CHAPTER 2

our unity with nature and human productive activity: labour's separation from its inorganic conditions

Then a plough-man said, Speak to us of Work. And he answered, saying:
You work that you may keep pace with the earth and the soul of the earth.
(Kahlil Gibran, "The Prophet")

2.1 Introduction

The one point which we tried stressing in the last chapter about our ontological unity with nature cannot however be of much help for any ecological politics if we cannot show that such an understanding not only allows for human distinctiveness from nature but that this distinctiveness, given the structures of modern science and industry arising from it, can indeed be streamlined into the project of an ecological production of nature. We said that our ontological unity with nature does not foreclose the possibility of human autonomy from nature. Rather contrary to the effects of the logic of capital and the claims of the radical ecologists human autonomy needs to be positively grounded in deep nature which also extends in us in the form of our character as a natural being.

We are natural beings, bounded though not determined by deep nature, as we already discussed in the last chapter. Radical ecologists agree to this and even reform environmentalists will not object to it even at the cost of being inconsistent vis-à-vis their own thought. However from deep nature to surface nature, from nature to human autonomy there is much controversial terrain with profound consequences to ecological politics. In this chapter we intend to cover that terrain which relates primarily to the question of human distinctiveness from nature.

We ask what, for example, is the basis of the grounding of human autonomy as manifest in the capacity for human labour, in nature? Does our distinctiveness from nature not determine in so many ways the manner in which human societies are
organized today? For that characteristic of ours which marks us off from the rest of nature might possibly help us to understand lot of our activities and functioning. In that case then it is not just important but crucial to know the basis of human distinctiveness from nature. This of course is a bigger question which we cannot handle here in any detail but nevertheless for our purposes it has to be at least briefly addressed here.

The pertinent question for us here is however whether our distinctiveness from nature is derived from our own unity and struggle with nature, from our own character as a natural being or whether it has really nothing to do with our ontological unity with larger nature, with deep nature. For if our distinctiveness from nature is as it were purely human, that is, not derived from our character as a natural being in any way, then the basis for a link between nature and society would be missing. Marx was always concerned to develop a theory which would capture the link between natural history and human history.\(^1\) This is what we were indicating at when we talked about the link between ontological unity and social unity in the Introduction to this work. Here we are going to see how this question hinges on the manner in which we understand the human-nature distinction.

In this chapter, we are going to see how it is through social co-operative activity, labour, that we differentiate ourselves from nature.\(^2\) The human-nature distinction can as such be based on any of the many human characteristics that distinguish humans from nature, like religion or language or art. However, the distinction which is at the root of and provides the conditions for, in the first place, the very existence of, all other distinctions is that humans engage in conscious transformative social labour. Humans engage in social cooperative labour and, in the process of transforming nature, transform themselves -- it is in the process of labour that humans become what they are.

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\(^1\) Marx wrote: "We know only a single science, the science of history. One can look at history from two sides and divide it into the history of nature and the history of men. The two sides are, however, inseparable; the history of nature and the history of men are dependent on each other so long as men exist" (Marx and Engels, "The German Ideology", Collected Works, Vol. 5, Moscow, 1976, p. 28).

\(^2\) The conception of nature here of course has a strong connotation of nature understood as natural determinations from which humans are constantly trying to free themselves, rather than nature as the 'other' of humans, to which humans stand in stark distinction.
Hence, at any particular point in time, the transformation of nature cannot be understood without understanding the transformation which humans have undergone in the course of transforming nature into what it is at that point in time. This attests to the fact that the human-nature intercourse is a process of mutual transformation and interpenetration leading to what we might call a particular socio-natural relation which is as much human as it is natural. *The human-nature distinction (in terms of, say, human beings as rational in contrast to the rest of nature)* is itself a product, or rather something which emerged in the course of this socio-natural relation and hence cannot by itself fruitfully explain our particular relation and impact on nature. In fact the attempt to explain the present social predicament in our relationship with nature by referring to some particular quality of human beings is itself doomed to failure since such an approach assumes that humans have a post- or extra-ontological existence and that freedom has to defined in terms of our "freedom" from any pre-given ontological condition. This denial of our ontological boundedness eventually leads to the overburdening of the subject which is at the basis of the projected dichotomy between humans and nature.

The point then is that regardless of the particular qualities that distinguish humans from nature, in actual practice humans and nature exist in a space which is exclusively neither purely human nor purely natural, but both. Hence we will see that while it is therefore extremely difficult to really drive a dichotomy between humans and nature, this is precisely what is done most of the time by most ecologists. They try to understand the human-nature distinction in such dichotomous terms that sometimes make the social transformation of nature appear

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3 As for example John Barry does when he points to particular human interests in order to explain environmental problems. See Chapter 4 below (John Barry, "Rethinking Green Politics", London, 1999).


5 This overburdening of the human subject refers to the treatment of a human being, under capital, as no more than labour, who is valued only in terms of his output as it were, and not as a being with the powers, capacities and needs of a living human being. Thus the "free worker" is treated "as purely subjective labour capacity, devoid of objectivity, confronting the objective conditions of production as his non-property, as alien property, as value-for-itself, as capital" (Marx in Marx and Engels, *Collected Works*, Vol. 28 (Grundisse), Moscow, 1986, p. 422). The key point is that the overburdened human subject is devoid of objectivity, of his objective natural character thereby opening the way for the human-nature dichotomy under the logic of capital.
incidental and, at other times, contradictory to what it means to be human.\textsuperscript{6} Thus for the radical ecologists humans can attain self-realization by letting themselves in the flow of nature. We should pack up all our science and industry and go 'back to nature'.

Similarly, for the reform environmentalists, the capacity for rational thought and action supposed to distinguish humans from nature cannot really account in any fundamental manner for the particular human relationship with and transformation of nature which it otherwise tries to defend. Apart from the empirical argument that we have already come a long way in the present path and so it is impossible to reverse the trend now, it cannot show with any theoretical consistency how and why human rational action should necessarily take the direction it took and why we should not go 'back to nature'. Hence it unwittingly opens the way for radical ecology's one-sided attack on modernity. In the first section of this chapter we are, therefore, going to see that understanding the human-nature relationship in terms of social labour will help us avoid the pitfalls of both reform environmentalism and radical ecology.

Social labour, however, necessarily engenders definite social relations of production that provide the social conditions for society's metabolism with nature. This will be the topic of discussion in the third section of this chapter, where we are going to briefly explore the historical materialist understanding of society's relationship with nature. In particular, we will explore how different modes of social organization and production relations give rise to different ways in which nature gets internalized in the social process and hence to different scales of its transformation. More importantly, as we shall see, the social logic underlying and thereby determining society's metabolism with nature is a function of the prevailing social relations of production.

Societies that produce only for direct consumption as in a subsistence economy where a ruling class which extracts surplus from the population does not exist are

\textsuperscript{6} Of course such a position can by implication lead to the suggestion that the particular social transformation of nature which has historically come about under modernity has a deeply embedded, immanent character to it so that it is not a historically specific but universal feature of human societies. I do not make this claim here but am merely alluding to a possible train of thought.
related to nature in a manner which is definitely different from a society where surplus extraction takes place either in kind or in cash. The relationship of the immediate producers to the land is determined not only by the form of ownership of land but also by the form of extraction of surplus, for example, the existence and the form of taxes on them. The manner in which humans relate to nature is, therefore, dependent on the social relations in which they find themselves. This is because the existing social relations of production describes a social logic which dictates the character, scale and degree of society's interchange with nature -- in a manner which might upset the ecological balance.

We will then show how the social logic or internal constitution of pre-capitalist societies determines their metabolism with nature. We will see that the potential of unecological metabolism with nature is not non-existent in pre-capitalist societies. We will see that the logic of capital expansion is not the sole and universal condition for ecological destruction. For it will be shown that capitalist society's lack of autonomy wherein people have no control over their production and consumption levels in spite of the existence of the conditions for it, is paralleled, in pre-capitalist societies, by not only the absence of the conditions for such an autonomy for society but by the existence of social relations that make demands on nature that upset the immediate producers' metabolic balance with nature. We will outline how pre-capitalist social relations already display a logic which upsets the ecological balance in society's metabolism with nature.

Hence, the ecological metabolism with nature is upset not just by the logic of capital but, in pre-capitalist societies where this logic does not operate, also by the very functioning or rather the production and reproduction of a particular set of social relations that comprise those societies. Such an analysis, it is hoped, will help us throw some light in understanding the functioning and ecological viability of the type of societies proposed or envisioned by various ecologists and social thinkers. We will see how the question of society's metabolism with nature is so intricately related to the question of the overall conditions of production and given by the particular social relations.
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It will be seen that human autonomy, our power of reflection, loses its autonomy in the face of the structures of society which create what is called a second nature and which binds us into its logic. This is important to be discussed here since we see that only a philosophical distinction between humans and nature on the basis of the human capacity for rational thought can lead to a very asocial understanding of what it is to be human. It is this attempt to understand the human apart from society and understand society in turn as a mere aggregate of otherwise asocial humans which is, as we see in the next two chapters, at the basis of liberal humanism. Paradoxically, such a liberal humanist position, opens the way for a 'back to nature' call by radical ecologists since they can then easily construe humans without the specifically social dimension, leading to their suggestion for a community based on natural relations.  

Such an asocial understanding also theoretically opens the way for the liberal humanist universalization of the capitalist man and for creating the split between the political and the economic, which of course means not allowing the process of human-nature metabolism (the economic) to be subject to control by the people (the political).  

The objective of this chapter is therefore to be able to show how the particular manner in which the human-nature distinction is conceptualized and around which so much of the ecology debate revolves, actually underpins so much of both the reform environmentalist thinking as well as radical ecological thought.

7 In a natural community "the individual can never appear so thoroughly isolated as he does as mere free worker. If the objective conditions of his labour are presupposed as belonging to him, he himself is subjectively presupposed as belonging to a community, through which his relationship to the land is mediated" (p. 409). The human-nature relation in such a community is such that "the individual relates simply to the objective conditions of labour as his own, as the inorganic nature his subjectivity, which realises itself through them. The chief objective condition of labour does not itself appear as the product of labour, but is already there as nature. On the one hand, the living individual, on the other the earth, as the objective condition of his reproduction". The onset of capital however changes society's organic link with nature and marks the culmination of the human-nature schism into a complete dichotomy (Marx, in Marx and Engels, Collected Works, Vol. 28 (Grundisse), p. 409).

