The Meaning of Political Ecology

Tim Hayward

‘Political ecology’ is an expression which has become quite familiar in recent years, but does not appear to have acquired a clear and settled meaning. Evidently it is used to point up some kind of connection between politics, or the political, and ecology, yet the project of making the connection is deeply problematic. In this article I argue that ‘political ecology’ is most appropriately used as the name of a field of real relations which include, but are not exhausted by, those already comprehended as political economy.

This argument is advanced, in the first place, as a corrective to two other prevalent, but unsatisfactory, interpretations of political ecology – one which treats it as a branch of politics, the other as a branch of ecology. On the one interpretation, ‘political ecology’ can refer to the taking of a political view of ecology, that is, viewing ecology as an issue or set of issues concerning which principles and policies have to be devised. On the other interpretation, the project can be seen as one which involves viewing politics ecologically – this would involve a more thorough-going claim that ecology not only provides the content of a political agenda, but, as a foundation of and restriction on political possibilities, even determines appropriate forms of politics.

Neither of these general ways of making the connection is entirely satisfactory. The problem with the first approach follows from the fact that entering ecological issues into the political calculus need do little or nothing to alter the essential values or forms of politics itself. Since politics has to have in view things other than ecology, and since only certain aspects of ecology – ‘environmental issues’ – normally enter the purview of politics anyway, viewing ecology politically is compatible with not viewing politics ecologically and so with a continuation of other political business as usual. This approach does too little to establish the connection between ecology and politics, which remain externally and contingently related. Hence opponents of this approach criticise it for its ‘shallow’ grasp of ecology, and condemn it as ‘managerial’ environmentalism. Indeed, the forms of environmentalism which earn these pejorative designations are arguably founded on a fallacious conception of the ‘environment’ itself. In contrast to ‘environmentalism’, as just described, then, the opposing approach, which can be referred to as ‘ecologism’, invokes a much stronger, ‘internal’, relation between ecology and politics: on this view, ecology does not simply furnish ‘issues’ for politics to deal with, it actually yields imperatives – determining not only the values which must guide politics, but perhaps also the very forms politics must assume. However, if ‘environmentalism’ attempts too little, ‘ecologism’ may seek more of ecology than it can yield – for example, in generalising ecological concepts beyond their appropriate scope, and being more sanguine than there is good reason to be about the possibility of drawing clear or unequivocal normative desiderata from ecological realities. Moreover, this view threatens to eliminate the distinctiveness of politics as much, and as mistakenly, as the other view eliminates the distinctiveness of ecology.

So, I believe, if political ecology is to have a distinctive and coherent meaning, it must be capable of comprehending the relation of ecology and politics without simply subsuming the one under the other. In order to do so, it must be able to grasp the real relations between them: therefore a definition of what political ecology is will emerge as a theory of those real relations.

The limited objective of the present paper is to indicate, in a general way, how and where it seems to me that such a theory is currently developing. In order to thematise the real relations between politics and ecology, it is particularly important to be able to focus on their mediations. The locus of these mediations, and hence the object-field of political ecology, can perhaps best be described as the ‘human metabolism with nature’. This idea captures fundamental aspects of our existence as both natural and political beings: these include the energetic and material exchanges which occur between human beings and their natural environment.

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both at an individual level (reproduction of the human organism) and, more importantly in the present context, at a social level (through the activities of extraction of materials, agriculture, construction, manufacture etc.). This 'metabolism' is regulated from the side of nature by natural laws governing the various physical processes involved (energetic and chemical exchanges etc.), and from the side of society by institutionalised norms governing the division of labour and distribution of wealth etc. The ensemble of regulating factors from the side of nature can be gathered under the head of ecology; those from the side of society under that of politics: the conjoined effects of those two sets of factors and their interrelations constitute the field of political economy.

Now the idea of human metabolism with nature, in much this sense, originated with Marx: it served to characterise the materialist basis for his critique of political economy. In this article I shall suggest that there are good reasons for seeing the project of political ecology as being premised on a materialist conception of history much as Marx sought to develop. However, I shall also argue, there are respects in which Marx's radicalisation of classical political economy does not go far enough. In particular, both classical political economy and its Marxian critique effectively consider the human metabolism with nature almost exclusively in the dimension of human intention – labour – while all but disregarding unintentional effects, and the input of nature itself. Nevertheless, it will not suffice to counter this deficiency with an equally one-sided emphasis on the workings of ecology behind the backs of humans: for this abstracts precisely from the political dimension. Hence, as I go on to argue in section II, the Marxian critique of political economy remains a necessary if not a sufficient condition for the development of political ecology. What is also necessary, as contemporary attempts at an ecological reconstruction of Marxism are tending to show, is a radicalising of Marx's critique of political economy on the basis of a fuller and more differentiated elaboration of his own materialist premises. This will lead to a consideration of how the development of political ecology must also be informed by aspects of a feminist critique of Marxism. For the 'human metabolism with nature' involves not only the day-to-day reproduction of individuals and social relations, which have been mentioned already, but also procreative reproduction – something which Marx, as much as the political economists, effectively consigns to the sphere of unmediated nature, with the consequence that the parturitive labour of women, in particular, but also nurturative and domestic labours more generally, are drastically undertheorised and depoliticised. I therefore argue that it is wholly appropriate and necessary that the entire metabolism with nature – including all aspects of human reproduction, and not just those activities which happen to be defined, in some ways arbitrarily, as 'productive' – should be comprehended as political ecology. Finally, I offer some points of clarification about the relation of political ecology to a feminist, socialist and Marxist critique.

