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Citation Information

Emond, D. Paul. "Co-operation in Nature: A New Foundation for Environmental Law." *Osgoode Hall Law Journal* 22.2 (1984) : 323-348.

<http://digitalcommons.osgoode.yorku.ca/ohlj/vol22/iss2/7>

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CO-OPERATION IN NATURE: A NEW FOUNDATION FOR ENVIRONMENTAL LAW¹

BY D. PAUL EMOND*

I. INTRODUCTION

The objectives of this article are far more modest than the title suggests. The ability to rethink a subject, and offer a new foundation for it, particularly a subject in which I have been immersed for many years, is impaired by a familiarity and a pre-occupation with the existing framework. What I will do, however, is offer some thoughts on how we might at least begin to rethink environmental law. To this end, I propose a "new" basis for environmental law: co-operation. But before turning to the role of co-operation in environmental protection, I propose to examine briefly the most significant scholarship in the "new foundations" field.

Two articles on environmental protection law written in the early 1970s have affected me deeply. Both were written at the height of concern over environmental degradation and both continue to be current and provocative. Stone's *Should Trees Have Standing?*² continues to spark discussion and debate as this symposium clearly demonstrates. Tribe, in *Ways Not to Think About Plastic Trees: New Foundations for Environmental Law*,³ is even more provocative and stimulating in his assessment of the environmental crisis and prescriptions for change. Both Stone and Tribe issue an invitation to ascend with them to new philosophical heights, from which the overview of the pollution problem improves and the resolve to find solutions strengthens. They seek to replace domination and manipulation of the environment with respect and obligation. Self-interest and the homocentric want-oriented perspective of instrumental rationality would give way to "a theory of the

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¹ I have titled the article "Co-operation *in* Nature" rather than "Co-operation *with* Nature" to emphasize that people are an integral part of nature, rather than separate from it.

² Stone, *Should Trees Have Standing — Toward Legal Rights For Natural Objects* (1972), 45 S. Cal. L. Rev. 450.

³ Tribe, *Ways Not To Think About Plastic Trees: New Foundations For Environmental Law* (1974), 83 Yale L. J. 1315.

natural order and our place in it."⁴ Such an invitation is not only admirable, it is exciting. Caught in the compromises of the present legislative approach, deeply dissatisfied with the peripheral role assigned to environmental concerns in resource development decisions, and suspicious of the relentless exploitation rationalized by cost-benefit analyses, society is searching for a better way. What is so frustrating is that both authors fall short of the lofty goals they have set for themselves. They challenge people to re-examine the philosophical underpinnings of environmental law, but offer few concrete proposals for translating ideals into action. And what they do offer is susceptible to some of the criticism that they direct toward the present approach to the pollution problem. In spite of their best efforts to escape, both seem caught firmly in the web of existing approaches. Nevertheless, the two articles offer an excellent starting point for any inquiry into new foundations of environmental law. I have, therefore, organized this article around these two pieces.

I begin with a description of each article, starting with Stone's *Should Trees Have Standing?* Each description is followed by a critical evaluation of its strengths and weaknesses. I then turn to my own thoughts on a new foundation for environmental law. Here, I draw heavily on the work of two nineteenth century thinkers: Charles Darwin⁵ and Petr Kropotkin.⁶ It is my contention that Darwin has been largely misunderstood, that his emphasis on struggle, competition and survival of the fittest only in part describes his understanding of the relationship among organisms in nature. Missing from almost all interpretations of Darwin is the role he saw for co-operation in nature — arguably a more important factor than competition. For me, the Russian thinker, Petr Kropotkin, provides the missing link. His work on co-operation and mutual aid in nature offers the balance that is missing from most conventional interpretations of Darwin. By using co-operation as the foundation for environmental protection laws far more satisfactory results can be achieved.

This article is designed, therefore, to offer both some thoughts on a new philosophical foundation for environmental law, and then to relate the philosophical to the practical by providing lawmakers with a series of guideposts that will stimulate new ways of dealing with the pollution problem. While this is a tall order, I have no illusions about the potential impact of calls for radical reform. Given the present economic and

⁴ *Id.* at 1335, quoting Rawls, *A Theory of Justice* (1971) at 512.

⁵ Darwin, *Origin of Species* (1859).

⁶ Kropotkin, *Mutual Aid, A Factor of Evolution* (1902).

political climate, one can only hope that this analysis will set in motion a re-examination of our present laws and a new commitment to effect the most needed changes.

II. TWO PERSPECTIVES ON ENVIRONMENTAL LAW

A. *Assigning Legal Rights to the Natural Environment*

Stone's article on standing provides a sensible starting point for my analysis. Of the two articles, it is more specific, more discreet and hence relatively easy to understand. Stone tackles, first, the concept of giving legal rights to natural objects by acknowledging that while the proposal may seem "unthinkable", it is no less unthinkable than eighteenth and nineteenth century proposals to give legal rights to children, women and blacks. Indeed, it is no less unthinkable than the rights presently afforded to legal creations such as corporations and municipalities. According to Stone, every argument for extending rights was met by resistance until the thing for which rights were proposed was seen and valued for *itself*, and not merely as an object needed to satisfy some societal want.⁷ Thus the granting of rights to the environment as a whole is a recognition of its value, not to us as consumers of environmental amenities, but as an integral part of life itself.

Extending rights to the natural environment has a double aspect. The first, and the one that receives the most attention from Stone, is the "legal operational" aspect. The second is the "psychic and socio-psychic" aspect. Under the first aspect, Stone notes three factors that must exist for the environment to count jurally.⁸ First, the environmental entity must be able to institute legal actions at its *own* behest. Secondly, in determining relief, courts must take into account injury done to the right-holder. And thirdly, relief must accrue to the benefit of the environment right-holder, not simply to those who have rights to use the environment. At this point, Stone addresses the obvious practical problem of conferring legal rights on the environment and making it "count jurally." How does a river initiate a legal action? On what basis are damages to be awarded and to whom? These problems, Stone argues, are not insurmountable. First, natural objects can be given standing to initiate legal proceedings by having "friends", such as the Sierra Club or Friends of the Earth, appointed as guardians to assert the object's rights in the object's name. A guardian would learn of an object's needs from the object itself. Grass, for example, communicates its need

⁷ Stone, *supra* note 2, at 456.

⁸ *Id.* at 458.

for water by turning brown. The guardian's role would be very different from that of a public agency charged with environmental protection. Unlike those federal and state departments who are charged with responsibility for public resources, a guardian would not be impaired by conflicting or competing institutional goals. Its only purpose would be protection of the natural object. Under Stone's proposal, injury would include both present and "seeable" future damages. Damages would be calculated on the basis of the cost of making the environment "whole". In addition, an amount for the pain and suffering of animals and sentient natural objects would be included. Damages would accrue to the benefit of the natural object, placed in trust and administered by the object's guardian.

