REDWARE PRODUCTION IN THE LEAD MINE DISTRICT OF NORTHWESTERN ILLINOIS: SUMMARY OF RECENT ARCHAEOLOGICAL RESEARCH

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ABSTRACT

By the 1850s, the presence of a distinctive red clay and the abundant availability of lead ore, resulted in the production of a distinctive redware pottery within northwestern Illinois, southwestern Wisconsin and eastern Iowa. This area, known as the Driftless Region and/or the Lead Mine District, became known for its production of the distinctive pottery locally referred to today simply as "Galena Pottery" --a common utilitarian, low fired, red-paste earthenware with a clear lead glaze. This paper summarizes recent archaeological research at both the Elizabeth and Galena Potteries in Jo Daviess County, Illinois and stresses temporal trends in ware production (stylistic as well as changes in functional ware types) as well as the distinctive differences between rural (Elizabeth) and urban (Galena) production centers.

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Introduction

For many centuries, northwestern Illinois has been known for its extensive lead resources. Early French voyagers traded for lead with historic Indian groups in this region beginning sometime during the early eighteenth century and by the late 1820s, an American mining frontier community had developed in the region with Galena, located along the Fever River, as its political and economic center (Figures 1-2). Additionally, this unglaciated region contains a wealth of alluvial red clays ideal for ceramic production. By the early 1840s, the presence of a distinctive red clay and the abundant availability of lead ore (Lead Sulfide; also known as "galena" and often referred to as "potter's ore") had contributed to the development of a regional redware pottery industry within northwestern Illinois, southwestern Wisconsin, and eastern Iowa. This area, known as the Driftless Region and/or the Lead Mine District (Figure 1), became known for its production of a distinctive pottery locally referred to today simply as "Galena Pottery"—a common utilitarian, low-fired, red-paste earthenware with a clear lead glaze. Although generically known as Galena Pottery, these wares were manufactured in many surrounding communities in addition to Galena. The commercial production of redware pottery has been documented in the Illinois communities of Galena, Elizabeth, Eleroy, and Cranes Grove, the Wisconsin communities of Mineral Point, Belmont and Whitewater, as well as Dubuque, Iowa.

This paper summarizes recent archaeological research conducted by Fever River Research (Springfield) at both the Galena and Elizabeth potteries, located in Jo Daviess County, Illinois.

Locational And Historical Settings

Jo Daviess County (Illinois), located in the far northwestern corner of the state of Illinois, is situated within the region known both as the Driftless Area and the Lead Mine District (Figures 1-2). Although this area was visited by French explorers during the late seventeenth century, it was not until the late eighteenth century (1774) that Julien Dubuque settled among the Sac and Fox Indians along the western shore of the Mississippi River and began to develop his Mines of Spain.

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2 Although we often think of the western trans-Mississippi River states (such as Nevada or California) when we discuss mining frontiers, Galena was one of the first western mining frontier communities to develop in the United States and played a significant role in the development of U. S. mining policy. For information on the development of the Galena region, refer to Johnson (1977), Kett (1878), and Wright (1966).

3 Recent archaeological investigations at the Mines of Spain have documented the integrity of this significant site and has contributed to its listing on the National Register of Historic Places as well as a National Heritage Landmark. For further reading see Thwaites (1895), and Peterson (1968), as well as the National Historic Landmark Nomination form prepared by DeVore, McKay, and Spude (1992).
Circa 1816, the American Fur Company established a trading post near the mouth of the Fever River (today known as the Galena River in Illinois and the Fever River in Wisconsin). Between 1819 and 1821, at least four independent fur trading posts were established within that area east of the Mississippi and along the Fever (now Galena) River near present-day Galena, Illinois. About the same time period, American miners were beginning to enter the territory to exploit the rich mineral resources of the region. In 1822, the first mineral land lease from the federal government was granted for the Fever River country and by the fall of 1824 the federal government had appointed the first superintendent of Lead Mines for the Upper Mississippi. Under direction of the Superintendent of Lead Mines, the initial plat of Galena was surveyed in July 1826 and by the late 1820s, the community of Galena was quickly becoming the economic and social center of this burgeoning mining frontier (Johnson 1977:2-10; Kett 1878).