8 There seems to be a connection between an abstract notion of the individual and individual rights, and abstract labour under capitalism. It is important that the worker's character as a natural being which needs flourishing be denied. Abstract labour is possible only if humans are treated as no more than rational beings without any basis in the natural conditions of their reproduction and production. Marx pointed out that the worker under capital is treated as "devoid of objectivity" (see footnote 5 above).
After all, the human-nature distinction based on the fact that humans are rational and can think and reflect and the rest of nature cannot, a distinction which is taken by some radical ecologists, in the extreme case, to be at the basis for the objectification and destruction of nature, does not however explain anything about society's practical relationship with nature. What has to be realized, therefore, is that a study of human actions on nature and their consequences must proceed from an understanding of humans living and producing in and as part of society. This means that we have to look into the internal constitution of society if we are to understand the question of society's impact on nature. Marx wrote, "individuals producing in a society -- hence the socially determined production by individuals is of course the point of departure".9

In this chapter, we try to show that the human-nature distinction cannot be fruitfully discussed by discounting humans as social beings, by referring to humans in their capacity as pre-social beings which is what bourgeois economists, for example, do.10 For if, as we show in the second section, human labour is a force of nature acting on nature, the reason why it can still be destructive of nature is that labour as socially organized collective labour takes place within and derives its character from the given mode of production and this is where we need to locate the sources of ecological destruction today. But then when we see that the human-nature distinction which derives its basis in human labour is itself not the problem where ecological destruction can be located, but rather is or can be the condition for the emancipation of humans, then we can also see that the transformation of the present-day conditions under which this labour is expended can usher in a society where a

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10 Such an understanding of social processes based on the notion of the rational individual is reflected for example when in economics investment is understood as the deferment or forgoing of consumption by the individual. Joan Robinson points out, in neo-classical economics "accumulation is represented by Robinson Crusoe transferring some of his activity from gathering nuts to eat to making fishing rod". However, she further writes, as Keynes showed, "in a private enterprise economy, investments are made by profit-seeking firms and it is they who decide for society how much it will save". The point is therefore that it is misplaced to start with the rational individual who then comes together with his fellow men to form society (Joan Robinson, "Economic Heresies: Some Old-Fashioned Questions in Economic Theory", London, 1971, p. xiv).
distinctively human society\textsuperscript{11} in contradistinction to a society based on natural relations need not necessarily be an unecological society.

What we shall be focussing in particular is the manner in which the human-nature distinction is conceptualized vis-à-vis the emergence of society or the logic of society, the formation of 'second nature'. \textit{For if humans are what they are, that is humans, apart from society, each by herself, then society itself is a contingent factor, something which separately self-sufficient humans formed by way of contract. Such an understanding of the human-nature distinction is not only a defence of the bourgeois man but also opens the way for the deep ecologist demand for going back to nature. Defining humans apart from society amounts to rendering society dispensable.}

The next section of this chapter, therefore, tries to show that there is no problem in the human-nature distinction as such and that it really depends how and in what manner we go about making the distinction between humans and nature. For there is a manner of making this distinction which tries to make an assumption of humans that tends to universalize certain particular socially given human traits as true for humans for all times and places. This has the problem of leading one to the pitfalls of liberal humanism and also thereby to those of the 'back to nature' thesis. In this chapter we will try to show that we must guard against this tendency to confuse the particular and the universal.

It is in this light that I wish to formulate ecological politics to be taken up in chapter 4. I agree with David Harvey that ecological politics have "to displace the hegemonic powers of capitalism not simply with dispersed, autonomous, localized and essentially communitarian solutions (apologists for which can be found on both right and left ends of the political spectrum), but with a rather more complex politics that recognizes how environmental and social justice must be sought by a rational ordering of activities at different scales."\textsuperscript{12} This means, of course, that community-

\textsuperscript{11} Human, that is, based on the full use of specifically human powers and capacities, including science and industry.

based solutions can not only support extremely oppressive regimes but can at the same time be unecological as well.

2.2 from deep nature to conscious life activity; the natural basis of human activity as the starting-point of history

The main purpose of this section is to show that humans are not just dependent on nature for their own existence but they are themselves also, at one and a very deep fundamental level, beings of nature. This ontological rootedness of humans in nature has major implications for our notions of freedom and ecological politics, as will be seen in the later chapters. Towards this end we will in this section examine Marx's concept of humans as an objective being of nature. We will also see that the concepts of deep nature and surface nature discussed in the last chapter will be helpful in making this point of humans as beings of nature.

There are two related points here. One is the question of the emergence of human consciousness from nature which raises difficult questions about chance and necessity in nature and the evolution of life itself. That is a much broader question which I am not competent to handle here. The second question is that of what distinguishes humans from nature and how this distinction contributed to the development of the human species, or rather of our species-being. More specifically what is it that humans did which distinguished them in course of time from nature. We are therefore not addressing the question of how humans marked themselves off from the rest of nature, the conditions that led to humans doing what eventually led them out of nature. Our argument is that humans marked themselves off from nature through the development of their own activity as a being of nature. Thus the starting point is not humans as beings already distinct from nature but as beings of nature engaging in activity, not however specifically human activity or practice.

Thus if, as Marx says, it is practice, productive activity through which humans became humans and marked themselves off from the animal kingdom, then we are not going into the question of why for example other animals could not similarly come out of the animal kingdom. This does not however mean we are going to take human practice as the starting-point of history for this would lead us whether we
like it or not to the overburdening of the human subject and all its concomitant pitfalls. To be sure, human activity will be treated here, following Marx, as emanating from subject-object processes in nature which defines the bottom-line character of humans as an objective being of nature. This means that human labour is not something which exists independently of deep nature but is rather part of deep nature, that is, nature in us, our inner nature. As we shall see, it is at the level of deep nature that we can identify the most natural activity of humans which pre-dated our human activity which became increasingly social and collective over time. The emergence of human labour can accordingly be understood as having its basis in the further development of this pre-human activity in nature.

We start with a discussion of the basis of human labour in deep nature, the natural basis of our practical, productive activity which has of course long ago broken away from the animal kingdom in nature. Here we will see that human distinctiveness from nature is itself a product of activity in nature engaged in by humans as beings of nature, that is before the emergence of consciousness. This of course means that the distinctive qualities of humans vis-à-vis the rest of nature, like consciousness or language, cannot be taken to be starting-point of the process of human alienation from nature.

The starting-point and the basis of the process which freed humans, to a large extent, from the necessity in nature has to be understood precisely in terms of the activity of humans to accomplish this feat. But since activity in itself is a nature-imposed necessity on all beings of nature, it does not take much to see that this activity of humans pre-dated the emergence of the capacity for conscious, teleological human labour in humans. That is, even before humans could engage in conscious purposive activity and be really human, they engaged in activity as beings of nature. It is this activity as beings of nature, sublimated now into conscious, purposive, rational human activity, which is at the basis of our relationship with nature and which forms the deep nature of human labour.

It is through the further development of this activity qua natural beings that humans have come to distinguish themselves from the rest of nature, an activity which, however, derives from the ever-lasting conditions imposed by nature. The
nature-imposed character of this activity gives a unique turn to the human condition. For this means that all the grandiose edifices of human autonomy from nature erected so far in all civilizations ultimately have their basis in a nature-given ontology. This ontology is not merely the necessity and law-like patterns imposed by outer nature but also one which extends very well into us, determining the very character of humans. That is why we argued in the last chapter that humans also have an internal deep nature which is contiguous with outer nature.

Human attempts to transform the given natural surroundings according to the needs and aspirations of the given society and particular epoch, cannot be taken to be purely a question of human will and volition. Actions of the human subject cannot be taken to be completely free of its own givenness and boundedness in a given world whose law-like constancy and determinations are not just the limits but also provide the conditions that act as the facilitators and enabling factors for our actions. Failure to take account of this ontological embeddedness of human activity, labour in nature often leads to the over-empowering of human practice, subjectivity leading to the projection of unsustainable human-nature relationships that are violative of ecological principles.

Where human subjectivity is not thus over-empowered, it is often regarded to be flexible to now suddenly turn itself on its head and retrace its steps back into a primal state of activity in nature. This approach, often adopted by radical ecologists, under-empowers the human subject, in fact, denying it its own subjectivity. Thus while the one tries to treat human subjectivity as self-sustaining, or at best, possessing only a relationship of exteriority with its natural antecedents, the other ahistoricizes its ontological rootedness into the primal, pre-human past and tries to seek harmony there. A recognition of this historico-ontological embeddedness of human activity, labour in nature will, it will be seen in the subsequent chapters, help us to come out of some the aporias arising from both the reform environmentalist and the radical ecology schools.

Let us now examine Marx's account of man as an objective being of nature. We will primarily rely on his "Economic and Philosophic Manuscripts of 1844", EPM, for short. Marx discusses the activity of humans at the level of what we here call
deep nature, that is, the activity of humans as beings of nature. Marx's later notion of human-nature relationship in terms of society's metabolism with nature, that is, society as expressing the interchange of energy between humans and nature, is foreshadowed here in so many ways. This attests to the fact that Marx adhered to a materialist philosophy in *EP* without having at this time in 1844 developed a materialist understanding of human history.\(^{13}\)

For Marx, there is nature in humans, what we have called deep nature in the last chapter. But this deep nature is itself dynamic and processual. And hence it is historical, giving rises to new qualities: this is how humans could come out of the animal kingdom. Those qualities of humans that mark them off from the rest of nature are also the result of the activity of humans as, to start with, beings of nature. This is why deep nature could ultimately lead to the emergence of surface nature. With the emergence of humans as humans, that is with the development of the power of human autonomy and the civilizational wonders that we have produced, we have not however ceased to be beings of nature. It is just that our naturalness can be understood not with reference to any pristine, untouched nature. Instead, it has to be understood with reference to the nature which exists in front of us today, the nature which has undergone transformation and production, given the advances made in industry and technology. In other words, since we produce our own nature the nature in us, our inner nature,\(^{14}\) itself is to a large extent our own production.

