Environmental Stewardship: History, Theory and Practice Workshop Proceedings (March 11-12, 1994)

Occasional Paper No. 32

edited by Mary Ann Beavis
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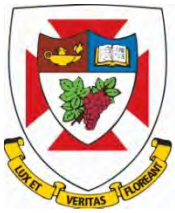
The Institute of Urban Studies



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ENVIRONMENTAL STEWARDSHIP: HISTORY, THEORY AND PRACTICE WORKSHOP PROCEEDINGS (MARCH 11-12, 1994)
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The Institute of Urban Studies is an independent research arm of the University of Winnipeg. Since 1969, the IUS has been both an academic and an applied research centre, committed to examining urban development issues in a broad, non-partisan manner. The Institute examines inner city, environmental, Aboriginal and community development issues. In addition to its ongoing involvement in research, IUS brings in visiting scholars, hosts workshops, seminars and conferences, and acts in partnership with other organizations in the community to effect positive change.

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CONTENTS

ACKNOWLEDGEMENTS

The organizers would like to thank the many people and organizations who helped to make the workshop "Environmental Stewardship: History, Theory and Practice" a success. In addition to the excellent slate of invited speakers, most of whose papers are printed in this volume, respondents from the community made informed and insightful comments on the papers delivered on the first day of the event. These included Freda Rajotte, Jack Dubois, Sandy Hyman, Dr. Ijaz Qamar, Karen Fox, Peter Miller and Dan Thomas. Nancy Ito, Institute of Urban Studies Administrative Officer, provided invaluable assistance in organizing the event, and attended to the endless minutiae that a two-day conference entails. IUS secretaries Donna Laube, Joan Duesterdiek and Barbara Prue staffed the registration desk, and IUS librarian Nancy Klos was on hand to photograph the proceedings. Deborah Lyon took detailed notes of both daytime and evening sessions. A grant from the Social Sciences and Humanities Research Council made the workshop possible.

Mary Ann Beavis
Conference Co-ordinator

Freda Rajotte
Canadian Coalition for Ecology, Ethics and Religion

Photo 1: Walter Bresette, Presenter

INTRODUCTION

This volume contains the proceedings of a two-day workshop, "Environmental Stewardship: History, Theory and Practice," held at The University of Winnipeg and co-ordinated by Mary Ann Beavis of the Institute of Urban Studies (March 11-12, 1994). This event was funded by the Social Sciences and Humanities Research Council of Canada as a Strategic Workshop in Applied Ethics. The mandate of Strategic Workshops is "to examine specific research topics, delineate research questions and needs, elaborate methodologies, or communicate research results."* This workshop focused on the applied ethic of stewardship, which, as the following pages show, is an environmental ethic widely advocated by some theologians, philosophers, planners, policymakers and activists, but which is also held to be inadequate by others. The purpose of the event was to bring together "theorists" of stewardship (e.g., philosophers, theologians) with "practitioners" (e.g., planners, politicians, activists) in order to explore, elaborate and criticize the ethic of stewardship, to share research, experience and insights, to gauge the adequacy of stewardship theory and practice, and to sketch future directions for research in environmental ethics.

On the first day of the workshop, four invited presenters, as well as the co-ordinator of the event, addressed the "theoretical" side of stewardship, from historical, theological, ecofeminist and Aboriginal standpoints (Beavis, Hutchinson, Ridd, K. Warren, Bresette). Presenters on the second day represented "policy and practice," and spoke about the relevance of stewardship in federal aquatic management policy (Malley), local environmental awareness/action programs (Lerner, Hilts), watershed management initiatives (Pinkerton, Oborne) and indigenous knowledge systems (M. Warren). Respondents invited from the local community, as well as some 80 workshop registrants, had the opportunity to engage the presenters in discussion and debate. The event also included two well-attended public lectures, presented on the evenings of March 10 and 11 (Hutchinson, Dwivedi).

It became very apparent in the course of the workshop that the seemingly innocuous term "stewardship" means different things to different people, and that it is by no means uncontroversial. Among the different meanings of stewardship are:

- Stewardship as a responsible and creative mode of "being-in-the-world" in relation to God, other human beings and creation.
- Stewardship as a principle equivalent to responsible environmental management for governments, professionals and organizations.
- Stewardship as a personal commitment to caring for nature "in one's own backyard."

While it is certain that, in Western culture, the idea of stewardship has biblical roots, it has been adopted by policymakers, planners, activists and others as an environmental ethic or principle with

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*Social Sciences and Humanities Research Council of Canada, *SSHRC Granting Programs: Detailed Guide* (Ottawa: SSHRC, 1993), p. 31.

more or less awareness of its theological implications. Both religious and secular advocates are often surprised to discover that stewardship has been incisively criticized by ecofeminists, deep ecologists, Aboriginal spiritualities, *etc.* for its patriarchal, hierarchical, utilitarian implications.

The workshop brought together both strong proponents and critics of stewardship in both its theological and secular forms, and stimulated both groups to rethink their views of the stewardship ethic. Strong advocates of stewardship were challenged to refine and clarify their ethical stance, while critics were brought face to face with practical examples of beneficial environmental programs and initiatives motivated by a commitment to stewardship. For example, as someone who has numbered herself among the critics of stewardship ethics,* I found myself more prepared to concede that, although inadequate as an all-encompassing environmental ethic, stewardship may have a place *within* a more developed environmental philosophy, as a motivation for grassroots environmental activities, or as a stage in moral development.

One question that is increasingly being raised with respect to the current "environmental crisis" is that of what *motivates* human beings to engage in more ecologically benign behaviour. While for some people, self-interest or NIMBYism may be the strongest impetus, it is not too far-fetched to suggest that ethical considerations may be highly significant for others. It became apparent at the workshop that underlying "stewardship" initiatives there is often a very real sense of personal and organizational responsibility and serious moral commitment to ameliorating environmental problems. Perhaps the most provocative of all of the aspects of stewardship discussed during the workshop was the potential of this action-oriented environmental ethic for human transformation and ecological preservation/restoration evidenced in some of the presentations.

These proceedings contain the majority of the papers presented on the two days of the workshop (see Appendix 1),** as well as the two public lectures by Roger Hutchinson and O.P. Dwivedi. Appendix 2 contains a workshop summary based on detailed notes. The summary reflects *all* of the workshop presentations, public lectures, responses and discussion periods. The following pages therefore give a good overview of the workshop as it unfolded from the initial public lecture on Thursday evening to the concluding remarks late on Saturday afternoon.

Mary Ann Beavis
Conference Co-ordinator

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*See Mary Ann Beavis, "Stewardship, Planning and Public Policy," *Plan Canada*, 31,6 (1991): 75-82.

**Unfortunately Walter Bresette and Evelyn Pinkerton were unable to submit papers for these proceedings.

ENVIRONMENTAL STEWARDSHIP IN HISTORY, THEORY AND PRACTICE

Mary Ann Beavis
Institute of Urban Studies
Conference Co-ordinator

Good morning, and welcome to this workshop on "Environmental Stewardship: History, Theory and Practice," sponsored by the Institute of Urban Studies and the Canadian Coalition for Ecology, Ethics and Religion.

This workshop is being funded under the Applied Ethics theme area of the Social Sciences and Humanities Research Council of Canada. As a workshop in applied ethics, its purpose is to examine the environmental ethic of "stewardship" from a variety of perspectives in order to test its value as an ethical paradigm for environmental theory and practice.

I initially became interested in the notion of stewardship through my work at the Institute of Urban Studies about five years ago, which included some research on the idea of sustainable urban development. I began to notice that in the planning and policy discourse of the late 1980s and early 1990s, the term "stewardship" was frequently mentioned in discussions of environmental issues and sustainable development to describe the appropriate human-environmental relationship. This usage has endured and developed over the years, to the point that "stewardship" has effectively become the unofficial environmental ethic—and sometimes the official environmental ethic—of governments at all levels, of policymakers, of planners, and of some grassroots environmental organizations.

We see some of the evidence of this sense of "stewardship" in the names of some of the organizations represented at this workshop: the Natural Heritage Stewardship Program of the University of Guelph; the International Coalition for Land and Water Stewardship. In the federal government, Consumer and Corporate Affairs has a Stewardship Committee on the Environment, and Environment Canada has an Office of Environmental Stewardship and a Code of Environmental Stewardship. Stewardship is one of the principles adopted by the Manitoba Round Table on the Environment and the Economy; the City of Winnipeg's official plan contains a chapter on environmental stewardship. The Ontario Resource Stewardship Model and the Canadian Industry Packaging Stewardship Initiative are well-known waste management strategies adopted by the Ontario government, and by private industry. Examples of such usages of stewardship in planning and policy contexts abound.

What struck me when I began to notice the use of "stewardship" in these kinds of contexts was that the term seemed to have a vaguely religious, even biblical, quality. Sometimes this was even brought out explicitly, as when, at a seminar on environmental ethics that I co-ordinated, the director of a provincial environmental program said that he didn't understand stewardship, because it was

religious and he wasn't, or when, at another event, a prominent local politician enthusiastically expressed his support of environmental stewardship, because it reminded him of his upbringing as a pastor's son. A book, *Caring for Creation* by David Hallman of the United Church of Canada (published in 1989), lent to me by a local planning consultant, confirmed my impression that the term was indeed religious, when I read the author's assertion that:

> An image in the Bible of the relationship between human beings and the rest of creation deserves a lot more attention that it has received—the image of steward. It offers us a vision of how we can relate to the rest of creation in a way that will protect and care for it rather than conquering and exploiting it as we have done and continue to do.

I surmised that, directly or indirectly, the use of stewardship in the ostensibly secular contexts of planning, policy and environmental activism had been filtered there through the involvement of some policymakers, planners and environmentalists in the church, or at least in a culture historically rooted in Christianity.

At the same time, I felt slightly uncomfortable with the idea of environmental stewardship—the image of "stewarding" nature somehow didn't quite fit. Since, among other things, I am a professional biblical scholar, I did some research on the history of the image of "the steward," which resulted in a presentation at the Canadian Society of Biblical Studies and an article in *Plan Canada* (Beavis, 1991). As I had surmised, the terminology has a biblical basis. In the Hebrew bible, a steward is a royal official, the manager of the king's household, who is subordinate to, and responsible to, the king. "Stewardship" imagery is used more often, and with more theological significance, in early Christian literature. By the first century A.D., the term steward (*oikonomos*) was almost always used to designate a household slave in a position of authority over other slaves, an overseer, and it is in this sense that stewards and stewardship figure in the New Testament. For example, New Testament writers sometimes use the metaphor of stewardship to describe their responsibility before God with respect to the administration of the church and its mysteries.

In the gospel of Luke, the slave status of stewards is more obvious in the parables of "the faithful and wise steward" (Luke 12:42-48) and of the Unjust Steward (Luke 16:1-8). Luke's faithful and wise steward is one who is responsible to his master for the feeding of his household; if the master comes home and finds the steward remiss in his duties, "the master of that slave will come on a day when he does not expect him and at an hour he does not know, and will cut him in half, and put him with the unfaithful" (12:46). The unjust steward of Luke 16 is a shrewd character who outwits his master and thus saves himself from the fate of a slave without a household. In the NT context, the steward image is very much bound up with the model of the church as God's "house," borrowed

from the patriarchal/imperial household, with its fundamental hierarchies of master-slave, husband-wife, parent-child, patron-client, ruler-ruled.

An eighteenth century philosopher, William Derham, was probably the first thinker to describe the moral Christian attitude to nature as one of "stewardship." According to Derham:

> Man, "the top of the lower world," was given "superiority in the animal world." God was the wise conservator and superintendent of the natural world, who made people in his image as caretakers and stewards on earth (Merchant, 1980).

Nature was a "sacred trust" which, Derham warned, would be taken into account on the Day of Judgment.

However, the metaphor of the steward, while it originated in the scriptures, did not attain any real prominence in Christian theology until the nineteenth century, when the Protestant churches in the New World, cut off from state support in Europe, used the image of stewardship to develop a system of financial self-support through voluntary giving. In the twentieth century, the financial/managerial sense of the term has endured, and become a standard way of describing the appropriate attitude to raising and administering church finances, particularly in "mainline" Protestant churches. In more recent decades, the financial/administrative interpretation of stewardship has been criticized for being too narrow, and has been applied to virtually every area of human existence, including stewardship of time and talent, of mission, of the gospel, of society and humanity, of history and its fulfilment, etc. According to one author, stewardship is "a model for creative living . . . multidimensional, leaving no sphere of life untouched" (Cunningham, 1979).

In view of the flexibility of the stewardship metaphor, it is not surprising that, in the 1970s and '80s, theologians began to use it in the context of discussions of Christianity and the environment. In the 1970s, such prominent Christian thinkers as René Dubos, John Macquarrie and Hugh Montefiore (see Spring and Spring, 1974) discussed the use of stewardship as an environmental ethic. In the last decade, perhaps the most prominent proponent of "the steward" as a symbol of the Christian in the world is United Church theologian Douglas Hall, who stretches the metaphor of stewardship to apply to Christian responsibility for society, humanity and nature. In three books published during the 1980s, Hall has argued that "the steward" is "a biblical symbol come of age"—stewardship is a way of responsible "being with nature" for human beings "made in the image of God" (Hall, 1982, 1986, 1988).

The stewardship metaphor has not, however, gone unchallenged by Christian thinkers. John Macquarrie (1974) questioned whether stewardship could be an adequate Christian environmental ethic, since it still considers the world "as a piece of property and primarily from an anthropocentric

angle." Feminist theologian Rosemary Radford Ruether's contribution to an anthology on *Teaching and Preaching Stewardship* expressed some discomfort with stewardship because it involves "thrift within the present order" rather than "a vision of a new and different order" (1985). In a 1989 article in the *Journal of Stewardship* (published by the National Council of Churches of Christ in the U.S.A.), a biblical scholar observed that the metaphor of stewardship comes from a hierarchical understanding of society, and that: "by using language that reinforces a hierarchical portrayal of relationships, we may be writing 'hierarchy' on the human spirit and generating actions and organizations molded by that language" (Roop, 1989). Non-Christian environmental philosophers, notably Deep Ecologists and Ecofeminists, are also uneasy with the idea of the stewardship of nature, regarding it as too human-centred and managerial to be an adequate expression of the human-nature relationship.

Back in 1990-91 when I was doing this research into the history of stewardship, I became convinced that it was not an adequate foundation for applied environmental ethics; I saw stewardship as a somewhat shallow, anthropocentric environmental ethic, with roots in hierarchy, patriarchy and slavery. At the time, I called for planners, policymakers and others involved in environmental practice to become familiar with other environmental philosophies such as deep ecology, ecofeminism, social ecology and bioregionalism in order to deepen their ethical understanding. However, today, I am not so sure. The commitment to stewardship has not gone away, either in the church or in the broader community. In fact, grassroots organizations promoting environmental stewardship, and undertaking highly beneficial environmental projects, have popped up all over the country in some profusion, and a commitment to stewardship, of course, has become embedded in public policy. Although I still would argue that we should choose our "key symbols" carefully and be aware of a variety of ethical frameworks, and that stewardship has some questionable connotations, I have also come to see over the past few years that the stewardship ethic, however it is interpreted by its practitioners, is a powerful one that has motivated a great deal of environmentally responsible activity. It is also a fascinating example of a biblical image that has entered and influenced the broader culture, undoubtedly through the church. Paradoxically—as we shall see later in this Workshop—while the stewardship ethic has become more entrenched in policy and practice, some ethicists and theologians have become increasingly critical of stewardship.

I have certainly not resolved the tension in my own mind between the somewhat worrying implications of the biblical image of "the steward" and the undoubted effectiveness of the stewardship ethic as a basis for environmental action. Is it possible to disregard the hierarchical and utilitarian implications of stewardship and merely regard it as a convenient way to express an ethic of environmental responsibility? Or is stewardship too bound up with patriarchal, objectifying ways of

thinking about nature to be a satisfying environmental ethic—should we be looking for alternative images and models, from a variety of sources and cultures? Or does it really matter how we conceptualize our environmental ethics: is *action* what is really important, whether we call ourselves "stewards of the environment" or "deep ecologists"?

All of this is a long preamble to the business of this workshop, which is to bring together what are often two rather disparate groups of professionals who use the language of environmental stewardship: what I have called "theorists" (theologians, ethicists) and "practitioners" (such as planners, scientists, public servants, activists) to present, elaborate, advocate and challenge the idea of stewardship from different angles, and, I hope, to make some small contribution to the complex issues involved in the articulation and application of environmental ethics.

Photo 2: Mary Ann Beavis, Conference Co-ordinator

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GLOBAL WARMING AND STEWARDSHIP OF THE PLANET'S HEALTH

Roger Hutchinson
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University of Toronto*

It is a pleasure for me to have the opportunity to make some general remarks tonight about the issues that will be addressed more intensively in the workshops tomorrow and Saturday. The workshops will deal with different aspects of the history, theory and practice of environmental stewardship.

One underlying theme of the event is that we live in a time of fragmentation in which we lack shared standards for our actions and a unifying vision for our public policies. A powerful image for expressing this problem is that the circles which should unite theorists and practitioners, experts and citizens, environmentalists and planners, are broken and need to be healed. This theme is captured by recent titles such as: *Ecology, Economics, Ethics: The Broken Circle*[1] and *Moral Fragments and Moral Community*.[2]

A second theme, implied by the current interest in stewardship, is that time is running out for the exploitative, business-as-usual practices of the past, and we must become better stewards of the natural environment if we hope to redirect our societies towards a more sustainable future.

I have selected "Global Warming and Stewardship of the Planet's Health" as the topic for tonight's lecture because, on the one hand, this issue illustrates so vividly the scientific, philosophical and theological dimensions of what it would mean to be better stewards of the planet's health. On the other hand, debates over climate change also demonstrate the limitations and ambiguities of the image of healing the broken circle. As I will attempt to show, there are times to heal some circles and times to break others. In some situations, the appropriate response involves overcoming the gap between theorists and practitioners, citizens and experts and so forth. At other times and in other places the emphasis should shift to breaking circles or challenging a particular orthodoxy which includes some theorists and practitioners and excludes others.

1. HEALING THE THEORIST/PRACTITIONER CIRCLE

First, then, let me turn to the relationship between theorists and practitioners as illustrated by the global warming debate. In 1990 Harold Coward and Thomas Hurka assembled an interdisciplinary team for a project of the Calgary Institute for the Humanities called "Ethics and Climate Change: The Greenhouse Effect." One of Canada's leading climatologists, Kenneth Hare, outlined the challenge. He cautiously concluded "that warming is certainly in progress on the global scale, and that increases

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*This paper is based on a public lecture delivered on March 10, 1994.

in greenhouse effect are possibly—I would say probably—the main cause."[3] This is potentially a very serious problem because, as Harold Coward points out in the introduction to their book, increased quantities of greenhouse-causing gases in the atmosphere have the same effect as turning the thermostat too high. Heat from the sun can still get in, but less heat gets back out and the temperature goes up. Low-lying island states and coastal communities will be particularly vulnerable to the resulting flooding. Thomas Hurka, a philosopher, outlined a series of relevant ethical principles, and Harold Coward, now Director of the Centre for Studies in Religion and Society at the University of Victoria, British Columbia, discussed religious responsibilities from the standpoint of various religious traditions. Other participants in the project applied Hurka's principles to issues related to their particular areas of expertise and types of concerns. These included: a case study of the Canadian Arctic; questions of personal, corporate and international responsibility; the need to develop economic mechanisms which would be effective, efficient and ethical; and measures required to achieve energy efficiency at home and abroad.

The backdrop against which Hurka developed his ethical principles was the observation that "our response to the greenhouse effect can involve either adaptation or avoidance."[4] That is, some responses will focus on how to deal with climate change after it has happened, while others will try to prevent its occurrence. Different proposed responses can be assessed in relation to ethical principles which range from uncontentious and widely affirmed principles to principles which are more controversial and radical. Hurka proposes as "a useful general response to ethical disagreement" the following rule of thumb: "on any issue, try to establish ethical conclusions using the least contentious principles possible, to maximize the chances of agreement."[5]

The two most common types of ethical principles deal with consequences, on the one hand, and rights, on the other. Hurka chooses as the least contentious starting point a consideration of consequences as a basis for choosing between avoidance and adaptation strategies and for assessing proposed policies designed to achieve either avoidance or adaptation. "If an act or a policy has good consequences . . . this counts ethically in its favour; if it has bad or, especially, disastrous consequences, this counts ethically against it." An important question, of course, is: Consequences for whom?

Hurka identified a range of answers to this question. The most rudimentary moral response involves considering "the effects of our actions on humans living in our own country now."[6] In relation to the consequences of global warming this humans-here-and-now principle would result in an emphasis on adaptation over avoidance. The main impact of global warming will be experienced by future generations while the costs of preventing that outcome would begin immediately. Similarly, the

main impact of the results of global warming will be experienced in low-lying countries and coastal areas. Unless humans living in those areas have ethical standing, their plight will not evoke a concerned response from people not directly affected.

The next step in Hurka's outline of stewardship principles involves considering the consequences of our actions for humans living at other times and places. This principle is a central feature of the concept of sustainable development. The Brundtland Commission pointed out that for development to be sustainable it must meet "the needs of the present without compromising the ability of future generations to meet their own needs."[7] When future generations and humans living every where have ethical standing the emphasis shifts from adaptation to avoidance, but many other questions remain unanswered regarding who benefits and who pays.

The third answer to the question: Consequences for whom? is more contentious from the standpoint of our dominant Western assumptions about humans and the rest of nature. Even the progressive Brundtland Commission remained basically human-centred in its orientation. It speaks of "people, whose well-being is the ultimate goal of all environment and development policies."[8] A more radical environmental view extends ethical standing to other parts of the environment. This environment-centred perspective calls upon humans to care for the environment not simply as a means to meet human needs but as an end in itself. When the environment itself has ethical standing, the emphasis shifts even more dramatically from adaptation to avoidance.

Establishing the fact that the consequences of proposed policies have ethical significance, and that there are different questions to be asked about the ethical implications of consequences, is a small step towards healing the broken circle of theorists and practitioners. It is a small step, however, since the determination of consequences can be approached in a narrowly technical way. There is also a tendency to treat the types of principles I have just outlined as the kind of thing a philosopher can develop in her or his study for practitioners who then apply them in the "real" world. In such cases the isolation of theorists from practitioners is not overcome, and the circle remains broken. The other category of ethical principles, which are related to rights, duties and obligations, comes closer to pulling the philosopher out of the ivory tower and into the process through which judgments are actually made in concrete cases.

Although there are philosophers who believe that only ethical arguments based upon an appeal to consequences can be rational and objective, many others disagree. They insist, with Hurka, that to be ethical, policies must not only achieve the best consequences but they must not violate any rights. The end does not justify the means, and practical moral reasoning as well as technical calculations of consequences are required to assess the rightness of means.

Rights, such as the right to life, the right not to be tortured, property rights, and so forth put constraints on policies which might otherwise be desirable for their consequences. Rights perform the additional function of establishing grounds for compensation when rights have been infringed upon. For example, developing countries argue that their rights would be violated if international agreements designed to restrict greenhouse gas emissions prevented them from pursuing the type of economic development required to alleviate their poverty. Their insistence upon blaming industrial countries for the environmental problem is a form of request for compensation and thus a rights claim.

Hurka's philosophical framework, which included distinctions between adaptation and avoidance strategies, consequences and rights, different ways of assessing consequences, and different claims about rights, served the interdisciplinary team very well. It gave them a language for discussing ethical judgments in a precise and manageable way. By the time the team members had critiqued one another's draft chapters during "an intensive five-day seminar in the Rocky Mountains west of Calgary," fragmentation of the disciplines had been overcome and the circle had been healed. As Coward points out, the experience had been genuinely interdisciplinary rather than merely multidisciplinary.

As the participants would be the first to acknowledge, however, every process has its strengths and limitations. The strength of the "Ethics and Climate Change" project was the integration of the conceptual tools provided by Coward and Hurka into the reflections of the rest of the team which included "scientists, social scientists, humanists, scholars from professional areas such as law and environmental studies, and researchers from the corporate sector."[9] The limitations which I wish to discuss should not be seen as weaknesses, but as the consequences of choices which meant that some things were dealt with and other things were left for another time.

The first limitation is that a decision was made to accept as background for their discussions of the ethical implications of different responses to the problem of global warming, and in particular the greenhouse effect, a particular view of the scientific consensus. This was an understandable and justifiable decision, but one which has consequences which deserve to be noted. The second limitation was that agreement was reached at a fairly abstract and general level. This too is an acceptable goal particularly when the main aim is to provide a framework for future debates about particular policies and proposals. I will return to this limitation later in connection with different types of action involved in responses to global warming.

2. BREAKING CIRCLES AND CHALLENGING ORTHODOXIES

The first limitation, therefore, is that the scientific consensus that global warming is a problem resulting from human activities was simply adopted without serious engagement among the experts who disagree with this consensus. What interests me about the conflicting scientific claims is not so much the debate among climatologists itself, but the way in which when we find ourselves located within one consensus or another this way of looking at the world seems so "natural." We move in circles in which ways of looking at an issue—and at the world—has an inner coherence which looks obvious from the inside even when it looks contentious from the outside. Furthermore, like Roman Catholics and Protestants in the pre-Vatican II, pre-ecumenical era, these different worlds with their distinctive orthodoxies, authorities and patterns of association, tend to exist in isolation from one another. It is thus far easier to heal the circle and overcome the fragmentation among theorists and practitioners when they agree with one another about the issue at hand. I will illustrate this point with quotations from two recent articles debunking concern about global warming. Although it is possible that these writers might have experienced conversion in the clear Rocky Mountain air at the intensive five-day workshop of the "Ethics and Climate Change" project, a more likely prediction is that they would have made proper nuisances of themselves if they had crashed the party.

The first quotation is from an article in the January 1994 issue of the *Report on Business Magazine*. The author, Matt Ridley, is former science editor and U.S. editor of *The Economist*. The article is called: "The Next Eco-Scare." The sub-title is: "Some environmental crises are genuine; others are carefully exploited fundraising bonanzas." It is a cynical and, in my view, quite vicious attack on environmental groups. He accuses them of being market-driven rather than genuinely motivated to do something about the causes they promote. Here is a sample of his business-as-usual orthodoxy:

> All over the world, as you read this, groups of environmental fundraisers are trying to think up next year's top-selling Cassandra album. They remember the great hits of the 1980s: acid rain, Chernobyl, global warming, the ozone layer, *Exxon Valdez*, the ivory ban. Each was a fundraising bonanza. The 1990s have been less kind to them. When the *Braer* oil tanker went aground on Shetland in January, 1993, it was a bonanza for the newspapers. Environmental groups rushed to place advertisements featuring photographs of oil-soaked birds—photographs that had been kept on file for exactly this eventuality ever since the Persian Gulf War. The *Braer* was, however, more of a disaster for the environmental movement than for the shags of Shetland (let alone the Socotra cormorants of the Arabian Gulf whose pictures adorned the advertisements). The oil quickly dispersed in heavy gales and did minimal damage.
>
> As a consequence, oil spills have lost some of their power to extract funds from people's pockets. Global warming, too, has shot its bolt, now that the scientific

> consensus has settled down on about a degree of temperature increase over a century—that is, little more than has taken place in the past century.

The other quotation comes from an equally unpopular source from an environmentalist—or even a moderately progressive—perspective. In the February 18, 1994 Globe and Mail Report on Business, Terence Corcoran responded to the recent report on Great Lakes Water Quality by the International Joint Commission. The title of his column was: "Junk science looms over Great Lakes." After spending the first half of his column ridiculing references in the report to the impact of toxic wastes on penis size, and attacking the IJC's commitment to government intervention, Corcoran zeros in on the Commission's understanding of cause and effect:

> The IJC continues its crusade to redefine cause and effect. The following sentence . . . has persistent toxic qualities, but here it is: "If, taken together, the amount and consistency of evidence across a wide range of circumstances and/or toxic substances are judged sufficient to indicate the reality or a strong probability of a linkage between substances or class of substances and injury, a conclusion of a causal relationship can be made."
>
> In other words, [says Corcoran,] actual cause and effect is dismissed and replaced by broad relationships between substances and circumstances and probabilities. This kind of junk science has produced plenty of non-crises in the past, not least of which is the hypothetical greenhouse effect.

