



v.14, n.1, 2017
Setembro-Dezembro
Dossiê 150, 100, 50

MARX, ENGELS AND ECOLOGY [MARX, ENGELS E A ECOLOGIA]

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RESUMO ABSTRACT

Esta é um breve levantamento sobre os pontos de vista de Marx e Engels sobre a ecologia, da perspectiva de sua relevância para o ecossocialismo do século XXI. Embora existam algumas limitações sérias na maneira como ambos consideram o “desenvolvimento das forças produtivas”, há intuições poderosas na discussão sobre as consequências destrutivas da expansão capitalista para o meio ambiente - uma expansão que gera uma ruptura metabólica desastrosa nas trocas entre as sociedades humanas e natureza. Alguns ecologistas marxistas distinguem entre “ecossocialistas de primeira fase” - que acreditam que as análises de Marx sobre as questões ecológicas são muito incompletas e datadas para serem de relevância real atualmente - e “ecossocialistas de segunda etapa”, que enfatizam o significado metodológico contemporâneo da crítica ecológica do capitalismo de Marx. Este artigo tenta argumentar por uma terceira posição (que provavelmente poderia ser aceita por várias pessoas dos dois grupos acima): a discussão de Marx e Engels sobre as questões ecológicas são incompletas e datadas, mas, apesar dessas falhas, têm relevância e significado metodológico atualmente.

This is a brief survey of Marx and Engels' views on ecology, from the viewpoint of their relevance for 21th Century ecosocialism. While there are some serious limitations in the way both consider the “development of productive forces”, there are powerfull insights in their discussion of the destructive consequences of capitalist expansion for the environment - an expansion that generates a disastrous metabolic rift in the exchanges between human societies and nature. Some ecological Marxists distinguish between “first stage ecosocialists” - who believe that Marx analyses on ecological issues are too incomplete and dated to be of real relevance today - and “second stage ecosocialists” that emphasize the contemporary methodological significance of Marx's ecological critique of capitalism. This paper tries to argue for a third position (which probably could be accepted by several people of the two groups above): Marx and Engels discussion on ecological issues is incomplete and dated, but inspite these shortcomings, it has real relevance and methodological significance today.

PALAVRAS-CHAVE KEYWORDS

Ecossocialismo. Marx. Engels

Ecosocialism. Marx. Engels

While mainstream ecology has been dismissive of Marx, serious research in the last decades has shown that Marx and Engels developed some very important insights on ecological issues. The pioneers have been James O'Connor and the Journal *Capitalism, Nature and Socialism*, but in the recent years the most systematic and thorough investigations in this respect are have been developed by John Bellamy Foster and his friends from *Monthly Review*.

Does this mean that ecology occupies a central place in the Marxian theoretical dispositive ? I don't think so, but this doesn't result from some particular shortcoming : it simply reflects the fact that the ecological crisis in the 19th century was just beginning and was far from being as catastrophic as in our days. As I will try to show below, there are also some problems in their discussion of the «development of productive forces» and some internal tensions in their understanding of socialism. Nevertheless, one can find in their writings a series of arguments and concepts that are essential to understand the connection between capitalism and the destruction of the natural environment, as well as to define a social-ecological alternative to the prevailing system.

Let us begin by discussing certain criticisms addressed by mainstream ecologists against Marx and Engels.

1) «The founders of historical materialism saw human beings as in permanent struggle with nature. They had a Promethen view of humanity as the master and conqueror of nature.»

Indeed, there are passages in Marx and Engels writings which can be interpreted in this «Promethean» sense. For instance, in the *Communist Manifesto* (1848) when they celebrate the achievements of the bourgeoisie: «Subjugation of Nature's forces to man, machinery, application of chemistry to industry and agriculture (...) clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground» (Marx, Engels, 1975 b, 6, 489).

John Bellamy Foster criticizes my use of the term «Prometheanism» for Marx and Engels. I agree that this is an inadequate generalization, but I cannot follow him in his «non-Promethean» reading of this specific passage in the Manifesto... (Foster, 2001, 135-140) In a recent discussion on this passage of the *Manifesto*, Kohei Saito acknowledges that «Löwy's reading of Marx's alleged 'Prometheanism' might seem hard to refute here (...) but can hardly be generalized across Marx's entire career (...)» (Saito, 2016, 38). Agreed !