From Political Economy to Political Ecology

If it is sought, through a critique of political economy, to develop a theory of political ecology which may offer a more adequate grasp of the human metabolism with nature, the first general question to ask is how the object field of political ecology relates to that of political economy. In this section I offer some general observations concerning the relation of economy to ecology, and then indicate why and how these relations need to be theorised more specifically in a historical context to form a basis of political ecology.

To begin with one might observe, as writers on the subject generally do, that 'economy' and 'ecology' have a common etymological root – the Greek oikos, usually rendered as 'household'. Thus, in its original meaning oikonomia was 'the management of the household'. In the course of history, as the loci of economic activities and institutions have expanded far beyond the narrow bounds of the household, it has become possible to think of oikos in broader terms. Now that economic activity and its effects have a global reach, one might say that the whole earth is, in a quite intelligible sense, our 'household'. This dramatic expansion of economic activity has reawakened awareness of a real coincidence between the sphere of economy and that now designated as ecology. That is, contrary to the working assumptions of modern economists, economic activity does not take place in a different world from that of nature. Thus an ecological perspective on the economy would remind us, for example, that the entire economic process begins and ends in nature – beginning as resources and ending as refuse – a fact abstracted from in the development of modern economic theory as it restricts its purview to the circulation of money values.

Now 'ecology', etymologically, would be 'science of the household' – which would be a curious choice of name for a biological subdiscipline which started out as a branch of plant geography, were it not that in extending its scope to become an ever-broader discipline studying relationships between and among organisms and their environment, some clear analogies were perceived between ecologic and economic phenomena. Thus the name of the science stuck, perhaps, because it preserved the sense of, while improving on, the name hitherto available to its practitioners as a general designation of their object field – namely, 'nature's economy'.

So at least in this very general way, parallels between the spheres of economy and ecology can be perceived from both sides.

Having identified this common ground of economy and ecology, then, the very general inference may be drawn that ecology, as the logos of the oikos, promises to reveal the deeper truth and rationality of economy, which grasps only its mammade and contingent nomos. This, I think, sums up the guiding aspiration of the project of political ecology in general. The broad thrust of this project is to argue – indeed, prescribe – that a deeper understanding of our oikos (ecology) should inform our management of it (economy).

However, having identified the common ground of
ecology and economy, this does not mean collapsing economy into ecology. Some writers go so far as to suggest – and this is one extreme of ecologism – that the area of activities denoted as 'economy' are simply part of the more extensive totality of phenomena now designated as 'ecology', because, for example, economic practices are grounded in the material and energetic exchanges constituting the latter. But caution is necessary here. We also need to recognise the manifest differences between economics and ecology: most centrally, the difference between the kind of purposivity characterising human social practices on the one hand, and phenomena of the natural world on the other. Disregarding or effacing such differences when explaining human practices can lead to naturalistic reductionism; and attempting to derive principles for policy directly from ecology is likely to be abstract or arbitrary, if not fallacious – for politics has to do with relations between people, social relations, which cannot exhaustively be explained ecologically.

So if ecology and economy share a common ground, there is also this difference which hinges on the peculiar sort of purposivity governing the ecology: namely, that which has its source in human will and intention. Nevertheless, expressed so generally, this difference is as abstract as the identity posited by ecologism: for there is no specific unitary human will and intention which can be described in general terms with any validity. Hence this point tells against 'environmentalist' positions as characterised above: specific economies are products of different and often conflicting intentions; the economic imperatives which we want to subject to critique are historically specific.

So, rather than seeking to compare or contrast economy directly with ecology in a general and abstract way, in the manner of either ecologism or environmentalism, it is, I think, more useful and theoretically defensible to consider the identity and difference of economy and ecology as they have permeated political theory and practice as part of a historical process. In very broad terms this means considering how relations of dependence and control between people (i.e. politics) develop out of relations of dependence and control between people and their natural environment. To do this would not be to approach history with the ready-made categories of 'economic' or 'ecological' – but to see how these categories themselves have emerged and developed.

By way of illustration of this point, and in order to highlight the specificity of the modern relation between the economic and the ecological, a few schematic observations may be helpful.

In tribal or subsistence communities, for example, there appears to be an absence of any differentiation between economic and ecological ideas as we would conceive them: ecological systems are preserved and their constituents respected for reasons which do not reflect any distinction between instrumental and intrinsic values. In such communities there is also usually an absence of a political sphere separate from productive and reproductive activities. By contrast, on the latter point, in the more differentiated kind of society exemplified in ancient Greece, for example, there is a marked contrast between the oikos and the polis, between the activities, values and purposes associated with the two spheres: as Macpherson has succinctly put it, the 'household and the village were for the material requirements of life, the polis was for the good life'. But still, as regards any distinction between economy and ecology, there is not much reason to draw one. Moreover, in any society based largely on agriculture, or, more generally, on 'eco-regulatory' rather than 'transformative' practices, the characteristic relation to nature is one more of 'cooperation' than of 'domination'. Thus throughout the feudal period too there was little reason to conceive a radical distinction between economy and ecology: we can say that together they constituted an undifferentiated 'sphere of necessity'. It is in the modern period that this begins to change, when the idea of 'economic freedom' comes to appear quite distinct from that of 'natural necessity'. This is due to the fact that the sphere of economic activity does indeed gain some autonomy from the natural world – and in two major respects. On the one hand, there is the freedom generated through the growth in human powers of technological manipulation which has been realized through the achievements in this period of science and industrialism. On the other hand, there is the development of the market system which entails the general alienability of land, labour and capital. These factors of production had hitherto been seen not merely as social phenomena, but as aspects of the natural world. With the generalisation of the market system, however, this naturalness can be increasingly abstracted from: the specificity of nature becomes an indifferent generality. The social reality of land, labour and capital is now merely quantitative: its sensuous reality becomes a matter of indifference.

