In considering the labour process, we began by treating it in the abstract, independently of its historical forms, as a process between man and nature (see Chapter 5). We stated there: 'If we look at the whole [labour] process from the point of view of its result, the product, it is plain that both the instruments of labour and the object of labour are means of production, and that the labour itself is productive labour.'* And in note 8 we added further: 'This method of determining what is productive labour, from the standpoint of the simple labour process, is by no means sufficient to cover the capitalist process of production.' We must now develop this point further.

In so far as the labour process is purely individual, the same worker unites in himself all the functions that later on become separated. When an individual appropriates natural objects for his own livelihood, he alone supervises his own activity. Later on he is supervised by others. The solitary man cannot operate upon nature without calling his own muscles into play under the control of his own brain. Just as head and hand belong together in the system of nature, so in the labour process mental and physical labour are united. Later on they become separate; and this separation develops into a hostile antagonism. The product is transformed from the direct product of the individual producer into a social product, the joint product of a collective labourer, i.e. a combination of workers, each of whom stands at a different distance from the actual manipulation of the object of labour. With the progressive accentuation of the co-operative character of the labour process, there necessarily occurs a progressive extension of the concept of productive labour, and of the concept of the bearer of that labour, the productive worker. In order to work productively, it is no longer necessary for the individual himself to

*See above, p. 287.
put his hand to the object; it is sufficient for him to be an organ of
the collective labourer, and to perform any one of its subordinate
functions. The definition of productive labour given above, the
original definition, is derived from the nature of material pro-
duction itself, and it remains correct for the collective labourer,
considered as a whole. But it no longer holds good for each
member taken individually.

Yet the concept of productive labour also becomes narrower.
Capitalist production is not merely the production of commodi-
ties, it is, by its very essence, the production of surplus-value. The
worker produces not for himself, but for capital. It is no longer
sufficient, therefore, for him simply to produce. He must produce
surplus-value. The only worker who is productive is one who
produces surplus-value for the capitalist, or in other words con-
tributes towards the self-valorization of capital. If we may take an
example from outside the sphere of material production, a school-
master is a productive worker when, in addition to belabouring
the heads of his pupils, he works himself into the ground to enrich
the owner of the school. That the latter has laid out his capital in a
teaching factory, instead of a sausage factory, makes no difference
to the relation. The concept of a productive worker therefore
implies not merely a relation between the activity of work and its
useful effect, between the worker and the product of his work, but
also a specifically social relation of production, a relation with a
historical origin which stamps the worker as capital's direct
means of valorization. To be a productive worker is therefore not
a piece of luck, but a misfortune. In Volume 4 of this work, which
deals with the history of the theory,* we shall show that the classi-
cal political economists always made the production of surplus-
value the distinguishing characteristic of the productive worker.
Hence their definition of a productive worker varies with their con-
ception of the nature of surplus-value. Thus the Physiocrats insist
that only agricultural labour is productive, since that alone, they
say, yields a surplus-value. For the Physiocrats, indeed, surplus-
value exists exclusively in the form of ground rent.

*The intended fourth volume was never published by Marx or by Engels,
but the manuscripts on the history of the theory of surplus-value, written by
Marx between January 1862 and July 1863, were preserved, and published by
Kautsky between 1905 and 1910. The first complete English translation
was issued in three parts between 1963 and 1972 by Lawrence and Wishart,
under the title Theories of Surplus-Value.
The prolongation of the working day beyond the point at which the worker would have produced an exact equivalent for the value of his labour-power, and the appropriation of that surplus labour by capital – this is the process which constitutes the production of absolute surplus-value. It forms the general foundation of the capitalist system, and the starting-point for the production of relative surplus-value. The latter presupposes that the working day is already divided into two parts, necessary labour and surplus labour. In order to prolong the surplus labour, the necessary labour is shortened by methods for producing the equivalent of the wage of labour in a shorter time. The production of absolute surplus-value turns exclusively on the length of the working day, whereas the production of relative surplus-value completely revolutionizes the technical processes of labour and the groupings into which society is divided.

It therefore requires a specifically capitalist mode of production, a mode of production which, along with its methods, means and conditions, arises and develops spontaneously on the basis of the formal subsumption \([\text{Subsumption}]^*\) of labour under capital. This formal subsumption is then replaced by a real subsumption.

