sought to make Hopedale’s prosperity evident when they
“commissioned fine buildings and fashioned new streets and walks, planted trees and
gardens, and provided parkland for aesthetic as well as for practical reasons” (Garner
1984: 128). George Draper’s house was large, but modest and not isolated from the
dwellings of other workers. His sons rented company housing until they were able to
construct houses of their own. The company provided duplexes for married workers
and single family homes for management. Paternal control on who was able to reside in
which structures clearly helped to distinguish between Drapers’ workers outside of the
factory walls. All of the Hopedale houses were frame construction and of modest
design until the second generation constructed large estates in the 1870s and 1880s.
Development between 1886 and 1916 was controlled by one family and for one
purpose: to serve the company and its workers.

Two architects helped to maximize the space around the already established
Hopedale. The Drapers retained Warren Henry Manning as a landscape architect
between the 1880s and 1913, a portion of that time he was also employed by Frederick
Law Olmstead’s firm. Manning broke up the monotony of the repetitive, smaller
worker housing with a school, several boarding houses, a chapel, and changes in topography. Manning suggested further development in Hopedale to follow contour planning. With minimum earth moving, the maximum could be obtained from the landscape. The duplex houses built in the neighborhood of Bancroft Park were close to the factory, but a line of trees helped to shield one from the other. Lake Point was another housing development that utilized the talent of Arthur A. Shurcliff’s design. The small peninsula was maximized by having houses face the shoreline. For all the housing in Hopedale, utilities were installed during the last quarter of the nineteenth century with sewers in place by 1897 to nearly every house. Water and gas lines were laid as early as 1874.

The paternalistic relationship between the Drapers and their workers was evident in many ways. Workers and their families were offered schools, “job security, free medical aid, and low rent” in exchange for their labor (Garner 1984: 182). The exterior of worker houses had to be maintained with certain restrictions decided by the company. For example fences, mailboxes, and street signs were absent in the community until the twentieth century (mail was sent to the company where it could be picked up). Also Hopewell residents were encouraged and rewarded for the appearance of their gardens in annual contests. Workers hurt on the job or retired, along with widows and their children received free rent, other financial aid, and sometimes even medical help from the company. In the twentieth century, the Drapers also helped to provide a cemetery, several parks, landscape improvements, and helped reward those who participated in ground maintenance contests. Hopedale’s town hall and library, two structures of granite, were financed by Draper and his associate, Bancroft.
The Drapers’ reinvestment in the community was different in Hopedale than other extractive industry locations where the environment lost value once it had yielded its bounty. Near the turn of the century, the Drapers owned over 90% of the community’s value, and relations with workers did not sour until the twentieth century. The Drapers sold some land for Henry Patrick to build a store for grocery and dry goods, who monopolized that market completely. The leaders in Cold Spring, Hopedale, and other small, industrial-centered towns were liberal Protestants. Unlike the variety of religious choices available in Cold Spring, there was only one church in the Hopewell community led by a Universalist.

The Drapers in Hopewell controlled nearly every aspect of their workers built environment from available community services (grocery store, library, park) or lack thereof (churches), the style of workers houses (multi-family, duplexes, or single family), down to the lack of a mailbox or street sign. The manufacturing company expected workers to keep up their surroundings and even went so far as to encourage gardening. Beyond that seen in any of the other industrial community examples, Hopewell was planned by professionals and the amount of paternalism exerted by the industrial company was only limited by the fact that a utopian community already existed in the same location and need to be incorporated.

VII.3.4. Domestic Architecture within American Industrial Communities

The extent of paternalism is visible within the housing stock of nineteenth century communities that have been actively preserved or simply have survived. Single industrial communities like Oxford, Hopedale, and Cold Spring exhibit neighborhoods with direct ties to the economic fortunes of an industry. Some national trends in
prosperity and depressions or panics were visible in domestic construction, especially in Cold Spring as discussed in Chapter V. All of the examples above included vernacular architectural styles, but those in Fredonia were not controlled by a single industrial entity and demonstrate a more organic organization of development. Smaller industrial communities with a paternalistic past illustrate a high degree of planning for street layout and house styles using similar materials (McGuire 1991). Oxford’s community was slightly more controlled by industrialists and for a longer period than that of Cold Spring. Neither was as influenced by an industrial company as Hopedale, which began as a planned utopian community. Hopedale’s development was more uniform and exclusively controlled by a paternal company, which integrated formally trained architects with larger social trends to control workers housing. Only through such comparisons can one begin to appreciate the approach of the West Point Foundry in the Village of Cold Spring and how typical its impact on housing was in American nineteenth century communities.

VII.4. Conclusions

Paternalism from nineteenth century relationships between workers and owners in industrial communities is readily visible in the physical materiality of the past. The preceding examination of ceramics and workers housing has illuminated a continuum of expectations based on documentary materials. Drawing comparisons between the West Point Foundry or Cold Spring and other industrial communities allows an appreciation of the effects of economics, transportation, location, resources, markets, ownership, philosophy, and methodology on the material character of the settlement. Owners and workers did not demonstrate the exact same types and quantities of kitchen ceramics
partially due to their income. Nor did they share patterns of capitalist consumption at
the West Point Foundry, Harpers Ferry, Fayette, or Lowell. When it came to housing,
some communities, like Fredonia, were not dominated by a single industry nor did
industrial companies always control domestic construction. Paternalistic relations
between owners and their workers were either extreme, as seen in the housing of
Hopedale, or moderate like Oxford and Cold Spring. The expression of paternalism in
kitchen and dining ceramics was explored through an examination of various
assemblages from each community. Communities more isolated from national markets
(Harpers Ferry prior to 1850s and Fayette), company control limiting available stores
(early Cold Spring and Fayette), or limiting corporate policy (Lowell) all helped to
constrain the type and availability of ceramics. With all of these variables impacting
the quantity and type of ceramics in each community, some similarities could be seen
through the use of economic and capital consumption indexes. These indexes provide
quantifiable comparisons between widely varied assemblages to help illuminate the
materiality of class position. The relationships between classes, specifically that
between owners and workers, was central to the present investigation.

The ceramic indexes clearly illustrated how workers’ earnings and economic
means directly impacted the type, quantity, and form of ceramic consumption as seen in
the economic index of kitchen and tablewares. Members of industrial communities
with limited means often invested more heavily in tea wares while affluent managers
and owners purchased expensive tablewares. Besides tablewares and tea wares, the use
and quantity of preparation wares archaeologically recovered from sites varied between
households and over the course of the nineteenth century. Considering the capital
consumption index of entire assemblages as well as different wares expanded the original formula’s use and permitted additional avenues of analysis.

Results of the ceramic indexes suggest a number of points, including that owners and upper levels of management under-consumed ceramics and had low economic indexes in smaller and relatively remote industrial communities (Cold Spring and Fayette in particular). Although it could be a reflection of sampling error, it may also be possible that these elite individuals were already well established in their position in these small industrial communities, making the need for ceramics to define their status unnecessary. The economic indexes generally aligned with documentary resources, and consumption patterns were generally lower than contemporaneous urban contexts. Consumption patterns as indicated by a total consumption index varied within similar economic class households over time, between households with access to the same goods, and between different ware types found in an individual household’s ceramics.

Continued work with the capital consumption index is necessary. It seems particularly susceptible to inflated vessel counts (Lowell agent’s excavation units) as well as low vessel counts (William Kemble, Gouverneur Kemble). Clearly, standards for ware and decorative motif need to be established if comparisons are to be made between different analysts. Similarly, methodologies for vessel counts need to be standardized, or at least made transparent in reports and articles if archaeologists are to use the indexes to compare between assemblages analyzed by different individuals from similar sites.
Workers at the West Point Foundry were generally subscribing to the ideals of capitalist consumption, making it difficult to differentiate assemblages as those of skilled, semi-skilled, or unskilled workers. Iron workers manufacturing finished products at the West Point Foundry and Harpers Ferry armory were more skilled than most of the iron workers at Fayette who smelted iron ore into pigs. Lowell workers were predominantly unskilled laborers, but ceramic assemblages from where they lived in a boarding house were more reflections of keepers than boarders and company policy. Most of the multiple family housing saw a rapid turnover of inhabitants and therefore workers of various skills became mixed together in the archaeological record.

