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THE ART OF WOMEN AND THE BUSINESS OF MEN: WOMEN'S WORK AND THE DAIRY INDUSTRY c. 1740-1840*

I

When Max Weber searched for the antithesis of the “spirit of capitalism”, he found his model embodied in “women workers, especially unmarried ones”. Here, he pointed out in 1905, one could see a living remnant of the obstacles that had confronted industrial capitalism in its earlier years:

An almost universal complaint of employers of girls . . . is that they are almost entirely unable and unwilling to give up methods of work inherited or once learned in favour of more efficient ones, to adapt themselves to new methods, to learn and to concentrate their intelligence, or even to use it at all. Explanations of the possibility of making work easier, above all more profitable to themselves, generally encounter a complete lack of understanding.

This disposition, so unlike the willingness of typical Protestants to see remunerative labour as a worthwhile end, Weber labelled the “stone wall of habit”. Weber voiced a widely held opinion that women stood in the way of progress by clinging to tradition and opposing rational alternatives.¹

Anthropology has demonstrated the timelessness of this now familiar equation of female with nature and male with culture.² Yet at certain crucial historical junctures, this depiction of women workers as bearers of unreason has had a definitive impact on the structure of economic activity as well as on the status of women. Nowhere was

* The author wishes to thank Peter Weiler, Ruth Smith, Eric Hobsbawm, Edward Thompson and Julie Rousseau for their helpful comments on drafts of this article, and William and Janet Kurkul of Westminster, Vermont, for their hospitality and information.

¹ Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, trans. Talcott Parsons (New York, 1958), p. 62.

² See Sherry B. Ortner, “Is Female to Male as Nature is to Culture?”, in Michelle Zimbalist Rosaldo and Louise Lamphere (eds.), *Woman, Culture, and Society* (Stanford, 1974), pp. 67-87; see also Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York, 1980); L. J. Jordanova, “Natural Facts: A Historical Perspective on Science and Sexuality”, in Carol P. MacCormack and Marilyn Strathern (eds.), *Nature, Culture and Gender* (Cambridge, 1980), pp. 42-69.

this clash of images more grandly played out than during the formative period of industrial capitalism in the second half of the eighteenth century, when the imperatives of a new economic order came to dominate the spheres of both agricultural and industrial production. A complex dialectic developed between the mandates of a growing market economy and existing organizations of production that included women as key workers. Agriculturalists, political economists and commercial men examined and evaluated the work of women, measuring their effectiveness in producing marketable goods. This ongoing assessment of female labour was of interest to a reading public associated with new, scientifically oriented improvement societies. Within this forum, the role of women as producers came under attack, as commentaries on labour described their agency as incompatible with systematic and profit-oriented methods. While these writings did not dictate material reality, they nevertheless helped to shape attitudes and influence decision-making in a way that was crucial to the creation of a public receptive to economic change. The transformation of the English economy could not have advanced without this intricate interplay between market pressure and popular opinion.

The debate over women's work in the dairy is particularly revealing, for it depicts a conflict between customary ways of working associated with the agrarian world and a newer, rational notion of production informed by commerce and capitalism. The growing business of selling butter and cheese directed attention to this seemingly mysterious bastion of womanly arts, where the new scientific agriculturalists, joined by men of commerce, made serious efforts to lay bare the dairy's store of secrets. Formerly the unchallenged preserve of female authority and labour, the dairy became contested territory. Female capacities were perceived as tradition-bound and thus incompatible with new standards of dairying, even while dairy-women adapted customary techniques to the demands of the market. Profitable industry became joined to a model of organization and productivity associated specifically with men.

The following account of dairying will not provide quantitative data concerning women's contribution to production, nor will it chart the course of women in dairying history within specific regions of England; these questions must be left for future research. Instead I have chosen to analyse key discussions of women and dairy-work which reflect contemporary understandings of gender, in order to place them in the larger context of a transformation of knowledge at

the end of the eighteenth century. The declining power of women in dairying can be related to similar shifts taking place within the manufacturing sector, for example, where female spinners were displaced and ultimately denigrated. These new notions of gender, which privileged male rationality and subordinated female labour, joined with the market in renovating conceptions of work and productivity in the early industrial period.³

II

As a ubiquitous domestic enterprise, dairying was women's work in the eighteenth-century rural world. Whether carried on for petty income by poor labouring women or as a useful pastime for gentlewomen, the production of butter and cheese was regarded as a female activity. In earlier centuries, it was hardly distinguished from other household duties. "Make butter and chese when thou may", instructed Fitzherbert's *Boke of Husbandrye* (1534), in between meeting the daily needs of the household and caring for the livestock. As an adjunct of food preparation, the dairy was both literally and figuratively attached to the kitchen in the farmhouses of gentry; cleanliness and convenience also dictated that the dairy be close by, so that constant supervision and attendance could be combined with other responsibilities within the house and yard.⁴

³ Little work on women in the dairy industry exists; only Joan M. Jensen, *Loosening the Bonds: Mid-Atlantic Farmwomen* (New Haven, 1986), deals with the subject explicitly. Jensen focuses on the quantitative economic contribution of women to the agrarian economy through the production of butter and cheese, and, like this study, indicates a pattern of male displacement of women as the profits from dairy products became more important to farm economies. But she does not pursue the problems of the gender division of labour within the industry. See also Joan M. Jensen, "Butter Making and Economic Development in Mid-Atlantic America from 1750 to 1850", *Signs: Jl. Women in Culture and Society*, xiii (1988), pp. 813-29. For a different approach, see Sonya Rose, "'Gender at Work': Sex, Class and Industrial Capitalism", *History Workshop Jl.*, no. 21 (1986), pp. 113-31. For a study of middle- and upper-class women in relation to eighteenth-century thought, see Sylvania Tomaselli, "The Enlightenment Debate on Women", *History Workshop Jl.*, no. 20 (1985), pp. 101-24.

⁴ Sir Anthony Fitzherbert, *Boke of Husbandrye* (1534), quoted in Alice Clark, *Working Life of Women in the Seventeenth Century* (London, 1982; first pubd. 1919), p. 48; G. E. Fussell, *The English Dairy Farmer, 1500-1900* (London, 1966), esp. ch. 5; Martine Segalen, *Love and Power in the Peasant Family*, trans. Sarah Matthews (Chicago, 1983), pp. 112-27. Segalen points out that "the cow is not an incontestably feminine animal in the way that the chicken is", for in central France, men took the cows into the high pastures and managed "dairies" there. She notes, however, that this is "an extreme example" of male management, for in many other cases dairying was the responsibility of women: *ibid.*, pp. 97-8. I know of no similar instances in England.

Dairying was associated with both large and small enterprises in the eighteenth century. Possession of a cow and a few simple pieces of equipment entitled a cottager or a small-farmer's wife to join in the relatively primitive production of butter and cheese, either for consumption or sale. On a modest scale, dairying could provide income for single women and widows lacking other means of support. The practice of marketing small quantities of milk, cheese and butter was so well established in rural communities that overseers of the poor on occasion aided poor women through the purchase of a cow, so that with rights of common they might be self-sufficient. In grazing districts, these women could earn a living by selling their produce to the non-farming population.⁵

Dairying generated essential income for the small farm. Everyone recognized, like the homespun Poysers in *Adam Bede*, that "the woman who manages a dairy has a large share in making the rent".⁶ Proceeds from the dairy in many cases exceeded the annual rent, and men often depended upon the successes of their wives in cheese- and butter-making for financial survival. Dairy cattle required "comparatively large amounts of labour in relation to capital" and so were ideally suited to the capabilities of smallholders and even cottagers. In areas like north-western Wiltshire, where family establishments were the rule throughout the eighteenth century, the production of butter, cheese, beef and bacon relied on family labour only. Wives and daughters provided the linchpin of such small-scale dairies throughout north-west and south-west England, as well as in parts of Suffolk and Yorkshire. Farmers often combined dairying with other agricultural pursuits, such as sheep-grazing and the raising of stock, or with weaving or other domestic industries. While men tended livestock and fodder crops, women exercised a free hand in the dairy itself, organizing as well as carrying out the production of cheese, and possibly butter, for the market.⁷

⁵ Ivy Pinchbeck, *Women Workers and the Industrial Revolution, 1750-1850* (London, 1969; first publ. 1930), pp. 22-3.

