BIRDS, BARBOUR, AND BOATS

by Robert L. Stivers

Abstract.   Ian Barbour in the second volume of his Gifford Lectures makes a significant contribution to environmental ethics. Worthy of scrutiny are his views on the relation of technology to the environment, on the distinction between nature and culture, on the problem of hierarchical thinking, and on the notion of sustainability. His integrated approach is a model for how we must relate to nature.

Keywords: environmental ethics; hierarchy; integration; nature and culture; sustainability; technology; worldviews and interests.

We all know the old joke about Ian Barbour's Minnesota: There are two seasons—winter and construction. Out here where I live on the shores of Puget Sound, we also have two seasons—birds and boats. The winters are wet and mild and attract great varieties of birds who nest in spring and summer further north. Widgeons, goldeneyes, buffleheads, loons, grebes, and a host of other ducklike birds own the Sound. Along about April, most flock and head north, leaving us in between. Come the first good weather in May, one by one the power boats appear and drive away what birds remain. By Memorial Day, the Sound is given over to them. Then in autumn the reverse transition takes place. One by one the power boats retire to storage, and the flocks return. Two worlds—nature and culture—held together by only a few permanent human residents, the gulls, and the crows.

The integration of contrasting perspectives has been the life work of Ian Barbour. He is also a careful listener, a meticulous researcher, and a wise person. We are deeply indebted to him. It is appropriate for us to honor him with our criticism.

My task is to reflect on Barbour's environmental ethics as found in the second volume of his Gifford Lectures, *Ethics in an Age of*

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Technology (1993). My intention is to highlight a few themes in this volume and to quibble with him in so doing. I say quibble because I find myself agreeing with most of his judgments. I think they are well reasoned and sound.

Perhaps this task should have been given to those who differ substantially with Barbour. To the one side of Barbour are the champions of corporate capitalism and technical virtuosity, who value economic gains more highly than environmental losses. Also on this side are optimists who claim that either there are no substantial environmental problems or what problems there are can be remedied by economic growth (see Easterbrook 1995). Barbour has little sympathy for these folks as he seeks to find ways to synthesize good economics with sound science in order to preserve the environment.

To the other side are some who would stress more heavily the spiritual foundations of environmental ethics, others who would take a stronger biocentric or ecofeminist stance, and still others who would see the present as a time of much greater crisis. Barbour is sympathetic with these perspectives but in the end walks his own path of reasoned pragmatism.

This is not to say that Barbour is in the middle of the road, certainly not in any political sense. While Barbour occupies the middle ground in discussions of environmental ethics, this circle overlaps little with current political debates, where one set of wagons is arranged in Social Darwinistic fashion around the reduction of restrictions on individual accumulation and the exercise of technical power, and another set around ecological preservation and concern for the poor. In these debates Barbour is decidedly in the latter circle.

TECHNOLOGY

This volume is primarily about technology and only secondarily about the environment. Barbour defines technology as "the application of organized knowledge to practical tasks by ordered systems of people and machines" (Barbour 1993, 3). Although I would have found a more explicit way to include the linkage of science and technology that is a prominent characteristic of technology in the present era, Barbour's "organized knowledge" is close enough and more inclusive, and his overall definition is adequate.

Barbour summarizes three views of technology in chapter one: (1) the optimists who see only the benefits; (2) their opposite number, the pessimists, including technological determinists; and (3) those in between who see technology as neither good nor evil but as an instru-

ment of power that can be used for good or evil purposes. Barbour finds himself in the third camp; claims it is more consistent with "the biblical outlook" (Barbour 1993, 19); and, using H. Richard Niebuhr's Christ and culture typology, calls for the transformation of technology, that is, its redirection "toward the realization of human environmental values" (Barbour 1993, 24). While he is not an optimist about such redirection, he advocates it tirelessly.

Barbour's third view makes the most sense, especially when he spells out the impediments to redirection. I agree that technology is a social construct, specific technologies are introduced to further special interests, and the process itself is neither good nor bad. Barbour also is correct when he denies that interlocking technological systems form a monolithic system impervious to political influence. Yes, there is room for transformation.

