What is Ecophenomenology?\(^i\)

I. The need for a rapprochement with Naturalism.

Phenomenology concerns itself with the ways in which human beings find and construct meaning in the world. But from its first beginnings in the work of Edmund Husserl [1859-1938], it saw itself as saving humanity from the threat of a purely naturalistic view of things, which ultimately treats everything – included humans – as reducible to the operation of causal laws. We might think that phenomenology deserves to survive only if it is willing to restrict itself to the ‘intentional’ realm, the human space of meaning. How then could there be a phenomenology of nature? If phenomenology is to be able to think about Nature, it must either rescue Nature itself from naturalism, or work out a new relationship to what it had perceived as the danger of naturalism. Or both.

Phenomenology’s resistance to naturalism is a principled resistance, in various senses. If naturalism means that the phenomena in question are fundamentally governed by causal laws, with the possible addition of functional explanations, and relations of succession, conjunction and concatenation, resistance takes the form of limiting the scope of such phenomena, or showing that even in those domains in which naturalism might seem wholly appropriate – the realm of what is obviously Nature – naturalism is fatally flawed as a standpoint.

For example, to the extent that perception brings us into intimate sensuous relation with the complex things of this world, and definitively dispels any sense of phenomenology as an otherworldly idealism, it also becomes clear that phenomenology and naturalism could not simply agree to a territorial division, a kind of methodological power-sharing agreement. A phenomenology of perception quickly discovers that it is only as spatially and temporally embodied beings that seeing takes place at all. Seeing (and hearing and touching) is made possible by there being discrete bodies, including ourselves, that occupy distinct places at particular times, bodies endowed with a mobility that reflects their needs and desires. These are not just natural facts \textit{about} the world, but fundamental \textit{dimensions} of the world, dimensions that structure the very possibility of there being facts at all. And they certainly structure perception, insofar as perception is essentially perspectival, bound to surfaces of visibility, limited by things
that stand in our way, and tied powerfully to our embodiment – in our having two eyes, two ears, two hands, and muscles that give us mobility in various dimensions. And that embodiment appears in more complex ways, in our having various somatic and social desires that shape and direct perception, and in the temporal syntheses in which it is engaged. Many of these structures of bodily finitude are found in any living creature, and could be said to constitute perception, rather than qualify it. If something like this is true, some sort of phenomenology at least, is both inseparable from our involvement in the world as natural beings, and points to aspects of that involvement that do not seem to be captured by naturalism. Does this mean that we have managed to carve out a space for phenomenology within nature, reinforcing the divorce of meaning and intentionality from causality?

Let us be clear what is meant by ‘intentionality’ here. ‘Intentionality’ is the key concept in phenomenology. It has to do not just with those acts we might describe as intentional rather than accidental or unintended (the key issue in deciding whether an incident on the sports field was a foul). In phenomenology, intentionality refers to the space of human meaning opened up by the fundamental ‘aboutness’ of our conscious experience. Consciousness always exhibits the structure of being ‘about’, or ‘of’ something. These intentional relations of ‘aboutness’ seem quite different from causal connectedness.

The key to our claim here is that certain dimensions essential to perception reflect non-accidental aspects of our natural existence. This means that intentionality is structured, in a way that fills out what is specific about perceptual consciousness, rather than interrupting or contesting the intentional stance. But does this structuration reinforce the distinctness of intentionality (from naturalism) or does it offer a bridge across which a certain conversation could begin?

One might suppose that what phenomenology points to is another level of causality, one that is presupposed by the operative causality of everyday phenomena. That other level might be describable through an evolutionary naturalism, one which would explain, for example, how living creatures have acquired the functionally integrated, and environmentally responsive bodies that they do indeed possess, and perhaps explain how it is that multiple complex individual living beings developed in the first place, for example, through the incorporation into a single ‘body’ of what began as a group of simpler symbiotically related organisms. Would such an account of a
deep causality make phenomenology redundant, or would it actually facilitate an engagement between phenomenology and naturalism?

If an ecophenomenology could give us better access to nature than that represented by the naturalism which phenomenology was created to resist, by supplementing intentionality structurally with non- or pre-intentional characteristics of nature, would not ecophenomenology be the future of a phenomenology, one which has purged itself of its opposition to nature?

Phenomenology could be said to concern itself with what appears in its appearing. But what is at stake here? What is stake is a recovery of our fundamental experience of the world, one which is covered over by all manner of objectifying illusions – of habit, reflection, naturalism, commodification, whose shared way of proceeding is to cover up the activity of time in an apparently always-already-achieved presence.

Phenomenology opposes itself, then, to a certain kind of naïve naturalism, and to a broader sense of the natural through which the products of human engagement lose any trace of that production. But to recover an engagement with things themselves is not at all to return to some pure presence, it is rather to return to a world in which the relation between present experience and the complexity of what is being experienced has always been deeply complex and stratified. Ecophenomenology is the pursuit of the relationalities of worldly engagement, both human and those of other creatures.iii

By focusing now on two rich dimensions of such engagement, I would like to develop a sense of a middle ground of relationality, a space governed exclusively neither by causality, nor by intentionality, and suggest that in this space phenomenology can overcome its inaugural opposition to naturalism. These two dimensions we could call the plexity of time and the boundaries of thinghood.

II. The plexity of timeiv
Even though the value of presence has often hidden what is at stake, rather than helped us explore it, it has properly drawn our attention to the centrality of time to experience.
While time is central to my sense of phenomenology as offering a heightened grasp of relationality, our experience of time, and the temporality of our experience, can function both as an obstacle to this orientation and also as its central plank. If we think of time as a series of discrete now-points, or simply ‘live in the present’, relational complexity is dead. And yet, there is no richer dimension of relationality than time. On the basis of our experience of time and the temporality of our experience, we grasp the continuous identities of things, the coordination of their pulsing rhythms, and many virtual and imaginative ways in which even in the instant we enter a connectedness that transcends the moment. And every form of connection is put into play and contested by the powers of interruption, interference, and breakdown. Phenomenology is indeed descriptive in the sense of trying to get clear about the structures of these relations, and disruptions, but such descriptions are also edifying, in alerting us to the illusions of immediacy, and in showing us how deep temporal complexity is articulated, and how it changes the way we see. Let me say a little more about these four strands: the invisibility of time, the celebration of finitude, the coordination of rhythms, and the interruption and breakdown of temporal horizons.