My point in citing these representatives of the business-as-usual orthodoxy is not to suggest that Coward and Hurka should have dealt more fully with the debate among scientists over the seriousness of climate change, the likely distribution of its impacts, and so forth. My aim, rather, is to show how we live in the midst of self-contained ways of looking at the world. Insofar as these "worlds" or "stories" exist in isolation from one another, the circles need to be broken and the orthodoxies need to be challenged in the interests of more inclusive conversations and more effective action.

As I have already mentioned, Coward and Hurka were well aware of the debate among climatologists about the seriousness of the global warming problem and the extent to which it was being caused by human activities such as burning fossil fuels. Evidence throughout their book, as well as in the popular account of their process by Lydia Dotto who used to be the science writer for the *Globe and Mail*, suggests that they dealt with the question of scientific uncertainty in two ways. These responses also characterize the approach taken by the World Council of Churches in its study paper called, *Accelerated Climate Change: Sign of Peril, Test of Faith*.

On the one hand, the same actions required as a response to global warming ought to be carried out anyway for different reasons. For example, there are many reasons connected to

environmental stewardship for urging a shift from private automobiles to public transportation. On the other hand, both the "Ethics and Climate Change" project and the World Council of Churches' study paper defend what is called the precautionary principle. In the face of uncertainty about the consequences of actions and policies, both prudence and ethical discernment favour caution. Even if there is a possibility that global warming will happen less rapidly than presently predicted, we should still take whatever avoidance measures we can to be on the safe side.

The second limitation I mentioned was that the interdisciplinary consensus achieved through the "Ethics and Global Warming" project was at a fairly abstract and general level. Again, this is not a criticism but a reflection on the choice made to focus the discussion at that level. The nature of this choice can be clarified by considering the different types of action involved in responses to global warming. I will use responses to the Framework Convention on Global Warming prepared for the United Nations Conference on Environment and Development, which met in Rio de Janeiro in June 1992, to illustrate different types of action which in turn require different strategies.

In the period leading up to the Earth Summit, as the June 1992 meeting was called, the prior task was to arouse concern about environmental issues and in particular the link between environment and development. When this was the task, actions tended to take the form of exhortations based upon alarmist information and moral absolutes.

The next step in the process involved the formulation and negotiation of particular conventions and agreements. The Framework Convention on Climate Change emerged from a process almost as elaborate as UNCED itself. The action required for this phase of the process involved combining moral passion, expertise and the interests and perspectives of different countries. Initially, the Northern industrial nations took a business-as-usual approach. The U.S. in particular was strongly opposed to setting targets for reductions in emissions of greenhouse gases such as carbon dioxide. Canada, along with over 150 other nations, signed the Convention at Rio as a first step towards an internationally binding agreement. This formulation of policies phase of the process most closely corresponds to the work of the "Ethics and Climate Change" project.

The next step in the process involved ratification by the governments of each nation. By December 1993 the fiftieth nation had ratified the convention and, in accordance with United Nations procedures, it will enter into force as an international agreement on March 21, 1994.[10] Once the Framework Convention on Climate Change goes into force, there will still be a need to arouse concern about global warming and to develop interdisciplinary frameworks for discussing the ethical choices involved in different responses to the issue. However, there will also be a new emphasis on monitoring the implementation of the agreements and targets embodied in the Convention.

The starting point and focus of attention during the monitoring phase are specific policies and actions themselves, and the positions of different groups on particular actions. New circles will be formed and old circles will be disrupted as efforts are made to find allies and to identify obstacles. For example, attempts to reach agreement on concrete measures for reducing carbon dioxide emissions will heighten tensions between business-as-usual and environmentalist circles, but they will also provide occasions to test the usefulness of mutually acceptable ethical principles and to discover the relevance of our cultural and religious identities for our actions.

CONCLUSION

I have tried to present a positive appraisal of the way in which the theoretical contributions of Coward and Hurka, and the active engagement of participants from other disciplines and areas of responsibility in the "Ethics and Global Warming" project, healed the circle so that theorists and practitioners were able to engage one another in an interdisciplinary rather than simply a multidisciplinary conversation. I suggested, however, that theorists and practitioners can most easily form circles and create orthodoxies when they are in basic agreement on an issue or when the consensus remains abstract and general. As work on responding to climate change evolves from arousing concern and formulating agreements, to monitoring the implementation of agreements, it will become increasingly important to focus concretely on particular proposals for action. This will not make ethical principles and religious convictions irrelevant. It will provide concrete settings in which to test our principles and discover the nature of the basic convictions and stories which shape our actions whether we are fully aware of them or not. The nature of the convictions and stories lying behind the idea of environmental stewardship is the topic to which I will return tomorrow.

NOTES

1. F. Herbert Borman and Stephen R. Kellert, eds., *Ecology, Economics, Ethics: The Broken Circle* (New Haven/London: Yale University Press, 1991): "If we view ecology, economics and ethics as parts of a whole, of an interconnected circle, then the current linkage seems weak and the circle seems broken" (p. ix). "Until we mend the cleavage in our understanding of the relationships among ecology, economics, and ethics, our willingness to make changes to maintain the long-term integrity and quality of the biosphere will not develop" (p. xiv).

2. Larry L. Rasmussen, *Moral Fragments and Moral Community: A Proposal for Church in Society* (Minneapolis: Fortress Press, 1993).

3. Kenneth Hare, "The Challenge," Harold Coward and Thomas Hurka, eds., *Ethics and Climate Change: The Greenhouse Effect* (Waterloo: Wilfrid Laurier University Press, 1993), p. 3.

4. Coward, p. 1.

5. Hurka, p. 23.

6. Hurka, p. 26.

7. Hurka, p. 27.

8. Hurka, p. 30.

9. Coward, p. xi.

10. "Climate: 50th Ratification" and "The Long Road to Ratification," *The Network: The Independent Sectors Newsletter*, 34 (January 1994): 1, 7.

ENVIRONMENTAL STEWARDSHIP: A CHRISTIAN THEOLOGICAL UNDERSTANDING

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I have been asked to play the role of a theorist at this meeting of theorists and practitioners. In particular, I have been asked to speak as a theologian, and to provide another perspective on the roots of the idea of stewardship in the Christian tradition and on developments within that tradition which affect our understanding of current uses of the term "environmental stewardship."

1. CHRISTIAN ROOTS OF STEWARDSHIP

The idea of stewardship in North American churches emerged in connection with the transition from state-supported established churches to the understanding that churches are voluntary organizations supported by the financial contributions of their members. The idea of stewardship evolved from a narrow preoccupation with raising money for church purposes to a metaphor for human responsibility for time, treasure, talents and care of the earth. As Eugene Roop points out in his book, *Let the Rivers Run: Stewardship and the Biblical Story*, writers in the 1960s such as United Church of Canada theologian, Douglas John Hall, renewed an earlier claim "that stewardship involves the fundamental Christian responsibility for God's world. Money management constitutes a crucial part of that responsibility, but not the only part. These writers discussed issues of justice and evangelism as much as offerings, care of God's creation as well as care of the church building."[1] Doug Hall, in particular, popularized the image of the steward as "a biblical metaphor describing the responsibility of all humankind for the care of God's world."[2]

As background for understanding the implications of adopting stewardship language, two different issues must be addressed. First, it is important to be aware of the hierarchical, human-centred roots of stewardship in biblical texts. Second, unless one is to be satisfied with archaeological digs looking for the artifacts of a dead tradition, it is equally important to trace changing understandings of stewardship within the Christian tradition and attitudes towards stewardship on the part of other traditions.

Although both creation stories in the Bible reflect a human-centred notion of responsibility for the rest of nature, there is a crucial difference between the "managerial" image of the steward in the Genesis 1 and the "gardener" image in Genesis 2. The key verses are:

- Genesis 1:28: God blessed them, saying to them, "Be fruitful and multiply, fill the earth and conquer it. Be masters of the fish of the sea, the birds of heaven and all living animals on the earth."

- Genesis 2:8, 15b-16: "God planted a garden in Eden . . . and there he put the man . . . to cultivate and take care of it."

In addition to stressing the importance of balancing the managerial and gardening emphases, Christian theologians also draw attention to different understandings both of the master and of the steward in other biblical writings and in later Christian traditions. Whereas in Genesis 1, the master appears to be an all-powerful despot, other biblical writings and later traditions picture a more democratic, co-creating God. This is the image of the master found in the World Council of Churches' study paper, "Accelerated Climate Change: Sign of Peril, Test of Faith":

> The biblical story tells of creation and deliverance, covenant and community, hope and fulfilment. The chief actor in the story is God, "who created the heavens and stretched them out, who spread forth the Earth and what comes from it, who gives breath to the people upon it and spirit to those who walk in it" (Is. 42:5). God calls humans to reflect the image of God (Gen. 1:26f.), to be *with* God in an intimate relationship of trust and responsibility, reflecting God's own love and sustaining work. God delivers a people from oppression and invites them into a covenant community of mutual faithfulness. God the Deliverer makes the people of the covenant agents of God's ongoing work of liberation, giving them as a "light to the nations, to open the eyes that are blind, to bring out the prisoners from the dungeon" (Is. 42:6f.).[3]

The image of the steward has also changed from servant of the King to corporate manager, and from amoral employee to personally involved moral agent. According to Roop:

> Genesis 1 portrays the human stewardship mandate using language which in its time was royal and in our time takes us into the corporate board room. That language has bequeathed to us both potency and problems. The mandate empowers the human community to actively engage in shaping the world. Our energy to work, manage, shape, envision, and implement comes as a gift from the Creator. However, that kind of empowerment—whether in the corporation or in the crown—has a way of losing touch with the one to whom it is accountable, soon inventing justification for whatever the manager wishes to do.[4]

In addition to the shift from servant of the king to corporate manager, the image of what it means to be a corporate manager has also evolved, at least from the point of view of the corporations themselves. The corporate researchers involved in the Calgary Institute for the Humanities "Ethics and Global Warming" project argued that the old idea that "the business of business is business" is no longer credible. "Separation, the creation of limits and boundaries, as a strategy is no longer either adequate or viable. Concepts of the corporate role and corporate responsibility must be rethought and expanded. . . . The business of business must be more than just business in the narrow sense that this term has acquired."[5]

The criticism that the biblical notion of stewardship is rooted in hierarchical, human-centred assumptions has, therefore, been addressed in different ways. First, attention was drawn to the need

to balance managerial and gardener images; second, attention was drawn to changing understandings of the master on whose authority the steward manages and cares for the earth; and third, it has been suggested that the steward is a responsible moral agent rather than simply an amoral functionary carrying out someone else's orders. However, current promoters of environmental stewardship have a more serious aspect of the legacy of liberal Protestant theology to deal with. That is the role of this tradition in the disenchantment of the world which has left the descendants of the Western intellectual tradition without a clear sense of our place in the cosmos and without effective means to reawaken this lost sense of wholeness.

2. STEWARDSHIP AND SPIRITUALITY

The proposition I would like to present for debate, therefore, is that the real problem related to the Christian, and in particular the liberal Protestant, background of the idea of stewardship is not dominion but the disenchantment of the world. I use the term "disenchantment" rather than the more common term "secularization" for two reasons. First, it more accurately describes the condition I am trying to diagnose; and, second, two quite different meanings of secularization are usually collapsed together. It is important to distinguish between secularization as the emergence of a society no longer under the control of a particular religious tradition, and secularism as the belief that religion itself has become a purely private, irrelevant force in modern societies.

As a liberal Protestant, I do not lament the secularization of Canadian society insofar as that means the loss of control of a single religious tradition and the emergence of a pluralistic society. I have no sympathy with conservative Protestant talk about re-Christianizing Canada, or for with Roman Catholic talk about the re-evangelization of Europe. I welcome the emergence of a multi-cultural, religiously diverse society, and I do not as a member of the formerly dominant tradition in Canada lament this development as our unfortunate fate.

However, pluralism does not mean that anything goes and that all views are equally valid. The point of religious pluralism is that I can disagree with particular policies defended by members of other religions without questioning their right to be and to remain Roman Catholics, Sikhs and so forth.

There is another side of pluralism which needs to be recognized but which is often overlooked in our post-Christendom society. Whether or not a particular individual or group is identified with a recognized religious tradition, that individual has a story which has built into it one or another set of answers to the questions of life. One of the things referred to with the term "disenchantment" is that many people have lost touch with their larger stories—and that includes many members of brand name religious traditions. What we need to work on together is a way of telling our stories—including the

stories of no-name brands of religion—so that through participation in our stories our sense of place as part of the whole universe can be reawakened.

The physicist David Bohm, in *Science, Order and Creativity*, points out that, "in former ages, the two chief ways in which humans kept their cosmic awareness alive was through deep immersion in nature and through religion." For many people, the way of nature and the way of religion are interconnected. Immersion in nature can be the means by which the reality of one's religious tradition or story is rediscovered.

The re-enchantment of the world is being experienced in different ways as people respond to the challenge, which, as sociologist Peter Berger, in his book *A Rumor of Angels* puts it, is to relocate "signals of transcendence" which have reality in a technological, pluralistic world.[6] The spiritual significance of deep immersion in nature is illustrated by the following comment by Virginia Thompson, a theology student in my forestry class, in her paper on clearcutting:

> Emotionally, I acknowledge that I am deeply moved by wilderness, and have a particular love for the coastal temperate rainforests on western Vancouver Island. I believe that one needs to experience these forests first-hand to really understand what is at stake. It is only through personal experience of these forests that the spiritual dimension of this debate becomes clear.

There are other "signals of transcendence" which are kept alive for us through participation in our religious stories. One of these is the conviction that there is a basic order of the universe and that humans should direct their lives in such a way that they will be in tune with that order. I will illustrate this way of being in touch with the cosmos by drawing on Buddhist and Christian examples. In an article called "Spirituality and the New World Order" in *Sacred Spaces*, Peter Timmerman made this comment:

> Buddhism, like some other Eastern and aboriginal traditions, is deeply rooted in a belief in a foundational order, which is often referred to as the Way, the Dao, or the Dharma. It is somewhat differently conceived of than the idea of order in the West. . . .
>
> The idea of the Way or Dao thus gravitates towards metaphors and images of craftsmanship, of letting go, of non-violence, and of learning how to go with the grain of the universe. Our task is to pick up the scent, the track, the trail of that graining. . . . We are to try and become transparent to, tuned into, or congruent with, the grain of things, from which we have become estranged. This is connected to the idea that because of our noisiness and arrogance, human beings are tuned instead into a tight little order of our own creation which we can manipulate and control; but we are therefore made substantially oblivious to a large order upon which we are wholly dependent. The environmental situation we face is very like this: we have been so incredibly successful for the last 400 years in uncoupling ourselves from the local environment that it is hard for us to believe that we are still connected to the larger

> planetary power of the global ecosystem, upon which our existence depends. This may yet prove the old adage: nothing fails like success.[7]

A remarkably similar observation was made by Gregory Vlastos in his chapter on ethical foundations in the 1936 publication of the Fellowship for a Christian Social Order called *Towards the Christian Revolution*. In that chapter, Vlastos referred to God as the patterned ground of reality in the real world which must be discovered in our thoughts and conformed to in our actions. He contrasted the ethic of Jesus with Plato's abstract good order, on the one hand, and Kant's autonomous will, on the other. Jesus addressed the concrete choices through which it becomes clear which view of reality one is aligned with in one's actions. The Samaritan who practised the law of love and the priest and Levite who passed by on the other side both had visions of reality. However, the Samaritans' view was the negation of the priest's and the Levite's idea of the divine order of things. As Vlastos pointed out:

> The necessity for choice arises when it becomes plain that a human order of value—a particular order of ideas, intuitions and sentiments, as well as of practices and institutions—is beginning to cut across the divine order of value. A product of history is cutting across the grain of historic creativity.[8]

Another way to understand the role of particular religious traditions in the re-enchantment of the world is to appreciate the importance of having a story which sets our lives in a larger cosmic context. One way to say this is that we should reaffirm the fact that for insiders to a religious tradition their tradition functions as a "grand narrative."

"Grand narrative" is a term used to refer to the larger story which places the mundane events of everyday life in their cosmic context. There is an obvious connection between the loss of our sense of the underlying order of the universe and the diminished power of the religious traditions that conveyed to earlier generations our awareness of the ultimate purpose, direction and wholeness of life.

"Grand narratives" have been debunked in modern societies by positivists and empiricists who have, as we would now say, deconstructed all claims about reality that cannot be empirically demonstrated. Rather than engage in abstract, theoretical debates about metaphysics, it is more useful to acknowledge that a distinction should be made between the kind of factual claims that can be subjected to empirical tests, and those larger claims about the basic order of the universe that are embodied in religious stories.

There is a second problem with the term "grand narrative" that is more relevant for this discussion. The very sound of the term implies a monopoly over the truth. What I wish to insist upon, however, is that individuals and groups can find in their stories or "grand narratives" a point of contact with ultimate reality without having to claim that theirs is the only truth. We are not forced to choose

between grand narratives and pluralism as long as we take a non-imperialistic approach to our religious stories. For example, when Sikhs argue that they ought to be able to wear their turbans into a Canadian Legion hall, they are not trying to turn Canada into a Sikh society. They are simply taking at face value our claim that in Canada no single tradition has a monopoly over basically religious acts such as showing respect for the dead. The fact that it is so difficult to have a calm, rational discussion about the possibility of different gestures of respect when entering a Legion hall, should give pause to those who think we live in a secular society without sacred rituals.

What needs clearer recognition in our pluralistic society is that it is possible to develop shared techniques for resolving disputes about the facts, and for applying environmental stewardship principles, while at the same time celebrating the diversity of our larger stories, the stories through which we make sense of our world and from which we receive basic guidance and motivation.

I will illustrate this point with the example of Sikh and Christian approaches to the issue of global warming. The same scientific techniques would be used to determine whether or not the global climate is getting warmer and whether or not such climate change is caused by human activities such as burning fossil fuels. Similarly, Sikhs and Christians will both examine the ethical implications of particular policies by studying their consequences and by asking whose rights will be violated or protected. Beyond these factual and ethical discussions, however, Sikhs and Christians will be nurtured and motivated to do what they come to believe they ought to do by their distinctive religious beliefs and practices. The following quotations from Sikh and Christian sources illustrate the larger stories which provide the backdrop for rational, practical activities in the world.

The quotation from Sikh materials was compiled by the World Wildlife Fund for an inter-faith meeting held in connection with the Global Forum at Rio de Janeiro in June 1992:

> Sikhism teaches that the natural environment and the survival of all life forms are closely linked in the rhythm of nature. The history of the Gurus is full of stories of their love and special relationship with the natural environment—with animals, birds, vegetation, earth, rivers, mountains and the sky. There is also a very strong vegetarian tradition. . . .
>
> Nature informs us that there is no difference between the human sphere and the sphere of nature. Both were simultaneously created from the same light. Therefore we share the world with nature and our fellow beings. Sikh Gurus have attempted to warn those who desire to control nature and the world in which we live. . . .
>
> This message has in recent years been ignored. As we have become selfish and egotistical in our zealousness to acquire ultimate control over our environment, we have become power-mad and forgotten our responsibility towards others, so much so that now we can see the destruction of the balances in nature. Today the imbalance is being exacerbated by our blind race for profit, to the detriment of the rest of

> creation. We must know the eternal truth of our true place in the universe. Environmental balance can only be achieved if the conservation designed by God is maintained and it can only be maintained by adherence to ethical behaviour as prescribed in the holy scriptures. The key principles of the faith are highly in tune with natural existence. They are:
> - Pray to God—remember Him and His authority always;
> - Earn an honest living—do not take what does not belong to you, or more than you need—essential truths for a proper relationship with nature;
> - Share with others—this includes all creation, not just human beings.
>
> If these principles were followed, then the exploitation of the natural world would cease. This is the known will of the wonderful Lord.

The next quotation is from the World Council of Churches' study paper, "Accelerated Climate Change: Sign of Peril, Test of Faith":

> Only in humility and in openness do we presume to speak of God's action or to project God's purpose for the years and decades immediately ahead. Nevertheless, as a people nurtured by the biblical story that still continues, we dare to believe that God calls us to participate with God in God's own work of stopping the degradation of Earth's protective mantle and engaging in other tasks of protecting and restoring the creation, human and non-human.
>
> With God in these tasks, we find meaning, joy and hope. Encountering formidable opposition, we do not know the extent to which our human efforts can reverse injustices, change the economic order, and stem the tide of global warming. Nevertheless, trusting that our efforts can be consistent with God's purposes, even when achievement is not measurable, we may eagerly accept God's invitation to adventurous faithfulness.

These two quotations have been cited to show how current members of Sikh and Christian traditions find in the stories and practices of their faiths complementary ways to live in the world while pointing beyond the world. Sikhs and Christians who are concerned about peace, justice and the environment find allies in one another's traditions and obstacles to a more just and sustainable society in the beliefs and actions of members of their own traditions. One belief they share is that the patriarchal beliefs deeply embedded in their origins do not have unquestioned authority for current practice. Thus, while the patriarchal roots of notions such as stewardship should not be forgotten, it might be more rewarding to focus attention on efforts within living traditions to transform themselves into trustworthy allies in the search for a more just and sustainable society. The real question is not whether the currently popular notion of stewardship has impure credentials but whether the larger stories informing converts to sustainability are democratic and life-giving stories which will provide motivation and guidance for the long haul.

CONCLUSION

In conclusion I would suggest that all traditions, whether older traditions such as the major religious faiths or newer stories through which individuals make sense out of and act in the world, experience a gap between theory and practice. The main challenges facing all of us, whether we are followers of brand-name or no-name religion, believers in human-centred or ecosystem-centred environmental ethics, are similar:

- How do we balance managerial and gardener dimensions of a planning process?
- How do we get in touch with deeply buried assumptions about the proper end of human and non-human life and the basic order of the universe? (It is no longer possible to hide behind the false promise that secularization has made such questions obsolete).
- How do we replace the dominant story of progress through the exploitation of nature for unsustainable patterns of human consumption with richly diverse countervailing stories of justice, participation, good stewardship and a proper understanding of the place of humans within nature?
- How do we nurture this diverse range of countervailing stories that will form character and transmit ecological values so that our descendants will neither have to live off the spiritual bank account of previous generations nor continue to squander the physical resources of future generations?

NOTES

1. Eugene F. Roop, *Let the Rivers Run: Stewardship and the Biblical Story* (Grand Rapids: Eerdmans, 1991), p. 12. See Douglas John Hall, *The Steward: A Biblical Symbol Come of Age* (Grand Rapids: Eerdmans, 1982; 2nd ed., 1990).

2. Ibid., p. 13.

3. World Council of Churches, *Accelerated Climate Change: Sign of Peril, Test of Faith*, p. 9.

4. Roop, *Stewardship*, p. 17.

5. Wayne Stewart and Peter Dickey, "Corporate Responsibility," in Harold Coward and Thomas Hurka, *Ethics and Climate Change: The Greenhouse Effect* (Waterloo: Wilfrid Laurier University Press, 1993), p. 99.

6. Peter Berger, *A Rumor of Angels: Modern Society and the Rediscovery of the Supernatural* (Garden City, NY: Doubleday, 1969). On the dust jacket of Berger's 1992 book, *A Far Glory: The Quest for Faith in an Age of Credulity*, David Novak reports that Berger "shows how sociology can confront theology with the questions it must address in order to have meaning in the world. He also shows how theology can point sociology beyond the world, to what gives human life some measure of ultimate truth."

7. Peter Timmerman, "Spirituality and the New World Order," *Sacred Spaces*, 3,3 (May-June 1993): 2.

8. Gregory Vlastos, "The Ethical Foundations," in R.B.Y. Scott and Gregory Vlastos, eds., *Towards the Christian Revolution* (Chicago: Willett & Clark, 1936; Kingston: Ronald P. Frye & Company, 1989), pp. 72-73.

IMAGINING THE WORLD, DOING JUSTICE

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I speak to you this morning as a liberal Christian theologian who has found himself moving, in the last 10 years or so, in a direction indicated by four influences in particular: (1) my ongoing study of literary texts and of language, which reflect the way that peoples with other experiences and in other times than our own project their particular felt realities—their unique "realism"; (2) my ongoing study of intellectual history which, particularly under the impress of critical and liberationist thinking in the modern period, relativizes our own experience (and theology) and opens us to that of other peoples; (3) my fairly recent appropriation of Aboriginal peoples' experience of the earth as alive and not their property, which has enabled me to escape from the pejorative dismissal of their religion as "earth religion," a dismissive attitude which I learned from my own distorted theology of years ago; (4) my study of liberation theology, and of liberated communities, in which I learned that it was not enough to believe about something: one must do something about it.

These four influences have greatly affected my approach to what I used to call "the environment," as you shall see.

When this workshop was first planned the organizers gave my talk a preliminary title relative to the overall theme: "Stewardship in the Context of Environmental Ethics," telling me I could change that title as I desired. I do desire. And as the change is indicative of what, centrally, I want to say, I report it. Its new title, "Imagining the World, Doing Justice," points the way forward that I want to indicate—though I will not be offering a road map (no-one can). The old title on the other hand leaves us stuck in the muck—the detritus of our old imagination. Words like "stewardship" and "environment," I will be saying, have got to be abandoned—locked up, put away, and let out only under the most careful supervision and qualification.

The "Abstract" for this paper announced to you its outline. I would like to read it to remind you:

> The "world" we see and live in is literally an *imagined* one, a construction. Since the capitalist and industrial revolution of the 17th C (complemented by the dualistic metaphysics that arose simultaneously out of Descartes), we have been imagining it as an entity and resource base—with the resultant multiple threat now to the ecological life-web that took billions of years to construct. Our deadly habits will not be changed if our deadly minds (imaginations) are not—and the language we express them in. Words like "stewardship," "environment," "resource," and "the creation" must be put away as being too human-centered. When, humbly, humans can see themselves as *part* of the whole—and not at the centre at that—we can recover our proper identity and do justice to reality and the ecological web. "Doing justice" is a way of putting the one thing that humans can (and must) do in the great enterprise of saving the web.

One of the ways we construct (imagine) a world is through language. Language has world-ordinating power. Mostly unconsciously, in the simple act of speaking or writing, we invisibly construct and reiterate a whole taken-for-granted, culturally assumed, world. The names most frequently associated with our dawning twentieth century awareness of the generative power in language are Edward Sapir, Benjamin Lee Whorf, Ludwig Wittgenstein, Noam Chomsky. Here's Wittgenstein, in *Philosophical Investigations,* in a passage which M.H. Abrams used as an epigraph in his magisterial *Natural Supernaturalism:* "A picture held us captive, and we could not get outside it, for it lay in our language and language seemed to repeat it to us inexorably."[1] Language worlds a world. And the "Sapir–Whorf" hypothesis, quite famous in linguistics, holds that culture and "reality" are much more created by language than the reverse.

The general point I wish to make in these opening remarks is that, in actual fact, the world we "see" is not "out there" in front of us (as we have learned to think, particularly in the last 400 years of our cultural history). It lies, rather "behind" our eyes—is "in" us and so, also, "out there." We make the "external" world in our image as the kind of world we want, via our language, habits of perception, cultural assumptions and so on. These change over time, so the "world" we see changes. Our sense of what is real changes. From the seventeenth through the nineteenth centuries the world we wanted to see, and saw, was a world of objects to be possessed and owned (capitalism), measured and controlled (science). We brought it and ourselves to much harm thereby. But if in fact we always take an active imaginative role in creating what we know as "world"—as the last 100 years or so have revealed to us that we do—and that we were doing so even while, from the seventeenth to the nineteenth century, it was our specialty to deny that we were doing so, then we can restore the wounded, partial world of supposed objects only by restoring ourselves. The recovery of our own identity will involve seeing how seeing actually occurs (and seeing thereby our relation with, and presence in, the phaenomena—in what we call "world"). And this discovery of ourselves *in* what we see ought to make us more gentle with it—the "it" no longer an "it," either, but more like a "thou" or a "him" or a "her":

The Song

The tree, cut down this morning,
is already chainsawed and quartered, stripped
of its branches, transported and stacked.
Not an instant too early, its girl slipped away.
She is singing now, a small figure
glimpsed in the surface of the pond.
As the wood, if taken too quickly, will sing
a little in the stove, still remembering her.[2]

If we cannot *learn again* to experience the world this way, we aren't going to make it. (This does not mean going back to such a view, but going on to self-conscious *imaginative* re-seeing of it in this way—not as the only way but as one important, real, way).

