



Original article

The act that shaped the gender of industrial mining: Unintended impacts of the British mines act of 1842 on women's status in the industry

Kuntala Lahiri-Dutt

The Australian National University, Australia

ARTICLE INFO

Keywords:

Gender in mining
 Women in mining
 Protective legislation
 British Mines Act
 Women's labor in mining
 ILO and women's labor

ABSTRACT

In the 19th century, public outrage over poor working conditions of children in underground coal mines in the UK led to the enactment of the Mines and Collieries Act 1842. It prohibited boys under the age of ten and all females from laboring in underground mines. This Act wiped out the long and impressive history of women's labor in the mining industry, and pushed women into more insecure areas of work. Later, during the 1920s and 1930s, this Act became the model for the International Labour Organization (ILO) to adopt protective legislation around women's labor in the mining industry. Although unintended, the Act established ideals for decent work for women as per the Victorian norm and eventually led to the contemporary global context of hypermasculinity of the mining industry. The paper shows how women's labor in mines—within a strict sex-based division of tasks—was, and remains, subject to gender ideologies that are not only propagated at home, but assume an authoritative position when adopted by the state.

1. An Act to protect women (and children)

Chaos theorists speak of the butterfly effect: how the flutter of a butterfly's wings—a small and apparently insignificant event—has a remarkably large-scale effect in far-flung places. The hypermasculinisation of industrial mining can be described as an example of the butterfly effect of the Mines and Collieries Act 1842 (known commonly as the Mines Act 1842), an early attempt by the British state to regulate female and child labor in underground coal mines.

Unreservedly, the Mines Act was necessary to prevent the exploitation of cheap labour of women and children in the 19th century UK. That was a time when women and children were hired – often at very low wages – to carry out tasks in underground coal mines. Often, men would not, or were not suitable for, doing these tasks. Early coal mines supplied coal to the modern industries in the UK, and the nascent trade unions were yet to be strong enough to prevent workers' exploitation by colliery-owners. Therefore, when public outrage over poor working conditions and concerns over women's health and welfare arose in the late 1830s, it was left to the British social reformers to campaign against these exploitative, unsafe and risky working conditions so that the state could regulate the labor conditions of women and children in underground coal mines. These campaigns subsequently led to the enactment of the Act in 1842, prohibiting the employment of all women in underground mines, and raising the age at which boys could be employed underground to ten.

Although the Act was established to protect women from the rigours and poor working conditions in mines in the context of a specific country and a specific time, I argue that it had an unforeseeable, unintended and undesirable effect on women's productive labor over time, and worldwide, in contexts that are entirely unconnected to the original legislation in the UK. This Act helped to invisibilise the long and impressive history of productive labor by women in the mining industry, delegitimized women as productive workers in mining, and pushed women into more insecure areas of work. Later, during the 1920s and 1930s, this protective legislation was used as the prototype by the International Labour Organization (ILO) that adopted Conventions to restrict women's labor in the mining industry. Although unintended, discursively, the Act established ideals for decent work for women as per the Victorian norm, confirmed the normalized masculinity in the industry or even added to it, and eventually shaped the contemporary global context of hypermasculinity of the mining industry. What is remarkable in this butterfly effect is that from a singular country of origin, the impacts of this protective legislation not only gradually spread quickly to other countries, cultures and times but remain in place in many countries in the contemporary times, creating obstacles for women to obtain gainful employment in the mining industry.¹

Besides valid concerns about the health and welfare of women (such as miscarriages among women miners and high rates of infant mortality), there also was a moral panic—over scantily clad women and men working close to each other in a poorly lit underground

¹ There were exceptions, such as compulsory mine work introduced by a single-party regime in Turkey during World War II (see Gürboğa, 2009).

environment—behind enactment of the law. Prevailing Victorian ideals of gendered decency socially constructed the laboring women in mining. The idealization of forms of femininity rendered underground mines a hostile space for women, irrespective of space–time contexts. The lasting impact of such normative imaginings was felt in the sex-segregation of jobs in several industries and professions; women were barred from entering professions in higher education, law, medicine and the Church. Within the UK, the immediate effect was that women were pushed into more insecure and worse jobs; much later, the ILO’s adoption during the 1920s and 1930s of various protective legislations around women’s labor in the mining industry pushed them into lower-status, lower-wage tasks in the countries of Global South. With the growing clout of the ILO, its Member States adopted the ILO Conventions and enshrined them into their own legislative frameworks.

One can, therefore, say that the Mines Act 1842 produced a situation that usurped women’s rights to mine and led to the contemporary global context of hypermasculinity of the mining industry. Women’s rights to mining work thus becomes the ultimate litmus test to assess the robustness of human rights’ claims for women’s labor in all unconventional and masculine vocations, which will help understand the multifaceted discriminations against women in such areas of work.²

This article shows how women’s labor in mines—within a strictly gender-based division of tasks—was, and remains, subject to legal protection that pushes them out of formal and better-paying jobs, turning them into precarious labor in toiling in informal mines and quarries.

The paper first outlines the Mines Act 1842, the conditions within which, and the reasons why, it was passed, and the debates around it. It then discusses how feminists have interpreted the protective attitude that the measure signifies, and why their ambivalence over protective legislation makes women’s rights in mining unclear. Then there is a brief description of women’s labor contributions to the mining industry. The role of the ILO in establishing conventions is discussed next to show that gender ideologies are not only propagated at home, and how they assume an authoritative position when adopted by the state. This section also discusses measures adopted by the ILO since to ameliorate the gender ideology ingrained within protective legislation. The mismatches between these protective conventions and contemporary ideas of women’s rights being integral to our conceptualization of human rights are noted here. Later in the paper, I show the inconsistencies between these protective Conventions and anti-discrimination Conventions, such as the C111 Discrimination (Employment and Occupation) Convention and the C156 Workers with Family Responsibilities Convention, which prohibit discrimination on the basis of sex and require equality of employment opportunities for workers with family responsibilities. The paper concludes with a discussion on where women’s labors are located in mining in the present day to underline why it is important for women to have the right to mining jobs.

2. An “act” by the British state

By the 19th century, coal mining had expanded from being an artisanal and small-scale endeavour to forming the central pillar of the British economy that ran the engine of Industrial Revolution. This new energy-intensive mineral-based economy, Historian E.A. Wrigley (2010: 24) argues, opened a “Pandora’s jar [*sic*] that released new dangers and sources of anxiety in the country”. At the heart of this

² In other sectors, as shown by Patel (2006: 21) in her research on upper-class urbane women workers in India’s IT industry, however, it remains “unclear whether working the night shift will impede or enhance a woman’s mobility and spatial access to the larger community”. However, the concerns that prevail in the formal labour market are too often isolated from those of marginalized and vulnerable workers, who also tend to be members of social groups working in some of the most disadvantaged conditions (see Sheppard, 2012).

anxiety was the rapid growth of a new, industrial, working class, curved out the rural masses. Tumultuous social conditions and the complete reorganization of social fabric were the salient features in this transformation. The changes were gendered; by the early 1800s “one industry after another was taken from the home by invention and the development of large-scale industry; in the process the family wage disappeared, and agrarian and industrial changes combined to deprive women of their earning capacity”, noted Ivy Pinchbeck (1930: 4), a feminist historian of women of the Industrial Revolution. One response to this social upheaval was that a need was generally felt for the state to intervene to protect the interests of the poor, and to “clean up” the society (as well as the surroundings within which the old society was changing). Consequently, the atmosphere of facilitating the state to step in was all around. For example, in 1839, the British government instructed the Poor Law Commission to examine the health of the working-class population of England and Wales (and, later, Scotland). The British Parliament’s Select Committee on the Health of Towns declared that preventive measures were needed not only for the sake of humanity and justice for the poor, but also for the safety of the rich and the security of their property.³ Vast amounts of information on the poor and working class people and their living conditions began to be collected around this time. An example of such enterprise is Chadwick’s (1842) magisterial report, which highlighted the need to improve public health and, largely equated the filthy environmental conditions with dirty working conditions. In 1849, Henry Mayhew began publishing his detailed account of migrant rural labor now occupied in a diverse set of works that had not existed before in London (see Neuburg, 1985).

