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J. Baird Callicott's 'Earth Insights'

Tyler Veak
Liberty University, tveak@liberty.edu

J. Baird Callicott's *Earth Insights*[1]

J. Baird Callicott, one the leading authors in the field of environmental ethics, has recently examined non-western attitudes toward nature, and suggested a conception of how these different attitudes might fit under the umbrella of a global environmental ethic. Central to Callicott's effort is his appropriation of what he calls the new "postmodern" sciences.

According to Callicott, the postmodern scientific worldview, which is based on the new sciences of relativity physics and ecology, is slowly replacing the mechanistic paradigm. He claims that "One might therefore envision a single cross-cultural environmental ethic based on ecology and the new physics and expressed in the cognitive lingua franca of contemporary science" (12), and that the "Indigenous worldviews around the globe can contribute a fund of symbols, images, metaphors, similes, analogies, stories, and myths to advance the process of articulating the new postmodern scientific worldview" (192). In sum, Callicott argues that non-western sources provide fresh ways of articulating the "new science," and thereby become "co-creators" of a universal worldview based on western science and augmented by non-western worldviews (Ibid).

Callicott justifies this "multicultural" approach to ecocrisis through his conception of humanity; that is, humans are both "unified" in terms of species and "diversified" in terms of culture (5). A comparative approach to environmental ethics

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can therefore provide an impetus for more detailed work in contextually defined environmental ethics, thus contributing to the diversified aspect of humanity (xv). Regarding the "unity" or "oneness" of humanity, Callicott claims that non-western worldviews support or enhance the "postmodern scientific worldview" (12).

I agree with Callicott's effort to address ecocrisis[2] by appealing to a "plurality of voices." As many have argued, the more perspectives entering the dialogue, the more possibilities exist for resolving ecocrisis. However, his effort to ground his global environmental ethic on Western science-"postmodern"[3] or not-is, I argue, replete with problems.

Further, Callicott's attempt to appropriate non-western belief systems for use in other contexts (i.e., to bolster his global environmental ethic) is also problematic. Exporting of indigenous attitudes toward nature without regard for particular socio-cultural contexts is at the least ineffectual, but as the Indian author, Ramachandra Guha, has argued it can be extremely detrimental as well.

These criticisms, however, do not mean that cross-cultural comparisons of environmental ethics are completely erroneous, or that meta-narratives are inherently evil, as many postmodernists argue. I will, therefore, conclude by suggesting the type of narratives that foster unity while preserving diversity, and when comparative environmental ethics may be apropos.

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[2]I am setting aside the issue of ecocrisis as a "global" problem. The "globality" of environmental problems is obviously a social construction. This is not to say that some problems (e.g., global warming, ozone depletion, etc.) are not global, but that these "global" problems are ultimately rooted "locally."

[3] Although Callicott uses the lingo of postmodern "storytelling", he is in fact far more committed to an oral/epistemological/ontological monism than any postmodernist. To illustrate this commitment to monism, see: J. Baird Callicott, "The Case Against Moral Pluralism," *Environmental Ethics* 12, 1990.

Western Science as a Basis for Callicott's

"Global Environmental Ethic"

After a survey of non-western belief systems on the environment, Callicott, in *Earth Insights*, presents his notion of what the ethical "standard" for other belief systems should be:

> [The "land ethic"] is not just one option among many, standing alongside, say, the Jain *ahimsa* environmental ethic, and appealing only to members of a specific sect or culture. It is a sister environmental ethic, but *it is also proffered as a universal environmental ethic*, with globally acceptable credentials, underwriting and reinforcing each of the others. Further, *it is also intended to serve as a standard for evaluating others* [emphasis added] (188).

Clearly, Callicott is not hiding the privileging of his conception of a "postmodern evolutionary-ecological environmental ethic," as he explicitly states that his ethic is intended as a "standard for evaluating others." The basis for this privileging of Western science is what I wish to take issue with. He claims that since:

> science is now practiced internationally, with only the slightest culture-specific variations from nation to nation...One can fairly assert that at least the ever-evolving scientific worldview enjoys genuine international currency. The

> postmodern evolutionary-ecological environmental ethic here outlined may therefore make a claim to universality simply to the extent that its scientific foundations are universally endorsed-whether openly and enthusiastically or sub rosa (189).