By 1850, several potters were documented as living and manufacturing pottery within Jo Daviess County. The major producer of redware in this region by that date was the D. A. Sackett Company, often referred to as the Galena Pottery Company. Organized by the brothers David and Alfred Sackett, the company was established in Galena in 1843 and, although not continuously owned by the Sackett family, the company remained in business through the late 1890s. In addition to the urban pottery at Galena, several additional potteries were located near the small community of Elizabeth. The 1850 U.S. Population Census indicates three potters were working in the immediate vicinity of that community. These included Joseph Goble, David Sackett, and David Woodruff. Detailed histories of these potteries are presented in Mansberger (1994a).

**Summary Of Recent Archaeological Research**

Galena redware has received the attention of antique and pottery collectors for many years. The locally manufactured redware was first studied by avocational archaeologist and historian Wayne Horney from Fort Wayne, Indiana during the 1960s. His seminal work, which consisted of the analysis of surface collections from several local pottery production sites, resulted in the publication of the manuscript entitled *Pottery of the Galena Area* (Horney 1965). Horney's manuscript was a pioneering study of Illinois redwares. Additionally, Horney collected samples of ceramic sherds from the various pottery sites that became the focus of later studies. This author (Mansberger) re-analyzed the sherds collected by Horney, systematically recording variation in rim profiles and presented the results in the paper "Some Thoughts and Comments on the Mid-19th Century Redware Industry of Northwestern Illinois" (Mansberger 1983) which stressed the wide range of vessels produced at these potteries and attempted to differentiate wares

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4 Prior to settling in Jo Daviess County, the Sackett brothers were potting in the central Illinois community of Athens, Menard County, Illinois.

5 Wayne Horney collected redware sherds from the Elizabeth and Galena (Illinois) as well as the Belmont and Mineral Point (Wisconsin) potteries. Apparently, Horney visited the Elizabeth Pottery Site during the construction of the adjacent motel complex. The redware sherds collected by Horney are presently curated at the Galena/Jo Daviess County Historical Society Museum. Artifacts and notes associated with work conducted by Fever River Research are curated by the Illinois State Museum, Springfield, Illinois.
manufactured from the different sites. The re-discovery of Horney artifact collections and the subsequent analysis of that material initiated my interest in Illinois redware studies.  

During late 1986 and early 1987, an archaeological survey of a proposed sanitary sewer and water main extension was conducted for the City of Galena by Fever River Research (Mansberger 1987). Based on that survey, it was determined that the proposed sewer and water line construction would have an effect on the Galena Pottery Site. At that time, in order to further assess the potential National Register of Historic Places eligibility of the site, limited Phase II testing was conducted at the site of the Galena Pottery by Fever River Research during the summer of 1987 (Mansberger 1987). The results of this research stressed that the site of the Galena Pottery had the potential to yield significant information regarding the local and regional redware industry (i.e. the method of manufacture and types of wares produced) and thus was eligible for inclusion on the National Register of Historic Places.

Construction of the sanitary sewer line was initiated in 1991 and appears to have had a minimal impact on the actual pottery production site. Immediately after construction of the sanitary sewer line, Fever River Research re-surveyed the disturbed right-of-way and discovered previously unknown concentrations of redware waster sherds (production waste or discard) which had been deposited in several small gullies between the pottery and the central business district. These shallow gullies, which had been partially filled with ceramics, leveled, and eventually buried, were not identified during the initial Phase I survey. Subsequent research recorded the profile walls of these machine cuts and sampled the ceramic waster sherds at three sites along this corridor. This work isolated two temporally discrete assemblages which have contributed dramatically to our understanding of Galena redwares by allowing us to separate these wares into early and late assemblages.

In 1990, improvements to U.S. 20 by the Illinois Department of Transportation (IDOT) near Elizabeth, Illinois threatened the remains of a middle to late nineteenth century redware pottery production site that had been established at this location in circa 1850 (Figure 3). Prior to the planned highway construction activity, archaeological testing and subsequent excavations were conducted by Fever River Research for the IDOT to document the remains of this ceramic manufacturing site. The initial archaeological testing within the project area identified the subsurface remains of an intact kiln structure. Subsequent investigations exposed the kiln (complete with its subfloor flue system exposed), a large cistern, and the foundations of an associated structure (potential workshop). Unlike the research at the Galena Pottery Site, the excavations at the Elizabeth Pottery Site resulted in the structural definition of the kiln. Additionally, as part of this research, another 1840s redware production site (the Goble Site) was located in the immediate area. Results of this work, as well as a summary of the work conducted at the Galena Pottery Site, is detailed in the report entitled Nineteenth Century Redware Production in Northwestern Illinois: Archaeological Investigations at the Elizabeth Pottery Site, Jo Daviess County, Illinois (Mansberger 1994).