By the late 18th century, rapid advances in technology and expansion of industry had exhausted the surface and shallow deposits of coal, and forced mine owners to access coal seams located deeper under the ground (Mills, n.d.). Digging deeper into thin coal seams in extremely unsafe conditions increased the number of mine accidents (Pinchbeck, 1930). Obviously, the poor health and safety conditions for mine workers who had to work in cramped conditions offered a valid source of anxiety for the social reformers and the state. At the same time, women’s numbers had grown exponentially in British collieries,⁴ although there were regional variations in women’s labor use in production. For example, the “bearing system”⁵ continued to exist in Scotland, whereas in English collieries women used to pull sledges or tubs along the pit floor from the coalface to the bottom of the shaft (John, 1980: 20–22), and were called “pit brow lasses” or “drawers.” However, neither do accurate numerical official statistics on the full participation of women, such as employment records in British collieries, exist for 18th and 19th centuries, nor is it expedient to search for such data. The data do not exist or can not be relied upon because in the “family system of labor” women were considered to be part of the

³ Report from the Select Committee on the Health of Towns, House of Commons, British Parliament, 17 June 1840.

⁴ Elsewhere, there is historical evidence that women have worked with men in mines from ancient to modern times, as part of the family labor unit or as individual wage labor. Early treatises such as Agricola’s *De re metallica* (1556) portray women breaking and sorting ores, hauling and transporting them, smelting and processing, and sometimes even undertaking the physically demanding job of working the windlasses in medieval mines. However, it was during the advent of capitalist industrial mining that women’s work in mines fully flourished all over industrializing Europe. For example, in coalmines in Belgium, the numbers of women working underground grew during the late nineteenth century. Hilden notes (1993: 89): “Not surprisingly, Belgium’s women coal-miners earned some significant portion of the public respect and reverence elsewhere given so readily to male coal-workers.” Women coal mine workers were known as *hiercheuse*, a proud title connoting the feminine version of *mineur*, or a male miner.

⁵ In this system, men would cut the coal, and their wives and daughters would carry it on their backs up to the surface.

family headed by men, and hence paid lower wages. Moreover, enumerators, all men, usually considered women's labor as part of family support activities, and discounted it; and also because male mine-workers, who utilized the labor of female relatives, benefitted economically from women's labor contributions.⁶

The primary source of unease was around the condition of certain people, not generally seen as typical laborers, toiling in occupations and spaces that were hitherto unknown and unimagined. An inquiry made in 1840 into the condition of children working in underground mines also found a significant number of women, working often as part of the family labor system. The report, therefore, led to a furore over the propriety of women's labor in mining and in underground spaces. One dominant voice in the furore was that of religious leaders, besides those in the British Parliament, who urged the government to bar women and children from mining work. The beliefs of religious groups did not necessarily and exclusively manifest a simple pervasive Christianity. They were subtle manifestations of mid-19th century Christian thought in which exercises in social control were the products of a more complex motivation of the development of the Victorian administrative state that ruled private lives on moral grounds.

It was in this social context that women and children were barred from working in underground mines. Historian Alan Heesom (1981: 238) argues that the Act was not meant to be a Benthamite piece of legislation of purely utilitarian value. Instead, "Arguments from the classical economists were deployed on both sides in the debate on the Bill, while the humanity of the Act was called in question not simply by the 'absurd arguments' of vested interests and obscurantism." Indeed, the Act was a child of its time, a response to prevalent conditions shaped by the dominant sensibilities and gendered moral values of the time. At that time, it was increasingly becoming common for working-class people to welcome state legislation that aimed to protect their rights and physical integrity, and that shelter them from exploitation, in the workplace. Therefore, it is important to bear in mind that the Act is also widely celebrated, particularly as a victory of the working class to free themselves from unsafe work practices and exploitative labor conditions (Cepero, 2014; Polsky, 2014).

The Act was, however, more than that. To quote the British feminist historian Jane Humphreys, it "was the first and one of the most extensively documented pieces of discriminatory [against women] labour legislation" (Humphreys, 1981: 6). This was the first time when legislation excluded women from a specific occupation, and also grouped women with children. The ACT, therefore, contained elements of social control—in that the return of women to their child-rearing duties within the domestic environment, as well as the proposed Christian education of young boys excluded from the mines—to reduce the risk of civil unrest among the working classes (Spurgeon, 2012: 2). When the Bill was first proposed, members of the British Parliament had different reactions; in general, "[n]one of the opponents of the bill were hostile, in principle, to the exclusion of females" (Heesom, 1980: 240). Further, the Bill's leading opponents were well-to-do coal mine owners. Those who were hostile to the Bill agreed that women should be barred from working in collieries, but children should be allowed to work. Scottish coal mine owners opposed the Bill strongly (Heesom, 1980: 239). Opponents of the Bill in the House of Lords were prepared to accept the exclusion of women, although they envisioned that women might experience economic hardship if barred from mining (Heesom, 1981: 72).

The Mines Act had certain unintended consequences immediately.

⁶ In his study of colonial asbestos mines in South Africa, McCulloch (2003) explains that when government officials visited an asbestos mine in South Africa in 1950, they found the records showed that the mine employed 100 men. Their reports made no mention of women. A month later, a health inspector, also from the government, visited the same mine and noted that there were 102 male employees and 40 women. Such discrepancies occurred because of women's invisibility as workers.

After being barred from mining, where did working-class children and women find employment? For children of extremely poor families, the results were pathetic as they were no longer able to earn a livelihood to support other household members, but were driven to the streets of factory-towns to fend for themselves. The condition of children became of such great serious concern, that it necessitated the establishment of a Children's Employment Commission, which submitted its report in 1864. For working-class women, jobs were not hard to find. "There was always work for a poor woman [in Victorian Britain]," says Picard (2005: 304), as the Factory Act allowed women to work from the age of fourteen. Most women who were thrown out of gainful work from the coal mines joined the "slop trade", an old and worse form of labour than the garment-industry of today, where they produced cheap clothing and uniforms on a mass scale. This becomes clear from the results of the 1849 Census that showed that "[t]here were over 11,000 females under 20" (Picard, 2005: 305) in the slop trade. Working conditions in the slop trade remained miserable until the advent of the sewing machine in 1856.⁷ Interestingly, and at the same time, the Victorian state wanted women to be employed in decent jobs that were deemed to be suitable for women. Picard notes that the Society for Promoting the Employment of Women encouraged them to become clerks, telegraphists, shop assistants, and nurses, although this was not easy for working-class women in the highly class-demarcated society of Britain.⁸ This historical insight into the immediate and difficult consequences of the Act to prevent women from entering a particular occupation is crucial for a feminist rethinking of whether or not women need special protection in the workplace.

