

Resistance from the Margins: The Yorkshire Worsteds Spinners, Policing, and the Transformation of Work in the Early Industrial Revolution*

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SUMMARY: This article takes as its subject the handspinners of Yorkshire's eighteenth-century worsted industry. When not ignored altogether, historians have presented handspinners as invariably weak and passive. While manufacturers exploited the industry's women workers, spinners were neither submissive nor compliant. Their history, in part, was one of resistance. Spinners' everyday resistance took its most important form in the unauthorized practice of supplementing money wages with yarn and wool from the production process. The scale and extent of such pilfering led manufacturers to one of the more remarkable initiatives in eighteenth-century industrial relations: the establishment of an industrial police force to detect and prosecute embezzlement. Policing would play a major role in the industry. Ultimately, however, its limitations helped to prompt manufacturers to pursue organizational and technological innovations to bring greater order to the spinning sector. Thus spinners' prosaic resistance had the unforeseen consequence of contributing to the demise of their occupation.

On 15 April 1797, Thomas Garforth and Charles Knowlton, Justices of the Peace in the West Riding of Yorkshire, met to exercise their powers of summary jurisdiction in a petty sessions. We know nothing about the judicial business that the magistrates conducted that spring day except for one case. Eight women from the village of Dallow, connected by ties of birth, marriage and community, faced charges of having violated the laws against industrial embezzlement.

Set on a forbidding moor in the rugged Yorkshire Dales, Dallow was a remote community of a few dozen souls. Linked to the outside world only by footpaths and one little-traversed, bone-jarring road, the people of Dallow seldom felt the vigilance of the parish constables. But they were not beyond the reach of the industrial police known as worsteds inspectors,

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state-appointed officials who regulated the workplace conduct of those employed in the county's immense worsted industry. The complaints against the Dallow women alleged that one of them, a handspinner of worsted yarn named Elizabeth Beck, had pilfered textile material owned by her employer. Beck, the inspector asserted, had then transferred portions of the wool to the other seven women. Such small-scale transactions played a vital role in the exchange economies that tied poor women of plebeian households to friends and neighbors. However, the dictates of the law diverged sharply from the customs of the cottage. The inspector charged each of the seven women with the offense of receiving embezzled textile material.

The record reveals nothing about the disposition of the case against Elizabeth Beck. The fate of the others, in contrast, is at least partially documented. Persuaded by the inspector, Garforth and Knowlton convicted all seven individuals. Although the material in question was worth only a few shillings, each offender faced the liability of a £20 fine, a staggering sum for the wife of a village laborer or a poor single woman. If they were unable to pay, as was likely, the law dictated terms of confinement of up to three months in the house of correction.¹ Historians remind us that the rhetoric of liberty and juridical equality came to increasingly color the eighteenth century. Laboring women, whose most extensive encounter with the English legal system was a worsted inspector-initiated appearance before magistrates, may have thought otherwise.

Labor historians have long privileged the formal institutions of male artisans as the primary sites of resistance to early industrial capitalism. In contrast, this study, which considers the experience of the overwhelmingly female workforce of Yorkshire worsted spinners, is part of an ongoing effort to write women workers back into the history of the early Industrial Revolution.² What slight attention spinners have received presents them as a vulnerable group, defined by their fixed and perpetual weakness. To be sure, manufacturers dominated spinners, exploiting them as workers and

1. My account of the prosecution of the Dallow women is based on records of summary convictions. These are on deposit at West Yorkshire Archive Service, Registry of Deeds [hereafter, WYAS-RD], Wakefield Headquarters, QE15, Memoranda of Summary Convictions. The Dallow women's convictions are recorded in QE15 40/5.

2. Notable work includes Maxine Berg, "What Difference Did Women's Work Make to the Industrial Revolution?", *History Workshop Journal*, 35 (1993), pp. 22–44; Anna Clark, *The Struggle for the Breeches: Gender and the Making of the British Working Class* (Berkeley, CA [etc.], 1995); Pat Hudson and W.R. Lee (eds), *Women's Work and the Family Economy in Historical Perspective* (Manchester [etc.], 1990); Jane Rendall, *Women in an Industrializing Society: England, 1750–1880* (Oxford, 1990); Sonya Rose, *Limited Livelihoods: Gender and Class in Nineteenth Century England* (Berkeley, CA [etc.], 1992); Pamela Sharp, "Continuity and Change: Women's History and Economic History in Britain", *Economic History Review*, 48 (1995); *idem*, *Adapting to Capitalism: Working Women in the English Economy, 1700–1850* (New York, 1996); Deborah Valenze, *The First Industrial Woman* (Oxford, 1996).

as women. Still, spinners were more than an “unorganized mass of sweated labour.”³ Far from being docile, Yorkshire worsteds spinners demonstrated a pronounced capacity for purposeful action and concerted resistance.

The agency of spinners was best evidenced by the widespread and covert practice of taking wool and yarn from the production process to supplement meager wages. Such actions placed spinners at odds with both their employers and an extensive body of eighteenth-century law. Yet if the law defined such unauthorized takings as the crime of industrial embezzlement, the practice enjoyed wide legitimacy in the plebeian communities of the textile district. One historian, citing its prevalence throughout England’s eighteenth-century manufacturing economy, has described embezzlement as “a major arena of conflict between capital and labor over the control of the labor process in the putting-out system.”⁴ The Yorkshire industry provides a particularly fine vantage point to examine the central involvement of women workers in such conflicts.

The embezzlement practiced by spinners was also a striking illustration of what James C. Scott has termed “everyday resistance”. In challenging and detailed studies of peasant life, Scott has disputed the preoccupation of much scholarship with organized political activity, the preserve, in most societies, of elites and the middle class. Offering a nuanced rendering of the workings of power and domination, his work highlights the manner in which peasants, slaves, and others have resisted exploitation with a “vast aggregation of petty acts”. Played out on a humbler scale, mundane and prosaic tactics were often highly effective.⁵ As Scott explains: “Everyday forms of resistance make no headlines. Just as millions of anthozoan polyps create, willy-nilly, a coral reef, so do thousands upon thousands of individual acts of insubordination and evasion create a political or economic barrier of their own.”⁶ Scott’s ideas have found particular resonance in colonial studies. However, such a perspective also offers insight for an understanding of the history of the Yorkshire spinners.

3. This description, from the historian of the West Country woollen industry, Julia de La Mann, is cited in Maxine Berg, *The Age of Manufactures: Industry, Innovation and Work in Britain, 1700–1820* (London, 1985), p. 140.

4. John Styles, “Embezzlement, Industry and the Law in England”, in Maxine Berg *et al.*, *Manufacture in Town and Country Before the Factory* (Cambridge, 1983), p. 174. In addition to Styles’s seminal article, useful studies of embezzlement include John Rule, *The Experience of Labour in Eighteenth-Century Industry* (London, 1981), pp. 124–146; Adrian J. Randall, “Peculiar Perquisites and Pernicious Practices: Embezzlement in the West of England Woollen Industry, c.1750–1840”, *International Review of Social History*, 35 (1990), pp. 193–219; Peter Linebaugh, *The London Hanged: Crime and Civil Society in the Eighteenth Century* (Cambridge, 1992).

5. Especially important are James C. Scott, *Weapons of the Weak: Everyday Forms of Peasant Resistance* (New Haven, CT [etc.], 1985) and *idem*, *Domination and the Arts of Resistance: Hidden Transcripts* (New Haven, CT [etc.], 1990).