With this preamble behind us, now let us go on the amble itself. This will involve giving a brief picture of the ecological web of which we are a part; showing how we arrived at a dominative and destructive picture of our own freedom—the picture that now holds us captive; showing how it is false and harmful (deconstructing it); showing a new way of looking-seeing that is struggling to be born—is being born; showing that vision entails responsibilities (deeds).

The earth is variously estimated at between six billion and fourteen billion years of age. In general the estimation of its age has been rising rapidly over the nearly 400 years since Archbishop Ussher, using the most definitive source of evidence of his day, the Bible, declared it to have been created in 4004 B.C. The older we take it to be, the more dramatic is the following scenario. I shall take its age at 14 billion, though some estimates are now higher.

If we take 14 billion years to be represented by one year, then humans (or, more exactly, humanoids), arriving on the world scene at about 100,000 years, have been here for only the last three minutes of the earth's life. The historical period (about 12,000 years) is only fifteen seconds old. The time since Year 0 in the Christian calendar (the ostensible year of Jesus' birth) is two and a half seconds, and the time since "modernity" (seventeenth century) is a quarter of a second.

The modern period represents an immense shift of consciousness and, consequently and concurrently, social organization, associated with capitalism, individualism, science, materialism, enlightenment, technology—all beautifully covered by the reigning implicit dualistic metaphysic of Descartes.[3] This period has achieved, in one-quarter of a second, a threat[4] to a life-system which, in our analogy, took a whole year to generate itself:

> The first primitive cells probably evolved under the protection of water, at a time when volcanoes and earthquakes were still shaking the earth, still sloshing the oceans over the land and back into the abyss. But this random process is precisely what seems to have prepared the next great surge of life. Eventually some sea plants contrived to take to the rock. The most primitive land plant, the Cooksonia, is found in a fossil dating from about 450 million years. More and more plants covered the rocky surfaces and animals probably followed. Fish became amphibians with leglike fins to help them stump across the sea-washed mud of lakes and estuaries. Gills turned to lungs as they learned to breathe oxygen. About 350 million years ago the landward movement of living things became a flood. Plants began to cover the rocky surfaces of the earth with the new green of breathing leaves and to set in motion the planet-wide processes of photosynthesis and transpiration. Some three-quarters of the atmosphere's essential oxygen came to be recycled through plants, providing breathable air for all the planet's creatures. . . . The roots of plants, progressively disintegrating the rock, added to the

> erosion of the ages and helped to build up the thin and precious envelope of soil which sustains all plant growth and hence all forms of life. . . . all nutrients continuously recirculated through the planet's natural divisions—atmosphere or air, the hydrosphere or the waters, the lithosphere, which is the rock.
>
> Whenever air and water and rock meet, living things establish their home. . . .
>
> Stable environmental relationships imply an interconnected variety of food chains and food webs, which contribute, as it were, the grids of energy upon which survival depends. . . . Chains interconnect with each other to form webs which include the widest variety of plants and animals. Some chains can extend across continents, for example through the birds which are part of them. There is still some uncertainty as to the mode of transport of DDT, but it is a striking manifestation of the interrelatedness of things on a global scale that this insecticide, used in temperate and tropical countries, has turned up in the fatty tissue of penguins.
>
> Although ecosystems can be extremely stable, many are vulnerable. . . . The sudden removal of one small component in a food chain may cause others to starve. The ecology of a freshwater trout stream running clear through woods and meadows can be disturbed by an insecticide that kills the fishes' standard diet, or an effluent that stimulates the algal growth. As a result, the rainbow trout vanish, the mudfish remain. . . . Delicate flowers bloom no longer, only reeds and sedge. . . .
>
> Long before man's hominid predecessor brought to bear on the earth skilled hands, a versatile body, and an inquiring mind, the natural world was already incredibly complex and rich in animal and plant species with their songs, colors, scents—but also with their pitfalls and challenges. This is the complex kind of world in which there occurred, approximately 100,000 years ago, the unexplained and unparalleled enlargement of the human brain, which resulted in *Homo sapiens,* thus bringing into play on earth a type of force different in kind from other natural forces, a creature within the natural system but capable of seeing his place within it and even entertaining the illusion that he could manipulate, command, and conquer it wholly for his own design.[5]

The shadow we cast upon the world, and upon planet earth herself,[6] is the shadow of our own busy, objectifying mind and all its social-political-economic structurings and activities. As the immortal Pogo put it, "We have seen the enemy and he is us."

Moreover, the brief history of the earth just given is a reconstruction, based on evidences and inferences and woven into a whole that has a high degree of probability. This account replaces many other accounts of the earth's genesis that have had a long standing—of its origin in a cosmic egg, in the cosmogonic act of a raven, as offspring of a divine marriage, from the entrails of a dragon, by fiat over six days when a god uttered the world-creating word. The apodictic authority of all these versions has been replaced by the authority that comes from thought—from the teeming brain of the human as this free, considering intervenor entered consciously into the process of its own, and the earth's, birth story, and *decided* what was true and what was false. And all this in the last quarter of a second.

Until we have understood that the crisis of the natural world (so called) is a crisis of our identity and vocation; until we see that what we see "out there" is the product of how *we* look "from here," we are in no position to solve anything that is "wrong" with "nature." It is our looking that has gone wrong because we have gone wrong. We no longer experience our full self, which is "out there" as well as "in here." We have become shells, facades.

I shall now spend some time recollecting how we came to this crisis where the wrong kind of human seems able only to shadow a world of death. I shall try, *en route*, to deconstruct this world and to suggest another.

For most of our intellectual-spiritual journey (at least since the beginning of the biblical and Greek experiences from which, directly, we derive) our identity was that of self-transcendent selves, bound to others and to all creation (or to the phenomenal world) because bound to "God" (or Logos/Idea). From the seventeenth century forward, under the impress of such events as Cartesian dualism, Newtonian science, capitalism and the Enlightenment, this great "participatory" universe of stained glass windows and the Great Chain of Being fell apart, and an animate self "in here" came to confront an inanimate world "out there," across a widening chasm. The extrusion of the self-conscious individual from his (*sic*) environing "world" was achieved in the social triumphs of science and capitalism in all their institutional expressions. The philosopher W.T. Jones, following Benjamin Lee Whorf, calls this "SAE" thinking—"Standard Average European," in which a little entity in a bag of skin (the self) confronts and projects itself upon the "world out there" construed as object or fact.[7]

Such an act of alienation (of other-ing), while it gives an enormous fillip to the human sense of specialness and power, moves us also from seeing our kinship in nature (the "girl" in the wood) to seeing the wood as dark other, as threat:

> After man's separation, he saw the forest, once his home, as wilderness and frightening. But late in the nineteenth century Chief Luther Standing Bear of the Oglala band of Sioux said, "We did not think of the great open plains, the beautiful rolling hills, and the winding streams with tangled growth as 'wild.' Only to the white man was nature a 'wilderness' and only to him was the land 'infested' with 'wild' animals and 'savage' people. To us it was tame. Earth was bountiful and we were surrounded with the blessings of the Great Mystery. Not until the hairy man from the east came and with brutal frenzy heaped injustices upon us and the families we loved was it 'wild' for us. When the animals of the forest began fleeing from his approach, then it was that for us the 'Wild West' began."[8]

A singularly chilling, and local, instance of the alienation we humans have achieved comes from a University of Manitoba Alumni Association travel brochure promoting an alumni tour of the Amazon River from February 4-15, 1990. Filled with colour pictures of beautiful forests and beaches, exotic

birds and flowers, and a marvellous panoramic view of the Amazon winding its way through dense jungle, the brochure quotes *Newsweek:*

> The Amazon rain forest is vanishing, being cleared for farms, cattle ranches, dams and roads. As development eats away at Amazonia some 50 percent of its plant and animal species may well become extinct.

So, the pamphlet urges the wealthy alumni of the university, at a saving of $240 per couple if you book before October 27, 1989, "See the Amazon Before It Vanishes."

The Romantics raised an objection to the dualistic, non-participated cosmogony that could achieve such depredations, on the grounds that it was both unliveable and untrue. On the side of "liveability": meaning leaks out of a world (and self) which is experienced as no longer transcendent to itself, in which symbols no longer point, iconically, to anything real, but have declined into mere signs—in which everything is self-evidently what it is (Fact) and nothing left over, as Thomas Gradgrind, mechanical schoolmaster, put it to the little vessels, seated and numbered in rows before him in the classroom, in Dickens' *Hard Times.*[9] The only story that remains to such a society is the story of money and power in history, now, "the round world itself but an empty cipher, except to sell by the cartload, as they do hills about Boston, to fill up some morass in the Milky Way," as Ishmael says in *Moby-Dick.*[10] The upshot of such minds is, in Richard Rubenstein's vivid phrase, the age of triage[11]—systematic murder, genocide, ecocide. Our own.

On the "truth" side: following their poetic (and human) experience and—in the case of Coleridge—following Kant and the critical (transcendental) philosophy, the Romantics insisted that what they saw was, precisely, *what . . . they . . saw;* and that this was true for everyone. "Self" and "world" were fictions (symbols) which subsisted in a relation of mutual construal and interaction which Coleridge called "polarity." The realism of the world was a *symbolic realism,* born in the post-critical rediscovery of the self in its phaenomena on the other side of the illusion of objectivity.[12] Coleridge's poem, "Dejection: An Ode" (1802), is one of the densest expressions of the Romantic experience of the mutual (relational) identity of self-world. "Lady" is a mask for Wordsworth, pre-eminent articulator of polar unity, "Joy" the erotic daimon whose surge unites the poles of "self" and "world":

> I may not hope from outward forms to win
> The passion and the life, whose fountains are within.
> O Lady! we receive but what we give,
> And in our life alone does Nature live . . . .
> Joy, Lady! is the spirit and the power,
> Which, wedding Nature to us, gives in dower
> A new Earth and new Heaven . . . .
> But now afflictions bow me down to earth:
> Nor care I that they rob me of my mirth;

> But oh! each visitation
> Suspends what nature gave me at my birth,
> My shaping spirit of Imagination.[13]

The Romantics were recovering, on the other side of the Cartesian (subject-object) split, what some, like our First Nations people, had never lost. Stan McKay, Moderator now of the United Church of Canada and himself an Aboriginal person, reports a prayer of Art Solomon, Ojibway elder, for whom the earth is "our Mother," at a World Council of Churches meeting in 1983:

> Grandfather look at our brokenness. Now we must put the sanctity of life as the most sacred principle of power, and renounce the awesome might of materialism.
> We know that in all creation only the family of man has strayed from the sacred way.
> We know that we are the ones who are divided, and we are the ones who must come back, together to worship and walk in sacred way, that by our affirmation we may heal the earth and heal each other.[14]

The Romantics could not sustain their re-participated vision, much less enable it to become the new "common sense," for the "common sense" of science and fact and money and individualism was too strong. But as the twentieth century has worn on, it has become clear at the leading edge of all our intellectual disciplines and even, now, of ordinary experience, that what we see is, precisely, *phaenomena* ("that which appears in speech and light"), *appear*-ances. We do not see reality plain. There is no "innocent eye."[15] We see models, images; we employ patterns, conventions, paradigms, as a way of organizing the phaenomena; but we are highly conscious as, post-critically, we should be, of our own role in "world"-construal—that "what" we see depends upon our social location and upon all the assumptions and habits of mind that go with it. We have taken cognizance of *the fact that we literally live in an imagined, faith-ordered "world,"* whether we are physicists or historians or Natives or poets or plumbers or Ministers of Finance. So the probability (or at least possibility) is that we will be able to sustain the insight this time, as the Romantics could not, living as they did in the nadir of positivism.

Why is it so important that we sustain the insight—get it right "under our skin" (note the SAE metaphor), so to speak?

Because for so long as we conceive the "world" and "ourself" as separate entities the gap will always be there, and the hubristic little private self will always be trying to find the technofix that will solve the world's problems without any change in his[16] own heart-mind-soul, or in his methods (lifestyle or relations). But if we can learn to see that "we" are literally *in* the "world" which we behold and inhabit, first of all in the form of our imaginative act that construes (in-habits) it; and if we can learn to see that "we" are, reciprocally, also the product of that "world" (not just because of the food and air that we imbibe, but in the form of the consciousness and imagination that has become native

and habitual to us, that constitutes our "us-ness"); and if we can make this experience of a profound reciprocity, not just an esoteric experience arrived at by some philosophic sleight-of-hand, or a mystical experience unique but unrecoverable—if in short we can make this deep relation the foundational experience of our own identity and the world's—it could change everything. We might stop polluting, for example, on the grounds of not wanting to injure ourselves—for we would have learned to see ourselves *in* the air and water. What seems to us now, with our shrunken imaginations, only a figure of speech would be a literal experience. A new realism would have been born. This might give us the glimpse we need in order truly to see and repent and change. Without this deep *experience* of our actual identity, I fear we will not be animated sufficiently to change rapidly enough or completely enough.[17]

Why should we not be able to look at the world and see that the organized cosmos that *appears,* when looked at with our kinds of eyes, minds, perceptual habits, is, precisely, us—why should we not be able to experience this deep relation (identity) regularly and typically when it is actually so? Sloth, and a preference to continue to think the world a manipulable object for our use, along the lines of capitalist and scientific conceptions, I believe. It is a daemonic preference, and it is clearly killing us.[18]

If the world that appears is in fact "us" in this polaric, relational, participated way, there is no such thing as "the environment." The environment is not a thing any more than we are. And there is no such thing as "nature" either (a something "out there"). If (what we call) "nature," like everything else, is *in fact* the result of an incredibly complex interaction between our perceptual apparatus and some "stuff" "out there," as theories of perception now insist—united in a flash by some energizing power (call it imagination, mind, joy, daimon, what you will)—we ought better to think and speak of an ecological web in which those transcendent fictions "self" and "world" continually re-fund one another in a living, intercoursing whole—which sounds very much like the "Gaia hypothesis" or Buber's "I-Thou."

As long as we experience the world and ourselves as Newtonian objects, and seek by arguments of utility or self-interest to modify behaviour, not only will we be thinking wrongly; the only question will be whether the web of present life will end with a bang or a whimper. What is needed is an imagination that not only can, but "naturally" does, see our deep polaric identity and lives it.

In our past we have made these great imaginative shifts—what Eric Voegelin has called "leaps in being." They are never made except under great pressure of circumstance, such that the shift, in hindsight, seemed inevitable. The latest one, some 400 years ago, has bequeathed the present dilemma. But it has bequeathed, also, the knowledge of our quite radical freedom and response-ability,

including responsibility for our imaginations, the energy (or love) by which "we" are in the "world." The unique role of human beings is to be *self-conscious* about what is going on, and we mustn't, in my view, default on that. This means taking seriously and literally such texts as this:

> Where your treasure is, there will your heart be also. The eye is the lamp of the body. So, if your eye is sound, your whole body will be full of light; but if your eye is not sound, your whole body will be full of darkness. If then the light in you is darkness, how great is the darkness (Matt 6: 21–23).

There is perhaps no text in our past that speaks so clearly our responsibility for our imaginations—which is to say, our responsibility for the "world" we see into being, and act in. It is a text with a particular resonance and power in post-critical, modern time, when our creative role in our perceptions has come home to us. As Northrop Frye put it, we have learned that reality is in the world we make, not in the world we stare at. Every "world" is an imagined one, the only important question being whether we realize it or not. Not realizing is idolatry, under which condition our fictions come back to haunt us as demons (spuriously objective and detached from us—though we have made them ourselves).

(Parenthetically I will say that a great demon—idolized fiction—of our time is money, and love of it may well destroy us. The concluding portion of that biblical passage on the eye as the lamp of the body says, "You cannot serve God and mammon [money]." We have made our choice of realities).

The Romantics realized all this—which is why their experience is so important for us. Hobbes and Descartes, those great friends across the Channel, had bequeathed to us in their very different preoccupations the separated life—the Englishman Hobbes, philosopher of capitalism and of the acquisitive atomic individual, had declared men to be moving systems of matter, and all their relations market relations; the Frenchman Descartes had declared man to be *res cogitans,* thinking stuff, forever in detachment contemplating *res extensa,* distanced stuff. On the hither side of this double whammy of Hobbes-Descartes, the Romantics and their heirs (us) became conscious (again) of their own presence in the phaenomena—in the *res extensa*—on the hither side of the illusion of objectivity; a self aware of its freedom *and* its contribution. (Coleridge, for example, read Kant intensively, and mediated him to the English-speaking world.)

It may also be remarked here that the Romantics experienced, in their relation with everything but especially with "nature," what the scientists[19] are coming to experience in the late twentieth century out of their studies: *the presence of the observer in her/his phaenomena* by way of methods, point of view, models chosen, social location, *etc.* In this sense the Romantics anticipated, at the experiential and philosophical level, some of the most advanced scientific work of the late twentieth century.

But mostly the Romantics learned their creative complicity in what-is, not from philosophy, (and certainly not from science) but from their discerned relation to nature and life. They learned what we would call the psycho-social construction of reality, but they called it imagination—meaning, by that, the joyful, world-creating, unifying (but still self-conscious) presence of the observer in the observed. As Geoffrey Hartman puts it, "To explore the transition from self-consciousness to imagination, and to achieve that transition while exploring it (and so to prove it still possible) is the Romantic purpose."[20]

This (for them) normative experience involved of course a terror of discontinuity,[21] a sense of dying and being born again, from self to Self—ripped out of the web/womb of former "reality," objectionable though the appearances of industrial, enlightened, rationalistic society had become for them. The passage from self-consciousness (awestruck stasis at the complexity of a "world" construed in freedom) to imagination (joyful, self-forgetful, Self-aware, participation in that same world) is never easy.

Existentialism is a nineteenth-twentieth century Romanticism—with the issues and stakes sharpened. In the sense of being aware that the world is not only given but actively construed, we are all existentialists now. Let us look at them, therefore, for just a moment.

No artist in our time so illustrates the terror of discontinuity (but without Wordsworth's capacity to repair the rift) as Franz Kafka and, in particular, his exemplary hero, K., in *The Castle.*

The Castle is the account of the Western journey into the freedom of the detached, ego-centric "I," who can only symbolize objectively—which is to say, the "I" that has lost sight of its own act of symbolizing (its participation in the phaenomena) and sees now only objects. Ironically, the detached ego ("facade," I sometimes call it, for its business is to forget its own depth and complexity) is still busy symbolizing even while denying it is doing so. Its precious "objects" are actually constructions whose constructedness has been lost sight of (though the reader can plainly see it), and in whose objectivity there is vested now a great emotional energy disguised as rationality. K. refuses to see that he is making up the world he is acting in. He is a land-surveyor by profession, a measurer of *res extensa.* When his methods only bring him confusion and get him lost, he can always rationalize his way out: "A fine setting for a fit of despair, it occurred to him, 'if I were only standing here by accident instead of design.'"[22] Loss of "objectivity" entails loss of control, loss of clear identity in the uncertainties of "subjectivity" and emotional connectedness and sense of belonging (homeland; native village; transcendent destiny); so the facade dismisses the longed-for vision within a split second every time it arises, and instantly re-symbolizes it in dis-gusting rationalist reductions:

> . . . a bell began to ring merrily up there, a bell which for at least a second made his heart palpitate for its tone was menacing too, as if it threatened him with a fulfilment

> of his vague desire. This great bell soon died away, however, and its place was taken by a feeble monotonous little tinkle which might have come from the Castle but might have been somewhere in the village. It certainly harmonized better with the slow-going journey, with the wretched-looking yet inexorable driver (I, p. 22).

Nevertheless the Western ego (K.) cannot rid itself of the memory of attachment and participation and joy which it has become its genius and vocation to deny.

If Kafka represents the negative face of the existential experience, Melville (*Moby-Dick*), Dostoevsky (*The Brothers Karamazov*) and Camus (*The Plague*) represent negative and positive in their full complementary relation to one another, as forces of deconstruction and reconstruction—change, new birth. Their art shows:

(1) That the characters are or become conscious that they are "in" what they see, via their imaginations, energies, eros. This greatly complexifies the "what," in turning it from object to *relations.*

(2) That if people don't like what they see, including the complexifications (Camus calls these complexifications "plague"), they must look to themselves.

(3) That this new discovery of our after-all *relation to the phaenomena* greatly increases human freedom and responsibility for what we see and do and are.

(4) That in this dispensation the phaenomena (things seen) become mysterious, miraculous—and, finally, because truly encountered and construed, authoritative. (See the "miracle," "mystery," "authority" discussion in the Grand Inquisitor narrative in *The Brothers Karamazov*).

(5) That in such a world real community is born.

Western Christian theology with its dualisms of above–below, supernatural–natural, God–man, its suppression of the Third Person of Trinity, and its heteronomous understanding of authority and obedience, does not lend itself well to the relinquishments required and the new responsibilities accepted in modernity, as sketched above. (Dostoevsky, a Christian—as Melville and Camus were not—is particularly emphatic on this point). Human being is at once too large and too small in the traditional Christian framing: too large, in that the language of dominion and stewardship and God-like personhood, incorrigibly anthropocentric, hierarchical (from God) and management-oriented as it is, gives the human being an insufficient sense of its appropriate subordination and relative insignificance in the total life-web; too small, in that it projects its commission idolatrously as received from a transcendent God, and fails to acknowledge its spirited (Holy or otherwise) projections and actions, for better and for worse, *as its own.* It refuses to enter the risks of modernity, to grow up.

These are the reasons I find "stewardship" language, while infinitely better than "dominion-over" language, to be inadequate, and to be likely to prolong our difficulties. It arrests us, and prevents us from seeing our true situation and real responsibility.

Similarly with the word "environment." The web of life only "environs" (surrounds) us when seen from our supposed position at the centre. The air, the forests, the water, the plankton, the ozone layer, the animals and the seeds have their stories (in which they are central) too, though these are not articulated in any of the human languages. *We* articulate their stories as best we can when in our stumbling metaphors and models and reconstructions we say what Ward and Dubos said above. But the human is the one (we think the *only* one) that knows that all stories are constructions, including its own, and therefore they need not be—must not be—clung to, in any particular version, past their time. If all stories are constructed fictions, those who own the story are not literally at the centre of things; they only think they are. And it is well, as an act of humility, to stop thinking that way.

In Timothy Findley's *Not Wanted on the Voyage*[23] the story passes from those who think they've got the final version—Dr. Noyes and his daemonic order-givers on the upper deck—to Mrs. Noyes and Mottyl the cat, the underclasses in the hold. Though this novel is highly critical of traditional (rigid and moribund) Christianity, it affirms, also, the central movement of Christianity, which is the iconoclastic faith *par excellence*: the subversion of itself as idol, the elevation of that which is below and at the margins.

So Christianity may be of use after all, if it can more often let go that treasure in which its own insights come framed—traditional doctrinal Christianity itself—and in the encounter with other stories (religious, secular, "natural") offer, as part of the web, its own inmost story of freedom and participation.[24]

To do this would be to do what the Bible calls "doing justice." The Bible sees justice, not just as an attribute of God but what God at heart is: a loving empowerment toward full participation in a whole community, where every part matters. This is not achieved in cerebration, merely, though for the modern human not without it. It is achieved in a set of deliberate constructions, a "genuinely liberating praxis, of knowing the truth through *doing the truth.*"[25]

Only those who do justice can learn again to hear the song to which their theology or science has made them dead.

And often, on the deck of our cottage at Lake of the Woods, or in the presence of great art, I deliberately practise hearing this song and seeing this world which once, in the grip of an alienating form of Christian theology, I would have called mere "pantheism" or "aesthetics" but now I know as kin-dom. Aware of myself seeing "nature" in this thoughtful way, aware of creating her by the way

I look, even as I am created by her, I am in-formed by a power not my own yet it is, now, my own. I experience the critical, spontaneous, responsible, joyful refunding of the images, even as I am funded by them. And I rise up to walk in the world, alive.

Photo 3: Carl Ridd—"Imagining the World, Doing Justice"

NOTES

1. M.H. Abrams, *Natural Supernaturalism: Tradition and Revolution in Romantic Literature* (New York: Norton, 1973), p. 16.

2. Jane Hirshfield, "The Song," *The Atlantic Monthly* (May 1986): 48.

3. "What grows upon the world is a certain matter-of-fact-ness," said Walter Bagehot, the English essayist, in *The English Constitution* (1867); quoted in Roland N. Stomberg, ed., *Realism, Naturalism and Symbolism: Modes of Thought and Expression in Europe, 1848-1914* (London: Macmillan, 1968), p. 31.

4. The "threat" I allude to is the intersecting threats abundantly described in a variety of literatures, and needing no further demonstration here. The several threats constituting, together, the One Big One, include pollutions of water and air; deterioration and erosion of soil; loss of forest; species-loss (loss of biodiversity); oxygen reduction; population surge; escalating and obscene economic disparity with its entailments of lifelong bondage, misery, starvation and death; endemic worldwide depression; militarism; violence of the underclass (crime and drugs) and of the overclass (repression). This is an exhausting, but by no means exhaustive, list.

5. Barbara Ward and René Dubos, *Only One Earth: The Care and Maintenance of a Small Planet* (New York: Norton, 1972), pp. 38-41.

6. I do not use this feminine pronoun pejoratively (in the old patriarchal construal of women as "nature," men as "mind," which is passing away). I use it advisedly, needing to avoid the objectifying word "itself," and following on from Hirshfield's "girl" and, more generally, James Lovelock's "Gaia hypothesis," which uses the myth of the Great Mother to suggest the profound interdependence of the ecological web in which we humans are a tiny, but daimonic, part.

7. W.T. Jones, *The Sciences and the Humanities: Conflict and Reconciliation* (Berkeley: University of California, 1967), pp. 96–99.

8. Garry Spence, *From Freedom to Slavery: The Rebirth of Tyranny in America* (New York: St. Martin's, 1993), p. 134.

9. Charles Dickens, *Hard Times* (New York: Signet, 1961), pp. 11–18.

10. Herman Melville, *Moby-Dick; or The Whale* (New York: Norton, 1967), p. 358.

11. R. Rubenstein, *The Age of Triage: Fear and Hope in an Over-crowded World* (Boston: Beacon, 1983).

12. See for a brilliant brief historical account of these shifts in consciousness, and the correlative shifts in the nature of their phaenomena, Owen Barfield, *Saving the Appearances: A Study in Idolatry* (2nd ed.; Middletown: Wesleyan University Press, 1988).

13. Samuel Taylor Coleridge, "Dejection: An Ode," in Paul Robert Lieder, Robert Morss Lovett and Robert Kilburn Root, eds., *British Poetry and Prose,* II (Boston: Houghton Mifflin, 1938), pp. 87–88.

14. Stan McKay, "Mending a Sacred Hoop," *Sacred Spaces,* 2/5 (September–October 1992): 1.

15. This is art historian E.H. Gombrich's term in *Art and Illusion: A Study in the Psychology of Pictorial Representation* (Princeton: Princeton University Press, 1969). The "innocent eye" thinks it sees what is there; but all art, even so-called realist art, Gombrich points out, is a

careful building up of *appearances,* just like perception itself. It is an illusion to think otherwise.

16. It is an imagination highly compatible with patriarchy, if not dependent upon it; so I have left the pronoun gender-specific.

17. Compare Roger Hutchinson's moving account, in his remarks earlier to this conference, about his student's need to *experience* the rain forest.