3. Feminist interpretations

Feminist historians consider the Mines Act as a piece of "protective" legislation, to safeguard women's interests at the workplace. To be honest, there are several protective legislations that working women today have come to accept as rights. Maternity leave is perhaps the most widely known protective legislation that women claim, although a two-day menstruation leave also exists in certain countries such as Indonesia (Lahiri-Dutt and Robinson, 2008). However, protective legislation also turns women into "special workers," that is, workers who have special needs due to their specific biological traits. When women's labor is controlled by protective legislation, it reflects an essential feminist quandary between women's need for protection and their right to equality—should women workers be seen primarily as "women" or as "workers"?⁹

Feminists are still divided on protective legislations. Kessler-Harris et al. (1995: 6) describe protective legislations as the "central tension" around women's work outside the home: "In different forms, they occupy a pivotal position in the debates of every industrial country, pitting the demand for equality in the workplace against the well-intentioned efforts of men and women to protect family life."¹⁰ Essentially,

⁷ "The sewing machine ... now performs the work formerly known as the most miserable, and even notorious, of all occupations" (Picard, 2005: 306).

⁸ Picard (2005: 306) quotes from the report of the Society for Promoting the Employment of Women: "The texture of English society is such that the number of reputable employments for females in the middle and humble ranks is very small". Clearly, women were unable to get easy employment elsewhere.

⁹ This predicament is extensively discussed in Lehrer (1987) and Wikander et al. (1995).

¹⁰ As recently as 1991, Stanford and Vosko (2004) have showed that women in urban Russia faced the dilemma of choosing between the "double day" of relentless work outside of and at home for the promise of a husband supporting the family. In the same year, the Court of Justice of the European Community decreed that national provisions forbidding night work for women contradicted the Community's regulations mandating equal opportunities for women and men. Both France and Italy had restrictions on women's work during nights, and whilst the laws were never rigidly applied, it was argued that women are

their debate hinges upon the question of “difference/equality” between genders. However, the question remains: is protecting women not equivalent to discrimination?

An obvious critique of the Act is that it is “universalist”: it does not differentiate within the category “women” and also conjoins women with children. Also obvious is that the Act was the most significant expression of extant social and gender norms based on values that assumed the primacy of the male breadwinner or the household head. The question remains: why would a capitalist state interfere with the supply of labor and determine who are better suited to work? Is it not in the interests of industrial capital to ensure a steady supply of the cheapest possible labor (such as women)? Marxist feminist Jane Humphries (1981: 3) explores the possible explanations of this apparent contradiction in the protection of women workers: on the one hand, industrial capital has an *immediate interest* in the exploitation of labor to maximize profits, on the other, it is also strongly invested in the *longer-term collective interest* in the renewal of labor over time through reproduction. This feminist perspective highlights why women’s labor in industries like mining sits at the centre of Marxist (as well as feminist) debates.

It is possible to offer a less political explanation to why the state would prevent women from working in certain areas of modern industries. This explanation has been labelled as the “patriarchy first” approach by Humphries (1981: 3). “Patriarchy first” approach is based on the idea that removing women from the workplace is good for the interests of male workers, who are fearful that women would usurp men’s jobs, because employers would prefer the cheaper, more docile, female labor and at lower wages. Women’s involvement in the labor market would not only lower men’s position within commodity production, but would also liberate them from their dependence on men. Contemporary discourses of maternity and domesticity influence women’s exclusion from certain industries and areas of industrial labor. Carolyn Malone (1996) condemns the Mines Act strongly because of the influence of such an idea. She argues that in the prohibition of women from underground mining work, an emphasis on women’s supposed physical vulnerability and the importance to the nation of their maternal role was apparent, and that these gender-based arguments were used to justify interventionist legislation such as the Mines Act, which restricted women’s working hours and excluded them from certain jobs. Additionally, protective legislation such as the Mines Act is politically expedient, because they concur with popular sentiments about the need to safeguard the nation’s health by ensuring that women carry out their childbearing and child-rearing functions successfully. Therefore, the furore that started as a widespread concern over the poor state of public health hid within it a gender ideology: the need to improve the health of large sections of the population imposed on women the duty to create and nurture healthy citizens by ascribing motherly roles to women.

With the advantage of hindsight, we can see that “patriarchy first” interpretation is based broadly on a liberal feminist perspective. In its efforts to emphasize the existing patriarchal structures, this interpretation does not do justice to the need to change. One can say that the liberal feminist interpretation does not destabilize surplus value creation.

A more convincing interpretation is offered by the Marxist conceptualization of protection of women. This Marxist perspective is described by Humphries as the “capital logic” with regard to women’s work. “Capital logic” suggests that although capitalist industrial production requires cheap labor, generally provided by women and children, there is also a pressure to reproduce the labor power. To reproduce workers for the future, the bourgeoisie needs to restrict certain aspects of labor, such as the length of time people can work and who

can work and where. Since reproduction is primarily a feminine domain, and women need to be released from manual laboring to reproduce the labor power. However, industrial capital, that is industries, cannot be fully trusted with ensuring to offer restricted hours etc. Therefore, the state intervenes to establish rules, such as the hours of work or kinds of laborers who will work. Behind all of this is the assumption that a particular form of the family will be retained and promoted, that women would stay at home to care for the children. This Marxist interpretation was also the basis of work by feminist geographers McDowell and Massey (1984), who discussed how sex-based job division resulted in a space-based division: the home became the place of reproduction (by women) as the mines became the place of work (by men).¹¹ In the new scenario produced, there is an inherent contradiction: capitalism would generate the need to ensure the reproduction of labor power, and it would encourage the state to impose limitations on hours of work, improve public education, promote a particular form of the family, and constrain the employment of large numbers of women and children by redeploying both in other activities designed to safeguard the quality of future workers. On the one hand, the logical development of the capitalist mode of production implies an increased demand for female child labor. On the other, this so-called “progressive” tendency in capitalism puts particular pressure on the reproduction of labor power because of women’s traditional responsibilities at home and the difficulties involved in combining waged work with reproductive chores.