Here is my quibble: I wonder in all this if he takes seriously enough the element of "autonomous technology" that he dismisses as pessimistic (Barbour 1993, 12). As I reflect on the summertime takeover of Puget Sound by power boaters, his analysis seems rather formal, abstractly correct, but somewhat distant from the cold-water feeling of my bay. Here not only is the exercise of political influence to reduce noise and destructive wakes difficult, as Barbour understands, but here also is the feeling that the increasing number of boats is like an ocean swell, unstoppable except as it gradually loses energy over time and space in the vast reaches of an ocean basin. Of course, those power boats are manufactured by humans bent on a profit for those seeking a certain type of outdoor recreation, both groups acting freely on a certain set of values. Mastery and control of technology are clear at this level. And what is made can be unmade.

Yet there is a quality to the whole of technology that is not so easily described as it is mastered, and if it were, we would have a new set of problems. The sum of individual masteries does not add up to total mastery, not even close. This quality of the whole is experienced as a feeling of autonomous boats, admittedly a superficial sentiment because something can be done about boats. But that feeling suggests a deeper reality. If it were not boats, it would be power lawn mowers or chain saws. It is also about the fact that no one, at least at the community level, deliberately chose to chase the birds away and weaken the banks of the bay with wash.

There is an inexorable ocean-swell-like quality to our technological society. No one controls the totality of millions of individual masters and controllers. Jacques Ellul, the French sociologist whom Barbour dismisses as a pessimist, was on to something with his concept of "techne." We master and control, yet the great swell of technology

moves our lives in ways that we only dimly perceive, much less control. We back into the future with the mistaken certainty that we are facing it head-on. And the irony is that to control is to increase the province of technical reason whose raison d'être is efficiency and control. In the end Ellul may be wrong about technology and technical reason, but his reflections are worth probing more deeply than Barbour has in this volume.

In the end, also, I hope Barbour is correct that transforming technology is one of those impossible possibilities that Reinhold Niebuhr talked about so often. Faith pushes me in that direction, but I am less sanguine than Barbour, at least in the short run. Over the long haul, of course, if we do not transform our technologies, like the ocean swell in a great ocean basin they will play themselves out on nature. Those boats will not keep coming, but also, for that matter, maybe the birds will not either.

WORLDVIEWS AND INTERESTS

Barbour's attempted reconciliation of technological optimists and pessimists and my preference for birds over boats points to another important dimension in environmental ethics today: the clash of worldviews and political/economic interests. Take up the discussion anywhere and these clashes are immediately evident: pessimists versus optimists, preservationists versus conservationists, birds versus boaters, tree huggers versus timber hogs, regulators versus free enterprisers, environmentalists versus industrialists, academics and bureaucrats versus business types, and so on. Environmental ethics has become one of those forums where different attitudes and interests are fought out. Barbour is excellent at summarizing the religious and philosophical dimensions of these conflicts and fairly good on the economic/political dimensions.

Barbour initially divides his discussion of environmental ethics along the lines of culture and nature. In chapter 2 he looks at philosophical and religious social ethical perspectives and, with reliance on John Rawls, attends to concerns for justice, participatory freedom, and economic development. He concludes with a carefully crafted dialectic between the limitations and possibilities of human nature, again reminiscent of Reinhold Niebuhr. Barbour does not neglect the needs of human beings in environmental ethics. Nor is he naive about the "greening of America."

In chapter 3 Barbour turns to environmental ethics per se. He opens with the clash of worldviews between the mechanistic model and its various challengers—romanticism, feminism, and new

insights from the science of ecology. His summary of four ecological concepts and their relevance for ethics is especially helpful (Barbour 1993, 60). In this he shows the continuing interest in the relation of science and religion for which he is noted.

Barbour then reviews what he calls "biocentric ethics" (Barbour 1993, 61), rejecting extreme forms of deep ecology that subordinate humans to ecosystems. As the chapter proceeds, he weaves together a concern for both humans and nature. He takes up the discussion of Christian perspectives and presents another round on the Lynn White thesis. He ends with a repetition of those values that he initially presented in the preface: (1) resource sustainability, (2) environmental protection, and (3) respect for all forms of life.