6. Scott, *Weapons of the Weak*, p. 36.

Geographically dispersed and lacking formal organization, spinners rarely offered public challenges to their employers. Nevertheless, for manufacturers, spinners' tenacious pilfering and indifference to delivery schedules, conduct that undermined employer-dictated terms of employment, represented formidable obstacles to the management of business. Spinners' circumspect defiance also had extraordinary consequences. Determined to impose greater order on the industry's vital spinning sector, leading manufacturers gained the passage of the 1777 *Worsted Act*. One of the best known measures of eighteenth-century labor legislation, this statute gave Yorkshire masters the unprecedented power to establish a force of industrial police known as *worsted inspectors*. The inspectorate devoted itself to detecting and prosecuting the embezzlement of spinners. As we shall see, however, attacks on embezzlement masked a much bolder undertaking to address what manufacturers believed was an even more pressing malady: the inability of the industry's cumbersome system of production to provide a sufficient and high quality supply of yarn. Viewed as a problem of work discipline, manufacturers sought to use the intimidating presence of inspectors to forge a more diligent and obedient workforce. For the next quarter-century, inspectors aggressively scrutinized spinner's toil, intrusion without parallel in eighteenth-century manufacturing. But the attempt to enforce work routines of greater duration and regularity met with little success. Despite the law's sanctions, spinners continued to pursue their surreptitious forms of self-help and resisted efforts to command and direct their labor.

The poor women workers of the *worsted* industry were not merely victims of impersonal forces. For several decades, with only slender resources, they held their own against employers. In the altered circumstances of the late 1790s, however, their resistance would prove increasingly tenuous. The debates over the causes of technological change are beyond the scope of this article. But suffice it to say that in their dogged pursuit of self-interest, spinners helped to prompt developments that they did not intend and could not possibly foresee. Confronted with dramatic changes in the business environment and the failure of policing to foster greater productivity, influential manufacturers looked elsewhere to solve the problem. The success of mechanized spinning in the nearby cotton industry was the decisive precedent. The reorganization and technological transformation of spinning would take more than two decades to complete. In the interim, sizeable numbers of women continued to pursue the craft. As the numbers gradually receded, however, employment conditions plunged to levels of hyper-exploitation. By 1810 the occupation was nearly extinct. Rapidly forgotten, its scant traces would allow historians to neglect it altogether.

A FEMALE WORKFORCE IN THE INDUSTRIAL REVOLUTION

An important branch of England's venerable woollen industry, the manufacture of worsted textiles made its first appearance in Yorkshire in the late seventeenth century.⁷ For several decades the "stuff" industry, as contemporaries termed it, made only halting progress. However, about 1750 the industry entered a decades-long period of sustained growth, albeit advance marked by recurrent crises. Key to their success, Yorkshire manufacturers concentrated on the production of modestly priced goods for export abroad. Commerce with continental Europe and colonial North America accounted for as much as 80 per cent of the industry's trade. By the early 1780s, Yorkshire had emerged as the national center of worsted production, securing a prominent place in Britain's manufacturing economy.⁸

The industry was concentrated in the Pennine upland district of the western edge of the West Riding, especially the rural townships between the rivers Aire and Calder. There, it encroached upon older preserves of woollen manufacturing, entirely displacing it in much of the area. The towns of Halifax and Bradford served as the industry's primary market hubs, and were home to many of the large-scale manufacturers and most of the indigenous community of stuff merchants who dominated the industry. Manufacturing, in contrast, took place almost entirely in the countryside. The nascent manufacturing elite organized production in the putting-out system, coordinating the exertions of specialist handworkers in an extended division of labor. Smallholders and the growing ranks of landless laborers took up piece-work as handloom weavers. Other men became wool-combers, a turbulent trade organized in craft societies. The industry's growth also had major consequences for women. Consistent with the legacy of occupational specialization by gender, the industry's women workers were overwhelmingly concentrated in one manufacturing sector: spinning.⁹

7. Classical worsteds, as distinguished from woollens, were made from long staple wool that was combed, not carded. The intention of combing was to suspend the natural felting quality of the wool.

8. John James, *History of Worsted Manufacturing in England* (London, 1857; repr. 1968), p. 268; Pat Hudson, *The Genesis of Industrial Capital: A Study of the West Riding Wool Textile Industry* (Cambridge, 1986), pp. 27–29; D.T. Jenkins, *The West Riding Wool Textile Industry, 1770–1835: A Study of Fixed Capital Formation* (Edington, 1975), pp. 2–4.

9. Pat Hudson examines the industry's early structure and organization in "Proto-Industrialization: the Case of the West Riding Wool Textile Industry in the Eighteenth and Early Nineteenth Centuries", *History Workshop Journal*, 12 (1981), pp. 34–62. See also Herbert Heaton, *The Yorkshire Woollen and Worsted Industries from the Earliest Times up to the Industrial Revolution* (Oxford, 1920; 2nd edn, 1965), pp. 297–298. Also indispensable are: Theodore Koditschek, *Class Formation and Urban Industrial Society: Bradford, 1750–1850* (Cambridge, 1990), and John Smail, *The Origins of Middle Class Culture: Halifax, Yorkshire, 1660–1780* (Ithaca, NY [etc.], 1994).

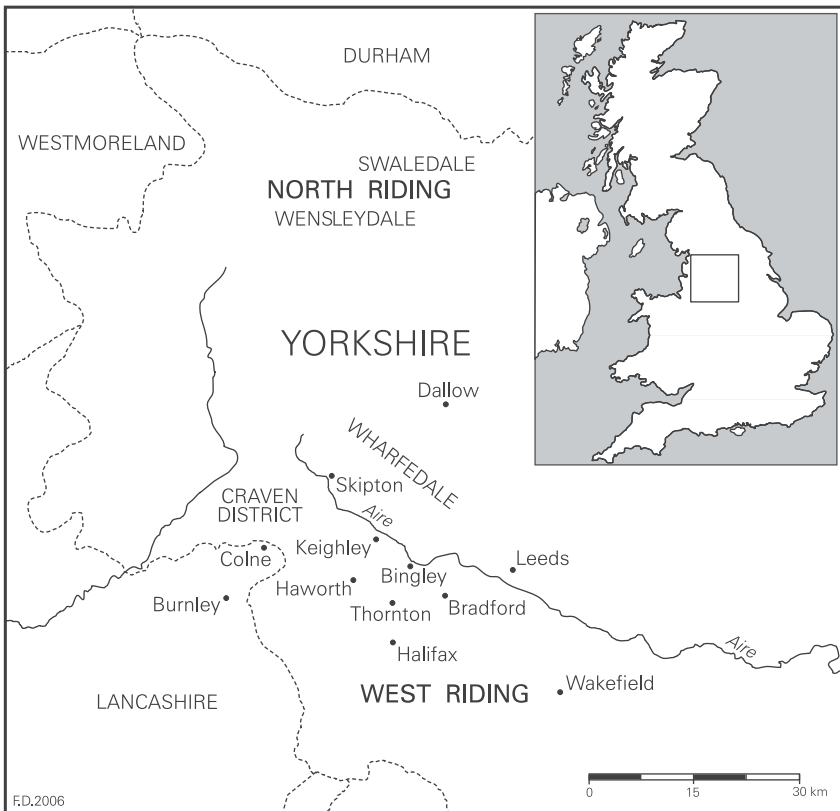


Figure 1. Map of the worsted district of the West Riding of Yorkshire, c.1775

Spinning had long been an activity of the plebeian women of Yorkshire.¹⁰ By the seventeenth century, the great wheel, built by village carpenters for a few shillings, had a place in the dwellings of most poor families. In woollen manufacturing, spinning was closely connected to the market economy. The wives of master woollen clothiers spent long hours turning out the yarn that went into the weekly “piece”. But elsewhere spinning had little commercial importance. If small numbers of women sold their yarn in local markets, most used their homespun to fashion clothing for family members. As the history of the English word “spinster” illustrates, spinning had an intrinsic link to gender and domesticity. Daughters learned the task from mothers at an early age. Contemporaries viewed spinning, like cooking, cleaning, and sewing, as an essential skill of housewifery.

10. I follow Anna Clark in the use of the term plebeian. As she explains, the word “is useful for its deliberately vague inclusion of working people in general, defined not by a relation to a mode of production but as the ‘lower orders’”. See Clark, *Struggle for the Breeches*, p. 3.



Figure 2. This watercolor shows a Yorkshire spinner at her great wheel. The seated woman on the left is reeling the yarn into hanks.

George Walker, *The Costume of Yorkshire*, illustrated by a series of forty Engravings, being facsimiles of original drawings, with descriptions in English and French (London, 1814).

