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**Caring for Nature: What Science and Economics Can't
Teach Us but Religion Can**

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ABSTRACT

Neither ecologists nor economists can teach us what we most need to know about nature: how to value it. The Hebrew prophets claimed that there can be no intelligent human ecology except as people learn to use land justly and charitably. Lands do not flow with milk and honey for all unless and until justice rolls down like waters. What kind of planet ought we humans wish to have? One we resourcefully manage for our benefits? Or one we hold in loving care? Science and economics can't teach us that; perhaps religion and ethics can.

KEY WORDS

Environmental justice, human ecology, sustainable development/biosphere, caring for creation, religion and ecology

Science and conscience have a complex, elusive relationship, nowhere better illustrated than in the relationship between environmental science and caring for the Earth. Facts are discovered in nature; values are 'placed' there by humans – at least many claim. Environmental science is one thing. Environmental advocacy is another. One has to connect facts in Earth science with values in environmental policy. Making these connections is more urgent than ever; indeed, the future of the planet and all those who reside on it turns on this.

But, most will say, if we wish to know how to care for the Earth, we should ask an ecologist, or a soil scientist, or somebody like that. Ecology is strikingly like medical science. Both are therapeutic sciences. Ecologists are responsible for environmental health, which is really another form of public health. Health is not just skin-in; it is skin-out too. One cannot be healthy in a sick environment. Health is something it is easy to advocate and the criteria seem to be scientific.

But ecologists have no special competence in evaluating what rebuilding of nature a culture desires, and how far the integrity of wild nature should be sacrificed to achieve this. A people on a landscape will have to make value judgments about how much original nature they have, or want, or wish to restore, and how much culturally modified nature they want, and whether it should be culturally modified this way or that. Ecologists may be able to tell us what our options are, what will work and what will not, what is the minimum baseline health of landscapes. But there is nothing in ecology *per se* that gives ecologists any authority or skills at making these further social decisions. Science does not enable us to choose between diverse options, all of which are scientifically possible.

At this point, science, unaided, does not teach us what we most need to know about nature: how to value it. There really is no scientific guidance of life. After four centuries during which science has progressively illuminated us about the facts of nature, the value questions are as sharp and as painful as ever. Science can, and often does, serve noble interests. Science can, and often does, become self-serving, a means of perpetuating injustice, of violating human rights, of making war, of degrading the environment. Nothing in science ensures against philosophical confusions, against rationalising, against mistaking evil for good, against loving the wrong gods. The whole scientific enterprise of the last four centuries could yet prove demonic, a Faustian bargain, as we turn to face a new century, indeed a new millennium. As good an indication as any of that is our ecological crisis.

Lest you think I am picking on the sciences, I can equally substitute the word 'economics' for 'science' in what I have just been claiming. (Alternately put, 'science' in the preceding claims, includes 'economic science'.) Economists have no special competence in evaluating what rebuilding of nature a culture desires, or how far the integrity of wild nature should be sacrificed to achieve this. Economists, like the ecologists, may be able to tell us what our options are, what will work and what will not. But there is nothing in economics *per se* that gives economists any authority or skills at making these further social decisions. Economics does not enable us to choose between diverse options, all of which are economically possible.

At this point, economics, unaided, does not teach us what we most need to know about nature: how to value it. There really is no economic guidance of life. After four centuries during which economics has progressively illuminated us about how we can transform nature into the goods we want, the value questions raised in economics too are as sharp and as painful as ever. Economics can, and often does, serve noble interests. Economics can, and often does, become self-serving, a means of perpetuating injustice, of violating human rights, of making war, of degrading the environment. Nothing in economics ensures against philosophical confusions, against rationalising, against mistaking evil for good, against loving the wrong gods. The whole economic enterprise of the last four

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centuries could yet prove demonic, a Faustian bargain in the next millennium. As good an indication as any of that is our ecological crisis.

Religion and ethics do ask about how to live justly, even if neither knows much about how natural history works. The righteous life, especially in the Hebrew Bible, is about a long life on earth, sustainable until the third and fourth generations. For that today we may need considerable science, considerable economics; but, however necessary, neither nor both is sufficient for keeping life humane, much less godly.

The Hebrews had their promised land; we Americans have our 'purple mountain majesties above fruited plains'; and, further, the caring has gone global. Today we have an Earth with promise. Yes, Earth has provisions, or, as scientists, prefer 'resources'. But what are we to make of the deeper sources by which there come to be these resources? What are we to make of these 'provisions' for life on Earth, found as fact of the matter by science, judged valuable by the economists, needing care according to the ethicists and even found sacred and revered by the theologians? The astronaut Michael Collins recalled being earthstruck: 'Earth is to be treasured and nurtured, something precious that *must* endure' (Collins 1980, p. 6).