⁶ George Eliot, *Adam Bede* (New York, 1961 edn.; first publ. 1859), p. 186. The novel is set in the early nineteenth century. Actual accounts show this statement to be more than accurate: in one typical case in Somerset, the sale of cheese alone amounted to £175, while the annual rent of the same farm was only £90: see John Billingsley, *General View of the Agriculture of Somerset*, 2nd edn. (Bath, 1798), p. 44.

⁷ Peter J. Bowden, "Agricultural Prices, Wages, Farm Profits, and Rents", in Joan Thirsk (ed.), *The Agrarian History of England and Wales*, v, pt. 2 (Cambridge, 1985), p. 12; Eric Kerridge, *The Agricultural Revolution* (London, 1967), pp. 123-8; Adrian Henstock, "Cheese Manufacture and Marketing in Derbyshire and North Staffordshire, 1670-1870", *Derbys. Archaeol. J.*, lxxxiv (1969), p. 35. Billingsley mentions a

(cont. on p. 146)

Large-scale dairying, much the norm in parts of Gloucestershire, Cheshire and Norfolk, depended on the same configuration of labour; women were indispensable, from the rank of farmer's wife down to the equally necessary dairymaid. Since the seventeenth century, serious commercial dairying flourished in these regions, promoted by the further concentration of land ownership and improved methods of agriculture.⁸ In some instances, a "manager", either female or male, replaced the farmer's wife as overseer of the dairy, though the distinction between manager and farmer was sometimes blurred in dairying reports. A sexual division of labour similar to that of the small farm prevailed: men made decisions regarding stock purchasing and breeding, management of fodder crops and marketing transactions, while women supervised and participated in the actual production of cheese and butter. Women nevertheless understood the principles of stock management and contributed to the growing store of knowledge pertaining to breeding and feeding the animals they cared for.⁹

Contemporaries attached great importance to the personal attributes of the woman who exercised such noteworthy influence on the traditional dairying establishment. Ordinarily the role of manager devolved automatically on the wife and daughters of the farmer, and though not all of these women could be expected to rise to the distinction of "superior dairywomen", they nevertheless brought to the job the crucially important requisite of loyalty to the enterprise. Shirking the obligations of the family economy could mean considerable material loss, so the incentive to do the job well was built into the office of housewife. Tusser warned the woman who failed to participate in the activities of her own dairy:

(n. 7. cont.)

typical arrangement whereby the men of small-farming households "increase their income by occasional work done for their more opulent neighbours, the corn farmers of the district". Thus they combined wage labour with dairy-farming on a small scale: Billingsley, *General View*, p. 157.

⁸ For a discussion of the differentiation between small- and large-scale dairying operations, see P. R. Edwards, "The Development of Dairy Farming on the North Shropshire Plain in the Seventeenth Century", *Midland Hist.*, iv (1978), pp. 175-90. See also Billingsley, *General View*, pp. 53-4, 142-3, 157-8.

⁹ William Ellis, *Modern Husbandman*, 4 vols. (London, 1744), ii, pp. 167-8; Billingsley, *General View*, pp. 142-3, 157; William Marshall, *The Rural Economy of Gloucestershire*, 2 vols. (Gloucester, 1789), i, p. 263, ii, pp. 137, 153. Marshall indicates that some female managers were hired and paid wages. Dairymen also may have participated in the production of cheese. He compares a "Mrs. Badon of Deyhouse near Swindon", "a most experienced and intelligent manager", to "Mr. Rich, of Foxham [Wilts.] . . . a skilful and attentive dairyman", who also appears to be responsible for the making of cheese on his farm: *ibid.*, ii, p. 156. See also John Lawrence, *The New Farmer's Calendar*, 4th edn. (London, 1802), pp. 135-6.

The housewife, to make her own cheese,
 Through trusting of others, hath this for her fees;
 Her milk pan and cream pot, so slabbered and sost,
 That butter is wanting, and cheese is half lost.¹⁰

So dependent was the small farmer on the free and careful labour of his daughters that the misfortune of having only sons could force him into livestock farming instead of dairying in the interests of economy.¹¹

In the larger establishments, even greater responsibility automatically devolved upon the mistress of the dairy, and her qualities were mystified in proportion to her importance. "A superior dairywoman is so highly spoken of, and so highly valued, in this district", reported William Marshall, "that one is led to imagine every thing depends upon MANAGEMENT. Instances are mentioned of the same farm, under different managers, having produced good and bad cheese: even changing a dairy *maid* has been observed to make a considerable difference in the quality of the produce". On smaller farms, where the superintendent took part in nearly every operation, the distinction between manager and assistant was not great in terms of hours of labour and actual tasks. Experience made the ultimate difference, endowing the mistress of the farm with arbitrary power and also making possible the appointment of a dairymaid as an "ostensible manager".¹²

Dairymaids, too, garnered praise for their expertise. In Gloucestershire, "the best of thin Cheese" owed more "to the Skill and good Management of the Dairymaid, than to the Grass or Herbage the Cows feed on". William Ellis underscored the value of these young women: "Farmers are so jealous of their Skill being made known in other Parts", he attested, "that they take care, in time, to hire and keep them to themselves". Thus the "Berkley Dairy maid" seldom

¹⁰ Thomas Tusser, *Five Hundred Points of Good Husbandry*, ed. W. Mavor (1812), quoted in Fussell, *English Dairy Farmer*, p. 161. Tusser devoted a good deal of attention and wit to the dairy, giving advice on everything from servants to mousetraps:

Good dairie doth pleasure
 Ill dairie spendes treasure.

Good huswife in dairie, that needes not be tolde,
 deserueth hir fee to be paid hir in golde.

Ill seruant neglecting what huswiferie saies,
 deserueth hir fee to be paid hir with baies [reproof].

Quotations from T. Tusser, *Fiue Hundred Pointes of Good Husbandrie* (1580 edn., repr., English Dialect Soc., London, 1878), p. 172.

¹¹ Ellis, *Modern Husbandman*, iii, p. 62.

¹² Marshall, *Rural Economy of Gloucestershire*, ii, pp. 104-5, i, p. 263.

worked far from her place of birth, “for if she quits one Place, she is almost sure to be hired in to another” close by, in order to maintain exclusive rights to her skills. Hertfordshire boasted the “strong hardy Girl” known best for her unflagging strength and energy, a “true Slave” for both household and dairy-work. With “red plump Arms and Hands, and clumsy Fingers”, this type of girl could milk cows at great distances from the barn, in “all Weathers”, including freezing temperatures, and carry the milk back to the barn without assistance. Differences of opinion existed as to how much autonomy the maid should enjoy, but a farmer might expect a dairymaid to come to the job with methods of her own and laud her knowledgeable independence.¹³

Dairying for profit, sometimes according to new scientific methods, became more necessary and widespread from the middle decades of the century. Higher rents forced even the most humble farmers to learn ways of extracting more produce from their holdings. As one “judicious dairywoman” of Gloucester put it, “Formerly people were used to think[ing] nothing of dung; but now every body is scraping all they can together; for since the rents have been raised, they could not live if they did not help their land”. The growing demand for food also affected dairying districts during these years, as a rising population created a large market for cheese and butter. William Ellis’s serial publication, *Modern Husbandman* (1744), exemplified the market-oriented attitude that was current by mid-century. “Why Making Butter and Cheese is more profitable, than Suckling Calves”, announced the subtitle of one instalment. “This brings in Money without laying out any”, Ellis pointed out simply, “whereas, in Suckling, there is a Charge, and Trouble of going to Market to buy Calves, and then no more Profit, than bare Suckling”. John Lawrence echoed Ellis in a similar assessment of the profitability of dairying. “Were it demanded of me, generally, what is the most advantageous application of land, I should be inclined to answer, that of dairying, or feeding a large number of cows, for the produce of butter: but”, he added, “with the reserve, that the business be conducted with great variation from the common modes”. Lawrence went on to describe the need for assiduous supervision by a profit-conscious “dairy-man”. Treatises on marketing milk followed suit, indicating that the dairy was being subjected to a vigorous course of renovation.¹⁴

¹³ William Ellis, *Agriculture Improv’d*, 4 vols. (London, 1745), i, pp. 133-4, ii, pp. 92-3; Fussell, *English Dairy Farmer*, p. 251.