This, then, is the antithesis of an ecological perspective on production.

However, an alternative perspective can be posed not in simple opposition, but only as a determinate negation. This is for at least two reasons. Firstly, political economy expresses with relative validity the truth of this society and economy: it is no good attempting to proceed by denying this truth, one needs rather to show how it is merely relative – to show, for instance, how the capitalist mode of production and market relations etc. effect a real abstraction of the social from the natural. Thus the key to Marx's critique of political economy lay precisely in showing how this abstraction takes place in the process of converting labour into capital. However, a question which did not loom very large for either the political economists or for Marx is the role played by nature in meeting economic objectives, or indeed the effects on nature of pursuing them. Yet, although this is clearly a defect when viewed from an ecological perspective it is also arguable – and here is the second reason why the critique of political economy must be a determinate negation – that it is only when the distinctiveness of the economic is comprehended that the distinctiveness of the ecological becomes potentially visible. What I mean can be illustrated in the following way. Although the relation
between economy and nature was barely thematised in the modern era, the history of manufacturing was from the beginning a history of ecological devastation. If the latter history is only now beginning to be written this is perhaps because, much as exchange began as incidental to production and only at a certain stage of capitalist development became the dominant feature of the economy – the system of commodity exchange – so, at the beginning, local manufacture had local ecological effects which were similarly ‘incidental’ as opposed to ‘systematic’. Now, however, that the global industrial system has global effects, ecological devastation is systematic in the same sense that commodity production is: that is, not as the result of a prior plan, but according to the inherent logic of a process which tends towards an infinite exploitation of finite natural resources. Thus, because now ecological devastation is so generalised, ecology demands admittance into political and economic theory.

So, we could say, the ecological permeating of political thought will depend on the extent to which it is recognised that the exploitation and extraction theorised by Marx applies not only to labour, but also to nature. Political ecology, then, to be political, cannot lose sight of exploitative human relations; but to be political ecology it will have to be able to grasp these relations in the broader context of exploitation of nature. There are two factors, then, in a critique of political economy: a critique of the subjection to the market of human labour on the one hand, and of land – or nature more generally – on the other. A development of political ecology is premised on this dual critique.

The Ecological Challenge to Marxism

The position I am seeking to outline, as a theoretical definition of political ecology, differs from ecologistic and environmentalist interpretations in that it takes one of its key premises to be the Marxian critique of political economy. However, I also believe that the ecological challenge is one which an unreconstructed Marxism is not wholly able to meet. In this section, therefore, I consider how, in general terms, an ecologically reconstructed Marxism might meet the challenge.

Firstly, though, it is important briefly to clarify what that challenge is, for it can be both understated and overstated. It is understated when capitalism is presented as the root of all ecological evil, with the corollary that the traditional tools of Marxism, applied to capitalism, would solve ecological crises en passant as it were. The challenge is overstated, however, when the validity of the Marxist analysis of capitalism is denied or simply declared irrelevant on the grounds that the cause of ecological crises lies with the industrial system of production as such. Neither perspective to the exclusion of the other is adequate. On the one hand, industrial activity assumes unecological forms under the profit motive of short-term private interests – connections between property interests and unecological activity are too well established for this to be denied. On the other hand, there is the equally undeniable evidence of ecological devastation in socialist states – it does not suffice, I believe, to see this as the pure result of socialist states having to compete with capitalists. Ultimately the problem lies with systems of production, ownership and administration which are based on the commodification of both labour and nature.

For Marx, what is wrong with the capitalist mode of production is that it perpetuates an exploitative relation between capitalist and worker, but he says virtually nothing about the exploitation of the rest of nature.15 Indeed, he retains the belief that human emancipation must be premised on the continuing growth of productive forces. Marx attributes a positive value to capitalist accumulation insofar as this means the material concentration of productive forces, for he sees this as a sine qua non of human emancipation, providing the material basis for the worker’s effective claim for true, communist, freedom. Thus his objective appears to be a transition from an unequal to an equal partnership in the domination of nature. It implies the cornucopian, Promethean, view of the human relation to nature which ecologists object to.

But if Marx’s critique of political economy is insufficient as a basis for political ecology, it is nevertheless a necessary element. This is a point which ecologists positions can fail to appreciate because of their principled refusal to consider the social in its specificity: environmentalists, for their part, are just as inclined to see ecological crises as the unmediated effect of industrial production or over-population. No connection between such phenomena and the social division of labour is theorised in either case, so the regulation of the human metabolism with nature from the social side is inadequately grasped.

