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Furthermore, this point applies to all aspects of a world conservation strategy. Conservation strategies are more eagerly implemented by people who love what they are conserving, and who are convinced that what they love is intrinsically lovable. Such lovers will not want to hide their attitudes and values, rather they will increasingly give voice to them in public. They possess a genuine ethics of conservation, not merely a tactically useful instrument for human survival.

In short, environmental education campaigns can fortunately combine human-centered arguments with a practical environmental ethic based on either a deeper and more fundamental philosophic or religious perspective and on a set of norms resting on intrinsic values. But the inherent strength of this overall position will be lost if those who work professionally on environmental problems do not freely give testimony to fundamental norms.

The above is hortatory in the positive etymological sense of that word. I seek "to urge, incite, instigate, encourage, cheer" (Latin: *hortari*). This may seem unacademic but I consider it justifiable because of an intimate relationship between hortatory sentences and basic philosophical views which I formulate in section 8. To trace what follows from fundamental norms and hypotheses is eminently philosophical.

3. WHAT IS DEEP ECOLOGY?

The phrase "deep ecology movement" has been used up to this point without trying to define it. One should not expect too much from definitions of movements; think, for example, of terms like "conservatism," "liberalism," or the "feminist movement." And there is no reason why supporters of movements should adhere exactly to the same definition, or to any definition, for that matter. It is the same with characterizations, criteria, or a set of proposed necessary conditions for application of the term or phrase. In what follows, a platform or key terms and phrases, agreed upon by George Sessions and myself, are tentatively proposed as basic to deep ecology.⁴ More accurately, the sentences have a double function. They are meant to express important points which the great majority of supporters accept, implicitly or explicitly, at a high level of generality. Furthermore, they express a proposal to the effect that those who solidly reject one or more of these points should not be viewed as supporters of deep ecology. This might result because they are supporters of a shallow (or reform) environmental movement or rather they may simply dislike one or more of the eight points for semantical or other reasons. But they may well accept a different set of points which, to me, has roughly the same meaning, in which case I shall call them supporters of the deep ecology movement, but add that they *think* they disagree (maybe Henryk Skolimowski is an example of the latter). The eight points are:

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: intrinsic value, inherent worth). These values are independent of the usefulness of the nonhuman world for human purposes.
2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.

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3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.

4. The flourishing of human life and cultures is compatible with a substantially smaller human population. The flourishing of nonhuman life *requires* a smaller human population.
5. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
7. The ideological change will be mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between bigness and greatness.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.

Comments on the Eight Points of the Platform

RE (1): This formulation refers to the biosphere, or more professionally, to the ecosystem as a whole (this is also referred to as "ecocentrism"). This includes individuals, species, populations, habitat, as well as human and nonhuman cultures. Given our current knowledge of all-pervasive intimate relationships, this implies a fundamental concern and respect.

The term "life" is used here in a more comprehensive nontechnical way also to refer to what biologists classify as "nonliving": rivers (watersheds), landscapes, ecosystems. For supporters of deep ecology, slogans such as "let the river live" illustrate this broader usage so common in many cultures.

Inherent value, as used in (1), is common in deep ecology literature (e.g., "The presence of inherent value in a natural object is independent of any awareness, interest, or appreciation of it by any conscious being").⁵

RE (2): The so-called simple, lower, or primitive species of plants and animals contribute essentially to the richness and diversity of life. They have value in themselves and are not merely steps toward the so-called higher or rational life forms. The second principle presupposes that life itself, as a process over evolutionary time, implies an increase of diversity and richness.

Complexity, as referred to here, is different from complication. For example, urban life may be more complicated than life in a natural setting without being more complex in the sense of multifaceted quality.

RE (3): The term "vital need" is deliberately left vague to allow for considerable latitude in judgment. Differences in climate and related factors, together with differences in the structures of societies as they now exist, need to be taken into consideration.