Under Stone's proposal, the concept of "rights" would have symbolic as well as substantive and procedural content. The word "right" has a powerful, if somewhat vague, meaning in our legal system and society. Thus, while environmental protection could be effected in other ways, a right-based approach is especially appropriate because, in our legal system, rights have the capacity to evolve into a viable body of law which would not otherwise occur. As Stone recognizes, there are few absolute rights. He suggests, however, that the standards of no "irreparable damage" or protection of "endangered species" are two standards below which environmental protection⁹ should not fall. There is little in the article on procedural rights that is novel. Stone argues for more and better environmental impact statements.

The most stimulating part of Stone's article is his discussion of the psychic and socio-psychic aspect of conferring rights on the environment.¹⁰ Unfortunately, it receives the least attention. Under this heading, Stone advocates a "radical" new conception of the society-nature relationship, one that would both help solve our material-environmental planetary problems and make us better human beings. People are presently stultifying their own personal growth because of the need to extend domination over natural things, to "object-ify" them, to separate society psychically from them. This must be stopped, even though to do so is to relinquish human psychic investment in the sense of separateness and specialness in the universe. Unfortunately, this is where Stone promises more than his thesis delivers. How can society escape the burden of domination? He argues that people must "regard the Earth as one organism of which man is but one functional part — the mind perhaps; different from the rest of nature, but only in quality, not in

⁹ *Id.* at 485-86.

¹⁰ *Id.* at 489ff.

kind.”¹¹ Such calls for a new “unity with Mother Earth” make dramatic prose, but they have little impact on legislators or judges.

However, even if we do accept Stone’s assertion that people are “but one functional part [of nature],” does a rights-based thesis necessarily achieve such a goal? I do not think so. Implicit in Stone’s approach is the criticism of human domination over the environment, which he deplors. But he may be guilty of the same phenomenon. Two examples from Stone’s article will illustrate the point. The first is the process by which rights are assigned to natural objects. The second is the much more specific point about the way in which actions are brought to vindicate rights.

Rights are not abstract concepts. They are concepts of specific and limited content, although clearly concepts that may grow (or contract) over time. Rights may derive from the thing itself in the sense that certain rights spring from our humanness; but, more often, they are assigned by the state to individuals, either through the legislative or common law processes. When assigned in this fashion, they help define the relationship that exists between the state and the right holder, a relationship that is best characterized by that of donor-donee. The potential for the right-giver to dominate the right-holder is always present. But this is perhaps less important within society: the state (right-giver) is in some sense ultimately responsible to society for natural objects. What rights natural objects have are what rights society gives them. But what is given can also be taken away. Of course, this is not to say that stripping the environment of rights would be an easy task. Rights are, as Stone suggests, organic with a clear propensity to grow and expand over time. Nevertheless, it is curious that Stone’s search for an “equality” among all that is natural should end in a rights-based scheme in which the content and indeed the very existence of a right, is determined by the very body that is largely responsible for environmental degradation.

The second example emphasizes the danger that lurks behind such a rights-based scheme. Stone’s response to the question of whether the guardians of natural objects will know the objects’ needs is that objects, such as grass, communicate their needs in obvious ways. When grass is “thirsty” it turns brown. Brown grass needs to be watered. Thus, the guardians will easily know an object’s needs. I *suppose* that is true. I find it very disturbing, however, that the needs of natural objects are to be measured by human perception of their needs. Once people put

¹¹ *Id.* at 499.

themselves in the position of knowing and hence assessing all needs, surely the potential to dominate the environment has increased many-fold. At this point, the environment is domesticated, the wildlife tamed. Responding, as people must (or will) to perceptions of need, trees will be trimmed, forests thinned, river banks supported, animals fed and so on. There is no obvious end to any potential interference;¹² every action is justified on the basis of need, and need is determined by some human measure based solely on human values. A concept that was ultimately designed to protect the environment becomes the tool by which complete domination and control is secured.

Perhaps I have pushed Stone's thesis too far. Clearly, he did not intend results that would have animals fed, housed and immunized, mountains shored up and trees pruned. Nevertheless, rights-based action that is motivated by society's assessment of needs and desires to "extend its sympathies," may ultimately lead to such a result. The fact that it would not lead Stone to such a result merely emphasizes the vulnerability of the thesis; it is one that requires *beneficent action* from those whose motives are sometimes suspect, namely, government, guardians and courts. The failure of any one group to embrace Stone's own view of "the right way" marks the failure of the approach.

Solving problems by extending rights has become fashionable. Stone's article argues for a rights-based approach to environmental protection. The Canadian Parliament and the Provinces have recently endorsed a Charter of Rights and Freedoms for all Canadians.¹³ The Canadian Bar Association is actively working on a proposal to entrench environmental rights in the new Constitution.¹⁴ Few dare to voice dissent to a concept that appears to offer so much. But rights are a mixed blessing. They offer form, but little substance. They create the illusion of solution. Political kudos are won, but the problems remain. They stamp facets of it with the same, centrally conceived and enforced "solution". Finally, legislative rights describe and, hence, reinforce the dependency that exists between the right-giver and the right-receiver.

¹² Except, of course, the end that comes with complete domination.

¹³ *Canadian Charter of Rights and Freedoms* Part I (ss. 1-34) of the *Constitution Act, 1982*, Sched. B of the *Canada Act 1982*, 1982, c. 11 (U.K.).

¹⁴ The Ontario branch of the Canadian Bar Association has recently established a committee under the Chair of Harry Poch to examine *inter alia* the effect on the environment of entrenching property rights in the Charter.

B. *The Synthesis of Transcendence and Immanence*¹⁵

Tribe's article offers a more sophisticated theory than one that "merely" assigns rights to objects, although a right assignment is a feature of his approach. He uses the two themes of transcendence and immanence to describe the principles behind a new "Foundation for Environmental Law." Transcendence represents change and the desire to create a better world. But change, pushed forward by the relentless search for reason, is ultimately a futile pursuit after "intrinsically empty ends."¹⁶ Immanence, on the other hand, recognizes that there is "something sacred in the natural," and that "existence", if "deeply and richly enough understood, might somehow imply sanctity."¹⁷ But to sanctify the present, to treat the existing order as sacred might "relegate to permanent subjugation and deprivation those many who are not now among the privileged, freezing the social evolution of humanity into its contemporary mold."¹⁸ What is needed, according to Tribe, is a synthesis of these two competing and ultimately conflicting themes. But before delving into such a synthesis, it is important to outline Tribe's insightful analysis of what is wrong with present thinking about environmental problems.

