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# “Not to Intrude”: A Danish Perspective on Gender and Class in Nineteenth-Century Dairying

DEBORAH FINK

*This study follows the thread of gender divisions in dairying in Denmark and the American Midwest in the late nineteenth and early twentieth centuries. Gender organization of dairying shifted at this time in diverse European and North American contexts. As agriculture mechanized and production scale increased, access to advanced education and international markets became critical. Women, who had been in the forefront of the development of dairying, ceded their leadership to men as these changes occurred. While some scholars see this shift as a strategic loss for women, this study finds that variables of class, marital status, rural demographics, and alternative occupations mediated the rural women's experience of change. Not all women experienced the change as a loss. The question of which women were invested in dairying is critical to understanding the course of change. Increasingly, middle-class farm women were turning away from the hard work of dairying and investing themselves in new ways in the upward mobility of their family farms. Rural life shaped distinct gender patterns in European and American history, and the rural experience shaped the larger trajectory of women's economic and political evolution, even though few rural women were involved in the organized women's movement.*

**DEBORAH FINK** met Bodil Hansen while doing research on rural Danish women from 1976 to 1979. After receiving her PhD in anthropology from the University of Minnesota in 1979, Fink shifted to the study of gender and class in rural society in the American Midwest. Her most recent book is *Cutting into the Meatpacking Line: Workers and Change in the Rural Midwest* (1998). She is currently writing a memoir about growing up in rural Nebraska in the 1950s.

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Mrs. Hanne Nielsen,  
 Prof. Jørgensen continues to oppose  
 women's participation in the Agricultural  
 Society, so there is no point in your pursuing  
 this matter. Please be so kind as not to intrude.  
 Yours truly, Th. Segelcke.<sup>1</sup>

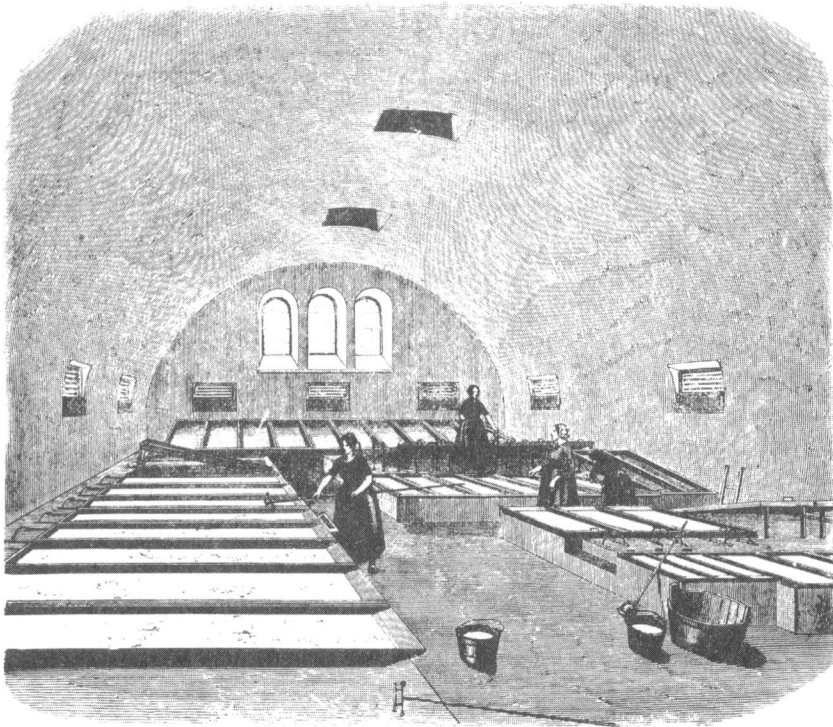
THIS UNDATED LETTER—FORMAL, CURT, and negative—upheld an old and exacting social order. Sometime around 1870, Hanne Nielsen, Denmark's renowned butter and cheese-maker, and winner of numerous dairying prizes, had sought the support of eminent dairy scientist Th. Segelcke for membership in the Royal Danish Agricultural Society. Rather than deferring to one Prof. Jørgensen, Segelcke might more honestly have spoken for himself in saying that a woman simply would not make the cut. But this was awkward, because he knew Nielsen well and cultivated her friendship as a frequent visitor to her farm, Havartigården, just outside of Copenhagen. In her long career, Hanne Nielsen trained more than a thousand dairy processors, including many referred to her by Segelcke, who had himself learned dairying techniques under her tutelage. Yet he balked at sitting down with her as an equal in the rarified chambers of the Royal Danish Agricultural Society. Such was the irony of the transition of dairying from a female craft to a male science.<sup>2</sup>

Gender organization of dairying shifted in the late nineteenth and early twentieth centuries in diverse European and American contexts. Over centuries, even millennia, women had reached a high state of excellence in domestic production of butter and cheese, but when this production was industrialized and moved into factories, men appropriated it. As a result of national and international changes in agriculture, trade, and politics, what was once a localized enterprise was integrated into the global market. Women's refinement of dairying paved the way for this expansion, which in turn sidelined them. Once male authorities took charge, they were able to put up their "not to intrude" signs and exclude women from major decisions about the work. Yet the long association of women and dairying put its mark on both the emerging dairy industry and the lives of the women who had worked in the craft.

After being displaced from the center of the dairy industry, women did persist in some capacities, but the major trajectories of the history of

dairying and the history of women parted. Although this affected all women with any connection to dairying, their personal experiences of the transformation differed. For some, modernization was a relief; for others, a bitter loss. Variables of class, marital status, rural demographics, and alternative occupational opportunities shaped the prospects of dairying women, and hence their willingness or reluctance to embrace the change. Rural women, even in the same time and place, had diverse lives. Dairying had afforded some women status and economic power. For others, it had been heavy and unpleasant work, with scant prospect for relief or upward mobility. The significance of change in the lives of rural women, resting as it did on distinct social, economic, and demographic facts, was not uniform.

**Figure 1.** Valby Dairy in Denmark, about 1860.



SOURCE: Jens Christensen, *Rural Denmark 1750–1980*, ed. Claus Bjørn (Copenhagen: Central Co-operative Committee of Denmark, 1983), 70.

This paper examines these processes through contrasting the transformation in the dairy industry in Denmark and the midwestern United States. It draws deeply—and builds on—the recent Danish work of Bodil K. Hansen, *Familie-og arbejdsliv på landet ca. 1870–1900 (Family and Work Life in Rural Denmark, ca. 1870–1900)*, which suggests that class, along with gender, was a significant variable in the removal of women from the cutting edge of the industry in rural Denmark. A few Danish and other European women were at the cusp of developing large and well-functioning dairy-processing techniques that preceded the full-scale industrialization that came by the end of the nineteenth century. These experts were called *mejersker* in Danish. Yet even these women, well paid and pivotal as they were in dairying, were unable to protect themselves in a restructuring industry.<sup>3</sup>

Women's cultural association with milk and milk products has deep roots in European history. Danish murals uncovered on walls and ceilings of medieval churches show women churning butter. This knowledge and skill, passed on through the generations, was integral to the rural economy. Some of the feudal payments to the Danish church, crown, and local nobility were made in the form of butter produced by women. In Denmark, as in Sweden, women had been exclusively responsible for that country's dairy work, with strong taboos against men's involvement. Similarly, eighteenth-century English dairying women held their craft secret from men. There, cheese-making was a private and mysterious art of women, involving such esoteric creations as cheeses in shapes of flowers, fish, and trees, and colored accordingly. Such household production and sale of milk, butter, and cheese was crucial to the economic viability of many small European farms and households. A rural woman might milk one or two cows; process butter, cheese, or both within the household setting; and market the produce herself. Even before laws gave women control of their own earnings in the late nineteenth century, income from their butter and cheese sales was commonly recognized as falling under their control, giving them limited monetary discretion that they would not otherwise have had.<sup>4</sup>