1. **Time as invisible.** It is a commonplace to identify the eternal with the unchanging, and time with change, which would put time and eternity at odds with each other. A clue to how misleading this is can be found in the relation between the visible and the invisible. We typically think of the relation between the visible and the invisible in, broadly speaking, spatial terms. The invisible is either hidden by the visible, or occupies some other ethereal realm. But if by the invisible we mean what does not give itself to a certain kind of immediacy then we may find the invisible curiously closer to hand than we thought. If, for example, the invisible is to be contrasted to a sense of visibility to which the mere illuminated availability of the thing in front of us is sufficient, then we may find the invisible to be a clue not just to a secret or hidden realm, but to a more subtle grasp of visibility itself. And for this, we need to move not to another deeper or more rarefied space, but to time.

Suppose I look out the window – what do I see? A tree. There it is. It is there in front of me, as visible as I could want. But what do I see when I see a tree, what does seeing it consist in? If an ant climbs up a tree, we might argue about whether the ant could really see the tree if it could only see a part of the tree at any one time or if it did not know what a tree ‘is’. It is clear that seeing can be compromised, or at least questioned, by certain kinds of conceptual or perspectival
limitations. If this is so, then seeing a tree cannot just consist in it being there, in the light, and I having my eyes open. ("Intuitions without concepts are blind." as Kant put it.) But there is a less obvious dimension in which seeing is compromised – that of time. We know that we cannot ‘hear’ music at an instant, but that hearing requires participation in a certain temporality. We have to undergo an experience in time. It does not take long to hear ‘that there is music playing in the house’, but to hear the music ‘as such’, for example to hear what is being played, to hear the piece itself – these each require a temporal engagement. Now of course it is possible that from only three bars I could immediately identify the piece, even have an image of the score flash into mind. If this happened, I would have come to recognize the true temporal extendedness of the object in a snatch, or glimpse. The moment would capture something importantly non-momentary. And in this, and in many cases where there is in fact no score to be found, the temporal pattern recognized in the moment is one that is essentially repeatable, however distinctive this particular occasion may be. By analogy I am suggesting that the life of the tree, the living tree, the tree of which we glimpse only a limb here, a trunk there, or views from various angles, this temporally extended persisting, growing tree, is invisible. Sometimes we try to capture this extended visibility with the word ‘watch’, as, ‘last night I watched the match’. In watching there is the suggestion of a certain synthetic activity that addresses significantly extended features in the object. Even there, we seem to run against the grain when we try to think of something that essentially unfolds in time as ‘visible’. Something that merely perdures is visible because time does not operate as a dimension of essential unfolding or articulation. So one moment can easily represent any other. But something that grows, develops, and transforms itself cannot as easily represent that aspect of itself in any one moment. Think of those photographs of sporting victory which capture the ‘moment’ of accomplishment. The raised arms, the open mouth, the wild eyes mark the moment at which a certain significance has arisen in the course of events. The sign here, the mark of significant accomplishment, transition, or depth, precisely attempts to mark the relation between one particular moment and the temporal horizon of its significance. The sign renders the invisible visible. But it also renders the invisible as such invisible, precisely by providing a substitute for it. It is here, for example, that we find the paradoxical success of narrative.

In summary:
a. There is an invisible in the heart of the visible to the extent that the essential temporal articulatedness of things is not itself obviously presented in their immediate temporary appearance. b. Furthermore, how things happen in the first place is rarely itself present, visible, available to us, whether we think of this as an eruptive event (Heidegger), or the product of a contingent conjunction of forces (Foucault). It may, or may not, have ever once been visible. The question here is what can be seen, and this does not admit of a general answer. There are many ways in which ‘They have eyes but they do not see…’.

What phenomenology does is to activate and reanimate the complex articulations and relations of things, restoring through description, through dramatization, a participatory engagement (bodily, imaginative etc.) with things. A turn to the articulatedness of things, and to the event(s) of their coming into being, is a return to the conditions of human fulfillment, and connectedness, but also to the sources of renewal, transformation and resistance.

2. The celebration of finitude. That time lives as the invisible in the visible opens us to a transformed relation to time. To show this, it would be hard to improve on remarks made in the course of Leishman's introduction to Rilke’s Duino Elegies:

“The ideal of complete and undivided consciousness, where will and capability, thought and action, vision and realization are one, is the highest Man can form, and yet so impossible is it for Man to realize this ideal, to become like the Angels, that it is rather a rebuke than an inspiration. What, then, remains for Man? Perhaps, in Pater’s phrase, to give the highest possible significance to his moments as they pass; to be continually prepared for those moments when eternity is perceived behind the flux of time, those moments when ‘the light of sense/ goes out, but with a flash that has revealed/ the invisible world’.”

The consequence of the impossibility of the angelic for us humans is the transformation of the most ordinary moment into an opportunity, or as Leishman puts it, into an obligation: “[T]he price of these moments of insight is a constant attentiveness and loyalty to all things and relationships, even the humblest and least spectacular, that immediately surround us.”
This sense of the infinite in the finite, which is precisely not a spiritual dilution but an intensification of the concrete, can take a number of forms. Repetition, and the awareness of repetition, can be taken to the extreme of intensity that we find in Nietzsche’s eternal recurrence. Here connectedness between individual events generates a kind of depth to every moment through which its very singularity is heightened. Looking into my lover’s eyes, for example, one can so focus on the immediacy of the present that the passage of time itself seems suspended. Finally, we can come to experience the passage of time as such a constancy that time itself becomes the best candidate for the permanent, what does not change.

If I am right, these various approaches to the infinite in the finite involve a kind of pre-representational part/whole relation in which the parts are seen to bear within themselves the imprint of the whole, not as burden, but as an intensification. Such a relation captures the kind of complexity with which ecophenomenology would treat time.