It will be sufficient if we merely refer to certain hybrid forms, in which although surplus labour is not extorted by direct compulsion from the producer, the producer has not yet become formally subordinate to capital. In these forms, capital has not yet acquired a direct control over the labour process. Alongside the independent producers, who carry on their handicrafts or their agriculture in the inherited, traditional way, there steps the usurer or merchant with his usurer's capital or merchant's capital, which feeds on them like a parasite. The predominance of this form of exploitation in a society excludes the capitalist mode of production, although it may form the transition to capitalism, as in the later Middle Ages. Finally, as in the case of modern 'domestic industry', certain hybrid forms are reproduced here and there against the background of large-scale industry, though their physiognomy is totally changed.

A merely formal subsumption of labour under capital suffices for the production of absolute surplus-value. It is enough, for example, that handicraftsmen who previously worked on their own account, or as apprentices of a master, should become wage-labourers under the direct control of a capitalist. But we have seen

\(*\text{See below, pp. 1019}-38, \text{ for Marx's own exposition of the concepts of formal and real subsumption.}\)
how methods of producing relative surplus-value are, at the same time, methods of producing absolute surplus-value. Indeed, the unrestricted prolongation of the working day turned out to be a very characteristic product of large-scale industry. The specifically capitalist mode of production ceases in general to be a mere means of producing relative surplus-value as soon as it has conquered an entire branch of production; this tendency is still more powerful when it has conquered all the important branches of production. It then becomes the universal, socially predominant form of the production process. It only continues to act as a special method of producing relative surplus-value in two respects: first, in so far as it seizes upon industries previously only formally subordinate to capital, that is, in so far as it continues to proselytize, and second, in so far as the industries already taken over continue to be revolutionized by changes in the methods of production.

From one standpoint the distinction between absolute and relative surplus-value appears to be illusory. Relative surplus-value is absolute, because it requires the absolute prolongation of the working day beyond the labour-time necessary to the existence of the worker himself. Absolute surplus-value is relative, because it requires a development of the productivity of labour which will allow the necessary labour-time to be restricted to a portion of the working day. But if we keep in mind the movement of surplus-value, this semblance of identity vanishes. Once the capitalist mode of production has become the established and universal mode of production, the difference between absolute and relative surplus-value makes itself felt whenever there is a question of raising the rate of surplus-value. Assuming that labour-power is paid for at its value, we are confronted with this alternative: on the one hand, if the productivity of labour and its normal degree of intensity is given, the rate of surplus-value can be raised only by prolonging the working day in absolute terms; on the other hand, if the length of the working day is given, the rate of surplus-value can be raised only by a change in the relative magnitudes of the components of the working day, i.e. necessary labour and surplus labour, and if wages are not to fall below the value of labour-power, this change presupposes a change in either the productivity or the intensity of the labour.

If the worker needs to use all his time to produce the necessary means of subsistence for himself and his family, he has no time left in which to perform unpaid labour for other people. Unless
labour has attained a certain level of productivity, the worker will have no such free time at his disposal, and without superfluous time there can be no surplus labour, hence no capitalists, as also no slave-owners, no feudal barons, in a word no class of large-scale landed proprietors.  

Thus we may say that surplus-value rests on a natural basis, but only in the very general sense that there is no natural obstacle absolutely preventing one man from lifting from himself the burden of the labour necessary to maintain his own existence, and imposing it on another, just as there is no unconquerable natural obstacle to the consumption of the flesh of one man by another.  

If we are absolutely mistaken in attaching mystical notions to this spontaneously developed productivity of labour, as is sometimes done. It is only when men have worked their way out of their initial animal condition, when therefore their labour has been to some extent socialized, that a situation arises in which the surplus labour of one person becomes a condition of existence for another. At the dawn of civilization, the productive powers acquired by labour are small, but so too are the needs with which they are compared with the means of their satisfaction. Furthermore, at that early period, the portion of society that lives on the labour of others is infinitely small compared with the mass of direct producers. As the social productivity of labour advances, this small portion of society increases both absolutely and relatively. Besides, the capital-relation arises out of an economic soil that is the product of a long process of development. The existing productivity of labour, from which it proceeds as its basis, is a gift, not of nature, but of a history embracing thousands of centuries.  

Even if we leave aside the question of the level of development attained by social production, the productivity of labour remains fettered by natural conditions. These conditions can all be traced back to the nature of man himself (his race, etc.) and to the natural

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1. 'The very existence of the master-capitalists, as a distinct class, is dependent on the productiveness of industry' (Ramsay, op. cit., p. 206). 'If each man's labour were but enough to produce his own food, there could be no property' (Ravenstone, op. cit., pp. 14, 15).

2. According to a recent calculation there are still at least 4,000,000 cannibals in those parts of the earth which have so far been explored.