In other cases, such as Vinegar Hill in Cold Spring, small assemblages from individual households were combined for an understanding of a whole neighborhood. These investigations have yielded a better understanding of the occupants of Rascal Hill (imported ceramics, almost equal proportions of bowls to plates and to cups throughout its history, more bowls than plates) and the East Bank House (variety of vessels associated with the boarding house period with more plates than bowls). However areas with little archaeology (Vinegar Hill, William Kemble, and Gouverneur Kemble) all have results that conflicted with documentary expectations. Vinegar Hill had an abundance of tea wares and both Kembles’ assemblages yielded extremely low economic indexes. Early ceramics recovered from the West Point Foundry clearly demonstrate that Foundry workers economically spent more on kitchen ceramics than their counterparts in Harpers Ferry or Lowell, but as time went on economic index generally decreased for Foundry households.
Comparisons of housing in various industrial communities provided an additional expression of owner/worker relations in material culture. Company built housing for industrial workers was commonplace throughout the United States. Small footprints and simple styles typified worker construction where a mix of single family, double family, and multiple family housing was needed to help distinguish between different workers of different economic means and family size. Another method to distinguish neighborhoods was to name roads for workers as *streets* in contrast to those for management/owners as *avenues*. In some company towns, owners determined the size of a property and house, materials used, distance from work or stores, and style in the paternal provision of housing. Cold Spring and Oxford fell in the middle of a continuum between more paternalistic communities where planning was formalized (Hopewell, Lowell) and no planning with little paternal influence (Fredonia). Housing built by owners for company employees was an obvious paternal expression of an imbalanced power relationship where one built houses and the other made them homes.

A comparison of results from the West Point Foundry and its associated village to other industrializing nineteenth century locations and archaeological assemblages provides an appreciation of the community-industry relationships that were associated with the materiality of the West Point Foundry and the Village of Cold Spring. This chapter placed the notion of “comfortable homes and happy firesides” in a much wider context than a small village along the shores of the Hudson River.
CHAPTER VIII

CONCLUSIONS ON A TYPICAL AND YET UNIQUE AMERICAN INDUSTRIAL COMMUNITY

VIII.1. Summary of Results

This dissertation combined a variety of written and visual sources to supplement observations in the material record of the past. Various disciplines have helped to influence the investigation including anthropology, history, archaeology, architecture, and urban design. As fundamentally an archaeological analysis, artifacts were at the core of its argument to demonstrate the economic and consumption patterns that help to explain the nature of owner/worker relations within a small industrial community.

Although both the West Point Foundry and the Village of Cold Spring have received attention from historians and archaeologists in the past, none have consciously tied the two together within their nineteenth century, industrial context. Documentary sources (company documents, family correspondence, and diaries) tend to favor the owners and managers while the voice of workers remains lost to the passage of time. Archaeology has a distinct potential to provide additional information about workers: their consumption choices, their economic and social status, and their dining habits. The preceding pages focused on the West Point Foundry in the Village of Cold Spring.

Construction began at the West Point Foundry in 1817 and the Association was incorporated in the State of New York the following year. A combination of several factors account for its location within the Hudson Highlands. It was upstream of the military academy, along the shore of the Hudson River, on a turnpike that connected it to a local supply of ore, near hardwood forests to provide charcoal, and natural deposits of sand with small amounts of clay appropriate for molding. Although originally a few
farms, the Village of Cold Spring grew up alongside the West Point Foundry. Cold
Spring was a company town where one company controlled a significant portion of the
land and dominated the local economy. Early construction in the community included
company housing on land owned by the Foundry and a Main Street, which ran
perpendicular to the Hudson River. In 1846 Cold Spring became incorporated as a
village and four years later, its population was approximately 2,250.

Like many industrial facilities of the nineteenth century, the West Point
Foundry’s success was intimately tied to landscape resources, transportation routes, and
individual entrepreneurs. The Kemble and Parrott family contributed capital and
leadership to ensure the company’s success. Although the Foundry manufactured a
variety of products, heavy ordnance for the United States military was its primary focus.
The Parrott gun brought significant profit to the enterprise during the Civil War when
three shifts of workers tried to fill government demands. This height in production
came to an abrupt end with the end of the Civil War, and the Foundry and Cold Spring
never recovered from the permanent loss of orders. Smaller operations continued into
the late 1880s when the West Point Foundry entered receivership. The Cornell
Company’s occupation of the West Point Foundry around the turn of the century
returned some of the former economic prosperity and paternalistic actions to the local
community. Most of the twentieth and twenty-first centuries, however, have seen
decline and ecological encroachment around the buildings and facilities of the Foundry
and only clusters of modern development throughout Cold Spring.

A combination of elements makes Cold Spring and the West Point Foundry an
interesting place to investigate nineteenth century industrialization. It was one of only
four iron foundries on which the early United States depended for heavy ordinance
production. Iron work was undertaken by a skilled, male workforce, yet in the 1860s
the community was largely comprised by women with half of the population under
twenty years of age and 92% under fifty years old. Main Street physically bisects the
village with the Foundry controlling everything to the south. Some nineteenth century
place names remain in the present: Church Street, Furnace Street, Kemble Avenue,
Paulding Avenue, and Foundry Dock Park. Foundry owners purposely named roads
with housing for owners or managers as Avenues and predominantly workers’ housing
as Streets. Some of the worker housing can be easily tied to economic periods of
Foundry prosperity, such as the Parrott Street development in the 1860s. The village
and the West Point Foundry had an intimate interdependence and the state of
preservation within the village is outstanding. The archaeological collection is intact
within the industrial core as well as several hundred examples of worker housing
throughout the village.

Although full of unique qualities, the West Point Foundry and the Village of
Cold Spring share a paternalistic relationship as seen in many other nineteenth century
industrial communities. Like similar industrial ventures located in a remote area, the
Foundry needed to provide certain amenities in order to attract and retain workers.
Foundry owners exerted paternal control on several occasions: during the incorporation
of the village, on the location of cemeteries, on the type and extent of housing, on a
company store, on five churches, and on a private school and the entire school system.
Over the course of the nineteenth century, the Foundry’s paternalistic activities
decided. For example, the construction of housing generally reduced after the 1860s,
although the Cornell Company built some structures early in the twentieth century. The West Point Foundry helped to maintain an open form of paternalism that did not completely dictate and restrict workers lives. Instead, the company indirectly supported the local economy, politics, businesses, workers, and the various modes of transportation. This decision helped to provide the Foundry with a somewhat stable work force, was also likely seen as a moral obligation for the owners, and in the case of housing an additional source of economic profit.

The West Point Foundry owners’ paternalism was clearly visible in worker housing, but it could also be seen in a number of churches they financially aided for construction. Foundry owners donated the land for most of the village’s churches, but only funded the rebuilding of their own parish. Religious tolerance in industrial communities varied from Rockdale and Troy where differences were resolved and even encouraged, to St. Clair were religious intolerance was disastrous. Cold Spring and West Point Foundry owners fell at the more tolerant end of religious freedom.

The West Point Foundry and the adjacent Village of Cold Spring is best understood in comparison to other nineteenth century industrial locations. The paternalist ideology of the owners was observed in several communities in its influence on who was able to live where, the types and location of domestic construction, modification, and maintenance, most clearly in Lowell, Massachusetts, Oxford, New Jersey, and Fayette, Michigan. Lowell was an example of closed paternalism, where the company controlled every aspect of workers’ lives whereas Fredonia illustrated a more organically derived community. Cold Spring resembles a company town, just like Harpers Ferry, West Virginia, Fayette, Michigan, Oxford, New Jersey, Hopedale,
Connecticut, Rockdale, Pennsylvania, and the single industry, Canadian towns described by Lucas.