18. As Jack Dubois put it, so vividly, in his remarks earlier to this conference: our assault on the earth that sustains us is an act of *hubris:* "We are enacting the Genesis 3 biblical story—bringing about our own expulsion from the garden."

19. I speak not just of the social scientists, where this is obvious, but of the physical sciences. See the work of David Bohm (physicist), Ilya Prigogine (chemist), Rupert Sheldrake (plant physiologist) and James Lovelock (chemist), as described by these scientists themselves in David Cayley, ed., *Religion and the New Science* (Montreal: CBC, 1985). Their work, they point out, breaks the order of Newtonian (subject-object) science—a model generated by a Christian (Lutheran) two-world construal and an economics that longed to see matter as property. This Newtonian scheme saw itself as literal (no "model" merely), and its phaenomena as objective, not related to the observer, and not transformative of the observer either; the "new science," on the other hand, sees full participation of each in each. In this series they lean on the work of Owen Barfield, the historian of consciousness and Coleridge scholar, to make their own work intelligible.

20. G. Hartman, "Romanticism and 'Anti-Self-Consciousness,'" in Harold Bloom, ed., *Romanticism and Consciousness: Essays in Criticism* (New York: Norton, 1970), p. 53.

21. Geoffrey Hartman's phrase, speaking of Wordsworth, quoted in Bloom, *op. cit.,* p. 116.

22. F. Kafka, *The Castle,* tr. Willa and Edwin Muir (Harmondsworth: Penguin, 1957), p. 21.

23. T. Findley, *Not Wanted on the Voyage* (Markham: Penguin, 1984).

24. This is the same sort of task, though in a different context, that Dietrich Bonhoeffer was sketching in *Letters and Papers from Prison,* ed. Eberhard Bethge (London: SCM, 1953): using the tradition *as symbolism* to help us let go the tradition *as idol,* and so participate in God's love for the "non-religious" *saeculum,* the polyphony of life.

25. Matthew L. Lamb, *Solidarity With Victims: Towards a Theology of Social Transformation* (New York: Crossroad, 1982), p. 63. Italics mine. Lamb is citing Bernard Lonergan and Eric Voegelin as holders of this view.

ENVIRONMENTAL STEWARDSHIP: AN ECOFEMINIST PHILOSOPHICAL PERSPECTIVE

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INTRODUCTION: ENVIRONMENTAL STEWARDSHIP

Appeals to the notion of stewardship—of humans as good stewards, custodians, bailiffs or shepherds of creation, charged by God with responsibility for its care (Attfield, p. 27)—have figured prominently in environmental history, particularly in theological accounts of the nature of human responsibility to the nonhuman natural world. When their theological underpinnings are made explicit, they typically rely on Genesis 1 and 2 accounts of creation, which grants humans "dominion over the fish of the sea, and over the fowl of the earth, and everything living upon the earth (Gen 1:28). Ever since the publication of Lynn White Jr.'s famous article, "The Historical Roots of Our Ecologic Crisis," scholars have attempted to offer accounts of the Judeo-Christian account of **dominion**, most noticeably referred to in Genesis 1 and 2, which distinguishes between two senses of the world "dominion."

In one sense, dominion is **domination**, a sort of **despotism**: Humans are said to have domination over the natural environment in a way which permits them to treat nature as they please, of viewing nature as having merely instrumental or "extrinsic value." On this view of dominion, humans are justified not only in exploiting the earth and its so-called "natural resources," but in doing so on grounds that it is our rightful place as superior (typically because more rational) agents, heirs and controllers of God's kingdom. In short, humans are legitimate dominators of less valuable, less prestigious, lower status nature.

In a different sense, dominion is **stewardship**: Humans are said to stand in relation to the nonhuman natural world as good stewards or shepherds of one's flock—to seek to protect and preserve the natural environment and to practice actions which are for its good, in much the same way as a good shepherd tends her flock and cares about the well-being and health of the sheep in that flock. So **stewardship ethics**, as an environmental and theological position regarding humans' relationship and responsibilities toward the nonhuman world, carries with it certain moral responsibilities and attitudes, *viz.*, an obligation to preserve and protect the natural environment in a way which reflects benevolent care and concern for the environment itself.

The notion of humans as stewards of the earth, and the attendant position known as stewardship ethics, has won much favour among traditional lay people, clergy and some environmental philosophers. It has deep Biblical appeal (see, e.g., Genesis 2:4-4:16; Psalms 8, 19, 74, 104; passages from Isaiah [40:12-31; 45:9-13; 48:12-13] and Jeremiah [27:5 and 32:12], and themes from

wisdom literature [Proverbs 3:19-20, 8:22-31]) (McDaniel, 1990, p. 97). Furthermore, stewardship is to be distinguished from a mere prudent management of nature (McDaniel, 1990, p. 97), since

> a healthy and biblically nourished idea of stewardship will not see nature as an alien substance from which we are detached and which we can manipulate at will. Rather . . . it will recognize that humans are a part of, rather that apart from nature. Indeed, it will recognize that the very word "nature," if used to refer to a realm from which human beings are excluded, is foreign to biblical points of view, and that the common ideal that humans are of an ontological order that is discontinuous from the rest of creation is neither ecological nor biblical. An ecologically sensitive expression of stewardship will begin with the assumption shared by biblical perspectives and process theology; namely, that humans are united with their fellow creatures in being part of a single ontological order: an order named "the creation" (McDaniel, 1990, pp. 97-98).

A stewardship ethic, then, properly understood, urges humans to change our attitude toward nonhuman animals and the nonhuman environment generally from that of **conquerors to plain citizens and co-members of the ecological community** (to quote Aldo Leopold), **albeit as stewards or shepherds of that community.** Even if stewardship can be defended in terms of self-interest (alongside the interests of other creatures), "it continues to constitute an expression of responsibility before God, and before the moral community of which God is the principal member" (Attfield, 1983, p. 110).

Human interests in animals is certainly one reason to protect them, but not the only one. Indeed in the Parable of the Lost Sheep (Luke 15:4-7), the marginal benefit of retrieving the hundredth sheep was, all things considered, slight if not negative. According to Robin Attfield, the shepherd still recovered the beast: and, though it is impermissible to argue unrestrictedly from the actions within a parable to the intention of the teller, yet in this case the explicit comparison of the shepherd's care for the sheep to God's loving concern for sinners suggests that we can take it that Jesus was endorsing the shepherd's attitude. Thus Jesus understood and sympathized with disinterested care of animals (Attfield, 1983, p. 29).

Given this account of environmental stewardship, why is it not more popular among ecofeminists and ecofeminist philosophers? In this paper I attempt to show what is lacking or missing from stewardship accounts that spiritual ecofeminist philosophical accounts do or can supply. I suggest that the main weaknesses of stewardship accounts may not so much doom them to failure as they restrict their proper place within traditional theological (primarily Judeo-Christian) contexts. To the extent that anyone—including ecofeminists and feminists—reject such traditional accounts, they will reject stewardship accounts.

What I do in this paper is focus on spiritual ecofeminisms—alternative ways to view earth-based spiritualities which also address the nature of what it is to be human and to have a moral responsibility toward the natural world—but which do *not* employ any stewardship metaphor. I do this

by introducing a model of ecofeminist spiritualities which is quite different from that of the stewardship model, and arguing that whatever the strengths of the **theological underpinnings** of stewardship ethics, they are quite problematic from an ecofeminist philosophical point of view, largely because of the absence of explicit attention to the **institutional, systematic, structural nature of domination and oppression which characterizes androcentric and anthropocentric models of human-nonhuman relationships.** To establish that I will show why attention to **structural features of domination, including the crucial roles played by power and privilege, must be part of any adequate environmental philosophy or spirituality.** I thereby criticize stewardship models which currently do not or cannot.

Note the scope of what I will say. I am not saying that a stewardship ethic has no place in environmental philosophy. Indeed, I think it has an important **reformist** place within certain theological contexts to encourage mainstream religious believers to **rethink** their relationship to the nonhuman world in non-dominating terms. Rather, I am suggesting that to be adequate, a stewardship ethics needs to be a feminist-inspired account, *viz.,* one bolstered by accounts which make explicit the structural, institutional, power-over nature of human relationships to the nonhuman environment in a way that present stewardship accounts fail to do. I leave open the possibility that the present sin of stewardship accounts is more the sin of omission than the sin of commission.

The lens through which I offer my analysis of what is omitted from stewardship accounts is **ecofeminist.** Since ecofeminism has deep historical roots in earth-based spiritualities which, like stewardship ethics, challenge systems of dominion based on despotic domination, I first describe what ecofeminist spiritualities are, and then say what I think they add **philosophically** to stewardship ethics and to environmental ethics generally. My critique of stewardship ethics, then, is by way of the back door: I show the value of ecofeminist spiritualities from a philosophical perspective and thereby hope to reveal the sort of bolstering of stewardship ethics that is needed for stewardship ethics to be environmentally, spiritually and philosophically feasible from an ecofeminist point of view.

ECOFEMINIST PHILOSOPHY

Just as there is not one feminism, there is not one ecofeminism (Warren, 1987). What is vital to all ecofeminist philosophies is that they extend the social critique of systems of domination (e.g., sexism, racism, classism, heterosexism, ableism) to non-human nature (i.e., the unjustified domination of nature or "naturism"). All ecofeminists agree that there are important connections—historical, empirical, conceptual, political, theoretical—between the domination of women and the domination of nature such that any environmentalism, environmental philosophy or ethic which fails to see or capture these connections is simply inadequate (Warren 1987, 1991a).

Ecofeminist philosophers are especially interested in **conceptual** issues regarding women-nature connections. One way to reveal the key role concepts have played in justifying the interconnected dominations of women and nonhuman nature is to understand the nature of oppressive and patriarchal conceptual frameworks.

I have argued elsewhere (Warren, 1987, 1988, 1990, 1991a) that a **conceptual framework** is the set of *basic* beliefs, values, attitudes, and assumptions which shape and reflect how one views oneself and one's world. Conceptual frameworks are the socially constructed lenses or filters through which one perceives oneself and others. A conceptual framework is **oppressive** when it explains, justifies, and maintains relationships of domination and subordination. It is **patriarchal** when it explains, justifies, and maintains the subordination of women by men.

There are five important and interrelated features of a patriarchal conceptual framework: (1) **Value-hierarchical ("Up-Down") thinking** which places higher value, status, or prestige on what is "Up" (e.g., men) or what is gender-identified with what is "Up" (e.g., reason or rationality, mind, aggressivity, control) than with what is "Down" (e.g., women) or what is gender-identified with what is "Down" (e.g., emotion, body, passivity, submissiveness); (2) **Value dualisms ("Either-Or" Thinking)** which organize reality into oppositional (rather than complementary) and exclusive (rather than inclusive) pairs, and which place higher value, status, or prestige on one member of the pair (e.g., dualisms which give higher value to "reason," "mind," "masculine," and "culture" in alleged contrast and opposition to that identified as "emotion," "body," "feminine," and "nature," respectively); (3) **Power-over conceptions of power** which function to maintain relations of domination and subordination;[1] (4) **Conceptions of privilege** which function to maintain power-over relations of domination and subordination by "Ups" over "Downs"; and (5) **A logic of domination**, i.e., an argumentative structure which "justifies" the power and privilege of those who are "Up" over those who are "Down," and the relations of domination and subordination such power and privilege confer, on the grounds that superiority (being "Up") justifies subordination (being "Down").

Many ecofeminist philosophers (e.g., Cheney, 1987; Plumwood, 1986, 1991; Warren, 1987, 1990) have claimed that the sorts of value-hierarchical thinking, value dualisms, conceptions and practices of power and privilege, and logic of domination which characterize patriarchal conceptual frameworks are those which sanction the twin exploitations of women and nonhuman nature. Patriarchal conceptual frameworks which justify the domination of women also justify the domination of nonhuman nature by conceiving women and nature in terms which feminize nature, naturalize women, and position both women and nature as inferior to male-gender identified culture. Ecofeminist

philosophers insist that the logic of domination used to justify sexism be recognized as also justifying naturism.

Given what has been said so far, one might suppose that ecofeminist philosophy is *only* about women-nature connections. This would be a mistake. Ecofeminist philosophy grows out of and expresses a wide range of ecofeminist concerns.[2] Included among these concerns are important interconnected gender, race, class, affectional orientation, religion, and age issues (to cite a few). Conceptually, this concern for interconnections among "isms of domination" (e.g., sexism, racism, classism, heterosexism, anti-Semitism, adultism) is crucial. Ecofeminist philosophers insist that the logic of domination used to justify the twin dominations of women and nature *also* has been used to justify the domination of humans by race or ethnicity, class, affectional orientation, religion, and age. Sexism shares with racism, classism, heterosexism, anti-Semitism and adultism the five aforementioned features of an oppressive conceptual framework. Because all feminists do or must oppose the logic of domination which keeps oppressive conceptual frameworks in place, all feminists must also oppose any "isms of domination" which are maintained and justified by that logic of domination (Warren 1990); the legitimacy of such "isms" is *conceptually* maintained by a logic of domination. It is by clarifying these conceptual connections between systems of oppression that feminism, conceived historically as a movement to end sexist oppression, gets reconceived as a movement to end all systems of unjustified domination.[3] Ecofeminist philosophy extends this reconception of feminism to include naturism as an "ism of domination."

ECOFEMINIST SPIRITUALITIES[4]

Ecofeminists disagree about the nature and place of spirituality in ecofeminist politics and practice. Some ecofeminists defend earth-based spiritualities as necessary or vital to feminism, environmental philosophy, and ecofeminism. They claim that women's spirituality is integral to ecofeminist theory and practice. Other ecofeminists claim that spirituality-oriented approaches to ecofeminism reinforce harmful gender stereotypes about women and undermine the philosophical, political, and feminist significance of ecofeminism. As such, they ought to be rejected. Still others suggest that although ecofeminist spiritualities are neither necessary nor sufficient for ecofeminist theory and practice, nonetheless they occupy an important place in environmental philosophy.

This debate among ecofeminists about the significance of ecofeminist spiritualities is especially challenging for ecofeminist philosophers. Feminist philosophers by and large have either avoided, sidestepped, or eschewed efforts to articulate a feminist philosophical position on spirituality. Although our reasons for doing so are varied, there often is a worry or suspicion that questions about "women's

spiritualities" are not distinctively philosophical or sufficiently political questions, and, as such, are not ones which are central to feminist philosophy. If the absence of literature by ecofeminist philosophers on ecofeminist spiritualities is a useful indicator, ecofeminist philosophers share some of these general feminist philosophical concerns.

As an ecofeminist philosopher, I have come to believe that the growing literature on ecofeminist spiritualities deserves serious feminist philosophical attention for at least three reasons relevant to a discussion of stewardship ethics. *Historically* ecofeminist spiritualities have played a vital, grassroots role in the emergence of ecofeminism as a political movement. Historical accuracy in how ecofeminism is described or represented, then, requires that ecofeminist philosophers grapple with the claims made by those who articulate or defend various ecofeminist spiritualities. *Politically*, the sorts of protest actions ecofeminists often cite as illustrative of ecofeminist activism (e.g., the Chipko movement in India, Women of All Red Nations [WARN] organizing against environmental racism) often grow out of spiritual traditions (e.g., Gandhian *satygraha* non-violence actions or spirituality-based kinship cultures). Honouring the ethnic dimensions of such ecofeminist activism, then, involves recognizing their spiritual roots. *Ethically*, ecofeminist spiritualities raise important issues about the roles of ritual, symbol systems, and values (e.g., values of care, appropriate reciprocity, trust, love, kinship, community) in ecofeminist ethics. Since these elements are typically underplayed or undervalued in mainstream philosophy and receive feminist philosophical attention in other contexts (e.g. in feminist ethics generally), they deserve attention in ecofeminist philosophy as well.

Having been moved philosophically to take ecofeminist spiritualities seriously, in this essay I ask two questions: "From a feminist philosophical perspective, what are ecofeminist spiritualities and how might ecofeminist spiritualities be an empowering response to sexist oppression and environmental destruction? How do they fill important gaps in stewardship ethics?" I argue that, properly understood, ecofeminist spiritualities do or could play an important role in the twofold ecofeminist project of making visible and dismantling patriarchy, and in developing in its place non-dominating and life-affirming attitudes, values and relationships among humans and toward nonhuman nature; they do so in ways that stewardship ethics do not.[5] As such, I conclude that ecofeminist spiritualities do or could have an important place in environmental philosophy in a way that stewardship ethics, as currently developed, do not.

What, then, are ecofeminist spiritualities? They are earth-based spiritualities that have several common features: First, they are *spiritual* in that they are conceived and practiced as life-affirming (rather than life-denying) responses to life under patriarchy; what they affirm is ways of thinking and behaving which challenge patriarchal conceptual frameworks and the thinking, behaviours, and "isms

of domination" they sanction. They do so by assuming or positing some power (force, energy, being, deity or deities, God or Goddess) which can help create or restore healthy interactions and relationships. At the heart of ecofeminist spiritualities is a *movement away from* dysfunctional systems and behaviours and a *movement toward* healthy, functional, life-enhancing systems and behaviours.

Second, they are *feminist* in that they are opposed to male-gender power and privilege, as expressed both in the myths, symbols, language and belief system of patriarchal conceptual frameworks and the thinking, behaviour, and "isms of domination" which characterize patriarchy. So understood, "ecofeminist spiritualities" constitute a diversity of responses to patriarchy which are intended to empower women and to serve as a corrective to the dysfunctionality that characterizes patriarchy.

Third, what makes them *ecofeminist* is that ecofeminist spiritualities recognize that under patriarchy, the domination of women and the domination of nature are closely linked. According to the soon-to-be-discussed model of patriarchy as a dysfunctional social system, these links are deeply rooted in patriarchal conceptual frameworks. The "dysfunctionalities of patriarchy" are culturally constructed, historically moulded, economically fashioned, politically nurtured, and socially engineered. On the proposed model, sexual assault, global environmental destruction, and nuclear war are some of the predictable consequences of unchecked patriarchy. Ecofeminist spiritualities may then be viewed philosophically as earth-based and earth-respectful, healing responses to patriarchal dysfunction and its attendant environmental destruction.

Of crucial significance is that ecofeminist spiritualities are explicitly "earth-based." For many ecofeminists, the experience of nonhuman nature as intrinsically valuable provides one avenue for getting "outside patriarchy" (however temporarily or intermittently), at least in how one conceives oneself and one's relation to others (including nonhuman nature). Such attempts to "get outside patriarchy" are philosophically significant. They represent personal empowerment strategies individuals and groups use at particular times and in particular places to challenge and replace the basic beliefs, values, attitudes and assumptions of patriarchy with non-patriarchal and feminist ones, to challenge and replace the thinking and behaviours of patriarchy with non-patriarchal and feminist ones. In short, they are offered and practiced as antidotes to patriarchy. So conceived, the philosophical significance of all ecofeminist spiritualities is that they attempt to function to disrupt, challenge and replace patriarchal practices with ones which do not perpetuate sexism and naturism and in ways which empower individuals *within patriarchy.* In this respect, ecofeminist spiritualities do not function simply or merely to provide an ideal or utopian vision; they provide immediately useful empowerment strategies that can be exercised by individuals within contemporary patriarchal culture. They function

in the pre-feminist present to break the cycle of patriarchy conceived as a dysfunctional social system. Let me now show how they do that.

DYSFUNCTIONAL SOCIAL SYSTEMS

For our purposes, a system is a group or network of interacting, interrelated, or interdependent elements regarded as constituting a larger whole or unit. The human body is an interactive unit consisting of, e.g., digestive, neurological and muscular systems. Ecosystems are sometimes regarded as interactive units consisting of, e.g., cells, organisms, populations and communities. Family systems are interactive units consisting of the members, their roles and behaviours, and the rules that govern how the family members operate. Belief systems are a network of interconnected values, attitudes, assumptions, myths, judgments, beliefs and "facts" that characterize a group, culture, or society. Social systems are dynamic units consisting of institutional elements (roles, rules, offices, positions, practices, expectations, activities) and individual elements. In all of these systems, the single elements taken separately do not constitute the system; the system consists in and results from the interaction of the various elements and is not reducible to its particular members or units.

Social systems are best described on a *continuum* (rather than dichotomy), from rigid, closed systems, on one end, to highly flexible, open systems, on the other end. The degree of openness of a social system is determined largely by the flexibility of the rules and roles—overt or covert, conscious or unconscious—which govern the attitudes, behaviours and interactions among members of the system or between those within and those outside the system.

In a *functional* system, the rules and roles tend to be clear, respectful, negotiable; they can be revised, negotiated, changed. Problems tend to be openly acknowledged and resolved. In a *dysfunctional* system, the rules tend to be confused and covert, rigid and unchanging. A high value tends to be placed on control; dysfunctional systems tend to display an exaggerated rationality and focus on rule-governed reason. Relationships tend not to be among individuals acknowledged as having equal value; they tend to be "Up-Down," rather than mutual, respectful and reciprocal. Since members of dysfunctional systems tend to have a difficult time getting their basic, individual needs met *within* the dysfunctional system, they tend to experience anger, frustration, loneliness, anxiety, or confusion within that system.

Dysfunctional systems are often maintained through systematic denial, i.e., a failure or inability to see the reality of a situation. This denial need not be conscious, intentional, or malicious; it only needs to be pervasive to be effective. Furthermore, dysfunctional social systems often leave their members feeling powerless or helpless to make any significant changes. This is not characteristic of

a functional social system; the system changes and responds to choices and changes on the part of its members.

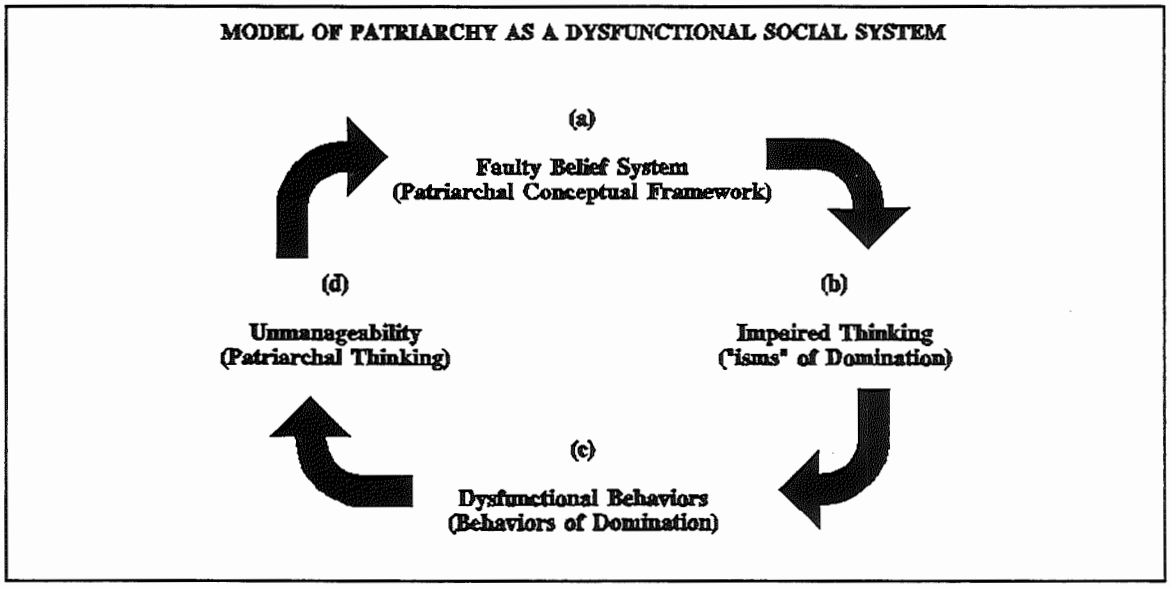
The importance of understanding dysfunctional social systems for an ecofeminist philosophical discussion of ecofeminist spiritualities is this: By conceptualizing patriarchy as a dysfunctional social system, one can see the vital role ecofeminist spiritualities do or can play in empowering its members within patriarchy, while, at the same time, challenging patriarchy. What, then, does it mean to say that patriarchy is a socially dysfunctional system?

PATRIARCHY AS A DYSFUNCTIONAL SOCIAL SYSTEM

The claim that patriarchy is a dysfunctional social system locates the "dysfunctionalities" of patriarchy within historical, socioeconomic, cultural, and political contexts thoroughly structured by race, gender, and class identities and ideologies. These contexts will vary cross-culturally and historically, as will the particularities of sexist thinking, behaviour and institutions.

One philosophically striking aspects of dysfunctional social systems is that they are rooted in, reflect, and perpetuate a faulty conceptual framework. It is out of this conceptual framework that people in dysfunctional systems "plan and make decisions, interpret other people's actions, make meaning out of life experiences, solve problems, pattern our relationships, develop our careers, establish priorities" (Carnes, 1983, p. 5).

I have found it helpful to visualize patriarchy as a dysfunctional system as a cyclical, insulating repertoire of ways of thinking and behaving which is deeply rooted in patriarchal conceptual frameworks:[6]



This model captures several key features of patriarchy conceived as a socially dysfunctional system. First and foremost, patriarchy is the institutional or systemic privilege and power of men over women. As an Up-Down system of power-over relationships, patriarchy grows out of and reflects a faulty, patriarchal belief system (or, conceptual framework), **(a)**. As we have seen, this is a conceptual framework characterized by value-hierarchical thinking, value dualisms, power-over conceptions and relationships of power, conceptions of privilege which assign higher status to traits associated with Ups, and a logic of domination. The basic beliefs, values, attitudes and assumptions of patriarchal conceptual frameworks are expressed in a variety of familiar claims: e.g., (some) men are rational and women are not rational, or at least not rational in the more highly-valued way (some) men are rational; there are important dualisms between reason and emotion, mind and body, the public and the private, culture and nature and the more highly valued members of the dualist pairs are those traits associated with males, men, or man's culture (*viz.*, reason, mind, the public sphere, culture, respectively); men are superior to women and nonhuman nature; all significant art, culture, history, philosophy—what Marx calls the "superstructure" of society—is produced by men; control is a primary value.

Second, the beliefs, values, attitudes, and assumptions of patriarchal conceptual frameworks, **(a)**, maintain, perpetuate, and sanction impaired thinking, e.g., about women and nature, **(b)**. Some of this impaired thinking is that men can control women's inner lives, that it is men's proper role to determine women's choices, that humans have a (God-given) right to exploit the Earth and its "natural resources," that men are justified in ruling over (exercising power over) inferior women and nature, that a "man's home is his castle."

Such impaired thinking is clearly expressed in the sexist and naturist language used to describe reason, women, nature, and nuclear weaponry. In his article "A Portrait of Dominating Rationality," Vance Kope-Kasten describes how domination metaphors and sexist language pervade standard philosophical descriptions of arguments, good reasoning, and rational decision-making: Good reasoners knock down arguments; they tear, rip, chew, cut them up, attack them, try to beat, destroy, or annihilate them, preferably by "nailing them to the wall." Good arguers are sharp, incisive, cutting, relentless, intimidating, brutal. Those not good at giving arguments are wimpy, touchy, quarrelsome, irritable, nagging. Good arguments have a thrust to them; they are compelling, binding, air-tight, steel-trap, knock-down, dynamite, smashing and devastating bits of reasoning which lay things out and pin them down, overcoming any resistance. Bad arguments are described in metaphors of the dominated and powerless: they "fall flat on their face," are limp, lame, soft, fuzzy, silly and "full of holes" (Cope-Kasten, 1989).

