

cal to the worker, as *property* of a will alien to him, then capital is necessarily at the same time the *capitalist*, and the idea held by some socialists that we need capital but not the capitalists is altogether wrong. It is posited within the concept of capital that the objective conditions of labour—and these are its own product—take on a *personality* towards it, or, what is the same, that they are posited as the property of a personality alien to the worker. The concept of capital contains the capitalist. \* \* \*

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## F. Population, Overpopulation, and Malthus

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Malthus's theory, which incidentally was not his invention, but whose fame he appropriated through the clerical fanaticism with which he propounded it—actually only through the weight he placed on it—is significant in two respects: (1) because he gives brutal expression to the brutal viewpoint of capital; (2) because he *asserted* the fact of overpopulation in all forms of society. Proved it he has not, for there is nothing more uncritical than his motley compilations from historians and travellers' descriptions. His conception is altogether false and childish (1) because he regards *overpopulation* as being of *the same kind* in all the different historic phases of economic development; does not understand their specific difference, and hence stupidly reduces these very complicated and varying relations to a single relation, two equations, in which the natural reproduction of humanity appears on the one side, and the natural reproduction of edible plants (or means of subsistence) on the other, as two natural series, the former geometric and the latter arithmetic in progression. In this way he transforms the historically distinct relations into an abstract numerical relation, which he has fished purely out of thin air, and which rests neither on natural nor on historical laws. There is allegedly a natural difference between the reproduction of mankind and e.g. grain. This baboon thereby implies that the *increase of humanity* is a purely natural process, which requires *external restraints, checks*, to prevent it from proceeding in geometrical progression. This *geometrical reproduction* is the natural reproduction process of mankind. He would find in history that population proceeds in very different relations, and that overpopulation is likewise a historically determined relation, in no way determined by abstract numbers or by the absolute limit of the productivity of the necessities of life, but by limits posited rather by *specific conditions of production*. As well as restricted numerically. How small do the numbers which meant overpopulation for the Athenians appear to us! Secondly, restricted according to character. An overpopulation of

free Athenians who become transformed into colonists is significantly different from an overpopulation of workers who become transformed into workhouse inmates. Similarly the begging overpopulation which consumes the surplus produce of a monastery is different from that which forms in a factory. It is Malthus who abstracts from these specific historic laws of the movement of population, which are indeed the history of the nature of humanity, the *natural* laws, but natural laws of humanity only at a specific historic development, with a development of the forces of production determined by humanity's own process of history. Malthusian man, abstracted from historically determined man, exists only in his brain; hence also the geometric method of reproduction corresponding to this natural Malthusian man. Real history thus appears to him in such a way that the reproduction of his natural humanity is not an abstraction from the historic process of real reproduction, but just the contrary, that real reproduction is an application of the Malthusian theory. Hence the inherent conditions of population as well as of overpopulation at every stage of history appear to him as a series of *external checks* which has *prevented* the population from developing in the Malthusian form. The conditions in which mankind historically produces and reproduces itself appear as *barriers* to the reproduction of the Malthusian natural man, who is a Malthusian creature. On the other hand, the production of the necessities of life—as it is checked, determined by human action—appears as a *check* which it posits to itself. The ferns would cover the entire earth. Their reproduction would stop only where space for them ceased. They would obey no arithmetic proportion. It is hard to say where Malthus has discovered that the reproduction of voluntary natural products would stop for intrinsic reasons, without *external checks*. He transforms the immanent, historically changing limits of the human reproduction process into *outer barriers*; and the *outer barriers* to natural reproduction into *immanent limits* or *natural laws* of reproduction.

(2) He stupidly relates a specific quantity of people to a specific quantity of necessities.<sup>7</sup> Ricardo immediately and correctly confronted him with the fact that the quantity of grain available is completely irrelevant to the worker if he has no *employment*; that it is therefore the means of employment and not of subsistence which put him into the category of surplus population.<sup>8</sup> But this should be conceived more generally, and relates to the *social mediation* as such, through which the individual gains access to the means of his reproduction and creates them; hence it relates to the *conditions of production* and his relation to them. There was no barrier to the reproduction of the Athenian slave other than the producible neces-