¹⁴ Marshall, *Rural Economy of Gloucestershire*, ii, p. 96; Ellis, *Modern Husbandman*, ii, p. 134; Lawrence, *New Farmer’s Calendar*, pp. 135-6. Milk production and

(cont. on p. 149)

This expansion owed much to a growing market for cheese, generated by a burgeoning working-class population, particularly in London and large provincial towns. Because it was cheap, nutritious and convenient, cheese enjoyed wide consumption by the labouring classes. Low-grade varieties (those types made with skimmed milk in particular) made up part of the staple diet of agricultural and town labourers. Particularly when times were hard, labourers ate little or no meat and relied on a diet of bread, cheese and salt fish. Eighteenth-century workhouses fed cheese to inmates regularly, and the navy purchased enormous quantities. Institutional needs must have accounted for a considerable rise in consumption if the Greenwich Hospital, which served 2¼ lbs. per week to each pensioner in 1802, can be seen as representative. Rising prices of other foodstuffs only amplified demand for the commodity during the early nineteenth century.¹⁵

Also in rising demand, butter enjoyed the status of a more universally coveted commodity and represented a barometer of household prosperity. It occupied an indispensable place on bread and even ale, and was so essential to the consumption of peas and beans that its price was driven upwards during the vegetable growing season. The labouring classes in the towns used butter far less widely than rural labourers, and often purchased low-grade products (the lowest denoted as "grease") to wet their bread. Though much was probably rancid or thinned with water by the time it reached poorer purchasers, growing sales of butter (including quantities imported from Ireland) reflected both a rising population and higher standards of living among middle-class consumers.¹⁶

(n. 14 cont.)

marketing, though obviously related to this discussion, cannot be treated at length here, but see William Harley, *The Harleian Dairy System* (London, 1829); see also *A Treatise on Milk, as an Article of the First Necessity to the Health and Comfort of the Community* (London, 1825); P. J. Atkins, "The Retail Milk Trade in London, c. 1790-1914", *Econ. Hist. Rev.*, 2nd ser., xxxiii (1980), pp. 522-37. J. A. Chartres points out that "cheese reaching London may have at least doubled between the mid seventeenth and the mid eighteenth" centuries: J. A. Chartres, "The Marketing of Agricultural Produce", in Thirsk (ed.), *Agrarian History of England and Wales*, v, pt. 2, p. 447.

¹⁵ Kerridge, *Agricultural Revolution*, pp. 332-5; J. C. Drummond and Anne Wilbraham, *The Englishman's Food*, rev. edn. (London, 1958), p. 55; Fussell, *English Dairy Farmer*, pp. 270-1; John Burnett, *Plenty and Want*, rev. edn. (London, 1979), chs. 2, 3. Whey was also consumed in great quantities by the coffee-houses of London. See John Houghton (ed.), *A Collection for the Improvement of Husbandry and Trade*, rev. edn., 3 vols. (London, 1727), i, p. 409.

¹⁶ Drummond and Wilbraham, *Englishman's Food*, pp. 193-5, 303-4; Fussell, *English Dairy Farmer*, p. 206; Burnett, *Plenty and Want*, ch. 4. Adulteration unfortunately was very much a part of the ordinary marketing of butter in the eighteenth century. Eliza Smith recommended that the purchaser "trust not to the top alone, but unhoop

(cont. on p. 150)

The intensification of dairying had a decided impact on the way in which labour was conceived and prescribed, for market pressures demanded more exacting standards of quality and uniformity from every supplier. The nature of the dairying industry, characterized by a multitude of small suppliers scattered about the countryside, lent itself well to the activities of a middleman, or factor, who played a prominent part in the business from the seventeenth century onwards. By purchasing products locally in order to sell in bulk to distant purchasers, he tied the remote dairy to cosmopolitan centres of consumption.¹⁷ The markets of London generated sufficient demand to warrant a combine of cheesemongers, with their own network of factors scattered throughout Cheshire and the surrounding region, and a fleet of sixteen ships operating between London and Liverpool. As dairies acquired a reputation for money-making potential, some farmers leased their barns and cows to professional dairymen. Though this practice was probably limited, the very structure of the leased dairy, with a male manager at its head, calls attention to the most salient characteristic of the new business of dairying: a critical attitude towards the role of women and their ways of working.¹⁸

III

A proliferation of literature on agriculture in the eighteenth century

(n. 16 cont.)

[the cask] to the middle, thrusting your knife between the staves of the cask, and then you cannot be deceived": Eliza Smith, *The Compleat Housewife*, 15th edn. (London, 1753), p. 5. I am grateful to Jillian Strang for this reference. An account of milk belongs more to the history of commerce in food than the history of dairying and so is not included here. Consumption levels did not rise until after the mid-nineteenth century, when public opinion began to address contamination levels and practices of adulteration. Only the advent of railway transport and, later on, refrigeration, ushered in a widespread taste for liquid milk outside the immediate vicinity of dairying regions: Drummond and Wilbraham, *Englishman's Food*, pp. 193-4, 299-300; Fussell, *English Dairy Farmer*, pp. 300 ff.

¹⁷ Chartres, "Marketing of Agricultural Produce", pp. 406-7, 486-7. The cheese factor was never a popular figure. As Henstock has pointed out, "it is significant that in the 1766 food riots the fury of the mob was directed not against the farmers who made the cheese, but against the cheesefactors and the warehouses to which they consigned their purchases". Henstock also notes that only the cheese factory movement promised to eliminate the monopoly and fraud carried out by the factor. The motto "better for the farmer to have a factory for his bank than a factor for his banker" won this movement much favour: Henstock, "Cheese Manufacture", p. 44. Riots protesting at the transport of butter were frequent: see, for example, John Bohstedt, "Gender, Household and Community Politics: Women in English Riots, 1790-1810", *Past and Present*, no. 120 (Aug. 1988), p. 103.

¹⁸ Drummond and Wilbraham, *Englishman's Food*, p. 195; on male managers, esp. in Dorset, Devon, Somerset, Wiltshire and Hampshire, see Pinchbeck, *Women Workers*, pp. 41-2; H. Levy, *Large and Small Holdings* (Cambridge, 1911), pp. 177-8.

inevitably affected dairying, as treatises, periodicals and pamphlets strove to redirect methods of farming into more scientific channels. The drive to improve agricultural practices borrowed from the contemporary interest in natural science and empirical methods. The two impulses had much in common; relatively little distinction existed between "scientific" and "useful" knowledge in English Enlightenment culture. Many advocates of the new scientific experimentation in physics and chemistry were gentlemen with interests in money-making endeavours, whose predilections for utility led them to foster an environment favourable to rationalized agriculture. From the highest echelons of the Royal Society of London to an array of provincial scientific associations, the promotion of agricultural improvement occupied an important place in publications and agendas. Alongside the familiar figures of William Marshall and Arthur Young stood numerous lesser lights, such as Richard Bradley, F.R.S. (1688-1732), James Anderson (1739-1808) and John Lawrence (1753-1839), who combined interests in botany, chemistry, philology and philosophy in their promotion of agricultural subjects. Influential circles of men sponsored essay competitions, the publishing of correspondence and the award of prizes. So prevalent was the fashion to publish information on agriculture that the derogatory terms "Book-Husbandry" and "book-farming" were coined to lay censure on those who were "scholars only" or "mere theorists". Yet this forward-looking attitude enabled British agriculture to produce an adequate food supply (at least in relative terms) throughout a period of enormous population growth.¹⁹

Rationalized methods of agriculture represented more than a material solution to the problem of food supplies; they signalled the appearance of larger systems of thought which would conflict with existing rural attitudes towards nature, production and consumption. Emanating from new centres of activity, scientific discourses infiltrated the world of dairying. In some instances, these modes of reasoning converged with generally held knowledge about tending animals and producing cheese and butter; in others, they challenged

¹⁹ One author complained that the books on agriculture were "too numerous to be purchased". See David Henry, *The Complete English Farmer, or, A Practical System of Husbandry* (London, 1771), p. iii; Lawrence, *New Farmer's Calendar*, p. v. For the diffusion of scientific knowledge in the eighteenth century, see M. Jacob, *The Cultural Meaning of the Scientific Revolution* (New York, 1988), pp. 152-3; Roy Porter, "The Enlightenment in England", in Roy Porter and Mikuláš Teich (eds.), *The Enlightenment in National Context* (Cambridge, 1981), pp. 1-18; Keith Thomas, *Man and the Natural World* (New York, 1983), pp. 87-91, *passim*.

the very values and practices upheld by generations of dairying families. The new discourses both boosted and absorbed the force of market demands for dairy products. A regular supply of acceptable cheeses and butter was needed but not always available, given the unpredictable outcome of many dairying procedures. In an attempt to assure such regular quality production, the new agriculture allied itself with empirical discourse aimed at attaining “true”, repeatable results. The assumption that an absolute, scientific truth existed in dairying, which could be achieved through repeated experimentation and standardized measurements, introduced a new hierarchy of authority that would alter the social relations of the dairying farm and community.