See also Mansberger (1995).

Goble had also produced pottery in Athens (Menard County) prior to moving to northwestern Illinois.
Redware Production In Northwestern Illinois

The recent investigations at these pottery workshops have shed much light on the redware industry of the Lead Mine District. The excavations at the Elizabeth Pottery Site represented the first professional archaeological assessment of a redware workshop in the entire state of Illinois. Up to this time, previous research in the Galena area had focused on the study of waster discard collections and had failed to identify structural remains of the redware kilns. Our research has resulted in a detailed understanding of the circa 1860s redware kiln at the Elizabeth Pottery Site. Additionally, none of the previous research has been able to isolate features with temporally sensitive assemblages. Our research at Galena and Elizabeth has isolated three temporally discrete assemblages, which are the focus of the following discussion.

It is not the focus of this paper to discuss in detail the wares produced by these redware potters (Figure 2). The reader should refer to Mansberger (1994a) for that purpose. Two aspects of the research that I would like to summarize in this paper are 1) temporal trends in the ware production, as well as 2) production trends between rural and urban centers during the nineteenth century.

Early Versus Late Production

The early redware assemblage from northwestern Illinois is represented by wares from the Goble Site as well as the early component at the Galena Pottery Site. It is suspected that these wares are characteristic of those produced in the region during the early 1840s through 1850s. Not unexpectedly (due to the presence of Sackett and Goble in central Illinois prior to arriving in Galena), these wares are reminiscent of contemporary redwares produced in central Illinois (i.e. at pottery sites located in Menard and Sangamon Counties). The late assemblage is represented by both the Elizabeth Pottery Site as well as the late component at the Galena Pottery Site. It is suspected that these wares are characteristic of the period circa 1875 to 1890. The discussion that follows concentrates on comparing the early and late assemblage from the urban Galena Pottery Site—and thus holds the urban and rural variable constant.

Functionally, bowls appear to be the most produced item during the early years (comprising 37.3 percent of the minimum number of vessels). Bowls are followed in importance of production by wide mouth jars (23.9 percent), jugs (17.9 percent), preserve jars/churns (11.9 percent), and bottles (4.5 percent). Flower pots, flue collars and chamber pots each comprise 1.5 percent of the vessels from the early assemblage (See Tables 1 and 2).

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8 The only other redware workshop site that has been investigated in Illinois up to this point in time was the Brunk/Ebey Site located in rural Sangamon County. In 1976, Robert Sherman, then working for Sangamon State University, excavated this site and exposed the remains of a small bottle kiln that was probably in use during the late 1820s and 1830s. Although little has been reported on the results of these investigations, the artifacts and limited notes are currently in the possession of this author.

9 The circa 1860s Elizabeth kiln is compared to the 1820s Brunk/Ebey kiln by Mansberger (1994a:176-181). Additionally, Mansberger (1994b) compares these two redware kilns to the 1850s stoneware kiln excavated in Grundy County, Illinois at the site of White and Company’s Goose Lake Stoneware and Tile Manufactory.
In contrast, the 1880s assemblage is dominated by wide mouth jar production (comprising 44.6 percent of the minimum number of vessels). The wide mouth jars are followed by bowls (21.4 percent), preserve jars/churns (10.7 percent), and jugs (8.9 percent). Flower pots and flue collars each comprise 7.2 percent of the vessels. Although no drainage tile was found in either the early or late components, extruded drainage tile was manufactured at the Galena Pottery during the later years of production (post 1860).

During the early years of these potteries, the production of bowls, jugs, and preserve jars/churns are of primary importance to the potter. With the passing of three decades, bowl and jug production seems to have declined. When viewed as a relationship to wide mouth jar production, bowl production declines from a high of 156 per 100 wide mouth jars to 48 per 100 wide mouth jars during these years. Similarly, jugs decline from 75 per 100 wide mouth jars to 20 (See Table 3). Also, chamber pot and bottle production appear to have been eliminated during these years. Whereas preserve jar and/or churn production appears to increase slightly with the years when viewed as a percentage of production, it actually declines dramatically in importance when viewed in relationship to wide mouth jar production (from 50 preserve jars and/or churns per 100 jars to 24). In contrast, wide mouth jar, flower pot and flue collar production increases. During this time period, flower pot production increased from 6 pots per 100 wide mouth jars to 16.