Environmental decision-making is, according to Tribe, distorted by a heavy reliance on a fairly crude cost-benefit analysis.¹⁹ Such analysis tends to reduce all values to market prices and in so doing underprice those values for which market analogues do not exist. This is especially true for those ecological and aesthetic concerns that are largely symbolic. In addition, Tribe argues that values that are "too widely diffused over space, or too incrementally affected over time"²⁰ are likely to be squeezed out of such analysis. Furthermore, as one of a number of conflicting goals, environmental protection objectives fare rather poorly under present analytic techniques. Decision-makers are reluctant to display a multitude of perspectives with a distinct objective defined for each. Instead, they tend to reduce the dimensions of a question to "some common denominator . . . or at least to smoothly exchangeable attributes."²¹ As a rather small component of the "net benefits," environmental concerns are easily dwarfed by other "hard" ben-

¹⁵ The expression is borrowed from Tribe. The spelling of immanence is Tribe's.

¹⁶ Tribe, *supra* note 3, at 1336.

¹⁷ *Id.* at 1337.

¹⁸ *Id.* at 1337-38.

¹⁹ *Id.* at 1318-20.

²⁰ *Id.* at 1319.

²¹ *Id.* at 1322.

efits and costs. Finally, Tribe describes a means-ends fluidity problem in the present analysis.²² This problem arises as a result of too little thought given to the "feedback effects" that choice and its implementation has upon the chooser's ends. How the implementation of environmental protection goals is carried out will have profound effects on the goals themselves, perhaps even changing them. The importance of this point is readily observed in most Canadian environmental protection statutes, where environmental protection goals are achieved by legalizing pollution under a licensing scheme.²³

While the foregoing provides a helpful, albeit general synopsis of what is wrong with environmental protection laws in Canada and elsewhere, Tribe's major contribution to the debate stems from his proposals for a radical new approach to the issues. Who cannot be excited at the prospect of refuting instrumental rationality and its commitment to "morally blind desire" especially when expressed in passages as eloquent as the following:

[T]o make such choice [about what we shall value] without losing the thread of continuity that integrates us over time and imparts a sense of our wholeness in history, we must be able to reason about what we choose — to choose in terms of commitments we have made to bodies of principle which we perceive as external to our choices and by which we feel bound, bodies of principle that can define a coherent and integrative system even as they evolve with our changing selves.²⁴

But this, and other passages, raise a number of questions. What are the "principles . . . according to which we orchestrate our relationships . . . with the physical world of which we are part?"²⁵ And, having determined these principles, what does this really mean? More specifically, what are the implications for decision-makers? Perhaps the effects are not as much as might have been hoped. First, Tribe notes the "absence of any final system of ends which either could or should command assent"²⁶ and then turns to the decision-making *process*. It must, according to Tribe, be a process "valued in large part for its intrinsic qualities rather than for its likely results."²⁷

The commitment to principles which underlies an "integrative system" and which imparts a sense of "our wholeness in history" so strongly voiced in the preceding excerpt, dissolves into questions of process. What are the likely components of such a process? Tribe offers

²² *Id.* at 1323-25.

²³ This point is developed, *infra* at 337ff.

²⁴ Tribe, *supra* note 3, at 1327.

²⁵ *Id.* at 1339.

²⁶ *Id.*

²⁷ *Id.*

three:

- 1) environmental impact surveys and statements might make explicit reference to obligations felt toward nature;
- 2) resources might be devoted to improving our technical capacity to incorporate such felt obligations in policy analyses; and
- 3) permit the bringing of claims directly on behalf of material objects without imposing the requirements that such claims be couched in terms of interference with human use.²⁸

The first two argue for little more than a better, more sophisticated cost-benefit analysis, as presently practised in the context of environmental assessment. The third has already been explored in the preceding section.

While such provisions would undoubtedly enhance environmental decision-making, they do not address the problems that arise when "felt obligations" are translated, as they ultimately are, into the terminology of human self-interest. Indeed, as Tribe points out, to use the language of self-interest is "to legitimate a system of discourse which so structures human thought and feeling as to erode . . . the very sense of obligation which provided the initial impetus. . . ."²⁹ The result is predictable: the "inchoate sense of obligation toward natural objects is flattened in to an *aspect of self-interest*."³⁰ The solution, as Tribe sees it, is a synthesis of immanence — the sacred observer, with transcendence — the grand manipulator; and an evolving process of interaction and change. While Tribe offers no obvious starting point for such a process, his keen recognition that the human community is "the human community in nature" leads him to suggest two useful principles. First, society should "avoid a premise of human domination, or indeed a premise of the total subservience of any form of being to any other."³¹ The processes must, therefore, embody "a sense of reverence for whatever stands beyond human manipulation," as well as a "stance of criticism toward all that is given and a commitment to the conscious improvement of the world."³² A second, but more obscure, principle is captured by expressions such as "harmony", "rootedness in history" and "connectedness with the future." Harmony does not entail the sanctification or worship of the environment, but rather respect for it and an appreciation of human interdependence with it.

²⁸ *Id.* at 1341.

²⁹ *Id.* at 1331.

³⁰ *Id.* at 1332 (emphasis added).

³¹ *Id.* at 1340.

³² *Id.*

The flaw in Tribe's argument is more difficult to identify. In many ways the piece continues to be one of the most thoughtful analyses of the problem ever published. Nevertheless, I remain dissatisfied. Having been persuaded to climb the lofty heights of a synthesis of transcendence and immanence, I am left with the troubling sense that there is nothing concrete that will persuade legislators or judges. Many people do not question the integrity of a society with plastic trees, swimming pools, shopping malls and Disney Worlds. However, the answer is not, as Tribe suggests, a philosophical journey into the world of a synthesis of transcendence and immanence. Harmony with and respect for the environment are important principles for any well-founded environmental protection laws. But lawmakers will need more than principles to guide them into the next decade. Principles offer a beginning. The next step, and one that Tribe mostly avoids, is to translate principles into legal concepts.

III. WHAT IS WRONG WITH ENVIRONMENTAL LAW?

What is wrong with environmental protection laws in Canada is what is wrong with *giving trees standing*: legal standing to go to court for the protection of natural objects offers few safeguards. It simply reaffirms the dominant-subservient relationship between people and trees. As for plastic trees, Fabricant offers a far more chilling prognosis than does Tribe, of where plastic trees will ultimately lead us:

[T]astes are bound to deteriorate further in the years ahead. For the values of future generations will be molded by the world into which they are born, and this could well be very different than ours because of the continued process of economic growth. . . . Our descendants will set environmental standards that we would view as intolerable.

. . .