Other feminist scholars, particularly historians after Humphries, underline the gender ideologies established by the Act, and show how these two streams of thought actually tend to merge in interpreting women’s roles in modern industries. Their contributions show how men are naturalized in a binary construction of gender in mining, a construction that implies women are the “other” of the “norm”. In unearthing the hidden history of women miners, labor historians Mercier and Gier (2019: 3)¹² underline the importance of discussing “the multidimensional aspects of women’s work as miners and as miners’ wives and the impact of gender differentiation in mining in a global/historical context.” Unequivocally, they agree that women’s work in mining can be seen as an area where women’s “agency” could be located, when placed within the broader characteristics of gender socialization in mining, lest women are treated purely as “labor commodity” (Burke, 1993). Historians show that women join resistance against mining primarily as auxiliary forces. The family system utilizes both productive and reproductive labors of women. Elsewhere I show (Lahiri-Dutt, 2012) that in India, for example, the early collieries established during the colonial period employed women to keep the workers, often drawn from local tribal communities, tied to the mines. Again, these collieries created a job division in the pits between *kamins* (female workers) and *coolies* (male workers), who performed different tasks in different spaces. In both surface and shallow underground or open cast mines, known locally as *pukuriya khads*, kamins lifted coal from shafts (or worked as “gin girls”, from “engine”) and loaded it. Usually, their male partners—fathers, brothers, or husbands—cut the coal. In other countries of modernizing Asia, for example, in Japan, a similar pattern of sex-based labor division was adopted. In the *naya* (stable) system of work in coal mines in Japan, Nakamura (1994: 15–16) says: “A working pattern in which a married couple worked as a unit, with the husband (*sakiyama*) digging out the ore and the wife (*atoyama*) assisting him by

¹¹ Feminists, such as Lisa Brush (1999: 162), have always considered that “industrial societies organise gender. Men are workers, women are mothers.... Workers are men, mothers are women.” Again, the criticality of gender is apparent from Lorber (1994), who argues that gender organizes industrial societies.

¹² Merithew, C.W. ‘We Were Not Ladies: Gender, Class and a Women’s Auxiliary Battle for Mining Unionism’, *Journal of Women’s History*, Summer 2006, 18, 2, pp 63.

(footnote continued)

more exposed to risks of violence or sexual assault during this time. In India, there is now a similar wave of sentiment against the relaxation of night work laws for female call-centre employees, citing security concerns.

carrying away the coal, became widespread [during the early 20th century]. Married women comprised most of the female workforce in the coal mining industry.”

The compelling logic of capital becomes apparent in Kyriakidou's (2002) analysis of how, in the face of the worldwide economic crisis in the early 1930s, Greece introduced protective legislation as the outcome of the prevailing view that women should be prevented from working at certain times and in certain places to maintain their physical safety and social place. Preventing women from working in underground mines and at night became one of the easiest ideas to contemplate and popularize. The legislation pushed women into child-bearing, which was considered to be the main task for women.

Protective legislations are problematic because they are based upon populist and universalist conceptions of femininity and womanhood, and naturalizes contested gender norms. They also operate against women's interests by stripping them of their rights and by excluding them from gainful employment. Nowhere are the long-term policing effects of this legislation so evident as in mines, where masculinities are inscribed onto the bodies of miners and into the mines themselves. One reason why mining has been characterized by hypermasculinity is that a particular type of representation of the “worker” in mining has become widely accepted since women were stopped from working in early industrial mines. The presence of men, and only men, has created an image of mining in which laborers perform arduous physical tasks that are presented as being suitable only for men.

How did the mining industry acquire this hypermasculine appearance? Why does this industry completely erase women's past labor contributions and continues to prevent women? Mercier and Gier (2019: 995) ask:

Mining's tumultuous history evokes images of rootless, brawny and often militant men, whether laboring in sixteenth-century Peru or twenty-first-century South Africa, but women are often ignored or reduced to shadowy figures in the background supporting male miner family members. Where were women in the mining world?

One of the unintended consequences of the 1842 Mines Act was that women's labor contributions to early mining,¹³ during the gold rushes in America,¹⁴ or the industrial era¹⁵ were rendered invisible by the ideological wave on gendered behaviors and norms that were unleashed globally. This ideology is based in biological essentialism that questions women's ability to perform physically demanding jobs, and that is encouraged to protect women from the rigours of the workplace. This biological reasoning assumes power and authority in spite of ample social and historical evidence to the contrary, via the protective legislation put in place to justify the exclusion of women. From one country, the effect of the 1842 Act spread throughout the world much like the butterfly effect, leading to protective measures adopted around women's work in mining industry.

4. Role of the ILO

When labor standards started to be developed worldwide, the Mines Act 1842 influenced people's thinking and acted as the model for the mechanisms that were established to remove women from mining work. The ILO played a crucial role in setting these standards, and the Act was the only template available for the Organization when European society was concerned over women's work in mines.¹⁶ The

¹³ Similar to Agricola's treatise, Vanja's (1993, 102) exposition on mining in pre-industrial Europe offers details of women's labor contributions.

¹⁴ Records also show that women prospected in the American West for gold (Zanjani, 2006 [1997]: 7).

¹⁵ Where official records exist, such as in Belgian mines during 1830–1914, it can be seen that “until the final quarter of the nineteenth century, numbers of women working underground in Belgian coal mines actually grew” (Hilden, 1993: 89).

¹⁶ Other European countries that followed the UK included Germany and

ILO consulted the Act in establishing the two “protective conventions”: the C45 Underground Work (Women) Convention and the C89 Night Work (Women) Convention (Revised).

The ILO's Night Work (Women) Convention was not the first global ban on night work. In 1906, the Berne Convention had recommended it strongly: its recommendation was based on an inquiry into legislation in different countries, and an evaluation of its consequences when such legislation is implemented.¹⁷ The night work ban prevents women from working in shift-based work in all industries including industrial mining. It was followed by the convention that was framed specifically for women in the mining industry, the C45 Underground Work (Women) Convention of 1935. These conventions prohibited women from being employed “for the extraction of any substance from under the surface of the earth”, and applied to both public and private undertakings.

The ILO, which plays both a normative and a tactical role, does not make decisions lightly (van Daele, 2008). It has an intricate structure; the permanent body is supported by a Governing Body, which establishes a Committee of Experts to undertake each of various functions, including the drafting of conventions. The process of making rules is also intricate, and illustrates the elaborate care it takes to agree upon a draft before it is put to the vote (Wisskirchen, 2005: 257). If two-thirds of the Member States present vote for a Convention or Protocol, it is passed. If at least two states sign and ratify a Convention or Protocol that has been passed, it becomes effective (Wisskirchen, 2005: 258). Conventions and Protocols have the same status and are passed using the same processes; the main difference is that a Protocol revises an existing Convention.¹⁸ The most important thing to note is that a member state that has signed a Convention or Protocol must translate it into national law, generally within twelve months.¹⁹ This is known as “ratification.” The ILO has mechanisms to deal with allegations that a state is not complying with a Convention.²⁰

(footnote continued)

Sweden. Women, however, continued to work in France and Belgium until well into the twentieth century and in Russia until the Revolution in 1917. Germany banned women from mining labor in 1878, North America in 1890, Sweden in 1900, Russia in 1917, and Japan in 1933. See Malone (1998).

¹⁷ In a chapter, “Berne, 1906: A Convention Prohibiting Women's Night Work”, Ulla Wikander notes that the findings were summed up in a book about women's night work in industry, *Le travail de nuit des femmes dans l'industrie: Rapport sur son importance et sa réglementation légale*, which emphasizes the need for a common international convention to keep women away from night work. In the Canadian state of British Columbia, the Factories Act 1908 prohibited night work for women in enterprises employing three or more people. This was later extended to laundries and “industrial undertakings (as defined by convention)”; in Alberta the Factories Act 1917; in Manitoba the Revised Statutes of 1913 prohibited night work for women in any building listed or in any place where “mechanical power is used to prepare goods or manual labour used by way of trade” where three or more people were employed; in New Brunswick the Factories Act 1919; in Nova Scotia the Act of 1901; in Ontario the Factory, Shop and Office Building Act 1914; in Quebec the Revised Statutes of 1909 covered “all manufactories, works, workshops, work yards and mills of every kind” and later “cotton and woollen factories”; and in Saskatchewan the Factories Act 1909. See Hopkins (1928).