With the worsted industry's advance, the place of spinning in plebeian households underwent dramatic change. Well versed in the skill, thousands of women grasped the chance for paid employment, linking their toil to far-flung markets of the global economy.¹¹ Participation rates in the workforce were extraordinarily high. By 1770, the industry's force of spinners had grown to around 56,000.¹² Thereafter it continued to increase, overshadowing the male-dominated occupations by a factor of more than three to one. Of course, spinning for wages was never women's exclusive sphere. Although the era's economic thinkers increasingly viewed work as the waged labor of an individual, it continued to be a family matter. Under mothers' watchful eyes, both girls and boys spun from an early age, contributing to her output.¹³ Men also comprised a small part of the spinning workforce. Still, women thoroughly dominated

11. Jan DeVries, "The Industrial Revolution and the Industrious Revolution", *Journal of Economic History*, 54 (1994), pp. 249–270.

12. James, *Worsted Manufacture*, p. 285.

13. Child labor is discussed in William Cudworth, *Rambles Round Horton: Historical, Topographical, and Descriptive* (Bradford, 1886), p. 24; James, *Worsted Manufacture*, pp. 289, 312, 325.

the sector, accounting for 85 to 90 per cent of the spinning labor force.¹⁴ This domination insured that the connection between spinning and women remained axiomatic.

Despite their dependence on women's labor though, manufacturers granted spinners little respect, viewing the occupation as unskilled and of little value. Such an assessment had little to do with the technical specifics of spinning, which included central elements of skill. In Maxine Berg's words "the definition of skilled and unskilled labor have at their root social and gender distinctions of far greater significance than any technical attribute".¹⁵ Rather, the inferior status of spinners, like that of other women workers, was linked to gender. As Judith M. Bennett has argued, the continuities of low skill, low status, and low pay have defined women's work experience since at least medieval times.¹⁶ The product of entrenched assumptions about women's alleged mental and moral inferiority, this legacy continued to guide attitudes about women workers in the eighteenth century. Thus, in an age when the wider culture increasingly defined work by its links to the market, the ties of spinning to the household and domestic sphere ensured its low status. In this regard, a practice of the Haworth-area manufacturer, Robert Heaton, illustrated attitudes common to the broader manufacturing community. An old-style patriarch, Heaton listed the names of women in his employment accounts only if they were widows. Others were identified by the names of male heads-of-household. Heaton, in short, refused to recognize most of the women he employed as independent workers.¹⁷

Having dismissed spinners' waged labor as a feminized activity, a mere by-employment that was ancillary to the male wage, manufacturers felt justified in paying them tiny sums. Spinners who worked long hours, producing the finest counts of yarn, rarely exceeded weekly earnings of 4 shillings, smaller payments than the lowest paid unskilled male laborers. Most spinners earned 3 shillings per week or less, rates that exhibited a marked stability for several decades.¹⁸

Denied a public identity as workers, spinners' work culture has been little explored by historians. The problem, in part, is evidential: poor and

14. The evidence for the gender composition of the workforce is drawn from the records of summary convictions for false and short reeling; WYAS-RD, Memoranda of Summary Convictions, QE15/1-9.

15. Berg, *Age of Manufactures*, p. 151. See, also, Sonya Rose, "Masculinity and Machines: Automation in Manufacturing Industry", in Ann Game and Rosemary Pringle (eds), *Gender at Work* (Sydney, 1983), pp. 25-40.

16. Judith M. Bennett, "'History that Stands Still': Women's Work in the European Past", *Feminist Studies*, 14 (1988), pp. 269-283.

17. West Yorkshire Archive Service, Bradford District Archives, Heaton Papers, B145.

18. Evidence regarding spinners' wages can be gleaned from: Arthur Young, *A Six Months Tour Through the North of England*, vol. 1 (London, 1771), pp. 138, 254, 317, 335, 425, and Sir Frederick Eden, *The State of the Poor*, vol. 3 (London, 1797), pp. 338, 352, 814, 821, 876.

often illiterate, spinners left few records of any kind. Yet as Deborah Valenze has observed, “the common activity of spinning gave women similar concerns and points of view”.¹⁹ Embedded in domestic lives and relationships with friends, neighbors, and the wider community, spinners fashioned their work culture from the conditions of their social world. Yorkshire’s nineteenth century local historians provided a number of suggestive descriptions of spinners at their paid labor. Once recorded, for example, that:

The women of Allerton, Thornton, Wilsden and other villages in the valley flocked, on sunny days, with their spinning wheels to some favorite pleasant spot to pursue the labors of the day. In Beck Lane [in Bradford], to the north of Westgate, rows of wheels might be seen on summer afternoons.²⁰

Romanticized and patriarchal, this passage nevertheless points to an important feature of the occupation: far from being isolated, spinners were members of communal networks of households. Unlike the workshop-centered world of male artisans, spinner’s culture was lived in private dwellings, termed by Sara Mendelson and Patricia Crawford, “a series of linked female spaces”, and “other feminized sites outside the home”.²¹ Although lacking the organizational assets of male craft workers, spinners participated in their own rites of sociability that marked their relationships to others who performed the same work. As one Victorian chronicler recollected, on pleasant days women “would bring their spinning wheels into the streets and open places and twirl their wheels and discuss the latest gossip”.²² This “central female social activity”, as Ellen Ross reminds us, cemented neighborhood ties and shared values.²³ For spinners, it was also an essential means of transmitting news about their occupation. We can be certain that as spinners tended to their wheels, conversing in the broad dialects that bewildered outsiders, they deliberated on their employers and shared information about wage rates and related matters.

Safe from the prying eyes of employers, spinners also clandestinely pilfered textile material, an integral part of their work culture. This practice, at odds with the conventional picture of spinners as docile and tractable, had a wider context in the eighteenth century. In a time when the “money wage” was in the process of development, non-monetary

19. Valenze, *Industrial Woman*, p. 71.

20. John James, *Continuations and Additions to the History of Bradford and its Parish* (Bradford, 1866), p. 221.

21. Sara Mendelson and Patricia Crawford, *Women in Early Modern England, 1550–1750* (Oxford, 1998), p. 206.

22. James Parker, *Illustrated Rambles from Hipperholme to Tong* (Bradford, 1904), p. 59.

23. Ellen Ross, “Survival Networks: Women’s Neighborhood Sharing in London Before World War One”, *History Workshop Journal*, 15 (1983), p. 10. See, also, the discussion of Mendelson and Crawford, *Women in Early Modern England*, pp. 213–217.

payments, including food, drink, and credit often mediated the relationship between work and wages. In many trades, waste and surplus material from the production process were also part of the entitlement component of a worker's remuneration. Such practices varied widely. Never fixed or static, their status was specific to occupation and, as recent research reveals, the product of conflict, negotiation, and struggle at the local level.²⁴ At the same time, the practice, in all of its variation, was also subject to broader sources of change that transcended trade and locality. Responding to a growing chorus of demands by manufacturers across the industrial economy, eighteenth-century parliaments passed no less than fourteen statutes that regulated the disposition of material in the production process.²⁵ Often turning long-standing perquisites into acts of criminal theft, this swelling body of law signaled that struggles over embezzlement had assumed new importance. The Yorkshire spinners would find themselves at the center of this development. Indeed, no workforce in England would be more affected by this initiative in the legal regulation of labor.

The embezzlement of spinners richly illustrates a form of social struggle that James C. Scott has termed "everyday resistance".²⁶ Carried out by subordinate groups in low-intensity conflicts with elites and other authorities over land, labor, and income, everyday resistance encompasses a wide array of seemingly prosaic acts such as foot-dragging, evasion, slander, pilfering, and sabotage. Pursued in anonymity and by stealth, and often entailing law-breaking, everyday resistance cannot be dismissed as mere instances of criminality. Rather, as Scott insists, these "weapons of the weak" are often the only means available for the relatively powerless to assert themselves and advance their interests. Indeed, it is Scott's view that in societies with pronounced asymmetries of power, these undramatic struggles are "the normal context in which class conflict has historically occurred".²⁷ Scott cautions against romanticizing everyday resistance. It is always defensive in nature and limited in scope. At its best its perpetrators succeed in curbing exploitation, not in challenging the wider social order. Still, everyday resistance is often highly effective and in many societies, plays a central role shaping the daily fabric of class relationships.