3. 'Among the wild Indians in America, almost everything is the labourer's, 99 parts of a hundred are to be put upon the account of labour. In England, perhaps, the labourer has not two thirds' (The Advantages of the East-India Trade, etc., pp. 72, 73).
objects which surround him. External natural conditions can be divided from the economic point of view into two great classes, namely (1) natural wealth in the means of subsistence, i.e. a fruitful soil, waters teeming with fish, etc., and (2) natural wealth in the instruments of labour, such as waterfalls, navigable rivers, wood, metal, coal, etc. At the dawn of civilization, it is the first class that turns the scale; at a higher stage of development, it is the second. Compare for example England with India, or, in ancient times, Athens and Corinth with the shores of the Black Sea.

The smaller the number of natural requirements imperatively calling for satisfaction, and the greater the natural fertility of the soil and the kindness of the climate, the smaller the amount of labour-time necessary for the maintenance and reproduction of the producer. Hence the greater the quantity of excess labour the producer can perform for others, in addition to the labour he does for himself. This was pointed out long ago by Diodorus when discussing the ancient Egyptians: 'It is altogether incredible how little trouble and expense the bringing-up of their children causes them. They cook for them the first simple food at hand; they also give them the lower part of the papyrus stem to eat, if it can be roasted in the fire, and the roots and stalks of marsh plants, some raw, some boiled and roasted. Most of the children go without shoes and unclad, since the air is very mild. Hence a child, until he is grown up, costs his parents not more than twenty drachmas altogether. This is the main reason why the population of Egypt is so numerous, and, therefore, why so many great works can be undertaken.'4 Nevertheless, the gigantic building projects of ancient Egypt owed less to the size of the population than to the large proportion of it that was freely disposable. Just as, in the case of the individual worker, the less his necessary labour-time, the more surplus labour he can provide, so, in the case of the working population, the smaller the portion of it required for the production of the necessary means of subsistence, the greater the portion available for other work.

If we assume capitalist production, then, with all other circumstances remaining the same, and the length of the working day a given factor, the quantity of surplus labour will vary according to the natural conditions within which labour is carried on, in particular the fertility of the soil. But it by no means follows, in-

versely, that the most fertile soil is the most fitted for the growth of the capitalist mode of production. The latter presupposes the domination of man over nature. Where nature is too prodigal with her gifts, she ‘keeps him in hand, like a child in leading-strings’. Man’s own development is not in that case a nature-imposed necessity.\(^5\) The mother country of capital is not the tropical region, with its luxuriant vegetation, but the temperate zone. It is not the absolute fertility of the soil but its degree of differentiation, the variety of its natural products, which forms the natural basis for the social division of labour, and which, by changes in the natural surroundings, spurs man on to the multiplication of his needs, his capacities, and the instruments and modes of his labour. It is the necessity of bringing a natural force under the control of society, of economizing on its energy, of appropriating or subduing it on a large scale by the work of the human hand, that plays the most decisive role in the history of industry. Thus, for example, the regulation of the flow of water in Egypt,\(^6\) Lombardy and Holland. Or irrigation in India, Persia and so on, where artificial canals not only supply the soil with the water indispensable to it, but also carry down mineral fertilizers from the hills, in the shape of sediment. The secret of the flourishing state of industry in

5. 'The first' (natural wealth) 'as it is most noble and advantageous, so doth it make the people careless, proud, and given to all excesses; whereas the second [wealth acquired through labour] enforceth vigilancy, literature, arts, and policy' (England’s Treasure by Forraign Trade. Or the Balance of our Forraign Trade is the Rule of our Treasure. Written by Thomas Mun of London, merchant, and now published for the common good by his son John Mun, London, 1669, pp. 181, 182). 'Nor can I conceive a greater curse upon a body of people, than to be thrown upon a spot of land, where the productions for subsistence and food were, in great measure, spontaneous, and the climate required or admitted little care for raiment and covering... there may be an extreme on the other side. A soil incapable of produce by labour is quite as bad as a soil that produces plentifully without any labour' (JN. Forster, An Enquiry into the Causes of the Present High Price of Provisions, London, 1767, p. 10).