If pollution is permitted to worsen over the centuries and eons, we can nevertheless suppose that life will adapt itself. "Living systems are systems that reproduce," yes; but as biologists define them, they are also systems "that mutate, and that reproduce their mutations." That is why living things "are endowed with a seemingly infinite capacity to adopt themselves to the exigencies of existence" — even in a *cesspool*. . . . But there is no certainty that human life will adapt and survive!³³

It may take centuries, even eons, for earth to become the cesspool that Fabricant fears, but that is no reason not to begin now the search for a better way, and to embody the first tentative steps of that search in our environmental protection laws. Such a process demands that we recognize the value of transcendence and immanence and try to recon-

³³ Fabricant, "Economic Growth and the Problem of Environmental Pollution," in Boulding, ed., *Economics of Pollution* (1971) 139 at 148-49.

cile the conflicting principles of each. More than that, it demands that we understand the reasons for environmental degradation, the misconceptions that underlie existing environmental protection laws, and the inherent value of laws based on the principle of co-operation rather than control and domination.

A. *The Roots of the Pollution Problem*

Pollution is a natural consequence of activity. As long as wastes generated by human activity are naturally assimilated or disposed of, there is no pollution problem. The problem arises because a growing population imposes growing demands on a planet with finite assimilative capacities. It may not be, as the Club of Rome study³⁴ predicted, a crisis, but pollution is nevertheless a serious concern that demands a more radical solution than some new "technological fix." The second cause, and I believe that it is related to the first, has to do with technology. Technology will solve and has solved many problems, especially those that arise from the pressures to generate more with less. Indeed, I have no doubt that its contribution to meeting present needs has, to date, far outweighed its costs. But the real impact of technology lurks ominously in the near future: mutation costs of insecticides on future generations; synergistic costs of combining two apparently harmless chemicals; and unforeseen second and third order effects of four wheel drive tractors, fertilizers and food additives.

A growing population, with growing demands to maximize individual wealth in a world with finite resources, will create environmental problems if left unchecked. Some mediating principle is needed to limit demand and ensure that "we do not despoil the environment that sustains us." The most persuasive analysis on environmental despoilation, at least as judged by its acceptance, has been written by the economist Hardin, in a provocative article entitled: *The Tragedy of the Commons*.³⁵ Hardin's article is important for two reasons: first, it gives credence to the assumption that pollution springs from people's unrestrained desire to improve their lot in society at the expense of others; secondly, it offers a "mediating principle" to control such destructive desires. Together, these two factors have strongly influenced environmental laws in Canada and and the western world.

Hardin's important thesis is captured in the following quotations:

The tragedy of the commons develops in this way. Picture a pasture open to all.

³⁴ Forrester and Meadow, *The Limits of Growth* (1971).

³⁵ Hardin, *The Tragedy of the Commons* (1968), 162 *Science* 1243 at 1244-45.

It is to be expected that each herdsman will try to keep as many cattle as possible on the commons . . .

As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component.

(1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +P1.

(2) The negative component is a function of the additional overgrazing created by adding one more animal. Since, however, the effects of overgrazing are shared by all herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.

[T]he rational herdsman concludes that the only sensible course of action for him to pursue is to add another animal to his herd. And another; and another . . . But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit — in a world that is limited . . .

[N]atural selection favours the forces of psychological denial. The individual benefits as an individual from his ability to deny the truth even though society as a whole, of which he is a part, suffers. Education can counteract the natural tendency to do the wrong thing, but the inexorable progression of generations requires that the basis for this knowledge be refreshed.³⁶

Pollution is the tragedy of the commons in reverse, with the actors adding something to the commons (air, water, sound, view) rather than removing something from it. Again, Hardin describes the thought process of the rational decision-maker in these circumstances:

The rational man finds that his share of the costs of the wastes that he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of "fouling our own nest," so long as we behave only as rational, independent, free enterprisers.³⁷

This theme has provoked a good deal of thinking and writing on pollution, all of which can be characterized as the search for "cost internalization." The questions have arisen in this way: how can the costs that polluters impose on the commons and all who use it (the victims) be shifted (internalized) to the polluter? Or, to ask the converse, how can the benefits of abatement be enjoyed by those who reduce pollution? Unless those who spend money on reducing pollution enjoy more of the benefits of less pollution, there will be little incentive to spend. This is the search for "benefit internalization." Both problems result from the common non-ownership features of our natural resources, and both evoke a search for ways of "privatizing the resource" so that use is

³⁶ *Id.*

³⁷ *Id.*

monitored through price and costs and benefits are borne or enjoyed by those responsible.

Hardin's thesis, like most economic theory, purports to be steeped in *rational* human behaviour, with rationality determined objectively through empirical study of behaviour patterns, reinforced by everyday individual experience. How do people behave? What is our experience? According to Hardin, we are motivated by self-interest, irrespective of the consequences. Consequences are virtually irrelevant because adverse consequences are shared by all, while benefits are enjoyed by the individual actor. The desire for one to maximize self-interest exists even though the short-term gain that arises by putting another animal on the common may, ultimately, come at the expense of the long-term well being of all.

B. *Pollution and Environmental Protection Laws*

From this perception of the pollution problem it is clear that the appropriate "mediating principles" all lead to some form of control. Control of unrestrained self-interest and of competition among members of society will lead to the control of pollution. In a rather limited sense, the common law embraces just such a principle.

The concepts of property and private ownership, for example, limit access to the owner of the property or those who have the owner's permission. The nuisance doctrine *limits* use and exploitation to reasonable levels, with reasonableness determined by reference to the effect that the use may have on nearby occupants. The riparian rights doctrine *prohibits* water pollution to the detriment of downstream (or lake) riparian owners. Trespass *prohibits* direct and intentional interference by one with the use and enjoyment of the property of another. In each case the common law, if vigorously pursued and applied, limits or prohibits activities by some that are disadvantageous to others.

In such a world of competition and struggle, co-operation among individuals and communities is the exception rather than the rule. Competition and struggle dominate. The pursuit of individual self-interest is so strong that it is blind to the long-term implications of such actions. In other words, the war (competition) against others is ultimately the war against self, and thus the war of all against all. Such a crassly Darwinian³⁸ view of the world, and human participation in it, implies clearly that the effectiveness of the common law is weighed primarily in terms of its limiting and prohibiting effects.

³⁸ And, I might add, distorted view of Darwin's thesis.