Architecturally, Cold Spring shares many of the same vernacular styles as seen in Fredonia, New York, Oxford, New Jersey, and Hopedale, Connecticut. Comparisons also suggested the extent of economic variation and subscription to capitalist ideologies reflected in ceramic assemblages from Harpers Ferry, West Virginia, Lowell, Massachusetts, and Fayette, Michigan. Harpers Ferry provided a wide range of degrees of participation in capitalist consumption, dependent on individuals and the availability of transportation for a variety of goods. Lowell illustrated the extreme extent of company domination and collective consumption using dishes owned by only a few individuals. Both Fayette and the West Point Foundry in Cold Spring indicated a lack of subscription to capitalist ideals for the economic elite, but a general increase of those ideals over the nineteenth century for workers.

With all of these comparisons, Cold Spring and the West Point Foundry falls within the range of industrial communities observed elsewhere around the United States. What makes it worthy of attention is its physical landscape and present state of preservation. The present landscape of the village (place names, streetscapes, individual structures, neighborhoods, churches) illustrates a combination of nineteenth century themes, like religious, social, and economic differences, worker versus owner structures, and the former presence of industry in present recreational parks. Workers and owners in nineteenth century industries had economic, religious, and ethnic differences that helped to shape their personal and professional relationships. West Point Foundry owners generally committed to remain within the community and
distinguished themselves from their workers with an increased house size on extensive property, porcelain place sets on their tables but an overall lower economic index of ceramics in comparison to more urban sites.

Several factors affect a ceramic assemblage, so the present investigation controlled market access and distinguished between households of various economic, social, ethnicity, life cycle stage, and number of inhabitants within the same community. With choices of the same vessels available to everyone within the village, it is not surprising that vessels with the same decorations exist in different assemblages and most assemblages have consistent proportions of vessel types. West Point Foundry assemblages contained differences in households’ wealth, which translated into purchases reflecting economic means. Archaeological considerations, such as sample size, needed to be considered, especially when the smallest assemblages resulted in conclusions that challenged historical documents. Archaeologists excavated and examined an extensive portion of one house on Rascal Hill and the East Bank House that allowed for extensive and historically meaningful comparisons; much more preliminary results were possible for the smaller assemblages from the neighborhood of Vinegar Hill, William Kemble’s estate, and Gouverneur Kemble’s estate.

The documentary and archaeological record suggested that Rascal Hill was a neighborhood of up to seven duplex homes for skilled workers constructed by the Foundry early in the nineteenth century and occupied until the late 1880s or 1890s. The neighborhood was located on a plateau above the main Foundry core to the west/northwest. The present analysis chose Rascal Hill #2 as a representation of the neighborhood (see Chapter VI for details on this choice). The vessels of Rascal Hill #2
had the same proportions of each functional type (bowl, plate, cup, saucer, etc.) over the
nineteenth century, suggesting that its occupants ate similar types of foods and meals.
However the economic index of Rascal Hill #2 household declined over the nineteenth
century until it evened out with that of the East Bank House during its last period. This
decline suggested a change in ceramic investment over time at Rascal Hill #2. Makers’
marks from this structure were more varied and contained more foreign manufacturers
than other West Point Foundry assemblages. Capital consumption patterns increased
over time except between the middle and last period at Rascal Hill #2. However
whether that was due to a change in purchasing power, households, attitude toward
capital consumption, or another factor remains unknown.

The assemblage that received archaeological attention most comparable to that
of Rascal Hill was excavated from the East Bank House, located on a sizable plateau on
the east/southeast side of the Foundry valley. Documentary and archaeological analysis
suggested that the structure was first occupied by a top Foundry engineer before it was
expanded into a boarding house. By the time it burnt down in 1919, it was a single
family house again. Vessel lots yielded more plates in the engineer’s household,
suggestive of a dining style high in butchered, grilled, or baked meat rather than stew
meat. The highest economic index recovered to date for a West Point Foundry
assemblages was the engineer’s household. The East Bank House also has a wider
variety of vessel types and forms when it was converted into a boarding house but
maintained more plates than bowls. The meals at the East Bank House consisted of
more expensive cuts of meat than those at Rascal Hill #2. The economic index of the
single family household toward the end the nineteenth century was similar to the duplex
at Rascal Hill #2, suggesting that the same types of workers resided in both structures around the close of the foundry.

The other assemblages associated with the West Point Foundry were small in quantity and were not fully supported by the story gathered from documents. Though I have not given this intensive study, it is my impression after studying the West Point Foundry and comparing the results to studies from other industrial communities, that assemblages with vessel counts less than 50 are not reliable samples of industrial period household activities. Conclusions from these assemblages were made with caution as the present archaeological samples did not likely reflect the households. Both of the Kemble estates should contain vessels that reflect the high social and economic status of these Foundry owners. However, the economic index for both was lower than the engineer’s household and only slightly higher than Rascal Hill. The capital consumption index was extremely low for both assemblages throughout the nineteenth century. Whether or not these observations regarding this highest social and economic group’s participation in ceramic consumption are actual or sampling error remains to be determined.

Another neighborhood with some archaeological investigation was located upstream of the main Foundry core and named Vinegar Hill. The neighborhood was occupied between the 1830s and through the 1910s and consisted of up to seven single family structures of a small size. The name suggested Irish workers, who primarily were unskilled laborers at the West Point Foundry or domestics in Cold Spring houses. Due to the small quantity of sherds and poor stratigraphic control during excavation, artifacts were treated as one assemblage, creating a small average of minimum number
of vessels per household over an extended period of time. The Vinegar Hill assemblage contained a majority of saucers suggesting tea consumption. This brought into question the ethnicity of inhabitants and their social and economic status within the community. Unlike other Foundry assemblages, the capital consumption index for Vinegar Hill decreases over time. The results of these analyses are too varied and more a reflection of the small vessel assemblage for each period rather than the behavior of any specific household and require more intensive excavations on a single foundation for comparable results to other Foundry assemblages.

Owners’ encouragement to workers to bring their families and move to Cold Spring helped retain a consistency of middle class gender ideals that heavily influenced the ceramics of workers. If workers had the means to spend money on ceramics, they did so, but often chose certain items to exemplify their tastes. For example, some Rascal Hill and Vinegar Hill households purchased tea wares out of porcelain rather than trying to afford entire table sets of this expensive material. This contrasts with the porcelain plates recovered from the William Kemble property, whose economic means and social status would lead one to expect entire sets of such tablewares.

Commitment to capitalist consumption appeared low at the West Point Foundry and other industrial communities, such as Harpers Ferry, Fayette, and Lowell. The numbers were quite low for the early data and slowly increased over time, but were generally lower than the indexes Leone calculated for a similar class in an urban setting. In many communities where the industry controlled transportation and often supplied company stores, owners limited available ceramics within a community during the earliest period. Perhaps there also was a difference between Leone’s urban examples
and those of a somewhat smaller and self contained industrial community where status was related to jobs at a single company and not just expressed in dishes at dining room tables.

In several of the industrial communities examined, there were distinctions and patterns in the artifacts associated with different classes. In Lowell and Fayette, archaeologists identified ceramics, jewelry, and faunal remains of skilled workers or members of the middle class that emulated the upper class, but were financially constrained in their consumer choices. Material items, such as tableware and items of personal adornment, were of similar designs and types but made from inferior fabrics in comparison to those recovered from more elite households. At the West Point Foundry, skilled workers on Rascal Hill owned a mix of imported ceramics of high quality, but also had an abundance of bowls suggesting that their diet resembled that of the working or lower class. The groups in the middle of industrial communities appear to subscribe to capital consumption practices of ceramic assemblages, especially tea wares, but paired those choices with less expensive cuts of meat. Although they may aspire towards the material of a higher class, they are unable to attain the exact same table.

VIII.2. Potential Opportunities for Additional Research

Future investigations into the West Point Foundry and the Village of Cold Spring should build upon the observations already made during the present dissertation. Areas that fell outside of the current investigation included more intensive archaeology of certain households, an exploration of gender in this male dominated industry, the historic and adjacent Village of Nelsonville, additional documentary research, and an
expanded architectural survey of the remaining fabric in the village. Of critical, archaeological importance would be to broaden and add to the ceramic assemblages of the two Kemble properties and that of Vinegar Hill. Archaeological investigations up to the summer of 2008 have not located rich trash deposits associated with owners to yield enough vessels to completely understand their consumption patterns and how they compare to West Point Foundry workers.

