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What is Ecophenomenology?

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ABSTRACT

What is eco-phenomenology? This paper argues that eco-phenomenology, 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. 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. It is also transformed by a meditation on the role of boundaries in constituting the varieties of thinghood. Eco-phenomenology 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 Nature and the natural, one which is independent both of the conceptuality of the natural sciences and of traditional metaphysics.

1. The Need for a Rapprochement with Naturalism

Phenomenology was born out of resistance to the threat of naturalism. But 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.

The 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 rela-

tions 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 relation with the manifold things of this world and definitively breaks through 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 phenomenology of perception quickly discovers that it is only as spatially and temporally embodied beings that seeing takes place. Seeing (and hearing and touching) is a phenomenon of the differentiation of the world into 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 about the world, but fundamental dimensions of the world, dimensions that structure the very possibility of factuality. And they certainly structure perception, insofar as perception is essentially perspectival, bound to surfaces of visibility, limited by obstruction, 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 invariant for any living creature and could be said to *constitute* perception, rather than qualify it. If something like this is true, a certain phenomenology at least, both is 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 intentionality from causality? The key to our position here is that there are dimensions essential to perception that reflect nonaccidental 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 structure 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 fundamentally is another level of causality, one that is presupposed by the operative causality of everyday phenomena. That other level would 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.¹ Would such an account of a deep causality make phenomenology redundant, or would it actually facilitate an engagement between phenomenology and naturalism?

If ecophenomenology can give us better access to nature than that represented by the naturalism that 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 traumatic gestation in 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 a relation to the *Sache selbst*, one that is covered over by all manner of objectifying illusions — of habit, reflection, naturalism, commodification, whose shared *modus operandi* is the occlusion of 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 the *Sache selbst* 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.²

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 neither by simple causality nor by simple intentionality, and suggest that in this space phenomenology can recover from the trauma of its birth in opposition to naturalism. These two dimensions we could call the plexity of time and the boundaries of thinghood.

II. *The Plexity of Time*³

Even though the value of presence has often occluded what is at stake, rather than helped us explore it, it has properly drawn our attention to the centrality of time to experience.⁴ While time is central to my sense of phenomenology as essentially oriented to 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 either think of time as a series of discrete presents 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 processive and 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 heedless of Hegel's warning, 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 can be is 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 I were an ant climbing up the tree, assuming ants have eyes of some sort, I would be able to 'see' the 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 me having my eyes open. ("Intuitions without concepts are blind.") 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 would 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 was 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 nonmomentary. 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 in, '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, transforms itself cannot as easily represent that aspect of itself in any one moment. Think of those photographs of sporting victory that 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.⁵ 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, the eventuating ground of things is not 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 ever, have 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 reactivate 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 their eventuating groundedness, 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 resides 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 Commentary on 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".⁶

You may be surprised by my giving a platform to what sounds like neo-Platonism. But the consequence of the impossibility of the angelic for us humans is the transformation of the most ordinary, whether we see this as an opportunity or, as Leishman does, as 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. We can so focus on the immediacy of the present, looking into my lover's eyes, for example, 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 coordination of rhythms appears here as the result of neither 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 coordination and differentiation.

4. THE INTERRUPTION AND BREAKDOWN OF TEMPORAL HORIZONS

Lastly, 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, breakdown, discontinuity — about the arrival of the unexpected, about the unintended consequence, about the ghosts from another time that still haunt us, about *Nachträglichkeit*, 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 overenthusiastic 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 φύσις, 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 inten-

tionality. I am sure that an ecophenomenology could profitably pursue the theoretical elaborations that 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 on the ease with which that is hidden from view by our ordinary experience.⁷

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 ça change mais tout rest la même*. All this is to encourage us to suppose that not only would it be difficult for us (see Kant and Strawson) 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 around: 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 either to notice them or to care much. When we crush cicadas under our feet, we may not register the crunch, and if we do, we may 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 in 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 that 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.⁸ 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 cap-

ture 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 collectivizations 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.⁹

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 metaphysics¹⁰ 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 with 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, cooperation, 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 nonnatural 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 seashells 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 a 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 to, say, the impact of a footprint on a Robinson Crusoe.¹¹ 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, the absence of what Ricoeur would call an intentional arc, 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 nonreductive 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. Consciousness 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 consciousness 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's having many other capacities, and 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. Second, 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 crossover from our more primitive capacity to register and defend our own bodily boundaries and systemic integrity, operations that 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-schema. And I would suggest a more primitive basis for the idea of a body-schema 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. 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 telos seems halfway 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, sinew, etc. But neither 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 waterspiders. 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 that 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 understand 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.¹² In my view the ways in which brains, and to some extent nerve-ganglia, coordinate and even in various ways represent the whole of a creature to itself (body schemata), the emergence of immune systems, levels of organized defense for the whole organism, suggest that this view of a creature simply as a successful collection of parts will not 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 obviously 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.

What kind of phenomenology? I recalled earlier the centrality of the distinction between Fact and Essence for Husserl. 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.”¹²

VI. *Phenomenology: An Open Future*

As I construe it, ecophenomenology is an important part of our vigilance against a certain kind of closure. In another context it would be illuminating to discuss here 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 occasionally raised 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 *economic* issue permeates so many contemporary disciplinary debates. 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.

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. I assume this is what happens 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 sover-

eignty, 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 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 either 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 either 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* 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 their playing their 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's 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 *irrecoverable* 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.

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, a series of uncontrollable, irreversible, and undesired outcomes.

4. And 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 is 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.

VII. 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 Nature and the natural that is both independent of the conceptuality of the natural sciences and of traditional metaphysics.

NOTES

1. See Donna Haraway's discussion in *How Like a Leaf: An Interview with Thyra Nichols Goodeve / Donna J. Haraway* (New York: Routledge, 1999).
2. Here we would attempt to think through Heidegger's various formulations of the animal's relation to the world as *weltarm* or *weltlos*.
3. 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, implexity, 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."
4. Imagination is the central connection between space-boundary questions, and boundary/level transformation.
5. Cf. births, marriages, and deaths, the common thread that joins newspapers to religions.
6. Rainer Maria Rilke, *Duino Elegies*, translated and introduced by J. B. Leishman and Stephen Spender (London: Hogarth Press, 1963), 103–4.
7. 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.
8. 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.
9. See my paper "Time-Shelters: An Essay in the Poetics of Time", in *Time and the Instant*, ed. Robin Durie (Manchester: Clinamen Press, 2001), 224–41.
10. I am thinking here of Aristotle's idea that metaphysics, unlike the particular sciences, deals with being qua being.
11. When we speak of 'something more than causality' we are trying to address changes in the clay that 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 that, 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.
12. What is at stake here could hardly be overemphasized. 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 has 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), 201–2.
13. "What is Phenomenology?", Preface to *The Phenomenology of Perception*, trans. Colin Smith (London: Routledge and Kegan Paul, 1962), xiv.