Thus for Marx there is nature in us but this nature is itself historical: both nature in us and outer nature. But nature is historical not only in the sense of being transformed by human activity and at the same time transforming (the nature of) humans but also in the sense of nature in itself being dynamic and changing. It is in this latter sense of the historicity of nature that we need to understand the development of distinctive qualities in us that mark us from the rest of nature. The distinctive human qualities of thought and purposive activity which marks us off

\(^{13}\) Refer my M.Phil. Dissertation, "The Marxist Conception of Man's Relation to Nature", Jawaharlal Nehru University, New Delhi, 1998.

\(^{14}\) Now as we can here clearly see the usage of nature here does not immediately make it obvious whether nature applies to what can be called our intrinsic or inner character, or nature in the sense of natural, given by something pristine. The point is that our deep nature, nature in us is natural, in the sense of given to us from before, but our human nature is historical. But even deep nature in us can be regarded as evolving, if not historical, since that is related to our activity as a natural being.
from the rest of nature and gives us the status of a subject are not something that was
given to us from without. Rather they form our link to the wider world of natural
history: human history connected to natural history. It is precisely the historicity of
nature, the change and dynamic inherent in nature as such which explains how we
could emerge out of nature as humans and yet remain natural beings.

Our emergence out of or rather from within nature means that humans do not
stand and oppose nature, purely from the outside. If therefore we take nature as the
starting-point of history and the emergence of humans as part of this larger history
then we find that the human relationship with nature is not one of exteriority but one
of an inner contradiction. The contradiction between humans and nature does not
make sense if looked at only in terms of humans having to engage with nature and
its determinations in a relationship of exteriority, for this contradiction exists, at a
fundamental level, within humans themselves. Given the historicity of nature from
which humans emerged as a force to negate nature itself in so many ways, we can
argue that the contradiction between humans and nature therefore emerges as much
from the unity between humans and nature as from the struggle between the two. It
is not possible to understand the struggle without at the same time appreciating the
unity. 15

We can identify three levels at which the relation between humans and nature is
understood by Marx in EPM: the naturalistic (even Feuerbach came this far!), the
relational and the historical. These three levels are, of course, not treated separately
by Marx. But this way it may make it easy to show how contemporary ecological
thinking often restricts its understanding of the human-nature relation to only the
first level and what it may gain by taking account of Marx's materialist ontology in
EPM.

For Marx, "man's physical and spiritual life is linked to nature means simply
that nature is linked to itself, for man is a part of nature". 16 This attests to the fact

15 However, as the thesis of production of nature shows, this deep nature can itself be identified at
different levels, depending on the ability of humans to intervene in the processes of nature which can
over long periods of time redefine the nature-culture distinction.
16 Marx, "Economic and Philosophic Manuscripts of 1844", Moscow, 1977, p. 73. Henceforth only
EPM.
that humans beings are not merely dependent on nature for their survival and life but that even in their survival they are surviving as, at one level, "a part of nature". In man, nature is linked not to an object or a being which wholly stands outside of itself but, on the contrary, "nature is linked to itself". This nature in man is what we have called deep nature in the last chapter. Thus the human relation to nature is not one of dependence on something purely external, nature available for man to live off it. Rather this very dependence follows from the fact that man is a being of nature.

Man's dependence on nature is, therefore, not a relation of exteriority with nature. Here we need to understand what it really means to say that humans oppose nature or that humans and nature are in a state of contradiction. The picture of humans transforming nature and sometime even intervening in its processes, gives us this impression that this relation is only one of opposition and struggle against nature, which has as a matter of fact been taken by most societies as just the other of humans. Such a conception of our relation with nature, however, looses sight of our unity with nature. The essential point then is that humans and nature are in a state of unity and struggle with each other.

Marx, quite early in *EPM*, shows us the relationship of unity and struggle between humans and nature. Reformist environmental thought in the liberal tradition often argues for the protection of nature from this position of a relationship of exteriority between humans and nature as we saw in the last chapter.\(^{17}\) For Marx, on the other hand, if man is a being of nature then "nature is man's *inorganic body*".\(^{18}\) It is precisely this unity of man and nature which requires that to the extent that man is not, at the same time, nature, but is a living, sensuous being, he has to struggle with nature. He has to oppose himself to nature. This struggle with nature is again at one level internal to nature for after all "nature is man's *body*, with which he must remain in continuous interchange if he is not to die".\(^{19}\)

Emphasizing only the struggle aspect of the human relation to nature amounts to not just a disproportionate emphasis but a misplaced understanding of the

\(^{17}\) See for example, John Barry, "Rethinking Green Politics", and Jean-Luc Ferry, "The New Ecological Order", Chicago, 1995.

\(^{18}\) *EPM*, p. 72.

\(^{19}\) *EPM*, pp. 72-73.
character of this struggle itself. For missing the point of the unity of humans and nature leads to taking human autonomous powers or human science and industry as existing all by itself. This means history itself is no more than the consequence of human powers going out of itself and in its alienation producing the world in front of us. Nature in this story is no more than a foil to the inexorable power of humans to bring the forces of nature under their control. Such a dichotomy between humans and nature follows from the denial of all dynamism to nature and taking nature as just dead matter counter-posed to human agency and enterprise.

According to Marx, for Hegel "nature is only the form of the idea's other-being." The existence of nature as nature is denied but nature as the idea's other-being is what Hegel allows for. Hegel's idealism therefore guards itself from the type of dichotomy which we encounter in reformist environmental thought. Thus when Marx writes that he inverted the Hegelian dialectic, he meant that he is now taking nature as prior to consciousness or the Idea: the idea is to be explained by referring to nature. Nature is therefore the starting-point of history. The Marxist materialist view of the priority of nature over consciousness is taken over by Adorno. He writes that "the mind's moment of non-being is so intertwined with existence that to pick it out neatly would be the same as to objectify it." Interpreting Marx's "inversion" of Hegel as the privileging of human practice as the starting-point of history is to constrain Marx within the confines of a thought which in the final analysis maintains the human-nature dichotomy. What we find here is that only because Marx grounded human practice, human productive activity

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20 EPM, p. 157.
21 If however such a priority given to nature and not the human subject gives the reader the impression that it is "totalitarian" to do so then I would like to here say along with Jameson that "the difficulties of achieving a new dialectical objectivity are evidently asymmetrical". Jameson then quotes Adorno to argue that this is so since "owing to the inequality in the concept of mediation, the subject falls into the object in an utterly different way than the latter into the former. Object can only be thought by way of subject, yet ever perseveres as an other to this last; subject on the other hand is in its very structure and from the outset also object. The object cannot be thought away from the subject as an idea; but the subject can certainly be removed from the object in thought" (quoted in Frederic Jameson, "Late Marxism: Adorno, or, The Persistence of the Dialectic", London, 1990, pp. 35-36; italics mine).
in nature is he able to avoid the dichotomy which otherwise would have presented
human power and industry as the absolute of history which alone in its self-
movement and exclusivity can explain all of history. This decimation of nature, the
denial of any agency to nature leads, under capitalism, to what Haraway calls hyper-
productionism, the denial of any role to non-human agents in bringing about the
particular production of nature.23

This denial of any role to nature and the over-privileging of the human subject
as the absolute wherewithal of history and of the production of nature has often led
to the radical ecology reaction which goes to the other extreme of denying human
subjectivity as manifest in our transformative powers and industry any basis in
nature. Not that the dominant model of capitalist development as represented in the
liberal environmentalism argued for grounding human subjectivity in nature. They
never did, as we saw above. It is just that the hyper-productionism associated with
capitalist production which objectified nature as a commodity and treated it as dead
matter in mechanical motion meant no attempts could be made to seek the basis for
human science and industry, or for the power for human autonomy more generally,
in nature.

The true human self was to be close to nature and its processes and the present
destruction of nature and the overall ecological crisis is the result of the our loss of
our primal connection with nature. Modern science and industry have created this
dichotomy between humans and nature. The only way out is to go back to nature, be
a part of the flow of nature and achieve ever-lasting harmony. Radical ecology does
not just argue that humans are a part of nature, or that there is nature in us. It states
much more than this. It states that only by being at one with undisturbed, pristine
nature can we attain self-realization and attain freedom.

For deep ecology, nature not only has an intrinsic value but society itself has to
be organized along bio-regional lines. Society should not have a logic of its own
which is social. The very idea of the social should be subordinated to that of an
original and pristine nature so that social organization should be on the basis of

23 See Donna Haraway, “The Promises of Monsters: A Regenerative Politics for
Inappropriate/d Others” in, L. Grossberg, C. Nelson, and Paula A. Treichler, (eds.)
natural features and surroundings. Human autonomy and industry if they exist at all should be driven to merely adapt to the processes and cycles of nature and any attempt to go beyond that to the realm of the specifically social should be dismissed as a potential threat to the order of nature.

Radical and deep ecology as we can see therefore endorses nature and in that sense takes account of the material world. But as we saw it cannot come to terms with the structures of modern science and industry and, in spite of all its near-obsession for nature, fails to see nature in us, and, in effect, treats these structures as pure products of human volition gone awry thereby discounting the fact of our embeddedness in nature. While liberal thinking over-empowers the human subject in the blindly positive, celebratory sense which approaches an overwhelming hubris, radical ecology conceptualizes the human subject in like but obverse manner, denying nature in us, only now presenting it as over-inflated and inexorably destructive of nature.

As we saw in the last chapter and will see further in the next, Marx in his later works, particularly in the first volume of "Capital", has shown that this under-privileging of nature is a consequence of the operation of the capitalist system of production which treats nature as a mere repository of abstract value. This way the use value of nature which is where its real significance as nature lies is denied by the very operation of the system. Indeed it is with the concept of use value that Marx's materialism salvages nature from the homogeneity and self-effacing uniformity which the operation of the process of the self-expansion of value imposes on nature under capitalist society. Under such a situation the one creative force counter-posed to the identitarianism of the capitalist production process is the human subject which is the active and dynamic element. But this is precisely what leads to the overburdening of the subject, as we noted above, thereby reinforcing the human-nature dichotomy.