The problem, then, is that whilst natural limits to the growth of productive forces cannot adequately be theorised without reference to social relations, they do need to be theorised. This is the central problem picked up as a challenge by those theorists who are now seeking to develop an ecologically reconstructed Marxism.16 This project would involve an ecological elaboration of the basic categories used by Marx in his theorisation of society in terms of the human metabolism with nature. At a high level of generality Marx characterised society in terms of two fundamental categories:

1. The material and energetic exchanges which take place between humans and nature in production are wrought by what Marx calls forces of production.
2. The relations between humans which regulate the human metabolism with nature, for example the division of labour and property rights, are called relations of production.

Ecological Marxism, however, raises to prominence a third factor. If society first appears as arising in opposition to nature, this opposition is, in some ways, only apparent: for both the material infrastructure, and the human constituents, of society are in fact themselves part of nature. Thus nature enters the social world, conditioning and limiting it, in both these ways. Hence a third category, which is present, but in a subordinate position in Marx’s theory, needs to be accorded no less importance: namely,
3. **Conditions of production** — e.g., the natural limits of both human and non-human nature which regulate the metabolism from the side of nature.

Now using these three basic categories — the *forces, relations* and *conditions* of production — it may be possible to offer a constructive perspective on the essential theoretical dispute between Marxism and some of its ecological critics. In his critique of the capitalist mode of production, and his projection of a communist alternative, Marx focused on contradictions between forces and relations of production: in particular, he criticised capitalist relations as fetters on a fuller development of forces of production. Now the ecologists argue that, since it is precisely the development of the forces of production which is wreaking ecological havoc, what we need, if anything, are more effective fetters. Hence, instead of criticising capitalist relations, they insist on criticising industrial *forces* of production. However, Marxists would point out that it is not possible to transform the forces of production without engaging with the social relations which maintain them in being. So where the ecologists would reduce Marx’s two-dimensional dynamic (between forces and relations of production) to the one dimension of forces of production, ecological Marxists seek to extend the framework of analysis to incorporate the third dimension — that of the *conditions* of production. Thus O’Connor, for example, suggests it may be possible to theorise a ‘second contradiction of capitalism’:

An ecological Marxist account of capitalism as a crisis-ridden system focuses on the way that the combined power of capitalist relations and productive forces self-destruct by impairing or destroying rather than reproducing their own conditions.  

This approach can be claimed to offer the advantage — over environmentalism and ecologism — of an integrated account of social, economic and ecological crises.

Nevertheless, what needs to be emphasised in the present context is that in expanding the framework of analysis to incorporate an account of production conditions, an ecological reconstruction of historical materialism will entail a more radical critique of political economy — and its presuppositions — than is to be found in Marx. Marx’s critique of political economy was intended to elucidate the dynamics of the *capitalist* mode of production, but this critique will offer too restricted a view of the problem: for capitalism is not the sole cause of ecological crisis; and the effects of ecological crisis cannot be fully grasped in terms of a crisis for capital. An insufficiently reconstructed Marxism could persist in the error of believing it can. Orthodox Marxism has always recognised the existence of ‘natural barriers’, but has seen them, like the barriers represented by social relations, as obstacles to be overcome. If an ecological Marxism merely adds to this a view of how what is specific to capitalism is the way ‘natural barriers’ assume the form of crisis, then the implicit hope may be fostered that if the specific crisis form is removed, what is left will be the nature-given barriers which productive forces have always encountered, and will continue to ‘push back’: the aim would thus remain that of further developing productive forces. An ecological Marxism would have to incorporate a different political aim. This point is reinforced by the observation that there can be increasing ecological destruction for a long time, without this having a reflection in capitalist crisis. Now, recognising this, O’Connor suggests it may be precisely the role of new social movements to accelerate the process — to translate ecological crises into crises for capital. Nevertheless, there remains the question whether ecological crisis, which appears on O’Connor’s account in the form of a crisis of reproduction of production conditions, is not actually something more and other than this. This question gives form to the ecological intuition that nature, internal and external, is something more and other than a condition of production. I think the answer is likely to be — one which is gaining ground in debate — that ecological concerns can not be fully accounted in discussion of production conditions, unless these are so broadly defined as to problematise the Marxian conception of production itself.

Viewed ecologically — indeed, viewed properly *materialistically* — ‘production’ is not simply a unified or homogeneous set of activities which can either advance or experience setbacks. It may appear this way from the standpoint of capital and its theorists who see production merely as the precondition for the process of valorization. But this abstracts from the specific material and ecological modes of being of productive ‘conditions’ and also productive forces which are themselves a part of nature. Marx recognises this when setting out the materialist premises of his philosophy and theory of history; however, he tends to neglect the implications of this insight when dealing with economic theory: indeed, as Benton argues, Marx takes over from political economy some basic concepts, like ‘production’ itself, which in fact need to be more radically problematised.

It might then be shown that there is no clear fault line of
contradictions between ‘forces’ and ‘conditions’ of production – indeed, that the distinction between productive forces and conditions becomes increasingly arbitrary as the material character of production is analysed.

In revealing this arbitrariness, political ecology might follow recent feminist critiques of the primacy of production in Marx.