Callicott is clearly privileging Western science, however he is not suggesting Western science as a standard because it has any epistemological or ontological insight into truth with a capital "T," or reality with a capital "R" (190). Rather, he argues that Western science is epistemologically privileged because "it is self-consciously self-critical"; that is, "scientists...scrutinize one another's work" (190, 191). The Western scientific worldview is, therefore, privileged because, unlike other worldviews, it is self reflective and critical. The crux of this assertion hinges on Callicott's extremely naive view of science, which is a hybrid of truncated versions of Kuhn and Popper.

In emphasizing the "self-critical" aspect of science, Callicott is apparently drawing on a Popperian perspective which suggests that science has an "internal" mechanism of evaluation. That is, as long as science follows the scientific method of proposing only "falsifiable" theories, then science necessarily leads to knowledge with a higher degree of corroboration.[4] Callicott couples this view with a Kuhnian-shifting paradigms-view of science.[5]

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[4]Corroboration seems to be what Callicott is getting at: "Though they may be considered neither true nor false, worldviews are nevertheless subject to rational criticism and comparative epistemological evaluation" (190).

[5]He presents a one paragraph version of Kuhn's complex view of science. Kuhn argues that science goes through periods of "normal" science where scientists build upon each others work until enough

The problem with these two conceptions of science is that they simply do not resonate, primarily because they are focused on different levels of science. Even if the Popperian conception of science is accurate in terms of its internal workings, Callicott discredits it as a reason for privileging science by introducing Kuhn's view. If Kuhn is correct, there is no "rational" basis for shifting from one paradigm to the next; rather it is more like a "gestalt" shift. And because there is no objective point from which to evaluate scientific paradigms, it is circular to appeal to science as the justification of science. That is, it is circular to argue that the "postmodern scientific worldview" is privileged over any other worldview simply because it is "scientific."

Up to this point, the critiques presented of Callicott's privileging of Western science have been from within the "traditional" Western perspective, but his proposal can also be attacked from the perspective of postmodernists, ecofeminists, and post-colonialist thinkers.

Michael Foucault, in his power/knowledge nexus, has opened our eyes to the already unequal distribution of power in privileging science (109ff.). Shall we tip the scale even more by forcing indigenous beliefs under the umbrella of Western science, as Callicott suggests?[6] Additionally, forgetting the fact that the resonance between the non-western beliefs and contemporary science is minimal at best, the "new" science on

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anomalies accrue that a paradigm shift, or revolution occurs-such as the shift to Copernican astronomy (Kuhn 1970).

[6]There is actually something ironic in attempting to support the relatively recent, postmodern-scientific worldview, with the "ancient wisdom" of the non-western world.

which Callicott bases his global ethic remains deeply rooted in "old" hierarchical power structures that channel research and development funding to the same old places.[7]

Further, ecofeminists and post-colonialists have persuasively argued that "science" is simply one, among many, ways of "knowing." Women and indigenous peoples frequently emphasize "participatory" (Shiva, 51), "subjective-experiential," and "embodied" knowing over the objective-abstract-disembodied knowing of contemporary science (Mellor, 118). The "new" science advocated by Callicott is no exception. The fact that he appeals to "self-critique" as the basis for privileging science is proof that Callicott upholds the popular view of science as being an objective, unbiased epistemological engine.

If it is the case that the Callicott's new science maintains the same "way of knowing" as the old science (regardless of Callicott's attempt to overlay a nuanced worldview), then it is possible that the aspects that are "resonating" between the non-western belief systems and Callicott's postmodern scientific worldview are Enlightenment "leftovers." He claims that these belief systems "can contribute a fund of symbols, images, metaphors, similes, analogies, stories, and myths to advance the process of articulating the new postmodern scientific worldview" (192). However, the aspects that are resonating-"myth, magic, and ritual"-may be "functional equivalents of Enlightenment science and technology" (Luke 1997: 12). These aspects (myth, etc.) can be used as a means of manipulating and controlling nature, albeit ineffectively (Ibid.). Nevertheless, the point is that even if Callicott finds affinity between his constructed

[7]Eighty percent of "development" projects (leaving aside the kind of "development") are awarded to First World companies, or Third World elite (Escobar, 164-5).

global ethic and these non-western societies, it does not mean they are ultimately more ecologically sensible. If the desire for control and domination is transferred over into existing hierarchical power structures, nothing is resolved.