This overburdening of the subject happens alongside the denial of all contradiction and antagonism in reality as such. But, according to Adorno, "we have


24 See Chapter 3 below.
to answer that the object of a mental experience is an antagonistic system in itself - antagonistic in reality, not just in its conveyance to the knowing subject that rediscovers itself therein.\textsuperscript{25} And further "the coercive state of reality, which idealism had projected into the region of the subject and the mind, must be retranslated from that region".\textsuperscript{26} For any possible utopia "the coercive state of reality" or contradiction, must "indicate the untruth of identity, the fact that the concept does not exhaust the thing conceived".\textsuperscript{27}

But given the fact that "idealism had projected" "the coercive state of reality" "into the region of the subject and the mind", there remains a tension with the actual process of production which tries to create a world without antagonism and contradiction, an identitarian world precluding all utopia. "But", Adorno writes, "the ineffable part of the utopia is that what defies subsumption under identity - the 'use value' of Marxist terminology - is necessary anyway if life is to go on at all, even under the prevailing circumstances of production".\textsuperscript{28}

What we are here arguing is that Marx's conception of nature takes account of the non-identitarian character of reality, of nature which is dynamic and in being so can be taken as the starting-point of history from where we can then go on to derive human distinctiveness from nature and even ground our science and industry in "nature in the subject".\textsuperscript{29} This way we can guard ourselves from what Adorno and Horkheimer warned us against: that "with the denial of nature in man not merely the telos of the outward control of nature but the telos of man's own life is distorted and befogged".\textsuperscript{30}

\textit{Our argument that human distinctiveness from nature cannot be taken to be the starting point of history without at the same time over-burdening the subject and undermining nature, has meant so far that there is nature in humans and that human dependence on nature is not a relationship of exteriority. Instead, this relationship is one where our struggle with nature cannot be made sense of if we overlook our

\textsuperscript{25} Theodor Adorno, "Negative Dialectics", p. 10.
\textsuperscript{26} Ibid., p. 10.
\textsuperscript{27} Ibid., p. 5.
\textsuperscript{28} Ibid., p. 11.
\textsuperscript{29} Adorno and Horkheimer, "The Dialectic of Enlightenment", London, 1979, p. 40.
\textsuperscript{30} Ibid., p. 54.
internal unity with nature. The unity and struggle of humans and nature cannot be separated, something we find so well emphasized in Marx's materialist ontology presented in EPM.

Failure to take account of nature in us as we saw above opens the way for either the reform environmentalist view which takes the human subjective powers as the only creative force, expunging all dynamism to nature as such or to reality as a whole; or it leads to the radical ecology viewpoint which again denies any natural basis to science and industry, claiming that the human subject itself and not merely its over-burdening needs to be one way or the other thoroughly flattened out into adapting to some original, pristine nature. While we should not deny nature in us we cannot at the same time deny our own human nature. Nature in humans forms an inseparable unity with outer nature that is why human nature cannot be taken to be a power unto itself. Nor can human nature be subsumed in the processes and flows of a non-existent original nature for the arrow of historical transformation has carried us too far in to the arena of the production of both our outer and inner nature.

Our main argument in this chapter is of course that human distinctive powers derive from our activity as a natural being, as Marx showed in his EPM. Stressing our unity with outer nature, we said that there is nature in us which cannot be ignored if we are to avoid the pitfalls of reform environmentalism or of radical ecology. Denial of nature in the human subject in the face of such tremendous transformations that have been brought about through human science and industry meant both the over-inflation of the human subjective powers and the denial of natural basis to these powers.

Thus failure to take account of nature in the human subject leads to the positing of a dichotomy between humans and nature, and also, between historically constituted humans and historically transformed nature. For our argument about the basis of human distinctiveness in our character as natural beings to make sense, we have to make some further points. In other words, the question has to be asked as to the character of this nature in us and its relation to human nature or to our distinctiveness from the rest of nature.
Chapter 2 our unity with nature and human productive activity: labour's separation from its inorganic conditions

As we saw above, our unity with outer nature cannot be understood without at the same time taking account of our struggle with nature. The fact that "man is a part of nature", that there is nature in us, along with the precept that nature is prior to consciousness means that the specificity of our unity with nature itself is conditioned by nature. Our relationship of unity and struggle with nature is not attributable merely to our specificity as a human being but has to be located in the larger perspective of our character as natural beings.

We have been arguing that human autonomy or practice cannot be taken as the starting-point of history. Instead human autonomy or practice should itself be taken as having emerged in humans at a particular point of their activity as natural beings. What then needs to be explored is what it means to be a natural being, a condition which precedes and, more importantly, explains our human nature. It is, however, the aspect of unity in our relationship with nature which covers our pre-human and natural being. Nature as a unity, nature as covering the whole of existence has struggle and contradiction as its internal nature. In one sense, therefore, struggle is also an aspect of unity and so we must take account of nature both as something which preceded and still actively provides the basis for all forms of existence today.31

Struggle, contradiction or the non-identical is at the basis of subjectivity but the subject cannot exist without the object. The object is forever changing, becoming and so is always non-identical to what we call it to be. In this sense the object contradicts itself and so the notion of unity which the object represents is itself never identical, never complete. But it is in trying to achieve the notion of unity that we become aware of the non-identical. It is only in thinking of humans as part of nature that we regard them as non-identical to nature. Nature cannot cover humans: they always protrude out of it. Humans contradict 'nature'; but they so contradict nature and become the non-identical since they are also part of it, that is, identical also but

31 According to Sean Sayers, "genuine materialism" insists that "all reality is material; there is nothing in the world but matter in motion. Consciousness is matter organized and acting at its most complex and developed level. This is philosophical (or ontological) materialism" (Sayers, "Reality and Reason: Dialectic and the Theory of Knowledge", Oxford, 1985, p. 12).
not really so. Hence, "contradiction indicates the untruth of identity....it is non-
identity under the aspect of identity".32

The aspect of identity is what Marx is dealing with when he wrote that man is a
natural being. But man is always contradicting such a natural existence and always
positing the non-identical. We must then examine how Marx understood this natural
existence of man in the first place. For Marx, "man is directly a natural being".33
And he confirms this in the course of his activity. "But man is not merely a natural
being: he is human natural being".34 And he confirms this in the course of his
activity : "conscious life-activity distinguishes man immediately from animal life
activity".35 His life-activity is not a means to his existence, it is him. He does not
have to do it since otherwise he will die but because that is him, he consciously does
it. He wills it: "man makes his life activity itself the object of his will and of his
consciousness".36

For Marx therefore there in no gap between consciousness and existence,
between human consciousness and human labour. This is because human powers for
transforming nature is not something humans have acquired from without but they
are powers that humans possess as natural beings. It is here that the unity between
humans and nature comes to the fore.

But Marx's insight goes further than this. What he shows is that the essential
character of humans is such that the basis of the contradiction between humans and
nature is not something given by human consciousness, as though humans act the
way they do out of a pre-given rationality or consciousness which exists apart from
their life-activity. The human subject endowed with consciousness cannot be taken
to explain the activity of humans on nature. As Marx wrote, "consciousness can
never be anything else than conscious being".37 Thus we argue that human powers
or consciousness cannot be taken to be the basis of understanding human history or

32 Adorno, "Negative Dialectics", p. 5.
33 Marx, EPM, p. 145.
34 Ibid., p. 146.
35 Ibid., p. 73.
36 Ibid., p. 73.
37 Marx, "The German Ideology", p. 36.
human actions that have transformed nature. This will, as we argued above, merely lead to the over-burdening of the human subject.

The question then is: if human consciousness or rationality cannot on its own be taken to be the basis of the contradiction between humans and nature then wherefrom does it emanate? For Marx, as noted above, consciousness does not exist apart from activity. It is in the course of this activity that man attains and confirms all his powers. Activity, labour is what makes man. Activity is not a means to his existence, for activity is his existence, his essential being: "for what is life but activity?". But if it is not some pre-given and a priori consciousness which propels humans to engage in activity then what is its basis?

For Marx, man's activity is "the activity of an objective, natural being". And here we again come to the question of the unity between humans and nature. And what we are depends on what we take ourselves to be in the course of our activity, in the course of our labour. For the difference between animals and humans is that animals are subsumed in the determinations of nature in their life-activity. Humans on the other hand, engage in activity under conditions which he transforms and fashions according to his imagination.

But what is true of both humans and animals or any other being of nature is that as objective beings of nature they have objects outside of them that affirm their own powers and being. And this is where human labour finds its natural basis and unity with the rest of the beings of nature. At this level, that is the level where as, in the first place, natural beings humans engage in activity as a conditioned being, we find that humans confirm what they are. Being human is an objective act by humans as natural beings. Being human is not given from without: "it is just in his work upon the objective world, therefore, that man really proves himself to be a species-being". Human distinctiveness given by consciousness or rationality therefore cannot be taken to explain the basis for the human relation to nature for this distinctiveness itself is the result of our life-activity, of our species-being.

38 Marx, EPM, p. 72.
39 Ibid., p. 144.
40 Ibid., p. 74.
For Marx every natural being posits real objects outside itself and is itself an object for other beings. "A being which does not have its nature outside itself is not a natural being, and plays no part in the system of nature". But what is there outside an object: other objects. Hence, "a being which has no object outside itself is not an objective being". But objects have a reciprocal relationship with each other, for an objective being is also an object for other beings. "A being which is not itself an object for some third being has no being for its object; i.e., it is not objectively related. Its being is not objective". As we can see here, Marx comes close to expounding a philosophical materialist ontology which provides the basis for his observations about human practice or labour. He basically has a conception whereby natural beings and even the sun and plant act as objects to each other, on a reciprocal basis. Rather, one would prefer to call them subject-object processes in nature where subject is the object itself taken as the reference point.

Marx's conception of nature becomes clearer with the example of the reciprocal relationship of the sun and the plant: "the sun is the object of the plant ... just as the plant is the object of the sun, being an expression of the life-awakening power of the sun, of the sun's objective essential power". But if that is how objective beings of nature are related to each other then we find that a being is constrained and conditioned by other beings but it is again through them that it asserts itself. But man is not just "a suffering, conditioned and limited creature, like animals and plants" but is also, at the same time, "endowed with natural powers, vital powers - he is an active natural being".