3. Coordination of rhythms. To the extent that things bear and embody rhythms, pulses of temporal development, they form part of a manifold and stratified field in which these rhythms interact, interpenetrate, interfere with one another, become locally coordinated and so on. Fireflies come to flash synchronously at the end of an evening, while cicadas carefully space (or time) their periodicities of their emergence from hibernation so as not to overlap and compete. The point here is that through rhythm and periodicity time acquires sufficient autonomous efficacy to generate its own relational differentiation. This example illustrates well the significance of a middle ground. For the co-ordination of rhythms does not appear here as the result of the synthetic or constitutive activity of any kind of subject, nor any simple causal mechanism. Clearly there are evolutionary processes behind cicada periodicity. And competitive advantage is clearly tied up with causal mechanisms such as the effect of lack of food on survival rates. What is salient here is that such mechanisms seem to be subservient to the advantages accruing from the eventual rhythmic co-ordination and differentiation

4. The interruption and breakdown of temporal horizons. While these first three aspects of temporality build on, if they do not simply respect, the horizontalities of time within which things live, move and have their being, time is importantly not just about grasping the invisible continuities lurking below the surface of the visible. It is equally about interruption, break down,
discontinuity – about the arrival of the unexpected, about the unintended consequence, about the
ghosts from another time that still haunt us, about blindness about the past, about the failure to
move forward, about dreaming of impossible futures etc. And it is especially in its pursuit of this
last of these four aspects of time that ecophenomenology preserves us against a premature
holism, an over-enthusiastic drive to integration. The multiply fractured wholes with which we
are acquainted include within them many perfectly completed developments, many acorns that
turn into oak trees, and many images, desires, and fantasies of wholeness. Anything, taken
singly, can be broken or unexpected or fractured. But not everything can suffer this fate. *We need
a model of the whole as something that will inevitably escape our model of it.* Indeed, it could be
said that when it comes to nature, time as creative, as eruptive event, escapes representation long
before it is party to expectations which are not met. It escapes representation by being its
presupposition. While I have focused on what we could call temporal relatedness and its
breakdowns, it is quite true that there is a kind of primary invisibility in the very upthrust of time
as event.

These four strands - the invisibility of time, the celebration of finitude, the coordination of
rhythms, and the interruption and breakdown of temporal horizons - offer us, I am suggesting,
not just analytical pointers as to how we might think about time, but ways of enriching our
temporal experience. This account occupies what I have called a middle ground overlapping the
space of intentionality, avoiding both the language of causality and that of ecstatic intentionality.
I am sure that an ecophenomenology could profitably pursue the theoretical elaborations each of
them would make explicit, but I will not do this here. The fundamental focus of these remarks
has been on their contribution to an enhanced attentiveness to the complexity of natural
phenomena, and the ease with which that is hidden from view by our ordinary experience.

**III. The boundaries of thinghood**

It is possible to imagine a world without things, or at least a cosmos of gaseous swirlings and
passing clouds. It may be that what we imagine is not possible, that for there to be swirlings,
there have to be the cosmic equivalents of coffee cups or bathtubs to contain the swirlings.
Nonetheless, we seem to be able to imagine a thingless world. But it is not our world. We could
of course imagine a viewpoint on our world in which what we now experience as things would
be so speeded up that these things would appear as processes. Extinct volcanoes would be
momentary pauses of an ongoing activity, as when a swimmer turns round at the end of the pool. Individual animate organisms would be seen as part of a wider flux of chemical exchanges. Things as we know them would disappear. And as this speeding up would enable us to see things, to make connections, that were not previously available, who is to say that it would be a distortion? Do we have any basis for saying that seeing things at this or that speed is more accurate? Well, perhaps we do. If we imagine everything so speeded up that it happened in an instant, it would be impossible to make distinctions at all. It is hard not to see that as an information-deficient environment. And at the opposite extreme, we can imagine such a slow perspective that rivers did not detectably flow, and rays of light seemed to linger forever in the sun’s starting blocks. Such perspectives would be distorting because the phenomena of relative change and relative stability would not be available. And as these imaginative experiments are conducted with the memory of such a distinction being indispensable, it is hard not to see these other extreme views as deeply deficient. It might be said that the very slow view really does teach us something deep – that nothing really changes. But that is much less deep a conclusion from a world in which change is not apparent anyway, than from a world of which we might say that *plus ca change mais tout rest la meme*. All this is to encourage us to suppose that not only would it be difficult for us to make sense of a world of total flux. But that if such a view were to rest on the idea that the temporal frame from which things are viewed is up to us, the flux view is simply a mistake. To make this point the other way round – on the total flux view, there would be nothing very special about May 18 1980, the day on which Mount St. Helens erupted, compared to the day before, or the day after. On the ‘ordinary’ view – which we are defending, there really are events as well as processes, births, deaths and catastrophes, as well as continuities. And these concepts are of an ontological order, not just epistemological. That does not mean that we may fail to notice them, or to care much. When we crush cicadas under our feet, we may not register the crunch, and if we do, think of it as part of a wider ‘process’ in which only a small percentage of these creatures survive to maturity. But we do know, and most if pressed would acknowledge, that there are individual cicadas, and that crushing them ends their lives, even as it allows that cicada’s body to re-enter the food cycle by providing nutrients for nematodes.

So, things may come and go. But for them to come and go, they have to be real while they are here, or else they could neither come nor go. Buses come and go, but it would be a strange
passenger that refused to get on the bus on the grounds that ‘buses come and go’. Or even more deeply, that this bus will eventually be scrapped. The mechanic working on the bus knows that although the parts will eventually wear out, the connections between the parts is real enough that if one part fails, the bus may not run, and if it is replaced, it will. The surgeon knows the same about his patient. And the poet knows the same about the word she ponders. If she gets that word right, the poem will fly.