Indeed, it would be a serious mistake to conclude that these lines represent his general outlook on the issue of humanity's relations to the natural world. As Joel Kovel convincingly argues - against Ted Benton, Rainer Grundmann and others - a close reading of Marx would clearly show that he was *not* a Promethean, i.e. « an unreconstructed apostle of Enlightenment in its rankest industrial form» (Kovel, 2007, 231.)

What is striking in Marx's early writings is his outspoken *naturalism*, his vision of the human being as a natural one, inseparable from his natural environment. For instance, in his *Manuscripts of 1844*, Marx insists : «That man's physical and spiritual life is linked to



nature means simply that nature is linked to itself, for man is part of nature». True, Marx is a humanist thinker, but he defines communism as a form of humanism that is, «at the same time, an accomplished naturalism, as well as the genuine *solution* of the conflict between man and nature.» Thanks to the positive abolition of private property, human society will become «the perfected unity in essence of man with nature, the true resurrection of nature, the realized naturalism of man and the realized humanism of nature» (Marx, 1975 a, 348-349.)

These passages do not deal directly with the ecological issues and the threats to the environment, but the logic of this sort of naturalism permits an approach of the man/nature relationship which is not one-sided.

This attitude is not limited to their early writings. One can find a very similar naturalist approach in a well known writing by Friedrich Engels from 1876 on «The Part Played by Labor in the Transition from Ape to Man». Here the naturalist stance becomes the foundation for a radical critique of the predatory forms of human relationship to the environment :

Let us not, however, flatter ourselves overmuch on account of our human conquest of nature. For each such conquest takes its revenge on us. (...) The people who, in Mesopotamia, Greece, Asia Minor, and elsewhere, destroyed the forests to obtain cultivable land, never dreamt that they were laying the basis for the present devastated condition of these countries, by removing along with the forests the collecting centers and reservoirs of moisture. When, on the southern slopes of the mountains, the Italians of the Alps used up the pine forests so carefully cherished on the northern slopes, they had no inkling that by doing so they were cutting at the roots of the dairy industry of their region. (...) Thus at every step we are reminded that we by no means rule over nature like a conqueror over a foreign people, like someone standing outside nature - but that we, with flesh, blood and brain, belong to nature, and exist in its midst, and that all our mastery consists in the fact that we have the advantage of all other beings of being able to know and correctly apply its laws. (Engels, 1964, 291-292)

For sure, this passage has a very general character - it does not deal with the capitalist mode of production but with older civilizations - but it is nevertheless an ecological argument of an impressive and surprising modernity, both by its critique of the «conquering» attitude of human societies and, specifically, by drawing attention to the disasters resulting from deforestation.

2) According to many ecologists, «Marx, following David Ricardo, sees human labour as the origin of all value and all wealth, neglecting the contribution of nature.»

This criticism simply results from a misunderstanding : Marx uses the labour-value theory to explain the origin of *exchange value*, in the framework of the capitalist system. Nature, however, participates in the constitution of real wealth, which is not the exchange-value, but the *use-value*. This argument is explicitly presented by Marx in his *Critique of the Gotha Programm* (1875), against the ideas of Ferdinand Lassalle and his followers in the



German labour movement : «Labour is not *the source (die Quelle)* of all wealth. Nature is as much the source of use-values (*Gebrauchswerte*) (which are, after all, the real wealth !) as labour, which is itself nothing but the expression of a natural force, human labour force» (Marx, 1965, 15).

3) Many ecologists accuse Marx and Engels of «*productivism*». Is this accusation justified ?

No, in so far as nobody denounced as much as Marx the capitalist logic of production for production : the accumulation of capital, wealth and commodities as an aim in itself. The fundamental idea of a socialist economy - in contrast to its miserable bureaucratic caricatures - is one of producing *use-values*, goods which are necessary for the satisfaction of human needs. Moreover, the main importance of technical progress for Marx was not the infinite growth of goods («having») but the *reduction of the labour journey* and the increase of free time («being»). The opposition between «having» and «being» is often discussed in the *Manuscripts of 1844*. In *Czpital*, vol. III, Marx emphasizes free time as the foundation of the socialist «Kingdom of Freedom» (Marx, 1968, III, 828). As Paul Burkett has perceptively shown, Marx's emphasis on communist self-development, on free time for artistic, erotic or intellectual activities - in contrast to the capitalist obsession with the consumption of more and more material goods - leads to a decisive reduction of the pressure of production on the natural environment (Burkett, 2009, 329) .