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41 Ibid., p. 145.  
42 Ibid., p. 145.  
43 Ibid., p. 145.  
44 The use of the term subject-object is not to be understood as attributing subjectivity to nature. What is meant is only that there is negativity in nature leading to the emergence of new qualities in nature. This is akin to Marcuse's view on the Marxist notion of nature. He writes, "although the historical concept of nature as a dimension of social change does not imply teleology and does not attribute a 'plan' to nature, it does conceive of nature as subject-object: as a cosmos with its own potentialities, necessities, and chances" (Marcuse, "Counterrevolution and Revolt", Boston, 1972, p. 69).
45 EPM, p. 145. Marx's conception of nature as such, of pre-human or pre-social nature has been the focus of much debate, particularly his position on Engels' staunch defence of dialectics in nature. EPM, going by the exposition of a conception of nature as such, brings Marx much closer to Engels' position. Refer my MPhil Dissertation, Jawaharlal Nehru University, New Delhi, 1998.
46 EPM, p. 145.
Man is so conditioned and suffering because as a natural, sensuous being the objects of his existence are outside of him. Not only is it that he needs objects outside of him for his sustenance but it is through his activity to procure the objects of his instincts that he becomes what he is. Marx does not treat nature as just something on which we are dependent and hence to be preserved for that reason, that is, given our absolute dependence on it.

Rather, nature represents that given condition through which and within which all our qualities and powers are attained and confirmed. Marx understands nature as the world of objects in reciprocal subject-object relationship to each other. And man's activity, being part of "the system of nature", cannot escape its objective character. This is the unity of nature, the deep nature, that we were referring to earlier, a unity or totality which circumscribes all struggle and contradiction, including our struggle with nature.

Thus we need objects outside us not merely to be able to survive but these "are objects that he needs -- essential objects, indispensable to the manifestation and confirmation of his essential powers". That is why Marx does not regard activity as the means to existence but it is itself existence, life: "for what is life but activity?" Activity is man's "essential being". So it is not a relationship of exteriority that humans have with the rest of nature. For what humans are is not given from without, as we noted earlier. Humans could not become what they are without engaging in activity with the world of objects. Man discovers himself through "real, sensuous objects". "He can only express his life in real, sensuous objects".

A human being, as an objective, natural being is thus conditioned by other objects and that is why it is only in the course of his activity on these other objects outside himself that he affirms himself, his powers and qualities as a human being.

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47 Ibid., p. 145.
48 Ibid., p. 145.
49 Ibid., p. 72.
50 Ibid., p. 73. Marx writes that only when estranged from his own labour does man make his life activity, his essential being, a mere means to his existence. But the point which Marx further makes is that estranged man is able to do this, that is, make his essential being a means to his existence only because he is a conscious being: "it is just because man is a conscious being that he makes his life activity, his essential being, a mere means to his existence" (Ibid., 73).
51 Ibid., p. 145.
52 Ibid., p. 145.
This is the deep nature in humans, which represents the inseparable unity between outer and inner nature in us. But this unity, as we noted above, is also one of contradiction, a struggle between humans and nature. Activity represents this struggle as circumscribed by the system of nature.

The question to be asked is then: where does man break the determination of deep nature so that he is not merely an object for others but "is a being for himself". What, to be precise, is different in human activity or labour which makes us different from other animals? Here we must keep in mind that Marx does not pose the question in terms of how humans came to possess consciousness and the capacity for purposive, teleological action. He does not try to explain human action by referring to some pre-given human quality so that nature is not the other of humans. Rather it is in the course of activity upon the objective world and his relation to the world of objects that man came to be conscious beings.

We will see two related things. One is how humans engage in activity which is conscious activity and how consciousness itself is nothing other than conscious existence. Second is the human relation to the objective world, to inorganic nature which this conscious life activity brings about.

Marx holds that man's life-activity "is not a determination with which he directly merges". Marx is unlike "the animal which is immediately one with its life activity". Marx writes, "man makes his life activity itself the object of his will and of his consciousness. He has conscious life activity". But man is able to do this, that is, "make his life activity the object of his will and of his consciousness", since man is a species-being. Man's conscious life-activity cannot be seen in isolation from his species-life. It is only as part of a larger social whole that man is able to fashion the world of objects according to his imagination.

Individually, humans are no more than an animal, but socially they can transform nature in their fashion. Their life-activity as a social or species being now confirms their powers to freely produce according to the standard of its "own

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53 Ibid., p.73.
54 Ibid., p. 73.
55 Ibid., p.73.
essential being".\textsuperscript{56} When man goes beyond the given and fashions the world according to his imagination, we know that he is a conscious being, that he has consciousness. But man will consider himself part of the species, that is, be conscious of his species-being only in the course of his species-activity. Marx writes, "in his consciousness of species man confirms his real social life and simply repeats his real existence in thought ...".\textsuperscript{57}

Man's transformation of nature according to his imagination, what Marx called conscious life-activity, however, has two sides to it. The relationship of unity and struggle between humans and nature undergoes a transformation now. Now that humans do not merge with the determinations of their life activity, the unity they had with the rest of nature as well as the struggle undergoes a change. Marx seems to have taken account of this when he wrote that nature is man's inorganic body.

We saw that for Marx an objective, natural being needed objects outside itself for the confirmation of its essential powers. As an object it was in unity with the rest of nature and as an object which needed other objects for its existence and for the confirmation of its essential being, it stood in contradictory relation with other objects. This relationship of unity and struggle now stand changed when we talk of man who has a conscious life-activity.

Man as a sensuous, objective being of nature still needs objects outside himself for the confirmation of his powers, as we saw above. As a conditioned, suffering being man cannot escape the system of nature and hence cannot escape the world of subject-object reciprocal processes, which is the world of objects. "He only creates or posits objects, because he is posited by objects - because at bottom he is nature".\textsuperscript{58} Here lies the basis of the unity between man and nature, between nature in man and outer nature, the inseparable unity between inner and outer nature. It is in this sense that Marx said that "nature is man's inorganic body - nature insofar as it is not itself human body".\textsuperscript{59}

\textsuperscript{56} Ibid., p. 73.
\textsuperscript{57} Ibid., p. 99.
\textsuperscript{58} Ibid., p. 144.
\textsuperscript{59} Ibid., p. 72.
Marx was asserting the deep nature in humans and showing how integrally humans are interconnected with nature. As we argued above, this relation with nature is not one of exteriority since life activity itself is not something which humans do merely as a means to their existence or life. For activity with nature is part of our essential being. The world of objects, nature is therefore indispensable for not only our sustenance but it through this world of objects that we realize our true selves. For Marx there is no distinction between life and productive activity: "the productive life is the life of the species".60

But then if man's life is so integrally connected to the world of objects that his life merges with his productive life then surely his life itself is formed and evolves in the process of his productive activity. Thus if man's conscious life activity emerges in the course of his activity to transform nature in accordance to his thought or imagination, then surely man's consciousness, being a product of his material existence, must correspond to the outer world. This means that our inner nature will form a continuum with the outside world for it is in the process of the creation or transformation of the outside world of objects that our inner nature became what it is.

If inner nature in man and outer nature are thereby integrally connected so that both emerges in the process of man's productive activity on nature then transformed nature is always what makes man feel at home for it is a world formed by him in accordance to his conception. It is in this sense also that Marx seems to be referring to nature as man's inorganic body, in the sense that man can transform nature so freely and universally as a species being that it becomes his inorganic body.

Marx writes that an animal "produces one-sidedly, whilst man produces universally".61 As a species-being, man "treats himself as a universal and therefore a free being".62 Such a free and universal activity of man on nature means that the transformed nature forms a unity with man's inner nature. This is so because man is engaging in activity not as a being who stands apart from activity but as one whose

60 Ibid., p. 73.
61 Ibid., pp. 73-74.
62 Ibid., p. 72.
Chapter 2 our unity with nature and human productive activity: Labour's separation from its inorganic conditions

life itself is activity. Hence free transformation of nature means that the unity between outer and inner nature is retained so that outer nature is still man's inorganic body: "The universality of man appears in practice precisely in the universality which makes all nature his inorganic body -- both inasmuch as nature is (1) his direct means of life, and (2) the material, the object, and the instrument of his life activity". 63

 Conscious life activity does not in and of itself lead to the separation of humans from the inorganic conditions. This means of course that the process of the transformation of nature need not necessarily create a gap or dichotomy between humans and nature: that is, the inseparable unity between inner human nature and outer nature is maintained. The question which ecological politics should raise is therefore whether such a unity between inner and outer nature amounts to an ecological production of nature. 64 It is here that we need to look into the process of production in society since this conscious life activity always takes place with given social relations of production. But we start, following Marx, with production in general and only then see under what specific conditions our conscious life activity becomes unecological and in fact might no longer remain a conscious life activity. In other words, it might become detached from the life of the species becoming instead only "a mere means to man's existence". 65

 The question of the relationship between humans and nature brings into focus what is called the relational mode of thinking which looks at internal relations between objects and things. Such a way of thinking, however, need not necessarily be restricted to only saying that humans and nature are interrelated. One has to go beyond this and argue that this relational nature of existence itself is responsible for the emergence of specifically human qualities in us, that this ability to so relate to nature is not just something which an overburdened subject has to decide to do, but something which emanates from its ability to recognize that it is a necessity to do so.

63 Ibid., p. 72.
64 As we shall see in chapter 4, such a unity will be achieved only if it promotes freedom. This requires that the transformation of nature be willed by the majority of people, that it be democratically decided upon without however overlooking the ecological requirements or necessity imposed on us by nature's life-sustaining processes and mechanisms. More on this in chapter 4.
65 EPM, p. 73.
That is, it is not a question of voluntarism, of our pure will without any basis in our own character as a natural being, but is given by the necessity in which we are bound up as objective, natural beings.

The liberal humanist position tries to take this voluntarism as something arising from the inherent and unconditionally given nature of humans, a nature which is however taken to be given from without to humans. This means that the notion of freedom itself becomes flawed and leaves it absolutely open-ended by denying nature in us, the necessity in which we exist. However, freedom without the recognition of necessity becomes a freedom where human will and human powers are taken to be self-referential and unfettered by anything but its own freely decided will. Such a notion of freedom is not based on a recognition of the real conditions of life, on our being conditioned by nature of which we are not only a part but which is there inside of us. We will dwell on this point further in the last chapter.

Marx however has a larger theory about the manner in which the beings of nature live and act in nature as a whole. For he refers to objective being of nature and that a non-objective being is a non-being. It is here that we can see that Marx even as early as *EPM* refers to an expressly materialist ontology which is thoroughly relational and hence anticipates some of the more important themes of the ecological mode of thinking.