Critical to grasping the nature of spinners' resistance was the industry's

24. The literature on non-monetary entitlements is extensive. Useful introductions include L.D. Schwartz, "The Formation of the Wage: Some Problems", in Peter Schollier (ed.), *Real Wages in Nineteenth and Twentieth Century Europe: Historical and Comparative Perspectives* (New York, 1989), pp. 21–39, and Rule, *Experience of Labour*, pp. 124–146.

25. The best account of the evolution of this law is by Styles, "Embezzlement, Industry and the Law".

26. Scott, *Weapons of the Weak*, pp. 28–47.

27. *Ibid.*, p. 27.

system of wage payment.²⁸ Like others employed in the putting-out system, spinners earned piece-rates, a set payment for a fixed amount of work. Since this form of compensation explicitly linked performance and reward, the measurement of output was of paramount importance. In the Yorkshire industry spinners used reels, small devices a yard in circumference, to gauge, order, and calculate their output. Spinners reeled finished yarn into set lengths known as hanks, the form in which it was returned for payment. Each hank was 560 yards or threads in length (or 560 turns of the reel). The industry used different counts or thicknesses of yarn, measured by hanks per pound weight of yarn. In the late eighteenth century, yarns ranged from 36 hanks to the pound to coarser counts of 16 hanks.

Spatially scattered and divided by enduring localism, spinners had few ostensible means of improving their employment conditions. Nevertheless, drawing on easily learned techniques that could be practiced in isolation, spinners secretly and unilaterally revised the employment bargain to their advantage. Rooted in the daily routine of work, spinners' distinct form of resistance was based on disguising their appropriation of yarn by producing hanks with an insufficient number of threads (a practice known as false reeling) or that had been gathered on an altered reel of less than a yard in circumference (called short reeling). Moreover, after furtively claiming the right to a greater part of the output of her labor, a spinner faced little risk of detection. Commonly receiving hundreds of pounds of yarn in a single delivery and hard pressed to expedite the distribution to weavers, few manufacturers undertook the prohibitively time-consuming task of examining each hank. Spinners also easily eluded the customary safeguard observed by most manufacturers, the weighing of each one pound bundle of newly received yarn, by briefly steaming the material before returning it. The refusal of manufacturer's agents, who dispensed wool and collected yarn for a small commission, to act as disciplinary surrogates for masters, further strengthened spinners' hands.

Usefully conceived as a rejoinder to the exploitation of meager wages, the practical gains of embezzlement were considerable. Although spinners' embezzlement was largely hidden from view, rare and unusually detailed 1778 conviction records indicate that hanks were typically short reeled by an average of 11 per cent. While the income from such material depended on a range of factors, a conservative calculation suggests that a spinner who consistently embezzled at that rate would have boosted weekly cash earnings by 10 to 15 per cent.²⁹

Tracing the uses of pilfered yarn and wool opens up a vista on a little

28. The next two paragraphs draw on the unpublished paper by John Styles, "Policing a Female Workforce: The Worsted Inspectors, 1760–1810" (1986).

29. Given the variations in piece-rates and in the volume of yarn spun by individual spinners as well as differences in the prices paid for embezzled yarn (I have assumed half of regular market value), this estimate is only approximate. The evidence is taken from the conviction records of particularly

known landscape: the secret economies of the poor. Faced with harsh economic realities, plebeian women constructed networks of lending, barter, and exchange to sustain their families. This informal economy left few evidentiary traces. The conventional market, however, was only the tip of the proverbial iceberg of a far wider array of transactions.³⁰ Many exchanges between women took the form of payments for services rendered. Food, drink, clothes, and household items were also traded and sold between friends, neighbors, and kin without recourse to commercial markets. In this economy of expedients, “textiles were almost as fluid as money as a medium of exchange”.³¹ In the short term, at least, a great deal of pilfered textile material circulated between women.

More often, however, pressing needs led spinners to exchange their covert takings within the wider economy. Small masters, often called piece-makers, were the ultimate destination for most material. An extensive subterranean commerce in embezzled wares emerged to serve that end. Shopkeepers often acted as conduits in this trade.³² Alehouses, too, were key sites in this secret economy.³³ Traveling from village to village, peddlers also purchased material from spinners for tiny sums, or in trade for goods. The dense concentration of spinners in even remote areas gave rise to specialist dealers in embezzled goods, known as “ends-gatherers”.

The magnitude of the Yorkshire industry’s post-1750 growth represented a great departure from its early decades. Nevertheless, if the industry was in open-ended transition, the wider friction between custom and innovation had little resonance in the spinning sector. In a period of robust growth and tight labor markets, manufacturers showed little inclination to challenge the practices described above.

THE RISE AND FALL OF “VOLUNTARIST” POLICING, 1764–1776

Change came abruptly, however, in the summer of 1764. A notice published in the Leeds press signaled that relationships between manu-

meticulous magistrates, Joshua Horton and Henry Wood. It can be found at WYAS-RD, Memoranda of Summary Convictions, QE15/1–4, 6, 8–12, 14, 16, 18–19, 21–23, 25–31, 33, 35–36. 30. See the overview on this topic in Mendelson and Crawford, *Women in Early Modern England*, pp. 256–300.

31. *Ibid.*, p. 222. See also Beverly Lemire, “The Theft of Clothing and Popular Consumerism in Early Modern England”, *Journal of Social History*, 23 (1990), pp. 255–276.

32. Sharp, *Adapting to Capitalism*, p. 31. See also the suggestive study by Beverly Lemire, “Peddling Fashion: Salesmen, Pawnbrokers, Tailors, Thieves and the Second-Hand Clothing Trade in England, 1700–1800”, *Textile History*, 22 (1991), pp. 67–68, 73–74.

33. Peter Clark, *The English Alehouse: A Social History, 1200–1830* (London [etc.], 1983), pp. 225, 231. See also the insights offered by Garthine Walker, “Women, Theft and the World of Stolen Goods”, in Jennifer Kermod and Garthine Walker (eds), *Women, Crime and the Courts in Early Modern England* (Chapel Hill, NC [etc.], 1994), pp. 92–95.

factors and spinners had taken a harsh turn. Claiming that massive increases in false and short reeling by spinners had brought “inconceivable loss and damage to the persons employing them”,³⁴ a group of masters advanced an unprecedented initiative: the establishment of a force of industrial police called worsted inspectors. Supervised by a voluntary association of the industry’s leading manufacturers, the inspectors would devote their efforts to detecting and prosecuting the particular forms of embezzlement practiced by spinners.³⁵

By all accounts, embezzlement was endemic to the industry as a whole. Why, then, did manufacturers fix on the conduct of spinners and show relatively little interest in confronting the related practices of weavers and wool-combers? In fact, the community of manufacturers shared a deep concern about embezzlement in general, not just that practiced by spinners. Contrary to Valenze’s suggestion, however, the targeting of spinners had little to do with manufacturers’ apprehension about likely resistance from the organizationally cohesive male-dominated trades.³⁶ Rather, the stuff manufacturers focused intently on the work conduct of spinners, certain that their women workers were the source of other problems of even greater urgency.

When spinners received wool from a manufacturer’s agent, they did so under quite specific conditions. They were expected to produce a set amount of yarn, spun to a particular count that was due on a certain day. When spinners embezzled, manufacturers alleged, they also regularly breached each of these conditions. Masters were particularly preoccupied with regulating the quality of yarn, an especially important matter in the production of worsted textiles. In contrast to woollen cloth, which gained strength and thickness from the fulling process, the soundness and durability of worsted cloth derived almost entirely from the quality of its yarn. The production of worsted cloth required yarns of varied but precise thickness. Manufacturers claimed, however, that they received a great volume of inconsistently spun yarn, often with different counts in the same hank. As one manufacturer noted, if carelessly reeled or badly spun yarn was inadvertently distributed to weavers, such poor material “must without doubt spoil the goods it is manufactured into”.³⁷ In brief, masters introduced policing to enforce higher standards of quality and consistency.