A competition arose between new and old styles of dairying. Those in possession of new knowledge asserted superiority over the less enlightened, and armed with the incontestability of reason, they campaigned against customary ways of making cheese and butter. Inevitably this debate developed into a struggle between the informed man of reason and the ignorant practitioner, most often depicted as the tradition-bound dairywoman, and was fought out in the pages of the agricultural treatise. Dairywomen were not considered open to new methods or new objectives; they were too closely associated with the realm of nature and superstition to promise success in scientific improvement. The “*fair professors*” of dairying, William Marshall pointed out,

tho' they may claim a degree of NATURAL CLEVERNESS . . . having tried their skill, *alone*, without obtaining the requisite degree of excellency, can have no good objection, now, to let us try our *joint* endeavours. And I call upon every man of science, who has opportunity and leisure, to lend them his best assistance.²⁰

What appeared to be the “natural” aversion of women to learning new techniques was only underscored by a prescribed female subservience to men. This undeclared war between new and old was in fact a struggle against women’s ways of working. Recognizing and responding to the material advantages held out by the new agriculture, farmers acquired knowledge in order to adopt the role of instructor and re-educate women.

Against the erratic practices of traditional husbandry, the new agriculture posed technique that was observed, recorded and repeated in the best empirical style. Dairying was particularly susceptible to the printed dimension of the agricultural revolution, for it represented

²⁰ Marshall, *Rural Economy of Gloucestershire*, ii, p. 186.

customary, unrecorded methods of farming *par excellence*. Dairying was seen as an art rather than a science; as a consequence of its reliance upon apparently incalculable procedures, as well as its irregular results, dairying belonged to an occult branch of husbandry. Before the eighteenth century, very little record had been made of dairying methods, a fact which amazed contemporaries as well as later historians. The move from oral to written knowledge constituted an advance over previous practices, as the act of printing and publishing would subject methods to the scrutiny of a wide audience and the test of further experience. "The art of agriculture must ever remain imperfect while it is suffered to languish in the memory, and die with the practitioner", wrote Marshall in his treatise on Norfolk. Although he referred to farming as an "art", Marshall revealed his reverence for art's opponent, science: "RECORD, only, can perpetuate the art; and SYSTEM, alone, render the science comprehensive". It was no coincidence that Marshall's plea for making agriculture a recorded science appeared in the preface to a work on one of the major dairying counties in the nation. "What Dr. Johnson says of Language is applicable to Agriculture", Marshall added in a telling footnote: "'Diction merely vocal is always in its childhood. As no man leaves his eloquence behind him, the new generations have all to learn'".²¹ Marshall's words ominously predicted the dawn of a new age of dairying, in which raising the art would also entail reconstituting its techniques. Through the writing and dissemination of these texts, male practitioners redefined the art of women and appropriated it as their own.

Much of the actual work of dairying appeared to defy rational explanation and systematic analysis. Cheesemaking demanded attention to minute details in a seemingly endless process. Many operations required determining proper temperature and time, measurements literally incalculable without modern instruments. The correct temperature for milk at the time of adding the rennet was, appropriately enough, "milk-warm", and only the experienced hand of the mistress showed sufficient sensitivity. The rennet itself constituted a uniquely mysterious substance whose properties were not fully understood even in the late nineteenth century. Produced from an extract of the stomach of a calf according to as many methods as there were cheeses, rennet made possible the chemical reaction enabling curd to form from the milk and cream. Agronomists and dairywomen debated

²¹ William Marshall, *The Rural Economy of Norfolk*, 2 vols. (London, 1787), i, p. vii; Fussell, *English Dairy Farmer*, pp. 203-4, 206, 223.

various ways of pickling, drying and cleaning the “calf’s bag” for nearly a century and a half.²²

Other steps in cheesemaking varied according to countless regional factors and climatic conditions. Under such constraints, a seemingly mysterious matriarchal authority prevailed, and techniques often derived from several generations of women. “How unthankful an office it is”, complained one treatise on dairying, “to attempt to instruct or inform Dairywomen, how to improve their method, or point out rules, which are different from their own, or what hath always been practised by their Mothers, to whom they are often very partial”. To the outsider, such women appeared stubbornly set in their ways, and almost superstitious in their adherence to imponderable procedures. “There may be many variations as to the minutiae . . . as no two dairy women exactly follow the same method”, a Cheshire farmer reported, “some pretending to have a secret, or nostrum, unknown to their neighbours”. Arthur Young simply surrendered in the face of such obscurity. “The minutiae of dairy concerns would fill a book”, he complained, “and after all would not be useful to any extent”.²³

Yet dairywomen were not oblivious to external pressures. Long accustomed to selling their products, if only on a local basis, they showed considerable sensitivity to the ever-elusive predilections of the market. Yellow butter attained its golden cast not from nature, but from marigold blossoms, which the dairywoman carefully preserved for year-long use in order to cater to the universal preference for a coloured product.²⁴ Gloucestershire cheeses acquired a reputation for a variegated appearance through a “trick” of dairywomen adopted long before the inquiries of the eighteenth century. The oldest dairywoman with whom Marshall conversed was unable to remember when cheeses were not artificially coloured; by the 1790s, the practice was so standard that factors claimed that they could

²² Josiah Twamley, *Dairying Exemplified, or the Business of Cheese-making* (Warwick, 1784), pp. 28-9. Thermometers were costly and scarce until the mid-nineteenth century. See Fussell, *English Dairy Farmer*, pp. 230-7; Joseph Harding, “Recent Improvements in Dairy Practice”, *Jl. Roy. Agric. Soc.*, xxi (1860), p. 85.

²³ Twamley, *Dairying Exemplified*, p. 10; *Annals of Agriculture*, xvii (1792), pp. 48-9; Young quoted in Fussell, *English Dairy Farmer*, p. 211. Young’s tirade against “minutiae” was never repeated with reference to the detail of knowledge required of men in dairying. John Lawrence praised this aspect of the breeder’s qualities and disposition: “He must enter fully into the spirit of a thousand little niceties, both of judgment and practice, which it would take a good volume to describe”: Lawrence, *New Farmer’s Calendar*, pp. 137-8.

²⁴ Fussell, *English Dairy Farmer*, p. 209.

not sell the cheeses without their characteristic tint and therefore undertook the job of supplying their dairywomen with dyes.²⁵ Early in the eighteenth century, colouring cheeses had been seen as a form of adulteration and thus as a crime, particularly as the substances used were sometimes toxic. But by the end of the century, the colouring of cheese was seen as part of the dairywoman's skill in satisfying the purchaser, the cheese factor and, ultimately, the consumer:

They colour it, now, through a kind of necessity, and with intentions as innocent as those of other manufacturers who change the colour of their raw materials. If the eaters of cheese were to take it into their heads, to prefer black, blue, or red cheese, to that of a golden hue . . . they would do their best endeavour to gratify them.²⁶

Marshall criticized some colouring techniques as "filthy practices", but less judgemental agronomists recounted methods with respectful exactitude. William Ellis offered several explanations for making figured cheeses, obtained from "one of the best Dairy-women in the Vale of Alesbury", including "a pretty way of making chequer'd Sage-cheese". Formerly construed as unlawful deception, these techniques now constituted art. Dairywomen also painstakingly produced cheeses in the shapes of pineapples, flowers, fish and trees, and then coloured them accordingly. The pressures of the market-place thus influenced the alacrity with which women engaged in customary practices.²⁷

Whatever managerial role dairywomen played in the new world of commercial dairying was gradually erased in agricultural treatises. Writers effectively displaced women from positions of authority by appropriating the role of instructor and obliterating the agency of women in dairy production. The liminal status of the agricultural writer, straddling two worlds, contributed to this process: as a practical farmer, he was thoroughly acquainted with women's work in the dairy, but as authoritative writer, he communicated to a world of men. John Lawrence, a successful popularizer of improved farming techniques, demonstrated a noticeably ambivalent attitude towards these problems in his *New Farmer's Calendar* (4th edition, 1802). He inscribed his monthly offering "to the farmers of Great Britain", with the title-page exhortation "Britons! Honour the plough". Judging from correspondence in Young's *Annals of Agriculture*, the readership of serial publications was almost exclusively male, with only one or

²⁵ Marshall, *Rural Economy of Gloucestershire*, ii, pp. 111, 126-7, 164.

