18 Work and Workers in the Industrial Revolution

The Industrial Revolution was one of the great changes in Western and ultimately world history. Taking shape toward the end of the 18th century in Great Britain, industrialization dominated the 19th century in Western Europe and North America. Based on radically new technologies, including the use of fossil fuels for power, industrialization revolutionized the production and transport of goods. It sustained rapid population growth in the West and created growing material abundance as well. This industrialization transformed a social structure once based on the land into divisions based on urban wealth and property. It fostered large organizations and a growing state capable of using new technologies of communication and marshaling large amounts of capital and large numbers of goods and people. It challenged family life by taking work out of the home and redefining the roles of many women and children. It was, in sum, as basic a change in human history as had occurred since the advent of settled agriculture.

One of the many areas altered by industrialization was the nature of work, particularly for those people who labored in the proliferating mines and factories. Some features of industrialization benefited work: machines could lighten labor, factories could provide social stimulation, and some jobs that demanded new technical expertise became unusually interesting. But many workers found industrial working conditions a strain because they challenged a number of traditional values and habits. Certainly, changes in work provide one way of measuring the human impact of the vast industrialization process—some would say, of measuring human degradation.

The selections focus on three aspects of industrial work during the 19th century. The first document comes from a parliamentary inquiry on child labor, conducted in Britain in the early 1830s and ultimately the source of laws restricting child labor. Child labor was not in fact new, so one question to ask is what aspects of the factory system made it seem newly shocking. A second, related feature of industrial work—and one that persisted far longer than child labor—was the attempt to bring new discipline to the labor force. In the second document, shop rules—in this case, from a French factory in the late 1840s—did battle with a number of customary impulses in an effort to make work more predictable and less casual. Finally, new working conditions provoked direct comment by workers through protest and individual statements. The comment offered in the third document, by an unusually sensitive German miner around 1900—among other things, an

Selection I from *British Sessional Papers, 1831–1832*, House of Commons, Vol. XV, pp. 17–19. Selection II from *The Archives du Haut Rhin* IMI123C1, translated by Peter N. Stearns. Selection III from Adolf Levenstein, *Aus Der Tief, Arbeiterbriefe*, trans. by Gabriela Wettbert (Berlin: 1905), pp. 48, 57, 60.

ardent socialist—is not typical, but it does express some widely shared grievances. All three documents suggest the tensions that changes in work could bring. A basic feature of Western life in the 19th century, this strain spread with industrialization to other societies later. How could workers modify or adapt to new work habits? How might changes in work affect other aspects of their lives, in the family, politics, or culture?

The Industrial Revolution was, at first, a European phenomenon, but it had global connections and consequences from the outset. New work styles in factories and mines could easily affect work in other regions; they also set patterns that might recur when industrialization itself spread to other regions.

INDUSTRIAL REVOLUTION DOCUMENTS

I. BRITISH CHILD LABOR INQUIRY (1831–1832)

Mr. Abraham Whitehead

431. What is your business?—A clothier.

432. Where do you reside?—At Scholes, near Holmfirth.

433. Is not that in the centre of very considerable woollen mills? Yes, for a space of three or four miles; I live nearly in the centre of thirty or forty woollen mills. . . .

436. Are there children and young persons of both sexes employed in these mills?—Yes.

437. At how early an age are children employed?—The youngest age at which children are employed is never under five, but some are employed between five and six in woollen mills at piecing.

438. How early have you observed these young children going to their work, speaking for the present in the summer time?—In the summer time I have frequently seen them going to work between five and six in the morning, and I know the general practice is for them to go as early to all the mills. . . .

439. How late in the evening have you seen them at work, or remarked them returning to their homes?—I have seen them at work in the summer season between nine and ten in the evening; they continue to work as long as they can see, and they can see to work in these mills as long as you could see to read. . . .

441. You say that on your own personal knowledge?—I live near to parents who have been sending their children to mills for a great number of years, and I know positively that these children are every morning in the winter seasons called out of bed between five and six, and in some instances between four and five.

