Northeast Historical Archaeology

Volume 33

Article 9

2004

The Rise of the Industrial Rural Tenant Laborers and the Rise of the Industrial Economy: Historical Ethnography of the Heminitz Property ,Site (36LH267), Upper Macungie Township, Lehigh County,Pennsylvania

Daniel N. Bailey

John W. Lawrence

Paul W. Schopp

Follow this and additional works at: http://orb.binghamton.edu/neha Part of the <u>Archaeological Anthropology Commons</u>

Recommended Citation

Bailey, Daniel N.; Lawrence, John W.; and Schopp, Paul W. (2004) "The Rise of the Industrial Rural Tenant Laborers and the Rise of the Industrial Economy: Historical Ethnography of the Heminitz Property ,Site (36LH267), Upper Macungie Township, Lehigh County, Pennsylvania," *Northeast Historical Archaeology*: Vol. 33 33, Article 9. https://doi.org/10.22191/neha/vol33/iss1/9 Available at: http://orb.binghamton.edu/neha/vol33/iss1/9

This Article is brought to you for free and open access by The Open Repository @ Binghamton (The ORB). It has been accepted for inclusion in Northeast Historical Archaeology by an authorized editor of The Open Repository @ Binghamton (The ORB). For more information, please contact ORB@binghamton.edu.

The Rise of the Industrial Rural Tenant Laborers and the Rise of the Industrial Economy: Historical Ethnography of the Heminitz Property ,Site (36LH267), Upper Macungie Township, Lehigh County,Pennsylvania

Cover Page Footnote

The Data Recovery study on which this paper is based was conducted between December 2000 and June 2002 by A.D. Marble & Company for URS Corporation and PENNDOT Engineering District 5-0. The authors would like to thank the following individuals and institutions for their assistance in the success of this project: Erin Hammerstedt (architectural analysis), Robert J. Lore (faunal analysis), Geo-Graf, Inc. (remote sensing), the personnel of the Lehigh County Historical Society, and the Lehigh County Clerk of Criminal Courts. We also thank the reviewers for their cogent criticisms of earlier drafts of this paper. Finally, we would like to thank Mr. and Mrs. Robert Heminitz for their patience and understanding during all phases of the field investigation.

Rural Tenant Laborers and the Rise of the Industrial Economy: Historical Ethnography of the Heminitz Property Site (36LH267), Upper Macungie Township, Lehigh County, Pennsylvania

Daniel N. Bailey, John W. Lawrence, and Paul W. Schopp

This paper presents the results of excavations at the Heminitz Property Site (36LH267), a rural domestic site in Upper Macungie Township, Lehigh County, Pennsylvania. Excavation of several spatially and temporally discrete features and midden deposits in yards surrounding the house produced 6,875 artifacts. Documentary research revealed that the ca. 1843 house was intended to house tenant families engaged in agricultural labor. Analysis of the archaeological and documentary records associated with this site and the region shows that in the mid-1800s, agricultural laborers possessed similar material culture to neighboring independent farmers, while subsisting at a lower level of consumption. The transition from agricultural to manufacturing labor occurred at the Heminitz Property Site in the mid-1880s, a time period that saw an increase in the quantity and value of domestic artifacts acquired by the site's occupants. Archaeological and documentary data indicate that manufacturing laborers were materially better off than agricultural workers, though these benefits most likely came at the expense of chronic, low-level debt to local storeowners. This investigation suggests the existence of a rural agrarian culture in which individuals and families could participate in differently, according to their particular economic circumstances:

Cet article présente les résultats des fouilles sur le site de la propriété Heminitz (36Lh267), un site rural domestique du canton de Upper Macungie, situé dans le comté de Lehigh en Pennsylvanie. La fouille de plusieurs éléments, discrets dans le temps et dans l'espace, et la mise au jour de dépôts de déchets situés dans les cours autour de la maison a produit 6 875 artefacts. Une recherche documentaire a révélé qu'une maison datant de ca. 1843 aurait servi de logis à des familles de locataires dont les membres faisaient partie de la main d'œuvre agricole. L'analyse des données archéologiques et documentaires associées à ce site et à la région démontre qu'au milieu des années 1880, les ouvriers agricoles possédaient une culture matérielle similaire à celles des fermiers indépendants de la région tout en vivant à un niveau de consommation inférieur. La transition du travail agricole au travail industriel s'est produite au site de la valeur des artefacts domestiques acquis par les occupants. Les données archéologiques et documentaires indiquent que les travailleurs industriels étaient mieux nantis que les ouvriers agricoles en ce qui a trait aux biens matériels. Ces avantages étaient toutefois acquis au dépends d'une dette légère mais chronique envers les marchands locaux. Cette étude suggère l'existence d'une culture agraire rurale dans laquelle des individus et des familles pouvaient participer de manière différente, selon leurs conditions économiques particulières.

Introduction

The Heminitz Property Site (36LH267), a 19th-century rural tenant dwelling, was once located at the intersection of Route 100 and Ruppsville Road in Upper Macungie Township, Lehigh County, Pennsylvania (FIG. 1). The site no longer exists. Increased traffic volume along Route 100 required the Pennsylvania Department of Transportation (PENNDOT) to make safety improvements to the intersection. As stipulated by the National Historic Preservation Act review process, a data recovery was conducted at the site in 2001 prior to the removal of the Heminitz Property dwelling. This paper presents the findings from that investigation.

The Heminitz Property Site consisted of a two-story frame dwelling (referred to hereafter as the "Heminitz house") and artifact deposits in the surrounding yard. The Heminitz house once stood on the northern outskirts of Trexlertown, a rural crossroads community in the western Lehigh Valley whose town center boasted the Trexler Tavern (established before 1732), two manufactories, as well as several

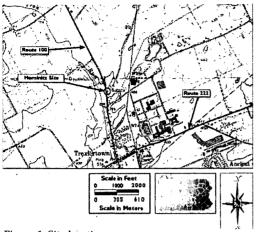


Figure 1. Site location map.

general stores (FIG. 2). The rural landscape surrounding the town was dotted with 18th- and 19th-century farmsteads and the dwellings of laborers and their families, such as the Heminitz house. Gristmills and sawmills were interspersed where streams and roads intersected to provide power and market access. The land was also once pockmarked by shallow pit mines, the result of an episode of intense iron-ore surface mining and limestone quarrying in the mid-19th century. Physical traces of this mining and quarry activity have all but disappeared from the modern landscape.

The Haintz (or "Heintz") family, Pennsylvania-German farmers that had settled in the western Lehigh Valley in the 1760s, erected the Heminitz house sometime between 1841 and 1844. The Haintzes originally built the dwelling to house an agricultural laborer and his family, who in turn worked on the Haintz' farm. Documentary research revealed that a series of agricultural tenant laborers occupied the Heminitz household from the 1840s into the 1880s. From the mid-1880s into the early-1900s, the house was occupied by tenants who were engaged in non-agricultural labor. After World War I, the dwelling was increasingly occupied by its owners, who were also engaged in a variety of non-agricultural labor. Occupation of the Heminitz Property Site continued until the house was razed in 2001. Archaeologically, the site consisted of temporally and spatially discrete artifact deposits within the yards surrounding the house.

A combined archaeological and documentary investigation of the Heminitz site allowed for the examination of several issues surrounding rural tenant laborer households during a period when the regional economy was in transition from an agricultural to industrial base, but where neither mode of production was dominant. Although agricultural and industrial endeavors may have once meshed well in the cultural landscape of the western Lehigh Valley, the agriculturally based lifeway established by German immigrants in the early-18th century began to lose its economic viability by the Civil War. Over the course of the late-19th and early-20th century, this way of life would be slowly supplanted by manufacturing, which became the focus of capital investments by entrepreneurs and the primary economic opportunity for laborers.

The works of Fletcher (1950), Cochrane (1979), and Parkerson (1995) have suggested that by the 1840s, a conflict over labor arose between the manufacturing and agricultural sectors of the economy. These scholars theorized that as America industrialized, factories needed more workers, which concomitantly created greater demand for farm-produced food. At this time, farmers lacked the mechanical equipment (yet to be developed) to increase food production, and hence they required greater labor inputs. Given these historical circumstances, a series of questions arise. Did the workers' standard of living



Figure 2. Site location on an historic map.

improve due to competition for their labor? Did the economic position of the Heminitz household's various wage earners rise or fall as its occupants transitioned from agriculture to the manufacturing/service sectors? Archaeological and historical analysis of the Heminitz site provides an opportunity to examine how rural tenants adapted to changing economic conditions during this period of transition.