²⁶ *Ibid.*, p. 111.

²⁷ *Ibid.*, p. 128; Ellis, *Agriculture Improv'd*, ii, pp. 95-8; Pinchbeck, *Women Workers*, p. 15.

two female exceptions. Lawrence could hardly have expected the dairymaid herself to read his advice to “beat the butter down with a hard wooden rammer, not *hot fists*”. But in one instance he explicitly addressed his comments to both sexes, and this was in his command to give milch-cows “the most *patient*, gentle, and humane treatment”:

*I say this to masters and mistresses, who, however regularly they may go to church, are guilty of a high breach of their moral duty, when they do not enforce, both by example and precept, the humane treatment of all animals.*²⁸

While such moral advice constituted fit information for women, his remaining instructions were addressed to no one in particular. Presumably Lawrence aimed his *Calendar* at farmers like himself, who would then take on the office of instructing others.

Though the female dairy manager was absent as an essential character in the pages of Lawrence’s work, she was nevertheless the source of his expertise: he admitted that he obtained his knowledge of the dairy from his wife. “The few loose hints I have to offer on DAIRY-MANAGEMENT”, he explained in passing, “are from my wife, who has been accustomed, from her youth, to the superintendance [*sic*] of the dairy, as well as the business of farming and gardening in general”.²⁹ Lawrence was not alone in relying on his wife for information; his more sophisticated contemporary, James Anderson, F.R.A.S.Scot., LL.D, F.S.A.E., also credited his wife, then deceased, in a postscript to his instalment on dairying in *Recreations in Agriculture*. “To her gentle influence the public are indebted, if they be indeed indebted at all, for whatever useful hints may at any time have dropt from my pen”, he humbly acknowledged. Anderson further obliterated signs of her independent contribution to the science of dairying by adding a bit of moral philosophy to his postscript. “A being, she thought, who must depend so much as man [*sic*] does on the assistance of others, owes as a debt to his fellow-creatures the communication of the little useful knowledge that chance may have thrown in his way”. Concurring with his wife’s apparent selflessness, he added, “Such has been my constant aim”. Yet Anderson grasped the implications of transferring knowledge to a readership that was hungry for technical advice. Emblazoned on the title-page was a quotation from Bacon: “Knowledge is power”. His publi-

²⁸ Lawrence, *New Farmer’s Calendar*, pp. 510, 507. Lawrence published an earlier treatise addressing the humane treatment of animals and promoted the cause throughout his life. See John Lawrence, *Philosophical and Practical Treatise on Horses: and On the Moral Duties of Man towards the Brute Creation* (London, 1796).

²⁹ Lawrence, *New Farmer’s Calendar*, p. 510.

cations, like those of Lawrence, would undermine the authority of the dairywoman.³⁰

Other writers displayed a more marked consciousness of the gendered nature of dairying skills. Marshall's famous works on the rural economy of England, published from 1787 to 1798, provided perhaps the fullest account of dairying methods, and explicitly acknowledged the prominent role of women in production. Obtaining information about this womanly art, however, was no simple task. "The dairy-room is consecrated to the sex", Marshall averred, "and it is generally understood to require some interest, and more address, to gain full admission to its rites". Like the altar of a primitive religion, the dairy occupied some nether region of female space. In publishing information on dairying, Marshall presented his findings as private information now rendered public. He contrasted the manufacture of cheese with the cultivation of land; while farming was a "*public employment*", cheesemaking was "*a private manufactory* — a craft — a mystery — secluded from the public eye". The "*minutiae*" of the industry were so obscured from view that "even . . . the master of the dairy" might not know them. He pointed out that his compilation of methods used in Gloucestershire and northern Wiltshire amounted to more information "than any individual of the two counties knew" at the time. "The knowledge, even of practitioners, is in a manner wholly confined to their own individual practice", he explained; "or perhaps to that of some few confidential neighbours". The published agricultural treatise now existed as a countervailing force against the tendency of dairywomen to maintain their privacy, and Marshall and others ensured that science would replace secrecy.³¹

The flurry of information on dairying, like that on agriculture in general, had as its ultimate object the advancement of the individual dairy-farmer over others. But the representation of the dairy as a private enterprise wanting exposure and publicity conflicted with the prevailing spirit of some dairying communities, where knowledge was both private and shared. The best and most expensive cheddar came from regions of England where farmers and dairywomen depended to a great degree on co-operation for the production of cheese. In the Brue Marshes in eighteenth-century Somerset, for example, the residents of each district daily combined their milk to produce a co-operative cheese, known throughout England for its high quality.

³⁰ James Anderson, *Recreations in Agriculture, Natural-History, Arts, and Miscellaneous Literature*, 6 vols. (1799-1802), iv, p. 89.

³¹ Marshall, *Rural Economy of Gloucestershire*, ii, p. 185.

Celia Fiennes witnessed the same practice in Cheshire, where “the custome of the country to joyn their milking together of a whole village and to make their great cheeses” compensated for the fact that the herds of individual farms tended to be small in size during the first half of the eighteenth century. One need not idealize the eighteenth-century farming community to find practices which, according to rational considerations, benefited the entire community rather than the individual dairy-farmer. Here quality and commercial success were compatible with customary methods.³²

At times, the social practices of dairywomen positively enhanced the co-operative spirit that existed within rural communities. Cheese itself could be shared; as food, it satisfied a natural need linked to women in their customary role as producers of life and providers of sustenance. In his travels, William Ellis took note of a widely acclaimed custom of making “dolphin cheese”, in decline by the middle years of the eighteenth century, which celebrated the event of childbirth. Produced from a specially carved wooden mould, the cheese “was much esteemed as an Ornament, as well as Service to a lying-in Woman’s Chamber”. The significance of this figure, symbolizing rescue from peril and resurrection from death, made it a popular item in country households, and the moulds being scarce, they were “lent from one Neighbour to another, throughout a Town”. The dolphin cheese thus served the multiple purpose of communicating neighbourly goodwill, female art, and material sustenance at times of need.³³

The typical eighteenth-century dairy presented a world of labour unto itself, topsy-turvy in its assignment of gender roles. The workforce, headed by a woman, was primarily female: the mistress of the farm commanded anything from two to twenty maids (each maid tending ten cows), driving the girls hard from four in the morning till well into the evening. This phalanx of female industry might be assisted by one or two men or boys; but male labour was generally unskilled and irregularly provided. Milking was a long and laborious process, often taking place in the pastures, so that some help from men was needed in getting the milk back to the barn. But the designation of “Odd Man” (“one that is to set his Hand to any

³² Kerridge, *Agricultural Revolution*, p. 122; Celia Fiennes, *The Journeys of Celia Fiennes*, ed. C. Morris (London, 1947), p. 177, quoted in David Hey, “The North-West Midlands: Derbyshire, Staffordshire, Cheshire, and Shropshire”, in J. Thirsk (ed.), *The Agrarian History of England and Wales*, v, pt. 1 (Cambridge, 1984), p. 153.

³³ Ellis, *Agriculture Improv’d*, ii, pp. 97-8.

common Business") indicated the anomalous nature of this category of employment.³⁴

Turning the heaviest rounds of cheese, sometimes weighing over 100 lbs. each, presented the greatest problem for agriculturalists as they attempted to prescribe gender-specific roles to dairy-work. Clearly women were capable of the task. In Cheshire, where cheesemaking was usually a large-scale undertaking, women simply did the work that was required. "The labour of turning and cleaning cheese is performed almost universally by women", Holland reported in his work for the Board of Agriculture; "and that in large dairies, where the cheeses are upwards of 140lb. each, upon an average: this they do without much appearance of exertion, and with a degree of ease, which is [a] matter of surprise even in this county". A man might join in this later stage of production, but such assistance was by no means the rule. Men like Marshall blanched at the reality:

It is customary, even in the largest dairies, for the ostensible manager, whether mistress or maid, to perform the *whole* operation of making cheese; except the last breaking &c. and the vating; in which she has an assistant. But this, in a dairy of eighty or a hundred cows, is too great labour for any woman: it is painful to see it.