¹⁸ ILO 2008b. ILOLEX: database on International Labour Standards, viewed at <http://www.ilo.org/ilolex/english/conve.htm> viewed on 16 April 2008.

¹⁹ ILO 2008. How the ILO Works, viewed at http://www.ilo.org/global/About_the_ILO/Structure/lang-en/index.htm viewed on 19 March 2008

²⁰ Under Articles 24 and 25 of the ILO Constitution, an industrial association of employers or workers can make a representation directly to the Governing Body that a Member State is not complying with a Convention. Upon receiving a representation, the Governing Body informs the government that has been complained about, and either forms a committee to investigate the complaint or refers the complaint to the Committee on Freedom of Association. It can also decide not to investigate. If the government does not comply with the investigating committee's recommendations, the Governing Body can publish the representation and the response, or can form a Commission of Inquiry to deal

Feminist labor historian Dorothy Sue Cobble has shown that the process of setting international labor standards for worker rights have always been contentious, as they bring forth the conflicts between cultural values of gender roles and relations, and issues such as who would speak for the workers. Cobble (2015: 213) recounts the story of Japan, whose mills were dependent in 1919 on a labor force of “rural farm girls, many between the ages of ten and sixteen, working long hours late into the night.” At that time, Japan was the only Asian nation with global power status; still it wanted “special exemption” to carry on with lower labor protection standards.

While noting the importance of having labor standards,²¹ some feminists have critiqued the very idea of single-sex protective laws for workers (see Elias, 2003). Woloch (2015: 268), for example, says that most courts are against the “gendered imagination” behind the “self-fulfilling cycle of discrimination” that fosters “employers’ stereotypical views about women’s commitment to work and their values as employees.” It is for this reason that the civil rights movement in the USA changed the way protective legislation was seen. Title VII of the Civil Rights Act in the USA prohibits employers with fifteen or more employees—including federal, state, and local governments—from discriminating against employees on the basis of sex, among other things. This clause led to a number of lawsuits in the USA regarding the rights of women. For example, in *United Automobile Workers v. Johnson Controls, Inc.*, the US Supreme Court held that private sector policies that knowingly prohibit pregnant women from working in potentially hazardous occupations are discriminatory and in violation of Title VII. In recounting the final dismissal of protective laws, Woloch (2015: 272) notes the words of the judge, that concern over a woman’s existing or potential offspring has historically been the choice for denying women equal employment opportunities. The judgment was that the choice should better be left to the woman to make.

Although the ILO is focused on the aspirations of “the mass of working women,” Eileen Boris (2014) argues that it has been unable to reconcile the tensions between feminists from the Global North and the Global South. Further, she critiques that “Although it prides itself on technical experience and research, as a whole the ILO has served as a terrain upon which nations and political blocks jockeyed for power.” (Boris, 2014: 192). Moreover, the ILO has continued to construct rural women from the Global South as a distinct category of female worker:

As mothers, household managers, and workers in family-based cottage industries, labelled as “women in developing countries”, they stood for reproductive labour that official statistics ignored in calculating economic growth but that feminist researchers and activists would highlight in showing women as agents, promoting household survival. (Boris, 2014: 190)

Further, other critiques note the “cautious global welfare-statism” that ILO embraced to generate “an expanding capitalism based on greater mass purchasing power and social reform” turned its gendered

(footnote continued)

with the matter as a complaint (ILO 2008). Under Articles 26–34 of the ILO Constitution, a Member State who has signed the same Convention, or a delegate to the International Labour Conference, can complain to the Governing Body that a Member State is not complying with a Convention. Alternatively, the Governing Body itself can initiate a complaint. Upon receiving a complaint, the Governing Body either forms a Commission of Inquiry or refers the complaint to the Committee on Freedom of Association. The ILO publishes the report of the Commission of Inquiry. From there, the government against which the complaint has been raised can accept the recommendations or appeal to the International Court of Justice. If the Governing Body considers the government’s response to be inadequate, it can recommend that the International Labour Conference take “such action as it may deem wise and expedient to secure compliance” (ILO Constitution, viewed at <http://www.ilo.org/ilolex/english/constq.htm> on 15 April 2008).

²¹ However, the history of such debates goes further back. For example, see Lockwood (1979).

vision into a pro-male employment stance and a dismissal of women’s productive labor in Southern countries (Haas, 1964). This neglect is continuing at the current time when flexible labor processes has made it obvious that women are over-represented in vulnerable and marginal jobs in informal employment that “evades implementation of labour laws” (ILO, 2011).

In response to the court cases, the USA passed its Equal Employment and Opportunity (EEO) Act. Following the example, and riding on the wave of resuscitated feminist movements, most Anglo-American countries have dismissed protective legislations such as the bans on night and underground work. Even the ILO has revised most of its Conventions several times. For example, it revised the Convention on night work in 1934 and 1948. In 1990, it introduced a clause that lets women work at night “in specific activities or occupations”. As early as in 1975, the International Labour Conference passed the motion that “women should be protected on the same basis and with the same standards of protection as men”. In 1985, the Conference passed a resolution calling on all Member States to “review all protective legislation applying to women in the light of up-to-date scientific knowledge ... and to revise, supplement ... or repeal such legislation.”

A 2001 ILO Committee of Experts on the Application of Conventions and Recommendations (CEACR) noted that these laws were incompatible with other international bills of rights for women, such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted in 1979 by the United Nations General Assembly. With regard to mining, in 2002 a Working Party on Policy for Revision of Standards of the ILO recommended the removal of the C45 Underground Work (Women) Convention and requested countries to sign the C176 Safety and Health in Mines Convention (Almenas-Lipowsky, 1975: 3).

These modifications are the results of improvements in gender equality in the industrialized North, where changes in family law went together with social and economic transformation and affected the position of women.

However, in many countries of the Global South, labor legislation has followed that of the ILO has continued to remain in place, barring women from shift work and underground work in mines. For example in India, the C45 Convention was ratified in the Indian Mines Act of 1952 (Act No. 35), which declared: “No woman shall, notwithstanding anything contained in any other law, (a) be employed in any part of a mine which is below-ground, and (b) in any mine above ground except between the hours 6 a.m. and 7 pm.” The overall mood in the country is that women should not work in the operation areas of the mining industry. This sentiment is reflected in the report of the 2002 National Commission on Labour (2003a: 96): “There should be ... prohibition of underground work in mines for women workers, prohibition of work by women workers between certain hours and so on.” Amongst the countries in the Asia-Pacific region, only Sri Lanka has denounced the protective conventions; the rest continues to adhere to the C45 Underground Work (Women) Convention.

5. Mismatch between women’s rights and protection

These protective conventions are inconsistent with anti-discrimination conventions, such as the C111 Discrimination (Employment and Occupation) Convention and the C156 Workers with Family Responsibilities Convention, which prohibit discrimination on the basis of sex and require equality of employment opportunities for workers with family responsibilities. Politakis (2001) comments that Member States have been slow to recognize that conventions such as the C89 Night Work (Women) Convention (Revised) and C45 Underground Work (Women) Convention discriminate against women in a way that cannot be justified by their special reproductive functions. Some states, such as Bangladesh, India, Pakistan, and the Philippines, are simultaneously signed up to inconsistent conventions such as C111 and C89. The ILO has tried to address the inconsistency between

protective and anti-discrimination conventions.