I want to highlight three considerations, each important in its own right but also illustrative of the clash between worldviews: (1) the nature-culture distinction, (2) the problem of hierarchy, and (3) sustainability as a norm.

The Nature-Culture Distinction.   Barbour makes distinctions between nature and culture but is careful to avoid dualism. In political debates over the environment the tendency is to lose one in favor of the other. Preservation of ancient forests and the northern spotted owl, for example, is severed from considerations of healthy logging communities. Nature and culture are separated into one of those great dualisms that are a major part of the problem with the dominant mechanistic model. Barbour's integration is a welcome relief from these fruitless dialectics.

Here is my quibble. Barbour might have included a short section on the difficulties of doing environmental ethics. The problem comes from the social location of our primary ethical perspectives, for example, utilitarianism, the ethics of duty, rights ethics, and even Christian ethics. They all were developed in a human social context with little if any reference to nature. Why this is so is understandable. For our ancestors the main problem was securing enough resources from nature to support even a small population, not ecosystem degradation. Degradation was included, of course, but not much of a permanent sort, and one could always move on.

Today we need an ecosystem ethic. Some extensions of social ethics work. Respect for persons translates into respect for animals. But others do not carry over as well, for example, rights language. As for justice, there is none in nature except as humans enter it. I lament the chick in the beak of the crow and the fingerling in the craw of the heron, but I do not charge the crow and the heron with murder for eating as I do and violating the rights of chicks and fish. I even

wonder about my sentiment in these cases. I certainly do not grieve when I eat.

These are not insurmountable obstacles. Philosopher Holmes Rolston, III, has reflected effectively on the problem. In my own work I am exploring notions of integration and integrity. The point is, we cannot simply extend social into environmental ethics without thinking about the difficulties of the carryover.

Hierarchy. Equally significant is the problem of hierarchy. Hierarchical thought patterns so permeate our social and environmental ethics in damaging ways that one is tempted to throw them out altogether. The great chain of being is graded in terms of value to reflect the ideology and interests of dominant groups. Culture over nature, men over women, whites over blacks, rich over poor—these hierarchies are learned early and reinforced often. When combined with dualism and domination they are particularly destructive. Feminists and other liberation thinkers have been particularly effective in exposing these combinations.

My quibble, stronger in this case, has to do with Ian Barbour's adoption of hierarchy in his environmental ethics and his neglect of liberation perspectives in his social ethics. This takes some explanation.

The problem is clear, the solution less so. I swat mosquitoes, eat vegetables and meat, and do not come to the aid of injured animals in wilderness areas. I do not swat humans or eat them, and I like to think I would assist any person in danger. If all species are equal in terms of value, my actions are problematic. The bear should have as much right to eat my child as I have to eat fish, chicken, and vegetables. Even if I talk in extreme terms about respect for nature, I do not always follow through with action.

Barbour turns to process thought to solve this problem (Barbour 1993, 70f.) because, he says, "it offers a rationale for respecting all human and nonhuman creatures, along with a principle for assigning priorities." The respect comes from seeing each creature as a center of experience that is intrinsically good. The principle for assigning priorities comes from relative levels of intrinsic goodness. With increasing levels of consciousness develops the capability for realizing greater intrinsic good. The deductive logic continues to the point where Barbour claims that it is "entirely justifiable to destroy cancer cells and malarial mosquitoes" and adds that it is also justifiable to cause animals to suffer to obtain protein for starving children. He concludes: "All living things are valuable, but they are not equally valuable."

This is about the best we can do from this angle, and I agree with all but his last conclusion. Moreover, the problem is not with hierarchy itself. Moral choice is a form of hierarchy, and to assert equality in terms of value and to act on it would lead to paralysis and starvation. The problem is hierarchy conjoined with domination, so frequent a conjunction that I wonder if they are not inevitable bedfellows, both to be left in a state of permanent rest. I am frankly troubled by the statement that "they are not equally valuable."