A Midlands cheese factor witnessed the same, and protested against it: "The weight of a large *Cheshire* Cheese", he stated, is "too great to be wrought by a Woman, and turning, rubbing, washing, and cleaning, is more than one Man can easily perform". Though both writers observed women successfully performing such tasks, their revulsion caused them to obscure that fact beneath a general condemnation of traditional practice.³⁵

The attributes of labour found in the eighteenth-century dairy contrasted strikingly with later models offered by industrial capitalism, where mental work was separated from manual. Marshall recognized that dairying required both "much thought, and much labour", a combination of talents rarely attributed to labouring women, much less to women anywhere in the public world of production. The qualities assigned to women and men in the dairy virtually inverted the roles of the sexes: women combined decision-making with indus-

³⁴ *Ibid.*, i, p. 132.

³⁵ Henry Holland, *General View of the Agriculture of Cheshire* (London, 1808), p. 282; Marshall, *Rural Economy of Gloucestershire*, ii, p. 156; Twamley, *Dairying Exemplified*, pp. 12-13, 20; Fussell, *English Dairy Farmer*, pp. 228-9. Such work was still being performed by women in the mid-nineteenth century: see *Reports of Special Assistant Poor Law Commissioners on the Employment of Women and Children in Agriculture*, Parliamentary Papers, 1843 [510], xii, pp. 61-2.

try, and showed ceaseless commitment to a never-ending workday, while men appeared on the scene only sporadically in order to contribute unskilled labour. According to one writer, male labourers also displayed a recalcitrance and diffidence which nineteenth-century writers later associated only with women. Before the introduction of mechanization into larger establishments in the 1790s, butter-making sometimes required male assistants to help in the long process of churning. But “men servants make many objections to this employment (which is certainly very laborious) and generally set about it with an ill will, often quit it before it is finished, and as often contrive to get out of the way, when likely to be wanted for this operation”. In the area of milking alone, women were praised for a specifically feminine touch: “gentleness” was universally regarded as the best approach to extracting milk from a cow. Otherwise dairying demanded endurance and strength totally absent in grace.³⁶

Though associated with the female sex, the dairy did not display characteristics in keeping with prosaic images of femininity. Cleanliness was always of foremost importance; but that required of the dairywoman and her dairy was not “studied *outward neatness*” for show, but rather, cleanliness soberly manifested “*in reality*”. “A cheese dairy is a manufactory — a workshop — and is, in truth, a place of hard work”, explained Marshall. Attention to “arrangement” and appearance there “would be superfluous”.³⁷ What was pleasing to the eye was not necessarily desirable; and what seemed unattractive was not always regarded as such by the expert. Caring for cows required constant contact with their bodily parts and functions, including regular tending to their diet and excretions in order to monitor factors contributing to the flavours of milk, butter and cheese. Cheesemaking similarly entailed dealing with strong odours and slimy substances that were often unpleasant, and sometimes fetid and repugnant. Yet skilful dairying demanded that the manager not only confront such elements of the job, but also inspect and analyse them. Too much heat surrounding a cheese as it aged created “heaved Cheese”, detected by sticking the round with a taster to allow the air to “rusheth forth with a strong Wind, of a rank disagreeable smell, caused by the Air being discharged from putrid or undigested Curd”. Through experience, a dairywoman might also determine what plants

³⁶ Marshall, *Rural Economy of Gloucestershire*, i, p. 263; James Jackson, *A Treatise of Agriculture and Dairy Husbandry* (Edinburgh, 1840), quoted in Fussell, *English Dairy Farmer*, p. 170; Levy, *Large and Small Holdings*, p. 173.

³⁷ Marshall, *Rural Economy of Gloucestershire*, i, p. 264.

to sow to rid her cows of flatulence. Inevitably women might also speculate upon the parallels between the production of cow's milk and their own; by no coincidence, a woman farmer discovered that frequent milking increased the production of her cows by a considerable amount. Nature cohabited with women in the dairy; in the eighteenth century, it was not a carefully contrived presence, but rather a shameless and often slightly soiled one.³⁸

Though Marshall was able to observe the "old established practice" in his tour of Gloucestershire in the 1780s, new attitudes had begun to whittle away tolerance of tradition in dairy-work. Dairying as a science slowly overtook dairying as nature and art. The positive attributes of female labour in the family farm did not promise advancement in the new world of agriculture, for they were circumscribed within a role of housewifery that was gradually separated from the realm of business and subjected to new standards. Business considerations acquired more force within the most successful establishments, and these farms led the way in fixing powerful norms for others. At the forefront of this transformation stood the cheese factor; as an agent involved in the procuring and marketing of cheese, his experience in securing sales and good prices led him, through success and failure, to skilful dairywomen, from whom he systematically obtained information on techniques and procedures. The factor was often a farmer himself, usually with a large holding and many cows. His labour force was largely hired, their schedules routinized, and his credits and debits carefully accounted for. When eighteenth-century "men of science" inquired into the dairy industry, they turned to factors (and, in some instances, cheesemongers) for the information they required.³⁹

Marshall encountered such a man, suitably named Mr. Bigland, who was "purchaser of, perhaps, half the cheese which is made in the vale of Berkeley", "proprietor of a dairy of more than fifty cows", and most importantly, "a man of science". Contrasted with Marshall's other favourite, Mrs. Wade, who boasted "*education*", "natural abilities", "experience", and only forty or fifty cows cared for over twenty or thirty years, Marshall was led to overcome a distrust of "modern deviations" in order to investigate further the man of progress. Bigland was the person "most capable of giving me information",

³⁸ Twamley, *Dairying Exemplified*, pp. 52-3, 92-5; Pinchbeck, *Women Workers*, p. 12.

³⁹ See, for example, Houghton (ed.), *Collection for the Improvement of Husbandry and Trade*, i, pp. 394-5, 406.

Marshall admitted, “in every department of the subject I was investigating”. Moreover “His ability of information . . . was exceeded by his liberality in communicating it”. Hence followed several hundred pages of description of Bigland’s dairy, so that the reader of Marshall’s Gloucestershire tour was left to wonder at the disappearance of the venerable Mrs. Wade, who had ranked “among the first dairywomen of the district”.⁴⁰

Marshall’s treatise was not alone in displacing the authority of the dairywoman with that of the male manager. In Josiah Twamley’s *Dairying Exemplified, or the Business of Cheese-making* (1784), “the said art” of women became the “business” of men. The book claimed to be the first of its kind; “no Treatise or Book of rules, or method of making Cheese” had ever been set to paper. As a cheese factor plainly representing the best interests of the trade (his job was to contract good cheeses for later sale in a distant market), Twamley aimed to root out the exasperating irregularities that arose from the nature of dairying. “’Tis evident to a nice observer”, he complained,

of the different, yea, very different qualities of Cheese produc’d in different Dairys, or even in the same Dairys, when either the Dairy-maid is changed, or the usual method of Cheese making, by the Mistress or manager of each Dairy, is not strictly adhered to. A Remedy for this great deficiency is looked upon as an affair of great moment, especially by those, whose lot it is to be fixed in the Cheese Trade in a considerable Dairying Country.

Twamley’s observation echoed that of Marshall; but what Marshall simply marvelled at, Twamley condemned. Labour — particularly of such an elusive variety — must not ultimately determine the quality of the final product. Twamley offered a blueprint for successful dairying that explicitly blamed the capacities of women for the inadequacies of the trade.⁴¹

The factor criticized the stubbornness, inability, and, in one case, the “stupidity” of the dairywomen he encountered, railing against the “great number of inferior Dairys”. In place of customary attitudes and methods, he offered uniform standards and techniques. “Good Cheese may be made by a good Dairy-woman in any place, or on any land”, he claimed, and boasted that his advice could transform poor produce into highly marketable commodities. He expected resistance: “What does he know of Dairying”, the women would ask, “or how should a Man know any thing of Cheese making?”. Superior knowledge stood as his defence; he could present, in a soundly

⁴⁰ Marshall, *Rural Economy of Gloucestershire*, ii, pp. 106-7. Bigland was declared bankrupt in 1800: *Victoria County History, Gloucestershire*, x (Oxford, 1972), p. 174.