In assessing different economic survival strategies used by 19th-century laboring famlies, this investigation is in concert with the archaeological study of consumer behavior and assumes that people actively made decisions that shaped their lives within the bounds of the opportunities they perceived for themselves (Cheek and Friedlander 1990; Henry 1991; LeeDecker 1991). However, whereas other studies have examined historic occupation sites as a means of gaining insight into cultural phenomenon of ethnicity, gender, and landscape (Cheek and Friedlander 1990; DeCunzo 1996, 2001-2002; King 2001-2002; Yamin 1999; Yentsch 1991), here the decisions the site's inhabitants made regarding consumption are examined within the context of broader trends in wages, labor markets, and commodity values. This study uses documentary records and material culture to investigate how people in western Lehigh County shaped their lives, against the backdrop of economic changes during the second half of the 19th century.

In examining economic decision making of rural tenant laborers, this investigation also addresses the issue of class and consumer choice raised recently by O'Donovan and Wurst (2001-2002). These authors question whether all social classes exercise the same degree of choice in their consumption of material goods, an implicit assumption of consumer choice theory as it is employed by archaeologists (O'Donovan and Wurst 2001-2002: 73-74). Their interpretation of the artifact assemblage from the Keith Site, the domestic remains of an economically poor farming family, suggests that "choice" for these people may have been more illusionary than real. O'Donovan and Wurst also question whether consumer choice theory may actually obfuscate important avenues for archaeological interpretation by blurring the degree of choice poor farmers could actually exercise (2001–2002: 80).

Although not a farmstead site per se, the Heminitz tenant farm worker site has provided data that can be used to examine the points raised by O'Donovan and Wurst. We hope to demonstrate here that poorer rural families, such as those that lived in the Heminitz house during the second and third quarters of the 19th century, did in fact exercise choice in what they did and did not consume. However, these consumer choices were mediated through the financial instrument of credit at local stores. We use store ledgers to document how independent farmers and rural tenant laborers managed credit and debt at local stores. For landless tenant laborers the choice of what type of ceramics to buy was likely influenced by how far into debt they were willing to go to buy them.

The results of this investigation are presented in the form of a historic archaeological ethnography (Beaudry et al. 1991: 151; Schuyler DeCunzo 1996; 1988). Methodologically, the investigation included standard archaeological excavation and analytical methods, an architectural analysis of the Heminitz house to understand its construction history, and the analysis of historical documents to reconstruct land ownership, site tenancy, and historical patterns of wages and household consumption. All of these data sources are used to construct a site history, which is presented as a sequence of questions, allowing us to view the effects and implications of the economic transition on families and to analyze the decisions they made as consumers.

Employing both archaeological and documentary evidence, the study delineated four occupation periods for the site (TAB. 1). These are as follows: Period I (1843–1884), Period II (1884–1920s), Period III (1930s–1959), and Period IV (1960–2001). This periodization is a heuristic device; the archaeological and documentary boundaries between any two periods are not necessarily "clean" and unambiguous. Some archaeological deposits permitted a division between Period I and II, but others exhibited sufficient overlap to make it impossible to definitively divide this 75-year period.

Period	Dates	Ownership/Occupancy	Occupant's Employment Status
I ·	1843–1883	Haintz ownership, tenant occupancy	Agricultural laborers working for landowner
II	1884–1920s	Lichtenwalner-Gernert ownership, predominately tenant occupancy	Mixed unskilled, semi-skilled, and skilled workers in industry, construction, and service sectors
Ш	1930s–1959	Bear-Rupp ownership, primarily tenant occupancy	Laborers in service, industry, and transportation sectors, also "infirmed" and "unemployed"
IV	1960–2001	Haller-Heminitz ownership, primarily owner occupancy	Mixed semi-skilled and skilled workers in industry and transportation sectors, also "retired"

Table 1. Periodization of Heminitz Property Site History.

Information from the title chain is used to define the boundary of each period. This paper focuses exclusively on the period of significance for this study, defined as extending from the 1840s through the 1920s, or Periods I and II.

The Archaeological Site

The Heminitz Property Site was situated on a small (0.09-hectare) trapezoid-shaped plot within an acute angle of land formed by the intersection of Route 100 and Ruppsville Road. Tested portions of the site consisted of a gravel parking area and two sections of the yard adjacent to the standing house. Investigation of the Heminitz Property Site included shovel test pits, ground-penetrating radar, excavation units, and trench excavations. A total of 21 shovel test pits, 17 test units, and one test trench were excavated, exposing 40.7 square meters, or 6.2 percent, of the site. These excavations recovered 6,875 artifacts.

The site's most prolific deposits were a number of spatially and temporally discrete sheet middens formed by the dumping of household refuse in the yards around the dwelling. These mid-19th- through early-20thcentury middens were manifested as a series of artifact-rich, buried A-horizons. Figure 3 depicts a generalized soil profile for the most productive portion of the site. The original living surface at the time the house was built (ca. 1841-1843) was represented by the Ab2horizon. This horizon contained architectural and kitchen artifacts from the construction and initial occupation of the house. Sometime during the early part of Period I (ca. 1845-50), the Ab2-horizon was capped by a thick layer of shale fill. This fill consisted of reworked subsoils and bedrock fragments and is interpreted as the spoil from the excavation of the cellar beneath the house. After the shale fill was deposited, another A-horizon (Ab) formed, primarily through intense disposal of domestic refuse during the second half of the 19th century. This horizon was by far the site's most intense artifact deposit. The Ab-horizon yielded dense concentrations of kitchen ceramics, as well as faunal remains, architectural debris, and personal artifacts. The lower portion of the Ab-horizon dated from ca. 1845 to early 1880s (Period I), while the upper portion ranged from the mid-1880s to ca. 1920 (Period II). The Ab-horizon was in turn capped by a layer of fill that contained large quantities of architectural debris, a result of a major renovation of the house in 1919–1920. The uppermost yard layers consisted of mid- to late-20th-century fill and topsoil.

Historical Ethnography of the Heminitz Property Site

Why was the Heminitz House Built?

Members of the Haintz family, the landowners, constructed the Heminitz house sometime between 1841 and 1844, most likely in 1843. The land on which they erected the house belonged to Jacob Haintz until his death in 1842, after which the Lehigh County Orphan's Court partitioned the farm between his sons, Benjamin and John. Even if the family built the house in 1841, the year prior to Jacob's death, it probably represents an investment made by one or both sons. Benjamin Haintz eventually obtained the title to the property on which the Heminitz house stood.

The house itself reflected a minimal financial expenditure in its construction. A small dwelling, it measured no larger than 19×23 ft

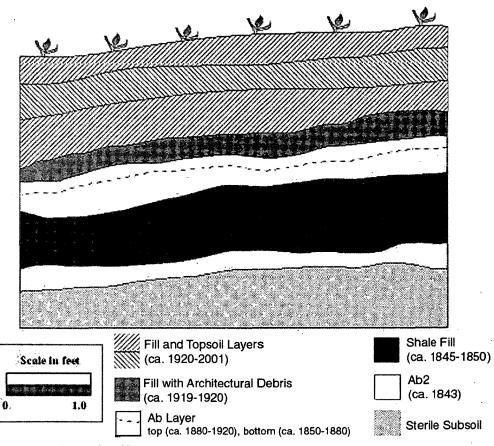


Figure 3. Generalized soil profile.

 $(5.8 \times 7 \text{ m})$ and stood one and a half stories high. Furthermore, an architectural analysis of the structure conducted as part of the archaeological investigation revealed that its builder(s) employed re-used timbers from an earlier structure or structures for the majority of its framing. The original house most likely did not originally include a cellar, since what is surmised to be the spoils from cellar excavation (Area A stratum of shale gravel fill) were found superimposed on the earliest artifact deposits (Ab2) in portions of the yard. On the basis of this evidence, it is speculated that time was an important factor to Benjamin Haintz, who likely needed this small house built as quickly and cheaply as possible.

Construction of the Heminitz house occurred during the final years of the Depression of 1837–43, the nation's worst economic downturn up to that time (North 1961: 190). Inflation rose sharply during the mid- to late-1830s, followed by marked price deflation in the early 1840s, after which point economic recovery began. The latter half of the Depression was a period of free-falling prices for East Coast farm commodities, including grains, meat, dairy products, and to a lesser extent, vegetables. At the same time, nominal wages in industry and agriculture declined only slightly. Deflation led to unemployment, primarily in urban centers during the early 1840s (Goldin and Margo 1992: 68). Paradoxically, deflation is also associated with growth in real wages, which rose rapidly in the early 1840s, particularly for unskilled laborers (Goldin and Margo 1992: 77). Unemployment had the greatest effect on industrial workers. Consequently, urban industrial workers migrated into the agricultural sector during periods of deflationary unemployment.

