

Ecological Thought : Some New Implications Of Whitehead's Philosophy

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Abstract

This paper will discuss some new implications of Whitehead's philosophy for environmental thought.ⁱ They fall under three headings: 1. The interrelations between three ways of thinking about the environment: bioregionalism, land ethics, and the philosophy of organism. 2. The implications of Whitehead's philosophy of organism for environmental aesthetics. 3. The implications of Whitehead's philosophy of organism for human communities (sustainable communities) viewed as interfused with living nature.

Keywords: *environmental thought, Whitehead's philosophy, bioregionalism, ethics, organism.*

1. I have argued elsewhere that the only major philosophers in the period 1900-1950 who showed the slightest interest in problems which we would now term 'environmental' were Henri Bergson and Alfred North Whitehead.ⁱⁱ This was, I believe, no accident. Their philosophies both evaded the almost narcissistic emphasis on humanity characteristic of philosophy in the first half of the twentieth century and -- equally to the point -- allowed nature to have an existence and a value of its own. It would be very hard to read *Creative Evolution* or *Science and the Modern World* without understanding of these fundamental points.

Here, of course, the speaker will deal with Whitehead alone. And he will begin by restating what he has said in the essay referred to above: that between Whitehead's thought and contemporary environmental philosophy there is a sort of "preestablished harmony". That is, between Whitehead's philosophy, developed without reference to problems of population, pollution, and species extinction, and today's attempts to construct an "ecosophy," "philosophy of the environment" or "environmental ethics", there is an extraordinary degree of congruence. It is now incumbent on

this speaker to sketch the fundamental structures of that congruence.

What is it that, stripped down to the essentials, most environmentalists (including those who choose to philosophize as environmentalists) believe? So long as one concedes that these axioms have multiple consequences, one does little harm in stating that the overwhelming majority of environmentalists subscribe to two axioms: I. Nature (the environment, the biosphere) is of value, and not merely value for humans. II. Nature (the environment, the biosphere) is a complex of sustaining relationships, in which everything is related to everything. Given these axioms, the rest follows. By carving up nature without regard to its own articulations, environmentalists can state, humankind has both diminished and destabilized the system of natural relationships on which it depends and immeasurably reduced the sum of value in the world. In a more positive vein, environmentalists can propose that every effort be made to conserve the diversity of living things, to avoid or repair the fragmentation of habitats, and to sustain and augment the web of connections which makes for healthy trees, forests, rivers...and cities, (since Euclid it has been customary (really, inescapable) to establish not only axioms but definitions, according to which the axioms will be understood. Here the concept of relationships requires definition. Classically philosophers have proposed two sorts of relationships: external and internal. An external relation is one which in no way affects the characters of the terms of the relation. Two ships that pass in the night with scarcely a foghorn audible, are, so far forth, terms in an external relationship (and externally related). So are two Democritean atoms, or two set members involved in a combinatorial analysis. An internal relationship is one in which the relationship transforms one or more terms which stand in the relationship. Presumably a profound love between two people transforms, significantly, the character of both. Presumably, a long-sustained relationship between two species (as in cases of mutualism) to some extent transforms the character of each species.

As the last example indicates, environmentalists have tended to focus on internal relationships as expressing what life truly is. The

deer in the forest, the forest as systemic, the termite in the termite skyscraper, the keystone species in the swamp: from Emerson and Thoreau to John Stuart Mill and John Muir, and beyond, environmentalists have insisted that nature exhibits interfusion, wholeness, internal relatedness throughout, and have appealed to such examples to support their case.ⁱⁱⁱ Beyond such examples, they may also, and even essentially, have rested their case on metaphysical arguments thought of as transcending science. Emerson was certainly a case in point.

Early scientific ecologists, like earlier environmentalists, tended to envision ecosystems as superorganisms, as single living beings with, so to speak, one arterial system and one beating heart. They also tended to conceive of nature as enduring and stable, both in itself and in relation to the evident instability of human history and human institutions. Contemporary scientific ecologists have in general moved away from this view. They are more likely to hold that disturbance and temporary disbalance are the key to the flourishing of ecosystems, and that such systems are less “wholes” than arrays of cooperating parts (i.e. organisms).