The extent of owners’ consumption in accord to capitalist practices and their desire to distinguish themselves from other members in the community would benefit from larger samples from better understood contexts. Gouverneur Kemble’s property had the benefit to archaeologists of turning into an archaeological site shortly after occupation by the immediate descendents of Gouverneur. Although twentieth century development on part of the property has disturbed some of the estate, like the ‘Grapery,’ the primary house foundation remains unaltered. The William Kemble property has the potential to yield information from the nineteenth through twenty-first centuries of occupation. Since the William Kemble property has become a part of Scenic Hudson’s preserve, that already contains Rascal Hill, Vinegar Hill, and the East Bank House, it rounds out the preservation of the entire range of Foundry workers, owners, and management.

Additional ceramics would enable more nuanced analysis, particularly about those who lived at Vinegar Hill. There is critical importance for future research to clearly record and maintain stratigraphic control in this area. Was the neighborhood named for the famous Irish battle and did Irish Foundry workers live there? The variety and quantity of structures within this neighborhood, the origin of its name, the
relationship of that name to its inhabitants, the extended duration of its occupancy, and
the undeveloped nature of the area yield some of the best archaeological conditions to
test hypotheses related to its occupants. Given the rich comparative collections from
the Rascal Hill and East Bank House assemblages, it is of the highest importance to
conduct additional excavations in one or more structures on Vinegar Hill.

The West Point Foundry had an exclusively male workforce allowing questions
of gender to be explored with particular interest in the industrial core. Moreover the
influence of women, particularly in the domestic sphere of the village, should be an
additional avenue of future research. The ceramic investigation already discussed could
examine the influence of women and men on ceramics following the work of Terry
Klein, Anne Yentsch, Diana Wall, and Deborah Rotman. Klein believes the role of
women in rural versus urban households also impacts ceramic deposition. Food
preparation in rural households had to accommodate members outside of the family,
delaying the extent rural women could participate in the domestic revolution observed
in urban households (Klein 1991: 86-87). Given the differences noted between
Annapolis and the West Point Foundry regarding consumption patterns, Klein’s
observations should be extended into small industrial communities such as Cold Spring.

Building on work done by Yentsch, Rotman studied how the separation of
men’s and women’s spheres in the middle classes of the late eighteenth and early
nineteenth centuries were figured in tableware (Yentsch 1991). White-colored wares
were ceramics indicative of status and associated with the male realm of food
consumption in the public sphere. In contrast, women were more associated with food
storage and preparation or the nurturing of the family in the private sections of the
Darker colored wares can thus be considered more feminine. The development of sets, the shift to decorative patterns associated with Gothic revival, and the use of transfer printing that obscured the food on the plate all were markers of participation in the new set of domestic relations where food consumption had become ritualized and the materiality of that ritual had changed. Rotman divided vessels into those used for food preparation, storage, distribution, or consumption. To these vessel categories one could add serving vessels: vessels with the same types of decorative styles used for consumption but of larger size or a designed with a lid. With vessels identified into such categories, two gender distinct activities, food preparation and food consumption, should be analyzed separately to see if there is a differential impact of capitalist consumption practices in the two activities.

The nineteenth century saw new gender patterns in relationships between men and women described as a “cult of domesticity” by Diana Wall and Deborah Rotman that was expressed in ceramics (Rotman 2001; Wall 1994). Exploring the types of vessels identified with either preparation (associated with the private sphere of women) or consumption (associated with a male, public sphere) helps to indicate the extent to which households materially subscribed to emerging middle-class notions of gender relations. As the West Point Foundry continually encouraged the presence of workers families throughout the nineteenth century, there should be a consistency of feminist influence over ceramics in the small industrial community. What would be noticeable are the changes of people’s subscription to the middle class gender ideals in an area that was neither urban nor rural.
The adjacent village of Nelsonville is not addressed in the present study although its proximity and association to both the West Point Foundry and Cold Spring is undeniable. It was an extension of Cold Spring but incorporated separately. Religion was a probable reason for its distinction from Cold Spring, but this suggestion requires further research. Nelsonville should be investigated, especially its origin, streetscapes, housing stock, inhabitants, and Main Street for comparisons to Cold Spring to provide a better understanding of the commonalities and differences between the two villages.

There is additional research needed into the documentary and archaeological records. Deed research within the village on properties north of Main Street would provide a better understanding of the village’s private development, especially exploration of the Gouverneur Estate sale. Most of the parishes around the Village contain their nineteenth century records, which have not been systematically examined. Limited scanning of newspapers for select years yielded good results for the present analysis, and studying additional years would be a worthwhile avenue for future research. Additional issues for the late 1830s through the 1870s should be specifically explored. Deeds, parish records, and newspapers are untapped sources to gather a richer understanding of West Point Foundry worker experience within the Village of Cold Spring.

Visitors and residents alike acknowledge the historic character of the Village of Cold Spring, but what often lacks from that acknowledgement is its tie to American industrialization through the West Point Foundry. As a very early and continually operating example of iron manufacturing, the West Point Foundry is an ideal case study for most of the nineteenth century. Like other communities based on former industrial
landscapes, Cold Spring is peppered with American vernacular styles and tied to markets by a transportation network, which may or may not be apparent in its present state of preservation.

What is unique about Cold Spring is the excellent state of preservation for much of the nineteenth century landscape (almost 75% of the nineteenth century buildings in an area formerly owned by the Foundry are still standing) and the community retains a strong connection to the Hudson River and the railroad. Yet the extent of the village’s historic fabric that has been recognized formally through national or local historic districts is very limited. In these cases arbitrary boundaries were drawn around districts with the result that historic buildings on the opposite side of a street or even on the same block are currently excluded from any recognition or protection. A more extensive and thorough survey of the entire village, beyond what was done for the current research is needed so more appropriate boundaries can be drawn and all of the historic fabric recognized. As Cold Spring continues to evaluate and consider its historic relevancy in the present and for the future, it should consider using Oxford as a model company town that has embraced and preserved almost all of the elements of an industrial landscape. Cold Spring’s extensive nineteenth century housing and streetscapes contribute to its national significance as an exceptional representation of nineteenth century American industry and its intersection with a surrounding community.

VIII.3. Significance of Cold Spring

Why are Cold Spring and the West Point Foundry significant to an understanding of the history of American industrialization? Together they form one of the best preserved and historically significant industrial communities in America today.
at a local, regional, and national scale. Exploring all of this locale’s potential significance for different individuals and groups is outside of the present undertaking. Instead the above has compared Cold Spring and the West Point Foundry to other historically industrial locations around the United States. This endeavor highlighted the significance of the foundry and the village in relation to broad, American industrial historic contexts. While such an approach has revealed portions of its significance, it is not meant to diminish other dimensions of the area’s importance such as its local community value.

So what makes Cold Spring and the West Point Foundry significant within the history of American industrialization? The answer lies within the complex interplay of topics that are physically manifested in large and small artifacts that remain to the present. These artifacts allow an exploration of a myriad of themes: company and corporate power, American architectural style, ethnicity and immigration, state of preservation, social and economic hierarchy, and the industrial and domestic landscapes of a company town including its transportation networks. Similar themes existed in other American industrial communities including Harpers Ferry, Fayette, Lowell, Oxford, Fredonia, Hopedale, Troy, Rockdale, and St. Clair. Each has their own degree and level of significance, but none quite typify the amazingly preserved, single-industry company town of Cold Spring with its adjacent, undeveloped, archaeologically astounding, industrial facility.