34. *Leeds Intelligencer*, 5 June 1764.

35. A brief account of the origins of the “voluntarist” association can be found in a letter to the *Leeds Mercury*, 26 November 1776.

36. Valenze, *Industrial Woman*, p. 74.

37. *Leeds Mercury*, 17 September 1776. Additional evidence concerning the quality of spinning can be found in John Hodgson, *Textile Manufacture and Other Industries in Keighley* (Keighley, 1879), pp. 17–18; William Cudworth, *Round About Bradford: A Series of Sketches of Forty-Two Places Within Six Miles of Bradford* (Bradford, 1876), p. 107; James, *Worsted Manufacture*, pp. 311–312; Smail, *Origins of Middle Class Culture*, pp. 65–67.

The manufacturers' most urgent concern, however, was that spinners caused a chronic disruption in the flow of production materials. In the words of Henry Hall, a prominent Leeds manufacturer, "it was difficult to regulate the employ of weavers by the supply of yarn [...] an increased demand could not be met by a proportionate increased supply".³⁸ By the early 1760s, a growing number of manufacturers believed that the condition posed a grave danger to the industry's future.

Manufacturers addressed the issue by extending the geographic reach of production. The industrial villages surrounding Halifax and Bradford remained essential recruiting grounds. By the 1760s, however, the industry's spinning region sprawled well beyond the traditional catchment zone and included "the whole range of Yorkshire and some parts of Lancashire, Cheshire and Derbyshire and Westmoreland".³⁹ Most spinners probably lived at distance of thirty to fifty miles from the marketing centers of Halifax and Bradford.⁴⁰ Still, even as the spinning district grew, the demand for labor outstripped the supply. Moreover, the remote proximity of growing numbers of spinners, scattered across the villages, hamlets, and isolated hill farms of the region, further impaired the flow of materials.

Sharing common beliefs about the poor, the community of stuff masters was likewise convinced that yarn supply irregularities were the consequence of an entirely unrelated factor: the desultory work habits and lack of industry of their women workers. Of course, women's work routines were hardly uniform. Great numbers, not least the widows and single women who comprised around one-quarter of the workforce, spent interminable hours at the wheel.⁴¹ Many others, no doubt attending to family needs or other economic activities, spun only part-time or intermittently.⁴² However, influenced by stock class prejudices of the age and ignorant of the workings of the cottage economy, worsted masters instead construed the inconstant devotion of some spinners to waged labor as a moral failing. Spinners were stigmatized as work-shy, disobedient, and prone to criminality. That the troubling workers were women, a role sharply at odds with the potent nascent ideology of domesticity, further underscored the spinners' seemingly transgressive nature.⁴³

38. James, *Worsted Manufacture*, p. 312.

39. *Ibid.*, p. 326.

40. In reconstructing the dimensions of the spinning district the following sources were helpful: WYAS-RD, Memoranda of Summary Convictions, QE15; University of Leeds, Brotherton Library, Jonathan Akroyd's Account Books, 1.1770-1789; Bradford District District Archives, Heaton Papers, B145, B147.

41. My sample for the marital status of spinners is drawn from WYAS-RD, Memoranda of Summary Convictions, QE15/2, 4, 6.

42. For the varied economic activities of women cottagers see T.W. Hanson, *The Story of Old Halifax* (Halifax, 1920), pp. 233-235.

43. For an excellent discussion of perceptions of the laboring poor, see Keith Wrightson, *Earthly*

Certain that most spinners lacked the capacity for self-governance, a circle of the industry's most influential masters devised a plan to impose more exacting patterns of work. Key to their thinking was the belief that spinners had undermined the binding element in the relationship between themselves and their employers: the piece-rate system of wage payment. In theory, by linking payment to performance, piece-rate wages promoted dutiful and productive labor. However, widespread false and short reeling had fractured that connection, subverting the linkage between output and reward. The crucial task of policing, then, was the legal enforcement of the precise measurement of work. The prosecution of pilfering, manufacturers hoped, would re-establish the strict link between work and wages, enhancing the ability of piece-rates to promote more obedient work. The establishment of more disciplined work patterns, in turn, would resolve the spinning sector's chronic inability to provide a sufficient supply of yarn. The criminal sanctions of the law, manufacturers agreed, were an entirely appropriate means of dealing with such a disorderly and recalcitrant workforce. Such was the logic behind the manufacturers' campaign against false and short reeling.⁴⁴

The manufacturers' association commenced its efforts in June 1764. The inspectors rapidly secured significant increases over pre-association patterns of prosecution.⁴⁵ A master with close involvement in the association's operation would later write that the inspectors "made a general regulation in the spinning at an expense that did not amount to a hundredth of the benefits obtained".⁴⁶ Yet if many contemporaries judged the manufacturers' intervention as a success, the policing of spinners' work remained limited, qualified by the association's modest financial foundation and its reluctance to depart from traditional uses of the law.⁴⁷ Thus, prosecutions were exemplary and still small in number, occurring only on the initiative of individual employers, not the association. Correspondingly, the association relied on the severity rather than the certainty of punishment. Convicted under the 1749 Norwich Act (22 Geo. III c.27), which treated false and short reeling as instances of the generic offense of embezzlement, Lydia Longbotham, Mary Stead, Martha Drake, and many others suffered whippings before great crowds in Wakefield, Halifax, and

Necessities: Economic Lives in Early Modern England (New Haven, CT [etc.], 2000), pp. 320–330. Valenze discusses the "problem" of female labor in *Industrial Woman*, pp. 68–70.

44. A more developed discussion of this point can be found in my article "'Intended as a Terror to the Idle and Profligate': Embezzlement and the Origins of Policing in the Yorkshire Worst Industry, c.1750–1777", *Journal of Social History*, 31 (1998), pp. 659–661. A fascinating study of struggles over piece-rates in a very different setting is Michael Burawoy and Janos Lukacs, *The Radiant Past: Ideology and Reality in Hungary's Road to Capitalism* (Chicago, IL [etc.], 1992), pp. 35–78.

45. The *York Courant* records eighteen convictions of spinners in 1764–1765.

46. *Leeds Mercury*, 26 November 1776.

47. The costs of association membership are discussed in the *Leeds Mercury*, 26 September 1776.

elsewhere.⁴⁸ These grisly rituals, the counterpart to the paternalist forms and rhetoric that masters used to project their identities in a world of face-to-face relationships, must have given spinners pause. But behind their masks of public deference, these brutal ceremonies of ritual shaming also fostered bitter resentment.

That spinners were resentful is not mere speculation. Direct testimony on this matter never found its way into the archives. But telling glimpses were revealed in polarizing industrial disputes in 1775 and 1776.⁴⁹ In 1775, a recovery from three years of poor trade fuelled a demand for labor. As yarn shortages worsened, rivalry between manufacturers for scarce labor created new opportunities for spinners. Despite lacking formal organizations, spinners assertively contested the terms of their dependence, securing increases in piece-rates of as much as 40 per cent.⁵⁰

Inter-capitalist competition also eroded the manufacturers' commitment to policing. The precise chronology of this process remains elusive, but the outline can be reconstructed from the surviving record. The first blow was struck when a number of masters withdrew from the manufacturers' association. Desperate for spinners, they distinguished themselves from competitors by signaling their disinterest in supporting further prosecutions. Thereafter, fearing the disaffection of their own spinners, other masters followed suit. As the association foundered, spinners seized the initiative. The topography of resistance took on new forms as spinners exploited the weaknesses in surveillance and enforcement. "[u]nder no fear of prosecution", quiet and anonymous acts of covert self-help turned into an avalanche of pilfering.⁵¹ Nor did the tactics reflect merely the defensive posture that had long typified the resistance of spinners. Overcoming traditional points of division, particularly local forms of xenophobia, spinners repeatedly acted in union, withholding their labor from masters who still dared to prosecute embezzlers. Here, spinners benefited from the wider industrial turbulence of the decade.