The construction of the Heminitz house during this time period suggests two possibilities, which are not mutually exclusive: 1) that it was built to house tenant laborers on the 110-acre Haintz farm: or 2) that the Haintz family sought supplemental rental income by housing other workers. However, economic conditions of the early 1840s provided several stimuli to invest in farm labor at this time. First, in a time of falling farm produce prices, the Haintz family's best option to maintain their income level would have been to increase farm production by increasing labor inputs to their operation. The other factors in farm productivity, such as farm size and yields, would have been difficult, if not impossible, to modify. With the death of Jacob Haintz in 1842, the family farm decreased in size when it was divided between John and Benjamin. Innovations in yield-increasing and laborsaving machinery would not become generally available for another decade or two. Also, this deflationary period produced a downward spiral in nominal wages, and due to the period of unemployment (particularly urban), the Haintz family possessed an economic advantage in securing terms for farm laborers. Given these circumstances, the Haintz family would have found hiring farm laborers attractive, which could explain why the Haintz's quickly erected a relatively inexpensive building to house farm workers.

Who Lived in the Heminitz House?

County tax records, incomplete as they are, have provided the only record of the house's residents. The decennial U.S. Population Census provided information on the makeup of those families. Examining head-of-household-occupation trends assembled from the tenancy record, the period between 1843 and 1930 can be divided around the mid-1880s. This division coincides closely with temporal stratification of artifact deposits found at the site, leading to the definition of Period I (1843-1883) and Period II (1884-1920s). For Period I, all male heads of household, with few exceptions, appeared in the Lehigh County tax ratables or in the federal population census as "laborer" and in one case "day laborer." Research by Weiss (1989), Wright (1988), and Atack and Passell (1994: 525) concluded that use of the term "laborer" around the mid-19th century must have referred to individuals working both in and out of agriculture, probably on a seasonal basis. Industry, particularly in rural areas, lacked the productive capacity at this time to hire many individuals on a full-time annual basis, so the laborers living in the Heminitz house presumably worked, at least part time, in agriculture. Only two of the house's tenants, one in the years 1872 and 1874, and one between 1877 and 1883, are listed in the population census specifically as "farm laborers." This inconsistency in terminology can be attributed to differences among the particular tax collectors in recording this type of information.

Period II began with Jonas Litchenwalner's acquisition of the house (1884) and the tenancy of a machinist between the years 1886 and 1889. During this period, the occupations of the site's inhabitants became more mixed. The tenancy record of the Heminitz house during the very late-1800s and into early-1900s featured a varied progression from machinist to farm laborer to shoemaker, and laborer to day laborer to house carpenter, and house painter/carpenter to laborer/mail carrier. Period II marks a definite shift away from the agricultural sector and into the skilled (e.g., machinist, carpenter) and non-skilled or semiskilled (e.g., laborer, house painter) manufacturing and construction sectors.

What was the Standard of Living of the Early Farm Laborers at the Site?

The period between 1840 and 1860 has been described as a period of "painful readjustment in farming away from self-sufficiency to commercial farming" (Fletcher 1955: 364). Western competition drove the "readjustment," along with the advent of laborsaving machinery, changes in transportation, and specialization for local urban market demand. The migration of many Pennsylvania farmers and farm workers to the west and to urban centers, which peaked between 1840 and 1855, exacerbated changing conditions. These migrations caused continued farm labor shortages in Pennsylvania between 1850 and 1860 (Fletcher 1955: 364). According to Cochrane (1979: 196), the adoption of a full compliment of laborsaving devices (i.e., tools for plowing, harrowing, seeding, and harvesting) occurred around 1850, during this period of migration. Schmidt (1973: 134) suggests the completion of this shift to horse-powered mechanical agriculture occurred during the Civil War when labor was scarce.

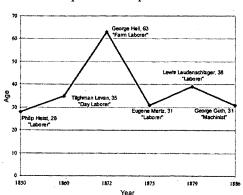
Although adapting to new realities could be distressing, farming during the post-Civil War period remained profitable, particularly in the Northeast. Increased investments in agricultural machinery, sustained profitability, and a host of other factors combined to raise the value of farmland throughout the second half of the 19th century. With farmland values doubling throughout the country between 1805 and 1850 (Lindert 1988: 57) and rising at an annual rate of 2.08 percent between 1850 and 1915 (Atack and Passell 1994: 407), young farmers found it increasingly difficult to acquire land. What emerged was a "farm ladder," in which individuals and/or families moved up from tenancy and wage labor to farm ownership, or down, from independent owners/operators to rural proletarians (Wright 1988; Atack and Passell 1994: 527–528). For some, a ladder may not have existed at all (O'Donovan and Wurst 2001-2002: 75). Rothenberg (1992) has argued that two labor markets existed—one for day laborers and another for long-term hired hands. Of the two types of laborers in the early-19th century, day laborers were clearly those headed up the agricultural ladder. Pay rates for day labor were typically 80 to 90 percent higher than for monthly contract labor. Young, upwardly mobile single men from the local community primarily held these positions, earning money for marriage and acquiring their own farms (Atack and Passell 1994: 526-528). Farm workers hired on a monthly contract basis usually consisted of older (30s to 40s) married men, who were geographically mobile rather than upward economically mobile (Atack and Passell 1994).

Up until ca. 1870, one can see a gradual aging of the farm laborer families that lived in the Heminitz house (FIG. 4). In 1850, 28-yearold Philip Heist lived in the house with his wife (age 22) and two young sons (ages two and one). In 1860, tenant Tilghman Levan was 35 years old and lived in the house with his wife (age 28) and three children (ages 11, seven, and one). In 1870, George Heil (age 61) resided with his wife (age 50) and two sons (ages 14 and 21) in the house. Those families that occupied the house after it was built were probably moving "up" the agricultural ladder toward eventual yeomanry. Those living in the house near the end of this period were not necessarily moving "down" the ladder, but may not have possessed future opportunities

beyond tenancy and unskilled labor. This trend reflects changes in the agricultural labor force occurring on a national scale, the result of increased farm mechanization and agriculture's general decline in primacy vis-à-vis industry during the late-19th century.

Unfortunately, we do not possess accurate information on the wages paid to the laborers living at the Heminitz Property Site in the period from 1840 to 1880. The only reliable statistics on agricultural wages are available at the state level, recorded by the Pennsylvania Board of Agriculture (1886: 49; 1890: graphs). Although not a true wage index, the agricultural wage rates have been plotted against the price of a bushel of wheat to provide a relative sense of proportion to diachronic changes in wages observed for both agricultural and nonagricultural laborers. Information on the price of wheat were derived from Bezanson, Gray, and Hussey (1937: 248) and Bezanson 1954: 384-385). Using the price of wheat as a standard measure of value is suggested by the following quote from the Pennsylvania Board of Agriculture (1886: 49):

The writer has a distinct remembrance of guaranteeing harvest hands that they should not receive less than the price of a bushel of new wheat per day, and, as much more as others were paying; harvest hands, at present [1886], would not be willing to accept the price of wheat as a basis upon which to calculate their per diem.



A number of interesting observations are made when wages are compared to the price of wheat. Prior to the Civil War, there were a series of steep decennial price fluctuations in

Figure 4. Age of head of household during Period I, . Herminitz Property Site

the price of wheat, a very graphic illustration of the erratic economic growth that characterized this period (FIG. 5). Farm wages lacked the elasticity of prices. Wages fluctuated somewhat with the rise and fall of prices, but not as readily. The laborer must have shouldered the burden of high prices during particularly harsh years, such as 1847, 1856, and 1867. However, during other years in the antebellum period (1852, 1859), a day's wages compared favorably with a bushel of wheat. Judging by state-wide agricultural wages and the price of wheat, the net sum appears to be a situation of gradually rising prices and wages punctuated by frequent fluctuation in a rapidly cycling business environment. Between 1845 and 1860, wages rose by 20 cents and the price of wheat rose 34 cents a bushel, a 25 percent increase for both categories. Still, the wage earner was vulnerable in an environment of volatile prices in basic commodities such as wheat. Sharp, episodic price variations must have engendered some sense of insecurity and the need to guard against the day when prices would rise but wages would not.

Price fluctuations after the Civil War were not nearly as severe as during the antebellum period. This stability, combined with the relative inelasticity of wages, worked to the laborer's benefit. Daily wages rose above the price of a bushel of wheat for the first time in 1870, and the price/wage gap remained much narrower than it had been during the first half of the 19th century. Finally, agricultural wages matched the price of a bushel of wheat in 1883 and remained stable while the price of wheat fell throughout the remainder of the 1880s.