2. How do Whitehead’s ideas relate to ecology: scientific and other, later and earlier? To take the first axiom first, it is clear that for Whitehead all of nature has value: not only the higher vertebrates, or, more, broadly, all living things, but all existences, living and nonliving. It is clear for Whitehead why this must be so. For him all existence, from protons to prokaryotic cells to multicellular organisms are, and/or are composed of, modes of process. These modes Whitehead calls “events”. A squirrel, on his terms is an enduring object with a single, coordinating consciousness. (To introduce a bit more terminology, higher organisms like squirrels are complex entities best understood not as machines but as “societies”. And since these have a central control over their actions and responses Whitehead terms them “monarchical” societies.) Considering these societies from the vantage-point of their monarchs, such societies are successions of events. So also are their cellular parts, and their chemical, atomic, and subatomic parts.

Thus the squirrel chattering on the limb outside my study (and

seeming to enjoy the dog's inability to climb or jump to the level of revenge) is for Whitehead an enduring object, passing along the same or virtually the same overall pattern down the course of its life. But it -- its enduring pattern -- is made up of events. Not inert lumps of "stuff", but sheer gossamer happenings. And these happenings are or are suffused with mind: that is, with some level of awareness, however vague or flickering. And, possessing mentality, they must also possess value.

It is hard to imagine a view of reality more different from that of René Descartes, according to whom only man has mentality (a soul) while all other beings (including squirrels and dogs) are merely machines devoid of sentience. Thus according to the founder of modern philosophy if one is cutting off a dog's tail an inch at a time, though the dog may seem to take a dim view of the process, there is no pain. Because, you see, in the dog there is no consciousness. But it was not long until philosophers like Lamettrie and d'Holbach, to cite the most illustrious, did away - with the mind/soul side of the Cartesian dualism, leaving only nonsentient mechanism to rule the world. Today's neurophysiological reductionists, hard AI and other, argue similarly -- or perhaps we should say, identically.

In one respect Whitehead is swimming against the current of much contemporary thought, with its exhaustive reductionism and concomitant refusal to admit the existence of consciousness anywhere: even in human beings. For Whitehead conscious is not nowhere: it is, though varying dramatically in clarity and content, everywhere. But in another respect he is actually close to most of our contemporaries, since he finds the locus of consciousness to be the human body, including its central nervous system, including its physical, subcellular, cellular, and organ-level organization. But it is not simply a matter of the human body, but of the temporal make-up of all multicellular and unicellular organs and organisms. And of those entities which we choose to call nonliving. All of Gaia.

I would like to illustrate the strength of Whitehead's "ecocentric" position by some quotes from *Adventure of Ideas*. Speaking of animal life, he observes

"...flashes of aesthetic insight, of technological

attainment, of sociological organization, of affectionate feeling; display themselves. Nightingales, beavers, ants, the kindly nurture of the young, all witness to the existence of this level of life in the animal world. Of course all these modes of functioning are carried to an immeasurably higher level among mankind. In human beings these various modes of functioning exhibit more varieties of adaptation to special circumstances, they are more complex, and they are more interwoven with each other. But without question, among animals they are there, plainly demonstrated to our observation.”^{iv}

If the difference between humankind and animals is substantial (but still not absolute) for Whitehead, the gap between animals (including humankind) and nonliving matter should be even greater. But even here, as we should suspect, the basic similarities are fundamental. The notion of physical energy, he states

“...which is at the base of physics, must then be conceived as an abstraction from the complex energy, emotional and purposeful, inherent in the subjective form of the final synthesis in which each occasion completes itself. It is the total vigor of each activity of experience.” (AI239)

Thus there is no “vacuous actuality”, no mere inert matter whose abilities consist of occupying space and transmitting forces. And there is thus no vacuum of value in the nonliving world.

The interrelationships at each of these levels of existence (and at that of their intermediaries) as well as between these levels can be understood in several ways. I suggest that the notion of “societies”, as developed by Whitehead, will be particularly helpful. Particularly because it relates so easily to concepts like mutualism, plant growth community, ecosystem. Here again I will try to be relatively brief. What is being said here in this talk has been said by many scholars writing on Whitehead. No lengthy reiteration seems necessary.