7. T. R. Malthus, *An Inquiry into the Nature and Progress of Rent*, London, 1815, p. 7.

8. Ricardo, *On the Principles of Political Economy*, p. 493.

saries. And we never hear that there were *surplus slaves* in antiquity. The call for them increased, rather. There was, however, a surplus population of non-workers (in the immediate sense), who were not too many in relation to the necessities available, but who had lost the conditions under which they could appropriate them. The invention of surplus labourers, i.e. of propertyless people who work, belongs to the period of capital. The beggars who fastened themselves to the monasteries and helped them eat up their surplus product are in the same class as the feudal retainers, and this shows that the surplus produce could not be eaten up by the small number of its owners. It is only another form of the retainers of old, or of the menial servants of today. The overpopulation e.g. among hunting peoples, which shows itself in the warfare between the tribes, proves not that the earth could not support their small numbers, but rather that the condition of their reproduction required a great amount of territory for few people. Never a relation to a *non-existent* absolute mass of means of subsistence, but rather relation to the conditions of reproduction, of the production of these means, including likewise the *conditions of reproduction of human beings*, of the total population, of relative surplus population. This surplus purely relative: in no way related to the *means of subsistence* as such, but rather to the mode of producing them. Hence also only a *surplus* at this state of development.

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### G. Capitalism, Machinery and Automation

*The labour process.—Fixed capital. Means of labour. Machine.—Fixed capital. Transposition of powers of labour into powers of capital both in fixed and in circulating capital.—To what extent fixed capital (machine) creates value.—Lauderdale. Machine presupposes a mass of workers.*

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As long as the means of labour remains a means of labour in the proper sense of the term, such as it is directly, historically, adopted by capital and included in its realization process, it undergoes a merely formal modification, by appearing now as a means of labour not only in regard to its material side, but also at the same time as a particular mode of the presence of capital, determined by its total process—as *fixed capital*. But, once adopted into the production process of capital, the means of labour passes through different metamorphoses, whose culmination is the *machine*, or rather, an *automatic system of machinery* (system of machinery: the *automatic* one is merely its most complete, most adequate form, and alone transforms machinery into a system), set in motion by an

automaton, a moving power that moves itself; this automaton consisting of numerous mechanical and intellectual organs, so that the workers themselves are cast merely as its conscious linkages. In the machine, and even more in machinery as an automatic system, the use value, i.e. the material quality of the means of labour, is transformed into an existence adequate to fixed capital and to capital as such; and the form in which it was adopted into the production process of capital, the direct means of labour, is superseded by a form posited by capital itself and corresponding to it. In no way does the machine appear as the individual worker's means of labour. Its distinguishing characteristic is not in the least, as with the means of labour, to transmit the worker's activity to the object; this activity, rather, is posited in such a way that it merely transmits the machine's work, the machine's action, on to the raw material—supervises it and guards against interruptions. Not as with the instrument, which the worker animates and makes into his organ with his skill and strength, and whose handling therefore depends on his virtuosity. Rather, it is the machine which possesses skill and strength in place of the worker, is itself the virtuoso, with a soul of its own in the mechanical laws acting through it; and it consumes coal, oil etc. (*matières instrumentales*), just as the worker consumes food, to keep up its perpetual motion. The worker's activity, reduced to a mere abstraction of activity, is determined and regulated on all sides by the movement of the machinery, and not the opposite. The science which compels the inanimate limbs of the machinery, by their construction, to act purposefully, as an automaton, does not exist in the worker's consciousness, but rather acts upon him through the machine as an alien power, as the power of the machine itself. The appropriation of living labour by objectified labour—of the power or activity which creates value by value existing for-itself—which lies in the concept of capital, is posited, in production resting on machinery, as the character of the production process itself, including its material elements and its material motion. The production process has ceased to be a labour process in the sense of a process dominated by labour as its governing unity. Labour appears, rather, merely as a conscious organ, scattered among the individual living workers at numerous points of the mechanical system; subsumed under the total process of the machinery itself, as itself only a link of the system, whose unity exists not in the living workers, but rather in the living (active) machinery, which confronts his individual, insignificant doings as a mighty organism. In machinery, objectified labour confronts living labour within the labour process itself as the power which rules it; a power which, as the appropriation of living labour, is the form of capital. The transformation of the means of labour into machinery, and of living labour into a mere living accessory of this machinery, as the means of its action, also