The decline in jug and preserve jar production may be partially explained by the dramatic increase in the use of glass containers; the decline in the use of ceramic redware churns for more practical stoneware or newer mechanical varieties; and the decline in bowls by the preference for more popular jigger molded bowls produced in non-redware pottery by outside manufacturers. As will be discussed later, though, this shift in production may reflect the urbanization of this small rural community—with the early assemblage being reflective of a small rural oriented community while the later assemblage is more reflective of an urban market.

Stylistically, the early assemblage is characterized by everted and rolled rim production. In contrast, the later wares are characterized by compound rim styles (Figure 3). Early bowls exhibit a distinctive everted rim that contrasts dramatically to the later bowl rims, which appear to be emulating collared, jigger molded wares (Figure 4). Early preserve jars predominately have an angular shoulder that disappears with the later preserve jars (which have rounded shoulders).

The early wares are little decorated, and those that are decorated exhibit predominately thumb nail impressions and simple coggle wheel decorations. The later wares are more often decorated and also use a wider range of decorative techniques (including more varied coggle wheel decorations, colored glazes, as well as appliquéd decorations). Flower pot decoration increases dramatically with extensive use of thumbnail impressions, pie crust molded rims and sculpted bird appliqués) (compare Figures 5 and 6).

10 By the 1860s, more efficient “barrel” churns (such as Crowell’s Thermometer Churn) were being advertised for sale by such companies as the Russell and Erwin Manufacturing Company (Association for Preservation and Technology 1980:305). By the 1890s, cheap barrel churns had become the predominant churn form being advertised by both the Montgomery Ward Company, and Sears, Roebuck Company (Montgomery Ward and Company 1895; Sears, Roebuck and Company 1897).
Throughout this period, all wares were manufactured predominately by hand production methods. The exception to this is the introduction of jigger molded bowls within the late assemblage (Figure 4). Although present, these jigger molded wares comprise a very small percentage of the assemblage. Two-piece molded construction of wares (such as ornamental dogs at Galena and spittoons at Elizabeth) also was practiced very minimally at these sites.

**Rural Versus Urban Production, Circa 1880**

Holding the temporal variable constant, a comparison of the products from the Elizabeth Pottery to those of the late assemblage at the Galena Pottery results in an excellent comparison between a rural and urban workshop during the later years of the nineteenth century, circa 1880 (See Tables 3 and 4).

In the rural setting, bowls were the most produced item (comprising 38.9 percent of the minimum number of vessels). Bowls are followed in frequency of occurrence by wide mouth jars (31.8 percent), jugs (17.4 percent), and preserve jars/churns (6.8 percent). Narrow mouth jars (1.0 percent), flower pots (0.6 percent), flue collars (3.1 percent), spittoons (0.2 percent) and chamber pots (0.2 percent) comprise a small percentage of the wares produced in the rural market.

In contrast, the urban assemblage is dominated by wide mouth jar production (comprising 44.6 percent of the minimum number of vessels). Wide mouth jars are followed in volume by bowls (21.4 percent), preserve jars/churns (10.7 percent), and jugs (8.9 percent). Flower pots and flue collars each comprise 7.2 percent of the vessels. As noted earlier, although no drainage tile were found in the late component, extruded drainage tile were manufactured at the Galena Pottery during the later years of production (post 1860).

In contrast to the urban setting (which produced twice as many wide mouth jars as bowls), the rural workshop produced many more bowls than wide mouth jars. The rural workshop produced 121 bowls for every 100 wide mouth jars produced; compared to only 48 bowls per 100 wide mouth jars at the urban workshop. Another, equally telling difference between the rural and urban workshop was with jug production. For every 100 wide mouth jars produced, the urban workshop produced 20 jugs while the rural workshop produced 55—nearly three times the production of the urban workshop. Another striking difference between the rural and urban centers is in flower pot production. Whereas the rural workshop produced 2 flower pots for every 100 wide mouth jars, the urban center produced 16. The production of preserve jars/churns at both the rural and urban centers is fairly similar, producing 21 and 24 preserve jars, respectively, to every 100 wide mouth jars.