6. The necessity for predicting the rise and fall of the Nile created Egyptian astronomy, and with it the domination of the priests as the directors of agriculture. 'The solstice is the moment of the year when the Nile begins to rise, and it is the moment the Egyptians have had to watch for with the greatest attention... It was the evolution of this tropical year which they had to establish firmly so as to conduct their agricultural operations in accordance with it. They therefore had to search the heavens for a visible sign of the solstice’s return' (Cuvier, Discours sur les révolutions du globe, ed. Hoefer, Paris, 1863, p. 141).
Spain and Sicily under the rule of the Arabs lay in their irrigation works.\(^7\)

Favourable natural conditions can provide in themselves only the possibility, never the reality of surplus labour, nor, accordingly, the reality of surplus-value and a surplus product. The result of differences in the natural conditions of labour is this: the same quantity of labour satisfies a different mass of requirements\(^8\) in different countries, and consequently under otherwise analogous circumstances, the quantity of necessary labour-time is different. These conditions affect surplus labour only as natural limits, i.e. by determining the point at which labour for others can begin. In proportion as industry advances these natural limits recede. In the midst of our Western European society, where the worker can only purchase the right to work for his own existence by performing surplus labour for others, it is very easy to imagine that it is an inherent quality of human labour to furnish a surplus product.\(^9\)

But consider, for example, an inhabitant of the islands of the East Indies, where sago grows wild in the forests. 'When the inhabi-

7. One of the material foundations of the power of the state over the small and unconnected producing organisms of India was the regulation of the water supply. Its Moham edan rulers understood this better than their English successors. It is sufficient to recall the famine of 1866, which cost the lives of more than a million Hindus in the district of Orissa, in the Bengal Presidency.

8. "There are no two countries which furnish an equal number of the necessaries of life in equal plenty, and with the same quantity of labour. Men's wants increase or diminish with the severity or temperateness of the climate they live in; consequently, the proportion of trade which the inhabitants of different countries are obliged to carry on through necessity cannot be the same, nor is it practicable to ascertain the degree of variation farther than by the degrees of Heat and Cold; from whence one may make this general conclusion, that the quantity of labour required for a certain number of people is greatest in cold climates, and least in hot ones; for in the former men not only want more clothes, but the earth more cultivating than in the latter" (An Essay on the Governing Causes of the Natural Rate of Interest, London, 1750, p. 59). The author of this epoch-making anonymous work, from which Hume took his theory of interest, was J. Massie.\(^*\)

9. 'All labour must' (apparently this is also part of the 'rights and duties of the citizen') 'leave a surplus' (Proudhon).\(^\dagger\)

\(^*\) Hume's essay, 'Of Interest', was published in 1752. In it he expressed the view that the rate of interest was dependent on 'the level of profits arising from commerce'. This was anticipated by Massie, in the work quoted. Cf. Theories of Surplus-Value, Part I, pp. 373-7.

\(^\dagger\) Proudhon, Système des contradictions économiques, ou philosophie de la misère, Vol. 1, Paris, 1846, p. 73.
tants have convinced themselves, by boring a hole in the tree, that
the pith is ripe, the trunk is cut down and divided into several
pieces, the pith is extracted, mixed with water and filtered: it is
then quite fit for use as sago. One tree commonly yields 300 lb.,
and occasionally 500 to 600 lb. There, then, people go into the
forests and cut bread for themselves, just as with us they cut fire-
wood. ¹⁰ Suppose now that an East Indian bread-cutter of this
kind requires 12 working hours a week for the satisfaction of all
his needs. Nature’s direct gift to him is plenty of leisure time. Be-
fore he can apply this leisure time productively for himself, a
whole series of historical circumstances is required; before he
spends it in surplus labour for others, compulsion is necessary. If
capitalist production were introduced, the good fellow would
perhaps have to work six days a week, in order to appropriate to
himself the product of one working day. In that case, the bounty
of nature would not explain why he now has to work six days a
week, or why he must provide five days of surplus labour. It ex-
plains only why his necessary labour-time would be limited to one
day a week. But in no case would his surplus product arise from
some innate, occult quality of human labour.

Thus both the historically developed productive forces of
labour in society, and its naturally conditioned productive forces,
appear as productive forces of the capital into which that labour
is incorporated.

Ricardo never concerns himself with the origin of surplus-
value. He treats it as an entity inherent in the capitalist mode of
production, and in his eyes the latter is the natural form of social
production. Whenever he discusses the productivity of labour, he
seeks in it not the cause of the existence of surplus-value, but the
cause that determines the magnitude of that value. On the other
hand, his school has loudly proclaimed that the productive power
of labour is the originating cause of profit (read: surplus-value).
This is at least an advance in comparison with the Mercantilists,
who derive the excess of the price of a product over its cost of
production from the act of exchange, from the sale of the product
above its value. Nevertheless, Ricardo’s school also merely evaded
the problem rather than solving it. In fact, these bourgeois econo-
mists instinctively and rightly saw that it was very dangerous to

¹⁰. F. Schouw, *Die Erde, die Pflanze und der Mensch*, 2nd edn, Leipzig,
1854, p. 148.
penetrate too deeply into the burning question of the origin of surplus-value. But what are we to think of John Stuart Mill, who, half a century after Ricardo, solemnly claims superiority over the Mercantilists by clumsily repeating the wretched evasions of Ricardo's earliest vulgarizers?