Cold Spring and the West Point Foundry offer a unique combination of American industrial and historical themes. The social and economic hierarchy within the West Point Foundry is visible in the ceramics excavated from Foundry workers and
owners, the naming of streets or avenues by the company, the physical locations and
group use of cemeteries, and the presence of many different religious facilities to
accommodate any number of immigrant workers. Another characterization of
American industrialization is the influx of immigrants and their attempt to assimilate.
The immigrant workers of Cold Spring had little choice in the style of house they lived
in; the company or local builders/developers already constructed houses in American
vernacular styles. But different ethnic groups had the option of six different religious
facilities, five of which the West Point Foundry or its owners helped to establish. The
West Point Foundry also dictated development south of Main Street, but allowed Cold
Spring to retain an open policy by allowing the businesses of Main Street and workers
to come and go as they pleased. Within its relationship to the community, the West
Point Foundry did not dictate, monopolize, nor restrict the actions or options of others.
Instead the company indirectly supported the local economy, politics, businesses,
workers, and the various modes of transportation. The above highlights only some of
historical themes that weave through the physical streets and artifacts within Cold
Spring and the Foundry.

The significance of Cold Spring and the West Point Foundry is intimately tied to
its physicality and the state of preservation within the community both above and below
ground is outstanding. Walking through the streets of Cold Spring in the twenty-first
century one can easily witness a nineteenth century landscape in the naming of streets
or avenues, the proliferation of Foundry worker housing, a predominantly nineteenth
century Main Street, the physical locations and use of its cemeteries, and the presence
of different religious facilities for immigrant workers. Industrial communities around
the United States saw differences in social, economic, and ethnic compositions that were reflected in historic documents and archaeological deposits. The social and economic hierarchy within Cold Spring and the West Point Foundry is most visible in the ceramics excavated from Foundry workers and owners. Most nineteenth century industrial communities experienced immigration of a workforce and some degree of company or corporate power that often can be characterized as a company town.

Within American industrial communities, Cold Spring and the West Point Foundry remain one of the best preserved and most significant in the nation. Indeed many of the “Neat and tasty buildings, with comfortable homes and happy firesides” within the village that housed Foundry workers remain in today’s landscape. Its significance is wrapped in the complex web of themes that find physical manifestations in remaining buildings, streetscapes, and artifacts. The West Point Foundry and Cold Spring combined make an exceptional representation of nineteenth century American industry and its intersection with a surrounding community.
APPENDIX I

DEED TRASCRIPITION, 1864

The following transcription relates to Chapter IV and the discussion of the West Point Foundry’s ability to sell property, reincorporate, and the power of Gouverneur Kemble in making such decisions on behalf of the Foundry. This deed explains the charter expiration of the West Point Foundry and allowance for property sale as of May 1, 1845. I transcribed this May 5, 1864 document on September 28, 2005 at the Office of the Putnam County Historian from Deed Liber Book 40 pages 408 through 412. It is a direct transcription without any changes to language or spelling corrections.

Pg. 408: To all to whom these presents shall come greeting whereas the West Point Foundry Association was incorporated by an act of the legislator of the State of New York passed April fifteen one thousand eight hundred and eighteen to continue until first day of May one thousand eight hundred and forty five as a company for the making and manufacturing of iron and brass and in the erection of extensive works and machinery for the making cannon balls and other ordnance and of vending the same and made capable of purchasing the holding and conveying any estate real and personal for use of the said corporation providing the same be committed with and conducive to the objects of that incorporation the wares of the capital stock of which corporation would be considered as personal property and where as large purchases of real estate were and have been made by the said corporation situate in the town of Cold

Pg. 409: Spring in the county of Putnam in this State and the same have been paid for out of the monies and funds of the said corporation and the profits gains and increase there of and the said corporation has acted in the business contemplated in its charter during the term there of And whereas the term of the said charter was by an act of the legislature passed April twenty sixth one thousand eight hundred and forty five extended and continued until the first day of May one thousand eight hundred and forty six when the charter expired and by the force of the statute in such case made the directors then in office namely Gouverneur Kemble William Kemble James K Paulding and Gerard W Morris became trustees of all its property and effects for the benefit of its creditors and stockholders and full power to settle the affairs of the said corporation collect and pay the outstanding debts and divide among the stockholders the monies and other property that shall remain after the payment of debts and necessary expenses And whereas by a further act of the legislature passed April sixth one thousand eight hundred and forty nine the Trustees of the effects real and
personal of the said West Point Foundry Association whereof they were
directors at the time of the expiration of the said charter were authorized to sell
or convey the whole or a part of the real estate as they shall deem most advisable
and to hold the proceeds of the sales after paying the debts of the association in
trust for the stockholders as by reference to the several acts aforesaid will fully
appear And whereas the personal estate of the said late corporation has been
sold and accounted for and part of its real estate so that the proceeds of the
residence of the said real estate will belong when sold and realized to the
persons here in after named as the only stock holders at the time of the said
dissolution and thus successors by transfer of their interests which said rendue
is now of a value not exceeding one hundred thousand dollars And Whereas by
reason of the lapse of time and the changes of Title and embarrassments which
may arise from the death of the trustees and their absence and other wise the
parties in interest now alone and exclusively entitled to the proceeds of the sales
of the said property desire that the said corporation and its affairs should be
finally in the manner hereinafter expressed And whereas it has been ascertained
by a statement of the affairs of the said late corporation that those proceeds will
when realized be payable to the persons and in the proportions next expressed
that is to say to Gouverneur Kemble in the proportion of forty nine parts
William Kemble twenty parts Robert P. Parrott nineteen parts Gouverneur
Paulding two parts the whole being considered as consisting of ninety equal
parts and the proportion aforesaid whether the proceeds

Pg. 410: be more or less and the said proceeds it is by all agree as personal
property And whereas the said James K. Paulding hath departed this life leaving
the parties hereto of the first part sole surviving trustees Now these presents
witness that in consideration of the premises and of one dollar to them in hand
paid by Gouverneur Kemble William Kemble Robert P Parrott and Gouverneur
Paulding parties hereto of the second part the said surviving directors and trustee
parties of the first part at the request of the several other person parties hereto of
the third part have granted bargained sold and conveyed and do hereby grant
bargain sell and convey unto the parties of the second part All and singular the
lands tenements and heredetaments of the West Point Foundry Association at
the time of the dissolution there of and remaining unsold with all and singular
the appurtenances thereof and all leases rents accruing or in arrear and all the
interest of every nature and kind of them the said late directors and now trustees
To have and to hold the same to the said parties of the second part their heirs
and assayers as point tenants with survivorship upon the following trust and with
the power hereinafter expressed that is to say to sell and convert into money all
the said assigned effects at such time and times and in such manner as they shall
think best or as shall be directed by the parties entitled to the proceeds of the
sales or a majority of them in interest And as monies shall be realized from the
said sales and from the rents issues and profits of the said now granted premises
to divide distribute and pay over the same according to their interests to the
parties of the third part respectively their Executors administrators or assigns in
the signing of proper receipts such dividends and payments to be made at least
yearly and to be payable at Cold Spring in Putnam County or in the city of New York at such place as the said trustees shall appoint and notify by advertisement in said county or otherwise And in trust to make yearly statements and accounts to be opened for the examination of all parties intitled at Cold Spring or such place in New York for the space of one month which accounts shall be deemed admitted and allowed as to all persons who shall not within such month object thereto in writing to be signed by the person objecting stating the particulars of such objection and delivered to one of the said trustees And these presents further witness that the said Gouverneur Kemble William Kemble Robert P. Parrott and Gouverneur Paulding parties of the third part in consideration of the premises and of this conveyance do hereby release acquit and for ever discharge the said parties of the first and each and every of them their heirs executors and administrations from all accountability therefor or by reason thereof in any manner and from all accounts claims of account and other demands at law or in equity in relation to the premises in any manner whatever and the parties of the third part further more in consideration of the premises do hereby jointly and severally for themselves their heirs executors administrators and assayers covenant with the parties of the first part their heirs executors and administrators to bear and save them and each of them their heirs executors administrators harmless from all claims and demands at law and in equity to be had or made against them either or any of them in relation to the said premises now granted or in consequence of their present grant and conveyance And moreover it is hereby provided granted and agreed that this conveyance is upon the express grant reservation and condition that if the parties of the second part or either of them shall depart this life or remove from this state or by writing duly communicated to the parties in interest or a majority in interest thereof offer to resign further action in the trusts hereof or such majority in interest shall by writing or communicated request a relinquishment of their further action under these present new trustees and a new trustee shall and may be appointed by the parties holding such majority of interest who shall there become such trustee to whom the existing trustees or trustee shall convey make a proper conveyance as to what shall remain of the said property and so on from time to time with the like power or substitution And lastly it is agreed that all the costs expenses and just allowances of any kind for the reimbursements protection and indemnity of the trustees from time to time shall fall in the trust property and its proceeds and on the parties in interest from time to time according to their interests respectively In witness whereof the parties to these presents have hereunto set their hands and seals this twenty fifth day of May in the year of our Lord one thousand eight hundred and sixty four sealed… Gouv’re Kemble, W. Kemble Gerard W. Morris JUNE 1864