Permanence, then, is no test for reality, and many ways in which we think about internal complexity, the part/whole relation, functional integrity would be impossible unless we admitted the existence of things. It could be replied that these considerations are no less fictional than the original belief in things, and that, of course, once we make one error, others will follow. Of course I do not really doubt the existence of things, or worry that you need this demonstrated. Nonetheless, good stuff happens when we try to explain why we take things seriously. References to mechanics, surgeons and poets are to people concerned with maintaining, or creating complex things, things which can break, or breakdown, or falter, or fail to be realized. Here we have distinguished between machines, organisms, and works of art. Mount St. Helen’s was a very large lump of rock held together by whatever forces bind crystalline structures together, and by gravity (and torn apart by pressure from molten magma). A rock is not a machine or an organism. But even a rock has a certain organized integrity. David did not throw sand in Goliath’s eyes; he threw a rock at his forehead. And the rock arrived at his forehead all at the same time, causing serious damage to the skull’s capacity to protect the brain, bringing about the collapse of the whole Goliath.

It might be said that nothing of much importance could be true of all these things, from giants to mountains, from buses to poems. Perhaps the differences between them will turn out to be even more interesting, but the point of identifying them all as things is to draw attention to something they share, which I have called organized integrity. Obviously this comes in many shapes. Rock composed by aggregation has a less ‘organized’ integrity, than rock that, under compression, has formed a large crystal, where the parts have come together in a way that reflects a pattern of organization (as in a snowflake). And to capture the kind of integrity we find in living organisms, we need to speak of self-organization and (dynamically) of growth, self-maintenance, self-protection and reproduction. Between rocks and rockfish, there are of course
many other kinds of organized complexity – such as machines, stock markets, weather-systems and plants. My point in offering here a reprise of the great chain of being, is to bring to the fore the idea that things, and the organized integrity that they manifest, comes in many forms. And that their unity depends, typically, on the relationships between their parts. Now this relationship may be as sensitive to disruption as you like, or as resistant to disruption. A watch mechanism is given a case to keep out dirt that would disrupt its workings in a split second. Gyroscopically driven mechanical systems have the power to maintain their balance in the face of external agitation. What we commonly take to be typical of living systems, however, and some other animal collectivizes and human creations, is that they each actively maintain some boundary with what lies ‘outside’ them. Such boundaries are, in part, the products of the very processes that maintain them. Boundaries are the way stations between insides and outsides, the sites of negotiation, of transformation, of sustenance, of protection. Boundaries are real, and yet they are often recessive and ambiguous. Boundaries are not at first things, but they arise in and for certain things, and they may even turn into things. (Think of the Berlin Wall, think of the line we must not cross in a relationship.) But for our purposes, what is especially important is that boundaries are the sites of a special kind of phenomena – limina – and a whole new opening for phenomenology.

We have arrived at this point, the threshold of a new/old continent, by highlighting the reality of things, over against continuous flux, and their possession of a certain organized integrity. We moved on to claim that it is an initially distinctive feature of living things that they maintain this integrity by creating boundaries, which are sites of management of inside-outside relations. This story we are telling is not a biological story. Indeed, to repeat some of the Husserlian hubris, it is engaged in what I would call tentative legislation for any subsequent science. The hubris derives from the thought that there are categories and concepts importantly at work in any science that are not its distinctive property, but also that sciences themselves operate as boundary-generating systems. If so individual sciences are not in the best position to talk about science as such. At least part of the role traditionally played by metaphysics is here played by ecophenomenology’s concern with the fabric of time and with the events that occur at boundaries – phenomena that are not the proper purview of any one science. Such a liminology, which dealt not only with the maintenance of boundaries within individual organisms, but the ways in which the shape and location of boundaries is transformed during growth, adaptation, and the struggle to survive, in
which the breaching of these boundaries is coordinated in the interest of higher groupings (see families, organizations, sex, war), which deals with symbiotic and productive relations of dependency between species, and which deals with the psychic formations necessary both for the maintenance, mobilization and transformation of such boundaries. All this is not the subject matter of one science, but thinking through these liminological events is something that an ecophenomenology could protect and encourage.

What would liminology concern itself with? The imperative of boundary-maintenance leads to such issues as dependency, co-operation, symbiosis, and synergy. But also rupture, catastrophe, and transformation. All of these are, in an important sense, natural phenomena, phenomena that appear at many different levels in nature. But equally they also suggest something of a concrete logic for nature. And not just what we usually include in ‘nature’.

IV. Between intentionality and causality

We have tried so far to show that the gap between naturalism and phenomenology is in an important way dependent on how one thinks of nature. The fundamental principle of phenomenology – that of intentionality specifically names consciousness as the central actor: ‘all consciousness is consciousness of something’. This is not just a claim about consciousness, but a claim about the kind of relation that consciousness brings into being, which in any usual sense we could call a non-natural relation. I may be an embodied being, and the object of my awareness may be a tiger or a mountain. But the relation between us – seeing, fearing, hoping, admiring - is not a causal relation, not a physical relation, but an intentional one. When I admire the mountain, the mountain is not affected, and even if rays of light passing from the mountain to me are necessary for this admiration to take place, the admiration is something of a different order. I may be dreaming, say of an imaginary golden mountain, making a causal account of the relation even harder to sustain. And yet the absence of proximate cause does not refute causality. Think of finding a giant rock half way down a valley. Or sea-shells in a farmer’s field. To understand intentionality to be opposed to causality is important if we associate causality with determinacy, with linearity, and with a certain kind of automatism. But if the realm of causality were to be expanded in way that overcomes these prejudices, what then?
One obvious way of beginning to bridge the gap between intentionality and causality would be to introduce the idea of information. When I admire the mountain from my window, I add nothing to it, and take nothing away. My relation to the mountain may develop – I may decide to climb it. It might kill me through exposure or avalanche. But here at the window, causality is at a minimum. What I receive is information about the mountain, directly, from the mountain, in a way directly caused by the actual shape of the mountain. But I receive this as an information processor, not as an impact of matter on matter. Does this help us to naturalize intentionality? Only a little. When a boot makes an imprint on soft ground, we may say that there is a direct causal dimension – the squishing of clay – but there is an informational dimension, reflected in the precise shape of the imprint. But information can be registered, without it ‘registering’ with the clay. What then is distinctive about human consciousness? The sight of the mountain is information ‘for’ me. Whereas we might say that the imprint of the boot is not information ‘for’ the clay. Two kinds of reasons could be given here. First that the clay has no brain, no capacity for symbolic decoding. We are tempted then to say that because the clay cannot think, cannot reflectively process information, that even if there is something more than mere causality operating, it does not add up, say, to the impact of a footprint on a Robinson Crusoe. But secondly, the clay has no interests, no relation to the world such that what happens out there could matter to it. This second deficiency does not reduce intentionality to causality, but if we accept that this connection to practical agency is central to intentional meaning, it does locate intentionality within an interactive nexus from which causal powers cannot be separated. If I ‘see’ a fruit as succulently delicious, this is intrinsically connected, however many times removed, with my enjoyment of fruit, my capacity to eat etc. The fact that I am now allergic to fruit, or that I cannot afford this particular item of fruit, is neither here nor there. The point is that I am the kind of being that eats sweet things, and the structure of my desire reflects that. The same can be said of erotic intentionality and all its transformations and displacements. If this is so, intentionality is firmly lodged within my bodily existence, within the natural world.