Production of narrow mouth jars, chamber pots and spittoons were all identified at the rural workshop and not at the urban workshop. Although our figures seem to indicate that production for the rural market appears to be slightly more diverse than that produced in the urban market, this may be due to the smaller urban sample size. But also, this may be characteristic of the production of more traditional items at the rural pottery, as the early Galena...
assemblage also appears to have produced a slightly wider variety of wares than the late Galena assemblage.

Stylistically, both the rural and urban assemblages appear similar with compound rim styles predominating. Bowls have collared rims that emulate contemporary non-redware jigger molded wares. One dramatic difference between the two workshops is the percentage of jigger molded wares present in the assemblage. Although not quantified, jigger molded bowls are common in the late urban assemblage. In contrast, only a couple of jigger molded bowl fragments were recovered at the rural site. It appears that jigger production of bowls, although initiated at the rural workshop, was used only for the last kiln of ware fired at the site. Many of the wares at the rural site exhibit hand manufactured traits (such as applied pad feet) attempting to emulate the more sought after jigger molded wares being produced at the urban center.

Whereas the rural wares are little decorated (predominately coggle wheel decorations with an occasional colored slip decoration), the urban wares are more often decorated and also use a wider range in decorative techniques (including more varied coggle wheel decorations).

**Discussion**

Our research in northwestern Illinois, has given us new insights into Midwestern redware production. Not only have temporal patterns been identified, but also differences between the rural, agriculturally oriented workshops and the more cosmopolitan urban workshop have been elucidated.

One question that seems to remain unanswered, though, is "Why does the redware industry persist for so long in this region?" By the 1860s, redware production in Illinois had declined dramatically, but not in the far northwestern corner of the state. One hypothesis is that the redware industry persisted in this region as a result of the substantial dairy industry that became established in Wisconsin and northern Illinois during the late nineteenth century (Knipping 1984:25). Knipping (1984:25) states that "it was the local potter... who allowed dairy experimentation and specialization to occur." Today this region still is a dairy district.

Two items produced by local potters that were integral to dairy production (whether butter, cream, or to a lesser extent, cheese) were bowls and churns. Our research seems to confirm that the local redware industry was strongly aligned with the dairy industry, producing large numbers of bowls as well as churns during the early years. Later production shifted away from churns but still produced bowls in greater number than other regional potters in non-dairy regions.

Of prime importance to the potter during these years—whether in Galena or Elizabeth—was the production of bowls, otherwise known as milk pans. Although these large, utilitarian containers could also have been used in the kitchen for food storage and preparation, they predominately functioned as cream separators. Whole milk was placed in these bowls (which were aligned in groups in a cool place such as a cellar). With time, the milk fat (cream) would rise to the surface and was eventually skimmed from the top of the milk. It was the cream that
was the product sought by the dairy farmer who most often processed it into butter. The skimmed milk was a byproduct often fed to livestock. The larger the family dairy herd, the more milk pans needed for this process. The advent of the mechanical cream separator (which eliminated the need for the milk pan) during the later years of the nineteenth century also played a role in the demise of the local redware potter.

Bowls (or milk pans) were a common product for both the rural and urban potter in northwestern Illinois. During the 1840s, they were manufactured at the rate of 156 to every 100 wide mouth jars at the Galena Pottery. By the 1880s, their production was still very high in the rural area (121 for every 100 wide mouth jars) but had declined dramatically within the urban setting (where they were only being produced at the rate of 48 per 100 jars). For comparison, 34 large bowls (or milk pans) were being produced for every 100 wide mouth jars during the middle nineteenth century at the Goose Lake Stoneware and Tile Manufactory located in Grundy County. Although located in a rural setting, this factory was situated along the Illinois and Michigan Canal and was established in 1856 to supply the burgeoning Chicago urban market.

To process milk fat (cream) into butter, the farm wife needed a churn, which was a specialized jar with straight sides and a shoulder around the interior of the rim for receiving a lid. Churns required a specialized lid with a hole in its center for accommodating the dasher (which was required for agitating the milk fat until it set or formed). During the nineteenth century, the American consumer had the option of wood or ceramic churns. During the early nineteenth century, wood churns (the product of the local cooper) were generally the most common churn being used. Although Watkins (1968:240) notes that "churns were a regular early redware product," Ketchum (1991:29) notes that redware churns were never very practical simply because they were too fragile to take the pounding necessary to turn cream or milk into butter. By the middle nineteenth century, with the proliferation of the stoneware industry, the use of more durable stoneware churns became more common as their price came down. Additionally, newer mechanical barrel churns became widely available after the Civil War period.