What if, instead, we try a different angle and abandon this effort to extend human ethics into nature. Let us start with the assumption that all creatures are valuable, or, better, with Barbour's notion of respect, without taking up any sort of value hierarchy. Don't talk about it. Let it lie. Then let us turn to insights from evolutionary biology that all plants and animals survive as individuals and species only as they participate in communities (ecosystems) where each individual of a species uses individuals of other species as resources to assure its continued life, and in turn defends itself against the efforts of others to do the same.

To be sure this process of life and death is harsh. Some suffer and die that others may live. It is, however, also a process of renewal, of regeneration, and even, in a sense, of redemption, if we listen to Holmes Rolston, III, who in these pages claimed that nature is "cruciform" (Rolston 1994, 219).

In other words, we begin with a creation that is given and in which we consume and are consumed in an ambiguous but basically good process. Without minimizing the horrors of this creation or solving the theodicy question, we accept what is given, participate with respect, try to understand as best we can, and avoid making things worse by adding the moral power of a value hierarchy to what is a matter of survival. Let us not add to the horror by making ourselves feel good about it by imagining ourselves as superior because we as a species realize a greater amount of intrinsic goodness. Predation so legitimated too easily becomes hierarchy conjoined with domination, not to mention that it is highly anthropocentric.

In fact, we might moderate the horror even more and further Barbour's call for respect by picking up the model of Jesus as servant. Just as white males need to learn to serve those they so often unjustly dominate, so the human species, now dominant in almost all ecosystems and capable of transcending them with moral reflection, has to learn to serve other species at the same time it uses them as a resource. James Nash's call to frugality and my efforts and others to talk about sustainable sufficiency are two examples (Nash 1994). Efforts to extend rights language is another example,

although, if pressed, I would prefer to relegate rights language to culture.

In spite of this quibble, I like Barbour's frequent appeal to process thought in environmental ethics. As a philosophical and theological model for looking at the environment, it is better than alternatives. It is interesting, however, that Barbour does not often mention process thought when it comes to social ethics in this volume. (As an exception, see Barbour 1993, 263, and Barbour 1990, chs. 8 and 9). This is instructive. Process thought is not as good in social ethics where conflict models are needed, at least as supplements.

In this regard it also is significant that Barbour makes little use of feminist or liberation models in either his social or his environmental ethics. He certainly is aware of the plight of marginalized groups. They are a constant issue for him in his emphasis on ecojustice, but he seldom calls on spokespersons from these groups to enlighten us. He does appeal to John Rawls on justice and the poor. There is a paragraph on the exploitation of women with a reference to several women authors (Barbour 1993, 59 and footnote 8), but no reference to black, Hispanic, or other liberation theologians. We need to go to his first volume, *Religion in an Age of Science* (pp. 76–81) for even a brief discussion.

We need perspectives like process thought that help us with the holistic elements of communities and ecosystems, but we also need conflict models that help us with injustice and with the disintegration we are causing in ecosystems. Liberation perspectives are helpful in this regard, however anathematized they are to those on Barbour's other side.

Sustainability.   As with many thinking about environmental ethics, Barbour uses the norm of sustainability. It is a good norm for macroethics and generality, offers some guidance to the makers of social policy, and sensitizes us to the unsustainable methods we so frequently practice. Barbour does a good job of teasing these things out in his discussions of specific cases in later chapters.

The norm is not without problems, however. I will mention three. First, in many instances we do not know what levels of use an ecosystem can sustain. I am familiar with the forests of the Pacific Northwest and water quality in the Puget Sound basin. Detailed scientific knowledge is missing in both cases. Take forest soils as an example. Until recently, little work was done on the structure of forest soils. We do not know what several generations of "scientific management" will do to soils in tree plantations. The long-term effects of monocultures also are unknown. Even the distinction

between ancient forest and second growth ecosystems is new to most people. Yet, since Giffort Pinchot, the concept of "sustainable forestry" has dominated forest policy, or at least justified its practice.

This leads to the second problem. Everyone uses the norm, but groups define it in different ways. To those in the forest products industry it means a constant supply of timber. To environmentalists it means the preservation of ancient forest ecosystems. To the politician it means a term in office. The list goes on. Whose sustainability? is the question.