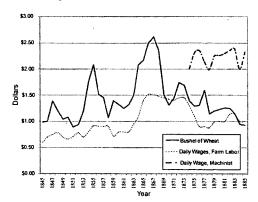
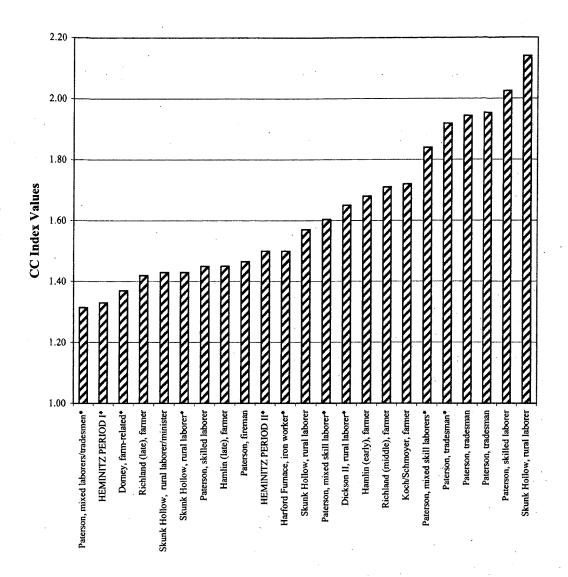


Figure 5. Comparison of wages, 1845–1885.

By the 1880s, competition clearly arose between agriculture and manufacturing for labor, and it was partially responsible for the historically high value of farm labor relative to the price of wheat. Industrial statistics reported by the Secretary of Internal Affairs of the Commonwealth of Pennsylvania reveal that machinists could earn over 30 percent higher wages than farm workers during the third quarter of the 19th century (Secretary of Internal Affairs [Pennsylvania], Annual Report, Part III, 1879: 344-345, 350). By the end of the early occupation period at the Heminitz site, both the agricultural and the industrial laborer benefited from high wages (relative to a single commodity—wheat). Although the number of agricultural workers diminished (and none resided at the Heminitz house after 1886), those that remained on the farms earned historically high wages. As the Pennsylvania Board of Agriculture (1886) noted, the added expense fell on the yeoman farmer who not only had a difficult time finding laborers, but also was compelled to pay ruinously high wages.

The relative standard of living of the Heminitz house occupants during Period I was measured using Miller's CC Index Value (1980, 1991, 1994) through comparison of the artifact assemblage to other contemporaneous archaeological sites (FIG. 6), featuring: rural farm laborers (Ward and McCarthy 1989; Catts et al. 1988); farm owners (Clouse et al. 2001; Joire et al. 1993; Lawrence et al. 1999; Morin et al. 1986); rural industrial workers (Geismar 1982; Hurry 1990); and urban skilled and unskilled laborers (Yamin 1999). In terms of overall value, the Heminitz early-component assemblage ranks near the bottom, with only one site reflecting a lower-value assemblage, a household of late-19th-century laborer/ tradesman tenants in the Irish neighborhood of Dublin in Paterson, New Jersey (FIG. 6). A local farm-related tenant assemblage from the nearby Dorneyville Site has a nearly equal value to the Heminitz Period I assemblage. Also, the Heminitz Site's Period I assemblage is comparable to ceramic values from the later phase of the Richland Farm yeoman site and two of the Skunk Hollow rural laborer sites (B and C).

When considering ceramic values, it can be postulated that smaller farm owners were not necessarily any better off than tenants. The commonality of the early Heminitz Property



*= Denotes tenant site

Figure 6. Comparison of overall CC Index Values. (Sources: Catts et al. 1988; Clouse et al. 2001; Geismar 1982; Hurry 1990; Joire et al. 1993; Lawrence et al. 1999; Morin et al. 1986; Ward and McCarthy 1989; Yamin 1999).

Site dinnerware and teaware assemblages with those from local farm-related sites demonstrates that the Period I tenant occupants acquired items of local popularity, despite low economic status. This commonality could also be taken as an indicator that ceramics assemblages are not sufficiently sensitive tools for differentiating social or economic groups. A similar lack of distinction in the earlier ceramic assemblages of owners and tenants was observed in the Dublin neighborhood of Paterson, New Jersey (Yamin 1999: 157–158). Surprisingly high-value ceramics were also recovered from the poor, mid-19th century inhabitants Keith Site in Chenango County, New York (O'Donovan and Wurst 2001–2002). Ceramic value indices were also unable to distinguish between the late-19th- and early-20thcentury inhabitants of alley versus street dwellings in southeastern Washington, D.C. (Cheek and Friedlander 1990: 52).

Figure 6 also illustrates several incongruities. For example, groups of both Paterson's urban industrial workers and rural laborers from Skunk Hollow can be found at both extremes of the CC Index Value. The variable of ownership versus tenancy does not seem to show a pattern either, with both groups found in both regions of the value spectrum. Hence, it may be assumed that other variables besides occupation and property ownership must have been factors in ceramic choice and consumer behavior. As O'Donovan and Wurst (2001–2002) suggest, how items of household use are acquired needs to be considered when interpreting the meaning they provide to the choices available to people in the past.

Vessel glass was very rare in the Heminitz site's Period I component, accounting for less than ten percent of the Kitchen Group artifacts. This was also the case for the Richland Farm early component, the Hamlin Farm, and the nearby Miller/Moyer Farmstead. In contrast to these local farm-related sites, the Harford Ironworkers' House, Skunk Hollow, and Paterson sites possessed the greatest quantity and diversity of vessel glass. Of the comparative site group, the early component of the Heminitz Property Site had the least diverse glass assemblage, consisting of carbonated beverage and medicinal bottles in low numbers and tableware (tumbler and salt shaker). No wine/spirits bottles or stemware appeared in the site's early component. Clearly, urban workers had greater access and ability to purchase a wider range of glass products.

A comparison of the Heminitz Period I faunal assemblage with the rural and urban sites referenced above shows several similarities and differences. Pork was the most common meat among rural sites. What perhaps distinguishes the Heminitz site is the fact that chicken may have been more commonly consumed than pork during this period of time, based on the Minimum Number of Individuals (MNI) analysis. This preference for chicken may have been a function of the limited size of the yard available for raising animals at the Heminitz house. Regardless, a common factor between Heminitz and other rural sites was that the household raised both pigs and chickens. Evidence for cattle being raised at the site during Period I was found in the tax records, with only limited evidence in

the archaeological deposits. These animals served primarily as dairy producers, not as meat provisions. The occupants of nearby farm sites obviously butchered some cattle for beef, a luxury not afforded to the Heminitz site occupants. In general, lower- and mediumvalued meat cuts defined the norm at all of the sampled sites. The early Heminitz assemblage fits this pattern. The Period I faunal group is somewhat less diverse than the faunal assemblages from the other comparative sites, with sheep, fish, and wild game being absent.

The archaeological evidence shows that in spite of an obviously low economic standing, the early farm laborer occupants of the Heminitz Property Site were able to share in some of the luxuries that other nearby farm laborers and farm owners enjoyed. Taken as a group, these farm families possessed similar ceramic and personal assemblages, consumed similar foods, and limited their intake of tobacco and alcohol to a minimum. While certain differences have been noted (e.g., limitations on clothing expenditures and access to certain meats), farmers and farm workers in this area can be viewed as members of a group with definite preferences for what material culture they purchased and used. Clearly however, farm laborers, tenant farmers, and farm owners had different levels of income and different economic pressures with which to deal.

Did the Standard of Living Improve as the Inhabitants Moved Out of Agriculture?

The definitive disassociation of the Heminitz house from agricultural labor and its sole use as a rental property began in the mid-1880s. This occurred within the context of changes on the farm to which it was historically attached. The transformation of both the farm and the tenant house into mere rental properties can be ascribed to Ionas Lichtenwalner, member of another old German family in Lehigh County, when he purchased the property in 1884 from his father-in-law Benjamin Haintz. The moment Lichtenwalner purchased the Haintz farm, he leased out the farm fields (Lehigh County Tax Ratables 1846–1946). After Benjamin Haintz died in 1886, Lichtenwalner not only continued leasing out the farm fields, he also began leasing out the former Haintz homestead to the individual working the farm (Lehigh County Tax Ratables 1846–1946). At the same time (1886), a machinist named George Guth became the new Heminitz house tenant. These facts clearly indicate that by 1884, the farm operation was divorced from farm ownership; the owner's interest in the farm and all its appurtenances, including the Heminitz house, was reduced to the monetary returns it could produce through rent.