We need religious insights into human nature as well as into nature. True, one cannot know the right way for humans to behave if one is ignorant of how human behaviours result in this or that causal outcome in natural systems. The Hebrews knew enough to know that they were given a blessing with a mandate. 'You shall walk in all the way which the Lord your God has commanded you, that you may live, and that it may go well with you, and that you may live long in the land which you shall possess. ... Hear therefore, O Israel, and be careful to do [these commandments] that it may go well with you, and that you may multiply greatly, as the Lord, the God of your fathers, has promised you, in a land flowing with milk and honey' (Deut. 6). That the land flows with milk and honey (assuming good land husbandry) has to be coupled with divine law, if there is to be a sustainable society. It is not the science or even the economics but the ethics into which they have insight. The deeper claim is that there can be no intelligent human ecology except as people learn to use land justly and charitably. Lands do not flow with milk and honey for all unless and until justice rolls down like waters.

Let's get the ecologists, the economists, the ethicists and the theologians talking to each other about environmental policy. Today that is likely to happen under the rubric of 'sustainable development'. Sustainable development helps us to view the entire set of environmental issues – food, health, water, soils, forests, energy, population, equity for future generations, developing nations, biodiversity reserves, wildlands – as multiple dimensions of human societies increasingly intertwined with local and global nature. But, say the ecologists, any sustain-economic-development ethic needs to be brought under a sustainable biosphere ethic. The fundamental concern is that any production of such

goods be *ecologically* sustainable. Development concerns need to focus on natural support systems as much as they do people's needs. So 'development', which has long been a concern and at which the West has been so successful in the modern epoch, is now entwined with, constrained by, 'environment'. At this point the economists will be corrected by the ecologists. Those who are religious may first think they are with the economists and later realise they are with the ecologists.

People and the Earth have entwined destinies. But there are two poles, complements yet opposites. Economy can be prioritised, the usual case, and anything can be done to the environment, so long as the continuing development of the economy is not jeopardised thereby. The environment is kept in orbit with economics at the centre. Improving the quality of life for most people requires economic development 'within' the life-supporting ecosystem. One ought to develop (since that increases social welfare and the abundant life), and the environment will constrain that if and only if a degrading environment might undermine ongoing development.

The underlying conviction is that the trajectory of the industrial, technological, commercial world is generally right, because this benefits people – only the developers in their enthusiasm have hitherto failed to recognise environmental constraints.

At the other pole, the environment is prioritised. If so, we will demand a baseline quality of environment and the economy must be worked out 'within' such quality of life in a quality environment (clean air, water, stable soils, attractive residential landscapes, forests, mountains, rivers, rural lands, parks, wildlands, wildlife, renewable resources). Winds blow, rains fall, rivers flow, the sun shines, photosynthesis takes place, carbon recycles all over the landscape. These processes have to be sustained. The economy must be kept within an environmental orbit. One ought to conserve nature, the ground-matrix of life, and business ought to be in harmony with our residence on landscapes.

Development is desired, but even more, society must learn to live within the carrying capacity of its countryside, its ecosystems. The underlying conviction here is that the current trajectory of the industrial, technological, commercial world is generally wrong, because it will inevitably overshoot. The environment is not some undesirable, unavoidable set of constraints. Rather, nature is the matrix of multiple values; many, even most of them are not counted in economic transactions. Do we want a million Walmarts and no osprey? In a more inclusive accounting of what we wish to sustain, nature provides numerous other values (aesthetic experiences, biodiversity, sense of place), and these are getting left out.

The fundamental flaw in 'sustainable development' is that it sees the Earth as resource only. Sustainable is an economic term, but also an environmental term. Humans, simultaneously with their development, are threatening more and more of the natural world, and this puts longstanding natural givens and

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values at stake. The Ecological Society of America advocates research and policy that will result in a 'sustainable biosphere' (Lubchenco et al, 1991). 'Achieving a sustainable biosphere is the single most important task facing humankind today' (Risser, Lubchenco, Levin, 1991). The Commission on Life Sciences of the National Academy of Science was quite humanistic about it: 'We must ... restructure our scientific objectives toward the goal of assisting human societies to preserve their global bio-geological life support systems' (Risser, Lubchenco, Levin, 1991). Humans care about nature only insofar as it is *their* life support. The Ecological Society of America advocates, rather, a caring for the biosphere, and any sustainable human development must come within those more fundamental parameters.

Such advocacy might, for an individual human agent, be a prudential ought, since every human has a self-interested stake in the condition of the environment that one inhabits. But such policy must be, vis-à-vis other humans, a moral ought, since other humans are helped or hurt by the condition of the environment. Further, beyond human welfare, this policy statement can involve a caring for the biosphere because it has value in itself.

In earlier times, one might have preferred the words 'dominion' or 'trustee', 'overseer' or 'steward', residual from the classical religious tradition. In our more secular epoch, the words that have come to replace these, are 'sustainability' and 'management'. William Clark writes, in a *Scientific American* issue devoted to *Managing Planet Earth*, 'We live in an era characterized by syndromes of global change. ... As we move from merely causing these syndromes to managing them consciously, two central questions must be asked: What kind of planet do we want? What kind of planet can we get?' (Clark, 1989).

Those questions suggest that humans are being asked what they want out of the planet, and the planetary managers, assisted by their scientists and economists will figure out how to get it. The root of 'manage' is the Latin 'manus', hand. Humans will handle the place. This can even mean that *Homo sapiens* is the professional manager of an otherwise valueless world. Nature is to be harnessed to human needs.