Assessing the number of churns in these assemblages has been very difficult. The primary attribute that separates a churn from a wide mouth jar is the interior shoulder for the specialized lid. Unfortunately, preserve jars also have this interior shoulder for receiving a lid (which does not have the dasher hole). Another identifying characteristic of churns is the presence of the specialized lid (with a central dasher hole). Unfortunately, although stoneware churns often use ceramic lids, earthenware lids were too fragile to withstand the daily grind and battering of churning. In their place, wood lids were generally used. No churn lids were produced at the Elizabeth or Galena potteries. 11

As such, we cannot easily segregate shouldered jar sherds into either of the functional categories of preserve jar or churn in these redware assemblages. Therefore, shouldered jars have been lumped into a single category referred to simply as "preserve jars/churns". To complicate

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11 It is interesting to note that Horney (1965:15-16) does illustrate a churn lid, which he claims originates form Galena. The provenience of this lid is questionable; this is the only one that I have observed in the region. Horney (1965:34) illustrates three jars he claims are churns; these are relatively large and have handles. Horney (1965:10, 29) also illustrates numerous preserve jars in his seminal work Pottery of the Galena Area.
the issue, the vessels within the preserve jar/churn category are predominately globular in form (not straight sided as would be expected with churns) and range in size from 3" to 11" in diameter—typical of the wide mouth jar production.

Although it would be easy to assume that the majority of these containers functioned as preserve jars (for the storage of foods), documentary evidence does suggest that churns were part of the local repertoire, at least during the 1840s and 1850s. An 1850 advertisement in one of the Galena newspapers notes that A. M. Sackett produced "jugs, jars, pots, spittoons, milk pans, churns, bowls, pitchers and earthenware of all kinds" (as cited in Horney 1965:20). Similarly, a detailed advertisement (dated 1856) in the *Galena Daily Advertiser* noted the availability of butter jars (1/2 to 6-gallon capacities), preserve jars (1/2 to 3-gallon), jugs (1/4 to 2-gallon), milk pans (1/2 to 2-gallon), churns (3 to 5-gallon), and stove pipe on hand at the Galena Pottery.

Later documentary sources fail to mention the presence of churns. An 1860s invoice from Sackett and Wagdin (the Galena Pottery) notes that they were manufacturers of "BUTTER POTS, MILK PANS, JUGS, JARS, Flower Pots, Garden Pots, Drain Tile and all kinds of Earthen Ware" (as cited in Horney 1965:26). This particular invoice, dated July 27, 1869, indicates that a Mr. J. Kucherman purchased 30 jars (in sizes from 1/2 to 2-gallon) all with lids (or "jar covers"). Similarly, an 1880s invoice from the potter Andrew Jennings noted the production of "BUTTER POTS, FLOWER POTS, MILK PANS, JUGS, JARS, GARDEN POTS, DRAIN TILE, And all kinds of Earthen Ware" (as cited in Horney 1965:27). This particular invoice (dated May 8, 1885 and again for J. Kucherman) notes the sale of jugs, pans, Dutch pots, and butter pots. All the above advertisements indicate the sale of "butter pots" or small crocks for the storage of butter and help emphasize the importance of the dairy industry to the regional economy.

One potential way of dealing with this dilemma would be to categorize all the shouldered, narrow mouth jars greater than or equal to three-gallon capacity as churns and all those less than three-gallon capacity as preserve jars. Unfortunately, it is very difficult to equate gallon capacity with rim diameter between gallon sizes. Similarly, large capacity preserve jars are known to have been produced and makes the ability to segregate these vessel forms based on size rather difficult to do. At Elizabeth a large diameter preserve jar with a wax seal rim was found. As such, this is not a very practical technique.

Nonetheless, patterns in the production of preserve jars and/or churns do reflect the importance of the dairy industry on the local economy. Temporally, the early Galena assemblage is represented by twice as much preserve jar and/or churn production than the late Galena assemblage. During the early years, the workshop was producing 50 preserve jars and/or churns for every 100 wide mouth jars. In comparison, the late workshop was producing only 24 of these containers for every 100 wide mouth jars—which is actually a few more than the contemporary rural workshop at Elizabeth was producing (See Table 5). For comparison, the Goose Lake Stoneware and Tile Manufactory was producing only 9 churns and 4 preserve jars per 100 wide mouth jars (or a total of 13 preserve jars/churns per every 100 wide mouth jars) (Mansberger 1994b).
By the late nineteenth century, the production of preserve jars and/or churns was nearly identical whether in the urban or rural workshop—despite the fact that the rural bowl production was still over twice that of the urban workshop. One hypothesis is that these late wares probably represent only preserve jars and that churn production had all but been eliminated by the later nineteenth century, a fact hinted at by the documentary record.