It remains to ask how the relation of ‘ofness’ or ‘aboutness’ can be understood naturalistically. We could say this: that intentionality is naturalistically embedded, but is itself an indirect natural relation. It is indirect because it is mediated by such functions as imagination, transformation, delay, and memory, which are often, but misleadingly associated with interiority. The frame within which the intentional functions is a complex non-reductive natural setting, in which
human’s needs, desires, fears and hopes reflect different levels of their relation to a natural world. What we call con-sciousness is perhaps only derivatively (but importantly) able to be broken down into consciousness of this or that. Or to put this claim another way, all specifically directed intentional consciousness draws on the manifoldness of our sensory and cognitive capacities. Con-sciousness is a networked awareness, a with-knowing, a knowing that even as it is separated into different modalities, draws on those others. (Something similar could be said about the relation between individual awareness and the connection this establishes, or sustains with others. Through con-sciousness we not only register the significance of things for us, but also connect things together with other things.) Here I would draw attention to the fact that our being able to focus on one particular domain or object is quite compatible with that capacity being in fact dependent on the same being having many other capacities, and with there ultimately being an integrative basis for this connectedness in our embodied existence. And we must not forget our capacity for productive transformation of the intentional order - our capacity for becoming aware of our own awareness, taking our activity as an object of a second order awareness. I would make two comments here: First, the dependence of focused attention on other non-focal awarenesses is illustrated in our capacity to see objects as solid, round etc. These latter properties are arguably (as Berkeley and Merleau-Ponty have both argued) dependent on our capacities for tactile manipulation, which is imaginatively but only tacitly implicated in our vision. Secondly, I suggest that our capacity for self-consciousness rests firmly on this capacity for demarcating a bounded field, even when that is our own awareness. We can only speculate that there is some cognitive cross-over from our more primitive capacity to register and defend our own bodily boundaries and systemic integrity, operations which only continue in consciousness what begins at much more primitive levels of life.

In this section I have tried to indicate various ways in which thinking about consciousness would take us into thinking about our interrelated capacities a. to understand things within fields of relevance (horizons), b. to bring to bear on one modality of awareness interpretative powers drawn from other dimensions (such as the tactile in the visual), and c. the ability to reconstitute our awareness as the object of a second order awareness. I have suggested that in these and other ways, consciousness is tied up with the construction, displacement, and transformation of fields of significance, and of significance as a field-phenomenon. Merleau-Ponty helps us think through the connection between such phenomena and the idea of a body image. And I would
suggest a more primitive basis for the idea of a body image in our fundamental need to manage body boundaries. These sorts of connections illustrate how much a certain naturalization of consciousness would require, at the same time, an expansion of our sense of the natural. That, I am arguing, is at last illustrated by (if not grounded on) the existence of things with various degrees of cohesive integrity, which leads, eventually, to ways of managing boundaries. These are natural phenomena that spill over into what we normally think of as distinct questions of meaning, identity, value etc.

V. Deep Ecology

A friend sent me a paper in the late 70s in which he first connected Heidegger to deep ecology, and then charged ecological thinking in general with fascistic tendencies. I do not propose to deal with the politically troubling aspects of his argument. But the central worry about ecological thinking, especially its deep version, is worth dissecting. I want to argue that the dividing line between benign and pernicious appropriations of the ecological perspective has to do with these liminological issues of boundary management which ecophenomenology is in a position to address.

I will draw lightly on Arne Naess and George Sessions’s “Eight Points”, presented as an outline of deep ecology. Deep ecology is deep in part because of the imperatives it generates from certain claims it makes about the relations between humans and the rest of nature, some of which are already evaluations. The fundamental claims here are that nonhuman life has an intrinsic value independent of its value for humans, that biological diversity promotes the quality of both human and non-human life, and that the current human interference in nature is both contrary to the recognition of these values and unsustainable. The fascistic implications thought to arise from these claims would include the claim that one could justify active human population reduction to accommodate the needs of other species, and that more broadly, the rights of individual humans are to be subordinated to those of the species. More generally still, the deep-ecology perspective is presenting itself as a kind of meta-legislator of value, dissolving within itself every other dimension or consideration.
The plausibility of such conclusions arises from the understandable belief that if the alternative is an irreversible destruction of nature, or an unstoppable escalation in human population growth, i.e. some sort of catastrophe, then almost any measures might be justified in an emergency.

When the house is on fire, you don’t reason with the child who wants to finish his Nintendo game; you grab the child and run. (And explain later.) But if the house is merely smoking, or there are reports of its smoking, the situation is less clear. Deep ecology is a crystallized vision of the desperate state we are in. But the need for radical remedies is a reflection of the totalizing aspects of the diagnosis. What I want to suggest, however, is that so-called deep ecology is the product of an uncontrolled application of the methodological virtues inherent in the ecological perspective. The central virtue is the recognition of the constitutive quality of relationality.