Previous strikes carried out by weavers and wool-combers, unknown before the 1770s, had widened points of contact between communities, allowing for the articulation of new identities that made collective action possible.⁵² Drawing on their new-found solidarity and strength in numbers, spinners identified, condemned, and threatened the remaining

48. Their punishments are described in the *Leeds Intelligencer*, 21 August 1764 and 18 September 1764.

49. My thinking on this matter owes much to Scott, *Arts of Resistance*, pp. 1–16. Also, see the discussion of K.D.M. Snell, "Deferential Bitterness: The Social Outlook of the Rural Proletariat in Eighteenth and Nineteenth Century England and Wales", in M.L. Bush (ed.), *Social Orders and Social Classes in Europe Since 1500: Studies in Social Stratification* (London [etc.], 1992), pp. 158–184.

50. *Leeds Mercury*, 17 September 1776 and 24 September 1776.

51. *Leeds Mercury*, 26 November 1776.

52. The decade witnessed strikes by weavers in 1770 and 1775 and wool-combers in 1777.

members of the association. The sudden expression of long repressed grievances shocked and angered those who were targeted. But the spinners' slander campaigns and attempts at intimidation merely revealed sentiments that had long lain beneath the surface. Embattled manufacturers even alleged that spinners "plotted mischief" against their personal property, carrying out "outrages against those who prosecuted them". Invoking the rhetoric of moral panic, the remnants of the association sought to rally their fellow masters. They met with little response. Disheartened, they, too, deserted the association. In July 1776, twelve years after commencing its policing project, the association collapsed altogether.⁵³

A NEW POLICING REGIME: THE WORSTED COMMITTEE,
1777–1790

Wrongly viewed as helpless and invariable victims, the spinners had demonstrated their capacity for self-determination in propitious times. Demoralized and divided, the stuff manufacturers conceded what they could not deny. Their retreat, however, was only temporary. Holding that "the evil" of embezzlement had "increased so alarmingly as to threaten the prospects of the whole trade", leading manufacturers met within weeks of the association's failure to plot their course of action.⁵⁴ We know a good deal of what transpired at those meetings from letters written by participants and published in the *Leeds Mercury*. Rehearsing the standard litany of grievances, the letters condemned the spinners for their "carelessness and dishonesty", alleging that "their work is both badly done and very falsely reeled". Lamenting the spinners' "idleness and profligacy", the consequences of what masters characterized as exorbitant wages, one writer intoned "there is not one person [who] gets the same quantity of yarn spun at the same place as he used to".⁵⁵

Determined to prevail, the activist manufacturers insisted on the obligation of spinners to labor assiduously. The problem, of course, was that few did so according to the masters' standards without being coerced. Steeped in a culture that valued the regulation of one's passions, these men had no reservations about using the law to impose ever stricter order on those they viewed as idle, careless, and dishonest. Far from reconstituting the former policing apparatus, however, they sought to create a new

53. These events are described by James, *Worsted Manufacture*, pp. 293–294; Heaton, *Yorkshire Woollen and Worsted Industries*, pp. 418–420. Also see various 1776 letters to the *Leeds Mercury*, particularly from 17 September, 24 September and 26 November. Stuff manufacturers described the threatening conduct of the spinners in testimony before a committee of the House of Commons; see *House of Commons Journals*, 36 (29 January 1777).

54. *Leeds Mercury*, 17 September 1776.

55. *Leeds Mercury*, 24 September 1776.

mechanism of domination. Towards that end they proposed to gain a parliamentary statute that would resurrect industrial policing on a more formidable basis. With the goal of mobilizing the wider manufacturing community, they held meetings through the fall of 1776, mustering support and securing financial backing.⁵⁶ Drawing on ties to powerful parliamentary figures, their proposed bill made rapid progress. Popularly known as the Worsted Act, it passed into law as 17 Geo. III c.11 in March 1777.⁵⁷

The details of this famous statute are beyond the scope of this study. But three provisions that addressed the weaknesses of the earlier policing effort are worth noting. First, the law required Justices of the Peace meeting in quarter sessions to appoint the worsted inspectors, making the latter agents of the Hanoverian state. The statute also called for the establishment of a permanent manufacturers' association, known as the Worsted Committee, to supervise the inspectors. Prosecutions would be advanced in the name of that body, eliminating the discretionary influence and the onus of responsibility from individual employers. Finally, the statute put industrial policing on a sounder financial footing. Seeking to overcome the corrosive intercapitalist competition that had doomed the earlier effort, mandatory exactions collected from all manufacturers replaced the formerly voluntary contributions.⁵⁸

The Worsted Committee, a self-selected oligarchic body, represented the industry's largest and wealthiest producers. Papering over divisions of sect and party, the Committee brought cohesion to a diverse community that shared the goal of imposing more regimented work on spinners. The seven-strong inspectorate commenced its labors in August 1777. Reel in hand, inspectors visited the towns and villages of their respective districts, traveling long distances daily. At intervals throughout the day the inspectors called on agents or manufacturers. There, they disassembled bundles of yarn and methodically unreeled (and re-reeled) each hank. In the course of these labors an inspector examined the work of hundreds of spinners in a single week.⁵⁹ Inspectors also had extensive direct contact with spinners. Directed by individual masters, inspectors delivered thousands of warning notices each year, cautioning spinners to complete their work or face prosecution.

56. The meetings are noted in the *Leeds Mercury*, 29 October 1776 and 5 November 1776.

57. The progress of the bill can be followed in the *House of Commons Journal*, 36, various dates. See also University of Bradford [hereafter, BUA], Archival Collection, Worsted Committee Records, Worsted Committee Minute Book, WC1/I, entry for 5 January 1778.

58. These and other matters are discussed by Heaton, *Yorkshire Woollen and Worsted Industries*, pp. 420–423.

59. My discussion of the inspectors' work routine is drawn from the records of the Worsted Committee, particularly the Minute Books of quarterly meetings: see BUA, WC1/i, WC1/ii. Important, too, is a rare surviving account book of an inspector: Manchester Central Library, Ms. 338.4 W1, "An Account of Frauds and Offenses Committed by Spinners and Others Employed in Worsted Manufactory, 1778–1783".

Inspectors also had the right to enter the home of workplace of individuals employed in the industry, to examine work in progress, and check for evidence of false or short reeling or other prohibited conduct.

A statute of 1774 (14 Geo. III c.44), reducing the punishment for false and short reeling, facilitated the Worsted Committee's shift from exemplary punishment to systematic inspection. Under that law, first offenders faced fines of between 5 shillings and 20 shillings (or £1). Second offenders were levied more substantial fines that ranged from 40 shillings to £5. Such penalties were far milder than the draconian sanctions mandated by the 1749 Norwich Act, which included obligatory spells of imprisonment and, at a magistrate's discretion, a public whipping. Still, the fines were hardly inconsequential. With the addition of mandatory court costs, another 3 to 5 shillings, spinners convicted under the 1774 act were confronted with a minimal liability of 8 to 10 shillings. Representing as much as a month's earnings, such fines entailed short-term hardship for many. Moreover, the poorest women, lacking ready coin and unable to borrow from others, faced a home invasion as constables, bearing a warrant of distress, seized personal possessions to be sold at public auction. Spinners lacking either cash or sufficient goods, a condition of extreme poverty, faced terms of mandatory imprisonment.

The policing campaign ensured that evidence about the spinners' customary practices, formerly concealed, would find its way into the archives on a vast scale. Embezzlement prosecutions, like a wide range of minor offenses, were adjudicated in summary proceedings before a solitary Justice of the Peace or two or more justices sitting in a petty sessions. The law called for justices to forward records of convictions, commonly called conviction certificates, to the next court of quarter sessions, which held them as a permanent record. We have no way of estimating the justices' degree of diligence in observing this duty. Nor can it be determined how many conviction certificates, once filed with quarter sessions, were subsequently lost or destroyed during two centuries of storage, transfer, and relocation. Thus, the evidentiary record has gaps that understate the number of convictions by a substantial but uncertain margin. The record is especially porous for the late 1780s and 1790s, a period of intense activity by the inspectors. Nevertheless, surviving evidence provides an important, if imperfect, picture of the pattern and scale of the Worsted Committee's policing intervention.