Similar critiques have been provided of the language used to describe women, nature, and nuclear weaponry (Adams, 1990; Cohn, 1989; Strange, 1989). Women are described in animal terms as pets, cows, sows, foxes, chicks, serpents, bitches, beavers, old bats, old hens, pussycats, cats, bird-brains, hare-brains. Animalizing or naturalizing women *in a (patriarchal) culture* where animals are seen as inferior to humans (men) thereby reinforces and authorizes women's inferior status. Similarly, language which feminizes nature *in a (patriarchal) culture* where women are viewed as subordinate and inferior reinforces and authorizes the domination of nature. "Mother Nature" is raped, mastered, conquered, mined; her secrets are "penetrated" and her "womb" is to be put into service of the "man of science." Virgin timber is felled, cut down; fertile soil is tilled and land that lies "fallow" is "barren," useless. The exploitation of nature and animals is justified by feminizing them; the exploitation of women is justified by naturalizing them. As Carol Adams argues so persuasively in *The Sexual Politics of Meat,* language which feminizes nature and naturalizes women describes, reflects, and perpetuates patriarchal oppression by failing to see the extent to which the twin dominations of women and nature, especially of animals, are, in fact, culturally analogous and not simply metaphorically analogous (Adams, 1990, p. 61).

In her startling essay "Sex and Death in the Rational World of Defense Intellectuals," Carol Cohn describes how sexist-naturist language pervades nuclear parlance (Cohn, 1989). Nuclear missiles are in "silos" on "farms." That part of the submarine where twenty-four multiple warhead nuclear missiles are lined up, ready for launching, is called "the Christmas tree farm;" BAMBI is the acronym developed for an early version of an antiballistic missile system (for Ballistic Missile Boost Intercept). Cohn describes a linguistic world of vertical erector launchers, thrust-to-weight ratios, soft lay downs, deep penetration, penetration aids (familiarly known as "penaids:" devices that help bombers of missiles get past the "enemy's" defensive systems), or "the comparative advantages of protracted versus spasm attacks"—or what one military advisor to the National Security Council has called "releasing 70 to 80 percent of our megatonnage in one orgasmic whump"" (Cohn, 1989, pp. 133-34). It is a world where missiles are "patted," where India's explosion of a nuclear bomb is spoken of as "losing her virginity" and New Zealand's refusal to allow nuclear-arms or nuclear-powered warships into its ports is described as "nuclear virginity" (Cohn, 1989, pp. 135-37). Such sexist-naturist language creates, reinforces, and justifies nuclear weapons as a kind of sexual dominance.

What this discussion of sexist-naturist language to describe reason, women, nature and nuclear missiles illustrates is that such language functions *within patriarchy* to perpetuate and maintain impaired patriarchal thinking, (b). Such language thereby plays a key role in fuelling and keeping in tact patriarchy as a dysfunctional social system.

Third, given the role of patriarchal conceptual frameworks, (a), and impaired patriarchal thinking, (b), in maintaining patriarchy, it is not surprising that patriarchy, understood as a dysfunctional social system, perpetuates and sanctions behaviours which keep those faulty beliefs in tact, (c). Patriarchy is based fundamentally on "dysfunctional values," i.e., societal values which tend to push its members toward dysfunctional behaviours. For example, in the United States, current estimates are that one out of every three or four women will be raped by someone she knows; globally, rape, sexual harassment, spouse-beating, and sado-masochistic pornography are examples of behaviours practiced, sanctioned, or tolerated within patriarchy, what I call "behaviours of domination." In the realm of environmentally destructive behaviours, strip mining, pollution of the air, water and soil, and factory farming are instances of behaviours maintained and sanctioned within patriarchy. They, too, rest on the faulty beliefs that it is okay to "rape the earth," that it is "man's God-given right" to have dominion (i.e., domination) over the earth and fowl, that nature has only instrumental value, that environmental destruction is the acceptable price we pay for "progress."

Lastly, much of the current "unmanageability" of contemporary life in patriarchal culture, (d), is a consequence of a preoccupation with activities, events and experiences that reflect historically male-gender identified beliefs, values, attitudes and assumptions, (a). The real-life consequences of patriarchy's inability to manage its affairs equitably and justly are everywhere: e.g., an obsession with national defense and nuclear proliferation—perhaps the ultimate acting out of impaired patriarchal thinking; the exploitation and degradation of the nonhuman earth and animals, including the unnecessary and painful use of animals in experimentation; homophobic laws and policies; the "feminization of poverty"; the prevalence of child abuse, sexual abuse, violence against women, rape. In fact, it is often *only* through observing these dysfunctional behaviours, (c), the "symptoms of dysfunctionality," that one can truly see the role patriarchy plays in maintaining, perpetuating, and sanctioning them. When patriarchy is understood as a dysfunctional system, this "unmanageability" can be seen for what it is—as a *predictable* consequence of patriarchy.

This last point is crucial, for it suggests that the sort of dysfunctional belief system, thinking, behaviours and unmanageability which characterize patriarchal systems are a predictable, and, in this sense, "logical," "natural" or "normal" consequence of patriarchy. Seen as predictable consequences of patriarchal values, beliefs, attitudes and assumptions, these behaviours motivate and explain what I call the **"Of course . . . response"**: **"Of course,** you feel crazy when men don't acknowledge your contributions to the project." **"Of course**, you feel powerless to stop your boss's unwanted sexual advances towards you." **"Of course,** your life has become unmanageable; your work place is a male-dominant haven of exaggerated rationality." **"Of course,** you feel frightened to go out alone at night;

rape is a very real threat!" **"Of course,** you feel confused and anxious; by standing up for yourself you're breaking all the rules, rocking the boat."

The **"Of course, . . ."** response affirms that those who feels crazy, powerless, alone, confused, anxious within and under patriarchy are experiencing what one would expect people trying to get their needs met **within** a dysfunctional system often feel; they are *appropriate responses for one in a dysfunctional and patriarchal system* based on faulty beliefs—beliefs which people trying to stay healthy within such a dysfunctional system are trying to shed! The **"Of course . . ."** response is a proper, descriptively accurate, reality-affirming response to people who suffer the ills and abuses of patriarchy.

ECOFEMINIST SPIRITUALITIES AS ANTIDOTES TO PATRIARCHY CONCEIVED AS A DYSFUNCTIONAL SOCIAL SYSTEM

Patriarchy is a social system of unequal distributions of power, benefits, and burdens. It can *only* be understood in a historical, socioeconomic, political and cultural context. Furthermore, *within patriarchy,* there may be no truly healthy individual, family, community; it may be that a truly healthy family in patriarchal society is an oxymoron. It may not be possible to realize the health of individuals, families, or communities as long as patriarchy remains in tact. Where, then, do ecofeminist spiritualities fit in?[7]

The philosophical significance of ecofeminist spiritualities is that they are or can be life-affirming, personally empowering, and collectively constructive challenges *within patriarchy* to *patriarchy conceived as a dysfunctional social system.* They are attempts to **heal the wounds** of patriarchy in contemporary culture, where patriarchy is a pervasive, intrusive, historical and material reality in our daily lives. Their philosophical significance is not only that they challenge patriarchy at its core by challenging the oppressive conceptual frameworks (beliefs, attitudes, values and assumptions) which fuel the dysfunctional patriarchal engine; they do or attempt to do so in ways which *genuinely* empower its practitioners. Ecofeminist spiritualities provide one way to think and act oneself out of "patriarchy as a conceptual trap" (Gray, 1982).

An understanding of patriarchy as a dysfunctional social system characterized by features (a) - (d) **permits one to see and honour ecofeminist spiritualities as powerful survival, resistance and empowerment strategies oppressed peoples do or may exhibit within patriarchy.** So viewed, ecofeminist spiritualities function as empowering antidotes to patriarchy.

In contrast, stewardship ethics, I contend, currently are limited in their abilities to do this. They are well-entrenched in theological assumptions and religious practices which do not themselves

confront the **dysfunctional, structural, institutional nature** of patriarchy and environmental injustice. As such, they do not challenge or make visible how concepts of dominion and stewardship function **within patriarchal conceptual frameworks and institutions** to maintain those institutions. It is this inattention to the "bird cage of oppression," to borrow a metaphor from Marilyn Frye, where stewardship ethics fall short—both in their analyses of what historically has gone with human relationships to nonhuman nature and their stewardship, attitudinal suggestions for remedies to the dominion as dominant conception of humans. The bird cage is structured by various wires—kinds of oppression or structural limitations. In 1994, any bird inside a cage must see the wires of the cage to see the range and nature of those structural barriers to sole or individual social change. Failure to take seriously the relationships of power and privilege which systematically organize religious and theological practices in the pre-feminist patriarchal present—which function as wires to the cage—is something stewardship ethics does not presently do that ecofeminist ethics currently does. As such, stewardship ethics are at best **incomplete** from a spiritual ecofeminist philosophical perspective.

CONCLUSION

I began this essay by describing mainstream stewardship ethics and then suggesting that, from a spiritual ecofeminist philosophical perspective, they are at best incomplete as a spirituality or ethic and at worst simply inadequate from a non-reformist perspective. I did so by introducing the notion of patriarchy as a dysfunctional social system which is alive and well in the pre-feminist present. I then argued that, understood as a dysfunctional social system, ecofeminist spiritualities could get at *both* the structural, systemic nature of gender (and other kinds of social) domination *and* provide a guide to action in the pre-feminist present for acting in spiritually empowering ways. To the extent that contemporary stewardship ethics do not address the issues of patriarchal domination of women and nature, they do not now provide an adequate analysis of and guide to action in the pre-feminist patriarchal present.

So understood, ecofeminist spiritualities challenge patriarchy at its core—its belief system—and attempt to put in its place non-dominating and life-affirming beliefs, values, behaviours, and relationships among humans and toward nonhuman nature. Stewardship ethics also do this to an extent (e.g., they challenge the belief that humans are rightful dominators of the earth). Where they differ from ecofeminist spiritual accounts is that they do not unpack the nature and influence of sexism, racism, classism and other "isms of domination"—the very structural framework within which these beliefs, values, attitudes and assumptions are exercised. In this way stewardship ethics do not

constitute the sort of powerful **conceptual** challenge to the patriarchal belief system, impaired thinking and behaviours of domination which characterize patriarchy which ecofeminist spiritualities do.

Of course, whether any particular ecofeminist spirituality is really feminist, or ecofeminist, or advances the ecofeminist project of exposing and replacing harmful interconnected practices toward women and nonhuman nature, is left an open question, one I did not attempt to address here. Whether any **revised** stewardship ethic could do so is also left an open question. My aim was simply to provide a way to think philosophically about ecofeminist spiritualities as framing a critique of stewardship ethics, *viz.*, in terms of patriarchy as a dysfunctional social system which makes visible and central the power and privilege underlying structural systems of domination. It has yet to be seen whether there could be some sort of ecofeminist stewardship ethics which does the same.

Photo 4: Karen Fox, Respondent

NOTES

1. For a discussion of differences between power-over and power-with, power-within, and power-against conceptions of power, and the conditions under which any exercise of power is morally appropriate, see my "Towards A Feminist Peace Politics" (Warren, 1991b).

2. For a discussion of the range of issues ecofeminists discuss and their relevance to ecofeminist philosophy, see Warren, 1991a.

3. What makes a feminist attention to all systems of oppression "feminist" is that sex-gender is the lens through which analysis of these multiple "isms of domination" occurs. To say that feminism is the lens through which "isms of domination" are discussed does *not* make what is seen through a feminist lens tangential to or somehow outside the purview of feminism. To claim that these "other isms" are not properly within the purview of feminism would be like claiming that human relations to each other and nonhuman nature are not properly within the purview of Judaism or Christianity when looked at through a Jewish or Christian lens.

4. Much of the remainder of this paper is an adaptation of a published paper entitled, "A Feminist Philosophical Perspective on Ecofeminist Spiritualities" (Warren, 1993).

5. For a more complete discussion of ecofeminism and spirituality, see Warren and Cheney, 1994.

6. I have adapted this model of the nature of a dysfunctional social system based on faulty beliefs from Patrick Carnes' model of an addictive system (Carnes, 1983, p. 15).

7. I reject any dichotomous heuristic in contemporary society which divides individuals, families, or communities into "healthy" or "unhealthy" ones. Furthermore, it is a gross disservice to oppressed people (e.g., women) and a maldescription of social reality to treat the dysfunctional behaviours of patriarchy as "personal disorders." The concepts "healthy" and "unhealthy," like the concepts "functional" and "dysfunctional," must be viewed on a *continuum*, with an open range of diverse possibilities for what counts as "healthy" or "unhealthy" in a variety of political and cultural contexts.

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OUR KARMA AND DHARMA TO THE ENVIRONMENT: AN EASTERN PERSPECTIVE

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Isa vasyam idam sarvam yat kinchan jagatyam jagat
(*Yajur Veda*, chap. 40, v. 1)

[All this world and every object in Nature has been created as an abode of the Lord.]

Today humanity faces a crisis of global dimensions. It is a crisis that not only threatens the survival of the poorest one billion inhabitants of this planet, but a crisis that threatens all of humanity and which has come to be known as the global ecological crisis. From the mountainous forests of Nepal to the Amazon rainforests in South America, environmental degradation is proceeding at an unprecedented rate—all in the name of development. It is no wonder that worldwide public attention has been drawn to this "ecological crisis" through the media, such reports as the *World Conservation Strategy* (1990), *Our Common Future* (1987), and various reports prepared by the United Nations Conference on Environment and Development for the Earth Summit held in June 1992.

We know that the environmental abuses result from the desire for growth and social apathy towards the consequences of that growth. This apathy towards our surroundings, when combined with materialism, has brought forth the present havoc. This begs for some questions: What is our Dharma to the environment? How does our Karma (past and present) contribute either to the sustenance or to the degradation of the environment? And, how can our beliefs in these two precepts (Dharma and Karma) assist us in this struggle for survival?[1]

I. THE BACKGROUND

All forms of life modify their surroundings and we are no exception. In fact, ever since we became a numerous species we have affected our environment to such an extent that not only have other species of life neared extinction, and in some cases become extinct; but humanity has even provided the means to guarantee our own extinction both by war and more importantly by the continual degradation of our environment.

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*The paper was delivered as a public lecture at The University of Winnipeg on March 11, 1994.

Figure 1

A wise person sees divinity in all creatures and vegetation.

What role have cultural and spiritual values played in encouraging environmental destruction and our apparent disdain for our surroundings and indirectly our own species? In "The Historical Roots of our Ecological Crisis," Lynn White Jr. examines the Western role in the destruction of his environment and concludes that until we change the axioms on which we have lived for about two millennium, the chances of escaping the ecological crisis is remote. Further, present axioms see humanity created by God in God's image. White argues:

> Man named the animals, thus establishing his dominance over them . . . No item in the physical creation had any purpose save to serve man's purpose . . . [Man] could exploit nature in a mood of indifference . . . Despite Darwin we are not, in our hearts, part of the natural process. We are superior to nature, contemptuous of it, willing to use it for our slightest whim.[2]

Therefore, according to White, we shall continue to have a worsening ecological crisis until: (a) we reject the Christian axiom that nature has no reason for existence save to serve humanity; and (b) we realize that we can not always rely on science and technology to help us since they too have grown out of Christian attitudes, and are in fact a contributor to our present environmental crisis. To White, the roots of our ecological troubles are so largely religious, that the remedy must also be essentially religious, whether we call it that or not.

In the past, we have witnessed the over-exploitation of nature and its resources to the point where human intervention in natural ecosystems has caused genetic mutations, the emission of heat and noxious gases into the atmosphere, destruction of forests and many other effects that are heading not only towards irreversible global damage but also to the annihilation of God's creation. These interventions are so drastic in scale and impact that life-support systems both locally and globally are being threatened. Consequently, at a minimum, our activities be such that these must not endanger the natural systems that support life of all organisms on earth including the atmosphere, the waters, the soils, and the living beings. Until compatible limits on our prevailing ethic of acquisitive materialism, unending growth ethic and resource use are set, continued global ecological damage is unavoidable It is here where the manifestation of a Dharmic community can provide the means by which local ecosystems can be maintained. There is no reason as to why the current emphasis on eliminating economic and social injustice among individuals and nations cannot be expanded to include environmental injustice.

If environmental problems are to be solved, then a change in the way individuals think about and interact with their environment must occur; especially since in many countries, governments continue to perceive the environment as outside of, rather than part of human existence; this is demonstrated by their insistence on legislating controls rather than educating their public on

environmental protection and conservation. It is for this reason that the cultural and spiritual underpinnings of Dharma, which is the primary virtue in the active life of Hindus, Buddhists and Jains, can be of benefit to all humanity. Dharma can resolve conflicts among individuals, between individuals and society, between societies, between people and their concept of nature, and finally between human beings and their Creator. Dharma can provide new ways of valuing, thinking, and acting that are needed if respect for the environment is to be achieved and an ecological crisis averted. Further, if the ecological crisis that we face today is mostly an attitudinal one, and if it can be solved by changing values and beliefs about the environment, then motivations for environmentally unacceptable acts will have to be understood. Only then can we begin to change attitudes towards nature and in so doing understand the benefit Dharma can have in helping us evade a global ecological catastrophe.

It is becoming increasingly clear that many of the values held by us are totally inadequate for long-term survival and sustainable development; that is why it is not surprising that we are witnessing an emergence of a wide spectrum of challenges to the traditional materialistic view, and instead we find a growing interest in Hindu, Buddhist and Native American norms. All of these represent a desire by many to ascribe to a radically new set of values.[3] Without this change in our value system there is little hope of correcting the present environmental problems we face because "ultimately we must realize that the new images, values, and archetypes that people carry in their heads shape the institutions, technologies, and environments in their heads."[4] For over a millennium, guided by the Western culture, people have had faith in progress generally measured by economic well-being. It is only recently that we have come to understand that so-called material prosperity is not an end in itself. Slowly, a realization is emerging that spiritual growth and control of one's temptations/desires brings a lasting happiness greater than materialism. But this realization has yet to enter into our governmental policy domain as well as into the corporate world. The economic criteria which placed no value on the commons (the air, water, oceans, outer space, *etc.*), and which used concepts such as cost-benefit analysis, law of supply and demand, rate of return, land being a commodity and hence a fundamental right to own property, *etc.* have actually been based on the delusion which has operated independently of the cultural and spiritual domain. Until now, we have taken more from our Mother Earth than ever cared to think about the limits to our plundering and ravaging. As Daniel Gomez-Ibanez, organizer of the Parliament of World's Religions in Chicago, observed:

> A great danger in this materialistic and mechanistic view of the universe is that even when we see the problems it has wrought, we often assume that the solutions are to be found only in the same material realm, perhaps because we forget to consider any other possibility.[5]

Those solutions if based (as has been the case so far) on technological fixes would not help us unless we change our perspective about the way we use nature and the way we act. For this, a new consciousness of humanity will have to be developed which believes in the philosophy of what we sow is what we reap, and that everything is connected to everything else, i.e., the *Theory of Karma*; and at the same time in the ethic of stewardship, that is, our *Dharma* to the environment (see Figure 1). Because both our Karma and Dharma are two sides of the same coin.

II. DHARMA

Dharma is one of the most intractable and unyielding terms in Hindu, Buddhist and Jain religions and philosophy. Derived from the root "Dhri" which means to uphold, sustain and support, the term denotes as explained by Swami Chinmayananda "that which holds together the different aspects and qualities of a being or an object into a whole."[6] Ordinarily, the term *Dharma* has been translated as a religious code—as righteousness, as a system of morality and as duty. Actually, the term denotes not only righteousness, but also the essential nature of any object, without which its entire existence and being cannot make any sense. For example, it is the true nature of a lion to hunt other animals *when hungry*; it is the *Dharma* of fire to burn; similarly, it is the true nature of a human being to act in a Dharmic way.

Prabhavarthay bhutanam dharma pravachanam kritam
Yah syat prabhav sanyuktam sa dharma iti nishchayah
(*Mahabharata,* Shanti Parva, chap. 109, v. 10)

[Dharma exists for the general welfare (*Abhyudaya*) of all living beings; hence by which the *welfare* of all living creatures IS sustained, that for sure is *Dharma*.]

Dharma consists of two major attributes: first, it enables us to express ourselves in acts of service and impels us to avoid exploiting other human beings as well as other living organisms. In so doing, we have twofold duties: one to the self whereby we seek inner strength through spiritual action, and the other to the community-at-large (i.e., *Global Dharma*) whereby we work for the social good. Secondly, it provides for *Abhyudaya* (attainment and sustenance of universe). As such, Dharma regulates human conduct and casts individuals into the right character mould by inculcating in them spiritual, social and moral virtues. Actually, Dharma is the life-blood of any society. It is this ethos that holds the social and moral fabric together. Further, Dharma maintains order in society and gives rise to harmony and understanding in our relationships with all of God's creation. Each person (be it a man, woman or a child) has a Dharma to discharge in order to contribute to the *abhyudaya* of all—that is the sustenance of universe for today and tomorrow. In a sense, protection and

conservation of the environment is a part of *abhyudaya* as well as *sarvodaya.* (Sometimes, these two terms are used interchangeably although *abhyudaya* is more related to how one person sees individually the welfare of all, while *sarvodaya* is concerned with the common effort by all for all. But both of these attributes of Dharma are important for the environment).

GLOBAL DHARMA

There are specific duties towards humanity and God's creation that are called Global Dharma. The Western concept of human rights enshrined in the United Nations Charter for Human Rights (including rights for animals and other living beings) can be seen as a part of this Global Dharma. Global Dharma requires that one considers the entire universe as his/her extended-family with all living beings in this universe as the members of the household. This concept is also known as *Vasudhaiv-kutumbakam* (Vasudha means this earth; Kutumba means extended family, including human beings, animals, and all living beings). Only by considering the entire universe as a part of your extended family can one develop the necessary maturity and respect for all other living beings.

This concept of *Vasudhaiv Kutumbakam* has been enunciated by Dr. Karan Singh: "that the planet we inhabit and of which we are all citizens—Planet Earth—is a single, living, pulsating entity; that the human race, in the final analysis is an interlocking, extended family—*Vasudhaiv Kutumbakam* as the Veda has it . . . " [7] We also know that members of the extended family do not wilfully endanger the lives and livelihood of others; instead, they first think in terms of caring for others before taking an action. That is why, in order to transmit this new global consciousness (in the form of Global Dharma), it is essential that the concept of *vasudhaiv kutumbakam* is encouraged. (This aspect has been further discussed in the concluding section of this essay). For this, the world's great religions would have to co-operate with each other. The welfare and caring of all (*sarvodaya*) would be realized through the golden thread of spiritual understanding and co-operation.

Dharma thereby provides a method as well as a vision. It serves both as a model and structure for transformation. And, if the goal of transformation is to achieve an environmentally conscious world, then Dharma's precept that reward after death can be attained through actions in this world, can provide the incentive for humanity to seek peace with nature. The manifestation of Dharma necessitates the acceptance of the Law of Karma.

III. THE LAW OF KARMA

The term *Karma* comes from the root *kri* which means "to do," and thus has a general connotation of "action," but in its broadest sense it applies also to the effects. People often confuse

the *Law of Karma* with the *Law of Destiny.* This misunderstanding needs to be rectified, because an appropriate understanding is essential to appreciate the use of this precept in Hindu and Buddhist ways of life. A brief definition of the *Law of Karma* is that *each act, wilfully performed, leaves a consequence in its wake.* These consequences, also called *Karma-Phala* (fruits or effects of action) will always be with us, although their impact may not be felt immediately. We have heard that "history never forgets nor forgives"! This saying is related to the Law of Karma, which states that every action performed creates its own chain of reactions and events, some of which are immediately visible, while others take time to surface. Environmental pollution is but one example of the Karma of those people who thought that they could continue polluting the environment without realizing the consequences of their actions for future generations. For example, those who buried the toxic waste in Love Canal (near Niagara Falls, New York) thought that by concealing their actions, the problem would go away, but it surfaced a few years later. Every action creates its own reaction. What is important to know is that right action, a Dharmic action, generates beneficial results, while an *Adharmic* action in which consequences have not been properly thought out, results in harmful effects. Of course, it is not easy to foresee the consequences of one's actions, but one should be ready to either overcome obstacles that arise or suffer the repercussions of one's actions.

THEORY OF KARMA

Once the Karma has started, it continues without a break; and although the person may be dead, yet Karma survives in the form of a memory on to the next life of a departed soul. As it is mentioned in Mahabharata:

> *Yesam ye yani karmani prak sristyam pratipedire*
> *Tany eva pratipadyante srigyamanah punah punah*
> (*Mahabharata*, Shanti Parva, chap. 139, v. 22)

> [An action which has been committed by a human being in this life, follows him again and again (whether he wishes it or not)].

As a matter of fact, there is a boomerang effect of our Karma; because the stone we throw is flung back by some hidden force to us in this world life; or to put it another way, whatever action we do on others recoils on our lives, although not always by a direct reaction and not immediately but often by unconnected ways, and sometimes in its own exact measure. Actually, this phenomenon is well understood in all cultures—"He that uses the sword shall perish by the sword," "Thou hast sown the wind and thou shalt reap the whirlwind," or "What thou hast done, thou must suffer." These sayings from other religions and cultures support the theory of Karma. Of course, we should be

cautious here because the Theory of Karma is not akin to the mathematical precision of laws of motion. "Karma is more than a mechanical law of antecedent and consequence. Karma is action, there is a thing done and a doer and an active consequence . . . [8]

Further the Law of Karma maintains that every time one does an action, it becomes embedded in that person's memory. This aspect has been explained in The *Mahabharata* explains this phenomenon in the following verse:

Chakchhusha mansa vacha karmana cha chaturvidham
Kurute yadrusham karma tadrushapratipadhyate
(*Mahabharata*, Shanti Parva, chap. 290, v. 16)

> [A person commits Karma by four modes: by contemplating, observing, expressing, and doing. In whatever mode a Karma is executed, it backfires (boomerangs) on its originator].

Thus, all actions form a part of the memory bank of a person. Harold Coward explains this phenomenon:

> . . . every time you perform an action or think a thought, a memory trace is laid down in the unconscious. A good action or thought leaves behind its trace, as does an evil action or thought. When you find yourself in a similar situation in the future, the memory trace rises up in the consciousness as an impulse to perform an action or think a thought similar to the earlier one.[9]

Of course, we human beings have a choice to accept or reject this impulse. If we choose to reject the impulse, it will be erased from the unconscious mind; however, if we choose to act on it, it will be re-enforced and later will become a habit. Good or bad habits are thus born.

According to the Karmic Theory, every impulse that we get can be traced back to our previous actions and thoughts, since birth or even from the previous births. (This view is contrary to the Western thought that when a child is born his/her brain is blank). The greatest challenge before human beings is to use the choice in such a manner that impulses denoting good Karma are reinforced and those relating to bad Karma are negated. One should realize that more good deeds in this life will help a person coming closer towards achieving Moksha individually, and being a part of the Dharmic community collectively.

Further, there is a subtle, slow, and long process by which the Supreme Being works; that is why we find that its working is intermittent, occasional and variable which to our limited mind is seen sometimes capricious and plainly unintelligible.[10] Karmic justice sometimes appears indecipherable; sometimes a whole nation pays for the past crimes and mistakes of one of its individual or a group of people. That is why it is said that do unto others as you would be done by, because then they will indeed so do to you, although it may not happen immediately. When Mahatma Gandhi started his non-

cooperation movement against the apartheid policy of South Africa, no one could dream that eventually this would come to fruition some decades later, after his death. Also, we already know that hatred, violence and injustice generally result in equal or more hatred, violence and injustice. That is why one should, even if very powerful at the time, create good-will in others. One should not be swayed when one sees how people appear to accept terror and the imposition of dictatorship; for we already know how fickle these loyalties are. It does not take any time, if opportunity presents, for such people to revolt against the brutality. In the final analysis, the consequences of Karma are going to be with us, because it is a universal Energy which moves in a continuous chain linking everyone indissolubly, associating cause and effect with the present action which is the result of past action, and determining future action to be based on the result of present action. And as in the physical world, energy is not destroyed, similarly this cosmic Energy remains with us. According to Hindu religion, this *is* the universal law of Karma; and nothing in this world can escape from its governing process. However, clarity and fullest universal enunciation to this theory was provided by Buddhism.