However, it is true that one can find in Marx and Engels - and even more in the dominant Marxist currents that followed - a rather un-critical stance toward the productive forces created by capital, and a tendency to see in the «developpement of productive forces» the main factor of human progress. The «canonical» text in this respect is the famous Preface to the *Contribution to the Critique of Political Economy* (1859), one of Marx's writings most loaded with a certain evolutionism, a belief in inevitable historical progress, and a unproblematic view of the existing productive forces : “ At a certain stage of their development, the material productive forces enter in contradiction with the existing relations of production (...). From being forms of development of the productive forces, these relations become fetters (*Fesseln*). Then opens an epoch of social revolution. (...) A social formation never disappears before all productive forces for which it is broad enough are developed (...)» (Marx, 1964, 9). In this well-known passage, productive forces created by capital appear as «neutral», and revolution has only the task of suppressing the relations of production which have become «fetters», «shackles», for a larger (unlimited ?) development of the productive forces. I will discuss this issue later.

The following passage from the *Grundrisse* is a good exemple of the sections of his work which bear witness to an uncritical admiration for the «civilizing action» of capitalist production, and it's overcoming of «nature-worship» as well as other «barriers and prejudices»:

Just as production founded on capital created universal industriousness



on one side (...) so does it create on the other side a system of general exploitation of the natural and human qualities (...). Thus capital creates the bourgeois society, and the universal appropriation of nature as well as of the social bond itself by the members of society. Hence the great civilizing action of capital; its production of a stage of society in comparison to which all earlier ones appear as mere *local developments* of humanity and as *nature-idolatry*. For the first time, nature becomes purely and object for humankind, purely a matter of utility; ceases to be recognized as a power for itself; and the theoretical discovery of its autonomous laws appears merely as a ruse so as to subject it under human needs, whether as an objet of consumption or as a means of production. In accordance to this tendency, capital drives beyond national barriers and prejudices, as much as beyond nature worship, as well as all traditional (...) old ways of life. (Marx, 1973, 539).¹

In contrast to this celebration of the «universal appropriation of nature» by capital, in several other writings, and in particular those concerning agriculture in the three volumes of *Capital*, one can perceive key elements for a truly ecological approach, through a radical criticism of the disastrous results of capitalist productivism. As John Bellamy Foster has show with great acumen, we can find in Marx writings a theory of the *metabolic rift* between human societies and nature, as a consequence of the destructive logic of capital (Foster, 2001, 155-167). Marx's starting point are the works of the German chemist and agronome Liebig, to whom he pays an admiring homage : «to have developed from the point of view of natural science the negative, i.e. destructive side of modern agriculture, is one of Liebig's immortal merits» (Marx, 1970, 638). The expression *Riss des Stoffwechsels*, metabolic rift - a break in the material exchanges between humanity and the environment - appears for instance in the chapter 47, «Genesis of the Capitalist Ground Rent» in *Capital* vol. 3 :

Large landed property reduces the agricultural population to an ever increasing minimum and confronts it with an ever growing industrial population crammed together in large towns; i this way it produces conditions that provçke an irreparable rift in the interdependent process of social metabolism, a metabolism prescribed by the natural laws of life itself. The result of this is a squandering of the vitality of the soil, which is carried by trade far beyond the bounds of a single country (Liebig). (...) Large scale industry and industrially pursued large-scale agriculture have the same effect. If they are originally distinguishehd by the fact that the former lays waste an ruins labour-power and thus the natural power of man, whereas the latter does the same to the natural power of the soil, they link up in the later course of development, since the industrial system applied to agriculture also enervates the workers there, while industry and trade for their part provide agriculture with the means of exhausting the soil. (Marx, 1981, 949-950).



¹ John Bellamy Foster has an interesting analysis of the *Grundrisse*, but I'm afraid I cannot agree with his interpretation of this concrete passage, which he considers «perhaps the most penetrating passage ever written on the dialectic of natural limits under capitalism» (Foster, 2010, 284-287).

As with most other examples which we will discuss below, Marx's attention focuses on agriculture and the problem of soil exhaustion, but he relates this issue to a more general principle : the rift in the metabolism - i.e. system of material exchanges (*Stoffwechsel*) between human societies and the environment - in contradiction with the «natural laws of life». It is interesting to note also two important suggestions, even if they are not developed by Marx : the cooperation between industry and agriculture in the rift process, and the extension of the destruction, thanks to international trade, on a global scale.