In the first seventeen months of policing, for example, records detailing 1,763 convictions for false or short reeling have survived, a rate of 104 convictions per month. Over a longer duration, through the end of 1781 (a period of four years and five months), 3,941 convictions can be documented, or the equivalent of 888 per year.⁶⁰ Inspectors also gained the

60. WYAS-RD, QE15/1-28.

convictions of small numbers of spinners on various other charges, including the neglect of work, taking work out from more than one master, receiving material under a false name, as well as receiving embezzled material. In short, although substantially incomplete, the surviving evidence reveals that policing efforts of the Worsted Committee massively eclipsed the efforts of the earlier association.

Policing loomed large in the work experience of the spinners. In the quarter-century after the Worsted Committee's founding, thousands of spinners found themselves before justices of the peace and charged with criminal conduct. Many thousands more were the recipients of warning notices, reprimands, inspections, and searches, oversight and scrutiny without precedent. As late as 1776, as we have seen, the spinners had organizationally outflanked the masters, imposing new terms of employment. After 1777, however, the hard bargaining between spinners and masters changed dramatically. Policing subjected spinners to a harsh and intrusive work regimen, drastically altering the social relationships of the industry.

Yet, policing, too, had limits. Indeed, spinners' willingness to observe the law remained grudging and tenuous. Always qualified, compliance would have likely disappeared altogether without the surveillance of inspectors and constant threat of prosecution. In fact, policing appears to have done almost nothing to dislodge beliefs about the intricate structure of custom, perquisites, and the wage at the heart of spinners' work culture. Samuel Finney, a Cheshire justice who presided over many short reeling prosecutions, offered this judgment about spinners: "Though they are honest and just enough to their Equals, they think it no crime to make free with the property of their Superiors whenever they have the opportunity."⁶¹ There is no reason to assume that spinners disputed the principles of private property. Surreptitiously, however, they continued to assert that their perquisite constituted a special case of property rights.

One telling index of the limits of policing was the survival of a flourishing trade in embezzled materials. Hawkers and peddlers remained important figures in the industry's web of transactions, linking spinners to the petty producers who patronized the clandestine economy.⁶² Despite the efforts of the inspectors, alehouse-keepers and many shopkeepers were also well known for their willingness to purchase yarn and wool with few questions asked.⁶³ In addition, spinners took part in what one con-

61. Samuel Finney, "Notes, Conclusory, Relating to Wilmslow Parish", in T. Worthington Barlow (ed.), *The Cheshire and Lancashire Historical Collector*, 11 (1853), p. 122.

62. Evidence on the activities of hawkers and waste gatherers can be found in BUA, Worsted Committee Minute Books, WC1/I, entry for 5 January 1784 and WC1/ii, entry for 22 June 1789; *Leeds Mercury*, 12 November 1782; *Leeds Intelligencer*, 24 February 1784.

63. *Leeds Intelligencer*, 26 April 1791; BUA, WC1/ii, entry for 17 June 1793.

temporary described as “open markets” for “the sale of yarn made from waste and purloined materials” held in various places in the West Riding.⁶⁴

As the very existence of such markets hints, spinners’ resistance could not have been sustained without the wider community’s support. The independent nature of the worsted region’s village culture is well documented. In a world where people and landscapes were known in minute detail, family ties, neighborhood life, and the experience of work forged deep layers of social cohesion and often, antipathy to outsiders.⁶⁵ The willingness to protect friends and neighbors from the intrusion of inspectors was a product of these forces. At its simplest, shielding spinners entailed the transmission of information about an inspector’s movements.⁶⁶ Word traveled swiftly through the countryside. Given sufficient notice, spinners could conceal work from their unwelcome visitor, a practice that was probably common. In October 1777, for example, just months after the commencement of policing, an inspector complained that spinners in the Pennine village of Goodshaw Chapel had “secreted” their yarn in the “Anabaptist meeting house”, eluding his scrutiny.⁶⁷ For Worsteds Committee members, such an incident no doubt confirmed the dubious nature of dissenting plebeian religious sects.

Communal solidarities were also evident in friction between inspectors and agents. In 1780, for instance, the Worsteds Committee alleged that “putters-out do frequently hide or secrete their yarn to prevent it being inspected”.⁶⁸ Many agents proved willing to defy inspectors, even at the risk of subjecting themselves to prosecution. In 1777, during the Worsteds Committee’s first five months of operation, inspectors prosecuted at least eighteen agents for rebuffing a demand to identify the spinner of a specific bundle of yarn.⁶⁹ Some agents may have acted from mixed motives. Shopkeepers in particular had to consider that cooperation with inspectors might incur the wrath of patrons and lead to the loss of custom. Even the fear of ostracism, however, underscores the influence of wider communal values that helped to sustain spinners’ resistance.

The constitutional rhetoric of the wider political culture also strengthened the taboo against colluding with inspectors. Many viewed industrial policing as fundamentally at odds with English liberty. The inspectors’

64. *Leeds Intelligencer*, 26 April 1791.

65. Although writing about a later period, the 1820s and 1830s, a rich sense of the intense localism of West Riding village life is revealed in the invaluable work of Joseph Lawson, *Progress in Pudsey* (Stanningley, 1887; repr. 1978).

66. The following discussion is in part based on John Room, *Notes from the Log Book of a Late Worsteds Inspector* (Keighley, 1882).

67. *Leeds Intelligencer*, 21 October 1777.

68. *Leeds Intelligencer*, 2 May 1780.

69. I calculated this total from WYAS-RD, QE15/1 and *Leeds Mercury*, August–December 1777.

reliance on informants was an especially damning indictment of their un-English character. Individuals who facilitated the prosecution of spinners and others were reviled figures. To the laboring poor of his parish, Justice Finney, noted, acting as an informant was “one of the most scandalous crimes in the world”.⁷⁰

Legal coercion, the essential basis of a master’s power in employment relationships, was real enough. But spinners’ responses to the intrusion of inspectors were not always passive. Despite the risks, spinners continued to pilfer on a wide scale. Few spinners demonstrated the temerity of Betty Harrison, who, assisted by friends, physically assaulted John Booth, a constable executing a search warrant for the neglect of work.⁷¹ But large numbers regularly challenged the right of manufacturers to command and direct their labor by evasion, subterfuge, and outright defiance.

THE HANDSPINNERS’ FINAL YEARS, 1790–1810

The experience of handspINNERS changed little until the very last years of the eighteenth century. For the tens of thousands of women who spun for wages, relationships with masters remained a low-level war of position and advantage. Yet the appearance of continuity was misleading. By the early 1790s initiatives were afoot that would profoundly transform the industry, leading ultimately to mechanized yarn production and the eclipse of handspinning. Beginning with the early unsuccessful attempts to adopt the Spinning Jenny to worsted wool, historians have devoted considerable effort to reconstructing the chronology of this transition. Less attention, however, has been given to the wider context in which that process took place. Particularly important were the deep problems that gripped the spinning sector by the 1790s.

The origins of the crisis can be dated to Britain’s 1783 peace settlement with a newly independent America. The reopening of that market unleashed more than a decade of unparalleled growth, described by James as one of the industry’s “most flourishing periods”.⁷² The demand for labor that accompanied this expansion was advantageous to handspINNERS. However, the enlargement of the workforce and extension of the already sprawling spinning region also placed the lumbering system of production under immense strain. Particularly consequential was the worsening of a long pre-existing problem, the bottleneck in the supply of yarn.