While eighteenth- and nineteenth-century American dairying on the eastern seaboard drew on European practices, there was enough of a disconnect that American dairying was never subject to the stringent gender divisions that prevailed in Europe. With an initial shortage of

women among immigrant populations, American men were milking cows during a time when such work was highly unacceptable to many of their European cousins. As dairy operations expanded, so did the entailed labor. Sally McMurry found women in nineteenth-century New York cheese-making families objecting to the strenuous work involved in household production systems, to the point of rejecting rural life altogether. They needed male help. Notwithstanding tensions caused by the shortage of labor in household production systems, eastern American farm women remained active in production. They were central in generating the specialized systems that paved the way for more capital-intensive, factory production.<sup>5</sup>

The dairying that emerged with the late nineteenth-century farm settlement of the upper Midwest was a product of antecedents in Yankee America and in the northern European homelands of recent immigrants. Compared to the type of production that had come to dominate in pockets in the eastern United States and in Europe, dairying in the newly settled states was rudimentary and small in scale. Yet it was an indispensable part of both subsistence and market economies. Although few male immigrants had milked cows in their European homelands, most did not have the luxury of maintaining this boundary in the new farms of the Midwest, given the shortage of women on the frontier and the exigencies of settlement farming. While women still did much of the milking, churning, and marketing on these new farms, men also pitched in, some of them swallowing hard on pride and principle.<sup>6</sup>

Dairying was one of the most labor-intensive of agricultural production enterprises and doing it meticulously rather than minimally added another layer of work. The full range of chores associated with dairying—from breeding and pasturing, through feeding and milking, to churning and marketing—was enormous. Where few workers were available and the infrastructure was rudimentary, a single farm family might accomplish almost the entire chain of tasks. Moreover, such is the nature of cows and milk that most of the work had to be done on an unrelenting schedule that preempted other calls on workers' time. A sick child, a storm threatening the wheat crop, a table of hungry workers to feed, or a friend's funeral, and cows still needed to be fed and milked. Once the milking was done, the milk had to be painstakingly handled and the equipment washed and scalded. Even with the

hand-driven separators and improved churns of the late nineteenth century, complaints abounded about the time and trouble involved with dairying. Accomplishing everything with the scrupulous care required to produce a high-quality product demanded yet more time and dedication. Excellent products were the exception rather than the rule among midwestern household enterprises.<sup>7</sup>

The kind of dairy enterprise where a farm family raised a few cows and milked, churned, and marketed their yield with family labor was so intensely demanding that it was associated either with poverty or with a developmental phase of the farm operation. While both conditions existed in Europe and in the United States, structural poverty tended to dominate in Europe, while in the United States this dairying pattern was more likely to be a settlement stage. English widows and Scandinavian peasants of the eighteenth century were among the impoverished who kept a small number of cows for home consumption and secondary trade of dairy products. In the American Dakotas, butter production was a mainstay in settler household economies before the consolidation of wheat farming. Having tracked the ebb and flow of small dairying enterprises in Iowa in the 1890s, Keach Johnson concluded, "The industry was subject to sharp fluctuations, expanding in depression because of the relative stability of butter prices and contracting when the prices of other farm products recovered." Dairying operations with fewer than five cows were generally relinquished when a household economy rose beyond the most critical straits.<sup>8</sup>

Dairy operations were rationalized in the eighteenth and nineteenth centuries in both Europe and North America in those regions where the economic structures supported higher levels of production. It was common for men to take over breeding and pasturing of cattle; for separate milking crews to handle the milking; for women to separate cream, churn butter, and make cheese; and for male marketers or factors to buy and distribute the produce to consumers. With this restructuring, a "dairy" tended to become synonymous with the milk-processing segment, rather than with the entire chain of work. Buckets and vats, once homemade of wood, were replaced by factory-made enamel and metal equipment, simplifying and easing the job of the dairy worker while transferring some of the (manufacturing) labor out of the household operation. Labor and marketing segments of the industry also moved away from farms and, indeed, out of local communities. Major enlarge-

ment and specialization of farm-based cheese and butter-making preceded the transition to factory dairies. In large farm-based dairies, women were almost always in at least intermediate control of the milk processing, supervising diverse assortments of family and wage laborers in increasingly complex operations.<sup>9</sup>

The history of Danish butter-making reveals that the nineteenth-century transition of dairying out of farms and estates and into cooperative creameries rested squarely on the highly developed craft evolved by women. Men only became involved with the industry as it became more exacting and lucrative. While Danish men unquestionably powered themselves into the dairy industry, the increasing diversity of women's roles set the stage for the transformation.

Denmark was a grain-exporting country, rather than a major dairy producer, in the early nineteenth century. Notwithstanding an economic crisis from 1818 to 1828, made worse by Denmark's alliance with France in the Napoleonic Wars, the overall picture of Danish agriculture was robust in the years after the national rural reforms of the late eighteenth century. Chief among these reforms was enclosure, which had consolidated individual farm holdings and abolished common village field cultivation. Further, the *stavnsbånd*, which had prohibited working-age males from leaving the estates of their births, was lifted. Tenure and labor reforms further liberated peasants from onerous responsibilities to the nobility. The Royal Danish Agricultural Society was founded by estate agriculturalists in 1769 to promote the technical and economic development of agriculture. Local agricultural associations followed, promoting the adoption of improved machinery, including lighter plows, which could be drawn by two or three horses, thereby releasing middling farmers from dependence on draft animals loaned from the estates. Other cultivators reclaimed poorly drained heath land through tiling and marling. The planting of clover, which fixed nitrogen in the soil, resuscitated depleted fields. Cultivation of potatoes and other root crops increased. Improved seed varieties and new methods of combating plant disease further benefited crop production. The compulsory education law of 1814 did not actually put all rural children into classrooms, but it created a more enlightened and progressive farm population to take advantage of the reforms. Denmark, which retained its rural and agricultural character through the nineteenth century, was beginning to feed the industrial



workers of other European countries. Enhanced agricultural wealth came from both increased production and generally rising grain prices.<sup>10</sup>

With massive improvement in Danish agricultural output came more comfortable and warmer homes, improved nutrition, and better health for the majority. The population increased. A trickle of rural-urban migration in the middle nineteenth century was a sign of new openings and possibilities for personal initiative. By the end of the century, towns and cities were growing robustly, and increased emigration further reconfigured Danish life. Yet the benefits of agricultural modernization did not accrue equally to everyone.<sup>11</sup>

The growing economic vitality of agriculture meant that the most marked social change of nineteenth-century Denmark was the emergence of a powerful class of independent farmers. In the course of the century this class came to politically and economically overshadow what one historian has called "the despairing ruling elites." A *gårdmand*, the standard-bearer of the new middle class, was a farmer who operated his own farm, one large and productive enough that he was not forced to sell his labor elsewhere. In fact, without an unusually large number of family workers, a household of this class would have hired workers for the fields,

**Figure 2.** Milking Crew at Marienborg Estate.



The stall keepers and wagon drivers are male. The women with the milking pails are low-status women.

SOURCE: Photo is undated, probably early twentieth century, courtesy of Møn Museum, Denmark.

stalls, and household. The ready availability of agricultural labor occurred because the majority of the rural population did not secure independent farms at the time of enclosure. A *husmand*, a smallholder, had a house and farmed some land, but normally not enough to avoid having members of the family work outside the smallholding. Families of *husmænd* were poorer than *gårdmænd* and tended to depend on them for jobs, fuel, equipment, and horsepower. Below the *husmand* was the laborer, a rural worker without land, whose only income came from selling his labor. At the bottom were *tyender* who were without homes of their own throughout their lives.<sup>12</sup>

While *gårdmænd* flourished in nineteenth-century Denmark—building larger farmhouses and buying new furniture—there was great poverty among the *husmænd* and laborers who made up the majority of the Danish population. Children of this class frequently had to forgo school and go out to work at early ages. After 1860 there were workhouses for the poor. Class differences affected all aspects of Danish life and widened over the course of the nineteenth century. Measurements done in the early twentieth century revealed that, compared to latin school students who were preparing for university admission, the sons of smallholders were shorter and lighter. They had greater frequencies of rickets and other deformities. *Husmænd* and workers had higher suicide rates than *gårdmænd*. Hunger was real and persistent among the poor, notwithstanding the improvement in the overall level of nutrition over the previous century. Upward class mobility for these people was rare.<sup>13</sup>