442. Your business as a clothier has often led you into these mills?—Frequently. . . .

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460. What has been the treatment which you have observed that these children received at the mills, to keep them attentive for so many hours at such early ages?—They are generally cruelly treated; so cruelly treated, that they dare not hardly for their lives be too late at their work in a morning. . . . My heart has been

ready to bleed for them when I have seen them so fatigued, for they appear in such a state of apathy and insensibility as really not to know whether they are doing their work or not. . . .

461. Do they frequently fall into errors and mistakes in piecing when thus fatigued?—Yes; the errors they make when thus fatigued are, that instead of placing the cording in this way [describing it], they are apt to place them obliquely, and that causes a flying, which makes bad yarn; and when the billy-spinner sees that, he takes his strap or the billy-roller, and says, "Damn thee, close it, little devil, close it," and they smite the child with the strap or the billy-roller. . . .

510. You say that the morals of the children are very bad when confined in these mills; what do you consider to be the situation of children who have nothing to do, and are running about such towns as Leeds, with no employment to keep them out of mischief?—Children that are not employed in mills are generally more moral and better behaved than children who are employed in mills.

511. Those in perfect idleness are better behaved than those that are employed?—That is not a common thing; they either employ them in some kind of business at home, or send them to school.

512. Are there no day-schools to which these factory children go?—They have no opportunity of going to school when they are thus employed at the mill.

II. RULES FOR WORKERS IN THE FACTORY OF BENCK AND CO. IN BÜHL, ALSACE (1842)

Article 1. Every worker who accepts employment in any work-site is obligated to read these rules and to submit to them. No one should be unfamiliar with them. If the rules are violated in any work-site, the offenders must pay fines according to the disorder or damage they have caused.

Art. 2. All workers without exception are obligated, after they have worked in the factory for fourteen days, to give a month's notice when they wish to quit. This provision can be waived only for important reasons.

Art. 3. The work day will consist of twelve hours, without counting rest periods. Children under twelve are excepted; they have to work only eight hours a day.

Art. 4. The bell denotes the hours of entry and departure in the factory when it first rings. At the second ring every worker should be at his work. At quitting time the bell will also be sounded when each worker should clean his workplace and his machine (if he has one). It is forbidden under penalty of fines to abandon the workplace before the bell indicates that the work-site is closed.

Art. 5. It is forbidden to smoke tobacco inside the factory. Whoever violates this prohibition is subjected to a heavy fine and can be dismissed. It is also forbidden under penalty of fines to bring beer or brandy into the factory. Any worker who comes to the factory drunk will be sent away and fined.

Art. 6. The porter, whoever he may be, is forbidden to admit anyone after the workday begins. If someone asks for a worker he will make him wait and have the worker called. All workers are forbidden to bring anyone into the factory and the porter is forbidden to admit anyone. The porter is also forbidden to let any workers in or out without the foreman's permission during the hours of work.

Art. 7. Any worker who misses a day without the Director's permission must pay a fine of two francs. The fine is doubled for a second offense. Any worker who is absent several times is dismissed, and if he is a weaver he is not paid for any piece he may have begun unless he can prove he missed work because of illness and should therefore be paid for work he has already done.

Art. 8. All workers in the factory are obligated to be members of the Sickness Fund, to pay their dues, and conduct themselves according to its statutes.

Art. 9. The foreman and the porter are empowered to retain any worker leaving the factory and to search him, as often as the interests of the Director may require. It is also recommended to the foreman to close the work-site himself, give the key to the porter, and to allow no worker inside during meal periods.

Art. 10. Workers should only go in and out of doors where a porter resides, else they will be fined, brought under suspicion, and dismissed. They cannot refuse to surrender any of their belongings at work, for which they will be reimbursed according to the valuation of the Director and the foreman. Workers are also ordered to be obedient to the foreman, who is fully empowered by the Director. Any disobedience will be punished by fines according to the importance of the case. Any offender is responsible for the consequences of his action. It is also forbidden for any worker to seek work in any of the company's work-sites other than the one in which he is employed; anyone encountered in another work-site will be punished.

Art. 11. Every worker is personally responsible for the objects entrusted to him. Any object that cannot be produced at the first request must be paid for. Weavers are obligated to pay careful attention to their cloth when they dry it. They will be fined and held responsible for any damage.