The issue of the metabolic rift can be found also in another well known passage of *Capital* vol. 1 : the conclusion of the chapter on great industry and agriculture. It is one of the most important writings of Marx, because it has a dialectical vision of the contradictions of «progress», and of its destructive consequences, under capitalist rule, for the natural environment :

Capitalist production (...) disturbs the metabolic interaction (*Stoffwechsel*) between man and the earth, i.e. prevents the return to the soil of its constituent elements consumed by man in the form of food and clothing; hence it hinders the operation of the eternal natural conditions for the lasting fertility of the soil. (...) All progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil; all progress in increasing fertility of the soil for a given time is a progress toward ruining the more long-lasting sources of fertility. The more a country, the United States of North America, for instance, develops itself on the basis of great industry, the more this process of destruction takes place quickly. Capitalist production, therefore, only develops the technique and the degree of combination of the social process of production by simultaneously undermining the original sources of all wealth - the soil and the worker. (Marx, 1970, 637-638)

Several elements are significant in this important passage :

1) first of all, the idea that *progress can be destructive*, a «progress» in the degradation and deterioration of the natural environment. The example chosen by Marx is limited - the loss of fertility by the soil - but it leads him to raise the larger issue of the attacks on nature, on the «eternal natural conditions», by capitalist production.

2) The exploitation and debasement of the workers and of nature are presented from a similar viewpoint, as result of the same predatory logic, the logic of capitalist great industry and industrial agriculture. This is a topic that often appears in *Capital*, for instance, in some sections of the chapter on the labour journey :

The limitation of industrial labour was dictated by the same necessity which led to the spreading of guano over England's fields. The same predatory greed (*Raubgier*) which on one side exhausts the soil, on the other attacks the roots of the nation's vital force (...) In its blind and boundless avidity, in its werewolf hunger (*Werwolfs-Heisshunger*) for surplus labour, capital



overrides not only the moral but also the physiological limits of the labour journey (...) It achieves its aim by reducing the life of the labourer, as a greedy landowner obtains greater rentability by exhausting the fertility of the soil. (Marx, 1968, I, 280-281).²

This direct association between the brutal capitalist exploitation of the proletariat and of the earth, lays the theoretical ground for a strategy articulating class struggle and ecological struggle, in a common fight against the domination of capital.

Marx is persuaded that «a rational agriculture is incompatible with the capitalist system (...) and needs either small famers working for themselves or the control of associated producers». There is a radical opposition between the immediatist logic of capital, and the possibility of a «rational» agriculture, based on a much longer temporality and in a sustainable and intergenerational perspective, which respects the natural environment. In volume 3 of *Capital*, he rejoices that even conservative chemists such as James Johnston recognize that private property is an «insurmountable barrier» for a really rational agriculture. The reason for this is that «the entire spirit of capitalist production, which is oriented towards the most immediate profits, stands in contradiction to agriculture, which has to concern itself with the whole gamut of permanent conditions of life required by the chain of human generations». A striking exemple of this contradiction, according to Marx, are the forests, which are only managed according to the general interest when they escape private property and are under public control (Marx, 1981, 216, 274).

The issue of forest destruction is, next to the exhaustion of soils, the main exemple of ecological disasters discussed by Marx and Engels. The issue is often discussed in *Capital* : agriculture and industry have been so active (*tätig*) in the destruction of forests, writes Marx, that anything that has been done for their conservation is insignificant in comparison (Marx, 1968, II, 247). The two phenomena - degradation of forests and of land - are in fact perceived as directly related. In a passage from *Dialectics of Nature*, Friedrich Engels mentions the destruction of the Cuban forests by the large Spanish coffee producers and the resulting desertification of the soils as a typical exemple of the short-sighted and predatory attitude towards nature of the «present mode of production», and its indifference for the long term harmful consequences of their actions for the natural environment (Engels, 1964, 185).