At the political level, legislatures have been slow to subscribe to Hardin's call for increased privatization of the environment. One reason for this is that as the trustee of the air, water and public lands, the government is the owner. It perceives no need to secure protection through privatization. More importantly, government owners have quite different objectives from those that are normally ascribed to the private sector. In an effort to respond to growing public demands, politically motivated owners will facilitate access rather than restrict it, and encourage rather than control use. The propensity to maximize present benefits in this way is almost irresistible to a "four year" politician. But, of course, increased access and use only accentuate pollution and the overuse of resources, thereby creating countervailing pressures on government to improve management and regulatory techniques. And, it does this with increasing frequency. There are now a vast array of licences, permits, orders and approvals administered by ever-expanding departments whose objectives are to "manage" private exploitation of public resources by reconciling competing uses, and "optimize" and "maximize" the utility of the environment by subsidizing exploitation. Whatever the goal, the effect is always the same: the environment is continually violated, while the bureaucracy expands in size and scope, attempting to "manage" problems into solutions but failing miserably.

Like the common law, environmental protection legislation is based on Hardin's premise of insatiable self-interest and human want. In response to political pressures, such wants are encouraged and accommodated (to the extent possible) by government. Once the implications of accommodating unbridled "need" are widely understood, countervailing pressures produce a plethora of pre- and post-controls on virtually all human activity. This legislative and bureaucratic schizophrenia explains much of the dilemma facing the public today.

Canadian environmental protection legislation also mirrors the common law in the acceptance of two premises: 1) individual users have the *right* to develop and exploit the environment, that is, "to use it for their own personal gain"; and 2) the propensity to maximize individual wealth will, if left unchecked, wreak havoc on the very resources needed to sustain such wealth maximization. Thus, environmental protection legislation is both facilitative and restrictive. It encourages and facilitates exploitation, while at the same time it limits and restricts the worst excesses of a pro-development policy. These two contradictory principles underlie much environmental legislation in Canada today. A few examples from the federal and provincial spheres will suffice to illustrate the point.

The *Canada Water Act*³⁹ recognizes the increasing public demand for water resources and provides "means by which [such demand] may be met." The solution seems self-evident: "the conservation, *development* and *utilization* [of water resources] to ensure their *optimum wise use* for the *benefit of all Canadians*. Water pollution is primarily a threat to the "health, well-being and prosperity of the people of Canada" and secondarily to the "quality of the Canadian environment at large."⁴⁰ The *Arctic Waters Pollution Prevention Act*⁴¹ is less blatant in its focus on development, but the pro-development bias exists. The preamble states that Canada has an "*obligation* to see that the natural resources of the Canadian Arctic are *developed* and *exploited* . . . in a manner that takes cognizance of Canada's responsibility for the welfare of Eskimo . . . and the preservation of the peculiar ecological balance."⁴²

The ostensible purpose of both statutes is to balance development, utilization and exploitation for the benefit of Canadians against the quality of the environment and to preserve the ecological balance. The mechanism by which such objectives are achieved clearly betrays the extent to which development succeeds over preservation. The *Canada Water Act*, for example, through Comprehensive Water Resource Management Programs, follows a scheme of research, planning and project implementation to achieve an "*efficient* conservation, development and utilization of those waters" within the jurisdiction of the management program.⁴³ Water quality is to be secured through Water Quality Management Agencies, which have the power to prescribe appropriate water disposal practices and levy effluent discharge fees.⁴⁴ While both techniques may reduce water pollution, they operate on the assumption that water pollution is best reduced by legalizing so-called "acceptable" levels of pollution. The *Arctic Waters Pollution Prevention Act* employs a similar licensing scheme. The deposit of waste in arctic waters is prohibited unless "authorized by regulations"⁴⁵ or "approved pursuant to Cabinet's power to set out, by order, the specifications for proposed work in the arctic."⁴⁶

³⁹ *Canada Water Act*, R.S.C. 1970, c. 5 (1st supp.). [Hereinafter referred to as *C.W.A.*]

⁴⁰ *C.W.A.*, Preamble (emphasis added).

⁴¹ *Arctic Waters Pollution Prevention Act*, R.S.C. 1970, c. 2 (1st supp.). [Hereinafter referred to as *A.W.P.P.A.*]

⁴² *A.W.P.P.A.*, Preamble (emphasis added).

⁴³ *C.W.A.*, s.4(e) (emphasis added).

⁴⁴ *C.W.A.*, s.13

⁴⁵ *A.W.P.P.A.*, s.4.

⁴⁶ *A.W.P.P.A.*, s.10.

The federal statute long regarded as the most pro-environment, the *Fisheries Act*,⁴⁷ also "authorizes" pollution by specifying approved wastes and pollutants. Subsection 33(2), the pollution control provision, prohibits the deposit of "a deleterious substance of any type in water frequented by fish" unless the waste or pollutant is "authorized by regulations made by Cabinet under this or any other Act" (subsection 33(4)). The regulation-making power under subsection 33(13) is very broad, covering and potentially sanctioning almost every conceivable pollution situation.

Provincial legislation evidences the same clear intent of controlling pollution to facilitate development. British Columbia, for example, regulates potentially harmful development under the *Environment and Land Use Act*,⁴⁸ the *Environment Management Act*⁴⁹ and the *Waste Management Act*.⁵⁰ The whole thrust of its legislative approach is management to secure optimum use of the environment. A committee established under the *Environment and Land Use Act* has the duty:

- (b) to ensure that all the aspects of preservation and maintenance of the natural environment are fully considered in the administration of land use, and minimize and prevent waste of these resources, and despoilation of the environment occasioned by that use.⁵¹

Under section 2 of the *Environment Management Act*, the duties, powers and functions of the minister extend to matters relating to the management, protection and enhancement of the environment, including:

- (b) development of policies for the *management, protection and use* of the environment. . . . [Emphasis added.]
- (f) preparation and publication of environmental management plans . . . which may include . . .
 - (i) flood control;
 - (ii) drainage;
 - (iii) soil conservation;
 - (iv) water resource management.

The *Waste Management Act* is primarily a licensing mechanism whereby government managers are authorized to issue a permit to an applicant authorizing it to introduce waste into the environment or to store special waste subject to requirements for the protection of the environment if the manager considers it advisable.⁵²

⁴⁷ *Fisheries Act*, R.S.C. 1970, c. 119 as amended (emphasis added).

⁴⁸ *Environmental and Land Use Act*, R.S.B.C. 1979, c. 110. [Hereinafter referred to as *E.L.U.A.*]

⁴⁹ *Environment Management Act*, S.B.C. 1981, c. 14.

⁵⁰ *Waste Management Act*, S.B.C. 1982, c. 41.

⁵¹ *E.L.U.A.*, s.3(b).

⁵² *E.L.U.A.*, s. 9(1)-(2).