**Beyond the Paradigm of Production**

‘Production’ is the most fundamental category in Marx’s theories of society and history. It is by reference to its mode of production that Marx believes the specific character of any society may be explained. When he writes that human history begins when people begin producing their means of subsistence he is quite clearly making a claim about the primacy of production in general. Now a problem which has been pointed to, and with growing insistence in recent years, is that there is something of a hiatus between the kind of claim Marx makes for the primacy of production in general and the conceptualisation of specific forms of production – such as in commodity production. Thus Nicholson, for example, points out that there is a variety of meanings of ‘production’ in Marx: sometimes he appears to mean by ‘production’ any activity which has consequences; at other times the term is used, more narrowly, to refer to activities which result in objects; and then again, more narrowly still, to mean those activities which result in objects which can be bought and sold – commodities. From a feminist perspective, in particular, Nicholson argues, this variety of usages yields a problematic ambiguity: sometimes Marx’s concept of production focuses exclusively on those activities concerned with the making of food and physical objects; at others it focuses on all human activities necessary to the reproduction of the species, including such activities as nursing and childrearing. Yet these are such different kinds of activity that considering them all to exemplify the one general phenomenon of ‘production’ can involve an equivocation with serious implications. As Benhabib and Cornell also argue, the concept of production based on the model of an active subject transforming, making and shaping an object given to it, is inadequate for comprehending activities like, for example, childbearing and rearing, care of the sick and the elderly. But if these activities do not conform to the subject-object (transformative) model of production, they are nevertheless crucially important to the basic material practices (production) of society which Marx intends under production in general. Hence it may be argued that, under capitalist conditions, production (in general) assumes at least two distinct forms: the production of commodities and the reproduction of people. Although the distinctiveness of the latter is recognised by Marx, and especially by Engels, it is nevertheless under-theorised. As Mary O’Brien writes:

Marx talks continuously of the need for men to ‘reproduce’ themselves, and by this he almost always means reproduction of the self on a daily basis by the continual and necessary restoking of the organism with fuel for its biological needs. Man makes himself materially, and this is of course true. Man, however, is also ‘made’ reproducitively by the parturitive labour of women, but Marx ultimately combines these two processes. This has the effect of negating biological continuity which is mediated by women’s reproductive labour, and replacing this with productive continuity in which men, in making themselves, also make history.

There is thus a tendency for Marx to negate the sociality and historicity of reproductive activities – to view them either as natural and ahistorical or else as historical effects of changes in productive relations – and so to accord them a subordinate and marginal role. This cuts off the family, and particularly the women within it (the ‘reproduction workers’), from both politics and economics.

It is for this kind of reason that the contributors to *Feminism as Critique* argue that the confrontation between Marxism and feminism requires a ‘displacement of the paradigm of production’. The line of argument they develop is directly relevant to the project of political ecology. They point out that Marx’s inadequate differentiation between kinds of work, or production, impinges directly on his conception of politics. He shows how politics is grounded in struggle between classes, but his concept of class relies on the narrow definition of ‘production’:

The criterion that Marx employs to demarcate class position, ‘relation to means of production’, is understood as relation to the means of producing food and objects.... A consequence of such a definition of class is to eliminate from consideration historical conflicts over other socially necessary activities such as childbearing and childrearing.

If such factors are to be restored to an appropriately central theoretical place, production needs to be seen in relation to reproduction. The precise nature of this relation may remain a matter for debate, but the concerns expressed by feminists about the primacy of production and neglect of reproduction in Marxism and political economy are concerns which must be at the heart of political ecology.

There are important respects in which broadening the concept of the economic to include not only productive but also reproductive activities provides a basis for developing an ecological perspective on the economic sphere. From an economic perspective, production appears as a self-contained and self-generating sphere; from an ecological stand-
point, what we understand by production may be seen as one facet of the broader set of natural phenomena, including human activities, which can be described as reproduction. Whereas from the standpoint of political economy reproduction, if significant at all, is only a moment of production, from the standpoint of ecology, by contrast, production appears as a moment of reproduction, as a mediation of nature’s own activity. For, however much humans believe they are working against nature, they are in fact always working with nature – indeed, nature is working for them, as the labourer works for the capitalist. Thus where political economy reveals the source of value to be labour, political ecology reveals the source of labour, and hence ultimately the source of value: value is a form arising from human practices. What makes ecology political, then, is how processes of production and reproduction enter social relations of power and property. The standpoint of political ecology must focus on the mediations: and in this, I believe, it may take a cue from the feminist theory mentioned above because this addresses social relations of power and property – in particular, the domestic and the familial – which have been excluded from political economy.

This might also lead to an ecological radicalisation of Marx’s definition of class. If class is defined in terms of control – or lack of control – not only over industrial productive forces, but also over reproductive forces, then there seems even to be a possibility that class might be defined along new lines – perhaps implying a whole new political agenda of no lesser scale than that of the (industrial) labour movement.

**Materialist Feminism and Ecological Politics**

Those last remarks are very much intended as suggestions and would require considerable elaboration before they could amount to more than that. Here I should just like to offer a few points of clarification as to what the suggestion is – stressing, though, that this cannot hope to be a full explanation of it, let alone a defence. My limited aim is to try to meet foreseeable worries about it, and I shall focus on two. One area of concern is that the relation of production to reproduction has always been a matter of considerable debate within feminist theory in recent years, and in the light of those debates it is necessary to clarify how one can use the idea of ‘reproduction’ to challenge the primacy of production without committing the fallacy of essentialism or equivocating on the meaning of ‘reproduction’. Secondly, particularly in view of these concerns, my suggestion about ‘a new political agenda’ needs a little more explanation, or at least a few clarifying qualifications.