If Marx and Engels have a clear and coherent diagnosis of the destructive dynamics of capitalism for nature, the way they understood the socialist program in relation to the environment is not without internal tensions. On one side, as we saw above, we have several passages that seem to conceive socialist production as being simply the collective appropriation of the forces and means of production developed by capitalism : once suppressed the «shackles» represented by the capitalist relations of production - in particular the property relations - these forces will be able to develop without fetters. There seems to

² Guano (bird dung) was widely used as a fertilizer in the 19th century. For its exploitation as an exemple of ecological imperialism, see Foster, 2010, 352-372.



be here a sort of substantial continuity between the capitalist and the socialist productive apparatus, the issue for socialism being essentially the planned and rational collective administration of the material civilisation created by capital.

For instance, in the famous conclusion of the chapter on primitive accumulation in *Capital*, vol. 1, Marx emphasizes :

The monopoly of capital becomes a fetter (*Fessel*) for the mode of production which grew and prospered under it. The socialisation of labour and the centralisation of the means of production arrived at a point where they cannot any more remain in their capitalist husk (*Hülle*). This husk breaks into pieces. The hour of capitalist property has sound. (...) Capitalist production engenders its own negation with the necessity of a natural process. (Marx, 1968, I, 791).

This passage seems to leave untouched, in a socialist perspective, the whole productive process created by capitalism, challenging only the «husk» represented by private property (the «monopoly»), which became an obstacle for the economic progress.

The same «continuist» logic can be found in certain passages of the *Anti-Dühring*, where socialism is perceived as synonymous with the *unlimited* development of productive forces :

The expansive force of the means of production breaks the chains (*Bande*) which the capitalist mode of production had layed on them. Their liberation from these chains is the only condition required for an uninterrupted development of the productive forces, progressing always faster, and therefore, for a practically unlimited (*schrackenlosen*) growth of production itself. (Engels, 1959, 263).

In this sort of conception of socialism, there is little room for any concern with the natural limits of the planet...However, there are several other writings, both by Marx and Engels, where the ecological dimension of the socialist program is taken into account, thus laying the ground for an ecosocialist perspective.

In an interesting passage in the volume 1 of *Capital*, Marx suggests that in pre-capitalist societies, the metabolism between human communities and nature was assured «spontaneously» (*naturwüchsig*); in a socialist society (the word doesn't appear but it is clearly the meaning) the *Stoffwechsel* with nature will be re-established in a systematic and rational way (Marx, 1968, I, 528). Marx did not develop this intuition, but it is significant that he saw as the task of socialism to restore, in a new form, the spontaneous harmony with nature of pre-capitalist communities - a very relevant discussion in the context of indigenous social-ecological struggles in Latin America today...

In fact, Marx considered the preservation of natural conditions as an essential task
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of socialism. For instance, in volume 3 of *Capital*, he opposes to the capitalist logic in agriculture, based on brutal exploitation and exhaustion of the soil, a different logic, a socialist one, grounded on «the conscious and rational treatment of the land as permanent communal property» - a treatment that considers the soil not as the source for short-sighted profit, but as «the inalienable condition for the existence and reproduction of the chain of human generations». A few pages above, we find a very significant statement, which again directly associates the overcoming of private property with the preservation of nature :

From the standpoint of a higher socio-economic formation, the private property of particular individuals in the earth appears just as absurd as the private property of one man in other men. Even an entire society, a nation, or all simultaneously existing societies taken together, are not owners of the earth. They are simply its possessors, its beneficiaries, and have to bequeath it in an improved state to succeeding generations as *boni patres familais* (good heads of the household). (Marx, 1970, III, 911, 948-49).

In other words, Marx takes fully into account what Hans Jonas will call, much later, the *Principle Responsibility*, the obligation of each generation to respect the natural environment - the condition of existence for the future human generations.

Moreover, in the same volume 3 of *Capital*, Marx doesn't define socialism as human «subjugation» or domination over nature, but rather as the rational control of human material exchange with nature: in the sphere of material production, he writes, «the only possible liberty is the rational regulation, by the associated human beings, by the associated producers, of their metabolism with nature, which they control together instead of being dominated by it as a blind power» (Marx, 1968, III, 828).³ This proposition will be adopted, almost word by word, by Walter Benjamin, one of the first Marxists of the 20th century to raise this sort of questions : in 1928, in his book *One Way Street*, he denounced the idea of human domination of nature as «an imperialist doctrine», and proposed instead a new conception of the technique as «domination of the relationship between humanity and nature» (Benjamin, 1972, 147).