This question in turn leads to the third problem. Sustainability as a concept serves marvelously as ideological cover. Not only is it malleable for different groups, but once pounded into shape it can even be claimed for unsustainable practices, since no claim can be verified except in the distant future and after a number of other variables have been at work to cloud lines of causation. "Sustainable forestry" has covered nearly every degrading practice in the forests of the Pacific Northwest in this century. Only the forestry practices of those sorry loggers of the last century who have been tagged with the label "cut and run" for their pillage of northern Michigan and Wisconsin have been declared "unsustainable."

Here is my quibble and the heart of the third problem. Not only does Barbour do little to alert us to these problems, but also he does little to expose the underlying ideological struggle in debates over technology. Optimistic and pessimistic assessments of technology are not simply a matter of individual disposition and evenhanded reflection. Optimists by and large are supporters of corporate capitalism and neoconservative agendas. Pessimists often come from the ranks of government and academia, especially the liberal arts.

The same goes for discussions of "limits to growth" (Barbour 1993, 188). We do not know what these limits are or when they will be reached. Everyone can be a potential prognosticator, since, again, only the future will bring verification. Those who wish away limits in optimistic assessments of capitalism and technical virtuosity usually support the status quo. Those who would like to see a shift in cultural perspectives and a transfer of power away from the business establishment find limits appealing.

Even my dialectic between boats and birds has ideological elements. I am not so against boaters that I do not have a six-horsepower outboard and Sears aluminum boat, or so in favor of birds that I have avoided building in their ecosystem. In this essay I am against some boaters in part because of a mindset (which I find unappealing and even destructive) that I want to tag them with. I appeal to birds and the environment among other reasons to gain

high moral ground. The point is, these debates are as much ideology as accurate prognostication, and the battles are so intense because economic and class interests are at stake.

And so it goes with discussions of agriculture, energy, and computers. Real interests are involved, and Barbour knows this because he has a keen sense of sin. I only wish he would have brought it out more rather than so often taking a middle course through the trees that largely ignores the ideological forests on the two shores. Liberation perspectives can help us at this point, although in defense of Barbour, we will always need his careful, evenhanded analysis and his efforts to find a middle ground shorn of ideology. A caveat follows: Scrutinize the small print of those who write about sustainability.

INTEGRATION

I will conclude with a plea for integration. Ian Barbour's work on science and religion and on environmental ethics is the kind of work we desperately need. Not only is he a careful researcher, savvy observer, and good writer, but his method is right.

Part of any new worldview or effective environmental ethic is an integrated methodology. The organization of knowledge into disciplines, specialization, individualism, and even my favorites, pluralism and diversity, have led to an unprecedented fragmentation of culture. Unfortunately, the major problems we face are holistic in character. Ecosystems, for example, are integrated biological wholes; and when we enter such systems with our technologies to extract trees, fish, or whatever without an understanding of the total system, we tend to fragment and degrade them.

We exacerbate the problem by using narrow economic criteria to determine how, where, and when to enter and by organizing them along anthropocentric property lines instead of ecosystem boundaries. It is, in short, no longer acceptable to address environmental problems or, for that matter, any major social problem in the atomistic fashion to which we are accustomed.

We need an integrated methodology, and Ian Barbour is an excellent model. He skillfully weaves together academic disciplines, especially biology, economics, political science, sociology, philosophy, and religion. He holds opposing viewpoints in tension, selecting the best of each and being forthright in what he rejects. He insists that human need and ecological integrity are closely linked, and that policymakers must factor in both to make environmental decisions. He further insists that marginalized groups and individuals be

brought off the margins and into the text of social policy. He holds individuals, groups, other species, and ecosystems together. He forces us to consider a mix of environmental strategies, some working on market principles, others relying on regulation, and still others assuming good faith.

Finally, he balances realism and hope and in so doing keeps us tuned to spiritual foundations, religious and philosophical reflections, and applied ethics. In all these ways Barbour is a model of integration. He has helped me to keep birds and some kinds of boats together. I am grateful.

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