Belief Systems and Power Structures

Despite his methodology, Callicott says the "right" things in terms of his understanding of the "rootedness" of ethics: "it is important to note that an ethic-despite the professionally decreed divorce between fact and value, is and ought-does not exist in a cognitive vacuum, hermetically sealed off from larger systems of ideas (or, for that matter, from the rough-and-tumble of the real world)" (4). On the face of it, this makes sense-our ethics are rooted in our relations with the physical world.[8] The problem, however, is that Callicott largely ignores the rootedness of ethics in suggesting that "local" ethics can be appropriated for use in another context (i.e., his global environmental ethic).

Implicit in Callicott's appeal for a global environmental ethic is the belief that ideas/beliefs/ethics can be appropriated from one context for use in another context. And while appropriation of ideas is not inherently misguided, Callicott's suggested interchange of ideas takes place between his global ethic on the one hand, which is based on his conception of a "postmodern scientific worldview", and all the "rest" of the ethic(s) on the other. In other words, Callicott's suggested global ethic, which is based

[8]However, what exactly the "physical world" is, has became a subject of much debate, particularly in light of Marxist's discussion of "second" and "third" nature (i.e., "nature" as created by humans/culture) (Luke, 1999).

on the local knowledge of Western science, would "uproot" and globally impose[9] itself on a plethora of indigenous-local-ethics. This game of ethical "musical chairs" advocated by Callicott is deeply flawed.

The "eco-histories" presented by Carolyn Merchant, and Gadgil and Guha exemplify the contextuality of attitudes toward nature; and apropos of the present discussion, they demonstrate the shortcomings of recommendations such as those advocated by Callicott.

In their historical analysis of India, Gadgil and Guha demonstrate that a society's relationship with their environment is determined by more than their ideology or belief system. They characterize historical shifts in what they call the "mode of resource use" from hunter-gatherer, to pastoralists, to settled cultivators, and finally to industrialized. By mode of resource use, Gadgil and Guha mean something analogous to Marx's "mode of production" (4). However, mode of resource use is unique in that it "contextualizes" the modes of production. Thus, the typology of modes of resource use takes into account the social, ecological, and ideological context of the modes of production.

Gadgil and Guha contend that factors such as a culture's technology, economy, and social organization, are equally if not more crucial to a practical "care" of the environment (67). They suggest that these factors actually determine a culture's prevailing attitude toward nature. For example, attitudes may develop or change due to

[9]He states unequivocally that his global ethic serves as a "standard" for the rest (188).

resource availability, as illustrated in the shift from Vedic sacrificial religions to the more frugal Buddhism (81-82).

Merchant provides a similar analysis of the ecological history of the New England region of the United States. Beginning with pre-colonial settlement, Native Americans, she identifies two distinct bifurcation periods, or ecological revolutions. Merchant's thesis is that these ecological revolutions occur through "tensions, and contradictions that develop between a society's mode of production and its ecology, and between its production and reproduction" (3). From these relationships, according to Merchant, a new form of consciousness, or ideology, toward nature arises.

In contrast to India's shift to the more frugal Buddhism, the settlement of New England, which at the time appeared to have unlimited "resources," was colored by Biblical-"land of milk and honey"-rhetoric. Merchant discusses how Puritan Biblical language was used to augment the "Capitalist Ecological Revolution." England was portrayed as "Egypt," while New England was described as the "promised land." By invoking a Biblical injunction, it became a duty for the colonists to subdue the land (100-102).

Merchant, and Gadgil and Guha demonstrate that ideologies toward nature are rooted in specific cultural contexts, which have specific modes of resource use. In addition, these modes of resource are associated with specific social organizations. Hunter gatherers and pastoralists tend to be more egalitarian (though possibly patriarchal) in their social structure; industrial societies, on the other hand, are much

more hierarchical in structure. If an ideology, supported by a hierarchical power structure, is exported to a context with a more egalitarian social organization, the ideology can actually shift the social organization. Therefore, appropriating a belief system for use in another context, as Callicott suggests, forces the ideology to conform, at least in some measure, to the prevailing social organization (e.g., Callicott's attempt to use non-western beliefs to bolster his global environmental ethic, which is tied to multiple power structures through his linking it with Western science).