The elaboration and refinement of the craft of dairying in Denmark in the nineteenth century occurred first not on the farms of the *gårdmænd*, but in the thin, elite layer of large estates that had long dominated Danish life. Although agrarian reforms had dealt a severe blow to the wealth and privilege of the rural gentry, their estates remained relatively large landholdings. Estate *tyender* were legally required to show “due respect and esteem” to the landholders and to obediently carry out the services that were due. They might spend their entire lives on an estate property, under orders emanating from the owner. With grain as the major agricultural product throughout the majority of rural Denmark, initially it was only on these estates where the critical number of cows and other resources existed for advancing the secondary enterprise of dairying.<sup>14</sup>

While prevailing cultural rules were in some ways different on the estates than outside them, certain gender strictures spanned the divide. Milking cows and handling and processing milk were done only by women, and then only by non-elite women. This rule was firm and pervasive. An old saying held that a rat would bite off the male member of a man who tried to milk a cow. In his survey of cultural narratives submitted to the Danish National Museum, Ole Højrup found one written by a man who had grown up in the nineteenth century on a small farm, where his mother had taught him how to milk. As was the custom, after his confirmation at age fourteen he went out to work as a *karl* (hired hand) on a larger farm. Attempting to strike up a relationship with a hired "girl" on the farm, he told her that he knew how to milk and offered to help her with her work. Rather than being grateful, the young woman spurned not just his offer, but him. A male milking a cow was creepy. Although most rural men, like this one, certainly knew how to milk cows, they would not claim the skill or want to be identified as that kind of man. Men would move cows from pasture to pasture or from pasture to barn; they might feed cows; but a true man did not mess around with milking. It was a matter of dignity and gender identity that only the lowest of the low would compromise. Milking cows was a degrading chore, rejected not only by men, but by increasing numbers of women in the course of the nineteenth century. Dairymaids had a distinctly unsavory image—perhaps even of moral laxity—as they headed out to the dirty cow pastures or barns with their milk pails. However necessary, the job of milking cows fell short of being honorable.<sup>15</sup>

The mid-nineteenth-century florescence in Danish dairying moved to the country from the south—from Holland and especially from Holstein, which was a German county, although the Duke of Schleswig-Holstein had been the Danish monarch since 1640. It was tenuously connected to Denmark. What came to be called the Holstein dairy system arose on Danish estates as a rigorous and comprehensive revamping of dairying, from the feeding and milking of cows through to the processing of butter and cheese. The early operators of Danish Holstein dairies were actually Germans. Usually a man and a woman (often but not always a married couple) would be hired by and answer to the foreman of an estate. The Holstein man, called the dairy manager, supervised the care, feeding, and milking of cows and the delivery of the milk to the processing location.

**Figure 3.** Marienborg Mansion.

The estates maintained large, well-staffed living quarters and landscaped grounds for the family of the estate owner.

SOURCE: Photo is undated, probably early twentieth century, courtesy of Møn Museum, Denmark.

Notwithstanding the manager title, he was of lesser stature than the Holstein woman, who took charge of processing the milk after its delivery to the processing space. He was optional; his job might even be done by regular estate workers if the estate management was unwilling to make the full investment. The woman who managed milk processing was the defining figure of the Holstein system. This woman was called a *mejerske*, (plural *mejersker*) a word with no adequate English translation. With the “ske” ending, *mejerske* was a gendered word, referring to a woman who managed the indoors operations of a Holstein dairy or eventually a dairying system adapted from the Holstein system.<sup>16</sup>

In Denmark, the *mejerske* entered a milieu in which existing dairy practices were crude and unclean, part of a rural environment steeped with mud, manure, and vermin. Milkers did not routinely wash their hands, and some spat on their hands before milking to imitate the sensation of a calf’s slimy sucking of a cow’s udder. Often the water used for washing the milk pails and separating vats was itself dirty. Manure, straw,

and other pollutants found their way into milk pails. Average Danish farms of the early nineteenth century had one or two cows, whose milk output was seasonal, dropping off sharply in the winter after they had left the green pasture for the barn. If farm women made butter, they usually suspended this work during winter. Even in season, the success of butter churning was sporadic, depending on the workings of spirits and signs. When the butter did come, it was notoriously sour and dirty. The estates had fine mansions for living quarters, but their barns and dairies could be rank before the arrival of the *mejersker*.<sup>17</sup>

A *mejerske* had her work cut out for her when she took over the handling of milk on an estate. She would have an array of workers under her: an assistant *mejerske*, perhaps three or four hired "girls," and possibly an equal number of apprentices. Together these workers would process the milk of maybe one hundred fifty cows, each milked three times a day. The *mejerske's* job was to make sure that her workers, work space, and equipment were scrupulously clean and that all the work was done exactly right. Although no one knew about microorganisms at this time, she understood that the first principle of successful dairying was that the work area and utensils had to be routinely scrubbed and scalded. She was responsible for seeing that the milk was properly skimmed; the butter churned, kneaded, and packed to her standards; and the cheese correctly made. She monitored the firewood to make sure that it was of the right kind and in sufficient supply, and she regulated the fire so that her large dairying room was maintained evenly at the correct temperature. Opening windows and doors judiciously, she made sure that the air in the room was fresh, never heavy or stuffy. She kept accounts; and with the estate foreman, she drafted orders for needed supplies. Every object in the dairy had to be immaculate and in its strictly assigned place. Any slip could spoil the outcome.<sup>18</sup>

The job of *mejerske* was not for the faint of heart. A good *mejerske* was a stereotypical German, meaning that she was all business, uncompromising, stout, and physically strong. She took charge and maintained a broad command of her operation. She was clean, punctual, orderly, good-humored, and energetic; and she had to be able to speak assertively to men and women of all classes. A role model for younger women working for her, she was expected to be a strong leader and to avoid unseemly familiarity with underlings. She arbitrated disputes among them and administered discipline when they needed it. The *mejerske* had the credit

and responsibility for making a large, intricate, and sensitive production system work. With competent meyersker in place, estates began to show profits in their dairy operations.<sup>19</sup>

Because of her unique abilities, the pay of a meyerske, when it was not the highest of all estate workers, was second only to that of the estate foreman. It was higher than that of the governess who taught the children of the landowner in the mansion. There were other material and symbolic perks as well. While common farm laborers shared rustic living quarters, she had a private room, and it was heated. She took her meals with the estate foreman rather than with the other workers. Within the ranks of rural workers, she was aristocracy.<sup>20</sup>

The weak link in the evolving Danish dairying enterprise was on the men's side of the divide. The Holstein system demanded proper breeding, feeding, and care of cows and rigorous supervision of the milking crew. Danish men showed no interest in the training required to manage dairy cows or in milking as carefully as Holstein dairying demanded. Even for a good amount of money, a man had little desire to be second in command to a dominant woman and to spend his time with the milking girls and women at the bottom of the rural hierarchy. Thus, the secondary position continued to be dominated by Germans, even at a time when Danish nationalism was growing, and the public developed anti-German sentiments in reaction to sporadic fighting over the Schleswig-Holstein area of southern Denmark—or northern Germany. In 1870, in an attempt to lure Danes into the business, the Royal Danish Agricultural Society offered free training and a stipend for men who would train in modern management of dairy herds and milking operations. The offer found no takers. Even after the training stipend was raised, it was hard to attract Danish men, and when they did enter the program they tended to drop out before completing it. The society's training program in dairy herd management was canceled in 1877 for lack of interest.<sup>21</sup>

Although the society had also initiated a training program for meyersker in 1836, it was not as attractive nor prestigious as apprenticeships offered by estate meyersker. Initially, the prevailing procedure was that a young Danish woman or her family would come up with a modest payment in exchange for an apprenticeship on an estate. Under the meyerske, the apprentice would live on the estate, work, and learn all aspects of the job before being awarded the valuable credential of achievement and

readiness. Beyond the rigors of the training program, the money proved a barrier for many would-be meyersker. Consequently, as early as 1836, the Royal Danish Agricultural Society initiated a parallel two-year program that placed trainees on estates under working meyersker, the cost being covered by the society. Besides widening the pool of Danish meyersker available for employment on estates, this program potentially opened the career opportunity for a wider swath of young women. It had a slow start, undoubtedly because one of the requirements was that the trainee submit to the discipline of the existing rural labor law and be willing to take part in humiliating milking chores, along with any other tasks assigned to her. Private apprentices also had to learn the basics of sanitary milking, but their actual milking chores seem not to have been as onerous as those of the state-sponsored trainees.<sup>22</sup>