Thus we are here trying to show that human labour is a part of deep nature as well as of surface nature and that it emerges in the course of the subject-object processes in nature. There is, therefore, nothing intrinsically unnatural about it. A position which recognises that human labour is derived from deep nature allows us to take account of our embeddedness in nature. This leads us to argue that there is an internal limit to our actions, for our own power is not independent of the other beings of nature. We thus come to Marx's definition of an objective being which needs other objective beings to be itself an objective being.⁶⁶

The question then is whether it is enough that in being human our act as moral agents is sufficient to contain our actions within certain limits given by nature. Some

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⁶⁶ See *EPM* and our discussion above.
reform environmentalists tend to argue that in being human we already have moral limits imposed in how far we can go in transforming nature in an unecological manner and thus destroying the conditions of life on earth; this means that as humans we can recognize the limits given in objective nature, for to be able to do so is it seems part of being human.

This limit in external nature exists precisely since our own internal human qualities are qualities we possess as a natural being. This of course does not mean that this limit is given once and for all as a constant. The point is that external natural limits are not given independently of social constructions and the impact of our own actions on nature. After all, being human and what it really means to be so itself is a function of our productive activity on nature; or, as Marx says, "the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations."67 It is here that the some of the basic presuppositions of liberal humanism of the type defended by Luc Ferry have to be exposed and the dichotomies floated by deep ecologists challenged.68

The liberal humanist position which seeks to distinguish humans from nature on the basis of human autonomy but without taking account of human labour as transformative activity which itself has led to the emergence of the capacity for human labour, of self-reflective rational activity in us, ultimately commits us to a position whereby human autonomy and freedom are treated in the most abstract ahistorical manner. This fetishization of human autonomy and freedom abstracted from our character as beings of nature drains these concepts of any substantive content thereby making it extremely difficult to, for example, draw any positive relation between a democracy and an ecological society. Thus, with Castoriadis, we need to pertinently raise the question: "What is the 'object' of autonomous self-institution?" And further, "we will autonomy both for itself and in order to be able to do."69 Thus freedom should be not just freedom from but also freedom to do something, thereby giving a positive content to freedom.

67 Marx, "Theses on Feuerbach", in Marx-Engels, Selected Works, Moscow, 1977, p. 29.
68 Ferry, Jean Luc and Renaut, Alain. "From the Rights of Man to the Republican Idea". Chicago, 1992. Also Jean Luc Ferry, "The New Ecological Order". See below chapter 4.
In this chapter we are going to see how our conception of philosophical naturalism as developed in the previous chapter, is useful in understanding the character of human labour and reconciling it with our emphasis on human autonomy, negativity in nature and production of nature. For only then can we establish the need for a naturalist ontology which, in recognizing the naturalist basis of human autonomy, makes us responsible not only towards the limits imposed by external nature but compels us to take account of our own internal ontologically given responsibility towards nature, that is, the limit imposed by internal nature within us.

It is in fact very important to take the notion of negativity in nature seriously because it acts as a countervailing force against a possible arrogant productionism which the notion of production of nature may betray. This notion of negativity in nature then provides the natural basis for human labour. Failure to take account of this negativity in nature opens the way to a productionism whereby the role of non-human agents is completely overlooked. Haraway writes, "the preoccupation with productionism that has characterized so much parochial Western discourse and practice seems to have hypertrophied into something quite marvelous: the whole world is remade in the image of commodity production".70 Countering this productionism, she points out the role of non-human agents or forces in bringing about the particular nature we inhabit: "in its scientific embodiments as well as in other forms nature is made, but not entirely by humans; it is a co-construction among humans and non-humans".71

The role of non-human agents in production was something which Marx took account of in most of his writings. Marx's definition of human labour as a force of nature acting on nature makes it clear that it is nature and human labour that provide the necessary conditions for the existence of society. The production of nature thesis, negativity in nature, and the question of human autonomy all fit in quite well

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71 Ibid., p. 297.
if we adopt Marx's understanding of human labour as metabolism between humans and nature.  

The point is that the production of nature has to result in the rational metabolism between humans and nature. This rational metabolism will come about if we look at human labour as a force of nature acting on nature. That is of course trying to suggest that we must uphold a monist naturalist position. The relationship between deep nature in us as well as in external nature and the dependence on it of surface nature and, more importantly, the continuum between deep nature in humans and in nature, meant that we need a society and a production of nature which takes account of this fact. Human autonomy has to recognize this ontological relationship between humans and nature if it is to result in a production of nature that is ecologically sustainable.

For Marx, Foster writes, "human production depends principally on the organization of labour power but the labour itself is, in its essence, nothing but the metabolic process between human beings and nature. Labour can only work as nature does (as a vital natural force or as transformed energy), by changing the form of matter." This metabolism between humans and nature is where the negativity in nature gets manifest in our relationship with nature, but the second organization of labour determines the particular production of nature we bring about.

### 2.3 conscious life-activity and production in general

One of the main points I am trying to make here is that the capitalist production of nature need not necessarily be universally uneccological and destructive of nature,

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72 It is by contrasting such a notion of human labour with the way capitalism treats it as mere abstract labour that we can appreciate the root cause of ecological destruction under capitalism.

73 John Bellamy Foster, "Marx's Ecological Value Analysis", *Monthly Review*, 52, 4 Sep. 2000, p. 41. Thus Marx wrote, "no natural laws can be done away with, but what can change, in historically different circumstances, is only the form in which these laws operate" (quoted in Harvey, "Justice, Nature and the Geography of Difference", p. 192). Gaining mastery over nature by making use of the laws of nature need not in itself, strictly speaking, lead to destruction of nature. Thus responding to Bacon's famous dictum that "nature is only overcome by obeying her", Marx replied that for capitalism the theoretical discovery of nature's "autonomous laws appears merely as a ruse so as to subjugate it under human needs, whether as an object of consumption or a means of production" (quoted in John Bellamy Foster, "Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology", *American Journal of Sociology*, Vol. 105, No.2, Sept. 1999, p. 388).
as we shall see in the next chapter. The claim that capitalism is always and invariably unecological, it needs to be emphasized, is ultimately tantamount to subscribing to and upholding the society-nature dichotomy. This will run counter to the thesis of the production of nature itself. Nor is it true that left to natural relations, as in pre-capitalist society, the effects of society on nature will always be ecological. There are then two possibilities here. One, that even without the logic of value ecological destruction of nature might take place, for example in pre-capitalist societies. And secondly, even with the logic of value, that is, under capitalist production, ecological destruction need not necessarily take place in the sense that it is not a universal phenomenon.

This lack of universality in the unecological consequences of the production process indicates that it is not the production (labour process) process itself but its specific manifestations which is the cause of the such consequences. Human productive activity on nature is in itself a universal feature of human existence, what Marx calls production in general. This in itself, we argue here, is not the cause of ecological destruction for, even logically speaking, production in general does not exist. Production always takes place under certain given social relations and it is here, at this level, that we have to raise the question of the sources of ecological destruction.

It is true that even without the logic of value expansion the very operation of a social logic does lead to demands on nature which can be unecological - for example the use of money and the surplus extraction for a minority, the ruling class or the state bureaucracy as under the Asiatic mode of production. To my mind such an

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74 Ted Benton tries to distinguish between different types of labour processes based on the degree of intervention needed by labour in nature's processes. He argues that "Marx under-represents the significance of non-manipulable natural conditions of labour-processes and over-represents the role of human intentional transformative powers vis-à-vis nature" (quoted in Bruce Braun and Noel Castree, eds., "Remaking Reality: Nature at the Millenium", London and New York, 1998, p. 204). This distinction can be useful when discussing, say, the ecological impact of our productive activity on nature and the question of natural limits. The ability to see to what extent the processes of nature are themselves an advantage for us would mean that we need not be driven by the idea that we need to thoroughly transform nature for any and all production. However we have not made this distinction here since we are here primarily concerned about labour as a force and its basis in our character as a natural being, something which Benton would also perhaps not object to.

75 On the notions of production in general and specific production see footnote 17 in Introduction.

76 See chapter 3, section 6.
exploration might make sense in the light of the prescription by ecologists to go back to earlier, purportedly more ecologically benign societies.

Hence we discuss what Marx called production in general as an important conceptual tool. But we do this after taking account of the nature and character of human labour so that we know that it is not the labour process in itself but the social relations within which it functions that are responsible for the particular unecological production of nature that we see under capitalism today. We will examine how the production process, in contradistinction to the labour process, is responsible for the different levels and scales at which the human metabolism with nature takes place with changing social relations. Such an approach will hopefully help us in deciphering the internal social mechanisms that lead to an unecological production of nature. We can also be in a position to better examine the type of societies visualized by ecologists according to both their historicity and internal mechanisms.

Significance of Marx's distinction between production in general and any specific production system

Marx's distinction between production in general and specific forms of production points towards two directions in our analysis here. If capitalist production does not everywhere and universally lead to ecological destruction, we must then show what is anti-ecological or unecological about it. Here again since we are arguing for going beyond a 'politics of nature', the unecological character of capitalist production cannot be understood as universally destructive society-nature metabolism. For we are arguing here not for the protection or preservation of any pristine 'nature' but for the production of nature which would definitely involve transformation of any given nature. And even a capitalist production of nature, at least at the localized level, can sometimes have an ecological fit with the ecosystem.

77 Refer Maurice Godelier, "Perspectives in Marxist Anthropology", Cambridge, 1977, on the distinction between production process and labour process.

78 This though has something to do with the character of concepts that are unable to fully grasp the specificities of any particular society, so that what is left out are those features that are more enduring and that apply to all modes of production - the reproduction of the material conditions of production and reproduction in society.
The point, however, is that capitalist production operates with an economic logic which is supposedly autonomous of society even as the political conditions for its existence are provided by the capitalist state. In the face of the logic of capital, accompanied by restricting the political domain so that people cannot participate and control the economy, society loses its autonomy to rationally and ecologically organize its metabolism with nature. The way out of this does not lie in the piecemeal approach of imposing regulations and eco-friendly restrictions on the market but in abolishing the very logic of the free market. This is because the problem is not merely with the lack of control over capitalism's economic logic but the logic itself is the problem: it is by definition uncontrollable. In any case, the law of value cannot be understood in isolation from the overall social relations of production, so that its abolition calls for a wider socio-economic transformation of society.