It is difficult to say when humans first got involved in the cycle of Karma, but once a person is in it, s/he can not escape from it even after taking up different forms in this world. The main reason for it's continuation is due to the indestructible nature of the energy of Karma; it is this energy which may appear today under one name and form, but reappears under another name and form when the former has died. In this way, Karma is related to the Hindu concept of re-birth because the reappearance in various forms is the cycle of birth and deaths. That is why in Hindu scriptures, the Atman (soul) never dies, it is eternal, but at the same time it is involved in the cycle of Karma. That is why, one must endure tomorrow for what one does today; and the day after tomorrow, for what one does tomorrow; and finally, one suffers in the next life for what one does in this life; and in this way the cycle of creation continues.

It should be noted that one's Karma does not only affect that individual alone, his/her actions also strike her/his children and grandchildren too. In one sense, it means that "what I shall sow now (or in this life), it will affect my descendants for several generations"; this we can call the Karma of the family. Similarly, when a group of people as a community or as a nation decide to do something, it comes back to them with a blessing or destruction upon the future of their race even when they, the original doers, are no longer here to rejoice or suffer; this is the Karma of the nation. As Sri Aurobindo stated in 1915:

> Mankind as a whole too has a Karma; what it wrought in its past, will shape its future destiny; . . . but the Karma of the race which they have helped to form continues through centuries, the millenniums, the cycles.[11]

This is what was advised by Bhisma to King Yudhisthira after the Great War of Mahabharata:

Papam karma kritam kimchid yadi tasmin na drusyate
Nripate tasya putresu pautresu api cha naptrisu
(*Mahabharata*, Shanti Parva, chap. 129, v. 21)

[O King, although a particular person may not be seen suffering the results of his evil actions, yet his children and grand children as well as great grandchildren will have to suffer them.]

One such example is certain hereditary diseases which are passed on from one generation to another generation although there was no fault of the ensuing generation. As Bal Gangadhar Tilak explains:

> It is not that the rule that one has to suffer according to what one does, applies only to a particular individual. A family, a community, a nation, or even the whole universe cannot escape suffering the consequences of their Actions in the same way as an individual cannot do so; and in as much as every human being is born in some family, some community, or some country, it has to some extent to suffer on account of the Actions not only of itself, but also of the community or society, such as, the family etc. to which it belongs.[12]

There are three kinds of Karma: (1) good deeds (Dharmic Karma); (2) non-action; and (3) and bad deeds (Adharmic Karma). Each created being suffers happiness or unhappiness according to one's own Karma. And although it is not possible for human reason to explain when a person first came into the clutches of Karma, and yet one can reach a conclusion that every living being is caught in the cycle of Karma. However, it does not mean that one does not have any degree of freedom. One does possess one's own conscience; and through proper reasoning and careful consideration of all alternatives, one can embark upon a righteous course of action. For if there was no degree of freedom available, one will then remain in perpetual bondage of one's pre-ordained fate. This is Daiva-Vada (Theory of Destiny). The Karma-Vada (Theory of Karma) does include a way out if one performs good deeds and avoids evil actions; and when the suffering in the world as well as in hell and heaven has been exhausted, the Atman is released from this cycle of birth and death. This release has to be acquired by oneself, as Lord Krishna says in the *Gita*:

Uddhared atmanatmanam natmanam avasadayet
Atmaiva hy atmano bandhur atmaniva ripur atmanah
(*Gita*, chap. 6, v. 5)

> [A person must seek his own release by himself; in the process he should not allow himself to be discouraged by anything; because everyone is his own brother (benefactor), as also one's own enemy (destroyer)].

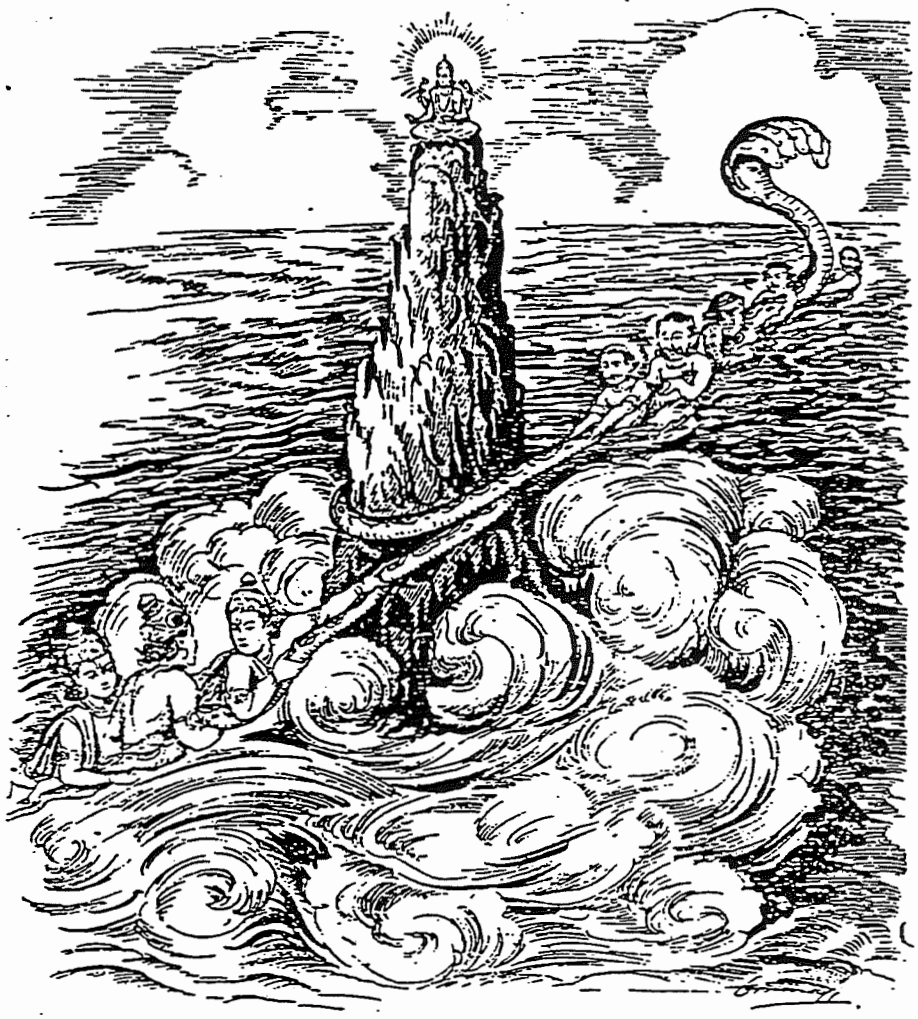
A story from Hindu scriptures illustrates this point (see Figure 2). Once, due to a curse of Maharishi Durbasha, the *Devas* (demigods) were denied their divine vigour and strength. Soon, they were defeated by the *Asuras* (demons) and dislodged from their heavenly abode. So they went to pray

to Lord Vishnu and seek His intervention. Lord Vishnu suggested that the only course open to them lay in securing the Nectar of Immortality which would make them invincible. But in order to obtain this nectar, they had to put all herbs in the cosmic sea of milk and churn it by using Mandarachal Mountain as a pestle and the snake-king, Vasuki, as the noose. But they needed the assistance of the demons to hold one side of the rope. The demons agreed to assist on the condition that the nectar received from this churning would be shared equally. Through this churning, the most sought after nectar was obtained along with many precious stones, wealth and worldly riches. But along with these priceless and rare items, a most venomous poison was produced. If that poison was not immediately disposed of, *sarvanash* (total annihilation) of the entire universe could result; however, no one, god nor demon, was willing to touch this most fatal toxic waste created due to churning. Finally, all went to Lord Shiva for help to stop the eventual obliteration of the universe. He agreed to take care of the toxic waste by drinking it, and thus the impending disaster was averted. Later, with the assistance of Lord Vishnu, the demigods were able to trick the demons out of their share of the nectar, so that only the gods became immortal. This story instructs us that the consequences of an activity could be both beneficial and disastrous. Both nectar and poison are the effects of the same cause; and in the same way, prosperity and pollution are the two sides of the same cause—the Karma of humanity. Both effects must be accepted, and as we crave for the nectar of riches, we must also be ready to face the side-effects (i.e., poison) of technology and industrialization.

We know that science and technology have given us many riches and material goods; however, these actions have contributed pollution on earth. We have no one but ourselves to depend upon because this time no Lord Shiva is going to help us. Unless we initiate a world-wide action to control the present and future production of pollution that is poisoning our environment; otherwise we will face total annihilation (*sarvanash*).

The environmental crisis facing humanity relates to the concept of Karma becomes even more significant. For in Hindu scripture, the rewards or punishment of Karma are described as events that will happen in the future, and sacrifice is described as *Apurva* (futuristic) Karma-action, the results of which have not yet been seen. We need to realize that the destruction that we are inflicting on our natural surroundings will have future repercussions, which will be felt not only by our children, but also by ourselves too due to the Law of Karma which causes us to return to earth in a subsequent birth. If we recognize and act on this philosophy of life, then and only then we the people will start paying due respect to nature as well as taking a stake in the care for the environment. Finally, the concept of Karma envisions an interrelatedness between what we do in this world and what may result now and/or in the future. This appreciation is the key to the point being made here. All of our actions are

Figure 2



The Nectar of Immortality and venomous poison: "two sides of the same cause."

interrelated with and interconnected to what eventually happens in this world. Although we may not face the consequences individually, nevertheless, someone else is going to be burdened with or benefit from our actions. It is in this context that the concept of Karma as a guiding force to protect the environment becomes meaningful.

Once our Dharma and Karma to the environment are appropriately understood, their precepts recognized, and their relevance in environmental protection and conservation accepted, then a common strategy for environmental stewardship can be developed. Such a strategy will depend much upon how different people together: (a) perceive a common future for society; (b) act both individually and as a group towards that end; and (c) realize that each individual has a moral obligation to support their society's goal since their acts will have repercussions on the future of the society and their own destiny.

This new way of looking at the world, a movement from an egocentric to an altruistic view, would also spawn a new vision of society and a new vision of the individual's role in that society. No longer would human fulfilment be measured by gross national product, or *per capita* income. Instead, it would be measured by the individual's ability to achieve his/her ultimate potential.

Dharma can lead to mastery over our base characteristics such as greed, exploitation, abuse, mistreatment and defilement of nature. Before we can hope to change the exploitative tendencies of society, it is absolutely essential that we discipline our inner thoughts. This is where the role of Dharma comes into play. It is important to appreciate that the concept of Dharma, although it has become synonymous with such religions as Hinduism, Buddhism and Jainism, can be used in any culture. Dharma is the mechanism which creates respect for nature since it is devoid of institutional structures, bureaucracy and rituals associated with organized religions thus enabling people to centre their values upon the notion that there is a cosmic ordinance and a natural or divine law which must be maintained.

The environmental stewardship based on our Dharma and Karma to the Environment, as discussed earlier, can provide new ways of valuing and acting. It can promote the preparation of policies of sustainable development and the introduction of environmental protection initiatives. Dharma, if globally manifested, will provide the values necessary for an environmentally caring world and will not advance economic growth at the cost of greed, poverty, inequality, and environmental degradation. There is an immediate need to instil among all people, a respect for nature as well as to strengthen the decision-making process for environmental protection; this may be a new focal point around which our global society could develop and base new values more in line with an environmentally caring world.

IV. VASUDHAIV KUTUMBAKAM: GLOBAL FAMILY

In the *Atharva Veda*, written about 3500 BCE, an entire chapter consisting of 63 verses, *Prithvi Sukta* (Hymn to the Earth), have been devoted. These verses integrate much of the thoughts of Hindu seers concerning Mother Earth and our existence on earth. A series of verses follow, addressed to the earth, as from sons to a mother, evoking her benevolence. These sentiments denote the bond between the Earth and human beings; and exemplify the true relationship between the Earth and all living beings, and the relationship of humans to other form of life. Mother Earth is seen as an abode of a large and extended family (*Kutumbakam*) of all beings.

Giryaste parwata hima Vantoranyam te Prithvi syonamastu
Vabhrum krushnam rohinim vishvarupam dhruvam bhumi Prithvi mindraguptam
Ajitohato akshatam dhvashthan Prithvi maham
(*Atharva Veda*, Kanda XII, Hymn I, v. 11)

> [O Mother Earth! Sacred are thy hills, snowy mountains, and deep forests. Be kind to us and bestow upon us happiness. May you be fertile, arable, and nourisher of all. May you continue supporting people of all races and nations. May you protect us from your anger (natural disasters). And may no one exploit and subjugate your children.]

This prayer, which includes a cosmic vision of our planet Earth, and which also relates to our consciousness towards the environment, is based on the fundamental concept of *Vasudhaiv Kutumbakam.* Every entity and organism is a part of one large extended family system which is presided by the eternal Mother Earth. It is She who supports us from her abundant endowments and riches, it is She who nourishes us, it is She who provides us with a sustainable environment, and it is She who when angered by the misdeeds of her children punishes them with disasters. As one ought not to insult, unduly exploit, and violate one's mother but to be kind and respectful to her, in the same way one should behave towards the Mother Earth. As a matter of fact, there is a cosmic connection between the micro and macro; and thus, there exists a harmonizing balance between the planet and the plants, animals, human beings and birds. They are all part of one big family. Consequently, people such as Hindus, Buddhists, Jains and those belonging to other spiritual traditions view the large existing in the small; and hence their every act has not just global but cosmic implications.[13] For them, responsibilities, limits and restraints must be self-directed rather than externalized. This is our *Global Dharma*; let us make it a part of not only our local culture and tradition but also an integral part of universal consciousness, vision and acceptance.

In order to raise the human spirit and create a world-wide family or community of ecologically sound and sustainable order, a *universal charter of environmental stewardship*, is required. This may become an instrument through which a new universal consciousness for the healing of creation and

a befitting understanding of divine purpose can be created to transform that human spirit which unites material realities and spiritual imperatives. It is that conscience which could restore and nourish a harmonized world through trusteeship, stewardship and accountability for present and future generations.

In conclusion, I dedicate this presentation to Mother Earth by quoting a verse from *Durga Saptashati*:

Yavad bhumandalam dhatte sashaila van kananam
Tavat tishthat medinyam santatih putra pautriki

[So long we do not endanger lush forests, green vegetation and riches of the mountains, our Mother Earth will protect not only us but also our children and their future generations].

Photo 5: O.P. Dwivedi and Karen J. Warren, Presenters

NOTES

1. This paper draws from the author's presentation at the Parliament of the World's Religions, Chicago, September 2, 1993. Further, the author gratefully acknowledges the two drawings drawn from some old issues of *Kalyan* (Gorakhpur, India: Gita Press).

2. Lynn White Jr., "Historical Roots of Our Ecological Crisis," in *Crisis*, ed. Robert M. Irving and George M.Piddle (Toronto: Macmillan, 1971), p. 17

3. Alastair M. Taylor and Duncan Taylor, "World Religions, Science and Technology, and the Environmental Crisis," in *World Religions and the Environment*, ed. O.P. Dwivedi (New Delhi: Gitanjali Publishing, 1989), p. 30.

4. Ibid., p. 30.

5. Daniel Gomez-Ibanez, "Spiritual Dimensions of the Environmental Crisis," *A Source Book for the Community of Religions*, ed. Joel D. Beversluis (Chicago: The Council for a Parliament of the World's Religions, 1993), p. 25.

6. Quoted by Swami Chinmayananda in his commentary on *The Holy Geeta* (Bombay: Central Chinmaya Mission Trust, 1986).

7. Dr. Karan Singh, *Brief Sojourn* (Delhi: B.R. Publishing Corporation, 1991), p. 123.

8. Sri Aurobindo, *The Supramental Manifestation* (Pondicherry, India: Sri Aurobindo Ashram Trust, 1971), p. 154.

9. Harold Coward, "Religious Responsibility," in *Ethics and Climate Change: The Greenhouse Effect*, ed. Harold Coward and Thomas Hurka (Waterloo: Wilfrid Laurier University Press, 1993), p. 48.

10. Sri Aurobindo, *The Supramental Manifestation*, vol. 16 (Pondicherry, India: Sri Aurobindo Ashram Trust, 1971), p. 200.

11. Sri Aurobindo, ibid., pp. 155-56.

12. Bal Gangadhar Tilak, *Srimad Bhagavadgita-Rahasya,* tr. Bhalchandra Sitaram Sukthankar (Poona, India: 1915, 4th ed. 1980), p. 373.

13. Vandana Shiva,"The Greening of the Global Reach," *Illustrated Weekly of India*, October 12-18, 1991, p. 3.

STEWARDSHIP IN SOME FEDERAL AQUATIC MANAGEMENT POLICIES, AND THE NEED FOR NEW MODELS FOR ENVIRONMENTAL PRACTICE

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1. ABSTRACT

Stewardship is defined here as "careful and responsible management." The use of stewardship as a principle within three existing or draft policies of the federal Department of Fisheries and Oceans is considered. These are the Policy on the Management of Fish Habitat, the Arctic Marine Conservation Strategy Discussion Paper, and a draft Sustainable Living Aquatic Resources Strategy. As a principle, stewardship is judged in this paper to be useful in defined, narrow circumstances, such as where land or other resources are owned, but not to be sufficiently broad conceptually to encompass the scope and seriousness of present day ecological crises. Moreover, no matter how well-considered, or comprehensive principles and policies are, they are not binding on resource decisions. Thus, they are largely ineffective in changing the non-sustainable direction of Western society. Rather, it is the thesis of this paper that a change in the dominant societal paradigm, i.e., widely-held view of the nature of reality, is required to bring human activities into a sustainable relationship within the life support system. Advances in physics over the last 90 years provide an emerging view of reality, the "Systems" view of the world, in which matter, energy, information and human consciousness are a unified whole, and interconnections and relationships are paramount. As a step in this direction, the ecosystem approach, in which human activities are to be managed within the capacities of the biosphere, offers a holistic model for decision-making. There is an urgent need to deal not only with Canada's endangered ecological health, but also her increasingly-at-risk economic health and to address both areas of concern in an integrated way.

2. INTRODUCTION

Stewardship is becoming increasingly integrated into the language and concepts of planning (Beavis, 1991) and sustainable development. The second of ten principles of sustainable development of the Manitoba Round Table on Environment and Economy is stewardship. "Stewardship requires the recognition that we are caretakers of the environment and economy for the benefit of present and future generations of Manitobans" (Manitoba Round Table on Environment and Economy, n.d.).

This paper examines the use of the stewardship concept in published or draft policies of one federal government department, the Department of Fisheries and Oceans (DFO), to determine its usefulness as a principle in natural resource management. The discussion represents interpretation of the policies from my point of view as a federal Research Scientist, and does not constitute an official treatment of them. My purpose is not only to provide information on the extent to which the policies embody stewardship but also to examine some relationships between principles, policies and practice. Secondly, I will evaluate "stewardship" as a concept appropriate to the demands on Canada's natural

resources, resource managers, and the Canadian public. Thirdly, I will describe some alternative concepts which may better fit the present social needs than "stewardship." Lastly, I will discuss the need for integration of environment and economics.

Although the focus of this paper is on aquatic ecosystems, activities on land and in the atmosphere are also encompassed. This is because water bodies are downstream of air and land, and are integrators of a wide range of environmental impacts.

3. DEFINITION OF STEWARDSHIP

The origin and meaning of "stewardship" are thoroughly outlined by Beavis (1991) deriving from the biblical role of household steward. A dictionary definition of "steward" is "one called to exercise responsible care over possessions entrusted to him." The relationship between the steward and her/his charges is one of "possession."

Stewardship is characterized by careful management, prudence and frugality. The word has come to be used synonymously with "careful and responsible management" and that is how I interpret it within the context of this paper. It has implications of "right," correct, or ethical action. It has expectations of a favourable outcome, i.e., that the maximum benefit should be achieved by the use of the resources, that the resources can be replenished periodically, and that after a time, the resource stock is more or less of the quality and quantity as it was earlier. In this sense, I see stewardship as more or less equivalent to simple sustainability where resources are slowly and carefully used, and their supply capable of being replenished.

4. CANADA'S AQUATIC HERITAGE

Canada's economy is tightly linked to her marine and freshwater nature. The careful management of Canada's aquatic resources is of prime importance to Canada's well-being. Her coastline is the longest in the world, and faces three of the world's major oceans. Her continental shelf is the second largest. The 200-mile coastal fishing zone represents 27 percent of Canada's territory (DFO, 1991). Canada is rich in freshwater resources as well. Nearly eight percent of Canada's surface area is covered by freshwater, representing 16 percent of the world's total surface area of fresh water (DFO, 1991). Canada's fishery resources are of large importance in Canada's economy, making Canada one of the world's leading exporters of fishery products (DFO, 1991). Communities on her Atlantic and Pacific coasts depend highly for livelihoods upon commercial fishing. Aboriginal peoples depend upon fishing to help maintain their way of life and self-sufficiency.

Recreational fishing is a large income producer. In addition, Canadian aquatic ecosystems are a source of water for drinking by humans and wildlife, for forestry, agriculture, hydroelectric power generation, mining, industry, recreation, aesthetic value, as well as serving as transportation and natural cleansing systems. They are moderators of climate and a symbol of Canadian national identity.

5. STEWARDSHIP IN DFO POLICIES

I will focus on three Department of Fisheries and Oceans (DFO) documents: the Policy for the Management of Fish Habitat, the Canadian Arctic Marine Conservation Strategy Discussion Paper, and the Sustainable Living Aquatic Resources draft policy.

5.1 THE FISHERIES ACT

As background, it is important to know that the Fisheries Act proclaimed in 1868 has been one of the strongest pieces of environmental legislation in Canada for the protection of aquatic ecosystems, not just fish. This is partly because "fish" is very broadly defined, the dependence of fish upon the integrity of habitat is recognized, and there is provision for dealing with physical, chemical and biological impacts on fish. For example, in the Act, "fish" is defined to include "all the life stages of fish, shellfish, crustaceans, marine animals and marine plants" and "fish habitats" are defined as those parts of the environment "on which fish depend, directly or indirectly, in order to carry out their life processes" (FHMB, 1986). The "Fisheries Act contains powers to deal with damage to fish habitat, destruction of fish, obstruction of fish passage, necessary flow requirements for fish, the screening of water intakes and the control of deleterious substances" (FHMB, 1986). Furthermore, DFO collaborates with other federal departments such as Environment Canada and the Department of Indian and Northern Affairs to control "the potential adverse effects on fish habitats of liquid effluent discharges, water withdrawals, physical disturbances, non-point-sources of chemical pollutants such as pesticides, other environmental contaminants, and the introduction of exotic species, predators, parasites and competitors" (FHMB, 1986).

5.2 POLICY FOR THE MANAGEMENT OF FISH HABITAT

DFO recognized that it is not sufficient to have strong legislation. For one thing, legislation most often tells us what we cannot do. Policy is needed to tell us what we can and should do, and how to do it. So in addition to administering the Fisheries Act, DFO prepared the Fish Habitat Management Policy in 1986, to "contribute directly to the management of the human use of the

biosphere" (FHMB, 1986). This Policy recognizes that natural resource management is primarily management of human activities and behaviour with respect to fisheries and aquatic ecosystems.

Although the Policy for the Management of Fish Habitat does not employ the word "stewardship," its philosophical basis of "wise management" is equivalent. The Policy aims for "environmentally sustainable economic benefit to mankind" (FHMB, 1986). However, the Policy requires of Canadians much more than stewardship, i.e., protection and care for existing resources. The overall objective is "to *increase* the natural productive capacity of habitats for the nation's fisheries resources, to benefit present and future generations of Canadians" (FHMB, 1986). The means to do this are through the three goals of fish habitat conservation, restoration and development. The first goal, conservation, comes closest to stewardship. This goal is to "maintain the current productive capacity of fish habitats supporting Canada's fisheries resources, such that fish suitable for human consumption may be produced" (FHMB, 1986).

The Policy contains a major guiding principle of "no net loss of productive capacity of habitats" (FHMB, 1986). This principle means that the Department will strive to replace unavoidable habitat losses with other habitat on a project-by-project basis, so that the overall productive capacity of Canada's fish habitats will not decline. This means that, in general, economic development is to be accommodated, but guidelines, professional judgement, common sense, and research are to be used to determine whether a fishery or habitat resource should be protected at all costs (development prohibited), whether habitat replacement can be effected, or whether mitigation or project redesign are the appropriate avenues.

The second goal of the Policy is to "rehabilitate the productive capacity of fish habitats in selected areas where economic or social benefits can be achieved through the fisheries resource" (FHMB, 1986). The third goal is to "improve and create fish habitats in selected areas where the production of fisheries resources can be increased for the social or economic benefit of Canadians" (FHMB, 1986). This might include physical, chemical or biological manipulation of habitats such as by creating spawning, rearing or food-producing areas.

The Policy recognizes that it isn't enough to set Policy objectives and goals, that there must be an implementation strategy as well. Fisheries and water resources are complex issues because they cross jurisdictional boundaries (provinces, territories, Native self-governments, municipalities). The pressures on fish habitat come from many sectors, including forest, mining, energy, agriculture, industry and domestic. To compound matters further, although the protection of fish habitat is federal responsibility, fish belong to provinces. Therefore, implementation of the Policy on the Management of Fish Habitat must be integrated with provincial fishery management activities and those of other

agencies or groups with related responsibilities. In total, there are eight implementation strategies which are listed here without elaboration. They are protection and compliance (including environmental impact assessment), integrated resource planning, research, public consultation, public information and education, co-operative action, habitat improvement, and habitat monitoring (FHMB, 1986).

5.3 ARCTIC MARINE CONSERVATION STRATEGY DISCUSSION PAPER

This strategy for the Arctic Sea is much more than resource management. It is an attempt to achieve consensus on the optimal use of natural resources and to promote development patterns which are sustainable. Its stated purpose is "to ensure the future health and well-being of Arctic Marine Ecosystems, thereby enabling Canada to fulfil its national responsibilities in the Arctic and provide for the sustained utilization of Arctic marine resources, in particular, use by Arctic peoples" (DFO, 1987).

The Arctic Marine Conservation Strategy (AMCS) Discussion Paper has 10 principles, none of which specifically is stewardship. These principles are:

- "Canada will exercise its sovereign rights and responsibilities in Arctic marine areas.
- Canada will conserve and protect Arctic marine waters and renewable resources for the benefit and enjoyment of present and future generations.
- Essential ecological components, processes, and systems, and genetic diversity will be maintained in the Arctic marine environment.
- Conservation requires an ecosystems approach and integrated management of renewable and non-renewable resource activities.
- All users of the Arctic marine resources will be recognized. Sustainable utilization of Arctic marine species and ecosystems will be assured for the benefit of all Canadians and Arctic peoples in particular.
- As the primary traditional and current users of Arctic marine areas and resources, the Inuit have particular rights and special responsibilities for the management and use of these resources, the nature and extent of which are being defined through ongoing constitutional and Aboriginal claims negotiations.
- The AMCS will promote development of knowledge, information, and understanding of marine systems and resource use.
- Development and implementation of the AMCS will reflect and support the social, economic, and cultural needs and values of Arctic peoples. The AMCS will be built through a process of consensus and mutual understanding with the user community and a special sensitivity to traditional values and local customs.

- The implementation of the AMCS will use existing institutions and processes whenever possible. It is recognized that some may require modification, and additional relevant institutions and processes will be developed through constitutional and Aboriginal claims processes.
- The implementation of the AMCS will promote international cooperation" (DFO, 1987).

Several of these principles embody the stewardship concept, such as when they refer to conservation and protection, maintenance of essential ecological components, processes, and systems, and sustainable utilization.

There are six implementation strategies, abridged as follows:

- research programs in support of the strategy;
- shared decision-making on renewable and nonrenewable resource utilization;
- integrated resource planning and management, i.e., land and water;
- maintain, protect and enhance marine environmental quality;
- communication to the public, education and training for the Northerners; and
- promote international co-operation on the conservation of Arctic marine resources.

There is also provision in the Arctic Marine Conservation Strategy Discussion Paper to monitor the implementation, audit the results, and to revise the Strategy as required.