Nova Scotia offers a similar "pollution control by permit" approach to environmental protection. Although the pro-development bias noted in the British Columbia legislation is not present, the effect seems to be the same. The purpose of the *Environmental Protection Act* is "to provide for the preservation and protection of the environment."⁵³ Few jurisdictions offer such an unqualified and unequivocal statement that environmental protection is apparently the *only* purpose of the Act. But once such a laudable objective is reduced to pollution authorizing permits and licenses, the Act becomes pro-development. Like most provincial jurisdictions Nova Scotia "controls" pollution through a sophisticated regime of permits and orders. Subsection 23(1) specifies that:

No person shall own, occupy, operate or be responsible for the operation of a plant, structure, facility, undertaking or thing that discharges, releases, deposits, drains, emits or threatens or allows the discharge . . . of waste into the environment or otherwise causes or tends to cause pollution unless he has obtained a permit from the Minister.

New facilities or alterations to existing facilities are regulated in a similar fashion under subsection 28(1). Polluters wishing to expedite the process or anxious to receive the immunity from prosecution that goes with an approved activity may propose a pollution "control program" under section 30. Like the permit, the control program is subject to ministerial approval. For those problems that cannot wait for regulation by permit, the Minister may act more expeditiously by way of an "order". The order (s.26(1)) may be used to, *inter alia*:

- (a) cease contravention of the Act;
- (b) limit or control the rate of addition; emission or discharge of the waste into the environment in accordance with the directions set out in the order;
- (c) stop the addition, emission or discharge of the waste into the environment;
-
- (f) install, replace or alter the equipment or thing designed to control or eliminate the addition, emission or discharge of the waste into the environment.

While this approach to environmental protection and pollution control offers the potential for comprehensive control of individual pollution problems, it is a level of control that is beyond the reach of the most ambitious department. For an agency with a limited and shrinking budget the degree of control achieved is minimal. Most departments issue permits primarily on the basis of what the *polluter* regards as feasible or realistic.⁵⁴ Some smaller polluters are vigorously pursued

⁵³ *Environmental Protection Act*, C.S.N.S. 1973, c. 6, s.3.

⁵⁴ Castrilli and Lax, "Environmental Regulation-Making in Canada: Towards a More Open Process," in Swaigen, ed., *Environmental Rights in Canada* (1972) 334 at 340ff.

by government regulators, but activity at this low level merely serves to emphasize the inherent limitation of individual regulation of such a widespread problem.

Environmental protection legislation in Canada is misnamed: in the intent, protection is quite secondary. The desire to facilitate development by keeping environmental degradation within "tolerable" limits — usually expressed as "maximum permissible levels" of contaminants — is paramount. The legislation is utilitarian, not utopian. It lacks vision. Pollution is rationalized and, after the necessary permit is issued, legalized. Once a desired level of pollution has received the required statutory approval, the polluter is immune from quasi-criminal prosecution and effectively shielded from civil liability.⁵⁵ Everything turns on the licensing or approval process. And here, much of Tribe's criticism of existing laws is particularly apt. The *best* environmental protection decision-making processes use the crude cost-benefit analysis of which Tribe is so contemptuous. More often, standards are set by regulators behind closed doors in close consultation with the "polluters", and without input from the public. In this way, industry concerns about competitive pricing, profitability and jobs soon squeeze environmental values out of the regulatory standards and guidelines, particularly if government regulators lack the resources to develop an independent view of the problem. The prospect of including "felt obligations" toward the environment is remote. Environmental laws offer little more than symbolic reassurance to an apprehensive public. They offer virtually nothing for the environment. They shift responsibility for pollution from the polluters to the regulators. Stone is ahead of his time. It is premature to talk about giving trees standing when our laws do not even give standing to many affected *people!*

Thus, under present legislation the *best* that can be hoped for is wise use of the environment by the public, and equally wise management of public use by the government. But wisdom is a scarce resource, particularly in a society motivated, as Hardin argues, by individual wealth maximization and regulated by large bureaucratic organizations with their own institutional priorities and preferences. Dedication to preserving the environment will only emerge from deeply committed people. Without commitment to environmental preservation the likely result is unrelenting pressure to exploit the environment and expand regulation and control by government under the guise of multiple and

⁵⁵ Emond, "Defences and Remedies to Common Law Causes of Actions in the Environmental Law Field," in Canadian Bar Association, *Environmental Law: Bringing and Defending Actions* (1984).

optimum use management. Nevertheless, much can be done within the existing legal framework to reduce our propensity to carelessly develop, exploit and utilize the environment. It is here that Stone and Tribe's theses offer refreshing new ideas.

The starting point for better legislation is the regulatory decision-making process. *All* who are affected must be heard from, not simply those whose property rights are jeopardized or those whose applications for the "necessary permit" are put into question. Public participation in the decision-making process must be more than symbolic. Decision-makers must not only *hear* the public, but also heed it. In other words, decision-makers must relinquish some of the powers which allow decisions as "they see fit." By fettering their discretion with clearly articulated decisional criteria, and making decisions that are responsive to the environmental issues and "felt obligations" of an increasingly apprehensive and troubled public, they go some distance to meet environmental concerns. Process, however, takes the analysis no further than to question the criteria that the decision-makers use. Again, Stone and Tribe have a good deal to contribute. Tribe's suggestion for improving cost-benefit analysis by strengthening and enhancing present analytic techniques is sensible. He calls for a re-examination of the processes by which all values are reduced to market values (prices), of the ways in which future fears are heavily discounted to present values, and of the propensity to ignore those adverse environmental effects that are widely diffused over space which affect no one in particular, but everyone in general. Stone takes Tribe's argument one step further into the realm of recognizing environmental rights. His focus is less on those concerns that find expression through the impact on environment users, and more on the effects of the environment as an environment. The process must not only factor in "felt obligations" that are not derived from use, but also adverse impacts on environments that are neither used nor enjoyed by anyone. Thus, a decision to permit the pollution of a river would have to take account of the impact on downstream riparian owners, fishermen and other communal and recreational users, but also the despoilation of the river and fish as living entities. Under Stone's scheme, not all rivers will be free of a pulp mill's effluent. But if the effluent will wreak "irreparable harm," or if the river is clear and pure and thus on the "endangered species" list, a decision to prohibit pollution is appropriate.

Finally, consideration must be given to what Tribe describes as the "means-ends fluidity problem": the ways in which effect is given to environmental goals will have enormous "feed back effects" on human goals. The present technique of legalizing pollution through licenses

and permits to pollute rationalizes pollution. Once it is justified in this fashion, the rights are with the polluter, not the environment. The onus is on those who seek environmental protection to prove that a curtailment of such a right is necessary to protect environmental values. But, putting the onus of proof on those who seek protection, especially in an area in which strict proof must often await the findings of the epidemiologist, condemns the environment to perpetual domination by those who exploit it.