Firstly, then, it should be noted that there is a strand of ecofeminist theory which advocates the *primacy* of reproduction. This has grown out of a strand of feminism, according to Valerie Bryson, which:

›sees motherhood and the care of the young as positive experiences to be celebrated and as giving rise to ‘womanly values’ to do with nurturing, co-operation and peace. These are contrasted with male attributes of self-interest, competition and aggression and have led to the development of “eco-feminist” theory. They equate men’s treatment of women with their treatment of nature and insist that only women’s values can save the planet from ecological disaster.

Bryson notes that this view is vulnerable to a number of telling criticisms – for instance, that it involves a biological determinism which contradicts current scientific thinking and flies in the face of much historical evidence. She sums it up:

To say that women’s traditional role involves life-enhancing values for which they should demand a public hearing is one thing; to say that women’s biological attributes give them a monopoly of such values is quite another, for this would seem to confirm traditional roles and divisions, allowing men to continue to destroy the planet while celebrating alternative virtues at home.

Nevertheless, as I have argued, reproduction and nature do need to be accounted for – and not merely as social constructs. Hence, as Mary Mellor says:

To maintain that there is a biological and ecological limit to human activity and our capacity for social reconstructions is not to revert to essentialism but to begin to theorise the conditions of our material existence.

Kate Soper elaborates and qualifies this line of thought:

A materialist account must necessarily be ‘essentialist’ at a certain level. It must recognise a distinction between ‘deep’ and ‘surface’ concepts of ‘nature’... we should recognise that the coherence of the socialist ecological critique of the cultural practices adopted towards ‘nature’ depends on an essentialist concept of ‘nature’.

This is not the essentialism of ecofeminism however. As Soper notes, men ‘are just as clearly situated within “nature” and governed by biology as women are, and both men and women are clearly involved in reproduction’. Therefore, she observes:

To approach reproduction as if it were inherently a more ‘natural’ and ‘female’ domain obscures the politically important discriminations which need to be made with respect to all human practice (both ‘productive’ and ‘reproductive’) between those aspects which are biologically/naturally constrained (and thus far ‘essentially’ given), and those which are socio-economically conditioned, and whose specific ‘material’ constraints are in principle removable.

The view which is emerging here, then, within materialist feminism, is not that the production/reproduction dichotomy should be inverted, as essentialist ecofeminists would have it, but that it should be overcome. At the level of theory, the aim is not to supplant the ‘primacy of production’ by the...
‘primacy of reproduction’: rather the idea is, as I have already sought to sketch, one of theorising the human metabolism with nature in all its facets. This appears to give support to the suggestion that a politics which is ecological, feminist and socialist will find its theoretical ground in the theory I am describing as ‘political ecology’. Indeed, it is quite conceivable that in embodying these political values political ecology could claim to represent a whole new paradigm in contrast to the liberal and patriarchal and capitalist values of political economy.

This, then, is to bring us to the question of politics, and I ought to sound a note of caution about my earlier reference to ‘redefining class’. For on the one hand, given that class struggles in the ‘traditional’ sense continue, it does not necessarily need redefining; on the other, in view of basic postmarxist points about the relativisation of class struggle, one should perhaps be looking to limit rather than revive the concept. So the suggestion of the possibility of forging alliances which might gather the sort of collective momentum attributed to Marx by class might still seem exorbitant – implying a unity and collective power for which there is extremely scant evidence, if any at all. So I shall simply sum up why I think the idea is theoretically compelling and politically ‘challenging’.

On the one hand, it does seem to me there is reason to think in terms of feminist, ecological and social forces recognising their common material base as a ground for political unity and common action. The strength of this basis – by contrast with many of the utopian constructions of more purely ecological theorists – is that it does not depend on changes in consciousness or consumption but is rooted in what we must now refer to in an expanded sense of ‘production’. Thus the claim, on the one hand, is a very simple one: if the truth of what feminists and ecologists alert us to about the ‘productivity’ of women and nature finds political expression it cannot but mean radical change.

On the other hand, however, translating this truth into politics will be anything but simple. Socialism, feminism and ecologism (in this context the term is appropriate) have distinct agendas. The core socialist aim is to overcome exploitation and alienation of labour, to transform the division of labour – not to overcome the need for labour or the productive system itself, but simply to organise it on a non-class basis. The ecological aim, by contrast, is to transform the productive system as a material force. These divergent aims are not necessarily reconciled within materialist ecofeminism: in fact, the programmatic aims of overcoming the re-/production dichotomy and overcoming, or at least renegotiating, the associated public/private split involve some conflicting demands. At one level, Mellor can answer Soper’s worries on this score by pointing out that materialist ecofeminism can seek both to relieve women of their domestic duties and demand a revaluation of them (economically, socially, symbolically) because the objective is a transcendence of the prevailing sexual division of labour, and the achievement of harmony between the sexes whereby responsibilities for nurturing and caring are both shared and valued. Yet, although this vision may be assimilable to a socialist one, there is room to doubt whether it is likely to guarantee an ecological outcome even in aspiration. Mellor’s suggestion is:

By integrating the divided worlds of men and women, such a society will pull men back to the pace of biological time in which women live. ... It will equalise the resource of time, so that we can begin to slow down the pace of human development to sustainable levels.30

However, one may well ask why, on the contrary, the equalisation of the resource of time should not mean women instead ‘getting up to speed’ in the men’s world, thereby maintaining the quest for economic growth and its attendant value commitments. To assume, without offering further reasons, that there is something pulling in the former direction and that women’s values are ‘closer to nature’ is to succumb to what has already been criticised as the error of essentialist ecofeminism. Otherwise, there is no reason to suppose that a redistribution of roles across gender divisions, in itself, need change anything ecologically.