Lichtenwalner's acquisition of the Haintz farm, its conversion into a tenant farm, and the disassociation of the Heminitz house with agricultural labor occurred at a time of declining fortunes for the yeoman farmer. Farm commodity prices had been falling throughout the third quarter of the 19th century, farm mechanization needs increased, and farmers were growing more dependent on increasingly distant (i.e., national and global) markets tailored to mass distribution and rapid communication systems over which the farmer wielded no control (Yates 1963: 99; Atack and Passell 1994: 422–433). It was also a time of rising farm tenancy, of which the Haintz farm is a clear example.

			riod I		riod II	
Ware Type	Decoration	N	%	N	%	
Ironstone	Undecorated	2	1.8	5	5.6	
	Molded	0	0.0	2	2.2	
	Decalcomania	0	0.0	2	2.2	
	Transfer-printed	0	0.0	. 1	1.1	
	subtotal	2	1.8	10	11.2	
Whiteware	Molded	0	0.0	. 2	2.2	
	Gilded	0	0.0	1	1.1	
	Sponge-painted	21	18.9	9	10.1	
	Painted, monochrome	9	8.1	7	. 7.9	
	Painted, polychrome	8	7.2	5	5.6	
	Blue shell-edged	14	12.6	2	2.2	
	Blue transfer-printed	4	3.6	3	3.4	
	Other transfer-printed	7	6.3	7	7.9	
	Undecorated	6	5.4	6	6.7	
	subtotal	69 .	62.2	. 42	47.2	
Pearlware	Mocha/dipt	2	1.8	0	0.0	
	Painted, monochrome	0	0.0	1	1.1	
	Painted, polychrome	6	5.4	1	1.1	
	Blue transfer-printed	2	1.8	1	1.1	
	Blue shell-edged	3	2.7	/ 1	1.1	
	Green shell-edged	1	0.9	/ 1	1.1	
	Sponge-painted	1	0.9	´ 1	1.1	
	Undecorated	1	0.9	0	0.0	
	subtotal	16	14.4	6	6.7	
Porcelain	Undecorated	1	0.9	2	2.2	
	Gilded	0	0.0	. 1	1.1	
	Transfer-printed	0	0.0	1	1.1	
	Molded	0	0.0	1	1.1	
	subtotal	1	0.9	5	5.6	
Yellowware	Molded	0	0.0	1	1.1	
	Undecorated	0	0.0	3	3.4	
	subtotal	0	0.0	. 4	4.5	
Buff-bodied Vitreous	Painted	1	0.9	0	0.0	
	Undecorated	0	0.0	3	3.4	
	subtotal	1	0.9	3	3.4	
Redware	Slip-trailed	4	3.6	1	1.1	
	Glazed	18	16.2	17	19.1	
	Unglazed	0	0.0	· 1	1.1	
	subtotal	22	19.8	19	21.3	

Table 2. Ceramic vessels by ware type, Periods I and II, Heminitz Property Site.

component.						
Vessel	Period I	Period II	Overall			
Plates	1.33	1.28	1.32			
Teas	1.34	1.68	1.45			
Bowls	1.31	2.00	1.43			
All Vessels	1.33	1.50	1.36			

Table 3. Comparative CC Index Values by component.

Lichtenwalner's purchase of the farm should be viewed as an investment in which he could reap the benefits of cash income without assuming the risk of the farming operation itself (Atack 1988: 23). However, since farm incomes dropped between 1870 and 1895, Lichtenwalner made his real investment in the land, not the farm production. By the time non-farm labor occupation began at the Heminitz house, the majority of the United States labor force was no longer engaged in agriculture (Saloutos 1962; Atack 1988: 23). Manufacturing became increasingly important in the economy of the Lehigh Valley and the nation as a whole (Yates 1963: 89–92; Easterlin 1971:48).

These changes in the regional and national economic structure are visible at the household level in changing consumption patterns evident between Period I and Period II artifact assemblages. These patterns represent the transformation of the Heminitz house from a household linked to agricultural labor to that of a rental property for paying tenants. While there are no absolute standards against which to measure the quantity or quality of the site's inhabitants' consumption of material goods, intra-site comparisons of changing consumption patterns at the site between the first and

Table 4. Button types by temporal component.

second period (1843–1930) are instructive. In comparison to Period II, Period I is noted for a lower variety of consumer goods. It also appears that during the first period, the occupants obtained many of their goods locally or through household production.

The ceramic artifact assemblage found in Period II retains many of the same characteristics of Period I, with some obvious differences ascribable to changes in ceramic manufacturing technology (e.g., general lack of pearlware from this assemblage (TAB. 2). The preponderance of redware in Period I is not surprising, but the absence of the only other type of utilitarian ceramic ware, stoneware is notable. Manufacturers produced redware locally in and around the Lehigh County, while stoneware production occurred elsewhere. Stoneware from production centers in Philadelphia or Trenton was likely more expensive and less easily available than local redwares.

The ceramic assemblage from Period I includes an assortment of decorative types and forms. The assemblage does not appear to be derived from a traditional "set" of dishes with common decorative patterns and is interpreted to reflect a pattern of sporadic acquisition. Therefore, even though its refined earthenwares were produced in England, the nature of the assemblage from the earliest period of the Heminitz Property Site clearly reflects localized acquisition in all likelihood through a combination of family, patronage, and purchase.

When examining the CC Index Value between Period I and II, the value of the later component ceramics is slightly higher (13 per-

	•	Pe	riod I	Period II	
Material	Cost Ranking	N	%	Ν	%
Shell	High	2	25%	11	28%
Porcelain	Low	5	63%	15	38%
Bone	Medium	0	0%	3	8%
Brass	High	0	0%	3 .	8%
Iron	Medium	1	13%	2	5%
Hard Rubber	Medium	0	0%	3	8%
Metal/Leather	Medium	0	0%	1	3%
Plastic	Low	0	0%	1	3%
Unidentified	n/a	0	0%	1	3%
Overall Cost Ranking	g for the Button Assemblag	res			
	High	2	25%	14	36%
	Medium	1	13%	9	23%
	Low	5	63%	16	41%

cent) than that of the earlier assemblage (TAB. 3). These higher overall values for the later component may reflect a greater purchasing power for the later occupants of the site, many of whom were non-agricultural, semi-skilled, and skilled workers. The higher value of teas from Period II, for example, may possibly reflect a higher degree of discretionary spending for social, non-utilitarian purposes.

Another type of storage technology, glass, is only slightly represented in the Period I component of the Heminitz Property Site. Given the low glass vessel counts (n=12), it would seem that the Period I occupants limited the purchase of bottled medications and consumed few sodas. This may very well be a reflection of a low level of income and wealth of the early occupants and the fact that these people most likely did not possess the discretionary funds to purchase such items on a regular basis.

The artifact assemblage recovered from Period II exhibits a large increase in glass vessels as a percentage of the total container assemblage when compared with Period I. Deposits from the second period contained many more glass vessels (n=70) with a much greater diversity of vessel types being represented. These glass vessels have a plethora of functions and applications: food storage and canning, cooking and baking, dining, health and hygiene/beauty aids, and lighting. These items demonstrate the increasing variety of consumer goods and greater purchasing power afforded the site's occupants in the late 19th and early 20th centuries. Advancements in glass container technology and transportation/distribution systems in the late-19th and early-20th centuries led to greater availability and lower prices for glass.

Although total quantities still remained low there were also a somewhat larger number and greater diversity of personal items found in the Period II deposits. Most notable among these personal items are sewing and clothing items. The button assemblages of the two periods also appears to tell something about the increasing purchasing power of the later inhabitants. As Table 4 shows, the majority of the buttons from Period I were low value porcelain types. This is also true for Period II, though the later component shows a greater proportion of high- and medium-cost buttons (e.g., shell and brass) than for the earlier period.

The buttons and other sewing items obviously indicate that occupants worked on clothing at the site throughout Period I and II of site occupation, and it is well known that home production of clothing was common during the 19th and early 20th centuries. This practice should not obscure the fact that in these items, the archaeological record provides a glimpse into an important aspect of family life that is frequently overlooked in the documentary record: the productive contribution of women (wives and daughters) to the economic well-being of the family. The sewing-related artifacts found at the Heminitz Property Site provide tangible evidence of their productive role in the family. Focusing strictly on needlecraft, it is unclear whether household's female occupants performed work solely for home consumption or for the marketplace. If they performed the work solely for home use, the number and variety of buttons may indicate that the quantity and variety of clothes worn by members of the household increased during Period II. However, it may merely reflect the fact that the largest family sizes known for the Heminitz house are recorded for the period between 1880 and 1900, which corresponds closely with Period II occupation. The average number of children living in the house between 1840 and 1880 was 2.5; for the period between 1880 and 1900 it was 5.4. Still, other possibilities notwithstanding, the increased quantity of sewing items may reflect work performed as an additional source of income to the family.