There are no legislative models in Canada that would take environmental protection to the lengths of Stone or Tribe's proposals. Two statutes from Ontario are, however, worth examining as acts that offer the first tentative steps toward such an approach. Neither can be described as "environmental protection" legislation. Rather they exhibit a resource development bias, but with a very strong respect for environmental values.

The *Niagara Escarpment Planning & Development Act*⁵⁶ was enacted to provide for the maintenance of the:

Niagara Escarpment and land in its vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment. [Section 2]

This objective is to be achieved by a Commission through the development and implementation of a Niagara Escarpment Plan. Under section 8, the statutory objectives of the Plan are:

- (a) to protect unique ecologic and historic sites;
- (b) to maintain and enhance the quality of natural streams and water supplies;
- (c) to provide adequate opportunities for outdoor recreation;
- (d) to maintain and enhance the open landscape character of the Niagara Escarpment insofar as possible, by such means as compatible farming or forestry and by preserving the natural scenery;
- (e) to ensure that all new development is compatible with the purpose of this Act.

The statute is area specific, but the concept has general application to resource use-environmental protection decision-making. The *Ontario Planning and Development Act*⁵⁷ offers a similar, more "balanced" approach to development, although there is less emphasis on environmental protection. Again, a plan is the key. Under the Act, a development plan is proposed, the definition of which includes:

[A] plan, policy and program . . . covering a development planning area designed to promote the optimum economic, social, environmental and physical condition of the area. [Subsection 1(a)]

⁵⁶ *Niagara Escarpment Planning and Development Act*, R.S.O. 1980, c. 316.

⁵⁷ *Ontario Planning and Development Act*, R.S.O. 1980, c. 354.

and may contain:

- (a) policies for the economic, social and physical development of the area covered by the plan in respect of,
 - (i) the general distribution and density of population,
 - (ii) the general location of industry and commerce, the identification of major land use areas and the provision of major parks and open space and the policies in regard to the requisition of lands,
 - (iii) the management of land and water resources,
 - (iv) the control of all forms of pollution of the natural environment

While neither statute has received much support from politicians, the approach to decision-making embodied in this type of legislation is commendable. The focus on planning ensures that decision-making is proactive rather than reactive; furthermore, the legislation mandates a full consideration of environmental values, both in terms of mitigating the adverse impact of development and maintaining and enhancing such values. The flaw in the legislation is what has debilitated all previous environmental legislation, that is, it assumes that society has the *right* to develop, exploit and control the environment, subject only to the *restrictions* and *regulations* that are imposed on the most unacceptable activity. There is acceptance of the premise that human self-interest is anti-environmental, thus demanding that all forms of activity be *controlled*. It perpetuates the myth of human domination over nature. The search is for a balance among competing self-interests, not a balance between people and their place in the environment.

IV. CO-OPERATION AND MUTUAL AID: A NEW FOUNDATION FOR ENVIRONMENTAL PROTECTION

Like Stone, I begin with Charles Darwin.⁵⁸ Stone used Darwin to demonstrate that "the history of man's moral development has been a continual extension in the range of objects receiving his social instincts and sympathies";⁵⁹ and from this he argued that the next logical extension of human sympathies was toward the animate and inanimate "objects" of the environment. The thesis is not as radical as it first appears. For while affording such objects our "social instincts and sympathies" may seem laudable, it is, as I have argued, susceptible to argument in favour of continued domination of and control over such objects. Rather than begin in a position of *dominance* in which *rights are given* and *sympathies extended*, I prefer a starting point in which people are no more and no less than an integral part of the environment.

⁵⁸ Darwin, *supra* note 5.

⁵⁹ Stone, *supra* note 2, at 450.

Human relationships with the environment would then be based in a large part, on co-operation using principles of mutual aid. While this approach is not inconsistent with Darwin, it does require me to return to him and, with the assistance of the Russian writer Kropotkin, put Darwin's work in a different light.

At the risk of gross oversimplification, Darwin made two important contributions to the theory of evolution: struggle for existence and the idea of the natural selection, or as it is commonly referred to, survival of the fittest. Given such a theory, the environment was something within which struggle existed, and where survival was the ultimate goal. A preoccupation with these two themes will, if left unmoderated by Darwin's full work, clearly distort what he actually wrote. Natural selection is, as Darwin so well documented, a factor in evolution; indeed, survival of the fittest does describe the *successful* or *more advantageous* mutants. But, the reason for survival is unclear. It is not, as many have assumed, to dominate, control and master the environment, and those within it, but rather for the purpose of adapting the structure of each individual for the benefit of the whole community, if the community profits by the selected change.

Subsequent work on the theory of evolution has, of course, confirmed much of Darwin's work; but it has also offered a new perspective, a new emphasis. Petr Kropotkin's work, *Mutual Aid: A Factor of Evolution*,⁶⁰ offers an important focus and perspective on Darwin's work. First, Kropotkin emphasizes that the "theory of natural selection" is the most significant generalization of the nineteenth century. But while the struggle for life is an important factor in evolution, it does not deserve "commandment" standing. From Kropotkin's research into birds and the ways in which they assist one another, he concluded that the "sociability and social instinct in animals for the well being of species . . . was underrated."

Darwin recognized this fact, although many Darwinists, particularly social Darwinists, have chosen to ignore it. In the *Descent of Man*, Darwin describes how struggle is replaced by co-operation, which in turn results in the development of intellectual and moral faculties which secure for species the best conditions of survival. Thus, the fittest are neither the physically strongest nor the most cunning, but "those who learn to combine so as mutually to support each other, strong and weak alike for the welfare of the community."⁶¹ The inference is that co-operation, not competition and struggle, will generate communities

⁶⁰ Kropotkin, *supra* note 6.

⁶¹ *Id.* at 2.

that flourish and rear the greatest number of offspring. And this makes sense. Struggle and competition leaves combatants impoverished in vigour and health, such that no progressive evolution of the species can be based on such a period of keen competition. Nor is competition and struggle necessarily the dominant feature of either underpopulated communities or those who enjoy an abundant lifestyle. In the first case, low population makes struggle unnecessary, in the second, the maintenance and preservation of the species is better secured through mutual aid and support. As Kropotkin wrote, "sociability is as much a law of nature as mutual struggle." And of these latter two, Kropotkin argued that mutual aid has the greater importance because:

[I]t favours the development of such habits and characteristics as ensure the maintenance and further development of the species, together with the greatest amount of welfare and enjoyment of life for the individual, with the least waste of energy.⁶²

Seen in this context, *struggle* is only one component in the evolution of the species, and while perhaps the *most important*, it is a baser, more primitive factor in evolution than co-operation.