For, as we shall see in Chapter 4, the autonomy or free rein of the economic or of the law of value is a condition for the existence of the capitalist state. For, only by placing the economic beyond the reach of the political and thereby emptying the political of any real content, can the modern bourgeois state provide for a political space for the citizens who have equal but formal political rights but no control over the process of society's metabolism with nature.

The problem of the ecological production of nature is, therefore, a political question as the economic sphere where the ecological destruction of nature primarily takes place under capitalism is in actual fact as well as in theory kept out of the purview of any rational plan or control by society which thereby loses its autonomy. Here again what we are trying to suggest is that ecological destruction is not a phenomenon arising from the production of nature itself but from a production which takes place according to a logic whose very operation is a product of the loss of society's autonomous powers to control society's metabolism with nature.79

Thus capitalist production of nature is not universally destructive: that is, it is not production of nature which is itself ecologically destructive, but the capitalist

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79 In sociological terms this loss of autonomy was accompanied under capitalism by the expropriation of the producers from the conditions of production.
Chapter 2 our unity with nature and human productive activity: labour’s separation from its inorganic conditions

conditions that render particular productions of nature ecologically destructive. The transformation of these conditions so that the production of nature can in fact lead to ecological outcomes is then a political question for such outcomes can become possible only through the attainment of autonomous powers by society over the process of its metabolism with nature, and in the case of capitalist production, over the process of the production of nature itself.

An important epistemological point about our statement that capitalist production of nature is not universally destructive need to be clarified here. We are able to make this statement since the term capitalist production of nature, by virtue of the very character of concepts, refers to more than just the capitalist production of nature since each 'production of nature' always also refers to something which is embedded in the general conditions of production as given by nature and the environment, something pre-given.

That is, production presupposes certain processes of nature that are given and to which humans may adapt in roughly the same manner even under different social systems. Thus there is always something which is not specifically capitalist in the capitalist system of production. When we are, therefore, saying that the capitalist production of nature is not universally destructive we are in a way hinting at the inadequacy of our concepts that always fall short of fully taking account of the non-identical or the non-conceptual. For all that, however, concepts are indispensable not only because they are part of human language without which we cannot understand reality but also because they help us think of the world in a particular manner.

A production of nature is capitalist since we organize the reality we experience and observe in that way, in a capitalist way. But we call it capitalist also because we have the concept capitalist with us. However, in practice, a concept is not used for only the identical part and the not the non-identical: it is the identical and the non-

80 See Theodor Adorno, “Negative Dialectics”.
81 Maurice Godelier, for example, points out that “a mode of production is a reality which requires to be reconstructed, to be reproduced in thought, in the very process of scientific knowledge” (Godelier, “Perspectives in Marxist Anthropology”, p. 24).
our unity with nature

identical that jointly give meaning to the concept.\textsuperscript{82} In a way, it is through the concept that the identical and the non-identical gets related.\textsuperscript{83} However the debate is not really between different concepts or 'language games' but treating concepts as part of a reality which constitutes them and gets constituted in turn.

In any case, the use of concepts is not so extremely fluid and formless, not therefore self-constitutively arbitrary. Rorty for one seems to be claiming such a self-constitutive world for the concepts and vocabulary we use.\textsuperscript{84} However, as Nietzsche points out, the process of knowledge formation and representation is always reflective of uniformity and contingency of the real world of existence, a result of our species-character: "In order for a particular species to maintain itself and increase its power, its conception of reality must comprehend enough of the calculable and constant for it to base a scheme of behaviour on it. The utility of preservation - not some abstract-theoretical need not to be deceived - stands as the motive behind the development of the organs of knowledge".\textsuperscript{85}

Coming back to our argument about the ecological production of nature what we find is that the real problem is not, as we pointed out above, at the level of production in general but in the specific conditions of capitalist production. We will examine this point in greater detail in chapter 3. In the next section of this chapter it will be seen that pre-capitalist societies not only did not have the conditions for the ecological production of nature, something which has come about with capitalism for the first time in history, but also that the social-economic conditions for an unecological metabolism with nature already existed. In particular we will see that the existence of a class which expropriated the surplus production of the producers and made further demands on their produce meant that production, and hence the

\textsuperscript{82} This also means that human distinctiveness from nature, that is the non-identical, cannot be made sense of without recognizing at the same time what is identical between humans and nature, that is our character as a natural being.

\textsuperscript{83} This is why Adorno always reminded us of the importance of the concept of totality which includes the non-identical. See his "Negative Dialectics".

\textsuperscript{84} In his clear style he writes that "interesting philosophy" is "implicitly or explicitly a contest between an entrenched vocabulary which has become a nuisance and a half-formed new vocabulary which vaguely promises new things" ( Richard Rorty, "Contingency, Irony, and Solidarity", Cambridge, 1989, p. 9 ).

exploitation of the nature, could always go beyond the bounds of the ecological, that is, be unecological.

What we should note here is that the distinction which Marx made between production in general and capitalist production and the latter as a specific case of the former, makes it possible for us to approach ecology as a political question without, however, completely rejecting the Enlightenment tradition of politics, as we will see in Chapter 4.

This distinction also points us towards another direction. And this is that production in general is a universal feature of human existence manifest in the labour process through which humans engage in productive activity with nature. Hence we can go back to the earliest societies and still examine the labour process as the process of metabolism with nature. It is then extremely fruitful to understand the labour process in itself before going into the specific social relations within which it always takes place and hence affects the human-nature metabolism leading to consequences that can be unecological.

The question of politics really comes to the fore when we consider the overall conditions within which the labour process takes place under capitalism - from the general to the specific. This is where as we shall see it is necessary to go "from abstract determinations by way of thinking to the reproduction of the concrete." If the labour process is not by itself intrinsically unecological, given that it is itself a force of nature acting on nature, then we must look into the concrete for the sources of ecological destruction. This is what we will do in the next section of this chapter for pre-capitalist societies and in the next chapter for capitalist production.

**Question of ecological politics**

What we will see is that for an ecological society, the labour process must, in its functioning, be able to take cognizance of our ontological dependence on nature and also that the human autonomous powers manifest in it must be allowed to fructify so that it can take account of "both the internal theoretical needs of ecology and the

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social demands that inform our planned interactions with nature". The general universal feature of human existence, that is the labour process, has to take place under social relations of production where the production of the socio-natural conditions for society's ecological metabolism with nature can freely become one of the principal driving forces in society's own reproduction. The logic of social production must be conscious of its ontological rootedness in nature so that it knows that society, at its most fundamental level, expresses the interrelation, or better, the interchange of energy, between humans and nature.

But this means that the labour process has to look into the conditions of its own sustenance. That is, society's metabolism with nature must no longer be subject to the alienated logic of the self-expansion of value, but should be democratically decided upon by society itself. This means of course that the capitalist production of nature does not have anything natural about it, that through the appropriation of the means of production from the producers, capitalist society creates, on the one hand, an "economy" with a logic of its own and, on the other, a politics which is detached from any real control over economy, where society's metabolism with nature primarily takes place. The capitalist production of nature thrives on this dichotomy between the political and the economic. Ecological politics has to dissolve this dichotomy so that society's metabolism with nature is no longer the sphere of alienated power of the economy but is instead rationally and democratically controlled by society as a whole.

But in order to bring about society's control over its metabolism with nature we must first be able to reveal the political nature of capitalist production itself. This would in turn involve going back to the distinction Marx made between production in general and the specific conditions of capitalist production. Ecology therefore has to concern itself with the expansion of the political over the economy, not the

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88 Castoriadis says that capitalist production is wholly political: a position which might then imply that there is nothing in capitalist production which can be preserved in any future ecological society, that, for example, capitalist production is wholly unecological. More on this later. See interview with Castoriadis in Peter Osborne, ed., "A Critical Sense: Interviews with Intellectuals".
The logic of value expansion operates but one where it has been effectively abandoned to be replaced by a society of associated producers.\textsuperscript{89}

Under capitalist production the specific features of this production system are often taken to be universal features of all societies, in the sense that those features are taken to have existed in one form or the other in all past societies. It is the task of ecology to show that ecological destruction arises from the specific conditions of capitalist production, and not from mere belief in Prometheanism and the Baconian drive for the "domination of nature". We will see in the next chapter however that besides the specific social relations of production, the other source of ecological destruction emanates from the unintended consequences of human productive activity.

In recognizing therefore the universality of the human labour process through which any human metabolism with nature takes place, we see that any credible ecological politics has to ensure that the labour process should operate in conditions that take cognizance of its own ontological dependence on nature, that it is a force of nature acting on nature, and that the prevailing social relations of production and politics should allow for a labour process which takes account of the complexity of society-nature interactions from the standpoint of an ecological metabolism with nature.

\textbf{2.4 from production in general to specific production: Social relations of production and changing human-nature metabolism}

Human metabolism with nature takes place everywhere without exception through the mediation of human labour. What is essentially a universal mode of metabolism between humans and nature, however, assumes specific forms, according to the social relations prevailing in society. But what is universal but

\textsuperscript{89} One has to of course think about whether at all or to what extent it is possible to do away with the market or any or all forms of distribution and exchange which involves mediation by some impersonal mechanism, something which might be necessitated in any post-capitalist society by the sheer scale, volume and resulting complexity of the social production and consumption of goods and services. The mediation of impersonal mechanisms means allowing for a high level of uncertainty and unintended consequences of the actions of social actors. This does not augur well for a society whose main ground for being ecological is on the basis of rational control over society's metabolism over nature.
supposed to be concrete for any specific social formation, is rendered abstract under capitalism. The specific form which human labour assumes under capitalism is abstract labour and the process of the actual human-nature metabolism is screened off our view by the intervening reified structures and the operation of the law of value.

Thus we are going to show the true character of human labour which however is obfuscated under capitalism leading to not only a possible destructive production of nature but also primarily a failure to understand that we need a society which treats labour as such as a force of nature, and not as anything abstract. The next Chapter will show how treating labour as the repository of abstract value leads to a production of nature which is as abstracted from the ecological needs of our society. The point is to have a production of nature which takes account of the fact that labour represents the process of metabolism between humans and nature. This question as we shall see is a very political question and it reminds us that ultimately humans have to use their rational discretion in order to produce an ecologically sensitive nature.