Further professionalization of dairying came through the work of Th. R. Segelcke (1831–1902), who would become known as the father of Danish dairying. Segelcke was born into a prosperous landed family, which had a private governess and a farm labor crew of approximately fifteen hired men and ten hired women. Educated in elite schools, apart from the common rural population, Segelcke's chosen field of advanced academic pursuit was chemistry. As was common for privileged Danish youth, he rounded off his education with travel throughout Europe. In Germany, Switzerland, Holland, and France he studied the application of chemistry to progressive agriculture. After returning home and finding no Danish employment matching his education, he turned, on the advice of the president of the Royal Danish Agricultural Society, to the scientific study of dairying. With a clear focus on estate agriculture and the rural gentry of his birth, he set his sights on overhauling Danish dairying by applying the principles of chemistry to perfect and standardize the industry.<sup>23</sup>

With support from the society, Segelcke began his research on Danish dairying in 1860, having no choice but to begin with the meyersker who defined the field. Although it was extremely strange for an academic man to defer to women for anything, he sought out accomplished meyersker to teach him milk handling and butter-making. In slightly over a year, he spent two months on one estate studying the craft, and he visited more than fifty other dairy operations. Concluding that the existing methods of the meyersker had exhausted their potential, Segelcke set as his goal

to refine them and to turn dairying into a science. He gradually and insistently inserted thermometers and scales into milk processing, and he advocated more precise and detailed recordkeeping to track amounts of milk, temperatures, and churning times. He promoted replacement of the existing estate-crafted wooden equipment with enamelware, and he introduced a faster and more hygienic milk-cooling procedure involving water and ice. His extensive studies and experiments were initially directed chiefly toward academics rather than practitioners.<sup>24</sup>

Segelcke, having taken over administration of the Royal Danish Agricultural Society training program for meyersker in the 1870s, oversaw its metamorphosis into a fiercely competitive program, albeit still a second choice to private apprenticeship for those who could pay for it. Hansen, who examined a sample of 1870s applications to the society's training, found that the largest number came from homes of smallholders, with only a fourth of the applicants coming from the more prosperous farm homes. To enter Segelcke's program, a woman had to be at least eighteen; have dairying experience; be healthy, strong, and moral; and be willing to submit to milking chores and whatever else she was asked to do. In addition, an applicant had to write an essay explaining her interest in dairying and submit letters of recommendation from pastors, teachers, or employers. Since the application material was read and evaluated by Segelcke, the social gulf between applicant and judge was extreme. Given that young, indigent, rural women had to make their cases to a cosmopolitan male agricultural leader in a highly stratified society, their essays come across as strikingly bold and articulate, even though couched in total humility. One essayist wrote, "As to why I humbly put forward this request, I submit that my one and only motive is desire and interest in this career. Further, I dare to add that since my father owns a piece of land of around ten acres and I am the eldest of several siblings . . . I must seek my own fortune in life."<sup>25</sup>

The majority of these applications had to be rejected, since the number of training slots did not approach the demand. Segelcke pieced together his reasons. Beyond submissions arriving a few days after the deadline, he rejected some women for not yet being eighteen, while others as young as twenty-one were rejected for being too old. Some applicants were declared not to have enough dairying experience, while another was rejected for having flitted among too many different operations.



**Figure 4.** Ravnsted-Larsen farm, Keldbylille, Møn.

Danish farmers built substantial living quarters, such as this one, in the late nineteenth century.  
 SOURCE: Photo is undated, probably early twentieth century, courtesy of Møn Museum, Denmark.

Others were simply rejected. In sum, by the 1870s, the meyerske program of the Royal Danish Agricultural Society was highly popular and successful. Ironically, and against the logic of this success, the society decided in 1875 to halt the women's program and to focus on training men as milk processors.<sup>26</sup>

Segelcke's peers were men, and his primary project was among academics and for the benefit of estate agriculture. Only secondarily and derivatively did he concern himself with developing meyersker. In setting his agenda, he appealed to the rationality of economics and science and their incompatibility with women, urging that men become masters of milk processing, just as they were masters of their crops and fields. Other than for their labor, women had no place in his vision. As illustrated in the rebuff of acclaimed dairy processor Hanne Nielsen, cited at the beginning of this paper, his gaze went over the heads of commoners and women. Between women and educated men like himself there could be no real meeting of minds.

Segelcke had argued already in 1867 that butter-making had reached the point where it was a major enterprise on estates, and men should be

taking charge of it. It was irresponsible and short-sighted to leave dairying to uneducated women. For the sons of large farm owners, he proposed a shortened, two-and-a-half-month dairying course, during which they would exceed the knowledge that women could attain in their two-year programs. This course would also involve training under meyersker, since they understood the state of the art. In a pamphlet titled "The Young Agriculturalist's Education, as it is and as it should be," Segelcke wrote:

The goal is nothing less than that the young agriculturalist be brought to the level of skill and knowledge of the meyerske. . . . On the first day, he will perhaps skim just one vat of milk—badly—while a meyerske does ten. The second day it will go better, and gradually he will be even with her. . . . But he won't stop with learning the skill. His goal is knowledge.

These men would be able to *analyze* the process, to "learn what the meyerske knows but doesn't realize she knows." The man would learn to do the work, but his ultimate goal was that, through scientific observation, he would move beyond the mindless routines of women to real knowledge. Segelcke warned that the learning would be bizarre and unpleasant, but that was how it had to be done.<sup>27</sup>

Through both private apprenticeship and the society program, dairying expertise was gradually filtering down from the estates into the broader Danish farming population. Even dairy workers who were not officially in training programs carried dairying skills with them when they left the estates. Of the certified meyersker, some of the highly skilled reentered the field by securing positions on estates. Others were farm daughters or married farmers or smallholders and adapted the Holstein system to the scale of their home farms or smallholdings.<sup>28</sup>

In the 1870s the combination of scientific interest and more women being trained by meyersker resulted in a broad wave of enthusiasm for butter-making enveloping rural Denmark. Between 1862 and 1882 seven meyersker from estates published a series of pamphlets on how their work could be adapted to smaller Danish farms. Indeed, many of these women, having come from such farms, had family ties and personal interest in seeing their training bear fruit in their homes and parishes. Where Segelcke believed that there should be a minimum of one hundred cows

for a dairy operation, and thirty was absolutely barebones, these women explained how to create butter-making enterprises with holdings as small as three cows. Some farm and smallholder women, both married and single, were applying to meyersker for short terms of study so that they could bring the new techniques home. Starting in 1866 some of the Danish folk high schools—established in the mid-nineteenth century to provide spiritual and practical education for rural youth—instituted dairying programs that placed students (including males) under meyersker for short training periods. The total number of cows on Danish farms grew steadily, as did the quality and quantity of their dairy products—and the economic profits from them. Local agricultural associations engaged traveling meyersker, who made one-to-two-week stays in farm homes to set up sanitary dairy operations.<sup>29</sup>

These agricultural associations began to sponsor local dairy exhibitions, where women would pack their butter and cheese attractively to present for judging and public acclaim. These events were extremely popular, sometimes special trains brought interested spectators and participants from outside. As reported by a Holbæk newspaper, the crowd at one such exhibition was so great that, rather than walking, the visitor was transported by the stream of humanity from one display to the next. Music accompanied the festivities, and popular meyersker would be sought out for advice and possible apprenticeship or training positions. The centerpiece of a dairy exhibition was the judging of dairy products and awarding of certificates and prizes. There would be a banquet with an invited speaker, Segelcke being the most popular choice, but other experts also gave speeches on the latest scientific methods of dairy production. (Women did not give speeches at these events.) Newspapers published information on upcoming exhibitions and detailed reports on the unfolding events. Meyersker were honored with their names published alongside those of their estate owners, and over time increasing numbers of farm and smallholder women were named in newspaper accounts. The first such farm and smallholder women prize winners were identified by the names of their husbands; later the women were noted in the newspapers by their own names, which was highly unusual for any woman at that time. In 1879 Denmark participated in the International Agricultural Exhibition in London, earning prizes and English export markets for Danish butter.<sup>30</sup>