It therefore seems that ecological concern is irreducible and has no ‘natural’ allies. If political ecology seems to support the basic theoretical and ethical assumptions of a ‘green socialist feminism’, the truth of these assumptions is the sort of truth that will only ‘be proved in practice’.

**Conclusion**

To adopt the standpoint of political ecology is not to deny the relative or partial truth grounding political economy that productive activity is fundamental to human social being, but to revalue and reconceptualise productive activity itself; it is not to deny, either, the force of Marx’s critique of exploitation of labour in (capitalist) productive processes, rather it is to extend this critique to the exploitation of non-waged labour and the ‘labour’ of nature itself. It means, for example, valuing reproductive activities; it also means identifying reproductive aspects of productive activities; and making distinctions within production. Perhaps production and reproduction would then no longer be seen as two entirely separate spheres, but rather as one sphere within which some activities are sustainable and others are not. This would significantly expand the parameters (of political economy) to those best described as ‘political ecology’. However, this metatheoretical perspective should not be confused with a theory of politics. Regarding the latter, it is all still to do.

**Notes**

1 ‘Environmentalism’, understood in this sense, is quite compatible with ‘green capitalism’ and the ‘environment industry’. Hence not only deep ecologists, but also ecocritics, can be critical of it. As O’Connor puts it, ‘mainstream environmentalists’ are ‘those who are trying to save capitalism from its ecologically self-destructive tendencies’ (James O’Connor, ‘Socialism and ecology’, *Capitalism, Nature, Socialism* 8, 1991, p. 2). Such a description might apply quite well, for instance, to David Pearce et al. *Blueprint for a Green Economy* (Earthscan, 1994).
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Of course, 'environmentalism' can also be used in a more inclusive sense: see, e.g. T. O'Riordan, Environmentalism (Fion Ltd, London, 1976).

Cf. Andrew Dobson, Green Political Thought (Unwin Hyman, London, 1990), whose account is organised around the 'environmentalism/technologism' opposition.

Cf. Arne Naess, Ecology, Community and Lifestyle, trans. and revised by David Rothenberg (Cambridge University Press, 1989), pp. 40ff, where he explains, amongst other things, that principles for action cannot be derived from ecology. In view of how 'ecologism' is often used as an affirmative designation, especially by people influenced by deep ecology, it is interesting to note that the founder of deep ecology himself defines it as 'excessive universalisation or generalisation of ecological concepts and theories' (ibid., p. 40).

This concept is quite often referred to in the literature. Böhme and Schramm, for instance, see it as an indispensable heuristic and metatheoretical concept: 'It continually forces reflection back to the material basis, to the concrete interaction between humans and nature ... embracing not only productive appropriation of nature, but also the consumptive relation of humans to nature; of not just intentional engagement with nature, but also unintended effects' (G. Böhme and E. Schramm, eds, Foreword to Soziale Naturwissenschaft: Wege zu einer Erweiterung der Ökologie, Fischer, Frankfurt am Main, 1984, p. 8 [my trans.]).

See Alfred Schmidt, The Concept of Nature in Marx (New Left Books, London, 1971). Juan Martinez-Alier has commented that although the concept was used non-metaphorically by Marx and Engels, they thought only in terms of the exchange of matter (cf. the German Stoffwechsel), without recognising the importance of energy exchanges: this was drawn to their attention by Podolinsky, and Martinez-Alier sees their inadequate response as a crucial missed opportunity in the dialogue between Marxism and ecology. (Juan Martinez-Alier, Ecological Economics: Energy, Environment and Society, paperback edition with new Introduction, Blackwell, Oxford, 1990, esp. chapter 14).

This sort of interpretation emerges, I think, from Donald Worster, Nature's Economy: A History of Ecological Ideas (Cambridge University Press, 1985). Other historians of ecology, though, who focus more specifically on the development of the scientific discipline over the past hundred or so years, emphasise discontinuities with respect to the idea of an 'economy of nature' – especially the cosmological connotations it has in Linnaeus: see, e.g., Pascal Acot, Histoire de l'Écologie (Presses Universitaires de France, 1988); R. P. McIntosh, The Back­ground of Ecology: Concept and Theory (Cambridge University Press, 1985).

McIntosh (p. 303) has cited various early twentieth century writers who saw economics as a moment of ecology, and located them within the chequered history of human ecology: a more recent example is given by Cramer and Van Den Daele: 'Howard Odum, for instance, reduces all natural and social phenomena to energy and matter and represents them in energy flow diagrams, feedback mechanisms and loop controls. He claims that this language is also applicable to moral duties and legal relations in society' (J. Cramer and W. Van Den Daele, 'Is ecology an “alternative” natural science?', Synthese 65, 1985, p. 357).