The Worsted Committee attended to these developments with the means at hand, further buttressing the policing regime. The inspectorate attained its peak strength in 1792, with eleven officers scouring the

70. Finney, “Notes Conclusory Relating to Wilmslow Parish”, p. 122.

71. BUA, WC1/ii, entry for 23 June 1788.

72. James, *Worsted Manufacture*, p. 306.

spinning districts. The Committee also assumed an increasingly harsher stance toward spinners. In 1789, for example, it directed inspectors to cease the delivery of warning notices and prosecute all offenders without prior notice.⁷³ Such measures, however, did little to alleviate the industry's unmet demand for yarn. As James reports, "using every exertion, masters could not obtain from the home district or Craven, Wensleydale and the northern valleys of Yorkshire a sufficient supply of yarn".⁷⁴ Nor did more vigilant policing remedy the diseconomies of scale that now plagued the spinning sector, with its escalating costs in the distribution and collection of material. Confronted with tighter market dates and delivery schedules and frustrated at the failure of policing to resolve pressing problems, a number of manufacturers explored other expedients to bring greater order to the spinning sector.

Historians of the Industrial Revolution have written with great insight about the multi-layered process that shaped the diffusion of new technologies. Such work highlights the varied influences that induced entrepreneurs to innovate and the difficulties of disentangling the links between technological innovation and social and economic decision-making. But many late eighteenth-century innovations, as Christine MacLeod has argued, had a more pointed rationale: a concern with resolving the problems of disciplining labor.⁷⁵ Such motives, among a mix of factors, played no small part in the determination of pioneering worsted manufacturers to pursue new forms of producing yarn. Spinners' embezzlement and ability to thwart the imposition of more rigorous work patterns, as M.J. Daunton has put it, "gave a greater incentive" for masters "to shift into factory production".⁷⁶

Still, the early innovators were few in number. The first worsted spinning mill, built in 1787, adopted Arkwright's water frame and the principles of roller spinning, technology that proved to be suitable for the long combed fibers of worsted yarn.⁷⁷ Others followed, but for a decade, mills remained relative novelties in the Yorkshire landscape: the process of change was no pre-scripted play. As in other industries, the willingness of vast numbers to toil for very little, restrained the momentum to invest in

73. BUA, WC1/ii, entries for 6 April 1789, 29 March 1790.

74. James, *Worsted Manufacture*, p. 306.

75. Christine MacLeod, *Inventing the Industrial Revolution: The English Patent System, 1660–1800* (Cambridge, 1988), pp. 168–171. See also Nicholas von Tunzelmann, "Technological and Organizational Change in Industry During the Early Industrial Revolution", in Patrick O'Brien and Roland Quinault (eds), *The Industrial Revolution and British Society* (Cambridge, 1993), pp. 256–258.

76. M.J. Daunton, *Progress and Poverty: An Economic and Social History of Britain 1700–1850* (Oxford, 1995), p. 189.

77. See Eric Sigsworth, *Black Dyke Mills: A History* (Liverpool, 1958), pp. 2–6; Hudson, *Genesis of Industrial Capital*, pp. 42–43.

new technology. Attached to the old ways, many manufacturers also initially rejected the mill-spun yarn as inferior in quality.⁷⁸

Moreover, even among innovators, experimentation led in different directions. In the early 1790s, for example, several masters took up the use of hand-powered spinning mules known as throstles, implements that enhanced productivity and could be easily adopted to the putting-out system. Tellingly, however, investors in the new hand technology, like the long-time Worsted Committee member, James Garnett of Bradford, compelled throstle spinners to labor under oversight in proto-factories.⁷⁹ Like the early mill-builders, Garnett introduced centralized production to curtail pilfering and to impose new work patterns of greater duration and regularity on spinners.

For several years, the place of handspinners remained little affected by these developments. The early mills, few in number and of limited productive capacity, insured a continued high demand for handspun yarn. Nor, initially, did the 1793 outbreak of war with revolutionary France adversely impact the industry's women workers. Employment remained constant as the industry's lucrative military contracts compensated for the loss of French markets. Conditions deteriorated, however, as the war dragged on. By 1797, the disruption of trade had brought deep distress to the industry, with disastrous consequences for spinners. In Halifax, for instance, where piece-rates had once been among the highest in the industry, Sir Frederick Eden reported that "the poor women who earned a bare subsistence by spinning are now in a very wretched condition".⁸⁰

Conditions worsened further in the calamitous years that closed the century. In a communication written in the near-famine year of 1801, the Vicar of Bradford, John Crosse, informed Home Office officials that because of "the wide spread of machinery" spinners were "deprived of their employment and bread". Crosse warned, ominously, of the danger of "civil disturbance by dint of starvation".⁸¹ However, if the social order itself was under severe strain, the stuff manufacturers consolidated their advantages. Hounded by inspectors and faced with a steady diminishment in the demand for their labor, the spinners' forms of everyday resistance proved utterly inadequate in stalling the advance of mills or in redressing their deteriorating condition.

The final and decisive period of transition commenced in the early years of the nineteenth century. Mill-building accelerated rapidly, as manufacturers and the industry's pioneer machine-builders resolved the most serious flaws in the new technology. Threatened by falling prices but also

78. James, *Worsted Manufacture*, pp. 354–355.

79. Garnett's endeavor is discussed in the *Illustrated Weekly Telegraph*, 19 December 1885.

80. Eden, *State of the Poor*, vol. 3, pp. 821, 876.

81. As cited in Michael Turner (ed.), "The 1801 Crop Returns for England", Institute for Historical Research, University of London, 1978.

drawn to the promise of greater organizational efficiency, masters with long involvement in the putting-out system invested in new mills. Others enlarged existing facilities. A remnant of the once vast workforce continued to ply their trade. Year by year, however, the handspinning district contracted, a process speeded further by the 1810 recession.⁸² Thereafter, the last significant employers of handspinning either withdrew from business or opted for the certainties of mill spun yarn. Tiny and dwindling pockets of handspinning survived for a few more years, but by 1820 the decline was complete.

CONCLUSION: THE RESISTANCE OF WOMEN WORKERS

At its best, the rewards of the pauper craft of spinning were meager. It offered many thousands of poor women relatively constant employment and the means to a poor and humble living. The occupation's eclipse brought far worse. Small numbers of displaced spinners took up the far more remunerative and male-dominated trade of handloom weaving, an occupation that expanded enormously with the explosive gains in the production of yarn. Other former handspinning, and many more of their daughters, found employment in the mills. Most, however, did not. Made redundant by new technology, thousands were reduced to destitution.⁸³

Nevertheless, the spinners' decline, marked by elements of tragedy, should not dissuade us from assessing their impact during this vital phase of industrialization. Deploying a vocabulary in which they were well-served, the Yorkshire masters inveighed against the spinners in rhetoric that scarcely masked their desire to keep wages depressed and their workers subservient. Condemned as idle, careless, and deceitful, spinners bore the brunt of unsparing hostility. Yet, the very vehemence of the castigation speaks to the vexing power these poor women exercised. Such power, although always spare and constrained, was more than a tangential matter. Abundant evidence indicates that it significantly hindered manufacturers in the conduct of their affairs. The spinners' power tenaciously to obstruct would also render them the primary targets of an historic legal initiative of the manufacturers, namely the establishment of an industrial police force. That undertaking would become the model for statutory inspectorates elsewhere in the country.⁸⁴ Finally, the inability to command spinners in the manner they desired ultimately helped to prompt

82. James, *Worsted Manufacture*, p. 368.

83. Evidence for spinners' impoverishment is provided by Eden, who documents the sharply growing expenditure of local Poor Law authorities during the 1790s in worsted-manufacturing communities like Halifax and Bradford. See his *State of the Poor*, vol. 3, pp. 810, 825, 826.

84. See John Kirby, *A Letter to a Member of Parliament* (Ipswich, 1787); Thomas Ruggles, *The History of the Poor: Their Rights, Duties and Laws Respecting Them* (London, 1793); Nigel Heard, *Wool: East Anglia's Golden Fleece* (Lavenham, Suffolk, 1970), p. 123.

enterprising individuals to pursue new strategies of organizing production that were eventually adopted by the entire manufacturing community. In exploiting the vulnerability of their employers, the spinners inadvertently contributed to the demise of their own occupation.

The Yorkshire handspinners were once an important workforce, among the largest in England's late eighteenth-century industrial economy. For far too long they have suffered at the hands of historians, their activities ignored or deemed unimportant. In fact, for more than four decades the spinners were at the center of struggles over industrial discipline. Their story, a vital part of England's industrialization, merits our close attention.