It would not be difficult to find in Marx and Engels' writings other examples of a real interest in the issue of the natural environment, event if they lacked a general and systematic reflection on it. In a recent very interesting article on «Marx on Ecology», Kohei Saito argues that Marx scientific-natural notebooks from the years after 1868 suggest that «Marx's critique of political economy, if completed, would have put a much stronger emphasis on the disturbance of the 'metabolic interaction' (*Stoffwechsel*) between humanity and nature as the fundamental contradiction within capitalism». This may be so, but it means, reversely, that in its existing uncomplete state, Marx work does *not* present the ecological issue as «the fundamental contradiction». Summarizing the discussions on Marx

³ The control refers to the metabolism (the masculine *ihm*) and not to nature (feminine noun in German).



among ecosocialists, Saito asserts that «first stage ecosocialists» (to use John Bellamy Foster categorization) - such as André Gorz and James O'Connor - believed that Marx analyses on ecological issues «are too incomplete and dated to be of real relevance today». In contrast, «second stage ecosocialists» - such as Foster and Paul Burkett - «emphasize the contemporary methodological significance of Marx's ecological critique of capitalism» (Saito, 2016, 25-26). I would modestly argue for a third position (which probably could be accepted by several people of the two groups above) : Marx and Engels discussion on ecological issues *is* incomplete and dated, but inspite these shortcomings, it *has* real relevance and methodological significance today.

In other words : 21th century ecosocialists cannot satisfy themselves only with the 19th century Marxian ecological heritage, and need a critical distance towards some of its limitations. But on the other side an ecology able to confront the contemporary challenges cannot exist without the Marxist critique of political economy, and its remarkable analysis of the destructive logic inherent in the unlimited accumulation of capital. An ecology which ignores or despises Marx, his theory of value or his critique of commodity fetichism and reification, is doomed to become nothing more than a «correction» of the «excesses» of capitalist productivism. Present day ecosocialists can build on the more advanced and coherent arguments of Marx and Engels in order to : a) achieve a real materialist understanding of the perverse dynamics of the system; b) to develop a radical critique of the capitalist destruction of the environment; and c) project the perspective of a socialist society respecting the «inalienable conditions» of life on Earth.

As Naomi Klein forcefully argued, climate change «changes everything». It is a mortal threat, not for «the planet» - a silly mantra in the the media - but for *life* in the planet, and in particular *human life*. The ecological issue - first of all, but not only, disastrous global warming - is already, and will become increasingly so, the main challenge for a renewal of Marxist thought in our times. It requires from Marxists a radical break with the ideology of linear progress, and with the foundations of the modern capitalist/industrial civilisation.

The blind spot which appears in some «canonical» texts from Marx and Engels is a non-critical view of the productive forces created by capital - i.e. the technical/industrial apparatus of modern capitalism - as if they were «neutral», and as if revolutionaries had only to socialize them, replacing private by collective appropriation, and putting them to function at the service of the working class.

Ecosocialists should take their inspiration from Marx's remarks on the Paris Commune: workers cannot take possession of the capitalist state apparatus and put it to work at their service. They have to "break it" and replace it by a radically different, democratic and non-statist form of political power. The same applies, *mutatis mutandis*, to the productive apparatus, which is not 'neutral', but carries in its structure the imprint of its development at the service of capital accumulation and the unlimited expansion of the market. This puts it in contradiction with the needs of environmental protection, and with the health of the

population. One must therefore “revolutionize” it, in a process of radical transformation.

Of course, many scientific and technological achievements of modernity are precious, but the whole productive system must be transformed, and this can be done only by ecosocialist methods, i.e. through the social appropriation of the main means of production, and a democratic planning of the economy which takes into account the preservation of the ecological equilibrium. This means first of all the rapid replacement of fossile energies - responsible for the catastrophic process of climate change - by renewable sources of energy (wind, sun, water), but also an end to destructive agro-industry, a profound change in the system of transport, in the patterns of consumption - etc.

In other words : ecosocialism means a radical, i.e. revolutionary, break with the whole capitalist pattern of civilisation. It aims not only at a new mode of production, and a new form of society, but in last analysis at a *new paradigm of civilisation, a new way of life*, based on values of freedom, equality, solidarity, and respect for «Mother Nature».



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LÖWY, Michael. Marx, Engels and Ecology. **Kalagatos**, Fortaleza, v. 14, n. 3, set.-dez., 2017, p.149-161.