RE (4): People in the materially richest countries cannot be expected to reduce their excessive interference with the nonhuman world overnight. The stabilization and reduction of the human population will take time. Hundreds of years! Interim strategies need to be developed. But in no way does this excuse the present complacency. The extreme seriousness of our current situation must first be realized. And the longer we wait to make the necessary changes, the more drastic will be the measures needed. Until deep changes are made, substantial decreases in richness and diversity are liable to occur: the rate of extinction of species will be ten to one hundred or more times greater than in any other short period of earth history.

distinction between natural and non-natural connects with valuation in a much more subtle way than that. This is something to which I shall presently return. My claim then is that restoration policies do not always fully restore value because part of the reason that we value bits of the environment is because they are natural to a high degree. It is time to consider some counterarguments.

An environmental engineer might urge that the exact similarity which holds between the original and the perfectly restored environment leaves no room for a value discrimination between them. He may urge that if they are *exactly* alike, down to the minutest detail (and let us imagine for the sake of argument that this is a technological possibility), then they must be *equally* valuable. The suggestion is that value discriminations depend on there being intrinsic differences between the states of affairs evaluated. This begs the question against the environmentalist, since it simply discounts the possibility that events temporally and spatially outside the immediate landscape in question can serve as the basis of some valuation of it. It discounts the possibility that the manner of the landscape's genesis, for example, has a legitimate role in determining its value. Here are some examples which suggest that an object's origins do affect its value and our valuations of it.

Imagine that I have a piece of sculpture in my garden which is too fragile to be moved at all. For some reason it would suit the local council to lay sewerage pipes just where the sculpture happens to be. The council engineer informs me of this and explains that my sculpture will have to go. However, I need not despair because he promises to replace it with an exactly similar artifact, one which, he assures me, not even the very best experts could tell was not the original. The example may be unlikely, but it does have some point. While I may concede that the replica would be better than nothing at all (and I may not even concede that), it is utterly improbable that I would accept it as full compensation for the original. Nor is my reluctance entirely explained by the monetary value of the original work. My reluctance springs from the fact that I value the original as an aesthetic object, as an object with a specific genesis and history.

Alternatively, imagine I have been promised a Vermeer for my birthday. The day arrives and I am given a painting which looks just like a Vermeer. I am understandably pleased. However, my pleasure does not last for long. I am told that the painting I am holding is not a Vermeer but instead an exact replica of one previously destroyed. Any attempt to allay my disappointment by insisting that there just is no difference between the replica and the original misses the mark completely. There is a difference and it is one which affects my perception, and consequent valuation, of the painting. The difference of course lies in the painting's genesis.

I shall offer one last example which perhaps bears even more closely on the environmental issue. I am given a rather beautiful, delicately constructed, object. It is something I treasure and admire, something in which I find considerable aesthetic value. Everything is fine until I discover certain facts about its origin. I discover that it is carved out of the bone of someone killed especially for that purpose. This discovery affects me deeply and I cease to value the object in the way that I once did. I regard it as in some sense sullied, spoilt by the facts of its origin. The object itself has not changed, but my perceptions of it have. I now know that it is not quite the kind of thing I thought it was, and that my prior valuation of it was mistaken. The discovery is like the discovery that a painting one believed to be an original is in fact a forgery. The discovery about the object's origin changes the valuation made of it, since it reveals that the object is not of the kind that I value.

What these examples suggest is that there is at least a *prima facie* case for partially explaining the value of objects in terms of their origins, in terms of the kinds of processes that brought them into being. It is easy to find evidence in the writings of people who have valued nature that things extrinsic to the present, immediate environment determine valuations of it. John Muir's remarks about Hetch Hetchy Valley are a case in point. Muir regarded the valley as a place where he could have direct contact with primeval nature; he valued it, not just because it was a place of great beauty, but because it was also a part of the world that had not been shaped by human hand. Muir's valuation was conditional upon certain facts about the valley's genesis; his valuation was of a, literally, natural object, of an object with a special kind of continuity with the past. The news that it was a carefully contrived elaborate *ecological* artifact would have transformed that valuation immediately and radically.