Well, yes, no one wishes to oppose intelligent management. But ought humans to place themselves at the centre of values, claiming management of the whole in their human self-interest? Placing one's own species at the centre, a biologist may insist, is just what goes on in the woods; warblers take a warblo-centric point of view; spruce push only to make more spruce. Humans are going to act in their own intelligent and prudential self-interest.

Other biologists will also insist, however, that the system takes no such particular points of view but generates myriads of such kinds. If they wish also to recall the classical religious vision, God bade the Earth to produce its swarms of creatures, and found this to be very good, even before God turned to make humans. Humans will no doubt have to manage the planet so as to meet their own needs, but there is more to be said. Humans are the only species who can

see an ecosystem for what it objectively is, a community of interconnected species, each with a niche and a role to play, and integrated into a community of life. Maybe that is what is meant by dominion and keeping the earth.

Managing the planet for our benefit is not the best paradigm; it is a half truth which, when taken for the whole, becomes dangerous and self-defeating. We ought rather think of ourselves as residents who are learning the logic of our home community, or as moral overseers trying to optimise both the cultural and the natural values on the planet, or as spirits made in the image of God celebrating God's good creation.

Now we need the theologians evaluating the mix of human nature with nature, what *is* and what *ought* to be. Is our only relationship to nature one of engineering it for the better? Perhaps what is as much to be managed is this earth-eating, managerial mentality that has caused the environmental crisis in the first place. On the larger planetary scales it is better to build our cultures in intelligent harmony with the way the world is already built, rather than take control and rebuild this promising planet by ourselves and for ourselves. 'Hands' (the root of 'manage', again) are also for holding in loving care. What kind of planet ought we humans wish to have? One we resourcefully manage for our benefits? Or one we hold in loving care? Science and economics can't teach us that; maybe religion and ethics can.

Despite the twentieth century trend toward privatising religion, national policy toward landscapes must involve collective choice producing a public land ethic. Some ethical choices are made by individuals, but in other cases citizens must choose together. 'The environment' in this larger sense is crucially a 'commons', that is, a public good. Governments, like businesses, have large influence in our lives; both have vast amounts of power to affect the landscape for good or ill. Christianity, together with other faiths that influence human conduct, needs again to become 'a land ethic'. It is not simply what a society does to its slaves, women, blacks, minorities, handicapped, children, or future generations, but what it does to its fauna, flora, species, ecosystems and landscapes that reveals the character of that society.

In setting policy, citizens, including those of religious faith who join other conservationists, can by mutual coercion, mutually agreed upon, do in concert what private persons cannot do alone. Those with a faith-based attitude toward nature, along with other interest groups, can unite to help forge this consensus. Christianity, to take my own tradition, still widespread across my nation, is thus forced to become public, in concert with many others, and to join in shaping the public ethic and reforming public policy, advocating 'justice, peace and the integrity of creation' (a World Council of Churches theme). Values carried by natural areas, like the values for which Christians stand, are in critical part noneconomic. Christians have often and admirably focused on economic values where humans have been unjustly deprived of these (jobs, food, shelter, health care). But in decisions about conserving fauna and flora, especially where the

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remaining elements of wild nature on the landscape are proposed to be sacrificed to meet human needs, Christians should insist that these values be met instead on already developed lands, which are more than adequate to meet these needs, given a just distribution of their produce.

The values that Christians wish to defend in the natural world are often the softer, more diffuse ones, and also deeper ones essential to an abundant life. Rachel Carson lamented a 'silent spring'. Jesus found that the wildflowers exceeded the glory of Solomon. William Wordsworth experienced in the English countryside 'a motion and spirit that impels ... and rolls through all things' (*Lines Composed a Few Miles above Tintern Abbey*, 1798). The natural world – the purple mountain majesties and the fruited plains – is a vast scene of sprouting, budding, flowering, fruiting, passing away, passing life on. We feel life's transient beauty sustained over chaos, life persisting in the midst of its perpetual perishing. Jesus often drew his parables from nature – the mustard seed or the sower going out to sow, or God and the sparrows. In the Psalms and in Job, the wilderness reveals God's majesty. Without these experiences, the land cannot fulfil all its promise.

We humans are transforming the planet; we Americans, as are others in the developed nations, are leaders in that transformation; we ought to lead wisely. In the directions in which we are now headed, there will be more people on Earth (at least half again as many as at present), more consuming (two to four times as demanding) on a warmer, more polluted, less fertile, less resource-rich, less biodiverse, more weedy and pest-ridden, trashy planet, with the goods of that planet less equitably distributed. Setting new directions is demanding – a more intense sense of duties to future generations, of duties of the rich toward the poor, of economics in the service of human welfare, of development in harmony with the biosphere, a commitment to caring for creation.

Why care for nature? Let me close with an argument neither science nor economics can give you but my religion can. If anything at all on Earth is sacred, it must be this enthralling creativity that characterises our home planet. If anywhere, here is the brooding Spirit of God. If there is any holy ground, this promising Earth is it.

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