The word for a man trained in dairying is *mejerist*. By 1874 two hundred mejerister had been through Segelcke's abbreviated program, and they were easing into the field. While Danish dairying grew according to its own inertia, the agricultural economics of the 1870s also pushed it to the center. Midwestern American grain production was increasing rapidly at this time and, with the development of railroads to transport this grain to the Atlantic coast, the price of grain on the European market collapsed. This spelled crisis for Danish grain farmers. Under these conditions, they could not help but notice the expansion of women's butter-making. Some Danish farms remained solvent at this time only because of dairy production. By the late 1870s men were actually beginning to enter their dairy products at the exhibitions alongside those of women. This was the beginning of a system shift within Danish agriculture. In contrast to the German decision to protect large grain producers with tariffs in the face of American competition, Danes opted to take advantage of the low grain market conditions by becoming buyers rather than sellers. Women's highly developed dairy industry made this instant adaptation possible. For the next hundred years, Danish agriculture would thrive on its export of high-quality animal products, including butter, eggs, and pork.<sup>31</sup>

With the diminishment of Denmark's grain exports, the increasing weight of dairying in the farm economy supported Segelcke in his plea that men take charge. If there was real money to be made from dairying, not just a few coins in women's pockets, it made no sense to leave them in charge. This was too much control and power for the irrational and backward nature of women. Their records were pitifully incomplete. They gauged temperatures with their thumbs rather than with thermometers. Men had leadership qualities that naturally commanded the respect of workers, where meyersker had to resort to being bossy and unpleasant when they were in charge. Butter production should be rationalized, industrialized, and uniform rather than arbitrary. According to Segelcke, beer and vinegar had once been made in Danish farmhouses, but as chemical industries they had been vastly improved under the strict control and uniformity of factory production. Butter-making was also a chemical industry, and its production needed to be likewise transformed. For export purposes, a uniform product was essential, as a mass purchaser would have to know what he was buying without examining each container. With women running their disconnected operations, the results var-

ied in color and taste, as well as by season. Danish merchants added to Segelcke's case by reporting that the many different women who presented butter to them for sale made their work hard.<sup>32</sup>

While meyersker continued their work into the 1880s, the coup de grace was the centrifugal cream separator. Based on the fact that cream is lighter in weight than milk, tinkers had been working on various separating devices through the 1870s, but the first commercially successful separator was produced in Sweden in 1878 and rapidly diffused across Europe and the United States. The power-driven mechanical separator was vastly superior to the vat skimmer in every way, producing a cleaner and fresher product, while eliminating a tedious and exacting piece of the meyersker's skill set. The early centrifugal separator, large and unsuited to the scale of the Danish farm, pushed the shift to the cooperative creameries that finally and definitively displaced the dominance of the large estates and their meyersker. Working together, Danish farmers and smallholders could sell their milk to producer-owned cooperatives, which

**Figure 5.** Stege Cooperative Dairy.



After 1890 Danish milk was delivered to cooperative dairies for processing. The dairy manager and his assistant are front and center. The two women in headscarves and wooden shoes are probably dairy workers.

SOURCE: Photo is undated, probably early twentieth century, courtesy of Møn Museum, Denmark.

separated the cream and returned skimmed milk and whey to the farm operations to be used as feed for the expanding swine population. The cooperatives captured, on behalf of common farmers and smallholders, the economies of scale that the estates had previously enjoyed. The first cooperative creamery in Denmark opened in 1882, and by 1894 over a thousand of these enterprises had been established across the small country.<sup>33</sup>

With such an apparently unanimous consensus in favor of cooperative dairies, it is easy to overlook the contemporary arguments raised against them. One of the influential opponents of the movement was none other than the father of Danish dairying, Th. Segelcke, an unflinching champion of the elite. Speaking at a dairy exhibition in Holbæk in 1885, he summed up the major arguments against the cooperatives, contending that dairy production would deteriorate under a cooperative system. It was only natural and right, he maintained, that milk be processed where it was produced—mostly on estates. He declared that the dairy exhibitions themselves had shown that even women on smallholdings could produce excellent butter. As scale was no longer a factor, Danish producers were already competing evenly, without the cooperatives. Moreover, Segelcke asserted that the cooperatives would not prove economical, because free riders would deliver substandard milk and draw down the cumulative quality of production. None of these eventualities came to pass. The cooperatives, by testing and evaluating milk deliveries, did identify the inferior producers and reward the best producers. The cooperative movement, under the control of rising middle-class farmers, surged forward. In no small measure through the growth of dairying, this class had grown too powerful, independent, and feisty to be whipped around by the aristocracy. The cooperatives were key to the further success of this class when farmers, with the help of urban workers, wrested political power from the conservative bloc in the momentous Danish government shift of 1901. Even estates would begin to deliver their milk to cooperatives.<sup>34</sup>

Danish women, whether meyersker on estates or those on farming operations, did not oppose the cooperatives, although some meyersker did dispute men's dominance of them. In 1892 Karl Fr. Jensen, a cooperative dairy manager, opened a debate in the journal *Mælkeritidende* (*Dairy News*) about women's future in the dairy industry. It was a vigorous exchange which lasted through twenty-six issues before it was cut off.

In Jensen's opinion, a modern dairy required strong male management. The arguments against women as cooperative managers included assertions that women managers were unnatural, that women were not strong enough to do the work, that they could not understand the technology, that their clothing was impractical and unsafe around machinery, that they drew down the pay scale, and that even the estates would have preferred male dairy operators if they had been available. Women responded, on their own behalf, that they had built the industry and should not be excluded. Moreover, women claimed, they themselves—rather than men—should be responsible for delimiting their horizons. Women already operated machinery such as sewing machines; and they should be judged by the same standards as men. Rather than having women pulling wages down, men and women should stand together for fair pay, said the women.<sup>35</sup>

But meyersker were wage workers without a union in a restructuring industry. In spite of their centrality in the development of Danish dairying, the meyersker—and dairy women in general—had accrued a bad reputation over time. Women's production was held to be unscientific and steeped in superstition. The emblematic meyerske was imperious, dictatorial, and arbitrary in her fiefdom. In reality, many meyersker were undoubtedly intense in personality and hard taskmasters. A meyerske might lose patience and box workers' ears. Maybe some were *too* sure that they knew what was right and were unwilling to change or listen to reasonable suggestions, but neither were male dairy scientists prepared to interact respectfully with them. Not having access to the kind of theoretical education that Segelcke urged for men entering the field, the meyersker seem to have been cornered in a blind alley. They had no solid base from which to press their claims. Although not totally excluded from the cooperatives, women were demoted from their positions of power and marginalized in the new system. Some entered cooperative creameries as wives of the managers. Since a creamery was set up, like a farm, as a household operation, with the manager and his family living on site along with some of the other workers, the wife of a manager might—like a farm wife—be integrally involved in running the business. Other women were hired help in the cooperative creameries. Without the estates as training grounds, the generation of new meyersker was stanchd. A very few meyersker who had been trained before the old system shut down did in

fact manage cooperative creameries in the early years, but the jobs were increasingly closed to them. Today the word *mejerske* does not appear in standard Danish dictionaries.<sup>36</sup>

That *mejersker* had even secondary access to cooperative creameries was undoubtedly due to the changing demographics of rural Denmark. The rise of dairying increased the need for rural labor, both on the farms and in the new creameries, at precisely the moment when the floodgates opened for large numbers of Danes to leave the rural areas. By the 1880s shipping companies and American railroads were advertising heavily all over Denmark, promising free land and golden opportunities for those who would take passage to the United States. The poorest tended to stay, but many younger farm sons and smallholders who had little hope of acquiring Danish farms were prime candidates for the pull of the United States. Danes' unique cooperative creameries were a model to be emulated, and dairy men were recruited so vigorously that it resulted in what one historian called a "brain drain" of men in the Danish dairy industry. Although there were also special appeals to Danish "girls" skilled at housework or dairy work, women and girls were more skeptical of the promise of the United States. Emigration turned out to be so lopsidedly male as to create marked shortages of men in Denmark and women in Danish settlements in the United States.<sup>37</sup>