The appeal that many find in areas of wilderness, in natural forests, and wild rivers depends very much on the naturalness of such places. There may be similarities between the experience one has when confronted with the multifaceted complexity, the magnitude, the awesomeness of a very large city, and the experience one has walking through a rain forest. There may be similarities between the feeling one has listening to the roar of water over the spillway of a dam and the feeling one has listening to a similar roar as a wild river tumbles down rapids. Despite the similarities, there are also differences. We value the forest and river in part because they are representative of the world outside our dominion, because their existence is independent of us. We may value the city and the dam because of what they represent of human achievement. Pointing out the differences is not necessarily to denigrate either. However, there will be cases where we rightly judge that it is better to have the natural object than it is to have the artifact.

It is appropriate to return to a point mentioned earlier concerning the relationship between the natural and the valuable. It will not do to argue that what is natural is necessarily of value. The environmentalist can comfortably concede this point. He is not claiming that all natural phenomena have value in virtue of being natural. Sickness and disease are natural in a straightforward sense and are certainly not good. Natural phenomena such as fires, hurricanes, volcanic eruptions can totally alter landscapes and alter them for the worse. All of this can be conceded. What the environmentalist wants to claim is that, within certain constraints, the naturalness of a landscape is a reason for preserving it, a determinant of its value. Artificially transforming an utterly barren, ecologically bankrupt landscape into something richer and more subtle may be a good thing. That is a view quite compatible with the belief that replacing a rich natural environment with a rich artificial one is a bad thing. What the environmentalist insists on is that naturalness is one factor in determining the value of pieces of the environment. But that, as I have tried to suggest, is no news. The castle by the Scottish loch is a very different kind of object, valuewise, from the exact replica in the appropriately shaped environment of some Disneyland of the future. The barrenness of some Cycladic island would stand in a different, better perspective if it were not brought about by human intervention.

As I have glossed it, the environmentalist's complaint concerning restoration proposals is that nature is not replaceable without depreciation in one aspect of its value which has to do with its genesis, its history. Given this, an opponent might be tempted to argue that there is no longer any such thing as "natural" wilderness, since the preservation of those bits of it which remain is achievable only by deliberate policy. The idea is that by placing boundaries around national parks, by actively discouraging grazing, trail-biking and the like, by prohibiting sand-mining we are turning the wilderness into an artifact, that

in some negative or indirect way we are creating an environment. There is some truth in this suggestion. In fact we need to take notice of it if we do value wilderness, since positive policies *are* required to preserve it. But as an argument against my overall claim, it fails. What is significant about wilderness is its causal continuity with the past. This is something that is not destroyed by demarcating an area and declaring it a national park. There is a distinction between the "naturalness" of the wilderness itself and the means used to maintain and protect it. What remains within the park boundaries is, as it were, the real thing. The environmentalist may regret that such positive policy is required to preserve the wilderness against human, or even natural, assault. However, the regret does not follow from the belief that what remains is of depreciated value. There is a significant difference between preventing damage and repairing damage once it is done. That is the difference that leaves room for an argument in favor of a preservation policy over and above a restoration policy.

There is another important issue which needs highlighting. It might be thought that naturalness only matters in so far as it is perceived. In other words it might be thought that if the environmentalist engineer could perform the restoration quickly and secretly, then there would be no room for complaint. Of course, in one sense there would not be, since the knowledge which would motivate complaint would be missing. What this shows is that there can be loss of value without the loss being perceived. It allows room for valuations to be mistaken because of ignorance concerning relevant facts. Thus my Vermeer can be removed and secretly replaced with the perfect replica. I have lost something of value without knowing that I have. This is possible because it is not simply the states of mind engendered by looking at the painting, by gloatingly contemplating my possession of it, by giving myself over to aesthetic pleasure, and so on which explain why it has value. It has value because of the kind of thing that it is, and one thing that it is is a painting executed by a man with certain intentions, at a certain stage of his artistic development, living in a certain aesthetic *milieu*. Similarly, it is not just those things which make me feel the joy that wilderness makes me feel, that I value. That would be a reason for desiring such things, but that is a distinct consideration. I value the forest because it is of a specific kind, because there is a certain kind of causal history which explains its existence. Of course I can be deceived into thinking that a piece of landscape has that kind of history, has developed in the appropriate way. The success of the deception does not elevate the restored landscape to the level of the original, no more than the success of the deception in the previous example confers on the fake the value of a real Vermeer. What has value in both cases are objects which are of the kind that I value, not merely objects which I think are of that kind. This point, it should be noted, is appropriate independently of views concerning the subjectivity or objectivity of value.