Of course the process of human-nature metabolism is always mediated by social relations among men that come about as a result of the specific manner in which they organize their productive activity. The form this metabolism takes is clearly not a mere consequence of isolated humans who have come together in a Hobbesian fashion to adapt to their natural surroundings for their overall good. As we shall see in the next chapter, the structures of the built environment, of modern science and industry, that go to make up the form of human-nature metabolism is a function of the social relations of production. More precisely, under capitalism, the built environment or the ecosystem is the consequence of the flow of capital which instantiates an specific organization of space: land, water, forests, human settlements, etc.

Thus, the manner in which nature is owned and treated at present and the resultant forms of extraction of surplus from production determines the character of our metabolism with it and, to a very large extent, its ecological consequences also.
This particular metabolism with nature supports in turn corresponding social relations of production which gave rise to it in the first place.

The surplus extracted from production can be either the share extracted by a ruling or managerial class for direct consumption as in pre-capitalist societies or something which is put up for profit through exchange in the free market and hence guided by something other than the consumption by the ruling class, for example, the objective functioning of the free market. In the former case, however, where a ruling class directly collects the surplus in the form of taxes or rent so that production is not only for direct consumption but for surplus as well, the natural economy is not rightaway shattered so long as the surplus in the form of taxes or rent is still paid in kind. Of course, once you have a money economy, it is generally the case that the natural economy can no longer be maintained.  

In the latter case of a capitalist economy, the character of human labour as metabolism between humans and nature is veiled by its form as abstract labour, mediating between nature's exploitation as the repository of exchange value and the abstract operation of the law of value. Once then production is done not just for direct consumption but for the surplus extraction by the ruling class which is beyond the consumption requirements of this class, we find that the rational metabolism between humans and nature gets severely hampered. (It is of course true that even in a society without a ruling class and where production was meant for direct consumption with no surplus extraction ecological destruction did take place. This was however the result of mismanagement of the intercourse with nature not because of treating nature as the repository of some surplus extraction over and above our needs and requirements. This suggests that besides the source emanating from the social process of metabolism, the other source of ecological destruction is to be located in the character of human productive activity itself.  

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90 As Marx writes, “in Asia, on the other hand, the fact that state taxes are chiefly composed of rents payable in kind, depends on conditions of production that are reproduced with the regularity of natural phenomena. And this mode of payment tends in turn to maintain the ancient form of production” (quoted in Ferenc Tokei, "Essays on the Asiatic Mode of Production", Budapest, 1979, p. 16).

91 See section on the sources of ecological destruction, chapter 4.
The coming up of a ruling or managerial class who principally lived away from the fields in usually urban areas meant the process of recycling on which the maintenance of the fertility of the soil is based was not possible over a period of time. Besides, land and other natural resources started being looked at as perpetually productive without regard to the requirements of the soil. Capitalist development accentuated this process. In short, nothing remained of the natural economy.

Another change took place under capitalism. While the above reasons for environmental degradation remained, the relationship with nature underwent a transformation. Nature was no longer the repository of use values but of exchange values. The objects of nature were no longer taken for what they were, as use values, but as objects that will fetch exchange value. Of course the moment there was private property on land, nature had become internal to social relations.

However nature was then important as use-value, not as exchange value, and hence it always remained outside as nature on which we are dependent for our consumption requirements and also for the payment of taxes or rent, etc. Capitalism however converted nature into something which possesses exchange value so the link with consumption was no longer direct. The exploitation of nature was now according to the movement of the law of value. Thus human autonomy as the exercise of our rational metabolism with nature is severely constricted. Our metabolism with nature is at the level of an internal relation with a different component of the system as even nature is now the repository of exchange values. Once it is internal to the social whole it is not possible to really talk about it as though it is something external to society or even pose it as something which is under the threat of being destroyed.

What happens then is that the flow of different forms of capital creates its own corresponding ecosystem. *Humans basically produce their own nature.* The ecological production of nature has to be the result of the exercise of human autonomy in the production of use-values and not exchange values. That will be possible only if we treat nature not as the property of individuals but as what Marx
calls permanent communal property whereby the producers stand as proprietors of the land and soil, of earth.92

2.5 conclusion

Starting from ontological unity between humans and nature in the first chapter we have here gone on to cover the social unity between inner human nature and outer nature in this chapter. We have examined how it is through social cooperative labour, through activity that humans come to distinguish themselves from nature. Human labour being social, collective labour invariably gives rise to a particular social logic, with its inner dynamic. This social logic is however the logic of society's metabolism with nature.

Starting, in the previous chapter, from our ontological unity with nature at the level of deep nature we showed, in this chapter, how humans engage in conscious life-activity. This conscious life-activity is nothing but collective, cooperative activity, labour by humans. Thus the process of labour was what mediated society's metabolism with nature. However, as Marx had pointed out, this activity soon gives rise to its own conditions: for social, collective labour inevitably leads to social relations among humans. Human activity henceforth takes place as it were inside the framework provided by these social relations.

Human activity therefore does not take place according to its own pure logic but according to the logic of the social relations it gives rise to. Hence from conscious life-activity we went on to discuss production in general and then specific production. We have found the distinction between production in general and specific production extremely useful in order to be able to distinguish between

i. the imperative of collective human labour in general in any society and the (ecological) problems they generate and

92 Marx for example pointed out that under capitalism the worker is no longer the proprietor nor does the proprietor work: "the relation of labour to capital or to the objective conditions of labour as capital, presupposes an historical process that dissolves the different forms in which the labourer is a proprietor or the proprietor works". Capitalist wage labour tore off the worker from the natural conditions of his existence. The point of communal property is to enable the worker, in fact society as a whole, to relate to nature as its own and thereby be aware of its ontological unity with nature. (Marx, in Marx and Engels, Collected Works, Vol. 28(Grundisse), p. 421).
ii. the specific social forms in which this activity takes place and the problems they create that emanate not from any given inevitability of human productive activity in itself but from the given production and social relations within which this activity is taking place.

Based on this distinction we can identify two sources of ecological destruction. One which is related to human activity as such, from the very fact that we have to struggle with nature for our survival. This struggle with nature involves major transformation of nature which might be harmful to life as such in the long run. These are the unintended consequences of our activity on nature that can be ecologically destructive of the life-sustaining capacities of nature. This activity of ours however is part of our very being, our character as a natural being, as part of deep nature. Since this activity is a universal feature of all human societies we associate this source of ecological destruction with production in general.

The other source of ecological destruction springs from the social logic given by the social relations of production and which dictates society's metabolism with nature. This logic is self-serving and independent of the subjective wishes of the economic actors, particularly, as we shall see in the next chapter, under capitalism. This logic is part of specific production which we have discussed above and hence it is specific to the particular society and its social relations. But what is common to this logic in all societies is that the factors determining it have nothing to do with the transformation of nature in sustainable ways: the overwhelming factor underlying the logic is the generation of surplus and its appropriation in private hands. This usually means that society's metabolism with nature becomes highly unecological.

It is this second source of ecological destruction which we will explore in some detail in the next chapter. But as seen above, as conscious human life activity develops further from the level of our existence as a natural being, largely within the determinations of nature, into social production, society develops its own logic which then guides our metabolism with nature. This logic arises from the specific production conditions and social relations. But since this logic is driven by the accumulation and appropriation of surplus in private hands it inaugurates the separation of society from the inorganic conditions of production. A dichotomy
between society and nature is strongly posited by the operation of this social logic. In the next chapter this logic of separation will be examined in greater detail.

In our discussion above we also pointed out how the use value of a product has the element of the non-identical while the exchange value has the tendency to homogenize and paint things into their own identities. We also noted how the process of the self-expansion of value which is the logic of capital, draws all specific use-values into the process of production only as the abstract value. This homogenization of natural qualities and specific use-values under capitalism is, as we noted above, reflected in identitarian thinking. Referring to Adorno, we then noted that an ecological society must do away with identitarian thinking and adopt non-identitarian thinking.

This is important since an ecological society cannot possibly be based on sameness; it must be able to take account of nature's diversity and variety. But only this is not enough. For we cannot understand diversity without unity or commonality. Hence we emphasized on the need to take account of both the identical and the non-identical. And here we referred to Marx's materialism in the "Economic and Philosophic Manuscripts", or EPM.

We found that Marx's conception of "man's" relationship with nature can also be understood in terms of non-identitarian thinking. In particular, we saw that human distinctiveness from nature, that is the non-identical, cannot be made sense of without recognizing at the same time what is identical between humans and nature. Radical ecology often ignores the non-identical between humans and nature, thereby underplaying human distinctiveness from nature and calling for a retreat back to nature. Reform environmentalism on the other hand does not consider what is identical to both humans and nature as basic to any understanding of human-nature relationship.

The point of non-identitarian thinking is however to consider the identical and the non-identical as part of one unity or totality. Ecological thinking must be able to see that humans are part of nature and yet not part of it. Thus when we drew the distinction between humans and nature above on the basis of human activity, labour as part of a manifestation of our character as a natural being, we were making sure
that our notion of human distinctiveness does not end up denying what Adorno and
Horkheimer have called nature in us. So we saw that no matter how distinct
humans might be from nature the basic unity with nature could not be ignored. Such
an ecological thinking is crucial for any effective ecological politics as we shall see
in chapter 4.

An ecological society should therefore be able to take account of the non-
identical inherent in use value. This means that any democracy should always be
able to take into account what is not there, what is left out, should be able to view
things in their many-sidedness and possible unintended consequences. And this
manner of thinking not only then takes account of the source of ecological
destruction emanating from an independent social logic but can also more
effectively approach the problem of ecological destruction arising from the
unintended consequences of human productive activity.

But for this as we shall discuss in chapter 4 the dichotomy between the political
and the so-called economic which is perpetually engendered in ever-new forms by
the capitalist system of production must go. But this dichotomy should not go again
to the other extreme where the political comes to dominate everything leading to a
situation like that of China under Mao which for all its mass mobilization and
resultant emancipation could not take account of the long-term impact of production
on the processes of nature.

Hence the political which we are talking about here is not just limited to the
search for a self-autonomous society but also where the cognitive dimension and the
constancy of knowledge are not ignored. An autonomous society which
democratically decides all its actions need not devalue knowledge as just a social
construct, and hence always dispensable in favour of socially constructed, ethnically
relativized knowledge or if you please belief-systems.

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93 See Theodor Adorno and Max Horkheimer, "The Dialectic of Enlightenment".