For example, the United States is considered an ideological "melting pot" where countless ideologies have been homogenized by the capitalist industrial machine. I am not suggesting that ideologies have no effect on hierarchically organized societies such as the United States, but rather that this type of organization is particularly resistant to external influence/change.[10] This is largely because the loci of power at the top of hierarchical social structures become firmly entrenched by capital. This resistance to change is not the case, however, for societies with other types of social organization. Some countries, such as India, have been dramatically affected through the "forced" importation of Western environmental ideology.

Guha succinctly explicates the dangers inherent in transferring ideas that are rooted in American conservation history (76). In cases where "preservationist" philosophy has been exported to Third World countries, such as India, tragic consequences have resulted as thousands of tribal peoples have been forced to relocate.

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[10]In the present "information society" the hierarchy (and hegemony) is born out primarily through dependency on techno-elite data managers/manipulators. See Timothy W. Luke. *Screens of Power. Ideology, Domination, and Resistance in Informational Society* (Urbana: University of Illinois Press, 1989).

Guha claims that Western biologists working under the financial backing of powerful environmental groups pressured India's government to appropriate the "common lands" of tribal peoples for the purpose of "preservation" (76). The resulting social upheavals ultimately served to further strain the environment of India as more people were forced to live on less land. Scarcity exacerbated the problems and consequently groups began to fight each other for diminishing resources.

Guha's example demonstrates the problems inherent in attempting to export environmental ethics between contexts with differing social structures. Preservationism emerged from American conservation philosophy in the early part of this century. At the time, there was growing support for "setting aside" wilderness areas primarily because the United States had the luxury (i.e., the land and the affluence) to do so. The United States, by the turn of the century, had already moved far down the road of industrialization. The bureaucratic machine necessary for Fordism was no doubt a necessary component for fostering "preservationist" rhetoric. That is, the move away from an agrarian based economy to an industrial economy was a prerequisite for implementing "preservationist" rhetoric.[11]

India's situation is much different. It has been populated far longer and that population is consequently much more dense. Further, the majority of its population remains embedded in agrarian and pastoralist economies, which, as noted above, have different social structures than industrial economies/societies. Hence, attempting to

[11]"Nature", in some sense, had to be put at "arms length" for it to be valued as it is valued by "preservationism" (Nash, 1967). For a history of the roots of preservationism see Eugene C. Hargrove. Foundations of Environmental Ethics. (Englewood Cliffs, N.J.: Prentice Hall, 1989); and Bryan G. Norton. Toward Unity Among Environmentalists. (New York: Oxford University Press, 1991).

[11]Again, he explicitly states that his "ethic" is meant to be a "standard".

export preservationist philosophy which is rooted in an industrial-hierarchical social structure to India's more egalitarian agrarian/pastoralist social structure is, therefore, problematic.

The connection with Callicott's project is obvious-he appears to be advocating the imposition of a particular philosophy which is based on Western science.[12] As I have argued, Callicott ignores the fact that Western science, however nuanced, remains tied to the hierarchical power structures of the West (Mellor, 55). If, on the other hand, Callicott is simply musing about the possible resonance between his conception of a "new" science and non-western belief systems without any regard for actual practice, then there would seem to be no harm done. However, in that environmental ethics is concerned with "practices" toward the environment, it seems obvious that Callicott is suggesting the former; and I would argue that even if he is not, his characterization of these non-western belief systems is far from constructive.

Does Callicott's Project "Benefit" Non-western Groups?

Callicott, anticipating the criticisms of his proposal, claims that:

> The 'act of appropriation' is on the face of it an indication of respect rather than disrespect-imitation being the sincerest form of flattery...favorable comparison with the emerging postmodern scientific worldview…*validates* traditional and indigenous intellectual achievements. *It gives them new meaning, dignity, and power* [emphasis added] (193).

First, it is clear from what I have argued above that Callicott is not suggesting "imitation" in any sense of the word; the rest of his claims-that his project validates these groups and gives them new meaning and power- need to be addressed separately.