There are two possible interpretations for increasing female labor inputs in the household. First, it is possible that the women took in clothes requiring repair or tailoring for neighbors in the community. Secondly, the textile industry arrived in the Lehigh Valley just prior to the First World War, at the end of this second occupational period at the Heminitz house. For example, the Trexlertown Knitting Mill was established in Trexlertown in 1912. These mills distributed piecework around the county. It is possible that under either (or both) of these scenarios, the women of the Heminitz household contributed to their family's income. In terms of the site itself, census data

Unskilled Laborer 1879			Skille		
Income	Expenses	Net Earnings	Income	Expenses	Net Earnings
\$323.87	\$262.33	\$61.54	\$513.33	\$443.55	\$69.99
Unskilled Laborer 1880			Skille	ed Laborer 1880	
Income	Expenses	Net Earnings	Income	Expenses	Net Earnings
\$288.85	\$270.00	\$18.85	\$672.75	\$536.50	\$136.25

	1	I STARD		1000 11000
Table 5. Average income.	ovnoncoc and no	$p_{0} = p_{0} = p_{0}$	onnevivania	IX/V and IXXII
Table J. Average micome,	EXPENSES and in	c can migo, i v	ciuloyivalua	107 7 and 1000.

Source: Annual Report of the Secretary of Internal Affairs [Pennsylvania], Part III 1879 and 1880.

does not indicate that any of the women living at the house during Period I possessed formal employment.

The intra-site comparison of Period I and II artifact assemblages indicates a important differences between the two periods in the quantity and diversity of artifacts between the earlier and later deposits. After the 1880s, it appears that the purchasing power of those who lived in the Heminitz house improved. The increase in purchasing is measurable by various criteria: an increase in the CC value of teaware component of the ceramic assemblage; the increased use of glass vessels; and an increase in the value of buttons used by people living in the house. When comparing CC Index Values between sites, the Heminitz ceramic values rose from near the bottom of the comparative sample during occupational Period I to near the middle of the sample during Period II (FIG. 6).

Although labor contracts between farmer and laborer typically included board as a component of the laborers wages (Pennsylvania Board of Agriculture 1890: 142-143), the limited faunal evidence from the Heminitz Property Site indicates that occupants engaged in some household production. The faunal remains from Period I revealed pork and chicken as the most commonly consumed meats, with beef and wild game present in very small quantities. The site's occupants augmented their diet with home-raised chickens and during the early period of occupation, most likely on a limited level, given the small size of the parcel. The Period II faunal assemblage shows broad commonalities with the Period I assemblage. This continuity suggests that the site's later occupants may have retained the same food ways, in terms of both consumption and procurement, as the previous farm laborer families as they transitioned into non-agricultural pursuits.

The differences observed between Period I and II artifact assemblages are indicative of a greater participation in the market economy, though whether they represent greater purchasing power or a higher standard of living is not immediately clear. They are certainly associated with the eclipse of the agrarian sector of the economy by manufacturing. Nationally, real wages for farm labor grew slowly during the late-19th century (Atack and Passell 1994: 549), but locally there is no evidence of a wage "spike" at the time (ca. 1870-1880) of this notable increase of consumption at the Heminitz site. However, wages for industrial workers (skilled and non-skilled) were consistently higher than those of agricultural laborers throughout the late-19th and early-20th centuries (Goldin and Margo 1992). It is presumed that the non-agricultural laborers who began occupying the Heminitz house in the mid-1880s would have earned higher wages and, hence, purchased more goods from area stores.

Although the non-agricultural laborers living in the Heminitz house during Period II may have been purchasing more consumer goods, higher wages may not have been the only factor affecting their choice to do so. State statistics on income and expenses for 1879 and 1880 demonstrates that workers struggled to keep ahead of debt (TAB. 5). Average income for both skilled and non-skilled workers was above average expenses for both groups for both years. However, what the averages do not show is that in 1879 some households in both labor groups reported a deficit. In that year, four unskilled laborer households reported deficits ranging from \$30.00 to \$55.00 dollars, while five skilled laborer households had budget shortfalls ranging from as little as \$6.00 to as high as \$84.00. The presence of household budget deficits implied that they were operating on some form of credit.

Archaeologists have generally overlooked the availability and use of commercial credit for making everyday purchases even as it has enormous ramifications for interpreting the everyday things we normally recover from domestic sites. The extent to which individuals or families were able to buy beyond their immediate means has obvious implications for the care with which we must approach the relationship between artifact assemblages and ascriptions of social or economic class as well as the issue of consumer choice more generally. Although no information was forthcoming on the use of credit at local stores by any of the inhabitants of the Heminitz house, the use of credit and degree of indebtedness by local farmers and laborers in the nearby townships was explored.

The purchasing and payment records for a series of patrons of three nearby general stores over a 40-year period from 1843 to 1883 were examined. The three ledgers include that of Charles Dinkey's store in Pennsville (now Ashfield), East Penn Township, Carbon County (Dinkey 1843-1848); Flores and Meyers' store in Dillingersville, Lower Milford Township, Lehigh County (Flores and Meyers 1868-1873); and Silas Bittner's general store, Bittner's Corner, Lowhill Township, Lehigh County (Bittner 1882-1884). Store ledger data was collected for a minimum of three individuals for each of three occupation classes: farm laborers, farmers, and skilled non-farm workers (tradesmen). Occupation information, as well as household statistics, for the individuals represented in the store ledgers was obtained from the National Census and county tax assessment records. At least one full year's store purchases and credits (payments) were collected for each patron from the ledgers. Each purchase was recorded in general categories such as food, sewing materials, prepared clothing, tobacco, lighting, etc. Payments were similarly grouped as cash, produce, labor/service, trade/swap.

Table 6. Summary of store ledger information concerning debt.

Averag	e Yearly Debt p	er Person in H	ousenoia
	1843-48	1868-73	1882-84
Laborers	-\$0.33	+\$0.47	-\$1.07
Skilled	-\$2.93	-\$0.67	-\$5.14
Farmers	+\$2.42	-\$2.65	-\$3.75

Average Yearly Purchasing per Person in Household						
1843-48	1868-73	1882-84				
\$18.86	\$6.85	\$5.28				
\$12.39	\$2.60	\$16.39				
\$7.35	\$7.15	\$5.52				
	1843-48 \$18.86 \$12.39	1843-481868-73\$18.86\$6.85\$12.39\$2.60				

Notes: (+) indicates a positive ledger credit, (-) indicates a net debit.

Sources: Dinkey 1843–48, Flores and Meyers 1868–73, Bittner 1882–84.

Examination of the ledgers revealed that rural people in all job categories, including farm owners, farm tenant laborers, and tradesmen, commonly participated in a produce-for-credit system and operated within some margin of debt with local store owners. The ledgers indicate that the laborers kept indebtedness to a minimum (TAB. 6). In the 1868 to 1873 laborer sample, an average positive amount appeared in the Flores and Meyers store ledger. Even in 1882-1884, the yearly debt per person for laborers was the lowest for all three groups. Farmers showed the second highest rate of debt, while skilled laborers/tradesmen had the highest debt. Taken at face value, one might assume that laborers were better off and lived relatively debt-free. Another possible interpretation is that laborers as a class were least able to manage their budgets in holding down debt. As a result, merchants compelled laborers to pay for goods with cash. In contrast, farmers found themselves in somewhat better straights and were more likely to be afforded credit by storeowners.

The available documentary evidence on state and local levels suggests that workers, skilled or non-skilled, lived near the margins of economic solvency. Annual changes in prices and wages appear to have placed workers in debt one year and out of debt the next. Store ledger research indicates that indebtedness for some cases extended over the two-to-five-year period covered by the ledger, suggesting chronic debt conditions for a portion of the rural population. If we examine the diachronic trends in indebtedness and purchasing for farmers and farm laborers, we see that average debt per person increased, while average purchasing per person decreased (TAB. 6). For skilled laborers both debt and purchases per person increased throughout the second half of the 19th century. The decreasing expenditures and increasing debt of farmers and farm laborers would seem to indicate that they were increasingly restricting their spending in a conscious effort to keep it in line with their budgets, yet were failing. Apparently, the wage increases enjoyed by agricultural workers over this period of time was insufficient to remain free of debt. In contrast, skilled laborers were earning more and spending more than agricultural workers and out-spending farmers. This may reflect the fact that skilled workers may have been assigned

higher levels of credit based on the store owner's perception that skilled workers had a greater ability to eventually retire their debt. Consequently, they enjoyed a greater level of consumer expenditures than either agrarian laborers or yeoman farmers. A contributing element in their decision to do so was the availability of credit, and their choice to assume debt.