posits the absorption of the labour process in its material character as a mere moment of the realization process of capital. The increase of the productive force of labour and the greatest possible negation of necessary labour is the necessary tendency of capital, as we have seen. The transformation of the means of labour into machinery is the realization of this tendency. In machinery, objectified labour materially confronts living labour as a ruling power and as an active subsumption of the latter under itself, not only by appropriating it, but in the real production process itself; the relation of capital as value which appropriates value-creating activity is, in fixed capital existing as machinery, posited at the same time as the relation of the use value of capital to the use value of labour capacity; further, the value objectified in machinery appears as a presupposition against which the value-creating power of the individual labour capacity is an infinitesimal, vanishing magnitude; the production in enormous mass quantities which is posited with machinery destroys every connection of the product with the direct need of the producer, and hence with direct use value; it is already posited in the form of the product's production and in the relations in which it is produced that it is produced only as a conveyor of value, and its use value only as condition to that end. In machinery, objectified labour itself appears not only in the form of product or of the product employed as means of labour, but in the form of the force of production itself. The development of the means of labour into machinery is not an accidental moment of capital, but is rather the historical reshaping of the traditional, inherited means of labour into a form adequate to capital. The accumulation of knowledge and of skill, of the general productive forces of the social brain, is thus absorbed into capital, as opposed to labour, and hence appears as an attribute of capital, and more specifically of *fixed capital*, in so far as it enters into the production process as a means of production proper. *Machinery* appears, then, as the most adequate form of *fixed capital*, and fixed capital, in so far as capital's relations with itself are concerned, appears as *the most adequate form of capital* as such. In another respect, however, in so far as fixed capital is condemned to an existence within the confines of a specific use value, it does not correspond to the concept of capital, which, as value, is indifferent to every specific form of use value, and can adopt or shed any of them as equivalent incarnations. In this respect, as regards capital's external relations, it is *circulating capital* which appears as the adequate form of capital, and not fixed capital.

Further, in so far as machinery develops with the accumulation of society's science, of productive force generally, general social labour presents itself not in labour but in capital. The productive force of society is measured in *fixed capital*, exists there in its objective form; and, inversely, the productive force of capital grows with this general progress, which capital appropriates free of charge. This

is not the place to go into the development of machinery in detail; rather only in its general aspect; in so far as the *means of labour*, as a physical thing, loses its direct form, becomes *fixed capital*, and confronts the worker physically as *capital*. In machinery, knowledge appears as alien, external to him; and living labour [as] subsumed under self-activating objectified labour. The worker appears as superfluous to the extent that his action is not determined by [capital's] requirements.

The full development of capital, therefore, takes place—or capital has posited the mode of production corresponding to it—only when the means of labour has not only taken the economic form of *fixed capital*, but has also been suspended in its immediate form, and when *fixed capital* appears as a machine within the production process, opposite labour; and the entire production process appears as not subsumed under the direct skilfulness of the worker, but rather as the technological application of science. [It is,] hence, the tendency of capital to give production a scientific character; direct labour [is] reduced to a mere moment of this process. As with the transformation of value into capital, so does it appear in the further development of capital, that it presupposes a certain given historical development of the productive forces on one side—science too [is] among these productive forces—and, on the other, drives and forces them further onwards.

Thus the quantitative extent and the effectiveness (intensity) to which capital is developed as fixed capital indicate the general degree to which capital is developed as capital, as power over living labour, and to which it has conquered the production process as such. Also, in the sense that it expresses the accumulation of objectified productive forces, and likewise of objectified labour. However, while capital gives itself its adequate form as use value within the production process only in the form of machinery and other material manifestations of fixed capital, such as railways etc. (to which we shall return later), this in no way means that this use value—machinery as such—is capital, or that its existence as machinery is identical with its existence as capital; any more than gold would cease to have use value as gold if it were no longer *money*. Machinery does not lose its use value as soon as it ceases to be capital. While machinery is the most appropriate form of the use value of fixed capital, it does not at all follow that therefore subsumption under the social relation of capital is the most appropriate and ultimate social relation of production for the application of machinery.

To the degree that labour time—the mere quantity of labour—is posited by capital as the sole determinant element, to that degree does direct labour and its quantity disappear as the determinant principle of production—of the creation of use values—and is reduced both quantitatively, to a smaller proportion, and qualita-