In 1971, Switzerland expressed the view that “in practice the prohibition of night work can lead to discrimination against women” (ILO, 2001: para 56).²² The ILO Secretariat commissioned a report to consider revising C89 Night Work (Women) Convention (Revised). The resultant discussion among Member States did not produce a consensus on how the Convention should be changed (ILO, 2001: para 58). In 1984, the permanent secretariat of the ILO, the International Labour Office, issued a legal opinion advising Member States to ensure that their national legislation complied with the CEDAW and to consider whether they needed to “denounce the relevant ILO Conventions at the appropriate time” (Politakis, 2001: 405). However, Politakis writes, the same legal opinion held that the C89 Night Work (Women) Convention (Revised) and the C45 Underground Work (Women) Convention were not necessarily inconsistent with the CEDAW (Politakis, 2001: 406), because it allows for special measures aimed at “protecting maternity” (ILO, 2001: Article 4, para 2). The International Labour Conference passed a resolution “calling all Member States” to “review all protective legislation applying to women in the light of up-to-date scientific knowledge ... and to revise, supplement ... or repeal such legislation” (ILO, 2001: para 60; Politakis, 2001: 406). In 1989, the Governing Body of the ILO commissioned a Meeting of Experts on Special Protective Measures for Women and Equality of Opportunity and Treatment. This meeting recommended that all countries review the appropriateness of protective legislation, but in considering whether to repeal them they should take account of “existing working conditions, the existence of effective enforcement authority ... and the importance of cultural and religious patterns” (ILO, 2001: para 62). In 1990, the ILO passed the P89 Protocol to the Night Work (Women) Convention (Revised) and the C171 Night Work Convention. The ILO writes that these two conventions reflect a split: some Member States and delegates thought the Convention should be repealed, some others thought special protection of women was still necessary (ILO, 2001: para 63). The P89 Protocol kept the existing protections, but allowed for some exceptions to be made to the requirement that women not be allowed to work at night. The C171 Convention provided for protection of the health and family responsibilities of all workers and, thus, an alternative to the C89 Convention and the P89 Protocol. In 1997, Politakis (2001: 406) writes, the Working Party on Policy regarding the Revision of Standards proposed “shelving Conventions 4 and 41”. The resolution was that these conventions “retain their value on an interim basis” for some Members and shelving was not justified.

In 2001, the ILO CEACR produced a general survey on the night work conventions—C4, C41, C89, and P89—and concluded that, although there was a need to protect the conditions of all night workers, differential protection of women was not generally needed:

Gender is not believed to be a factor affecting the tolerance to night work since the circadian rhythms of men and women appear to react in the same way to the phase shifting of work and sleep in connection with night work, though such factors as pregnancy and the additional load on women of family responsibilities may have a special impact on female shiftworking and may need therefore to be taken into consideration. (ILO, 2001: para 189)²³

²² Night Work of Women in Industry: General Survey of the Reports Concerning the Night Work (Women) Convention 1919 (No. 4), the Night Work (Women) Convention (Revised) 1934 (No. 41), the Night Work (Women) Convention (Revised) 1948 (No. 89), and the Protocol of the 1990 to the Night Work (Women) Convention (Revised), 1948, International Labour Conference 89th Session, 2001, Report III (Part 1B) Geneva, viewed at <http://www.ilo.org/ilolex/english/surlist.htm> on 19 March 2008.

²³ Night Work of Women in Industry: General Survey of the Reports Concerning the Night Work (Women) Convention 1919 (No. 4), the Night Work (Women) Convention (Revised) 1934 (No. 41), the Night Work (Women) Convention (Revised) 1948 (No. 89), and the Protocol of the 1990 to the Night

It concluded that C4 and C41 were redundant, but that C89 and P89 were appropriate in some circumstances:

The two instruments may have much more in common than appears at first glance. Indeed, Convention No. 89, as revised by the 1990 Protocol, remains focused on protection even though in substance it expands considerably the exemption possibilities with regard to the prohibition of night work for women, while Convention No. 171, even though it was devised as a gender-neutral instrument, does provide special protection to women under certain circumstances. (ILO, 2001: para 2000)

In 2002, a Working Party on Policy regarding the Revision of Standards of the ILO Governing Body produced its report. The Governing Body decided to maintain the 2001 position in relation to the night work conventions, in that it decided to encourage states to sign C171, “or if that is not possible” C89 and P89, and denounce C4 and C41 (ILO, 2002: para 12).²⁴ In the same report, the ILO denounced the C45 Underground Work (Women) Convention and encouraged states to sign C176 Safety and Health in Mines Convention instead (ILO, 2002: para 13). Accordingly, in 2006, the ILO CAECR recommended that countries should consider denouncing C45 and signing C176 (ILO, 2006).²⁵

Despite the long history of women’s labor contributions, protective legislation—starting with the 1842 Mines Act—stole women’s rights to work in the mining industry. Mining historian Peter Alexander (2007: 203) notes: “The passage of the British Mines Act in 1842, excluding women from working underground, marked a turning point [in the history of women’s labor in mines].” Elsewhere it is shown how such legislation led to other factors that ousted women from the mines: sex segregation, which pushed women into jobs of lower status than those performed by men; demarcating tasks as “male” and “female”, which created spatial segregation within the mine or pit; and the prevalence of a family wage, which meant women hardly ever received full recognition for their component of labor (Lahiri-Dutt, 2012). An example of the far-reaching impact of the Mines Act 1842 and subsequent ILO conventions can be seen in Indian collieries where, between 1900 and 2000—a century that was significant for its feminist achievements—the percentage of women employed in the mining workforce fell from around 44% to less than 6%.

Feminist labor historians have demonstrated how biological arguments of women’s abilities have been a consistent feature in discussions around women workers, and how legislation has been shaped by these arguments with a need to “protect” their bodies.²⁶ The number of women in organized industries, such as mining, decreased significantly in response; Padmini Sengupta (1960: 7) argues that the “very laws which have been passed to protect women are the main causes of their removal.” Samita Sen (2008: 78) also holds protective laws responsible, because they define women as “special workers,” whose “natural” task is reproductive labor, whose physical frailty circumscribes the kinds of work they can do, and who as dependents unable to uphold their own interests require the protection of the state. These “special workers” can

(footnote continued)

Work (Women) Convention (Revised), 1948, International Labour Conference 89th Session, 2001, Report III (Part 1B) Geneva, viewed at <http://www.ilo.org/ilolex/english/surlist.htm> on 19 March 2008.

²⁴ Follow-up to the recommendations of the Working Party, Governing Body Working Party on Policy Regarding the Revision of Standards, 283rd Session, Document reference GB.283/LILS/WP/PRS/1/2, March 2002.

²⁵ ILO, 2006. CEACR: Individual Direct Request concerning Underground Work (Women) Convention, 1935 (No. 45) Fiji (ratification 1974) Submitted 2006, Document number 092006FJI045, viewed at <http://www.ilo.org/ilolex/english/newcountryframeE.htm> on 19 March 2008.