On the other hand, Danish women were not so attached to the churn that they would not leave the countryside. They predominated in rural-to-urban migration within Denmark. New jobs in Danish porcelain and silver industries, as well as food industries, opened to women. The *Kvindeligt Arbejderforbund* (Union of Women Wage Workers) was founded in 1885 to represent the interests of women working outside of agriculture. While rural workers were never as scarce in Denmark as in the United States in the nineteenth century, the outflow was enough to cause alarm among farmers and estate managers who depended on hired labor. As much as the cooperative creameries preferred men, they could ill afford to completely turn away from experienced dairy women willing to fill in the gaps in the transitional period.<sup>38</sup>

Danish farm women were less likely than *mejersker* to protest their exclusion or demotion in the dairy industry. Increased prosperity in the farming class changed the character of marriage and introduced novel wants and needs. Farm women were taking on new responsibilities as



consumers and wives. The farmhouses built in the late 1800s were larger and more elaborate than earlier farmhouses had been. Informed by the standards of dairy cleanliness and modern knowledge of bacteria in causing disease, farm women oversaw high levels of scrubbing and cleaning in their living quarters, typically with the help of one or two hired "girls." Farm women also began to crochet doilies, embroider sofa pillows, and hang curtains on the windows of their homes. With higher levels of education, they were likely to value leisure opportunities to play the piano or read. As farm men increasingly engaged in public roles on cooperative boards and other quasi-political organizations, women were pressed to uphold bourgeois standards in their homes. More varied and elaborate food production was a benefit and burden of more money and more choices. After 1895 farm home economics schools arose to teach home-making skills. Many farm women experienced the loss of milking, separating, and churning as a relief. While this work had been a venerable tradition for rural Danish women, the exacting standards of modern milk processing had had a short life on middle-sized farms.<sup>39</sup>

Nor did the cause of dairying resonate with the Danish women who were beginning to call for suffrage and the entry of women into male professions. This movement was largely urban and silent on the economic facts of women in agricultural production. Women's grubby role in farm work was something for the new woman to rise above. When needled on their ignorance of rural women's situations, they responded graciously, if sporadically, with support for the empowerment of rural women, but it was never a sustained push.<sup>40</sup>

In what ways do the varying stories of women and dairying in northern Europe and North America fold into a narrative of women's developing claims for justice—the feminist project? Was the transformation of dairying a good thing or a bad thing for rural women? Conclusions on this differ, based on different historical realities and different prisms of observation.

European and American rural women have always been agricultural producers, not just housewives, and their modern claims to a place in the workforce emerge from a long history in which they were central to the agrarian economy. Since the majority of women have agrarian family roots, rural legacy endows them with stories, ways of thinking, and cautions about life growing out of an agrarian past. Rural habits and assumptions

about gender, which took women's economic productivity as a given, were a bedrock reality. This factor was largely missing from the bourgeois urban mindset of the nineteenth-century suffrage movement, although it was undoubtedly implicit in the way many women thought about themselves and their capabilities.<sup>41</sup>

Gender plays a different role in agriculture than in economic sectors such as steel or banking. Unlike in these other areas, gender dynamics in agriculture have been integral to how it functions and evolves. That a farmer is coded male among Europeans and European Americans, and usually has a wife working at his side, accords women's productive activities on the farm a secondary, derivative significance. Generally women's farm production enterprises are smaller and less remunerative than those of men. In Denmark, isolated from the calculus of farm efficiency and progress, the dairy industry could incubate and expand in a cell that was separate from the prevailing logic of mainstream agriculture, which centered on grain marketing until the 1880s. Gender organization, by sheltering the infant dairy industry from the existing agricultural paradigm, while providing it with capable and committed minds and bodies, allowed for concentrated and compressed energy that would move and change the Danish farming system when the time was ripe. Its secondary character was integral to how it grew.

Even though secondary to the major farming operation in diverse contexts, dairying was at given times and places a favorable enterprise for women in the United States as well as in Europe. Accounts of women and dairying in Iowa, Wisconsin, and North Dakota imply that a farm woman's butter-making helped to establish her standing on a farm and that this production secured a useful and satisfying life for her. While not denying the gender hierarchy on the farm, Mary Neth believed that traditional American farm women saw themselves as interdependent with men in a way that challenged this gender hierarchy. She wrote, "From the past, before agriculture became 'modern,' come the visions that farm people had of integrating work and living, ways farm women sought to connect the needs of families, communities, and farms, and practices by which rural people together built flexible and adaptive human connections." In Neth's view, rather than resenting the power of the men they worked with on farms, these American women were more aggrieved by outside experts who could not understand the importance of women's

farm production and their desire to maintain it. In this light, those whose modernization programs deprived women of their dairy enterprises were misguided and blind to the significance of rural women and their work.<sup>42</sup>

The image of agrarian gender harmony interrupted by outside experts who thought they knew better—but did not—runs through diverse accounts of American women and dairying. Farm women lost out when dairying was rationalized. Barbara Handy-Marchello wrote that when, in 1880, Henry Wallace declared women's dairy work to be "drudgery," he "neatly and without guilt severed from them an important source of income while reconfiguring dairying as men's work." Patrick Nunnally similarly concluded that nineteenth-century Iowa farm women lost a valuable economic role when experts devalued their dairy work and successfully industrialized this production. Rationalizing the dairy industry looked like progress, but, from the point of view of rural women, it was not, according to Nunnally. As in Neth's analysis, these women had done well in dairying, and dairying women stand as models from a usable past.<sup>43</sup>

Another perspective is that relieving women of dairying chores gave them different and more expansive options personally, in families, and in rural communities and beyond. Henry Wallace, with his goal of releasing farm women of their dairying toils, took this view. As he saw it, farm dairying was a mountain of work that severely taxed women, and their lives would be improved if they could be rid of it. With regard to the industrialization of nineteenth-century cheese-making in New York state, McMurry tended toward this interpretation of the transition, even as she called it a "two-edged sword." In the large farm enterprises of New York women, cheese-making had been hard, even dangerously so at times, for them and their children. When women no longer had their domestic cheese-making responsibilities, they had more time for less strenuous poultry production, and they were able to be more involved with community life. Although they let go of an important economic role, their lives were broader and more varied in other ways, according to this alternative view.<sup>44</sup>

The vigor with which women did or did not contest their displacement from milk processing rested both on their personal investment in it and their other life options. While some scholars admire the work of hardy farm women from a distance, few historical accounts remain of farm

women themselves lamenting the loss of their milking, separating, churning, and cheese-making chores. Danish farm women did not resonate with the predicament of the meyersker. Not all rural women, even in the same country or state, experienced the transformation in the same way. Class was an intervening variable. While some wage-earning meyersker lamented their effective exclusion from the management of cooperative creameries, the women living on middle-sized farms and smallholdings were in households that, on the whole, gained, rather than lost, from the transition. They had other calls on their time and attention. Even most of the meyersker seem to have picked up their skirts and their experiences and moved on to new lives in blossoming Danish cities or (much less frequently) in the United States.

The story of women and dairying stands as a lesson in the limits of camaraderie and informal power. As Joan Jensen wrote about Pennsylvania dairying women in the 1900s, “the farm, embedded in patriarchal legal restrictions, offered women little ultimate control over wealth, property, or even their labor.” This applies generally in Europe and the United States. Like it or not, there was nothing any women—renowned or humble—could do when men with greater social and economic resources appropriated their production. For some women, it was a hard-won lesson, among them the bold, energetic, and capable women who had worked at the center of the Danish industry.<sup>45</sup>

One could speculate that the survivors emerged not totally defeated, but wiser. The Danish women workers who moved away from rural to urban employment at the end of the nineteenth century understood the arc of women’s fortunes in the dairy industry. In 1880 Danish women won the right to the earnings from their own work, and in 1915 they achieved full voting rights. With a woman workers’ union, along with enhanced economic and political rights, women might wage future gender struggles on a more nearly level playing field.