Mill says: 'The cause of profit is that labour produces more than is required for its support.' So far, nothing but the old story: but Mill, wishing to add something of his own, proceeds as follows: 'To vary the form of the theorem; the reason why capital yields a profit, is because food, clothing, materials and tools, last longer than the time which was required to produce them.' Here he confuses the duration of labour-time with the duration of its products. On this view, a baker, whose products last only a day, could never extract the same profit from his workers as a machine manufacturer, whose products last for twenty years or more. Of course, it is very true that if a bird's nest did not last longer than the time it takes to build, the birds would have to do without nests.

This fundamental truth once established, Mill asserts his own superiority over the Mercantilists: 'We thus see that profit arises, not from the incident of exchange, but from the productive power of labour; and the general profit of the country is always what the productive power of labour makes it, whether any exchange takes place or not. If there were no division of employments, there would be no buying or selling, but there would still be profit.' For Mill then, exchange, buying and selling, i.e. the general conditions of capitalist production, are a mere incident, and there would always be profits even without the purchase and sale of labour-power!

'If,' he continues, 'the labourers of the country collectively produce 20 per cent more than their wages, profits will be 20 per cent, whatever prices may or may not be.' This is, in one respect, a rare piece of tautology; for if the workers produce a surplus-value of 20 per cent for the capitalist, his profit will be related to their total wages in the proportion 20:100. Nevertheless, it is absolutely false to say that 'profits will be 20 per cent'. They will always be less, because they are calculated upon the sum total of the capital advanced. If, for example, the capitalist has advanced £500, of which £400 is laid out in means of production and £100 in wages, and if the rate of surplus-value is 20 per cent, the rate of profit will be 20:500, i.e. not 20 per cent but 4 per cent.
There follows a splendid example of Mill’s way of handling the different historical forms of social production: ‘I assume, throughout, the state of things which, [where the labourers and capitalists are separate classes], prevails, with few exceptions, universally; namely, that the capitalist advances the whole expenses, including the entire remuneration of the labourer.’ Strange optical illusion, to see everywhere a situation which as yet exists only exceptionally on our earth! But let us proceed. Mill is good enough to make this concession: ‘That he should do so is not a matter of inherent necessity.’* On the contrary, ‘the labourer might wait, until the production is complete, for all that part of his wages which exceeds mere necessaries; and even for the whole, if he has funds in hand sufficient for his temporary support. But in the latter case, the labourer is to that extent really a capitalist in the concern, by supplying a portion of the funds necessary for carrying it on.’ Mill might just as well have said that the worker who advances to himself not only the means of subsistence but also the means of production is in reality his own wage-labourer, or, indeed, that the American peasant is his own slave, because he does forced labour for himself instead of doing it for someone who is his master.

After thus proving clearly that capitalist production would still continue to exist even if it did not exist, Mill now proceeds, quite consistently, to show that it would not exist even if it did exist. ‘And even in the former case’ (where the worker is a wage-labourer to whom the capitalist advances the whole of his means of subsistence) ‘he’ (the worker) ‘may be looked upon in the same light’ (i.e. as a capitalist) ‘since, contributing his labour at less than the market price (!), he may be regarded as lending the difference (?) to his employer and receiving it back with interest, etc.’†† In


*If he had had the opportunity, Marx would certainly have altered this passage. The addition of the phrase in square brackets, ‘where the labourers and capitalists are separate classes’, omitted inadvertently by Marx, clears Mill, at least formally, from the charge of being guilty of an ‘optical illusion’. Hence, in a letter of 28 November 1878 to N. F. Danielson, Marx proposed the replacement of the passage beginning ‘Strange optical illusion’ with this: ‘Mr Mill is willing to concede that it is not absolutely necessary for it to be so, even under an economic system where workers and capitalists confront each other as separate classes.’ [This note draws heavily on information provided in MEW 23, p. 540.]
real, the worker advances his labour gratuitously to the capitalist during, say, one week, in order to receive its market price at the end of the week, etc.: according to Mill this makes him into a capitalist! On a level plain, simple mounds look like hills; and the insipid flatness of our present bourgeoisie is to be measured by the altitude of its ‘great intellects’.