Whitehead gives elaborate accounts of what he means by “societies”. They are not, on his terms, bare particulars which can

be grouped under one class. Rather, members of a society are derived from one another (share in “genetic derivation”) and enforce on other society members the conditions which lead to their similarities. This applies to human societies, nonhuman animal and plant societies and nonliving societies like molecules and atoms. The members inherit from each other and contribute to each other. (AI260-261) Whitehead explains:

“The Universe achieves its values by reason of its coördination into societies of societies, and into societies of societies of societies. Thus an army is a society of regiments and regiments are societies of men, and men are societies of cells, and of blood, and of bones, together with the dominant society of personal human experience, and cells are societies of smaller physical entities such as protons, and so on, and so on. Also all of these societies presuppose the circumambient space of social physical activity.” (AI264)

To those who have not studied Whitehead this passage must seem especially opaque. Perhaps it will seem clearer if, instead of talking about armies and regiments, we talk in terms of a plant growth community like a forest. A forest is a society in which each component influences each other part and is influenced by each other part. Its components are trees. Each tree is a society. Unlike a human being, a tree has no dominant society. It is a “democracy”. (AI264) But like the forest, the subordinate societies of a tree (leaves, bark, cambium, roots, rootlets) all inherit from and constrain each other. The history of a tree is an unending mutual adaptation and readaptation of active centers. So is the history of an ecosystem, or a tissue, or the behavior of cellular slime molds.

3.I hope that what has been said so far is at least reasonably intelligible. Perhaps it will become more so as the attempt is made to relate the Whiteheadian universe to specific environmental philosophies or philosophical problems. The first set of such problems and ideas is the Land Ethic of Aldo Leopold (1887-1947) and the bioregional philosophy associated with the name of the

contemporary poet, Gary Snyder.

First, the land ethics (and, again, briefly). Leopold an American forester and game manager, was a shrewd observer of humankind and its history. Ethical systems, he noted in his master work, *A Sand County Almanac*,^v do not appear in a vacuum. They are responses to changed situations which cry out for new community responses. The transition from a hunting-gathering life to an agricultural society, from an agricultural to an urban society, were accompanied by profound reformulations of ethical concepts. Each of these involved both limitations placed on behavior and a broadening of the group to which moral allegiance is owed. Consider Odysseus' return to Ithaca. His vengeance on his wife's suitors included the murder of those slave girls who had collaborated with them. This was not regarded as an evil act because at that time slave girls were owed no moral allegiance: they were property. Subsequent moral evolutions have extended an allegiance, eventually, to include all humanity.

Writing after the Second World War and keenly aware of humanity's numbers and increasingly powerful technology, Leopold, prophetically, foresaw an impending "environmental crisis", and proposed a new ethic to fill the ensuing social vacuum.

Here again one finds a new set of restraints (on humankind's dealings with nature) and a broadened ethical allegiance (to the land community, the biosphere).

This should have -- though Leopold was unaware of Whitehead -- a very Whiteheadian sound. No longer isolated in an unapproachable "cognito", the human race finds itself an organism among organisms. Far from being the only creature of value, the human race now finds that all creatures have value. Far from being a sort of absolute monarch presiding over nature, humankind finds itself dependent on nature.

Leopold fleshes out his land ethics by proposing three fundamental features of the land community to which moral allegiance is owed: its stability, integrity, and beauty. Each of these can easily be accommodated by Whitehead's metaphysical system. This has been seen in a general way and examined by Susan Armstrong-Buck.^{vi} Her analysis stresses the aptness of Whitehead for problems of intrinsic value in nature. I would like to stress this

aptness with regard to the three fundamental criteria.

It is clear that in understanding nature, top to bottom, as composed of societies and societies of societies, Whitehead construes these societies as maintaining themselves through time, i.e., as possessing stability. The care he takes in defining enduring objects, with their persistence of "pattern" indicates his awareness of stability as fundamental. Stability, however, is not stasis. If the real actual things that endure are all societies,

“...a society, as a complete existence and as retaining the same metaphysical status, enjoys a history expressing its changing reactions to changing circumstances.” (AI 262)

This would apply to all societies: animal, vegetable or mineral, democratic or monarchical. Without persistence (stability) they could not exist at all. But their stability is a pattern of change.