Martinez-Alier, for instance, has noted various manifestations of naturalistic reductionism, which are suspect not only theoretically but also politically, in the penumbra of ecological ideas – among them, social Darwinism and neo-Malthusianism (e.g. ideas of 'carrying capacity' and 'lifeboat ethics') as well as social Prigonism (i.e. 'eco-systems' theory). Thus he emphasises that economics should not become merely human ecology: 'Ecologists are quite good at explaining the movements of birds and fish, but today they are unable to explain the geographical distribution of the human population. The territorial-political units where environmental policy is made and applied have no ecological logic, and they are adept at shifting social costs out of their borders. Thus, arguments based on carrying capacities and the sustainability of development are bluntly ideological in their selective applications' (p. xxiv).

To say this is not necessarily to deny that, ultimately, even social relations, human purposivity and so on might have an ecological explanation: it is to point out that this level of explanation would yield little or no unequivocal guidance for politics: see Tim Hayward, 'Ecology and human emancipation', Radical Philosophy 62, 1992, pp. 3–13.

C. B. Macpherson, The Rise and Fall of Economic Justice and Other Essays, Oxford University Press, 1987, p. 105; an even more marked distinction would have been that between the aims of chrematistics (as opposed to oekonomia) and politics.


‘Exploitation of nature’ is left as a theoretically unexamined term in this paper: one obvious task of political ecology would be to critically examine it – along with other related ideas, such as ‘natural capital’, which are widely used in the literature of environmental economics and sustainability.

A forum for this project is the journal Capitalism, Nature, Socialism (hereafter CNS) edited by James O’Connor: it is seen as involving not only an ecological interrogation of the work of Marx and Engels, but also a re-evaluation of radical thinkers (e.g. anarchists and utopian socialists) previously marginalised by orthodox Marxism.


On the one hand, according to O’Connor, it can theorise how traditional economic crises of overproduction now yield ecological and social crises: global capitalism attempts to rescue itself from its deepening crisis by cutting costs (hence allowing a deterioration of environmental quality), or raising the rate of exploitation of labour (hence furthering new and deeper inequalities in distribution of wealth and income worldwide). On the other hand, there is a feedback mechanism between ecological crisis and economic crisis: the barriers to capitalist accumulation which [Marx] called ‘conditions of production’ in general, and ‘external conditions’ (i.e. ‘nature’), in particular, take the form of economic crisis – a self-induced crisis from the cost side.

‘Perhaps we can surmise that feminism, environmental movements, etc. are “pushing” capital and state into more social forms of the reproduction of production conditions. As labor exploitation ... engenders a labor movement which during particular times and places turned itself into a “social barrier” to capital, nature exploitation ... engenders an environmental movement ... which may also constitute a “social barrier” to capital,’ (O’Connor, p. 31).

Since conditions of production can be both limiting and enabling, the political aims of ecological movements may be seen, O’Connor argues, in terms of struggles either for the protection or the restructuring of production conditions.


The problem of the status of ‘production’ in Marx has been highlighted from a number of perspectives: e.g. Jean Baudrillard, The Mirror of Production, Telos Press, St Louis, 1975; Seyla Benhabib and Drucilla Cornell (eds) Feminism as Critique, Polity, Cambridge, 1987; Martinez-Alier, Ecological Economics.

Linda Nicholson, ‘Feminism and Marx’, in Feminism as Critique.

S. Benhabib and D. Cornell, ‘Beyond the politics of gender’ in Feminism as Critique.

Though these would be lines which are already perceived as demarcating relations of exploitation and oppression (e.g. of women and subsistence workers). The idea I am tentatively pointing towards here is that class position might be defined in terms of relation, or access, to means of life – not only to the means of (paradigmatically industrial) ‘production’.

Of course adding to the concept of ‘reproduction’ will require considerable theoretical clarification. Even basic definitions need work: some of the unhelpful connotations that can attach to the term are illustrated in C. Delphy and D. Leonard, *Familiar Exploitation*, Polity Press, Cambridge, 1992, e.g. p. 58; a number of other senses are distinguished in a preliminary way in Marilyn Waring, *Counting for Nothing*, Allen and Unwin, Wellington, New Zealand, 1988, pp. 22–24.


Among the writers Bryson is referring to here are Susan Griffin (*Woman and Nature*, 1984) and Andree Collard (*Rape of the Wild*, 1988). It must be emphasised, though, that not all ecofeminist theory can be characterised in this way, as neo-romantic or biologistic. Others, particularly materialist ecofeminists, ‘are engaged in a subtle deconstruction of the patriarchal “Mother Nature” ideology while yet trying to re-theorise our human embeddedness in what is called “nature”.’ (Ariel Salleh, ‘Eco-socialism/eco-feminism discussion’, *CNS* 6, 1991, pp. 129–134).

Bryson, *Feminist Political Theory*, p. 211.


Ibid., p. 112.


“Rothenberg comes towards us like a skilled intellectual surfer, riding just ahead of the wave, constantly adjusting his stance, both a player and a pawn of the forces he navigates. Using pungent historical examples, *Hand’s End* argues that technology properly used, can extend nature rather than destroy it. A good corrective to *The End of Nature*.”

—Roger Shattuck, author of *The Innocent Eye*