[Pg. 412 is official information and statements from the county regarding the recording of this document, not transcribed.]
APPENDIX II

FEDERAL CENSUS OF MANUFACTURING, 1860 & 1870

The following is a complete transcription of the 1860 and 1870 Federal Census of Manufacturing discussed in Chapter IV. They both describe the quantity, kind, and value of raw materials used and products made, invested capital, power sources, number of employees at the West Point Foundry including no female employees.

1860 (Hughes 1860)

1. Name of Corporation, Company or Individual, producing articles to the annual value of $500: Robert P. Parrott formerly the “West Point Foundry Association” now conducted by the above person as Lessee - concern generally known as the West Point Foundry.

2. Name of Business, Manufacture, or Products: Iron Foundry, Fitting, Blacksmith, Boiler Shops

3. Capital Invested, in real and personal estate, in the Business: 240,000

4.-6. Raw Material used, including fuel:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3000 tons</td>
<td>pig iron</td>
<td>80,000</td>
</tr>
<tr>
<td>600 “</td>
<td>bar iron</td>
<td>28,000</td>
</tr>
<tr>
<td>650 “</td>
<td>boiler iron</td>
<td>5,200</td>
</tr>
<tr>
<td>7000 “</td>
<td>coal</td>
<td>28,000</td>
</tr>
<tr>
<td>25 “</td>
<td>copper, tin,</td>
<td></td>
</tr>
<tr>
<td>+ lumber</td>
<td></td>
<td>8,000</td>
</tr>
</tbody>
</table>


8. Average number of male hands employed: 342

9. Average number of female hands employed: 0

10. Average monthly cost of male labor: 11000

11. Average monthly cost of female labor: 0

12.-14 Annual Product:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2700 Ton</td>
<td>iron casting</td>
<td>200,000</td>
</tr>
<tr>
<td>420 “</td>
<td>forgings</td>
<td>94,000</td>
</tr>
<tr>
<td>600 “</td>
<td>boilers</td>
<td>110,000</td>
</tr>
<tr>
<td>22</td>
<td>brass castings</td>
<td>16,000</td>
</tr>
</tbody>
</table>
1870 (Census 1870a)

1. **Name of Corporation, Company or Individual, producing articles to the annual value of $500**: Paulding, Kemble, & Co.
2. **Name of Business, Manufacture, or Products**: West Pt Foundry
3. **Capital (real and personal) Invested in the Business**: 200 000
4. **Kind of power**: Water Wheels 4
5. **If steam or water no. of horse power**: 100
6. **Machines number & description**: 4 Cupolas capacity 25 tons
7. **Number of males employed above 16 years**: 440
8. **Total amount paid in wages during year**: 248 000
9. **Number of months in active operation reducing part time to full time**: 12

**13.-15 Annual Product**:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10000</td>
<td>pig iron</td>
<td>350 000</td>
</tr>
<tr>
<td>1000</td>
<td>scrap iron</td>
<td>20 000</td>
</tr>
<tr>
<td>1200</td>
<td>coal</td>
<td>5200</td>
</tr>
<tr>
<td>10000</td>
<td>mill supplies</td>
<td>10 000</td>
</tr>
</tbody>
</table>

**16.-18 Productions (including all jobbing and repairing)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>car wheels</td>
<td>3000</td>
</tr>
<tr>
<td>100 000</td>
<td>feet of iron railing</td>
<td>75 000</td>
</tr>
<tr>
<td>2000</td>
<td>cooking ranges</td>
<td>2000</td>
</tr>
<tr>
<td>7000</td>
<td>rings</td>
<td>12 000</td>
</tr>
<tr>
<td></td>
<td>[rolling iron?]</td>
<td>280 000</td>
</tr>
<tr>
<td></td>
<td>mill manufacturing</td>
<td>200 000</td>
</tr>
<tr>
<td>83 337</td>
<td>miscellaneous iron castings</td>
<td>200 000</td>
</tr>
</tbody>
</table>
APPENDIX III

ANNUAL ACCOUNT, 1907-1908

This is an annual account for the West Point Foundry Property from 1907-1908 during the Cornell Company’s occupation of the site (Foundry 1817-1875, 1907-1908).

A discussion in Chapter V referred to changes in the company’s income from manufacturing to real estate.

04 April 1907 to 04 April 1908 - “Trustees’ Statement of receipts and expenditures A/C owners of the West Point Foundry Property.”

RECEIPTS.
1. Balance on hand as per last annual statement $25.62
2. Proceeds of sale of Parsonage Street house and lot $1,500.00
3. Proceeds of sale of old material of house $25.00
4. Rent paid for the West Point Foundry property by John M. Cornell for 12 months to 04 April 1908 $8,000.00
5. Rents of sundry houses, as per accounts of Colin Tolmie, Agent $1,458.75
6. Rents of Plumbush house to April 1908 $500.00
7. Rent of Plumbush pasturage for season $30.00
8. Interest on deposit in Trust Company, and on deferred payments of rent $155.44
TOTAL $11,694.80

EXPENDITURES.
1. Dividend paid October 30th, 1907, on account of income of the current year $4,900.00
2. Legal expenses - Aqueduct condemnation $250.00
3. Taxes:  Tax of Cold Spring Corporation $110.72
   School Taxes $89.27
   Town, County and State Tax for 1907 $25.21
   Nelsonville Corporation Tax $3.08
   Road Taxes $19.00
   Water Tax $55.00
   SUBTOTAL $303.28
4. Insurance premiums on West Point Foundry and appurtenances and on the other houses and buildings $1,136.34
5. Repairs to houses $69.74
6. Sundry small charges of various kinds $6.92
7. Commissions of Agents on Rents $111.21
8. Commissions allowed by law to the Trustees from April 4, 1907 to April 4, 1908 $586.26
9. Amount now distributed $4,000.00
10. Balance carried to new year’s account, to pay premiums of insurance $332.05
TOTAL $11,694.80
APPENDIX IV

WEST POINT FOUNDRY CERAMIC ASSEMBLAGE ELECTRONIC SPREADSHEETS: DETAILED CATALOGS & VESSEL LISTS

The attached electronic Excel workbook \textit{WPFceramicsEN.xls} contains two spreadsheets for each of the West Point Foundry ceramic assemblages I analyzed during my dissertation research. One spreadsheet consists of a catalog of all ceramic sherds from a site and the other of reconstructed vessel lots from these sherds.

The ceramic assemblages totaled 14,525 sherds representing 1,041 total minimum vessels. They were all presumably left by different workers at domestic sites associated with the West Point Foundry. Due to the extensive description and size of these collections (well over 200 pages at 8 point font and ½” margins); they are included as electronic data tables and not in paper form. The two primary and largest collections used in the ceramics analysis were from Rascal Hill #2 and the East Bank House. In addition to these there were smaller assemblages from the Gouverneur Kemble estate, the William Kemble estate, and the neighborhood known as Vinegar Hill. The Kembles’ and Vinegar Hill’s ceramics are only a fraction of those collected from Rascal Hill or the East Bank House. Preliminary analyses of these collections are presented in this dissertation, but the results are provisional due to the small sample sizes and limited survey methods. Grossman and Associates were responsible for the excavations of Rascal Hill and Gouverneur Kemble while Michigan Technological University excavated the others.