Similarly with integrity. It is dealt with by Whitehead through his organismic standpoint -- that is, his view of reality as containing internal relationships:

“...the characters of the relevant things in nature are the outcome of their interconnections, and their interconnections are the outcome of their characters. This involves some doctrine of Internal Relations.” (AI144; Cf.AI201)

That is, societies, whether of a plant or of a plant growth community, for example, are what they are as a whole, because of the close and determining relation of each thing to each thing in the community. It is the holistic complex of interrelations which Whitehead insists upon, and which is what Aldo Leopold terms integrity. For both thinkers integrity is not only the essence of things; it is what makes survival possible. The loss of integrity in a plant or a plant growth community (to continue my example) would lead to the death or diminishment of that society.

We come then -- however rapidly -- to the third member of Leopold's trinity: beauty. Leopold has often been criticized for bringing anything so merely subjective and fleeting as beauty into the consideration of scientific ecology. Here, and precisely because of such criticisms, Whitehead's thought can offer a real service to Leopold's by systematically relating aesthetic

experience to a world of intricately interrelated organisms. Here again I must be brief. Equally unfortunate is the fact that I must put off the discussion of Whitehead and beauty until a few remarks on Whitehead and bioregionalism can be sketched out.

In one respect bioregionalism is not easy to define.^{vii} Its adherents point to any number of factors -- in nature and in human malpractice -- stressed by other environmental movements and environmental philosophies. Human political ideologies and economic assumptions have come to be completely disconnected from the actual texture of the land, they insist, and of the actual societies that live on the land. But others have told us this also. The antidote for bioregionalists is what sets bioregionalism apart. And it is essentially simple: we should begin to live on the land and to understand it, to shape our behaviors so as not to destroy the bioregions in which we live. Thus a bioregionalist will make every effort to know, in depth, the geology and ecology of his or her part of the world, and to become involved in the local politics which determines how the world there at the "grass roots" is going to be treated.

Bioregionalists thus often express themselves as being more a movement than a philosophy and, as such, growing and changing in their insights rather than being bound by some rigid ideology. Ideologies -- or, more accurately, philosophies -- do not have to be either rigid or closed, however. They do manage to ward off the dangers of confusion of aims or outright inconsistency. In the case of bioregionalism, it is not necessary that its approach be grounded in Leopold's land ethics, any more than it is necessary that the land ethics be grounded in Whitehead's world-view. I would argue only that bioregionalism, the land ethics, and Whiteheadianism "fit" each other, like "nested" sets, the simpler falling within the boundaries of the broader and more fully worked out.^{viii} Driven beyond their biotic praxis bioregionalists could appeal to the land ethicists, who, called on to justify their belief in nature's inherent value and native beauty, could appeal to philosophies like Whitehead's for root-and-branch arguments as to how such value and inherent beauty can be possible.

But this argument can be turned around. Bioregionalists could tell land ethicists on practical grounds, how to find one's actual place

on the planet, dig in, and take responsibility from there. So instructed, land ethicists could in turn insist that Whiteheadians develop the 'environmentalist' side of their philosophy, and how to focus it in more practical, less purely theoretical ways. Theorie and Praxis could thus mutually reinforce each other.

4. Baird Callicot remarks that the history of aesthetics exhibits a peculiar twist. Our understanding of the beauty of nature has been shaped, he argues, by our understanding of beauty in art.^{ix} (My own favorite case in point is the behavior of 19th century Europeans, who would impinge on some agreed-on nature prospect and lift up a metal picture frame to the view in order to see it "correctly".) For our purposes what is especially important is the fact that his aesthetics is developed not in terms of the contents of art museums so much as in terms of the awareness of a world of interrelated organisms: societies of societies. To quote:

"Beauty is the internal conformation of the various items of experience with each other, for the production of maximum effectiveness. Beauty thus concerns the inter-relations of the various components of Reality, and also the inter-relations of the various components of Appearance, and also the relations of Appearance to Reality. Thus any part of experience can be beautiful." (AI341)

For Whitehead beauty is no strange importation into a valueless mechanical nature; rather, it is a fundamental, and within the boundaries of its selectivity, accurate, grasp of the Real. Beauty belongs to the world, and is not antithetical to Truth.