#### NOTES

1. Th. Segelcke, quoted in Bodil K. Hansen, *Familie-og arbejdsliv på landet ca. 1870–1900* (Auning, Denmark: Landbohistorisk Selskab, 2006), 218.

This paper, originally delivered at the 2006 meeting of the Rural Women’s Studies Association, benefits from comments by Bodil K. Hansen, Joan Jensen, and Dorothy Schwieder. It is written in the warm and affectionate aura of Danish historian Bodil K. Hansen, who died on July 28, 2007, after decades of struggle with a painful and

progressive form of arthritis. Her 2006 book, *Familie og arbejdsliv på landet ca. 1870–1900* was runner-up for best Danish history book of the year. Finished in the throes of great pain and disability, the book transports the reader into the complex and changing world of rural Denmark in the nineteenth century.

2. Hansen, *Familie*, 218, notes that while Hanne Nielsen's name does appear on the membership of the Agricultural Society in 1870 and 1871, there is no indication that she was actually allowed to participate in its meetings.

3. Hansen, *Familie*, 117–242. Hansen also wrote an early and short account of rural Danish women in English: "Rural Women in Late Nineteenth-Century Denmark," *Journal of Peasant Studies* 9 (Jan. 1982): 225–40. See, also, Bodil K. Hansen, "Dagligliv på Havartigården" ("Daily Life on the Havarti Farm").

4. Tereza Burmeister et al., *Heks, Hore, Ærbar kone: kvindeliv på landet i 1800-tallet (Witch, Whore, Virtuous Wife: Rural Life in the 1800s)* (Copenhagen: Chr. Erichsen's Forlag, 1987), cover, 63–80. According to Burmeister and colleagues, Danish folklore associates milking and churning with women's sexuality in the form of beliefs connecting this work to witchcraft and illicit copulation. See, also, Lena Sommestad, "Creating Gender: Technology and Femininity in the Swedish Dairy Industry," in *Women Workers and Technological Change in Europe in the Nineteenth and Twentieth Centuries*, ed. Gertjan de Groot and Marlou Schrover (London: Taylor & Francis, 1995), 155; Lena Sommestad and Sally McMurry, "Farm Daughters and Industrialization: A Comparative Analysis of Dairying in New York and Sweden, 1860–1920," *Journal of Women's History* 10 (Summer 1998): 139–40; Deborah Valenze, "The Art of Women and the Business of Men: Women's Work and the Dairy Industry c. 1740–1840," *Past & Present* 130 (Feb. 1991): 142–69; Sally McMurry, "Women's Work in Agriculture: Divergent Trends in England and America, 1800 to 1930," *Comparative Studies in Society and History* 34 (Apr. 1992): 248–70.

5. Sally McMurry, *Transforming Rural Life: Dairying Families and Agricultural Change, 1820–1885* (Baltimore: Johns Hopkins University Press, 1995); McMurry, "Women's Work"; Joan M. Jensen, *Loosening the Bonds: Mid-Atlantic Farm Women, 1750–1850* (New Haven: Yale University Press, 1986).

6. McMurry, *Transforming Rural Life*, 77, 81; McMurry, "Women's Work," 258; Sommestad and McMurry, "Farm Daughters and Industrialization," 140; Jensen, *Loosening the Bonds*, 93; Barbara Handy-Marchello, *Women of the Northern Plains: Gender & Settlement on the Homestead Frontier, 1870–1930* (St. Paul: Minnesota Historical Society Press, 2005), 116–41; Joan M. Jensen, *Calling This Place Home: Women on the Wisconsin Frontier, 1850–1925* (St. Paul: Minnesota Historical Society Press, 2006), 141; Ross Larson, Wahoo, Nebraska, personal e-mail communication to the author, Oct. 19, 2007.

7. Mary Neth, *Preserving the Family Farm: Women, Community, and the Foundations of Agribusiness in the Midwest, 1900–1940* (Baltimore: Johns Hopkins University Press, 1995), 239; Keach Johnson, "Iowa Dairying at the Turn of the Century: The New Agriculture and Progressivism," *Agricultural History* 45 (Apr. 1971): 98; Jensen, *Calling This Place Home*, 121–37, 204; Marjorie Griffin Cohen, "The Decline of Women in Canadian Dairying," *Histoire sociale—Social History* 17 (Nov. 1984): 327. Nineteenth-century American farm women, washed on Monday, ironed on Tuesday, mended on Wednesday, churned on Thursday, according to the "Little House" books of Laura Ingalls Wilder. Once-a-week churning in the summer was unlikely to result in a blue-ribbon product. Jonathan Yardley, "Second Reading: Laura Ingalls Wilder's Well-Insulated 'Little House,'" *Washington Post*, Nov. 8, 2007, C1, C8. Butter quality was also a problem of Irish farm women producers, according

to Joanna Bourke, "Dairywomen and Affectionate Wives: Women in the Irish Dairy Industry, 1890–1914," *Agricultural History Review* 38:2 (1990): 153.

8. Johnson, "Iowa Dairying," 97; Valenze, "The Art of Women," 145; Fridlev Skrubbeltrang, *Agricultural Development and Rural Reform in Denmark* (Rome: Food and Agriculture Organization of the United Nations, 1953), 24–26; Sommestad and McMurry, "Farm Daughters and Industrialization," 141–46; Handy-Marchello, *Women of the Northern Plains*, 116; Cohen, "The Decline of Women," 307–34.

9. Jensen, *Loosening the Bonds*, 79–113; Bourke, "Dairywomen and Affectionate Wives"; McMurry, *Transforming Rural Life*; Hansen, *Familie*, 177–286; Cohen, "The Decline of Women."

10. Skrubbeltrang, *Agricultural Development*, 37–136; Bodil K. Hansen, *Skolen i Landbosamfundet, ca. 1880–1900 (School in Rural Society, ca. 1880–1900)* (Copenhagen: Landbohøistorselskab, 1977). Marling is the application of lime to acid soil to regulate its pH. While mainstream historical consensus attributes the remarkable burst in Danish agriculture to land and labor reforms and to enhanced rural education, an intriguing ecological challenge to this consensus has been posed by Thorkild Kjærgaard. Kjærgaard sees farmers as the beneficiaries of agricultural improvements rather than its agents. Practices of forest conservation, tiling fields, and marling soil were initiated on estates in the early eighteenth century, with labor provided by landless workers. Dissenting from the "farmer line" in Danish history, Kjærgaard claims privatized farm ownership was "a millstone round Danish society's neck," rather than a spur to prosperity. See, Thorkild Kjærgaard, *The Danish Revolution, 1500–1800: An Ecohistorical Interpretation* (Cambridge: Cambridge University Press, 1994), 251. Whatever the direction of causation, there is no doubt that, as of 1800, Danish rural society overall was on a more productive and prosperous footing than before and that this economic surplus opened the way for new social and political developments. See, also, Deborah Fink, H-Net review of Thorkild Kjærgaard, *The Danish Revolution*, 1998, <http://www.h-net.org/reviews/showrev.cgi?path=14001932498968> (accessed May 8, 2009).

11. Lorenz Rerup, *Danmarks Historie, Bind 6, Tiden 1864–1914* (Copenhagen: Gyldendal, 1989), 80–83.

12. The "despairing elite" quote is from Uffe Østergård, "Peasants and Danes: The Danish National Identity and Political Culture," in *Becoming National: A Reader*, ed. Geoff Eley and Ronald Grigor Suny (New York: Oxford University Press, 1996), 180. The actual division between a smallholder and a farmer had to do with *hartkorn*, a measure of the productivity of land. A farm had greater than one *tønne* hartkorn, a smallholder less. The size of a *tønne* hartkorn of land varied according to the productivity of the land. In fertile eastern Denmark, one *tønne* hartkorn might be eight acres, while in the less fertile area of Jutland it might be thirty acres. Many farms were larger than one *tønne* hartkorn. See, Skrubbeltrang, *Agricultural Development*, 3–14, 92–94, 164.

