

MARX AND TECHNOLOGY

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Karl Marx had spent more than three decades (1849-1883) in England, the land of the Industrial Revolution. Steeped in philosophy and political economy, Marx became more and more aware of the exploitative nature of capitalism. He was committed to the discovery of an alternative to capitalism which would be in keeping with the worth and dignity of human persons. Marx's attention was drawn to technology as technology in the hands of capitalists led to greater exploitation of workers. Marx was certainly a pioneer in the philosophy of technology. His painstaking analysis of the relation between the machinery and the worker and a host of other revelations concerning the use of machinery in the capitalist system are impressive. This article is an attempt to understand Marx's philosophy of technology.

1. The Development of Machinery

Marx begins his analysis of machinery and modern industry¹ by quoting John Stuart Mill who says in his *Principles of Political Economy*: "It is questionable if all the mechanical inventions yet made have lightened the day's toil of any human being."² That is not the aim of the capitalist application of machinery. Machinery is intended to cheapen commodities by lengthening that portion of the working day, which the labourer gives, without an equivalent, to the capitalist. It is a means for producing surplus value. In manufacture or cottage-industry, the revolution in the mode of production begins with the labour power, whereas in modern industry it begins with the instruments of labour. Marx's first enquiry is, what is the difference between a machine and the tools of handicraft?

Some call a tool a simple machine, and a machine a complex tool. They do not see an essential difference between the two and give the name of machine to the lever, the screw, the wedge and so on. In fact, every machine is a combination of these simple powers. For Marx, from the economic standpoint this explanation is worthless because it lacks the historical element. Another explanation of the difference between tool