Things are what they are by virtue of their relations to other things. What look like external relations are, if not internal, at least constitutive. Living things eat each other, breath and drink the elements, live in communities, while inanimate things have properties that depend on the properties of other things. Limestone cliffs would not last long in acid rain, Everywhere, it is the interplay of relative forces that produces results, not the absolute forces themselves. What the ecological perspective teaches us is that things with no obvious point to their existence play a role in the life-cycles of other beings. It teaches us that the survival of a particular species may depend on the preservation of an environment with very specific features. And it teaches us that the life, death and flourishing of things is tied up with other factors, conditions and creatures in ways for which we typically do not have a map, and under variability tolerances we do not know. We can study these things, of course. But as much as ecology is a science, it is also a counsel of caution, precisely because it deals with the interaction of widely disparate kinds of things.

Here we need to contrast a precise science with a field science. A precise science fundamentally idealizes its objects, and in so doing, it can develop highly sophisticated theoretical structures - most notably in mathematics. A field science deals with the interaction of many quite different sorts of things, allowing no consistent method of idealization, and inhibiting complex axiological development. Ecology is just such a science. And if we extend ‘science’ more broadly, the same must be said of geography, history and anthropology. In between, we find physics, chemistry and biology, and all those sciences that profit from controlling conditions in laboratories. It is a commonplace of physics that a universe in which there are only two bodies requires much less mathematical complexity than that of a universe with three bodies. And once a fourth body is
added, all hell breaks loose. Real life biological environments contain not just huge numbers of bodies, but bodies of very different sorts, each of which manages, through various different procedures, its own relation to that environment, or to its own niche in that environment. It is curious to realize that although we could not mathematically, or in any other way, really give adequate representation to the complete workings of such a complex system, that nonetheless such ‘systems’ do ‘work’. This is not such a mystery of course. Representation often plays only a small part in the way of the world. But of course another reason why such complex systems work is we usually do not have any precise sense of what it is for them not to work, what outcomes would be failures. Does the outbreak of myxomytosis in Anglesey rabbits signal a failure of the system after foxes have been eradicated, or does it mark a successful transformation of the system? Deep ecology would say that while there may be difficult cases, there are also clear ones: that we know what a dead lake means, and that photographs from space argue that the earth, itself a living being, is dying.

The fundamental thrust of phenomenology is its non-reductive orientation to phenomena. That is what is meant by “Back to the things themselves!” To the extent that deep ecology would permit or encourage the reduction of ‘things’ to the function or role that they play in some higher organization, deep ecology would be opposed to and opposed by phenomenology. I suspect that the ecological perspective more broadly does indeed harbor a tension between finding in ‘relatedness’ a basis of a higher-order synthesis, and recognizing that the kind of relatedness in question will constantly and awkwardly interrupt such syntheses. Take a group of people in a room. We may listen in on their voices and say – “that must be the French soccer team”, recognizing them under a collective identity. We may, on the other hand, remember that each of these people has a distinct outlook on the world, that they cannot be collectivized or serialized without an objectifying loss. When we watch them playing on the field, we may conclude that to understand ‘what is happening’, we need a perspective in which we move between these two viewpoints, just as the players themselves, each separately, move in and out of various forms of collective or sub-group consciousness. (One player may be aware of what an opposing player is doing, and have a good understanding of where his team-mate is moving up to. Another may have a sense of the strategic opportunities created by the different styles of play of each team.) What is clear here can be seen writ large in a living environment in which a multitude of creatures compete and cooperate, eat and feed each other, and whose awareness of one another’s
presence or existence will vary and fluctuate. If every living being not does merely have a
relation to its outside, to what is other than itself, but is constantly managing that relationship
economically, (risking death for food, balancing individual advantage with collective prosperity
e tc.), then however much it may be possible, for certain purposes, to treat such an environment
collectively, that treatment will be constantly open to disruption from the intransigence of its
parts. Important as it is to see things in relation to one another, and tempting as it then is to see
these spaces, fields, playgrounds of life, as wholes, that wholeness is dependent on the
continuing coordination of parts that have albeit residual independent interests. At the same time
these ‘things’ we call environments, niches etc. are themselves subject to what we might, after
Derrida, call the law of context. And context is an iterative and porous notion. While all meaning
(every creature) is contextual (exists in relation to a sustaining field), no context is fully
saturated, closed or determinate. Context is porous for the scientist in that his model of the
environment will always be vulnerable to the incursion of ‘other factors’. But it is porous in
itself, ‘on the ground’ too, in that unusual or unexpected events may always come into play. And
it is porous for living creatures in the sense that the whole way in which their embodiment
anticipates the ‘world out there’ may turn out not to protect it from injury or death.