In appropriating non-western belief systems, Callicott is in some sense "essentializing" and "romanticizing" these groups.[13] Romanticizing other cultures or belief systems cannot simply be dismissed as harmless to the people from which the ideas originate. Guha claims that the West has a history of romanticizing the East as the "mystical Other." However, according to Guha, this is essentially a pejorative view with ulterior motives as he states:

> Eastern man exhibits a spiritual dependence with respect to nature - on the one hand, this is symptomatic of his pre-scientific and backward self, on the other, of his ecological wisdom and deep ecological consciousness. Both views are monolithic, simplistic, and have the characteristic effect...of denying agency and reason to the East and making it the privileged orbit of Western thinkers (77).

Guha explains that in both of the above views "the East merely serves as a vehicle for Western projections" (77).

Callicott, in oversimplifying and selectively conglomerating non-western belief systems to further his ''postmodern scientific worldview,'' is likewise using non-western

[13]For an in depth discussion of the West's "essentializing" and "romanticizing" of the East, see Edward W. Said, Orientalism, (New York: Pantheon Books, 1978.)

beliefs as a vehicle for Western projections. Again, non-western belief systems, like all belief systems, are rooted in specific cultural-historical contexts. Hence, when belief systems are removed from their cultural context, as Callicott suggests, they are frequently distorted (i.e., by essentializing or romanticizing) to the point that they become something entirely different.

Romanticizing ignores the oppressive social structures both in the non-western context from which the ideas are appropriated and in the meta-ethic that the ideas are used to support (Mellor, 35; 55). Romanticizing can also hide the very real social and ecological problems in these non-western cultures. That is, by emphasizing how environmentally "friendly" these various non-western belief systems are, we can easily forget about the environmentally destructive "practices" that many of these groups are forced into by the present global market system (e.g., deforestation, urban sprawl, and rapid depletion of natural resources due to increased competition) (Zimmerman, 156).

In addition, Callicott's assertion that non-western societies need "validating" so that their dignity is increased has all the earmarks of imperialism. The West's imperialistic imposition of technology and economy has degraded, if not outright eliminated, many cultures. Creating (perpetuating?) a hierarchical-hegemonic ideology, as Callicott's project advocates, extends the homogenizing monoculture of Western development to the "mind" (i.e., ideology) (Mellor, 64-67).

Is There a More Constructive Way to "Compare" Environmental Ethics, and Unify the "Plurality" of Beliefs?

Callicott's intentions are commendable: a multi-cultural approach to ecocrisis is no doubt advantageous, and cross-cultural comparisons of environmental ethics can be valuable as well. However, radical pluralism left to itself rarely stays just that. Pluralism tends to slide either to the left or right, and without some kind of guiding framework (democratic or otherwise) it can easily end up in the fascist or totalitarian camp (Zimmerman, 181). Callicott's effort to "unify a plurality of voices" is, therefore, reasonable. What I have objected to is Callicott's suggested method of accomplishing these commendable goals. In contrast to his recommendations, I now briefly suggest some alternative ways of moving toward these same ends.

First, if Callicott is correct, and I believe he is, that our ethics are rooted in our relations with the material world, then indigenous ethics must stand alone in terms of evaluating the appropriateness of their "fit." "Practices" must be emphasized over "ideology." To this end, "sustainable" practices will relate to the particular environmental context (e.g., rain forest, dessert, prairie, etc.) of the indigenous group.[14] Sustainable practices will tend to perpetuate the existing ecosystem. Therefore, the only comparisons possible are those with similar bioregional cultures/ecosystems.

However, comparisons are complicated by the great disparity in consumption. Since a minority of the world's population (20 percent) consumes a majority of the world's resources (80 percent), there is an obvious problem in terms of connecting practices with the "material" world (Boff, 18). That is, it is the disconnecting, or

[14]Which relates to what Gadgil and Guha are getting at in their discussion of "modes of resource use," as being contextually defined.

disembodiment, from the material world that has enabled this minority to live so flagrantly (Mellor, 190). The creation of a "second" and "third" nature (i.e., culture and all its technological constructs) by humanity has pushed "first" nature (i.e., the material world) further and further away (Luke, 1999). Consequently, the non-sustainable lifestyles of the developed world have become hidden behind a ruse of problems in the "non-developed" world. The disembodied living of the few is what needs to be alleviated (Mellor). The crux of the problem is how can this be accomplished without trite "back to nature" rhetoric?