5.4 DRAFT SUSTAINABLE LIVING AQUATIC RESOURCES POLICY

The impetus for the development of a sustainable aquatic resources policy comes from the Green Plan's focus on sustainable development for all federal departments. It represents a logical step from the concept of caring for resources through to ecosystem level planning in terrestrial ecosystems. The objective of this draft policy is "to ensure healthy aquatic ecosystems, sustainable fishery resources and the optimal cultural, economic and social benefits which they can provide, in perpetuity." The first goal of ensuring healthy aquatic ecosystems recognizes the need for conservation of habitat, restoration of degraded aquatic resources, integration with other resource sectors, and obtaining new knowledge, all of which fall under the implementation of the Fish Habitat Management Policy. The second goal is to ensure sustainable fisheries resources by the conservation of stocks, sustainable harvesting practices, and the development of living aquatic resources and their habitat. The third goal is to optimize the cultural, economic and social benefits from the fishery resources by establishing a sustainable framework for the fishing industry, ensuring that the number of fishing livelihoods is appropriate for the variable productivity of the resource, developing programs and policies that are responsive to regional differences, integration of Native harvesting rights into

fishery management, policies, and practices, and by considering in conflict situations social and economic costs and benefits accruing to all users and to Canadians generally. Two strategies were identified, the first one is to use the best available knowledge for decision-making. The second is to share stewardship through acceptance of responsibility and accountability by users.

6. POLICY AS THE MANAGEMENT OF PEOPLE NOT RESOURCES

The latter two policies continue a trend as one moves from the Fisheries Act to the Fish Habitat Management Policy, and then to the Arctic Marine Conservation Strategy Discussion Paper and draft Sustainable Living Aquatic Resources Policy of less emphasis on the management of natural resources to more emphasis on the management of people and their activities. The AMCS discusses institutions and organizations, planning and economics, consensus decision-making and conflict resolution, culture and education, as well as biological diversity and ecosystem functioning. The draft Sustainable Living Aquatic Resources Policy proposes shared stewardship responsibilities, integration of Native harvesting rights, planning of economics (licences, incomes) in relation to the carrying capacity of the biological resources. For the first time in DFO policy, the latter introduces the concept and terminology of "aquatic ecosystem health" and "fisheries health."

7. PRINCIPLES, POLICY, PRACTICE AND RESULTS

Of these three policies, only the Fish Habitat Management Policy is departmental policy and expected to influence actual resource decisions. The Arctic Marine Conservation Strategy and the draft Sustainable Living Aquatic Resources Policy have not been adopted.

The Fish Habitat Management Policy seriously attempts to deal with the complexities of protecting and managing Canada's crucial marine and freshwater resources. But principles and policies don't operate in a vacuum. Rather they are embedded in a political, economic, and social context. In spite of comprehensive implementation strategies such as in the Fish Habitat Management Policy, many factors, some within and some beyond the control of government, operate between policy and practice and between practice and end results. Practice is not always congruent with principles and policy. Often end results do not reflect the conservation, restoration, and habitat development aims that were intended. For example, environmental impact assessment sometimes does not have the influence it theoretically should have. Hydro Quebec still plans to build the Great Whale power project, flooding 1667 km^2 of Cree territory in Northern Quebec, regardless of the outcome of an environmental impact assessment (Davidson and Sanger, 1994). In 1987, DFO agreed to allow Alcan Aluminum

Limited to proceed with two hydroelectric projects costing $1.3 billion which would remove up to 88 percent of the water from one of B.C.'s prime salmon rivers, the Nechako (Goddard, 1993). This Kemano Settlement Agreement, according to the RCMP, represented a major reversal in DFO policy and was not based on any scientific data. It prompted an RCMP investigation of top DFO officials and of Alcan for criminal wrongdoing (Wagg and Hummel, 1994).

Fishing pressure is beyond Canada's control for those fish stocks which move offshore of Canada's 200 mile coastal zone. Even in Canadian waters, overfishing can be a problem. "Off Nova-Scotia, the groundfish fisheries have been plagued by domestic overfishing and misreporting, unsatisfactory levels of monitoring, surveillance, and enforcement, and a relentless increase in harvesting capacity" (Scotia-Fundy Groundfish Task Force, 1989, in Government of Canada, 1991).

Even were practices ideal, aquatic biological communities are complex living systems, the dynamics of which are poorly understood. Ecosystem and community level ecological research proceed at a slow pace in Canada. There are few integrated, multidisciplinary research programs in marine or fresh waters which examine the multitude of meteorological, hydrological, chemical, and biological factors which affect natural variability in fishery resources. The full impacts of the multitude of anthropogenic influences on fisheries and fish habitat are poorly understood as well.

The State of Canada's Environment (Government of Canada, 1991) reports that "stocks of freshwater fish in areas of high human population density are in decline, mainly because of overfishing and habitat degradation. The Great Lakes, in particular, show the symptoms of a stressed ecosystem: increased abundance of short-lived exotic species, loss of the more desirable native species, and significant levels of persistent contaminants in aquatic organisms and sediments." The picture of marine fisheries is also mixed, with a number of important stocks in decline, while other stocks are at historic highs. "Some fisheries are characterized by too many people chasing too few fish" (Government of Canada, 1991).

Thus, end results may be far less than desirable. DFO reports in its 1991 summary prepared for presentation to the United Nations Conference on Environment and Development, June 1992, that "with over-fishing and the subsequent environmental impacts of the expanding logging, agriculture, transportation, mining, industrial development and hydroelectric production industries, degradation of the aquatic ecosystem has occurred. Federal and provincial governments have undertaken conservation efforts aimed at sustaining the aquatic ecosystem and fisheries resource. However, there have been crises is some fisheries. These crises resulted in the collapse of certain fish stocks, unemployment, fish plant closures, dislocation of communities and contamination of important fish food stocks" (DFO, 1991).

These difficulties in natural resource management are by no means specific to DFO or to aquatic systems. Rather, they are endemic in Canada and many other countries. "In southern Ontario and the Prairie provinces, wetland habitat for waterfowl has been reduced by 68 and 71 percent, respectively, since European settlement, largely because of agricultural uses and drainage" (Government of Canada, 1991). "Organic matter content of soil has fallen 30-40 percent since the 1960s in eastern Canada" (Government of Canada, 1991). "Although increased site preparation, tree planting, and stand tending have kept pace with increasing logging, more land is logged each year than regenerates into commercially productive forest" (Government of Canada, 1991).

Simply put, the present global economic system, institutional structures, and political systems overall are not coping with increasing population pressures, increasing demands upon natural resources, increasing technological competence to exploit resources, and mounting cumulative impact on the life support system on a global scale. "During the 20 years since the first Earth Day, in 1970, the world lost nearly 200 million hectares of tree cover, an area roughly the size of the United States east of the Mississippi River. Deserts expanded by some 120 million hectares, claiming more land than is currently planted to crops in China. Over two decades, some 1.6 billion people were added to the world's population—more than inhabited the planet in 1900. And the world's farmers lost an estimated 480 billion tons of topsoil, roughly equivalent to the amount on India's cropland" (Brown *et al.*, 1991). In Canada, environmental policy initiatives at both the federal and provincial levels, such as Round Tables on Environment and Economy, are judged to have been largely ineffectual in bringing about essential societal changes (Bruton and Howlett, 1992; Clow, 1992) to deal with ecologial degradation.

8. IS STEWARDSHIP A USEFUL CONCEPT?

As indicated above, even relatively comprehensive proactive policies, such as the Fish Habitat Management Policy, are no guarantee of successful natural resource management. In my opinion, the even more limited concept of stewardship is not effective in dealing with the ecological complexities and crises of our times. Firstly, stewardship is not proactive. It focuses on wise use and careful responsibility for what we have at hand. Although it encourages prudence, it is not specifically anticipatory. Although it implies a favourable outcome, i.e., wise use, it does not embody a mechanism for ensuring that decisions at each stage are compatible with an overall favourable end result. Other than having ethical overtones, stewardship does not incorporate accountability for the outcome. Secondly, the power that stewardship draws on, i.e., ethical behaviour towards the environment, is relatively weak. I observe in today's world a hierarchy of power such that economic

Table 1. Comparison of four approaches to resolving man-made ecosystem problems.

	Approach			
Problem	Egosystemic	Piecemeal	Environmental	Ecosystemic
Transmission of disease	Causes unknown	Conduits pills	Curative	Preventive, rehabilitative
Organic waste	Hold your nose	Discharge downstream	Reduce BOD	Energy recovery
Eutrophication	Mysterious causes	Discharge downstream	Phosphorus removal	Nutrient recycling
Acid rain	Unaware	Not yet a problem	Taller smokestacks	Recycle Sulfur
Energy shortages	Hunt a scapegoat	Increase supply	Expand grid	Inverted rate schedules
Toxic chemicals	Unaware	Not yet a problem	Discharge permits	Design with nature
Greenhouse effect	Unaware	Not yet a problem	Sceptical analysis	Carbon recycling
Pests	Run for your life	Broad spectrum insecticides	Selective degradable poisons	Integrated pest management
Traffic congestion	More roads	More superhighways	Staggered hours	Public transport, decentralize
Demotechnic growth	Unaware	Measure it	Zoned development	Conserver society
Attitude to nature	Indifferent	Dominate	Cost/benefit	Respect
View of future	Egocentric	Linear, predictable	Wary	Emergent, evolving

Reprinted with permission from Vallentyne and Hamilton (1987).

> political > social > ethical towards other persons > ethical towards the environment. For example, stewardship arguments for cautious decisions generally do not fare well when they are in opposition to strong economic and political interests geared to rapid exploitation of resources. But perhaps the greatest limitation of stewardship is its relationship by possession. Most natural resources, particularly aquatic, are common property resources and beyond human possession. The concepts that complex ecosystems are within the capacity of humans to manage or caretake or that the primary significance of ecosystems is for human use are fallacious.

Nevertheless, stewardship has value in certain cases. It is useful for the management of discrete resources which are possessed in the legal sense, such as privately-owned land. In this case, stewardship is a concept readily grasped by landowners from diverse backgrounds which can serve to guide their own actions with respect to their land (Hilts, 1990). Also, stewardship is useful as a housekeeping ethic within organizations. DFO is currently organizing an environmental stewardship initiative following the lead of Environment Canada's Green Plan. It encourages the "greening" of day-to-day operational activities.

9. EMERGING HOLISTIC CONCEPTS

9.1 THE ECOSYSTEMS APPROACH

Attempts to find solutions to our society's apparent inability to manage human uses of natural resources sustainably has led a group of aquatic scientists over the past several decades to a concept known as the ecosystem approach (Vallentyne and Hamilton, 1987). These authors recognize four stages of awareness in the relationship of humans to their environment (Table 1). Earliest is the egosystemic approach, with assumptions that nature is under human control and that humans have an inherent right to unlimited exploitation of natural resources. Second is the piecemeal approach of dealing with problems one at a time, usually by shipping the problem downstream. The third stage is the environmental level, where the problems are still separable from humans, and a curative approach is taken. Last, is the ecosystem approach in which humans and the resources exist together in a system. The ecosystem approach has several features. It integrates and synthesizes knowledge, requires research and dissemination of knowledge through education, is holistic, embodies ecological actions, is anticipatory, and involves ethical actions. "Human societies are now in the early stages of a transition from a concept of environmental management in a political context to a concept of political management in an ecosystem context" (Vallentyne and Hamilton, 1987).

In this context, stewardship has features at both the environmental and ecosystemic levels. Ethical actions characteristic of the ecosystem approach are integral to stewardship. Stewardship has

an ecological focus. Nevertheless, stewardship is "environmental" in seeing the environment and resources as being outside of humans. They are possessions for which we must care wisely.

9.2 ECOSYSTEM HEALTH

Congruent with the ecological and anticipatory thinking of the ecosystem approach is another emerging concept, that of ecosystem health, mentioned above as a component of the draft Sustainable Living Aquatic Resources Policy. Ecosystem health encourages understanding of the nature of ecosystems as they function fully and effectively. It focuses on ecological features we need to preserve and protect in the face of human activity and on identification of goal states for ecosystems or habitats which are being remediated or restored. In distinction to ecotoxicology, which is the study of environmental degradation or illness, ecosystem health is the study of ecological well-being and biological integrity. Diverse approaches to ecosystem health are represented by the work of Karr and Dudley (1981), Munawar *et al.* (1989), Rapport (1992), Malley (1993), and include the ecosystem approach of Vallentyne and Hamilton (1987). Reviews of aquatic ecosystem health definitions are given by Regier (1992), Chapman (1992), and Malley (1993).

9.3 NEW PHYSICS AND A NEW WORLD VIEW

In spite of progress towards articulating principles and concepts such as stewardship, the ecosystems approach, ecosystem health and policies which embody them, these principles and concepts will have little real impact on resource decisions as long as mainstream Western society believes that humans are dominant over nature, and decisions and activities are based principally on short-term economics and competition.

Western materialistic, science-based society had its origin in the Copernican revolution beginning in the mid-sixteenth century (Harman, 1988). The resulting world view has been referred to as the Newtonian-Cartesian world-machine, after Isaac Newton and Rene Decartes (Capra, 1982), or the "World as Machine" system (Malley *et al.*, 1992). Western society interacts with the natural world in ways that are analytical, objective, materialistic, and quantitative. Intuition, integration, synthesis and subjectivity are repressed or eclipsed (Malley *et al.*, 1992; Watts and Malley, 1992). The Newtonian-Cartesian world is a mechanical one composed of discrete matter and energy, where physical phenomena are reduced to the motion of material particles, where effects all have causes, and where the natural (mechanical) world can be "described objectively, without ever mentioning the human observer" (Capra, 1982). It has led to the overspecialized, disciplinary approach of modern society to the learning of knowledge and skills; to the operation of business and industry; and to the

conduct of the policy, legislation and decision-making functions of governments. The Cartesian notion of reality with its tendency to fragment the world, separate humans from the ecological systems upon which they depend, and ignore interconnectedness has precipitated the social, ecological, economic, and health problems we have today (Malley, 1993).

Paradoxically, this mechanical world view of our purportedly science-based society is not supported by twentieth century science. We continue to ignore the significance of twentieth century science and probably will do so until the pain of changing major belief systems, i.e., a paradigm shift, is less than the pain of living with our present dysfunction.

A new and different understanding of the nature of physical reality is emerging. The discoveries and theories of such physicists as Albert Einstein, Niels Bohr, Boris Podolsky, Nathan Rosen, Werner Heisenberg, David Bohm and others began very early in this century and continue to this day to produce a picture of reality radically different from the Newtonian-Cartesian world and, in fact, almost beyond our ability to grasp. In fact, scientists had to adopt new concepts, new language and a new way of thinking in order to describe atomic phenomena (Capra, 1982).

In the 1930s, subatomic particles were found to behave at times like particles (i.e., matter), at times like waves (i.e., energy), and at times like both (Bohm, 1980). These particle/waves, called quanta, form the basis of so-called quantum theory, also known as quantum mechanics. Another quantum property, in addition to duality, is that the more a quantum is confined, the faster it moves around. Matter is unceasingly dynamic. There is ultimately no fixed structure to matter, only movement and connections. Subatomic particles and the matter that they comprise are not solid things but abstractions definable only through their interactions with other systems (Capra, 1982). We perceive the world to be solid not because it is that way, but because our senses interpret it that way. In fact, our senses are massively ineffective in perceiving the reality of the world. Every region of space contains enormous amounts of different kinds of energy fields composed of waves of varying lengths (Talbot, 1991). It is estimated that our human senses perceive less than one-billionth of the information available to us.

Niels Bohr concluded that quanta are not isolated from one another in space but are interconnected. Related to this understanding was the development of the theory of nonlocality, i.e., paired quanta are interconnected, not because they have an instantaneous means of communication faster than the speed of light, but because they behave as though they are independent of location, i.e., there is no separateness. These theories are consistent with the theory that the universe is a unified, indivisible whole (Capra, 1982).

It is highly significant that in an experimental setting matter possesses certain properties when it is being observed by scientists and other properties when it is not (Talbot, 1991). Thus, not only matter and energy are interconvertibly linked but consciousness is part of the whole. The belief that scientists are uninvolved, separate observers of nature and that science is "value-free" must be laid to rest; the observed and the observer are unified.

New physics describes non-linear systems, in contrast to the linear systems of Newtonian physics. Non-linear systems exhibit features of interconnectedness (non-linear systems must be considered as a whole), unexpected behaviour, catastrophic change, limits to description, bifurcations or decision points, high sensitivity to tiny influences, chaos, intermittence, and periodic prolonged stability (Peat, 1988). Thus, new physics provides a fundamental framework unifying time, space and consciousness (information). Capra (1982) terms the new paradigm that arises out of embracing new physics, the Systems view of reality. This view emphasizes integrated wholes whose properties cannot be reduced to those of smaller units. The Systems view emphasizes basic principles of organization, processes, interrelationships, and integration. The reductionist methods of the traditional scientific approach are not appropriate. "With a fragmentary approach it is impossible to see the whole problem or situation for what it really is. The result will be inappropriate and ill-judged action" (Peat, 1988).

9.4 SPLIT-PERSONALITY: THE MODERN CONDITION

The knowledge of the nature of reality gathered by physicists over the past ninety years will transform the consciousness of western society. Nonetheless, our daily platform will still be the physical world perceived by our senses and Newtonian science will still be one of the ways of knowing. Day-to-day life cannot be lived in terms of quanta, energy fields, unceasing dynamism, empty space, and chaos. But the knowledge that connectedness and unity underlie our sensate world will influence the way we perceive our human place in the world and the way we behave within it. There will be no "us and them", only "we." Our biosphere, its life support functions, our resources, and ourselves are all part of one system. The incorporation of this knowledge will be reflected in and dramatically transform our institutions, economies, and social behaviour (Malley, 1991).

10. UNIFYING ENVIRONMENT AND ECONOMICS

Until Western society adopts the Systems view of the world or its equivalent, the ecosystem approach is a useful model for natural resource management. This approach moves us beyond the dysfunctional situation today in which economists and politicians see the life support system as an externality and as problematic. Equally, today for some environmentalists, the economy and politics are externalities and are problematic. In fact, there is only one human-biosphere system which is at the same time ecological and economic. Like it or not, as citizens we are as dependent upon the functioning of financial, political, bureaucratic institutions and systems as we are upon the life support functions of our aquatic systems, wetlands, agricultural systems and forests.

Canada's economy is becoming increasingly brittle. The public debt is $630 billion and growing at a rate of about 12 percent per year. The Vancouver Board of Trade installed a debt clock which monitors the over $500 billion federal debt—growing at $123 million per day. At this rate the federal debt will double in six years. Out of 14 industrialized countries, Canada has the highest rate of indebtedness, an index of 74 compared with Japan's 23. Canada relies on foreign lenders to live beyond its means more than any of the world's industrialized countries. The problem with the income-debt imbalance is that it is everyone's problem and no one's responsibility.

Environmentalists cannot afford to be uninformed about or underestimate the importance of the economy in protecting the resources of Canada and in protecting the Canadian identity and quality of life. Economists cannot afford to underestimate the importance of natural resource sustainability in Canada's economy. We simply must all be concerned about the transformation of our present *system* to one which is sustainable. The awareness of the underlying connectedness of humans to each other and to the life support system will replace dominance over nature and competitiveness as the predominant belief guiding a sustainable economic system.

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TABLE 1
STEWARDSHIP ACTIVITIES OF 200 ONTARIO VES GROUPS

Activity	Total		Educ.	Mon.	Adv.	Rest.	Cons.	Pres.	Fund.	RAP	Res.	Nat.	Sport.	Land.	Hike.	iMon
	200	100%	120	117	109	90	56	50	38	16	10	46	42	17	14	53
Education	120	60	100	67	67	55	64	70	79	62	80	87	48	12	50	35
Monitoring	117	58	65	100	73	45	57	70	74	75	80	78	24	76	21	-
Advocacy	109	54	61	68	100	38	39	60	63	94	60	56	24	76	28	32
Restoration	90	45	41	35	31	100	55	32	39	50	30	35	81	23	100	72
Conservation	56	28	30	27	21	34	100	22	34	25	10	41	59	18	21	28
Preservation	50	25	30	30	27	19	21	100	36	25	20	39	9	23	12	23
Fundraising	38	19	25	24	22	17	23	28	100	12	30	26	24	-	7	11
RAP participation	16	8	8	10	14	9	7	8	5	100	10	11	5	6	7	6
Research	10	5	7	7	5	3	2	4	8	6	100	2	-	-	-	-
Naturalist	46	23	33	31	24	18	34	36	31	31	10	100	7	-	12	9
Sports-related	42	21	17	8	9	38	45	6	26	12	10	7	100	-	7	49
Landowner	17	8	2	11	12	4	5	8	-	6	-	-	-	100	-	7
Hiking-related	14	7	6	2	4	15	5	4	3	6	-	4	2	-	100	21
Monitoring: implicit/potential	53	26	16	-	15	42	27	22	16	19	-	11	62	23	78	100

LOCAL STEWARDSHIP: CREATING AN ENVIRONMENTAL VANGUARD

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"The voluntary sector is a sector of hope in an age of diminishing expectations. . ." This is how a perceptive commentator, in 1982, characterized the resurgence of interest in what he termed "the new volunteerism," at the core of which he saw "a critical sense of the fallibility of the modern state and the corporation."[1]

In Canada, perception of the fallibility of governments and corporations with respect to environmental protection has persisted to the present day, and is undoubtedly one reason for the increase in the number of Canadian volunteer environmental groups during that period.[2] In every province, increasingly concerned local groups have pooled skills and resources to provide hands-on environmental care as well as to pressure decision-makers to act in environmentally-responsible ways. What they do is what we mean by *environmental stewardship.*

THE MEANING OF STEWARDSHIP

From 1983 onward, as I became interested in learning more about local volunteer environmental groups, the concept of "stewardship" was increasingly attractive to me. The term accurately encompassed the wide range of activities reported (in 1989-1990 surveys) by 200 local environmental groups in Ontario. The major activities reported could be categorized as education, monitoring, advocacy, restoration, conservation and preservation, with most groups engaged in several types of activity, and this information easily quantifiable (see Table 1). But more important to the development of my thinking about environmental stewardship were the feelings expressed by those respondents. "Passionate" is not too strong a word to describe their urgent concern about the wellbeing of their home places, their sadness and anger in response to pollution of local waterways, degradation of familiar landscapes, and perceived indifference to all of this on the part of those in authority who were mandated to prevent it.[3] While the finances and resolve of many national and international environmental groups vacillate over time, local stewards persist and, arguably, continue to be the bedrock foundation of the entire environmental movement.

There are those who object to the term "stewardship" because of its instrumental/utilitarian implications—a steward is conventionally defined as one who manages the affairs of a household or estate on behalf of, and with responsibility to, an employer. But, more broadly, good stewardship also implies caring for, ensuring wellbeing, maintaining vigilance, accepting personal responsibility, understanding the importance of accountability. Thus "stewardship" seems to me a very appropriate

term for the blend of desire for a healthy environment now and concern for future generations that characterizes the work of most local environmental groups. It is for those future generations of all living things that we hold the earth in trust. How can we act honourably except as stewards?

Perhaps local stewardship concerns and activities are actually moving us toward a common-property ethic. There seems to be a growing realization that the interconnectedness of the biosphere, upon which all life depends, requires that we re-examine our North American preoccupation with small holdings of private property. In addition to the promising private-landowner contact programs that do promote responsible stewardship of private property, there is a growing interest in community land trusts[4] for the protection of natural areas (as well as to assure a supply of affordable housing), conservation easements, nature reserves, designation of environmentally-sensitive areas of various types, and development control of the type mandated by Ontario's Niagara Escarpment Planning and Development Act.

These initiatives reflect the fact that our conceptions of what constitutes "my back yard," both present and future, have enlarged to include neighbourhood, community, region and watershed. The idea that the only legitimate ownership of place is that sanctioned by deed and title is very slowly giving way to what might be called a sense of mutual nurturance and belonging: we belong to a place, have been nurtured by it; thus, in an emotional and historical sense, our places belong to us, and to the generations to come, whose heritage it should be to enjoy continued nurturance—regardless of who holds title, or claims the "right" to earth's use as a resource or waste sink. Reconciling the private property system and ideology with the ecosystemic nature of the earth remains a formidable challenge, but mindsets seem to be softening.

STEWARDSHIP'S ROLE IN THE REALIZATION OF HUMAN POTENTIAL

In one sense, the significance of environmental stewardship lies in the concrete results of thousands of volunteer hours logged in monitoring, rehabilitation, research, brief preparation, fundraising and myriad other activities. But there is another significant role that these groups play—that of developing in their active members what might be termed "environmental-vanguard" qualities.[5] There are at least two important ways in which stewardship group members develop such qualities, both related to a well-understood principle of human behaviour that people tend to develop stronger concern for and commitment to anything in which they invest time and effort.[6]

Broadening Environmental Concerns. First, there are people whose initial interests are in a "single issue" such as the adverse health effects of local industrial air pollution. Such a person could fear that her children are being harmed and decide to get involved. She might undertake

time-consuming research for a local anti-pollution group, learning more about the pollutants' effects on plants and animals as well as on people. Eventually, she could find herself taking field trips with local naturalists, who are also concerned about the pollution. Given this type of involvement, it is not unlikely that she will develop broader environmental interests that lead to a stronger personal identification with nature.

This is important because, as is persuasively argued by environmental ethicists, how we relate to nature at the level of emotions inevitably affects our behaviour toward nature under pressure of seemingly-competing demands for jobs, profits and "development." If we do not feel ourselves in some basic sense a part of nature, intrinsically of and from nature, then we are much less likely to resist such demands or to exercise care to maintain our fragile ecosystems.[7] Since the majority of people in North America find it hard to feel protective toward nature unless nature is providing them with something they want or need,[8] the extent to which involvement in stewardship activity moves people to identify with and care about nature for its own sake is of significant value.

Enjoyers to Advocates. Second, many individuals and groups are politicized by their involvement in stewardship activities and, as a result, become part of an active, effective environmental constituency. Even if their initial interests lie mainly in outdoor recreation, nature study or simply enjoyment of an attractive place, any threat of harm to a valued species, locale or activity—especially one that has involved people in such activities as stream cleanups, bluebird box programs or plant inventories—can trigger a pattern that commonly politicizes those involved. People seek help from (usually) government sources, feel they have not received the support they wanted, put their stewardship group on an action alert and begin to address the problem politically—by doing research, lobbying, preparing briefs, dealing with the media and gradually acquiring the skills to become an effective voice in the decision-making arena. This kind of experience has turned many "mild-mannered" nature, sports, and cottager groups into sophisticated participants in the rough-and-tumble of local or higher level politics.

Stewardship groups are significant, then, not only because they make a positive difference in hundreds of local environments, but perhaps primarily because they serve as an ethical and political training ground for the grassroots environmental vanguard, currently the strongest constituency for environmental interests. These are the people who, in increasing numbers, are demanding comprehensive proactive community, watershed and provincial planning for environmental quality and who understand how to get what they want. Many of them, in addition to forging stronger ties with nature and acquiring skills that range from plant identification to water quality monitoring, legal research to fundraising, also gain in confidence, self-esteem and comradeship. Some swear off

politics forever. Others embrace opportunities to enter new public issue arenas, perhaps with a renewed sense of the responsibilities as well as the rights of citizenship. Few remain unchanged.

LEARNING ABOUT LOCAL STEWARDSHIP GROUPS

Reflecting on a number of recent studies of volunteer environmental stewardship groups,[9] we can develop a clearer picture of contemporary groups and coalitions.

Catalysts: The Formative Stage. Stewardship groups and coalitions are typically formed for one of two broad reasons: common interest in nature or an outdoor activity, or shared concern about an issue. Most groups' activities reflect a mix of such interests and concerns, sometimes with shifting emphases as the group evolves.