I reanalyzed all the sherds from the collections to assure consistency in description, terminology, and categorization and to establish minimum vessel counts for the five separate assemblages. The analysis of the Rascal Hill House #2 collections
occurred over a three month period followed by a five month period of analysis of the
East Bank House ceramic assemblage. Both analyses began with culling ceramic
artifacts from their general collections. Then, using Deegan’s typology that
distinguished paste, decoration, and glaze (see Deegan 2006: 95-101, 188-197; Hillis
2001 for elaboration) I created groupings of rim sherds of similar decorations. Any
sherds that directly fit together were grouped as their own vessel lot. The remaining
sherds were assessed for their thickness and diameter to help distinguish the different
vessel shapes. I measured rim diameters to the nearest half inch and evaluated cross-
sections and angle of rim profiles for vessel types.

Those with characteristics similar to already identified vessel lots were added to
those lots as potentially part of those vessel lots and designated with a “?” after the
vessel number. New vessel lots were created on the basis of dissimilar thickness and
diameter within the groupings based on similar paste, decoration, and glaze. Even
single sherds would count as a vessel lot if they had distinctive thicknesses and
diameters. Finally, I reassessed the lots and discounted any vessel lot that was based on
sherds that were too small or only slightly different from another vessel lot to be
confidently identified as a unique vessel and thus counted as an MNI or minimum
number of individual vessels.

Based on depositional and contextual information gleaned from reports, the
MNI vessels were assigned to periods. These assignments predominantly corresponded
with the vessels’ period of manufacture based on its specific ware and decoration. The
stratigraphy was used as the starting point to assign periods as many vessels and
decorative types during the nineteenth century were manufactured for more than a
twenty year period. The stratigraphy of both the Rascal Hill house #2 and the East Bank House allowed for a separation of construction, occupation, and abandonment events of the structures. These events provided a framework in which to evaluate ceramic and other temporarily diagnostic artifacts. From this information, periods of roughly twenty years in length were used to correlate the archaeological information with documentary information, although each excavation had its own periodization (see Appendix Table 01). Comparison between the Rascal Hill house, the East Bank House, the two Kembles’ houses, and Vinegar Hill houses was possible roughly using twenty year periods.

Appendix Table 01: Periods and Corresponding Dates for the West Point Foundry Assemblages.

<table>
<thead>
<tr>
<th>Assemblage</th>
<th>Period #</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rascal Hill #2</td>
<td>1</td>
<td>1820s-1840s</td>
</tr>
<tr>
<td>Rascal Hill #2</td>
<td>2</td>
<td>1840s-1860s</td>
</tr>
<tr>
<td>Rascal Hill #2</td>
<td>3</td>
<td>1860s-1880s</td>
</tr>
<tr>
<td>East Bank House</td>
<td>1</td>
<td>1820-1840</td>
</tr>
<tr>
<td>East Bank House</td>
<td>2</td>
<td>1840s-1880s</td>
</tr>
<tr>
<td>East Bank House</td>
<td>3</td>
<td>1880s-1919</td>
</tr>
<tr>
<td>Gouverneur Kemble</td>
<td>1</td>
<td>1820s-1840s</td>
</tr>
<tr>
<td>Gouverneur Kemble</td>
<td>2</td>
<td>1850s-1870s</td>
</tr>
<tr>
<td>Gouverneur Kemble</td>
<td>3</td>
<td>1880s-1900</td>
</tr>
<tr>
<td>Gouverneur Kemble</td>
<td>4</td>
<td>20th Century</td>
</tr>
<tr>
<td>William Kemble</td>
<td>1</td>
<td>1830s-1870s</td>
</tr>
<tr>
<td>William Kemble</td>
<td>2</td>
<td>1880s-1930s</td>
</tr>
<tr>
<td>William Kemble</td>
<td>3</td>
<td>1940s-Present</td>
</tr>
<tr>
<td>Vinegar Hill</td>
<td>1</td>
<td>1830s-1860s</td>
</tr>
<tr>
<td>Vinegar Hill</td>
<td>2</td>
<td>1870s-1900s</td>
</tr>
<tr>
<td>Vinegar Hill</td>
<td>3</td>
<td>20th Century</td>
</tr>
</tbody>
</table>

I created each of the spreadsheets and named them according to their location and contents, the first being a complete catalog in any location followed by a separate spreadsheet with a vessel list. For example, the spreadsheet #2RascalHillCatalogEN is
a complete catalog of ceramics from Building #2 on Rascal Hill organized according to provenience. The next spreadsheet #2RascalHillVessels contains a list of the vessels used in analysis indicated as RH001 through RH455. Each of the vessel lists contain vessels indicated by a number prefaced with an abbreviation of their location. The spreadsheets I authored and their contents contained in WPFceramicsEN.xls are listed here for convenience in Appendix Table 02.

Appendix Table 02: Spreadsheets and Contents of the Electronic File WPFceramicsEN.xls.

<table>
<thead>
<tr>
<th>SPREADSHEET</th>
<th>EXPLANATION OF SPREADSHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodization</td>
<td>Each Period and its Date Listed with the Vessels</td>
</tr>
<tr>
<td>#2RHCatalogEN</td>
<td>Ceramic Catalog from Building #2 on Rascal Hill</td>
</tr>
<tr>
<td>#2RHVesselsEN</td>
<td>Vessel List from Building #2 on Rascal Hill</td>
</tr>
<tr>
<td>EBHCatalogEN</td>
<td>Ceramic Catalog from East Bank House</td>
</tr>
<tr>
<td>EBHVesselsEN</td>
<td>Vessel List from East Bank House</td>
</tr>
<tr>
<td>GKCatalogEN</td>
<td>Ceramic Catalog from Gouverneur Kemble</td>
</tr>
<tr>
<td>GKVesselsEN</td>
<td>Vessel List from Gouverneur Kemble</td>
</tr>
<tr>
<td>WKCatalogEN</td>
<td>Ceramic Catalog from William Kemble</td>
</tr>
<tr>
<td>WKVesselsEN</td>
<td>Vessel List from William Kemble</td>
</tr>
<tr>
<td>VinHillCatalogEN</td>
<td>Ceramic Catalog from Vinegar Hill</td>
</tr>
<tr>
<td>VinHillVesselsEN</td>
<td>Vessel List from Vinegar Hill</td>
</tr>
</tbody>
</table>

This ceramic analysis happened over a three year period and included the help of others from Michigan Technological University’s Industrial Archaeology program (specifically, Sean Gohman for Vinegar Hill and Megan Glazewski for William Kemble). Thus, the formatting of each spreadsheet slightly differs, but contains the same type of information. Included in each spreadsheet are proveniences, quantity or number of individual ceramic sherds, material, glaze, and decoration. Where appropriate and identifiable, part of vessel (body, body spall, rim, rim spall, base, base spall, lip, etc.), shape of vessel (cup, bowl, plate, saucer, pitcher, crock, jug, chamber pot, etc.), functional vessel category (consumption, preparation, storage, serving,
health/hygiene), and vessel size in inches are also included. The exact contents of each of the columns for each of the spreadsheets and examples of their contents are explained in the first spreadsheet of *WPFceramicsEN.xls* entitled *GUIDE*. Abbreviations used in most of the sheets are listed on the *GUIDE* spreadsheet of the excel file and also below in Appendix Table 03.