Summary And Conclusions

During the early years of production, the regional redware potteries of northwestern Illinois—whether urban or rural workshops—were closely allied with the agricultural community. These workshops produced a wide variety of bowls (i.e. milk pans) and churns, as well as small crocks (often referred to as butter pots) which were vital for milk processing. Additionally, jug (used for liquid storage) production was high. The high production of these wares suggests that the dairy industry was well established by the middle nineteenth century in this region.

Although factors such as increased glass production, the consumer's desire for jigger molded wares, and the growth of the stoneware industry all contributed to the demise of the redware industry throughout most of Illinois and the upper Midwest by the middle nineteenth century, the redware industry seems to have persisted in the Lead Mine District of northwestern Illinois, southwestern Wisconsin, and eastern Iowa. Within this area, although the urban workshop was adapting at a faster rate than its rural counterpart to new markets, both the rural and urban potters appear to have been producing bowls and preserve jars/churns at a much higher rate than contemporary stoneware producers in non-dairy regions. Even though the dairy industry "began moving out of the kitchen and into a factory system of centralized production," in the region during the post Civil War years, the local redware potters still supplied the traditional farm family with the necessary milk pans and butter pots (Knipping 1984:25). Potentially, the local dairy farmers had a preference for the lighter, soft-paste earthenware milk pans over the heavy salt-glazed stoneware pans. By the late 1880s, with the introduction of more efficient hand cranked cream separators and the development of cooperative creameries, the need of the local redware industry quickly died out.

Although the urban workshops were quicker to adapt new production methods to remain competitive with non-local wares, and shifted emphasis on the wares they were producing (i.e. from bowls to flower pots), they ultimately were not successful. Conservative older potters remained in operation for nearly another decade. By the late 1890s, they too had succumbed to the national trend and were no longer producing redwares.
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Table 1

Comparison of Early and Late Redware Production at the Galena Pottery Site in Northwestern Illinois:

Vessel Form (Minimum Number of Vessels)

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<th>Vessel Form</th>
<th>Early Assemblage</th>
<th>Late Assemblage</th>
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<td></td>
<td>mnv</td>
<td>percent</td>
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<td>I. Bowls</td>
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Table 2

Comparison Of Early And Late Redware Production
At The Galena Pottery Site In Northwestern Illinois:
Functional Ratios*

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<thead>
<tr>
<th></th>
<th>Early Assemblage</th>
<th>Late Assemblage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowls to Jars</td>
<td>1.56</td>
<td>0.48</td>
</tr>
<tr>
<td>Preserve Jars and/or Churns To Jars</td>
<td>0.50</td>
<td>0.24</td>
</tr>
<tr>
<td>Jugs to Jars</td>
<td>0.75</td>
<td>0.20</td>
</tr>
<tr>
<td>Flower Pots to Jars</td>
<td>0.06</td>
<td>0.16</td>
</tr>
<tr>
<td>Flue Collars to Jars</td>
<td>0.06</td>
<td>0.16</td>
</tr>
</tbody>
</table>

* All ratios are based on a comparison with wide mouth jar production. A ratio of 1.56 Bowls to Jars indicates that 156 bowls were produced for every 100 wide mouth jars.

These figures are a comparison of minimum number of vessels. Comparing sherd counts would yield very different results.
Table 3

Comparison Of Rural And Urban Redware Production
In Northwestern Illinois, Circa 1880;

Vessel Form (Minimum Number Of Vessels)

<table>
<thead>
<tr>
<th>Vessel Form</th>
<th>Rural (Elizabeth)</th>
<th>Urban Galena</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mnv</td>
<td>percent</td>
</tr>
<tr>
<td>I. Bowls</td>
<td>190</td>
<td>38.9</td>
</tr>
<tr>
<td>II. Jugs</td>
<td>85</td>
<td>17.4</td>
</tr>
<tr>
<td>III. Wide Mouth Jars</td>
<td>155</td>
<td>31.8</td>
</tr>
<tr>
<td>IV. Narrow Mouth Jars</td>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>V. Preserve Jars/Churns</td>
<td>33</td>
<td>6.8</td>
</tr>
<tr>
<td>VI. Flower Pots</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>VII. Flue Collars</td>
<td>15</td>
<td>3.1</td>
</tr>
<tr>
<td>VIII. Chamber Pots</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>IX. Spittoons</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>488</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
**Table 4**