It is not possible to analyze Whitehead's aesthetics in detail here. Those wishing a more adequate analysis should read Donald W. Sherburne's *A Whiteheadian Aesthetic*.^x

We recall that for Whitehead all actualities, men and amoebas, artists and construction workers, are in the world. Theyprehend each other in the world and, in the world, create their own decisions:

"Beauty, Whitehead insists, begins here. It is not a matter of a pure consciousness peering from the heights of some epistemic Mount Olympus into an

objectified world with which it has dubious affinities. It is a matter of awareness, at once intensely visceral and intensely reflective, which participates in the life of the world.”^{xi}

All experience is thus aesthetic or contains a strong aesthetic component. The most significant component of the aesthetic component (as Whitehead explains in chapters 17-18 of *Adventures of Ideas*) of experience is beauty, defined as “the mutual adaptation of the several factors in an occasion of experience.” (AI324)

Whitehead makes room for both degrees of beauty and kinds of beauty. When there is no painful clash between the contents of perception, there is the “minor” form of beauty. When, in addition, there are new contrasts of “objective content with objective content,” there is the “major” form of beauty, which raises the intensities of the experience. (AI324) Beauty is -- to put words in Whitehead’s mouth -- natural. It is “realized in the actual occasions which are the completely real things in the Universe.” (AI328) The Beautiful, by contrast, is more nearly a matter of possibility: of a “fortunate exercise” of the spontaneity of the perceiver. (AI328) It is the inspired possible awareness of beauty. Two factors keep Whitehead’s aesthetics from a merely Apollinian standpoint. For one, intensity is taken by him to be involved in any aesthetic appreciation. Also, he is at great pains to point out that “Discord” (aesthetic destruction) plays a role in the apprehension of beauty via a “quick shift of aim” from the tedium of work out perfection to the freshness of some new ideal. (AI331) He provides a lengthy discussion of the ways in which the negative becomes a condition of the positive in the awareness of beauty, saving art -- and life -- from tedium and tameness. (AI330-338) The point here is threefold. A Whiteheadian aesthetic can help Leopoldians to deal with the place of beauty in a land ethics by: 1. Establishing beauty and aesthetic experience generally as originating in the experiences of organisms prehending their worlds. 2. Providing a conceptual apparatus capable of distinguishing different kinds and grades of beauty: both in nature and elsewhere, in art. 3. Relating beauty and truth coherently, so that the awareness of beauty can be taken as the divination of an

underlying and fundamental truth.

5. There is a final service which Whitehead's thought can perform for environmentalism and environmental philosophies: one which should, but will not always, find favor with them. That is, for him all reality (with the possible exception of God) is an immensely complex interrelating of organisms. Environmental philosophers have tended to stress the protection and reestablishing of rural and wilderness landscapes. But, no matter how necessary and urgent this focus may be, it neglects cities, suburbs and slurbs, and overlooks human communities for which life is not exactly a pilgrimage towards Beauty or an adventure in higher values.

There is a balance in Whitehead's philosophy which allows him to value wilderness and factory; cityscape and landscape, native village and rainforest. In a "philosophy of organism" this is inescapable. All manner of life -- not only nonhuman life -- is valuable. Vandana Shiva and many others have shown us that native cultures can not endure if their natural habitats are destroyed. It would not hurt us to be shown that cities need not be polluted expanses of glass, brick, and concrete. That creeks and rivers there need not be concreted ditches. That "green" and "urban" are not square and circle. That trees, grass, and water need not be reserved for preserves or parks but could be the common reality of urban and suburban life -- and not only for the "gentry".

In my own university -- which, incidentally, I have usually been quicker to criticize than to extoll -- a new journal has recently appeared titled Sustainable Communities Review.^{xii} It is subtitled Merging Traditional Concerns for the Environment with the Social and Cultural Aspects of Community Life. A philosophy like Whitehead's is an ideal tool for pursuing such a merging.