**Appendix Table 03: Abbreviations of Material and Types Used in the Electronic File* WPFceramicsEN.xls*.**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW</td>
<td>Earthenware</td>
</tr>
<tr>
<td>IEW</td>
<td>Improved Earthenware</td>
</tr>
<tr>
<td>WIE</td>
<td>White Improved Earthenware</td>
</tr>
<tr>
<td>YW</td>
<td>Yellow Ware</td>
</tr>
<tr>
<td>RW</td>
<td>Red Ware</td>
</tr>
<tr>
<td>IE</td>
<td>Improved Earthenware</td>
</tr>
<tr>
<td>IS</td>
<td>Ironstone</td>
</tr>
<tr>
<td>P</td>
<td>Porcelain</td>
</tr>
<tr>
<td>CC</td>
<td>Cream Colored</td>
</tr>
<tr>
<td>SW</td>
<td>Stone Ware</td>
</tr>
<tr>
<td>WW</td>
<td>Whiteware</td>
</tr>
<tr>
<td>VWIE</td>
<td>Vitreous White Improved Earthenware</td>
</tr>
</tbody>
</table>
APPENDIX V

ORIGINAL CERAMIC LISTS FROM WEST POINT FOUNDRY
ASSEMBLAGES WITH NOTES

Research into the ceramic collections began by transcribing the ceramic artifacts from reports by original excavators or analysts. These were grouped into the electronic Excel workbook *WPFceramicsOriginal.xls*. This electronic workbook is attached to demonstrate the process of analysis used for this dissertation and where the present analysis disagreed with or expanded on previous publications. In general, the details of these spreadsheets are less than in the other electronic workbook described in Appendix IV and may not easily correspond to my analysis. However, the Rascal Hill #2 excavations by Joel Grossman were directly correlated to *WPFceramicsEN.xls* file by referencing page numbers from reports and excel assigned row numbers.

Each spreadsheet within this electronic file is labeled with the appropriate collection, similar to that used for the *WPFceramicsEN.xls* file. Included here are assemblages from only the first field season, before a second season or descriptions of the data prior to my more thorough analysis. All spreadsheets are direct transcriptions with my notes indicated by the initials EN. For example, I noted how many ceramics I was unable to locate that were listed by an earlier archaeologist or when I disagreed with a ceramic’s description and indicated so with my initials at the top of entire columns or in brackets for specific comments. Refer to the authors listed in the dissertation bibliography for original locations of these transcribed tables. The exact contents of each of the columns for each of the spreadsheets and examples of their contents are explained in the first spreadsheet of *WPFceramicsOriginal.xls* entitled *GUIDE*. Appendix Table 04 lists the name of the individual spreadsheets and their
general contents using with the same abbreviations found in the electronic workbook described in Appendix IV followed by original and then the initials of the original author.

Appendix Table 04: Spreadsheets and Contents of the Electronic File

WPFceramicsOriginal.xls.

<table>
<thead>
<tr>
<th>SPREADSHEET</th>
<th>EXPLANATION OF SPREADSHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2RHoriginalJG</td>
<td>Joel Grossman’s Original Catalog with EN additions for #2 Rascal Hill Assemblage including Box Location</td>
</tr>
<tr>
<td>EBHorignal05MD</td>
<td>Michael Deegan’s Original 2005 Catalog for East Bank House (does not include the 2006 season)</td>
</tr>
<tr>
<td>GHorignalJG</td>
<td>Joel Grossman’s Original Catalog for Gouverneur Kemble Assemblage including Box Location</td>
</tr>
<tr>
<td>WKoriginal07EN</td>
<td>Elizabeth Norris’ Original 2007 Catalog for William Kemble Assemblage (does not include the 2008 season)</td>
</tr>
<tr>
<td>VinHillOriginal06VM</td>
<td>Vanessa McLean’s Original 2006 Catalog for Vinegar Hill (only part of the entire Vinegar Hill assemblage)</td>
</tr>
</tbody>
</table>
APPENDIX VI

HARPERS FERRY & LOWELL CERAMIC ASSEMBLAGE DETAILS

The following figures are pie charts displaying the percent of vessel types that were created in the course of comparing Harpers Ferry and Lowell to Cold Spring. Some of the interpretations in Chapters VII were made with these charts in mind. They are presented here to document an additional dimension of comparison between the various assemblages. Harpers Ferry are presented first in Appendix Figures 01-05 followed by Lowell in Appendix Figures 06-07. Appendix Table 05 includes the quantities and percents for each assemblage illustrated in the figures of this appendix.

Appendix Figure 01: Percent of Vessel Types for Beckham (Context I) and Moor (Context II) Households in Harpers Ferry. (Based on numbers published in Table 8.6 (Lucas 1993a: 8.21)).

Appendix Figure 02: Percent of Vessel Types for the Roeder and Burleigh Assemblages. (Based on numbers published in Table 7.3 (Lucas 1994b: 7.7) for Roeder and Table 8.3 (Larsen 1994: 8.5) for Burleigh).
Appendix Figure 03: Percent of Vessel Types for the Hotel Privy and the Hotel Yard Midden. *(Based on numbers published in Table 6.7 (Larsen and Lucas 1994: 6.10)).*

Appendix Figure 04: Percent of Vessel Types for Hurst & McGraw Households (Context A, Feature 99) and Doran Household (Context B, Feature 99) in Harpers Ferry. *(Based on numbers published in Table 14.3 (Lucas 1993b: 14.8)).*

Appendix Figure 05: Percent of Vessel Types for Context E and Context D from Building #48. *(Based on numbers published in Table 5.10 (Lucas 1994a: 5.13)).*
Appendix Figure 06: Percent of Vessel Types for Excavation Units and Utility Trench Behind the Lowell Agents’ House. *(Utility trench based on numbers published in Table 5-4 (Rodenhiser and Dutton 1987: 91)).*

Appendix Figure 07: Percent of Vessel Types for the Lowell Tenement and Boarding House. *(Based on numbers published in Table 6-2 (Dutton 1989: 92)).*
Appendix Table 05: Summary of the Pie Graphs Illustrated in Appendix Figures 01-07. Due to Its Problematic Oversimplification and Inflated Vessel Count, the Agent Excavation Unit Assemblage Was Reported to Contain 714 Table Wares Or 87% and 109 Utility Wares or 13%. Table continued on Next Page.

<table>
<thead>
<tr>
<th>Site</th>
<th>Bowl</th>
<th>Cup</th>
<th>Plate</th>
<th>Saucer</th>
<th>Dish or Dish/Pan</th>
<th>Pitcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beckham</td>
<td>7</td>
<td>7</td>
<td>14</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Moor</td>
<td>4</td>
<td>8</td>
<td>21</td>
<td>7</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Roeder</td>
<td>11</td>
<td>25</td>
<td>46</td>
<td>14</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Burleigh</td>
<td>19</td>
<td>17</td>
<td>20</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hotel Privy</td>
<td>11</td>
<td>10</td>
<td>23</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Hotel Yard</td>
<td>11</td>
<td>11</td>
<td>19</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Hurst &amp; McGraw</td>
<td>1</td>
<td>5</td>
<td>11</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Doran</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Context E</td>
<td>8</td>
<td>29</td>
<td>37</td>
<td>34</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Context D</td>
<td>4</td>
<td>23</td>
<td>36</td>
<td>30</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Agent Utility</td>
<td>6</td>
<td>10</td>
<td>25</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Tenement</td>
<td>18</td>
<td>13</td>
<td>13</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Boarding House</td>
<td>51</td>
<td>22</td>
<td>40</td>
<td>36</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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Appendix Table 05 (Continued): Summary of the Pie Graphs Illustrated in Appendix Figures 01-07. Due to Its Problematic Oversimplification and Inflated Vessel Count, the Agent Excavation Unit Assemblage Was Reported to Contain 714 Table Wares or 87% and 109 Utility Wares or 13%.

<table>
<thead>
<tr>
<th>Site</th>
<th>Other Tea</th>
<th>Chamber Pot</th>
<th>Crock</th>
<th>Jug</th>
<th>Storage</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beckham</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>52</td>
</tr>
<tr>
<td>Moor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>56</td>
</tr>
<tr>
<td>Roeder</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>13</td>
<td>127</td>
</tr>
<tr>
<td>Burleigh</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>5</td>
<td>89</td>
</tr>
<tr>
<td>Hotel Privy</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Hotel Yard</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Hurst &amp; McGraw</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Doran</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>4</td>
<td>43</td>
</tr>
<tr>
<td>Context E</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>128</td>
</tr>
<tr>
<td>Context D</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>111</td>
</tr>
<tr>
<td>Agent Utility</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>56</td>
</tr>
<tr>
<td>Tenement</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>69</td>
</tr>
<tr>
<td>Boarding House</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>157</td>
</tr>
</tbody>
</table>
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