Conclusions

During the first period of occupation (ca. 1840–1880), only farm laborers and their families occupied the site. The site's archaeological evidence reveals that the early farm laborers who occupied the tenant house were able to share in many aspects of a comfortable lifestyle similar to other nearby farm laborers and farm owners, in spite of an obviously low economic standing. In terms of the value of material possessions, the Heminitz occupants were poorer than rural farm owners or urban laborers. Documentary and archaeological evidence suggest that they maintained their economic position at least partially through household production, which aided in buffering economic downturns. Household production of foodstuffs provided a direct food source, permitted them to maintain an adequate diet, and also functioned as a medium of non-monetary exchange at local stores.

The investigation also explored whether the economic position of the Heminitz property household rose or fell as its occupants transitioned from agriculture to the manufacturing/service sectors, essentially whether the site's inhabitants during Period I were financially better off than those of the Period II. Archaeological data indicate that the Heminitz house inhabitants' purchasing power did improve after the 1880s. However, the changes in consumption patterns observed between Period I and Period II at the Heminitz site were not radically different. For instance, dietary patterns do not appear to have been significantly different. The later families purchased higher valued goods, but at least in terms of ceramic tableware, the second period assemblage appeared stylistically similar to Period I. The artifact assemblage does not contain sufficient evidence to suggest that the later house occupants made a concerted effort to project a higher status level or otherwise distinguish themselves from the tenant

laborers that had previously lived there. In this, they were similar to the urban tenant laborers in the Dublin neighborhood of Paterson, NJ, who likewise did not distinguish amongst themselves through material goods (Yamin 1999: 160). In rural Lehigh County, this fact argues for broad cultural continuity during this period of change, rather than a discontinuity in the household members' sociocultural identities.

The improved level of material well being noted after the 1880s appears to have had associated costs. Household budget information at both state and local levels for the midto late-1800s demonstrates that skilled workers maintained a nearly consistent level of low debt in local stores; agricultural laborers and farmers skirted at the debt margins as well, but may not have been as constantly indebted as skilled workers. Unfortunately, no post-1880 household budget data for the region or state was found for comparative analysis. It is suspected that if this data were found, it would show that tenant laborers, such as those that lived in the Heminitz house after the mid-1880s, would have funded their increased consumer activity through chronic, low-level debt.

The Heminitz Property Site produced a detailed archaeological and documentary record that could be successfully used to reconstruct the lives of rural tenant laborers during the second half of the 19th and early-20th centuries in the Lehigh Valley. This work demonstrates that rural agricultural workers survived in an insecure economic environment, while managing to acquire many of the same types of material goods used in the households of their yeoman farmer employers. The archaeological record shows little distinction between the local farm owner and farm laborer in terms of what items were purchased for household consumption. Only subtle differences were observed between the artifact assemblages of owners and tenants in the Dublin neighborhood of Paterson, New Jersey (Yamin 1999: 157) or between ethnic groups in Washington, D.C. (Cheek and Friedlander 1990), raising the question of the ability of such items as refined earthenware to measure socioeconomic differences, an issue about which there has been some debate (Baugher and Venables 1987; Klein 1991; LeeDecker 1991; Friedlander 1991). For the Heminitz Property Site and the western Lehigh Valley, documentary evidence in the form of store ledgers demonstrate a commonality between farmers and their agricultural tenants in the pattern of their decreasing purchases and the increasing levels of debt assumed. This was in contrast to that of skilled laborers, for whom both debt and purchases per person increased throughout the second half of the 19th century. Therefore, the path to a materially better life for a wage earner ultimately lay in exiting the agricultural sector and entering manufacturing, which is what happened at the Heminitz Property Site. Unfortunately for the non-agrarian laborer, material improvement probably meant increased debt and its attendant stress.

Lu Ann DeCunzo (2001-2002) has recently written of the need to discover and enrich our understanding of the "cultures of agriculture." The commonality of material culture and purchasing decisions made a local stores between farm owners and tenants observed during this investigation of the Heminitz site, the overlap between occupational categories of "farmer," "tenant," and "laborer," as well as the fluidity of movement of labor between the agricultural and manufacturing sectors raise an important question in response to this call to refocus our investigation of farmstead and related sites. From the perspective of the Heminitz Property site, are there really "cultures of agriculture" or a single, broad culture based on agrarian production (and not completely divorced from manufacturing) in which different social groups participated in, differently? The evidence from the Heminitz Property Site and surrounding farmsteads suggests that individuals shifted their occupational status while maintaining a fundamentally similar set of cultural behavior patterns that are visible in the archaeological and documentary records. We suggest that there existed a rural agrarian culture in which individuals and families participated in creatively, making decisions as consumers according to their economic circumstances, family life cycle, and access to credit, amongst many other factors.

The economic changes experienced by workers in the Lehigh Valley during the late-19 and early-20th centuries continue unabated to this day, though much of the rural agrarian culture in which the inhabitants of the Heminitz house participated in is now gone. The Valley's rusting steel mills and empty factories stand as mute testimonies to the area's dramatic deindustrialization process. With the death of industry and the rise of agribusiness in America, the rich 250-year history of farming in the Valley has withered. Once-productive agricultural land now hosts sprawling truck terminals and service sector business parks. The Valley's labor force ebbed and flowed in response to the new economic tides. Today, many workers reside in the numerous bedroom communities of the Valley, yet commute to distant jobs outside the region. These modern residents may likely relate to the increasing consumerism and chronic debt that their predecessors experienced over a century ago.

Acknowledgements

The Data Recovery study on which this paper is based was conducted between December 2000 and June 2002 by A.D. Marble & Company for URS Corporation and PEN-NDOT Engineering District 5-0. The authors would like to thank the following individuals and institutions for their assistance in the success of this project: Erin Hammerstedt (architectural analysis), Robert J. Lore (faunal analysis), Geo-Graf, Inc. (remote sensing), the personnel of the Lehigh County Historical Society, and the Lehigh County Clerk of Criminal Courts. We also thank the reviewers for their cogent criticisms of earlier drafts of this paper. Finally, we would like to thank Mr. and Mrs. Robert Heminitz for their patience and understanding during all phases of the field investigation.

References

Aschbach, G.A.

Atack, Jeremy

- 1988 Tenants and Yeomen in the Nineteenth Century. Agricultural History 62(3): 6–32.
- Atack, Jeremy and Peter Passell
 - 1994 A New Economic View of American History from Colonial Times to 1940. 2nd ed. W.W. Norton & Co.

Baugher, Sherene and Robert W. Venables

1987 Ceramics and Indicators of Status and Class in Eighteenth-Century New York. In *Consumer's Choice in Historic Archaeology*. S.M. Spencer-Wood ed., pp. 31–53. Plenum, New York.

Beaudry, M.C., L.C. Cook and S.A. Mrozowski

1991 Artifacts and Active Voices: Material Culture as Social Discourse. In The Archaeology of Inequality. R.H. McGurie and

¹⁸⁶² Map of Lehigh County, Pennsylvania. M. H. Traubel, Philadelphia.

R. Paynter eds., pp. 150-191. Blackwell, Oxford.

Bezanson, Anne

- 1954 Wholesale Prices in Philadelphia 1852–1896 Series of Relative Monthly Prices. University of Pennsylvania Press, Philadelphia.
- Bezanson, Anne, Robert D. Gray, and Miriam Hussey
 - 1937 Wholesale Prices in Philadelphia 1784–1861 Part II–Series of Relative Monthly Prices. University of Pennsylvania Press, Philadelphia.

Bittner, Silas

1882–1884 Ledger book from Bittner's Lowhill General Store, Bittner's Corner, Lowhill Township, Lehigh County, Allentown, PA. Manuscript files of the Lehigh County Historical Society, Allentown.

Catts, Wade P., Jay Hodny, and Jay F. Custer

1988 "The Place at Christeen": Final Archaeological Investigations of the Patterson Lane Site Complex, Christina, New Castle, Delaware. DELDOT Archaeology Series No. 74, Dover.

Cheek, Charles and Amy Friedlander

- 1990 Pottery and Pig's Feet: Space, Ethnicity, and Neighborhood in Washington, D.C., 1880–1940. Historical Archaeology 24(1): 34–60.
- Clouse, Jerry A., Randolph K. Taylor, Jonathan Bream, and Richard Baublitz
 - 2001 Archaeological Data Recovery Excavations at the Koch/Schmoyer Farm Archaeological Site (36LH242), S.R. 0222, Section 002, Upper Macungie Township, Lehigh County, Pennsylvania. Report on file, Pennsylvania Historical and Museum Commission, Harrisburg.

Cochrane, Willard W.