Notes

1. Among the applications of Whitehead's thought to environmental issues and assumptions are: Herman E. Daly and John B. Cobb, Jr. , 1989, *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon, 482; Charles Birch and John B. Cobb, Jr. , 1990, *The Liberation of Life*. Denton, Texas: Environmental Ethics Books, 353 (originally published by Cambridge University Press 1981); David R. Griffin. "Whitehead's Contributions to a

Theology of Nature.” **Bucknell Review**, 20, No. 3, Winter, 1972, 3-24; David R. Griffin, , 1993 , “Whitehead’s Deeply Ecological Worldview,” in *Worldviews and Ecology*. Eds. Mary Evelyn Tucker and John a Grim. Lewisburg: Bucknell University Press; London and Toronto: Associated University Presses, 190-206 (This is vol. 37, No. 2 of Bucknell Review); Susan Armstrong-Buck “Whitehead’s Metaphysical Systems as a Foundation for Environmental Ethics.” **Environmental Ethics**, 8, No. 3, Fall, 1986, 241-260. Cf. Also the author’s essay, footnote 2 below.

2. See Pete A. Y. Gunter. , 1996, “Process-Relational Philosophy: The Raw, Unabashed Cash Value of a Mere Metaphysical Speculation,” in *Frontiers of American Philosophy*. Vol. 2. Eds. Robert W. Burch and Herman J. Saatkamp, Jr. College Station: Texas A&M University, 277-282. For a treatment of Bergson’s philosophy and its implications for environmental thought cf., Pete A. Y. Gunter. “Bergson and the War against Nature,” in *Bergson Revisited*. Ed. John Mullarkey. Manchester, England: University of Manchester Press.

3. It is hard to resist the conclusion that the two axioms cited in the text are really based on a central intuition: a sense of “infused value”, of value residing in the interconnectedness of things. In any case, the internal relatedness of The Real is not thought of as being irrelevant to its value by environmentalists’. The latter is conceived as essential to the former.

4. See Alfred North Whitehead. , 1933, *Adventures of Ideas*. New York: The Macmillan Company, 179. All future references to this work will be cited in the text as A.I.

5. See Aldo Leopold. , 1989, *A Sand County Almanac and Sketches Here and There*. Intro. Robert Finch. New York: Oxford University Press, 228.

6. See Susan Armstrong-Buck. , 1991, “What Process Philosophy Can Contribute to the Land Ethic and Deep Ecology.” **Trumpeter**, 8, No. 1, Winter, 29-34. Essentially Armstrong-Buck stresses the same aspects of Whitehead’s metaphysics noted in this article prior to the discussion of Leopold’s ethics: value throughout nature, the values achieved by each occasion, internal relations in nature, differences in value in nature.

7. See Raymond F. Dasman. , 1995, “Bioregion.” in *Conservation and Environmentalism: An Encyclopedia*. Ed. Robert Paehlke. New York: Garland, 83-85. For a more philosophical account of bioregionalism (Cf. Max Oelschlaeger. , 1991, *The Idea of Wilderness*. New Haven: Yale University Press, Esp. Pp. 243-280. For a collection of essays explaining bioregionalism Cf. V. Andrus, C. Plant, J. Plant, and E. Wright Eds. , 1990, *Home! A Bioregional Reader*. Santa Cruz, California: New Society Publishers, 181 pp.

8. For a bioregionalist application of Leopold’s ideas Cf. Pete A. Y. Gunter and Max Oelschlaeger. , 1997, *Texas Land Ethics*, Austin: University of Texas Press, 156.

9. See for this: J. Baird Callicott, Ed. , 1987, *Companion to A Sand County Almanac*. Madison: University of Wisconsin Press, p. 159.

10. See: Donald W. Sherburne. , 1961, *A Whiteheadian Aesthetic: Some Implications of Whitehead's Metaphysical Speculation*. Forward, F.S.C. Northrup. Archon Books, 219.

11. Pete A. Y. Gunter "A Whiteheadian Aesthetics of Nature: Beauty and the Forest:" Given at the Second International Conference on Environmental Ethics. Lusto, Punkaharju, Finland, June 12, 1996. The proceedings of this conference await publication.

12. The Sustainable Communities Review is published twice a year by the Center for Public Service of the University of North Texas, Denton, Texas 76203.