What are the practical implications of redesigning our environmental protection laws around the twin principles of co-operation and mutual aid? While this is not the place to redraft the common law and statutes, a consideration of a new set of mediating principles may lead to important reforms in each area. First, I believe that the perception of the environmental crisis must change. In most circumstances little is served by labelling producers "polluters" and consumers "innocent victims." People are all polluters and all victims, connected by a web of activities and relationships. The problem truly is the war of all against all. Wars are not settled by more aggression and hostility. Settlement will only come through understanding and a commitment from everyone to solve the problem. Co-operation is better learned than imposed. With this view of "the problem," I believe that there is a larger role for public expenditures — both in terms of generating increased public awareness of the environment (responding to the preference shaping problems so well described in the excerpt from Fabricant, *supra*), and in terms of providing environmental protection *incentives* for existing and potential polluters. The coercive tactics presently employed lead inevitably to the polluter adopting strategies for the avoidance of laws, which ultimately create increased pressure for even stronger control and regulation. Incentives, on the other hand, will tend to produce compliance strategies. Compliance will, in my view, generate a growing

⁶² *Id.* at 6.

sensitivity to environmental values, hopefully to the point where respect and obligation are fully internalized in both private and public decision-making.

Secondly, society's present preoccupation with development and exploitation must be re-examined. The efficiency logic of the cost-benefit analysis is important, but it is only one factor. There are others: responsibility, care and, as I have emphasized, co-operation. Mechanisms must be developed to ensure that the implications of human activity are learned, understood and respected. The legal implications of such a premise are an increased emphasis of fact finding, a reversal of the onus of proof, and an attempt to resolve development and conservation disputes in non-adversarial, non-hierarchical ways.

Fact finding provides the context within which environmental implications can be understood. In the face of uncertainty about adverse environmental impact, the *status quo* should prevail. While this may be regarded as an anti-development, anti-progress bias, it need not be so. Development or "transcendence", to use Tribe's word, is a necessary and integral part of life. But it must be *in context*. As an integral and interdependent part of our environment, development must *respect* "the land that sustains us." Domination, control, and the ethic of need and greed must give way to empathy, tolerance and the ethic of care and share. Taking the time to understand the impact of various decisions, to fully evaluate the human relationship to the environment will mean that some proposed projects will not proceed. There will be "costs" associated with such decisions. The benefits, however, are potentially enormous. By taking the time to watch, listen and understand, everyone can be "Pilgrims at Tinker Creek,"⁶³ connected to the land, rooted in a past, present and future. Humans can be both "grand manipulators and sacred observers."

Some progress has already been made to improve decision-making. Environmental assessment is beginning to demonstrate the value of planning, careful evaluation of potential adverse effects and subsequent monitoring of anticipated (and unanticipated) impacts.⁶⁴ But preoccupation with process condemns us to a principled way of deciding rather than principled decisions. Thus, proactive processes may generate little more than a plethora of consultants studies. Environmental management may simply be another label under which the environment is tamed to comply with preconceived notions of aesthetic values. And

⁶³ Aillard, *Pilgrims at Tinker Creek: A Mystical Excursion* (1974).

⁶⁴ Emond, "Accountability and the Environmental Decision-Making Process: Some Suggestions for Reform," in Swaigen, ed., *supra* note 54, at 406.

multiple use management offers a new banner to justify all forms of development, provided the project is properly engineered, the impact is "tolerable" and the environment is subsequently rehabilitated. Society needs a new set of substantive principles.

While I have already described the needed principles in terms of co-operation, respect and mutual aid, they can be reduced to specific legal concepts. Beginning first with the common law and private ownership, the verb "to own" must be transformed into its earlier meaning "to owe." Historically, "ownership" did not carry with it the almost unrestricted right to exploit, but rather a series of obligations, some owed to the crown, some to the lord and some to the land itself. Put into a modern context, ownership must encompass responsibilities and obligations — not to maximize profit, but to occupy the land as a steward, respecting its integrity and preserving its value for both future generations and for its own worth. Furthermore, the oppressive logic of "reasonableness" that underlies both the nuisance and riparian rights doctrines must give way to the "unreasonableness" of environmental protection and preservation for its own sake. Reason and rationality will, if left unchecked, reduce the environment to a lowest common denominator of allegedly compatible uses. Not only are some uses unreasonable in any context, but *any* uses are unreasonable in some contexts. The law, with its pro-human bias, cannot recognize this fact. The reasonable use principle must, therefore, be replaced by one that recognizes that in some circumstances the best use is no use. How this can happen within the present legal framework is not obvious. Certainly reform will not come from within the legal system itself. Here again, there is an obvious role for publicly inspired and financed incentives to preserve and protect wetlands, rivers, forests and vistas. And as increased use shrinks these resources, the need for a mediating principle of preservation grows.

The first legislative steps toward co-operation in nature have already been taken. British Columbia recently passed ecological preserve legislation⁶⁵ where Crown land may be reserved for "ecological purposes" (section 2). The focus of the act is educational (subsection 2(a)) and preservationist (subsection 2(d)). Ontario wilderness legislation⁶⁶ provides a similar focus on the need for a "single use" approach to some aspects of the environment. In conjunction with such enabling legislation, "single use" public authorities must be established for the express purpose of protecting the environment, not compromising it

⁶⁵ *Ecological Reserve Act*, R.S.B.C. 1979, c. 101.

⁶⁶ *Ontario Wilderness Areas Act*, R.S.O. 1980, c. 533.

under the present multiple use approaches. Development oriented departments, and even those charged with environmental protection, offer, at best, a multiple use approach to conservation and protection. There is, in my opinion, a strong argument in favour of removing large tracts of public land from development pressures while building the "co-operation in nature" perspective into future activities.

At a more practical level, the present legislative approach of facilitating development to control it, of licensing pollution to legitimize it, must be stopped. This "assault" on domination, coercion and rationalization will not be easy. Respect and obligation are seen as vague, soft concepts while development is a firm concept embodied in progress and hard profits. Nevertheless, respect, obligation and co-operation promise to elevate both society and the environment simultaneously. As Tribe argued, "freedom can be realized only . . . [by] fidelity to obligation." A new approach cannot be forced upon an unwilling or uncaring public. Environmental protection legislation must encourage and reward co-operation with a range of incentives that are not tied to use and exploitation.

These then are the beginnings of a new foundation for environmental protection laws. They owe much to the pioneering work of Stone and Tribe. But I have attempted to push my own analysis at least another step. Neither rights for natural objects nor a better process will necessarily produce the better world that society seeks. That world will only change when people cast off the yoke of competition and domination and embrace co-operation and mutual aid as the pre-eminent guiding principles.