1979 The Development of American Agriculture, A Historical Analysis. University of Minnesota Press, Minneapolis.

DeCunzo, Lu Ann

- 1996 Tale of Many Landscapes: The White-Darrach store and tenant property, Duck Creek Hundred, Delaware. Northeast Archaeology 51: 49-81.
- 2001–2002 The Archaeology of Agriculture and Rural Life in Northern Delaware, 1800–1940. Northeast Historical Archaeology 85–112.

Dinkey, Charles

1843-1848 Ledger book from Dinkey's General

Store, Pennsville, East Penn Township, Carbon County, Pennsylvania. Manuscript files of the Lehigh County Historical Society, Allentown.

Easterlin, Richard A.

1971 Regional Income Trends, 1840-1950. In The Reinterpretation of American Economic History. R.W. Fogel and S.L. Engerman eds., pp. 38-49. Harper & Row, New York.

Fletcher, Stevenson W.

- 1950 Pennsylvania Agriculture and Country Life 1640-1840. Pennsylvania Historical and Museum Commission, Harrisburg.
- 1955 Pennsylvania Agriculture and Country Life 1840-1940. Pennsylvania Historical and Museum Commission, Harrisburg.

Flores and Meyers

1868–1873 Ledger book from Flores and Meyers store, Dillingersville, Lower Milford Township, Lehigh County, Pennsylvania. Manuscript files of the Lehigh County Historical Society, Allentown.

Friedlander, Amy

1991 House and Barn: the Wealth of Farmers, 1795–1815. *Historical Archaeology* 25(2): 15–24.

Geismar, Joan H.

1982 The Archaeology of Social Disintegration in Skunk Hollow, a Nineteenth-Century Rural Black Community. Academic Press, New York.

Goldin, Claudia and Robert A. Margo

1992 Wages, Prices, and Labor Markets before the Civil War. Strategic Factors in Nineteenth Century American Economic Growth. C. Goldin and H. Rockoff eds., pp. 67–104. University of Chicago Press, Chicago.

Henry, Susan

- 1991 Consumers, Commodities, and Choices: A General Model of Consumer Behavior. *Historical Archaeology* 25(2): 3–14.
- Hurry, Silas D.
 - 1990 Archaeological Data Recovery at a Nineteenth-Century Iron Workers' Dwelling at Harford Furnace, Maryland. Maryland Geological Survey File Report 217.
- Joire, Kenneth M., Karyn Z. Joire, and Philip A. Perazio
 - 1993 A Phase II Cultural Resource Investigation of the Miller/Moyer Farmstead (36Lh227), Lehigh Valley West Industrial Subdivision,

Upper Macungie Township, Lehigh County, Pennsylvania. Report on file, Pennsylvania Historical and Museum Commission, Harrisburg.

King, Julia

2001–2002 How the Past Becomes a Place: An Example from Nineteenth-Century Maryland. Northeast Historical Archaeology 30–31:113–128.

Klein, Terry

- 1991 Nineteenth-Century Ceramics and Models of Consumer Behavior. *Historical Archaeology* 25(2): 77–91.
- Lawrence, John W., Daniel N. Bailey, and Paul W. Schopp
 - 1999 The Transformation of Agriculture and Farm Life in Upper Bucks County: The Richland Farm Site (36-Bu-298) Richland Township, Bucks County, Pennsylvania. Report on file, Pennsylvania Historical and Museum Commission, Harrisburg.

LeeDecker, Charles H.

1991 Historical Dimensions of Consumer Research. Historical Archaeology 25(2): 30-45.

Lehigh County Tax Ratables

- 1846–1946 Upper Macungie Township. Lehigh County Historical Society, Allentown.
- Morin, Edward M., Terry H. Klein, and Amy Freidlander
 - 1986 The Hamlin Site, 1780–1856: A Study of Rural Consumer Behavior. Louis Berger & Associates, Inc., The Cultural Resource Group, East Orange.

Lindert, Peter

1988 Long-Run Trends in American Farmland Values. *Agricultural History* 62: 45–86.

Miller, George

- 1980 Classification and Economic Scaling of Nineteenth-Century Ceramics. *Historical Archaeology*.14: 2–39.
- 1991 Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1): 1–25.
- 1994 Classification and Scaling of Nineteenth-Century Ceramics. *Historical Archaeology* 14: 1–40.

North, Douglas C.

1961 The Economic Growth of the United States, 1790–1860. W.W. Norton, New York.

O'Donovon, Maria and Lou Ann Wurst

- 2001–2002 Living on the Edge: Consumption and Class at the Keith Site. Northeast Historical Archaeology 30–31:73–84.
- Parkerson, Donald H.
 - 1995 The Agricultural Transition in New York State. Iowa State University Press, Ames, Indiana.

Pennsylvania Board of Agriculture

- 1886 Agriculture of Pennsylvania, containing reports of the State Board of Agriculture, the State Agricultural Society, the State Horticultural Association, and the State College for 1885. E.K. Meyers, State Printer, Harrisburg.
- 1890 Agriculture of Pennsylvania, containing reports of the State Board of Agriculture, the State Agricultural Society, the State Horticultural Association, and the State College for 1890. E.K. Meyers, State Printer, Harrisburg.

Rothenberg, Winifred B.

- 1992 From Market -Places to a Market Economy: The Transformation of Rural Massachusetts, 1750–1850. The University of Chicago Press, Chicago.
- Saloutos, Theodore
 - 1962 Land Policy and Its Relation to Agricultural Production and Distribution 1862 to 1933. The Journal of Economic History 22(4): 445-460.

Schmidt, Hubert G.

1973 Agriculture in New Jersey A Three-Hundred-Year History. Rutgers University Press, New Brunswick, New Jersey.

Schuyler, Robert L.

- 1988 Archaeological Remains, Documents, and Anthropology: A Call for a New Culture History. *Historical Archaeology* 22(1): 36–42.
- Secretary of Internal Affairs, Commonwealth of Pennsylvania
 - 1879 Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania, Part III, Industrial Statistics, 1877–78. L.S. Hart, State Printer, Harrisburg.
 - 1880 Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania, Part III; Industrial Statistics, 1878–79. L.S. Hart, State Printer, Harrisburg.

Ward, Jeanne A. and John P. McCarthy

1989 Archaeological Evaluation and Data Recovery at the Northwest Corner of the Dorneyville Intersection, Hamilton Boulevard and Cedar Crest Boulevard, L.R. 157, Section D32, Dorneyville Access, Lehigh County, Pennsylvania. Report on file, Pennsylvania Historical and Museum Commission, Harrisburg.

Weiss, Thomas

- 1989 Economic Growth Before 1860: Revised Conjectures. National Bureau of Economic Research Working Paper Series, Working Paper No. 7.
- Wright, Gavin
 - 1988 American Agriculture and the Labor Market: What Happened to Proletarianization? Agricultural History 62: 182-209.

Yamin, Rebecca, editor

1999 With Hope and Labor: Everyday Life in Paterson's Dublin Neighborhood, Data Recovery on Blocks 863 and 866 Within the Route 19 Connector Corridor in Paterson, New Jersey. New Jersey Department of Transportation, Trenton, New Jersey.

Yates, W. Ross

1963 History of the Lehigh Valley Region. Lehigh and Northampton Counties Joint Planning Commission.

Yentsch, Anna

1991 Engendering Visible and Invisible Ceramic Artifacts, Especially Dairy Vessels. Historical Archaeology 25(4): 132–155.

Dan Bailey obtained a B.A. in Anthropology from Kutztown University in 1988 and an M.A. in American Studies from Pennsylvania State University in 2003. Mr. Bailey has been involved in all phases of both prehistoric and historic archaeological investigations in the mid-Atlantic region since 1989 and has authored numerous reports. Mr. Bailey currently serves as Principal Investigator for the consulting firm A.D. Marble & Company.

John Lawrence received his B.A. in Anthropology from the University of Texas at Austin in 1980 and a M.A. in Anthropology from the University of Pennsylvania in 1989. He has conducted archaeological and historical research in Central America as well as the mid-Atlantic region, where his interest focuses on the transformation of rural lifeways in the nineteenth century. Mr. Lawrence is Principal Investigator for the consulting firm of A.D. Marble & Company as well as Adjunct Professor in Anthropology at Pennsylvania State University, Delaware County.

Paul Schopp's interest in the history of America's transportation and industrial landscape developed out of his extensive educational and experiential background in engineering. He has worked in the local history field for 30 years and is a recognized expert on New Jersey and Delaware Valley history. Mr. Schopp is the Senior Historian for the consulting firm of A.D. Marble & Company.

Daniel N. Bailey, John W. Lawrence, and Paul W Schopp c/o A.D. Marble & Co. 375 East Elm Street, Suite 200 Conshohocken, PA 19428