²⁶ For example, as early as in 1923, Janet Kelman’s (1923) book noted the importance of legislation in regulating the working conditions of women factory workers.

then be turned invisible in certain types of work, such as mining: “There should be ... prohibition of underground work in mines for women workers, [and] prohibition of work by women workers between certain hours” (National Commission on Labour, 2003b: 96). Unfortunately, excluding women from the better-paid and more secure jobs in factories has increased their proportion in the less secure, physically more arduous, poorly paid, and highly risky jobs in mining, such as quarrying and stone-breaking (Lahiri-Dutt, 2008). For example, irrespective of these protective laws in India, the proportion of women in “informal mining and quarrying” (which can include anything from stone-breaking to carrying and processing) is as high as 33%, compared to only 6% in coal mining. Again, it is useful to remember that most informal employment is unrecorded and seasonal, so the actual employment figure could be much higher.²⁷ Women’s labor in mines within a strict sex-based division of tasks was, and still remains, subject to gender ideologies—at home as well as propagated by the state (Lahiri-Dutt, 2013). The relationship between gender ideologies and sex-based division of labor has meant that women’s labor as part of the family remains largely invisible. The maintenance of masculine dominance in the household also meant that the male was presented as the head even when physically ill, because the central concern of mining families was the physical well-being and continued wage-earning capacity of male breadwinners. The relationship between gender ideologies expressed by the state through laws, and economic imperatives of making a living, meant that women were encouraged to join the mining industry at the state’s convenience. The Soviet Labor Code banned female labor in underground work in the 1920s as emphasis was placed on the need for the “protection” of female labor by the agencies responsible for regulating women’s role in industrial production. Women continued to work extensively and increasingly throughout the interwar period in response to the need for additional labor the mass recruitment of women workers to the Soviet industrialization drive by the early 1930s (Ilić, 1998). Did this make women “equals” in the production process and/or in the society? The answer is negative; in a global study, Sevilla-Sanz et al. (2010:138) noted that this gave rise to the phenomenon of “second shift” or a “double day” that greater work participation does not necessarily mean that there is any reduction in the burden of work in maintaining the household. Pushed out of mining work in the name of protection, women’s labor in mining became invisible and women’s histories obliterated, establishing men as the natural workers, leading the way to the hypermasculinity that industrial mining work is renowned for.

6. Conclusion

In her 1989 article on how protective legislation affected women’s rights to work in France, Jenson (1989) commented that gender politics, often expressed through policies adopted by states and international agencies, makes an important contribution to the maintenance and change of ongoing systems of social relations. In the case of women’s labor in mining, 19th century hegemonic societal paradigms, constructed out of the processes institutionalizing new social relations in the UK, spread to other countries in North America and Europe, and then through the ILO into the developing countries, thereby creating inequitable gender relations in the mining industry.

Ultimately, we return to the simple question: do women have a right to mine? The answer is straightforward: women have a right to

mine—and to all mining work—because it is one of their fundamental claims to earn a living as human beings, and to have an equal share in the benefits that the mining industry offers its employees. The heavily masculinized work of underground mining provides a context where the strength of human rights, and of women’s rights, can be tested. The underground mine pits might then be turned into platforms where we can begin to overcome the multifaceted oppression of, and discrimination against, women.

Acknowledgements

I gratefully thank Ms Sarah Boyd for carrying out literature review on the ILO’s processes. I also thank the two anonymous reviewers for their helpful comments on an earlier version of this manuscript.

References

- Alexander, Peter, 2007. Women and coal mining in India and South Africa. *Afr. Stud.* 66, 201–222.
- Almenas-Lipowsky, Angeles J., 1975. *The Position of Indian Women in Light of Legal Reform*. Steiner, Wiesbaden.
- Boris, Eileen, 2014. Mothers, household managers, and productive workers: the International Labor Organization and women in development. *Glob. Soc. Policy* 14, 189–208.
- Brush, Lisa D., 1999. Gender, work, who cares?: Production, reproduction, deindustrialisation and business as usual. In: Marx-Ferree, Myra, Lorber, Judith, Hess Beth, B. (Eds.), *Revising Gender*. Sage, Thousand Oaks, pp. 160–189.
- Burke, Gill, 1993. University of Melbourne, 1st-3rd October, 1993, Melbourne Asian Women Miners: Recovering Some History and Unpacking Some Myths, Paper Presented to the Women in Asia Conference 1993. Asian Women Miners: Recovering Some History and Unpacking Some Myths, Paper Presented to the Women in Asia Conference.
- Cepero, Iris, 2014. The act that changed our working lives. *J. Korea Saf. Manag. Sci.* (July), 13–39.
- Chadwick, Edwin, 1842. Report to Her Majesty’s Principal Secretary of State for the Home Department, From the Poor Law Commissioners, on an Enquiry Into the Sanitary Conditions of the Labouring Populations of the Great Britain. n.a., London. .
- Cobble, Dorothy Sue, 2015. Who speaks for workers? Japan and the 1919 ILO debates over rights and global labor standards. *Int. Labor Work. Class Hist.* 87, 213–234.
- Elias, Juanita, 2003. International labour standards, codes of conduct and gender issues: a review of recent debates and controversies. *Non-State Actors Int. Law* 3, 283–301.
- Gürboğa, Nursen, 2009. Compulsory mine work: the single-party regime and the Zonguldak coalfield as a site of contestation, 1940–1947 (Supplement). *Int. Rev. Soc. Hist.* 54, 115–142.
- Haas, Ernst, 1964. *Beyond the Nation State: Functionalism and International Organizations*. Stanford University Press, Stanford.
- Heesom, Alan J., 1980. The northern coal-owners and the opposition to the Coal Mines Act of 1842. *Int. Rev. Soc. Hist.* 28, 236–271.
- Heesom, Alan J., 1981. The Coal Mines Act of 1842, social reform, and social control. *Hist. J.* 24, 69–88.
- Hilden, Patricia P., 1993. *Women, Work and Politics, Belgium, 1830–1914*, Oxford: Clarendon Press.
- Hopkins, M.D., 1928. *The Employment of Women at Night*, Bulletin of the Women’s Bureau, No. 64, US Department of Labor, United States Government Printing Press, Washington, D.C Appendix C, p. 79ff.
- Hopkins, M.D., 1928. *The Employment of women at Night*, Bulletin of the Women’s Bureau, No 64, US Department of Labor, United States Government Printing Press, Washington, D.C Appendix C, p. 79ff.
- Humphries, Jane, 1981. Protective legislation, the capitalist state, and working class men: the case of the 1842 Mines Regulation Act. *Fem. Rev.* 7, 1–33.
- Ilić, Melanie, 1998. *Women Workers in the Soviet Interwar Economy: From “Protection” to “Equality”*. Palgrave, New York.
- ILO, 2011. *Social Protection Floor: for a Fair Globalization*. Report by Advisory Group Chaired by Michelle Bachelet, Convened by the ILO in Collaboration With the WHO. ILO, Geneva.
- Jenson, J., 1989. Paradigms and political discourse: protective legislation in France and the United States before 1914. *Can. J. Polit. Sci.* 22, 235–258.
- John, A., 1980. *By the Sweat of Their Brow: Women Workers at Victorian Coal Mines*. Croom Helm, London.
- Kelman, Janet, 1923. *Labour in India: A Study of the Conditions of Indian Women in Modern Industry*. George Allen & Unwin, London.
- Kessler-Harris, Alice, Lewis, Jane, Wikander, Ulla, 1995. Introduction. In: Wikander, Ulla, Kessler-Harris, Alice, Lewis, Jane (Eds.), *Protecting Women: Labour Legislation in Europe, the United States and Australia, 1880–1920*. University of Illinois Press, Urbana, pp. 1–25.
- Kyriakidou, Maria, 2002. Labour law and women workers: a case study of protective legislation in inter-war Greece. *Eur. Hist. Q.* 32, 489–513.
- Lahiri-Dutt, Kuntala, 2007. Roles and status of women in extractive industries in India: making a place for a gender-sensitive mining development. *Soc. Change* 37 (December), 37–64.
- Lahiri-Dutt, Kuntala, 2008. Digging to survive: women’s livelihoods in South Asia’s small