⁴¹ Twamley, *Dairying Exemplified*, pp. 7-9.

reasonable way, solutions to problems which "the Dairy-woman would fairly acknowledge she could not account for". The mystery of the dairywoman's art gave way to the reality of rational science.⁴²

Twamley's treatise included many personal accounts of his adventures as a cheese factor, each revealing the clash between his scientific spirit and the traditional temperaments of the women he encountered. His project was greatly aided by the nature of his trade in a tightly-knit dairy-farming community; on the road, at fairs, in kitchens and in barns, the factor availed himself of hospitality, information and local gossip. A neighbourliness not lacking in ordinary animosities, as well as dependent relations, prevailed among the dairywomen he interviewed. As a potential purchaser of cheese, he was greeted with eagerness and openness, as well as a fair amount of suspicion. His favourite strategy, to venture guesses at how cheeses were made, or what the taste of a cheese was before testing it, elicited amazement and disbelief from local women. Not having the benefit of Twamley's far-flung exposure to various cheeses, they were unable to fathom the source of his knowledge. One woman thought instead that he knew where she hailed from (constituting, in her mind, an explanation for his familiarity with her cheese), and she never totally relinquished the view that the factor practised a form of prognostication. Tales like this, juxtaposed with methodical and precise explanations of dairying processes, assured the reader that Twamley had indeed stumbled upon a benighted art, one waiting to be liberated from a crippling irrationality.⁴³

Twamley also used stories to recommend advice to the dairywomen he met and, in his treatise, he related what was clearly a favourite anecdote concluding with an instructive revelation. His observations had convinced him that "Cheese in general was made too much in a hurry". Happening to pass by a house "notorious for as bad a Dairy as I ever met with", Twamley reluctantly paid a visit. "Won[']t you call and look at my Cheese", the mistress of the establishment supposedly requested, "I am sure tis as good as my neighbour T—s, which you have been buying". "I fear not", replied the knowledgeable factor, and upon inspecting the dairy chamber, "told her it would not suit" him. But in casting a glance about the room, Twamley spotted one cheese that was "very blooming in appearance". "I should be glad to know the History of it", he inquired. Her

⁴² *Ibid.*, pp. 7, 11, 75.

⁴³ *Ibid.*, pp. 78-81.

response, in Twamley's eyes, only underscored her ignorance. "Why truly said she tis a strange one":

One night when I had rendled my Milk, a person came running to me, and said, neighbour T— is groaning & you must come immediately; I said to a raw wench I had to help me, now be sure you don[']t touch this Cheese till I come back, I will be sure to come to you when I see how neighbour T— is; but it happened she was worse than I expected, and I could not leave her till after midnight. I said, my Cheese will be spoiled, but the poor Woman shall not be lost for a Cheese; when I came home I found it not so bad as I expected, put it into the Vat in a hurry, saying, it may possibly make a Cheese that will do for ourselves, but I little thought it would ever be a saleable Cheese.

The account reveals as much about the dairying community as the science of cheesemaking. Helping a neighbour had taken precedence over the fate of her cheese; ironically, this was the very woman with whom she competed. Neither did the dairywoman approach the accidental results with the same attitude as Twamley. "Well now — said I", Twamley recorded, "and is not this Cheese a proper lesson to you? don[']t you thereby plainly see that you have made the rest too quick"? The woman replied, "It might, if I had thought at all — but I declare, I never once thought about it". "Profound stupidity! thought I to myself", wrote the cheese factor, "and left her".⁴⁴

Twamley was a prophet among an unenlightened people, spreading news of a brave new market in which his listeners had too little interest. Bound together by rigid custom and shared opinion, the dairying community needed to be divided and conquered by the new mentality. Twamley decried the "dangerous consequence, for a Factor to complain of any fault in the Cheese to the maker, or not give it sufficient praise". So tight was the fellowship of dairywomen that he could not afford to talk of the relative faults and merits of neighbours' cheeses, for fear of alienating them all. His suppliers complained that all were given "nearly the same Price" for their cheeses, and thus were discouraged from improvement; yet no one appeared willing to abandon her loyalty to the group in order to overcome "mediocrity". The commercial world of dairying, Twamley tirelessly argued in response, ultimately must extend beyond narrow local opinion.⁴⁵

Twamley's most revolutionary argument, that "dairy-folks" must learn to compete in the market-place, came disguised in the form of a homely proverb: "There is one best way of doing every thing, and

⁴⁴ *Ibid.*, pp. 74-5.

⁴⁵ *Ibid.*, pp. 70, 72.

'tis what in every way of life is a cause of strife, a maxim I was taught in my youth was, never strive to be second-best, someone must prevail, and they that do must strive for it, the best way of doing a thing is as easy, when known, as the second-best". Production for the market meant making new alliances; rather than clinging to their neighbours' society, dairywomen must cleave to the cheese factor. Twamley pointed out that their interests were the same as his: improved goods that brought the best customers to the cheese factor "would of course give the command in price to those who supplied him". His very language attempted to demonstrate the joining of factor to producer, market to household, male to female. Dairywomen would discover, he argued, that "Ambition & Interest, their bosom friends, will point out a new road to them, in which they will travel, not only as swift & prosperous, as their rival neighbours, but will not leave them in an easy & composed state, till they have out gone them". Dairywomen were to adopt the values and traits of the cheese factor and the market; a love of competition and mastery over others marked the talents of the dairywoman in the modern age of cheese-making.⁴⁶

IV

The new standards set by agriculturalists and cheese factors by themselves could not displace women from primary positions in dairying. A number of smaller farms persisted in utilizing chiefly wives and daughters, who made important decisions and performed heavy work. Mid-nineteenth-century inhabitants of Wiltshire reported that dairy-farmers' wives took "the hardest part of the work upon themselves"; this fact, they claimed, allowed agricultural labourers to enjoy a life that was not "so hard as it used to be". The controlling mistress was still in evidence in the 1840s: "I know many dairy-farms where the mistress never allows a servant to manage or clean a cheese, nor to touch it after it comes out of the vat", claimed one land agent, "thus performing the severest part of the labour herself". A strong market for dairy products supported large and small farmers alike through the first half of the nineteenth century, enabling those who wished to remain loyal to customary work-roles to selectively adopt the dictates of learned authorities.⁴⁷

⁴⁶ *Ibid.*, pp. 71-2.

⁴⁷ *Reports . . . on the Employment of Women and Children in Agriculture, 1843*, pp. 61-2, 65. Fussell reckoned that "the growth of population and the comparatively small proportion of imports indicate that the home dairy industry, so far from decreasing,

(cont. on p. 166)

But large-scale dairy-farmers interested in the latest improvements had enough capital to invest in labour-saving machinery which warranted the employment of several dairymaids, while obviating the need for the farmer's wife's traditional role. On such establishments, authority came from above and the autonomy of women was clearly circumscribed. Machinery gradually performed much of the maids' actual work, while leaving a less skilled person in charge of supervising each task. At the bottom of the hierarchy, the ordinary dairymaid became part of the proletariat of the agricultural workforce. Though considered more respectable than the average labourer owing to the fact that she did not mix with men on the farm, her hours were notoriously long and her position increasingly difficult to fill.⁴⁸ Her symbolic significance seems to have waxed as her status as labourer waned. As Charles Phythian-Adams has shown in a study of May Day rituals, the country milkmaid came to represent pure female sexuality, "chastity, modesty and clean, but hard, *country*-living", in contrast with the less acceptable attributes of male labour. The nineteenth-century milkmaid competed with other wage-earners as a subordinate requesting the aid of wealthy élites, though this did not diminish the durability of her symbolic image, as the character of Thomas Hardy's *Tess* seems to demonstrate.⁴⁹

The growing sophistication of the market played a strong part in determining the nature of social relations in dairying during this time; commercial considerations and transactions became paramount in establishing the chain of command in some dairying districts. An account of cheese-marketing in Derbyshire in 1829 makes no mention of women in its explanation of the highly articulated "staple com-
(n. 47 cont.)
must have expanded to a quite notable degree": Fussell, *English Dairy Farmer*, p. 284. Certain localities, such as Derbyshire, obviously increased cheese production to meet the needs of a growing working-class population. The rate of expansion, according to one mid-century account, went from 2,000 tons annually in the first decade of the nineteenth century to 8,000 tons in 1846 and 10,000 tons in 1857: Henstock, "Cheese Manufacture", pp. 39-43.

