

Andrew Ure, *The Philosophy of Manufacturers*, 1835

(Andrew Ure, *The Philosophy of Manufactures*, 1835, pp. 5-7, 23, 301; in J. F. C. Harrison, ed., *Society and Politics in England, 1780-1960*, New York: Harper & Row, 1965, pp. 144-46. Ure, a professor in Glasgow, became a well known writer on science and industry. He became perhaps the best known apologist for the new manufacturing system.)

THIS island is pre-eminent among civilized nations for the prodigious development of its factory wealth and has been therefore long viewed with a jealous admiration by foreign powers. This very pre-eminence, however, has been contemplated in a very different light by many influential members of our own community, and has been even denounced by them as the certain origin of innumerable evils to the people, and of revolutionary convulsions to the state. If the affairs of the kingdom be wisely administered, I believe such allegations and fears will prove to be groundless, and to proceed more from the envy of one ancient powerful order of the commonwealth, towards another suddenly grown into political importance, than from the nature of things.....

The blessings which physico-mechanical science has bestowed on society, and the means it has still in store for ameliorating the lot of mankind, have been too little dwelt upon; while, on the other hand, it has been accused of lending itself to the rich capitalists as an instrument for harassing the poor, and of exacting from the operative an accelerated rate of work. It has been said, for example, that the steam engine now drives the power-looms with such velocity as to urge on their attendant weavers at the same rapid pace; but that the hand weaver, not being subjected to this restless agent, can throw his shuttle and move his treddles at his convenience. There is however, this difference in the two cases, that in the factory, every member of the loom is so adjusted, that the driving force leaves the attendant nearly nothing at all to do, certainly no muscular fatigue to sustain, while it procures for him good, unfailing wages, besides a healthy workshop gratis: whereas the non-factory weaver, having everything to execute by muscular exertion, finds the labour irksome, makes in consequence innumerable short pauses, separately of little account, but: great when added together; earns therefore proportionally low wages, while he loses his health by poor diet and the dampness of his hovel. . . .

It is, in fact, the constant aim and tendency of every improvement in machinery to supersede human labour altogether, or to diminish its cost, by substituting the industry of women and children for that of men; or that of ordinary labourers for trained artisans. In most of the. water-twist, or throstle cotton-mills, the spinning is entirely man- aged by females of sixteen years and upwards. The effect of substituting the self-acting mule for the common mule, is to discharge the greater part of the men spinners, and to retain adolescents and children. The proprietor of a factory near Stockport states, in evidence to the commissioners, that, by such substitution, he would save 50*l.* a week in wages, in consequence of dispensing with nearly forty male spinners, at about 25*s.* of wages each. This tendency to employ merely children with watchful eyes and nimble fingers, instead

of journeymen of long experience, shows how the scholastic dogma of the division of labour into degrees of skill has been exploded by our enlightened manufacturers.

I have visited many factories, both in Manchester and in the surrounding districts, during a period of several months, entering the spinning rooms, unexpectedly, and often alone, at different times of the day, and I never saw a single instance of corporal chastisement inflicted on a child, nor indeed did I ever see children in ill-humour. They seemed to be always cheerful and alert, taking pleasure in the light play of their muscles, -enjoying the mobility natural to their age. The scene of industry, so far from exciting sad emotions in my mind, was always exhilarating. It was delightful to observe the nimbleness with which they pieced the broken ends, as the mule-carriage began to recede from the fixed roller-beam, and to see them at leisure, after a few seconds' exercise of their tiny fingers, to amuse themselves in any attitude they chose, till the stretch and winding-on were once more completed. The work of these lively elves seemed to resemble a sport, in which habit gave them a pleasing dexterity. Conscious of their skill, they were delighted to show it off to any stranger. As to exhaustion by the day's work, they evinced no trace of it on emerging from the mill in the evening; for they immediately began to skip about any neighbouring play-ground, and to commence their little amusements with the same alacrity as boys issuing from a school. It is moreover my firm conviction, that if children are not ill-used by bad parents or guardians, but receive in food and raiment the full benefit of what they earn, they would thrive -better when employed in our modern factories, than if left at home in apartments too often ill-aired, damp, and cold.