²⁷ For example, the census category of “Main workers” of women is highest in dolomite mining (33%), stone quarrying (23%), slate (22%), peat extraction (26%), clay mining (23%), mica (24%), and salt (23%). ‘Marginal workers’ are highest in gold ore mining (57%), dolomite (40%), manganese ore mining (40%), aluminum ore mining (70%), salt extraction (59%), limestone (37%), and stone quarrying (38%). In general, more women work as “marginal workers” in a wider range of minerals. See Lahiri-Dutt (2007).

- mines and quarries. *South Asian Surv.* 15, 217–244.
- Lahiri-Dutt, Kuntala, 2012. The shifting gender of coal: feminist musings on women's work in Indian collieries. *South Asia: J South Asian Studies Assoc.* 35.
- Lahiri-Dutt, Kuntala, 2013. Bodies in/out of place, masculinities and motherhood of Kamins in Indian coal mines. *South Asian Hist. Cult.* 4, 213–229.
- Lahiri-Dutt, Kuntala, Robinson, Kathryn, 2008. Period leave at the coalface. *Fem. Rev.* 89 (1), 102–121.
- Lehrer, Susan, 1987. *Origins of Protective Legislation for Women 1905–1925*. PUBLISHER, New York.
- Lockwood, B., 1979. Protective legislation: Who benefits—women or women? *J. Soc. Occup. Med.* 29, 1–19.
- Lorber, J., 1994. *Paradoxes of Gender*. Yale University Press, New Haven.
- Malone, Carolyn, 1996. The gendering of dangerous trades: government regulation of women's work in the white lead trade in England, 1892–1898. *J. Womens Hist.* 8, 15–29.
- Malone, Carolyn, 1998. Gendered discourses and the making of protective labor legislation in England, 1830–1914. *J. Br. Stud.* 37, 166–191.
- McCulloch, J., 2003. Women mining asbestos in South Africa. *J. South. Afr. Stud.* 29 (2), 413–432.
- McDowell, L., Massey, D., 1984. Coal mining and place of women: a case of nineteenth century Britain. In: Massey, Doreen, Allen, John (Eds.), *Geography Matters! A Reader*. PLACE, Cambridge.
- Mercier, Laurie, Gier, Jaclyn, 2019. Introduction. In: Gier, Jaclyn, Mercier, Laurie (Eds.), *Mining Women: Gender in the Development of a Global Industry, 1670 to 2005*. PUBLISHER, PLACE.
- Mills, Catherine, 2019. *Regulating Health and Safety in the British Mining Industries: 1800–1914*. n.d.. Routledge, London.
- Nakamura, Masanori, 1994. *Technology Change and Female Labour: Manufacturing Industries of Japan*. United Nations University Press, Tokyo.
- National Commission on Labour, 2003a. Report of the National Commission on Labour 2002. 6.121 c. New Delhi. .
- National Commission on Labour, 2003b. Reports of the National Commission on Labour, 2002-1991-1967. New Delhi. .
- Neuburg, Victor, 1985. Introduction. In Mayhew, Henry. *London Labour and the Labouring Poor*. Penguin, London.
- Patel, Reena, 2006. Working the night shift: gender and the global economy. *ACME: Int. E-J. Crit. Geogr.* 5, 9–27.
- Picard, Liza, 2005. *Victorian London: The Life of a City 1840–1870*. Weidenfeld & Nicolson, London.
- Pinchbeck, Ivy, 1930. *Women Workers and the Industrial Revolution 1750–1850*. Routledge, London.
- Politakis, George P., 2001. Night work of women in industry: standards and sensibility. *Int. Labour Rev.* 140, 403–428.
- Polsky, Jeffrey D., 2014. *In Praise of England's 1842 Mines Act*. Mondaq (blog). Accessed 12 October 2017. <http://www.mondaq.com/unitedstates/x/317038/Employee+Benefits+Compensation/In+Praise+of+Englands+1842+Mines+Act>.
- Sen, Samita, 2008. Gender and class: women in Indian industry, 1890–1990. *Mod. Asian Stud.* 42, 75–116.
- Sengupta, Padmini, 1960. *Women Workers of India*. Asia Publishing House, London.
- Sevilla-Sanz, A., Giménez-Nadal, J.I., Fernández, C., 2010. Gender roles and the division of unpaid work in Spanish Households. *Fem. Econ.* 14 (4), 137–184.
- Sheppard, Colleen, 2012. Mapping anti-discrimination law onto inequality at work: expanding the meaning of equality in international labour law. *Int. Labour Rev.* 151, 1–19.
- Spurgeon, A., 2012. *The Contribution of the Women's Factory Inspectorate (1893–1921) to Improvements in Women's Occupational Health and Safety*. Master's Thesis. p. 2. Accessed 6 November 2017. University of Worcester. <http://eprints.worc.ac.uk/2334/1/A%20Spurgeon%20MPhil%20thesis.pdf>.
- Stanford, Jim, Vosko, Leah F. (Eds.), 2004. *Challenging the Market: The Struggle to Regulate Work and Income*. York University Press, Montreal and Kingston.
- van Daele, Jasmien, 2008. The International Labour Organization (ILO) in past and present research. *Int. Rev. Soc. Hist.* 53, 485–511.
- Vanja, C., 1993. Mining women in early modern European society. In: Safley, Thomas Max, Rosenband, Leonard N. (Eds.), *The Workplace Before the Factory: Artisans and Proletarians, 1500–1800*. Cornell University Press, Ithaca and London, pp. 100–117.
- Wikander, Ulla, Kessler-Harris, Alice, Lewis, Jane (Eds.), 1995. *Protecting Women: Labour Legislation in Europe, the United States and Australia, 1880–1920*. University of Illinois Press, Urbana.
- Wisskirchen, Alfred, 2005. The standard-setting and monitoring activity of the ILO: legal questions and practical experience. *Int. Labour Rev.* 144, 254–289.
- Woloch, Nancy, 2015. *A Class by Herself: Protective Laws for Women Workers, 1890s–1990s*. Princeton University Press, Princeton.
- Wrigley, E.A., 2010. *Energy and the English Industrial Revolution*. Cambridge University Press, Cambridge.
- Zanjani, S., 2006. *A Mine of her Own: Women Prospectors in the American West, 1850–1950*. University of Nebraska Press, Lincoln and London.