**Comparison Of Rural And Urban Redware Production**

**In Northwestern Illinois, Circa 1880:**

**Functional Ratios**

<table>
<thead>
<tr>
<th></th>
<th>Rural (Elizabeth)</th>
<th>Urban (Galena)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowls to Jars</td>
<td>1.22</td>
<td>0.48</td>
</tr>
<tr>
<td>Preserve Jars and/or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Churns To Jars</td>
<td>0.21</td>
<td>0.24</td>
</tr>
<tr>
<td>Jugs to Jars</td>
<td>0.55</td>
<td>0.20</td>
</tr>
<tr>
<td>Flower Pots to Jars</td>
<td>0.02</td>
<td>0.16</td>
</tr>
<tr>
<td>Flue Collars to Jars</td>
<td>0.10</td>
<td>0.16</td>
</tr>
</tbody>
</table>

* All ratios are based on a comparison with wide mouth jar production. A ratio of 1.56 Bowls to Jars indicates that 156 bowls were produced per 100 wide mouth jars.

These figures are a comparison of minimum number of vessels. Comparing sherd count would yield very different results.
Table 5
Redware Production In Northwestern Illinois:
Functional Ratios*

<table>
<thead>
<tr>
<th></th>
<th>Early (Urban)</th>
<th>Late (Rural)</th>
<th>Late (Urban)</th>
<th>Jugtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowls to Jars</td>
<td>1.56</td>
<td>1.21</td>
<td>0.48</td>
<td>0.34</td>
</tr>
<tr>
<td>Preserve Jars and/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or Churns to Jars</td>
<td>0.50</td>
<td>0.21</td>
<td>0.24</td>
<td>0.13</td>
</tr>
<tr>
<td>Jugs to Jars</td>
<td>0.75</td>
<td>0.55</td>
<td>0.20</td>
<td>0.16</td>
</tr>
<tr>
<td>Flower Pots to Jars</td>
<td>0.06</td>
<td>0.02</td>
<td>0.16</td>
<td>0.00</td>
</tr>
<tr>
<td>Flue Collars to Jars</td>
<td>0.06</td>
<td>0.10</td>
<td>0.16</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* All ratios are based on a comparison with wide mouth jar production. A ratio of 1.56 Bowls to Jars indicate that 156 bowls were produced per every 100 wide mouth jars.

These figures are a comparison of minimum number of vessels. Comparing sherd counts would yield every different results.

“Jugtown” refers to the production at the Goose Lake Stoneware and Tile Manufactory in Grundy County which was in operation during the late 1850s and early 1860s. It supplied the developing Chicago urban market and was located in a non-dairy region (see Mansberger 1994b).
Figure 1. Illinois and regional redware districts, circa 1840-1870.
Figure 2. Representative sample of wares produced at the Elizabeth and Galena Pottery Sites, circa 1880. These include jugs, chimney crocks, bowls, small and large jars, spittoons, chamber pots, and flower pots.
Figure 3. Temporal change in redware rim profiles from the Galena Pottery Site. The earliest rims (top row) are rolled and round in profile. Later rims have compound profiles generated with the aid of a hand-held tool (middle row). Rims dating from the late 19th century have a compound shape, but have been flattened (bottom row).
Figure 4. Change in manufacturing techniques at the Galena and Elizabeth Pottery Sites, as illustrated by bowl forms. The earliest varieties are hand-turned with rolled rims (far left). The bowls from mid-century (center) are hand-turned, but exhibit collared rims similar to jigger molded wares (far right). Note the continuous foot ring on the molded example.
Figure 5. Decorative elements associated with the early redware assemblages at the Galena Pottery Site. Wares in this period had simple coggle wheel decorations and limited use of fingernail impressed designs.
Figure 6. Decorative elements associated with the late redware assemblages at the Galena Pottery Site. Wares in this period have more complex coggle wheel decorations, applied designs (especially on flower pots), and wide use of colored glaze (not illustrated here).