An example might bring the point home. Imagine that John is someone who values wilderness. John may find himself in one of the following situations:

1. He falls into the clutches of a utilitarian-minded super-technologist. John's captor has erected a rather incredible device which he calls an experience machine. Once the electrodes are attached and the right buttons pressed one can be brought to experience anything whatsoever. John is plugged into the machine, and since his captor knows full well John's love of wilderness, he is given an extended experience as of hiking through a spectacular wilderness. This is environmental engineering at its most extreme. Quite assuredly John is being shortchanged. John wants there to be wilderness and he wants to experience it. He wants the world to be a certain way, and he wants to have experiences of a certain kind—veridical.

2. John is abducted, blindfolded, and taken to a simulated, plastic wilderness area. When the blindfold is removed John is thrilled by what he sees around him: the tall gums, the wattles, the lichen on the rocks. At least that is what he thinks is there. We know better: we know that John is deceived, that he is once again being shortchanged. He has been presented with an environment which he thinks is of value but isn't. If he knew that the leaves through which the artificially generated breeze now stirred were synthetic he would be profoundly disappointed, perhaps even disgusted at what at best is a cruel joke.

3. John is taken to a place which was once devastated by strip-mining. The forest which had stood there for some thousands of years had been felled and the earth torn up, and the animals either killed or driven from their habitat. Times have changed, however, and the area has been restored. Trees of the species which grew there before the devastation grow there again, and the animal species have resumed. John knows nothing of this and thinks he is in pristine forest. Once again, he has been shortchanged, presented with less than what he values most.

In the same way that the plastic trees may be thought a (minimal) improvement on the experience machine, so too the real trees are an improvement on the plastic ones. In fact in the third situation there is incomparably more of value than in the second, but there could be more. The forest, though real, is not genuinely what John wants it to be. If it were not the product of contrivance he would value it more. It is a product of contrivance. Even in the situation where the devastated area regenerates rather than is restored, it is possible to understand and sympathize with John's claim that the environment does not have the fullest possible value. Admittedly in this case there is not so much room for that claim, since the environment has regenerated of its own accord. Still the regenerated environment does not have the right kind of continuity with the forest that stood there initially; that continuity has been interfered with by the earlier devastation. (In actual fact the regenerated forest is likely to be perceivably quite different to the kind of thing originally there.)

III

I have argued that the causal genesis of forests, rivers, lakes, and so on is important in establishing their value. I have also tried to give an indication of why this is. In the course of my argument I drew various analogies, implicit rather than explicit, between faking art and faking nature. This should not be taken to suggest, however, that the concepts of aesthetic evaluation and judgment are to be carried straight over to evaluations of, and judgments about, the natural environment. Indeed there is good reason to believe that this cannot be done. For one thing an apparently integral part of aesthetic evaluation depends on viewing the aesthetic object as an intentional object, as an artifact, as something that is shaped by the purposes and designs of its author. Evaluating works of art involves explaining them, and judging them, in terms of their author's intentions; it involves placing them within the author's corpus of work; it involves locating them in some tradition and in some special *milieu*. Nature is not a work of art though works of art (in some suitably broad sense) may look very much like natural objects.

None of this is to deny that certain concepts which are frequently deployed in aesthetic evaluation cannot usefully and legitimately be deployed in evaluations of the environment. We admire the intricacy and delicacy of coloring in paintings as we might admire the intricate and delicate shadings in a eucalypt forest. We admire the solid grandeur of a building as we might admire the solidity and grandeur of a massive rock