⁴⁸ James Obelkevich, *Religion and Rural Society: South Lindsey, 1825-1875* (Oxford, 1976), p. 66; J. Chalmers Morton, "On Cheese-making in Home Dairies and in Factories", *Jl. Roy. Agric. Soc.*, 2nd ser., xi (1875), p. 270; Jennie Kitteringham, "Country Work Girls in Nineteenth-Century England", in Raphael Samuel (ed.), *Village Life and Labour* (London, 1975), pp. 95-6. Kitteringham points out that larger farmers would hire a "milking gang for the duration of the milking season and then lay off most of the workers when the cows were due to calve". A select number of maids would be retained and would live in at the farmer's residence: *ibid.*, p. 95.

⁴⁹ Charles Phythian-Adams, "Milk and Soot: The Changing Vocabulary of a Popular Ritual in Stuart and Hanoverian London", in Derek Fraser and Anthony Sutcliffe (eds.), *The Pursuit of Urban History* (London, 1983), p. 99. I am indebted to Edward Thompson for this reference.

modity" business. Factors or dealers made contracts with "small dairy-men", collecting the cheeses at centrally located warehouses where the rounds were inspected and re-inspected and readied for the huge market of London, for fulfilling government contracts, or for shipping all over the kingdom. The extension of canal systems through the Midlands greatly facilitated business from the late eighteenth century, and by this time it is clear that quantities of sale had multiplied by hundreds of pounds in weight. Only the small dairymen entered in a "ready-money trade" for smaller quantities; the rest of the farmers relied on credit and waited until higher prices were fixed by the factors at large fairs.⁵⁰ It is difficult to say, without more detailed research, just how women participated in this kind of dairy industry. Scattered references in agricultural journals to male managers suggest that some commercial dairies hired men to intercede between the market and the milk bucket. It seems clear that the direction of control, more than ever before, was from factor to farm.

By the 1860s, foreign competition and falling prices of foodstuffs promoted a new wave of attitudes towards labour in the dairy: the reduction of labour and the standardization of dairy products became primary goals as farmers sought to cut costs and maximize profits in a stiffer market. Leading authorities, all of them men, published essays and books giving precise instructions for techniques that were assumed to be incontrovertible. "For many years past it has been our object to produce the *best cheese* with the *least possible labour*", one dairyman, Joseph Harding, indicated. His instructions, like those of other authors, stipulated precise times, temperatures and measurements, and boasted equally precise results. Such "principal improvements in dairy practice . . . have enabled us to send into the market a superior article, increased in quantity 25 per cent., at a reduction of the original labour of more than half", he pointed out.⁵¹ Dairymaids were usually the losers in these calculations; the object was to reduce the need for labour so that the farmer's wife and perhaps his daughters might be the only required hands. Yet the tension between articulated standards that minimized or erased the authority of women and the resistance of the ever-present farmer's wife continued. Harding himself must have relied on his wife for some managerial assistance, for when he fell ill in later life, she appears to have replaced him on the lecture circuit. But this sort of power was conferred by familial

⁵⁰ Stephen Glover, *History of the County of Derby*, 2 vols. (Derby, 1829), i, pp. 210-11; Henstock, "Cheese Manufacture", pp. 43-4.

⁵¹ Harding, "Recent Improvements in Dairy Practice", pp. 85, 90.

ties more than through formal channels of authority. Women rarely figure in late nineteenth-century accounts of the trade.⁵²

The movement away from employing farmers' wives and daughters seemed to be afoot under a different guise. With the entry of American factory-made cheese around 1870, the Midland Agricultural Society organized a project to build factories at home. As well as seeking greater uniformity and higher quality of cheese, the movement aimed to put "a stop to the undue labour . . . of the mistress of an ordinary home cheese-dairy".⁵³ Dairywomen themselves had little to do with this initiative. Only one woman went on record in its support. "Soon after a speech by Lord Vernon" which "insisted on" the need for factories in order to relieve farmers' wives of their responsibilities, one dairywoman submitted (significantly, in a letter to J. Chalmers Morton after the public lecture) that "there is really too much devolving on a farmer's wife who looks well to her dairy, and wishes to do her duty in a domestic way". Higher standards of domesticity must have put pressure upon prosperous dairywomen after the mid-century, but not all subscribed to the new ideology. When Morton tried to press this issue with some Cheshire dairywomen, he found that "this [reasoning] would not . . . be allowed by any of those to whom I spoke upon the subject". Dairywomen, like their husbands, held that the work was not the "drudgery" that advocates of the cheese factory claimed, and that the quality of their produce warranted the continuance of "home dairy management".⁵⁴

In her comprehensive treatment of women and work in the industrial revolution, Ivy Pinchbeck described a reorganization of dairy-farming which entailed the replacement of women by male managers in the first decades of the nineteenth century. She attributed this shift to the "disinclination for the heavy work of the dairy" among wives of the more prosperous and respectable rural farming class.⁵⁵ Yet this later *embourgeoisement* of dairywomen, evident as increasing affluence during the French Wars afforded new styles of consumption among more substantial farmers, was different from the process

⁵² Morton, "Cheese-making in Home Dairies and in Factories", p. 274.

⁵³ *Ibid.*, p. 269. See also G. Murray, "The Origin and Progress of the Factory System of Cheese-making in Derbyshire", *Jl. Roy. Agric. Soc.*, 2nd ser., vii (1871), p. 43.

⁵⁴ Morton, "Cheese-making in Home Dairies and in Factories", pp. 269-70. See also Obelkevich, *Religion and Rural Society*, p. 53.

⁵⁵ Pinchbeck, *Women Workers*, pp. 41-2. Pinchbeck follows the assessment made by Billingsley in 1798: "This practice of letting dairies must have originated either from *pride* or *indolence* on the part of the farmer's hous[e]hold, and ought, in my opinion, to be checked by the landlord. /When the female part of a farmer's family is unemployed, (and, without a dairy, that must be the case throughout [a] great part of

(cont. on p. 169)

described above. The expansion of commercial dairying in the eighteenth century introduced new criteria for production and instigated conflict over the value of female labour before habits of gentility interfered with the dairywoman's work. And while observers may have been quick to note the rural woman's retreat to the parlour, it is not at all clear that the dairywoman herself initiated the move.

Changes in commercial dairying can be related to a general transformation in the nature of work at the end of the eighteenth century. In a provocative research proposal, Maurice Godelier sketched out the importance of historical and cultural factors in shaping the meanings of work in any society. He pointed out that eighteenth-century European political economy developed a concept of work which associated it with the creation of wealth; by the nineteenth century, Marx identified the release of the concept from its particular forms, a point at which "'work in general' becomes conceivable as a practical reality, as the point of departure for modern economics". This shift away from embeddedness in social relations (in this case, small-scale and household forms of production) paved the way for a denigration of women's work. "Work in general" under industrial capitalism was actually rationalized work tailored specifically to men. Traditional women's work was seen as irrational, and thus, by definition, less valuable. As Godelier pointed out from an anthropological perspective, "In societies where men dominate, women's tasks are often considered inferior and unworthy of men. The dominant social representations frequently are intended to 'prove' the inferiority of women's tasks, when in fact they are inferior simply because they have been consigned to women".⁵⁶ Without articulating an explicit sexual division of labour, the new industrial era displaced women from valued positions and relegated them to a more vulnerable place in a system that purported to be value-free.

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(n. 55 cont.)

the year) dissipation, folly, and extravagance, take the lead, and domestick care and industry are entirely forgotten". Billingsley's enthusiasm for female labour in the dairy was based on his belief that "arduous domestick labour and incessant employment" provided a check on population growth: see Billingsley, *General View*, pp. 205-6, 252. Letting dairies was not confined to Somerset, for William Marshall himself rented one in Norfolk around 1785: see Marshall, *Rural Economy of Norfolk*, ii, pp. 207-8.

⁵⁶ M. Godelier, "Work and its Representations: A Research Proposal", *History Workshop Jnl.*, no. 10 (1980), pp. 166, 170.