VI. The Ends of Nature

It would be a brave scientist who would admit to being an Aristotelian today. The idea that
things have an inherent purpose or telos seems half way to a primitive animism. But poor
metaphysics may fail to do justice to valuable intuitions. An inherent purpose is a hard thing to
find when dissecting a frog; it does not appear alongside heart, legs, sinews etc. But nor does
agility, noxious taste, and camouflaged coloration. That a living organism exhibits a set of
integrated functions organized around certain ends – survival and reproduction – would be
harder to deny. It is not so much that the frog has reproduction as its end. Rather the frog – and
every other living being - could better be said to embody that end. Frogs may be said to serve
other ends, such as food for the French, or for grass snakes, or keeping down the population of
water-spiders. But these are extrinsic ends. To say that a frog has reproduction as its end is not to
suggest that these are independently definable ends which frogs serve. It is simply to say that the
whole of froggy being is organized in such a way that it maximizes the possibility of its
reproduction, species survival. Within that umbrella, we understanding its individual activities –
jumping in the air, to catch a fly, to eat, and to grow. Reproduction supplies a hierarchical framework of interpretive intelligibility. Purposiveness is not a part of a frog, but a many-leveled characteristic of its behavior, which ultimately makes it the kind of being it is. At some levels, the frog clearly has purposes in the plural. Whatever it thinks it is doing, it is actually sitting on the leaf soaking up the sun or hunting flies. Its behavior is purposive in the sense that there are ends towards which its behavior is adapted and directed. We may balk at saying that survival and reproduction are higher order purposes. It might be said, instead, that they are just outcomes of the successful pursuit of other smaller scale ends, outcomes that have further consequences. The extreme view here would be to say that a living organism was just a temporarily successful collection of mechanisms that, operating in proximity, tend to perpetuate themselves – that there really is just mechanism here. In my view the ways in which brains, and to some extent nerve-ganglia, co-ordinate and even in various ways represent the whole of a creature to itself (body schemata), the emergence of immune systems, levels of organized defence for the whole organism, suggest that this view of a creature simply as a successful collection of parts won’t fly. These three features: hierarchical organization of functions, internal ‘representation’ of the whole, and systemic defense mechanisms operating singly and together provide a basis for saying that a living creature is not just a collection of parts, but functions, importantly, as a whole. But living creatures then are ends, they do not have ends. And of course, this analysis would make it hard to attribute to a rock the desire to fall to earth. The elimination of a rock’s intrinsic terraphilia should still allow us to acknowledge, however, the feature we noted above when discussing the rock with which David smote Goliath - that, perhaps only for a moment, the rock is an aggregated unity, which can be thrown all at once, or admired on a desk. Other rocks can be sat on, climbed, worshipped, protected against quarrying etc. There are obvious many ways in which human purposes can enter into the definition of integrity. But the rock that David threw did not get its integrity from David or Goliath. Rather David made use of the rock’s own integrity by picking it up, placing it in a sling etc.

It would be a foolish, not just a brave scientist who declared himself to be an Aristotelian. But just as politics is too important to be left to generals, so nature is too important to be left to the natural sciences. There are considerations cutting across the different sciences that can be productively contemplated together. The particular considerations I am raising here have to do with the way in which various kinds of things maintain their integrity, manage boundaries, and
relate to their surroundings. Each of these considerations raises ecological (and eco-nomic) issues, and is best approached through a certain kind of phenomenology.

It was Husserl who first made a big deal out of the distinction between Fact and Essence. But it was Merleau-Ponty who insisted that we understand essence not in a Platonic way, and not as an objectified representation, but rather more something like a structure of our Being-in-the-world. What Merleau-Ponty calls “essence here is not the end, but a means; [It is] our effective involvement in the world that has to be understood and made amenable to conceptualization.”

VII. Phenomenology: An Open Future

I have discussed the attractions and dangers of deep ecology, as a case study of how sensitivity to relationality and interconnectedness can turn into an over rigid holism. The charge of fascism against deep ecology is understandable, if problematic. The central question has to do with the way in which closure operates within deep ecology. And this issue permeates so many contemporary disciplinary debates. The question of closure is the question of economy. In the way that I am construing it, ecophenomenology, in the double sense of a phenomenological ecology, and an ecological phenomenology, is an important part of our vigilance against a certain kind of closure. The insistence on taking urgent measures like drastic human population reduction to save the planet offers a dramatic case study of the economy of boundary management.

For one of the key questions faced here is the kind of logic we apply to our thinking about the boundary. In so many areas, what we could call emergency conditions demand that we decide yes or no, friend or foe, inside or outside the tent, etc. The reptilian brain is in charge. This is the logic in play when T-cells in the blood go on patrol, looking for ‘foreign’ material, where there really is an on-off, either/or switch. This mechanism turns out to be too crude when the body’s immune system somehow comes to recognize parts of itself as ‘foreign’, and attacks them. Or when it is persuaded not to attack invading cells which mimic the body’s own. But this crudeness may be precisely what is normally needed. In contrast to this binary logic, there are more complex responses. “He is not my first choice, but he is someone I can work with.” “I’m not really hungry, but you might be able to tempt me.” Many boundary disputes get ‘resolved’ by
power-sharing agreements, mutual access, dual sovereignty, taking turns, symbolic contests, etc.
There are issues about how we will fairly arrive at a yes/no decision (contests in which all parties accept the rules), as well as about how to how to resolve disputes in which there is no fully satisfactory answer. And it may be that the norm is that these different logics are always both in play. If Mexico and the USA were to agree to an open border (rather than more heavily defending the border), it might well be that this openness becomes possible precisely as Mexico and the US become *separately* stronger, politically and economically. The property lines between houses in American suburbs are often marked very loosely on the ground. But this may reflect the fact that everyone has very accurate maps, [and there is a highly developed legal system], so that if necessary, a legal determination can always be made. Where the yes/no border logic is dominant, it often reflects an underdeveloped capacity for thinking, that is, for negotiating complexity, or the recognition that there are forces that would disempower those who think in such a way. Extremists drive even the moderates from the middle ground. What this shows is that a binary logic can operate between binary logic and negotiative thinking. Gresham’s law [bad money drives out good] may apply to intellectual life too. If this is so, then phenomenology is a site of resistance to such tendencies. Are we then operating on an oppositional relation to binary thinking? Finally no. There really are emergencies when there is no time for subtlety, where you have to decide – friend or foe. Phenomenology is a resource for the phronesis, the practical wisdom necessary to distinguish these cases from others.

How does this relate to the question of closure and openness with which we started this section? The strength of deep ecology lies in its taking Hegel’s dictum seriously – that the truth lies in the whole. Truth here need not take the form of one comprehensive statement or vision. Even our grasp of individual truths is sharpened when we understand their limitations, conditions etc. What is distinctive about deep ecology is its sense that the earth really is a strongly interconnected whole, one in which humans play an important part, but also one in which the part they play is not governed by an adequate grasp of the effects of our playing our part in this way or that. We are pissing in the reservoir then wondering why the water tastes funny. Deep ecologists are understandably worried about the gap between the collective consequences of our individual actions on the rest of the biosphere, and our grasp, whether individual or collective, of the impact we are making. Questions of totality figure in this diagnosis at many levels:
1. We each experience only a part of the earth – our own backyard plus trips, tours, vacations, movies, traveler’s tales. If my tree is dying, I notice. But the earth dying, slowly, is not obvious, not something I can see at a glance out of my window. So there is a gap between what I can see and what may really be happening. The glance is ripe for education. Even the possibility of this gap may be something I am unaware of.