Art. 12. In return for the protection and care which all workers can expect from the Director, they pledge to him loyalty and attachment. They promise immediately to call to his attention anything that threatens good order or the Director's interests. Workers are also put on notice that any unfortunate who commits a theft, however small it may be, will be taken to court and abandoned to his fate.

III. MAX LOTZ, A GERMAN MINER, DESCRIBES HIS WORK (CA. 1900)

A trembling of the pupils forms in the eyes of many miners. At first it is not noticeable but it gradually becomes stronger. Where this eye ailment reaches a certain stage the stricken person becomes unable to work in the pit any longer. The stricken man becomes unsure of his grip, he often misses the desired object by one foot. He has particular difficulties in directing his glance upward. If he fixes but barely on an object his eyes begin to tremble immediately. But this calamity only appears in the mine or in artificial light. Above ground and in daylight it is never present. I know a laborer working quite close to me who takes a quart of liquor daily into the shaft. As soon as the trembling begins he takes a sip and the pupil becomes calm for a short while—so he states. Thus one can become a habitual drunk, too.

But this is not all. Almost all miners are anemic. I do not know what causes this pathological diminution of blood corpuscles in miners, whether this results

from a general lack of protein in the blood. I suppose that it is caused mainly by the long, daily stay in bad air combined with the absence of sun or day light. I reason that if one places a potted plant in a warm but dark cellar for a long time it will grow significantly more pale and sickly than her beautifully scenting sisters in the rose-colored sunlight. It must be like this for the drudges down there. Anemia renders the miner characteristically pale. . . .

Let's go, shouted Prüfer, who had already picked up a shovel. Four more wagons have to fall. It is almost 12:30 [p.m.] now. All right, I agreed, and we swung the shovels.

Away it goes, commanded Bittner when the wagons were fully loaded. Jump to it, there is plenty of coal. Well, if I were a pickman, mumbled the chief pickman then I'd have myself a drink. And he breathed heavily behind the wagon.

Let's set up the planking until Rheinhold comes back so that things don't look so scruffy, I said to Bittner even though we would rather have stretched out on the pile of coal because we were so tired.

He replied: I don't care, but first I want to wring out my trousers. And standing there naked he started to squeeze the water from the garment. I followed his example. When we had finished, it looked around us as though a bucket full of water had been spilled. I do not exaggerate. In other locations where it was warmer yet, the workers were forced to undergo this procedure several times during their working hours. But let us remain here.

We put our undergarments back on and did not pay attention to the unpleasant feeling which we had doing so. We placed the wooden planks and cleared aside the debris in order to establish good working conditions for the other third which usually did not do the same for us—because they were too fatigued.

The work is becoming increasingly mechanical. No more incentive, no more haste, we muddle along wearily, we are worn out and mindless. There was sufficient coal, Rheinhold could come at any time. My forehead burned like fire. As a consequence of the anemia from which I suffer I occasionally experience a slight dizzy spell. Bittner does not know about it. But in my head it rages and paralyzes me beyond control or without my being able to think. When it becomes unbearable I stop my slow, phlegmatic and energyless working. I then sit on the side wall of the mountain in order to slurp the last remaining coffee. . . .

This is a brief description of one shift in the pit. And this torture, this inhuman haste repeats itself day after day [so] that the various states of exhaustion express themselves mildly or very pronouncedly in the physical state of the individuals. And that is not all; the spirit, too, the conscience of the individual degenerates. And one drudge, grown vacuous through his work, is put beside another one, and another one and finally this "modern" circle has closed in on the entire working force. And he who says that primarily the professional group of the miners is the rudest, least educated and spiritually lowest class of men does not lie. Of course, there are exceptions here, too. But these exceptions are supposed to validate the rule according to a simple type of logic. In any event, it truly takes spiritual magnitude to occupy still oneself with belletristic, scientific and thought-provoking materials after a completed shift. When I come home in that condition I still have to cope with other necessary heavy work around the house. And finally there only remains the evening hours for the writing tasks which I deem noble.