In terms of attempting a unification of these disparate belief systems there are at least two alternatives that avoid the undesirable consequences of drawing on Western science. First, we can appeal to cosmological narratives to unify the plurality of beliefs without appealing to science. Given that science has been exposed for what it is-the extrapolation of a local knowledge/belief system to the global scale-why not appeal to a "storied existence"? To this end, some stories are obviously "better" (i.e., more conducive to adaptive living) than others. One such example is Michael Zimmerman's suggestion of a holistic-evolutionary consciousness as a meta-narrative to guide our ecological ideologies (14). Obviously, there are problems here as well: Which story? Whose story?

Another, more plausible suggestion is to focus on the material conditions created by particular relations with nature. Do particular human-nature relations lead to disembodied living-oppressive living conditions for some, benefits for others? The hierarchical power structures repeatedly referred to in this paper can be exposed by focusing on the material conditions of certain groups in comparison to the conditions of

others (Mellor). Hence, there is value in analyzing/comparing the material conditions between "developed" countries and indigenous groups to expose the disparities created by hierarchical social structures.

Conclusion(s)

As stated, Callicott's effort to construct a "multicultural" yet "unified" environmental ethic is a worthy aim. However, the problems in basing this unification on Western science are clear-however nuanced it may sound. Callicott's understanding of science is extremely Eurocentric, to say the least; but the larger issue is his failure to acknowledge the hierarchical power structures that come along with appealing to "Western science." Similarly, in appropriating ideologies from one cultural context for use in another, though not inherently deleterious, can be extremely disruptive to social organizations if the two contexts are dissimilar in material conditions and social structure. Finally, I argued that Callicott's view of non-western peoples, far from "venerating," is actually a "romanticization" with ulterior motives-that is, to further his project of a "postmodern evolutionary ecological environmental ethic."

Callicott is only one example of an increasing number of attempts to establish a new attitude toward nature by appealing to non-western belief systems.[15] This endeavor, though not entirely misguided, should be approached with caution. The consequences of recommendations such as Callicott's cannot be underestimated as we note the ongoing social upheaval caused by the imperialist imposition of Western

[15]Deep ecology and various forms of ecofeminism have also attempted to link themselves philosophically to primal/indigenous people groups (Mellor; Zimmerman).

preservationist philosophy in the Third World. Callicott is not unaware of the power of such ideas, as he states: "ideas shape the stage on which the human drama is enacted" (210). However, in shaping the "human drama," the issue of justice cannot be ignored.

Works Cited

Boff, Leonardo. *Ecology and Liberation: A New Paradigm*. Trans. by John Cumming. (Maryknoll, New York: Orbis Books, 1993)

Callicott, J. Baird. *Earth Insights: A Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* (Berkeley: University of California Press, 1994)

Escobar, Arturo. *Encountering Development: The Making and Unmaking of the Third World.* (Princeton: Princeton University Press, 1995)

Foucault, Michel. *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*. Edited by Colin Gordon. Translated by Colin Gordon, et al. (New York: Pantheon Books, 1980)

Gadgil, Madhav and Ramachandra Guha. *This Fissured Land, An Ecological History of India* (Delhi: Oxford University Press, 1992)

Guha, Ramachandra. "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11, Spring: 1989.

Luke, Timothy W. *Ecocritique: Contesting the Politics of Nature, Economy, and Culture.* (Minneapolis: University of Minnesota Press, 1997)

Luke, Timothy W. *Capitalism, Democracy, and Ecology: Departing from Marx.* (Urbana and Chicago: University of Illinois Press, 1999)

Kuhn, Thomas S. *The Structure of Scientific Revolutions*. Second Edition. (Chicago: University of Chicago Press, 1970)

Mellor, Mary. *Feminism & Ecology*. (New York: New York University Press, 1997)

Merchant, Carolyn. *Ecological Revolutions: Nature, Gender, and Science in New England* (Chapel Hill: UNC Press, 1989)

Nash, Roderick. *Wilderness and the American Mind*. Third edition. (New Haven and London: Yale University Press, 1982[1967])

Shiva, Vandana. "Globalism, Biodiversity and the Third World". In *Future of Progress: Reflections on Environment and Development.* Edited by Edward Goldsmith, et al. (Foxhole, Dartington, U.K.: Green Books Ltd.,1995)

Zimmerman, Michael E. *Contesting Earth's Future: Radical Ecology and Postmodernity.* (Berkeley and Los Angeles: University of California Press,1994)