2. When I think about my own impact on the earth, I think I would find it hard, even if I tried, with my friends, to do irreparable harm. And to the extent that our consciousnesses of the significance of human action are resolutely individualistic, the collective impact of humans on the earth will fall beneath our radar screens. ‘Perhaps something should be done, but there is little I can do.’ Here there is a gap between an individualistic moral sensibility and the aggregated impact of human activity. xxix

3. The deep ecologist not only believes that the earth is an interconnected whole, in which everything affects everything else. He believes that on his model of that interconnectedness, various disaster scenarios loom, and at the very least can expect a series of uncontrollable, irreversible and undesired outcomes.

4. These consequences will occur unless very dramatic changes are made very soon. Either masses of people will come to their senses and demand this through normal democratic procedures. Or we need to suspend democratic institutions altogether.

An ecophenomenological critique of deep ecology would attempt to open up options within its closed economy. The argument that there are circumstances in which democratic societies might suspend democracy is not as totalitarian as it might seem. Every state has emergency powers – to deal with riots, natural disasters, and threats from foreign powers. And of course, democratic institutions can operate as elected dictatorships between elections. Emergency measures, yes/no logics, do make sense where questions of life and death are concerned. The question of whether the earth is a living being, however, is not a fact of nature, but inseparable from the very questions about self-preservation, boundary maintenance, and nutrition that lurk at the borders of living things and other natural phenomena, and complex systems.

VIII. Conclusion
What then is ecophenomenology? I have argued that ecophenomenology, in which are folded both an ecological phenomenology and a phenomenological ecology, offers us a way of developing a middle ground between phenomenology and naturalism, between intentionality and causality. I argue that our grasp of Nature is significantly altered by thinking through four strands of time’s plexity - the invisibility of time, the celebration of finitude, the coordination of rhythms, and the interruption and breakdown of temporal horizons. And also by a meditation on the role of boundaries in constituting the varieties of thinghood. Ecophenomenology takes up in a tentative and exploratory way the traditional phenomenological claim to be able to legislate for the sciences, or at least to think across the boundaries that seem to divide them. In this way, it opens up and develops an access to the Nature and the natural that is both independent of the conceptuality of the natural sciences, and of traditional metaphysics.

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i This is a specially revised and adapted version of a paper with the same title published in Eco-Phenomenology: Back to the Earth Itself, ed. Charles Brown and Ted Toadvine, Albany: SUNY Press, 2003

ii See Donna Haraway’s discussion in How Like a Leaf: Interview with Donna Haraway (with Thyrza Goodeve) New York: Routledge, 1999

iii Here we would attempt to think through Heidegger’s various formulations of the animal’s relation to the world as weltarm, or weltlos.

iv I have not yet found this word in any dictionary, though it appears in various ways on the internet, sometimes in essays in linguistics, and sometimes in the names of websites. It is an attempt to get at the root sense of such words as complexity, implicity, and perplexity. And something of its intended sense can be divined from the SOED entry for plexus: “A structure [in the animal body] consisting of a network of fibres of vessels closely interwoven and intercommunicating.”

v Imagination is the central connection between space-boundary questions, and boundary/level transformation.

vi Cf. births, marriages and deaths, the common thread that joins newspapers to religions.

vii There are paradoxes in the idea of ‘ordinary experience’ that I cannot entirely resolve here. Someone might object, for example, that (surely) ordinary experience is precisely what is most rich. It is just our philosophical representation of it that is impoverishing. There is something right about this. The value of phenomenology, however, rests precisely on its claim to be able to bring out this wealth of subtlety without reductive schematization. The need for phenomenology lies not just in the dangers of such schematization, whether from science or from philosophy. It also responds to the dullness with which we often live our ordinary experience, however rich and subtle it may potentially be.

viii I use this phrase in the face of my own misgivings. In my view it marks an indispensable site, even if that is a site of interrogation and dispute.


x I am thinking here of Aristotle’s idea that metaphysics, unlike the particular sciences, deals with being qua being.

xi When we speak of ‘something more than causality’ we are trying to address changes in the clay which impact its own capacity to sustain complexity or relationality. Compression of soil can drive out air and water and so transform it from being something that sustains life, to something dead. Or something malleable that can sustain an impression to something hard that cannot. We are not so much escaping from causality here as introducing dimensions of significance which, though tied up with causality, begin to allow us to speak of ‘for the clay’, whether or not it is information that is at stake.

The charge of environmental fascism against deep ecology has been made most prominently by Tom Regan in his The Case for Animal Rights, Berkeley: University of California Press, 1983. Don Marietta in “Ethical Holism and Individuals”, in his For People and the Planet: Holism and Humanism in Environmental Ethics, Philadelphia: Temple University Press, 1995 responds to these worries by showing that holism does not have to be reductive.

Gary Snyder, one of America’s great poets, has suggested that the earth would profit from a 90% human population reduction. He has not, however, advocated involuntary ways of bringing this about!

This claim needs serious qualification. When a map is drawn showing which parts of the Amazon rainforest are to be clear-cut, and what profit will accrue, representation is playing a key role. And capitalism in general, not to mention the information revolution, is driven precisely by representation. Nature seems to be that realm in which representation is not yet fully developed.

What is at stake here could hardly be over emphasized. Descartes’ opposition to that part of Harvey’s theory of the circulation of the blood that posited ventricles in the heart pumping by muscular contraction (rather than as Descartes claimed by rarefaction by a “dark fire” in the heart), was so great that he insisted in a letter to Mersenne in 1639 that “if what he written about the movement of the heart should turn out to be false, then the whole of his philosophy was worthless”. As I understand it, Descartes sees that part of Harvey’s De Motu Cordis as departing from his own strictly mechanistic understanding of nature. I quote here from Anthony Kenny, Descartes and his philosophy, New York: Random House, 1968 pp.201-2.


“For the classic statement of the tension between individual motivation and collective interest, see Garrett Hardin, “The Tragedy of the Commons”, in Science, 162:1243-1248.