13. Hansen, *Skolen i Landbosamfundet*, 51–62; Skrubbeltrang, *Agricultural Development*, 159–62, 192, 215; Rerup, *Danmarks historie*, 78, 271; Vagn Dybdahl, *De nye klasser 1870–1913 (The New Classes, 1870–1913)*, vol. 12 of *Politikens Danmarkshistorie* (Copenhagen: Politikens Forlag, 1978), 267, 291. Popular fictional descriptions of rural nineteenth-century poverty are found in the novels of Marie Bregendahl, *Sødalsfolkene (The People of Sødal)* (Copenhagen: Gyldendal, 1935); Jeppe Aakjær, *Vredens Børn: Et Tyendes Saga (Children of Anger: A Servant's Saga)* (1904 repr., Copenhagen: Sesam, 1986); Martin Andersen Nexø, *Pelle the Conqueror* (1900 repr., Seattle: Fjord Press, 1989).

14. Hansen, *Familie*, 178; Skrubbeltrang, *Agricultural Development*, 42–43.

15. Burmeister et al., *Heks, Hore, Ærbar kone*, 65; Ole Højrup, *Landbokvinden: Rok og Kærne, Grovbrød og Vadmel (The Rural Woman: Spinning Wheel and Churn, Dark Bread and Homespun)* (Copenhagen: Nationalmuseet, 1975), 64.

16. Hansen, *Familie*, 179. Translation of terms from Swedish and Danish to English is tricky. The term "dairymaid" in English connotes a ruddy-faced young woman milking a cow. The *mejerske* of Denmark and *mejerska* of Sweden were not dairymaids in this sense and would surely be offended at the conflation of very different positions in a highly structured production system.

17. Højrup, *Landbokvinden*, 69, 73–74; Burmeister et al., *Heks, Hore, Ærbar kone*, 66–86.

18. Hansen, *Familie*, 179.

19. *Ibid.*, 180–86, 211.

20. *Ibid.*, 210–11.

21. *Ibid.*, 203–204.

22. *Ibid.*, 190–91.

23. Segelcke's family lived on a *proprietærgaard*, which was not technically a landed estate, but an extra large, long-established and prosperous farm. Hansen, *Familie*, 187–90.

24. *Ibid.*, 189–90.

25. Charlotte S. Mølgård essay, 1871, quoted in Hansen, *Familie*, 193.

26. *Ibid.*, 198–203.

27. Th. Segelcke, 1867, quoted in Hansen, *Familie*, 207–208.

28. *Ibid.*, 214–29.

29. *Ibid.*, 214–15.

30. *Ibid.*, 230. Cheese was a constant, but minor, segment of dairy production at this time.

31. *Ibid.*, 208. Denmark became a net importer of grain in 1883. Danish grain exports decreased by 55 percent from the 1865–69 period to the 1875–79 period, while butter exports increased by 189 percent during this time. In 1875–79 Denmark exported 4,600 thousand bushels of grain and 12,700 metric tons of butter. Jens Christensen, *Rural Denmark, 1750–1980* (Copenhagen: Central Co-operative Committee of Denmark, 1983), 84; Skrubbeltrang, *Agricultural Development*, 184; Hansen, *Familie*, 225.

32. Hansen, *Familie*, 235, 240.

33. *Ibid.*, 250–307.

34. *Ibid.*, 241. A description of the rise to economic and political supremacy of the farming class is found in Østergård, *Peasants and Danes*, 179–201.

35. Hansen, *Familie*, 254–57.

36. *Ibid.*, 254–62.

37. One of the first Wisconsin cooperative dairies was started by Danish immigrants, with a woman as butter maker, according to the website [http://www.wisconsinhistory.org/dictionary/index.asp?action=view&term\\_id=12203&term\\_type\\_id=2&term\\_type\\_text=Places&letter=D](http://www.wisconsinhistory.org/dictionary/index.asp?action=view&term_id=12203&term_type_id=2&term_type_text=Places&letter=D) (accessed May 7, 2009); Kristian Hvidt, *Flight to America: The Social Background of 300,000 Danish Emigrants* (New York: Academic Press, 1975), 38, 115, 84; Kristian Hvidt, "Hvorfor udvandrede 300,000 danskere?" (Why did 300,000 Danes emigrate?) in *Drømmen om Amerika (Dream of America)*, ed. Annette Damm et al. (Århus, Denmark: Forhistorisk Museum Moesgaard, 1985), 7–15.

38. Hvidt, *Flight to America*, 80–84; Rerup, *Danmarks historie*, 113.

39. Hansen, *Familie*, 263–69. One indication of the change more money made in farm marriages from 1870 to 1901 is the fact that, while a widowed farmer was quick to find a

new wife to keep the farm running before 1870, with more money he was apt to hire a housekeeper to do the work. Farm widows were also more likely to engage male farm managers rather than marrying and ceding farm ownership rights to new husbands. See, also, Carsten Hess, "Sofapuder og klassekamp: En kulturdebat i Husflidsbevægelsen i 1890'erne" (Sofa Pillows and Class Struggle: A Cultural Debate in the Domestic Industries Movement in the 1890s), in *Folk og Kulture: Årbog for Dansk Etnologi og Folkemindvidenskab (People and Culture: Yearbook of Danish Ethnology and Folklore)* (1976): 96–120.

40. A few rural women of nineteenth-century Denmark did make their case for inclusion in the budding women's movement. Annette Jensen, a seamstress, who grew up on a Danish smallholding in the late nineteenth century, moved to Copenhagen, enlisted in the feminist movement, and made the claim that men had unjustly appropriated women's dairying. Eventually returning to the rural community, she proceeded to write an autobiographical novel describing the gender injustices of her rural life. Another passionate cry for justice came in the nineteenth-century writings of the young Helene Dideriksen, who grew up on a farm. Without dismissing these compelling protests, they were the exceptions that proved the rule. These women were unable to garner a sustained sympathetic audience either among urban feminists or rural readers. Dideriksen, under enormous social stress and personal anguish, died at age thirty-one, before she could establish the independent household she so desperately sought. Annette Jensen lived to age eighty-five, experiencing bitter estrangement from her family and pervasive public ridicule. Danish rural society was not kind to feminists. Powerful as these women's writings are to the sensitivities of modern readers, early rural Danish feminists were isolated and tragic figures in that they never established an economic or social base from which to articulate their visions and build their hopes. See, Annette Jensen, *Kvindernes Årbog (Women's Yearbook)* Vol. 3 (Copenhagen: Haandarbejdsbogens Forlag, 1909–10), 97–103; Annette Jensen, *Kvinderegimente (Women's Regiment)* (Copenhagen: Haandarbejdsbogens Forlag, 1909); Bodil K. Hansen, *Helene Dideriksen's dagbog og breve 1875–1891 (Helene Dideriksen's Diary and Letters, 1875–1891)* (Odense: Landbohistorisk Selskab, 1984).

41. Dairying is but one line of production of rural women. In addition to the cited works on women and dairying, see, Sarah Elbert, "The Farmer Takes a Wife: Women in America's Farming Families," in *Women, Households, and the Economy*, ed. Lourdes Benería and Catharine R. Stimpson (New Brunswick: Rutgers University Press, 1987), 173–97; Deborah Fink, *Open Country, Iowa: Rural Women, Tradition and Change* (Albany: State University of New York Press, 1986); Katherine Jellison, *Entitled to Power: Farm Women and Technology, 1913–1963* (Chapel Hill: The University of North Carolina Press, 1993); Carolyn E. Sachs, *The Invisible Farmers: Women in Agricultural Production* (Totowa, NJ: Rowman and Allanheld, 1983).

42. Neth, *Preserving the Family Farm*, 273.

43. Handy-Marchello, *Women of the Northern Plains*, 79; Neth, *Preserving the Family Farm*, 217; Patrick Nunnally, "From Churns to 'Butter Factories': The Industrialization of Iowa's Dairying, 1860–1900," *Annals of Iowa* 49 (Winter 1989): 555–69.

44. McMurry, *Transforming Rural Life*, 170, 235. Cohen, writing about Canada, also declared that women's dairying on farms was hard and primitive, implying that it was not something they would want to maintain. Cohen, "The Decline of Women in Canadian Dairying," 313.

45. Jensen, *Loosening the Bonds*, 207.