People with common interests form naturalists', sports-oriented and recreation groups, often called affinity groups, so they can enjoy shared activities and combine their efforts to support those activities. The Hamilton Naturalists Club,[10] founded over seventy years ago to foster the study, protection and public appreciation of birds, is a good example of this type of group, of which there are thousands in North America alone. The sports-oriented groups in B.C.'s Fraser River Basin[11] and in Ontario[12] are also examples of groups that originally formed to share nature and outdoor interests. They still focus on those interests, combining enjoyment of their activities with educational, hands-on and advocacy stewardship. Recent research[13] suggests that increasing numbers of these groups have stepped up their advocacy activities because their pastimes, special places and valued species were threatened by development and pollution. It is probable that this increased advocacy activity, as well as these groups' involvement in hands-on conservation and reclamation activities, are catalyzed by many of the same concerns that lead to the formation of issue-oriented groups.

Issue-oriented stewardship groups initially develop to act as advocates in some situation that concerns them. They often see education, monitoring and hands-on efforts as part of their advocacy activity. The formation of such groups is typically triggered by a series of catalyzing events. In some cases the initial catalyst is a shock that creates anger or fear—or both. The discovery of severe local pollution was the shock for the Tusket River Environmental Protection Association (TREPA) in Nova Scotia,[14] the Windsor and District Clean Water Alliance (CWA) in Ontario[15] and many of the groups in the Fraser River Basin of British Columbia.[16] Not surprisingly, the anger experienced when local rivers or water supplies are found or suspected to be polluted has become one of the major catalysts of stewardship group activity throughout the world. Fear of irreversible damage both to human health and the non-human elements of ecosystems is present wherever pollution is seen as a threat. As well, people feel betrayed by the polluters and by governments that did not prevent the problem.

In other situations, often involving land-use decisions, the catalyst for coalition formation is a more slowly developing situation which is finally seen as so threatening that people rally to stop or reverse it while they can. The Preserve Agricultural Lands Society (P.A.L.S.),[17] the Montreal Green Coalition,[18] Save the Oak Ridges Moraine (STORM),[19] The St. Mary's River Association (SMRA) in Nova Scotia,[20] and the Vancouver Island wilderness preservationists[21] are good examples of groups and coalitions that formed to demand environmentally-sensitive planning instead of piecemeal exploitation of their areas. For these groups, the continued loss of fish, valued agricultural land, green space, old growth forests and unique natural areas became unacceptable after it reached what they saw as a point of no return. A research project currently under way[22] is designed to shed light on the important question of how people develop the perceptual thresholds at which they decide to act in defense of the environment.

Any circumstance that makes individuals or groups aware of their mutual concerns can also serve as a catalyst for stewardship group formation. In Montreal, media coverage of individual neighbourhood groups fighting to save green space appears to have played a role in their becoming aware of one another, and of park planning as a city-wide issue that required the formation of the Green Coalition. Groups are also alerted to their common concerns when they circulate and present briefs prepared for hearings. Save the Oak Ridges Moraine (STORM) was formed as a result of similar groups connecting in this way.

Any forum that brings together concerned individuals or groups can lead to the formation of groups and coalitions. This appears to be especially true when a sense of urgency has been created by failure to get action from public officials, so that concerned groups realize the need to form alliances, pool their resources and bring stronger pressure to bear on decision-makers. A catalyst for PALS' formation in Ontario was a single Brock University seminar session that convened a number of active groups with similar land-use concerns. In Nova Scotia, TREPA was formed in a meeting convened by a local wildlife federation to discuss the severe pollution that had recently become visible in the Tusket River. The CWA in Windsor found its voice after the Great Lakes Institute (University of Windsor) organized a public forum on water quality that drew over 200 people and attracted media attention to the polluted St. Clair River.

Encouragement and support from academics, politicians and civil servants can provide the impetus for coalition formation and survival. This occurred in Montreal, where city planners played a central role in the formation of the Green Coalition, and in Windsor, where a federal MP from the area suggested the formation of the CWA and provided crucial resources in its early days. P.A.L.S. also counted on these kinds of supporters in its formative stage.

Groups sometimes form because supporters break away from an organization in protest over its goals, tactics, power structure or inaction. A good example is the Western Canada Wilderness Committee (WCWC), formed by Sierra Club of Western Canada (SCWC) supporters who felt that SCWC was not promoting wilderness preservation aggressively enough. Sisters for Non-Violent Action (SNAG), was a splinter group formed by five women who objected to what they saw as domination of a wilderness preservation action group by men and male values.[23]

In summary, while these stewardship groups and coalitions have a wide range of interests and concerns—pollution of local rivers, threats to human health, loss of agricultural land, foreclosure of green space opportunities, loss of valued game species, preservation of natural heritage—there are some common elements in their beginnings. Their formation (or increased advocacy activity) appears to be sparked by the combination of a sense of urgency based on fears of irreversibility and a perception that governments are not moving to right the situation. When a situation has "ripened" to this point, anything that makes similarly-concerned people and groups aware of one another (media, hearings), brings them together (meetings) and encourages them to organize for action (civil servants, politicians, academics, their own leaders) plays an important role in the creation of new or more active stewardship organizations.

Values, Goals and Strategies. Stewardship groups face decisions, and often internal conflict, about what their values require of them in setting goals and choosing strategies. In some cases, what those values are or should be is contentious. STORM, a newer group with some particularly reflective members, dealt successfully with the kinds of conflicts about scope, objectives and strategies that create tensions within groups at many points in their careers. The internal issues, outlined below, that absorbed STORM members in their group's formative stage, and other groups at different points in their lives, are good examples of these value-based questions.

Whether or not to engage in civil disobedience is a question that many groups face with regard to their advocacy activities. A sharp division on this question can split a group decisively. Sometimes the alternatives are embodied in different groups addressing the same issue. On Vancouver Island, the WCWC firmly refused to participate in any type of civil disobedience whereas a major goal of SNAG was the promotion and teaching of non-violent civil disobedience. SNAG was also based on what their members saw as feminist principles—non-hierarchical organization, respect for other members and consensus decision-making. Future research will be needed to reveal the extent to which feminist or other gender concerns exist as open or suppressed issues in contemporary environmental groups.

To confront or co-operate with politicians and other powers that be? This question, often debated in terms of the dangers of co-optation, can haunt groups that have "matured" and find

establishment doors temptingly open. Even a fledgling STORM pondered the choices from a value perspective. However, many of the more seasoned groups engaged primarily in advocacy appear to have adopted a pragmatic, non-ideological approach in that they have co-operated with any legitimate parties which could further their cause. P.A.L.S., CWA, TREPA and the Montreal Green Coalition are clear examples. Some British Columbia advocacy groups are alienated from government contacts and, sometimes reluctantly, reject co-operation as an option.[24] Most of the affinity groups whose activities focus on education and hands-on conservation activities see no issue and routinely cooperate with governments, especially at the local level. They often count on government programs for funding of their activities and other support.[25]

Another issue that occupied STORM members was how focused or broad the group's concerns should be, weighing a "bandaid approach" against addressing wider (or deeper) societal and environmental issues. The groups working to preserve old growth forest on Vancouver Island asked a similar question as they wondered what good it did to save part of one valley, when the real need was for basic forest legislation. P.A.L.S., always pleased in their early days with whatever amounts of agricultural land they could shield from development, also eventually saw their issue as part of a much larger battle for effective watershed-based land-use planning in Southern Ontario. The fact that STORM addressed the issue at the outset suggests that new groups can learn from the experience of veterans like P.A.L.S.

When self-interest (in property values or hometown amenities, for example) and public interest seem to coincide, the honest steward does some soul-searching. While only STORM reported concerns about the possible self-serving nature of their cause, other groups engaged in advocacy around land-use and development issues—or their opponents—have undoubtedly raised similar questions. On the other hand, sports-oriented groups that rehabilitate salmon streams and restore waterfowl habitat have few doubts that their self-interest promotes the public good.

In general, then, stewardship groups that engage in advocacy activities face important questions concerning elitism, co-optation, tokenism and appropriate means and ends. While it may be useful for groups to address them at the outset, the decisions that are made will need ongoing examination as long as the group exists. A group that is experienced in dealing openly with these and similar issues probably has a better chance of surviving when hard choices have to be made.

Groups Evolving. Groups and coalitions change over time. Some common evolutionary patterns have been identified, such as that of new, struggling interest groups as they move toward maturity and closer establishment ties.[26] In other cases, no clear patterns are evident. As groups face changing internal and external challenges over a number of years, they expand or retract the

boundaries of their concerns, exchange one set of strategies for another, lose some members and attract others, and yet maintain their identity. A long-lived example of such unpatterned evolution is the Preservation of Agricultural Lands Society (P.A.L.S), a group which has emphasized advocacy and education. As its members manoeuvred to limit the transformation of Niagara fruitlands into housing tracts, P.A.L.S. had to evolve to meet such unexpected challenges as some Niagara-region farmers' hostility to the group spurred by fears of financial losses due to the Goods and Services Tax. More proactively, the group chose to expand its concerns to address broader environmental issues through its local-level Conservation Strategy document and Eco Tour initiative.

The studies suggest that many contemporary groups which began life with a single-issue advocacy focus do expand their interests to encompass broader environmental concerns, as P.A.L.S. did, and that groups formed on the basis of shared nature and recreation interests, such as those in B.C.'s Fraser River Basin, appear to be moving toward more militant advocacy activities. The Windsor and District Clean Water Alliance, which was formed in 1986 and changed its name to Citizens' Environmental Alliance in 1991, is a classic example of a single-issue group that has become a broadly-based environmental coalition with strong interests in air quality monitoring and woodlot preservation in Southwestern Ontario.

The Saraguay Citizens group in Montreal broadened its concerns significantly when it progressed from efforts to preserve one local forest to a campaign that secured 12,000 signatures on a petition to "save the waters and forests of the West Island." Similarly, both TREPA and SMRA in Nova Scotia reached beyond their initial concerns with pollution and a salmon fishery, respectively, to much broader interests in the protection of natural heritage areas as well as a variety of hands-on rehabilitation and monitoring activities. The Hamilton Naturalists Club, whose initial interests were in promoting the protection and appreciation of birds, and the Kitchener-Waterloo Field Naturalists,[27] who have recently initiated monitoring and advocacy activities, are typical of nature groups that over time expand their activities to include a wide variety of advocacy, education, and monitoring.

On the evidence of these relatively few cases, it seems at least likely that contemporary stewardship groups which begin as single-issue advocacy groups will develop wider environmental interests, while those whose main interests have traditionally been outdoor sports and recreation and enjoyment of nature will increasingly engage in advocacy activities. It is probable that stewardship groups' needs for allies and pooled resources have been one factor promoting this convergence of interests. Whatever the causes, such mutually-reinforcing trends help to explain the continuing high levels of grassroots support and advocacy for environmental protection and remediation.

Why Do Members Join and Stay Involved? The question of why people volunteer their time and effort in countless activities has long intrigued social analysts. The generally accepted answer is that they do so for a constellation of reasons that include personal growth, social enjoyment and the desire to be of benefit to society.

People who join environmental stewardship groups appear to have a similar mix of motivations. Exploratory interviews with naturalist group members[28] reveal that they join because they want to experience nature and the outdoors, educate themselves, share knowledge, "make a difference" by working with a group, and enjoy social activities. "Hands-on" activities that involve the family and "give something back" to nature are singled out as particularly satisfying. Members of groups formed primarily to "watchdog" a pollution problem or protect a unique natural area valued both self-education and contributing to group effectiveness, but also said they joined and stayed involved because they were concerned about some local environmental problem, often involving health and safety, which they doubted governments would address effectively.

Perceptions of governments as indifferent to or ineffective in dealing with environmental problems can be seen as a factor in building and maintaining membership in almost all of the stewardship groups described here, most strongly where the groups are primarily engaged in advocacy activities. Interestingly, members of the latter groups sometimes express resentment that they "have to do" what they believe governments should be doing, that is, protecting the environment. It is a fair guess that this sentiment is widespread among hard-pressed members of a great many advocacy-oriented stewardship groups.

Effectiveness of Stewardship Groups. To what extent do stewardship groups feel they make a difference? Those that emphasize hands-on and "Friends of . . ." conservation activities have clear evidence of their effectiveness in terms of wildflower planting in a park, stream reclamation, funds raised to provide interpretation at a local marsh, and the myriad of other tangible benefits that these volunteers provide. Many of these groups work in partnership with government programs and receive recognition for their efforts. In general, they are confident that their thousands of volunteer hours have changed things for the better.

Groups like P.A.L.S., the CWA and the Vancouver Island wilderness preservationists that emphasize advocacy activities usually had a clear sense that they had succeeded in achieving some of their important goals, and that without their efforts valued amenities would have been lost. They also credited themselves with strengthening public support for what they were advocating. But these same groups often expressed regret that they were not effecting basic changes in legislation, planning procedures or government intervention. Attempting to deal both with immediate, often urgent,

problems ("firefighting") and more fundamental causes of those problems—as do many of the groups that engage in advocacy activities—makes it hard for the groups or outside observers to decide what constitutes success, or even progress. Gains can be diluted (as was a park plan in Montreal), eroded over time (as P.A.L.S. witnessed), or simply delayed for long periods (as was pollution abatement in the Windsor area).

Groups are often torn between the desire to see outcomes as significant—in a "David and Goliath" struggle any gain is miraculous—and clear-eyed understanding of the limited nature of their effectiveness. Because leaders know how important it is for advocacy group morale to note milestones and to have a sense of accomplishment, they often report modest gains in some detail. Given the complex nature of social change, it may never be possible to determine exactly what part environmental advocacy activities play in effecting change. More case study material would be useful in pursuing the question, as would interviews with decision-makers in specific cases.

It is clear that while local environmental groups are increasing in number and visibility, surprisingly little is known about their members, activities, strategies, motivations or effectiveness. Their members must begin to document their stories. In the long view of history, these dedicated people—working to protect and rehabilitate their natural areas, to challenge polluters of their air and waters, to force responsible action and accountability from their governments—deserve to be remembered and recognized as the vanguard of a new environmental era. Looking to the future, they must be admitted to active, acknowledged partnership in government and private sector environmental initiatives. And, always, they have much to learn from one another.

MAKING STEWARDSHIP POSSIBLE

One thing that nearly all active stewardship group members complain about is the time-consuming nature of their activities. This is perhaps most true for advocacy and monitoring, which often are responses to situations that are seen as urgent. It is possible, however, that fresh supplies of time for environmental stewardship are about to be discovered.

Rapid technological change and the globalization of economic activity are re-structuring the nature and future of work in industrialized nations. There is now a clear, though barely-articulated question as to whether secure, full-time, adequately-waged "jobs" will be available to all who want and are qualified for them, at least over the next 30-50 years. It is quite possible that "jobless growth," under-employment and "contingent" employment will become the norm, as happened first in Britain and is increasingly the trend in other industrialized nations.[29] The stigma, personal suffering and social

costs that accompany unemployment and impoverishment are well-documented.[30] Paradoxically, we are also becoming aware that many North Americans, often in two-earner families, are working longer hours than ever, often not by choice, and to the probable detriment of their family wellbeing and community ties.[31]

These new realities suggest the urgent need for fundamental social change in several areas: (1) the distribution of income, traditionally tied to work for wages with which to purchase goods and services, because there will not be adequate, secure waged "jobs" for all who want them; (2) the definition and distribution of "work" in society; and (3) education at all levels, where objectives and methods have been geared primarily to creating "employees" of varying levels of ability.

Effective, democratic approaches to designing and implementing this social change must be found so that North America can maintain both socio-political and economic viability, and do so without sacrificing environmental quality to megaprojects and other well-meant efforts to "create jobs." While the need to deal with these economic and technological revolutions constitutes an almost overwhelming challenge, the new realities also offer the unparalleled opportunity to re-define what the human experience is about. Perhaps, at least technologically, we have won the game and don't know it—or don't know how take advantage of it. Perhaps, at last, humans can design lives that include time for a wide range of concerns and activities, with waged work as one among a mix of possibilities.

Without developing this analysis, which I do elsewhere,[32] I want to suggest that North American *social investment* in health, education, law enforcement, research and development, and infrastructure—which has made jobless growth currently possible and a probable trend for the future—should now begin to pay *social dividends* in the form of a well-designed guaranteed income program that would provide to every individual an income adequate to ensure that basic food, housing, health care and education needs are met. Combined with various work-sharing measures such as a shorter work week, job-sharing, sabbatical leaves, and restricted overtime, this approach to income distribution would allow individuals to choose lifestyles that included a balanced mix of paid "jobs" and societally-important work such as parenting, care-giving, artistic and preventive health activities, and—not least—environmental stewardship.

Would people use this opportunity wisely? From what we know of healthy people, who are by nature "doers," probably they would. A re-designed education system that stressed the development of excellent skills to facilitate lifelong learning, as well as the responsibility and enlightened self-interest involved in meeting community and environmental responsibilities, would underpin the new way of doing things. Over time, accepted societal norms would develop with regard to how much time and effort people "owed" the community. In the final analysis, if we manage to

implement this positive response to the new realities we face, we will create a society where the stewardship ethic becomes central to our relationships to nature, our communities and one another.

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Photo 6: Freda Rajotte, Facilitator

NOTES

1. S. Langton, "The New Volunteerism," in *Volunteerism in the Eighties*, J.D. Harman, ed. (Washington, DC: University Press of America, 1982), p. 15.

2. The Canadian Environmental Network (CEN) directory of environmental organizations in Canada, *The Green List* (2nd ed.; Ottawa: Canadian Environmental Network, 1993), had entries for more than 1,300 volunteer environmental groups. According to the CEN database manager in August 1992, there has been a steady upward trend in group numbers from 1988 to the present.

3. S. Lerner, *Environmental Stewardship: Studies in Active Earthkeeping* (Waterloo: University of Waterloo Department of Geography Publication Series 39, 1993).

4. See, for example, S. Hilts and R. Reid, *Creative Conservation: A Handbook for Ontario Land Trusts* (Don Mills: Federation of Ontario Naturalists, 1993). On the common property concept, see, e.g., *Alternatives*, 19,3 (May/June 1993). This concept is, of course, a far cry from G. Hardin's "commons," which were simply unprotected lands exploited without rules or communication among the exploiters, an extremely atypical situation with respect to actual common resources (see G. Hardin, "The Tragedy of the Commons," *Science*, 162 [1968]: 1243-48). For excellent descriptions of real-life commons management, see F. Berkes, ed., *Common Property Resources: Ecology and Community-Based Sustainable Development* (London: Belhaven Press, 1989).

5. See L.W. Milbrath, *Environmentalists: Vanguard for a New Society* (Albany, NY: State University of New York Press, 1984).

6. Festinger, *A Theory of Cognitive Dissonance* (Evanston, IL: Row Peterson, 1957); E. Aronson, "The Theory of Cognitive Dissonance: A Current Perspective," *Advances in Experimental Social Psychology*, L. Berkowitz, ed. (New York: Academic Press, 1969), pp. 1-34.

7. W. Fox, *Towards a Transpersonal Ecology* (Boston: Shambhala, 1990).

8. A. Dobson, *Green Political Thought* (London: Unwin Hyman Ltd., 1990).

9. Lerner, *Environmental Stewardship*, n. 3.

10. Ibid., chap. 10, "The Hamilton Naturalists' Club: Seven Decades of Volunteer Commitment" (C. Bishop, D. McLean, B. McHattie).

11. Ibid., chap. 4, "The Roles of Environmental Non-Government Organizations in the Fraser River Basin" (J. Gardner).

12. Ibid., chaps. 3 and 5, "Nongovernment Organization Involvement in Cooperative Wetland Management in Southern Ontario" (R. Kreutzwiser, S. Duff); "A Study of Ontario Environmental Stewardship Groups" (S. Lerner).

13. Ibid., chaps. 4 and 5.

14. Ibid., chap. 14, "The Stewardship Challenges of Two Nova Scotia Rivers" (O. Maass).

15. Ibid., chap. 11, "The Clean Water Alliance: Evolution of a Single-Issue Group" (R. Coronado).

16. Ibid., chap. 4.

17. Ibid., chap. 13, "Preservation of Agricultural Lands Society (P.A.L.S.): The Fight for the Fruitlands" (G. Janes).

18. Ibid., chap. 8, "Montreal's Green Coalition: Mobilizing for Parkland Protection" (J. Adams, T. Meredith).

19. Ibid., chap. 9, "STORM: Evolution of a Stewardship Group" (D. Alexander).

20. Ibid., chap. 14.

21. Ibid., chap. 15, " Old Growth Defenders: The Battle for the Carmanah Valley" (D. Tindall, N. Begoray).

22. Ibid., chap. 8 and T. Meredith, pers. communication, 1994.

23. Ibid., chap. 15.

24. Ibid., chap. 4 and 15.

25. Ibid., chap. 3, 4 and 5.

26. A.P. Pross, ed., *Pressure Group Behaviour in Canadian Politics* (Toronto: McGraw-Hill, 1975).

27. Lerner, *Environmental Stewardship*, n. 3, chap. 17-III, "How Field Naturalists Gear Up for Monitoring" (V. Martin).

28. Ibid., chap. 6, "Talking with Ontario Breeding Bird Atlas Volunteers" (L. Ordubegian).

29. See, for example, R. Hanna, "Unemployment in the 1990's: The Need for New Approaches to Employment and Unemployment—A Discussion Paper" (Ottawa: Employment and Immigration Canada, Planning Branch, June 22, 1993); Economic Council of Canada, *Good Jobs, Bad Jobs—Employment in the Service Economy* (Ottawa: Canadian Government Publishing Centre, 1990); B. Bluestone and B. Harrison, *The De-industrialization of America* (New York: Basic Books, 1982); M. Castells, *The Informational City* (Oxford, UK: Basil Blackwell, 1989); Province of Ontario, *People and Skills in the New Global Economy* (Toronto: Queen's Printer for Ontario, 1989); S. Zuboff, *In the Age of the Smart Machine: the Future of Work and Power* (New York: Basic Books, 1988); M. Gunderson, N.M. Meltz and S. Ostry, eds., *Unemployment: International Perspectives* (Toronto: University of Toronto Press, 1987); J.R. Beniger,*The Control Revolution: Technological and Economic Origins of the Information Society* (Cambridge, MA: Harvard University Press, 1986); R. Hanna, "The Future of Work," *Futures Canada*, 8,2,3 (Fall/Winter 1986): 9-12; C. Handy, *The Future of Work* (London: Basil Blackwell, 1984); W. Harman, "Chronic Unemployment: An Emerging Problem of Postindustrial Society," *Futurist*, 12(4) (1975): 209-14. The basic text on the Brundtland

Commission is World Commission on Environment and Development, *Our Common Future* (London: Oxford University Press, 1987). See also, for comment on the extent to which unemployment statistics underestimate the problem, D. Dembo and W. Morehouse, *The Underbelly of the U.S. Economy* (New York: Apex Press, 1993).

30. K.S. Newman, *Declining Fortunes: The Withering of the American Dream* (New York: Basic Books, 1993); N. Kates, *The Psychosocial Impact of Job Loss* (Washington, DC: American Psychiatric Press, 1990); S.C. Miller, *Unemployment: The Turning of the Tide? A Bibliography on the Social and Economic Impacts of Unemployment* (Letchworth, UK: Technical Communications, 1989); S. Fineman, ed., *Unemployment: Personal and Social Consequences* (London: Tavistock Publication, 1987); S. Kirsch, *Unemployment: Its Impact on Body and Soul* (Ottawa: Canadian Mental Health Association, 1983).

31. J.B. Schor, *The Overworked American: The Unexpected Decline of Leisure* (New York: Basic Books, 1991); B. O'Hara, *Working Harder Isn't Working* (Vancouver: New Star Books, 1993); see also P.L. Wachtel, *The Poverty of Affluence* (New York: The Free Press, 1983), pp. 243-60.

32. S. Lerner, "The Future of Work in North America: Food Jobs, Bad Jobs, Beyond Jobs," *Futures*, 26,2 (March 1994): 185-96.

A NOTE ON RELEVANT LITERATURE

Compared with the large literatures on social movements and social movement groups, volunteerism, and a wide range of environmental topics, relatively little research or even systematic descriptive material has been published about local environmental groups, although there are signs of growing interest in the groups. Recent examples are a study of local political mobilization in Canada and the U.S. under conditions of economic dependency (K.A.Gould, "The Sweet Smell of Money: Economic Dependency and Local Environmental Mobilization," *Society and Natural Resources*, 4 [1991]: 133-50), a survey to determine the leadership and staff training needs of U.S. conservation groups (D. Snow, *Inside the Environmental Movement* [Washington, DC: Island Press, 1992]), analyses of case study material to determine the value of citizen involvement in environmental decision-making (J.H. Hartig and M.A. Zarell, eds., *Under RAPS: Towards Grassroots Ecological Democracy in the Great Lakes Basin* [Ann Arbor, MI: The University of Michigan Press, 1992]; E. Pinkerton, *Cooperative Management of Local Fisheries: New Directions for Improved Management and Community Development* [Vancouver: University of British Columbia Press, 1991]; B.K. Landre, "Evaluating Public Involvement in Remedial Action Planning for Great Lakes Areas of Concern," M.Sc. Thesis {Ithaca, NY: Cornell University, Department of Natural Resources, 1991]; R. Paehlke and D. Torgerson, "Toxic Waste and the Administrative State: NIMBY Syndrome or Participatory Management?" *Managing Leviathan: Environmental Politics and the Administrative State*, R. Paehlke and D. Torgerson, eds [Peterborough, ON: Broadview Press, 1990]; W.R.D. Sewell, P. Dearden and J. Dumbrell, "Wilderness Decisionmaking and the Role of Environmental Interest Groups," *Natural Resources Journal*, 29 [1989]: 147-69)), and overviews of local environmental activities in Canada (D. Macdonald, *The Politics of Pollution* [Toronto: McClelland & Stewart Inc., 1991]), the U.S. (N. Freudenberg and C. Steinsapir, "Not in Our Backyards: the Grassroots Environmental Movement," *Society and Natural Resources*, 4 [1991]: 235-45) and globally (P. Ekins, *A New World Order: Grassroots Movements of Global Change* [London: Routledge, 1992]; A.B. Durning, "Mobilizing at the Grassroots," *State of the World 1989*, L.R. Brown *et al.*, eds. [New York: W.W. Norton and

Co.,1989], pp. 154-73). See also, J. Manno, "Advocacy and Diplomacy in the Great Lakes: A Case History of Non-governmental-organization Participation in Negotiating the Great Lakes Water Quality Agreement," *Buffalo Environmental Law Journal*, 1,1 (Spring 1993): 1-61, for a detailed account of the influence of Great Lakes United on IJC philosophy and procedures.

Photo 7: Stewart Hilts, Presenter

THE NATURAL HERITAGE STEWARDSHIP PROGRAM

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Let me add my thanks to the organizers, for this excellent symposium. I am sure many of you have learned a great deal from the rich presentations so far, and I know I have. Bringing an interdisciplinary group together like this always brings the chance to develop new perspectives—that is what we struggle with here.

First, let me acknowledge my own limitations. I am not a philosopher or theologian, and I may misuse some terminology that you take for granted. I have also learned a great deal from yesterday's presentations, and have rewritten much of this paper based on this.

In the Natural Heritage Stewardship Program the concept of private stewardship has been developed to describe the care given to their land by rural landowners. The program has focused on the conservation of significant natural areas in Southern Ontario, and used a landowner contact process to deal directly with private landowners. While there have been challenges in persuading government agencies to adopt this model, landowners have reacted very positively.

Similar programs have been run across the country, with similar positive reaction from landowners. Among conservation organizations, Wildlife Habitat Canada has shown particular leadership in promoting the "stewardship approach." In these programs, the term is used in a very specific, practical sense, referring to conservation of natural areas and wildlife habitat by private landowners.

In this context I will argue that the concept of private stewardship is a revolutionary new approach to conservation in comparison to the usual regulatory or purchase-oriented programs of the past. It is a concept which is used to encourage the further development of practical environmental ethics among landowners, and which appears to have major potential benefits as we search for new ways to achieve harmony with the earth.

It was therefore a surprise for me to read the description by Mary Ann Beavis (1991, p. 78), of stewardship as a ". . . shallow environmental ethic," which presupposes and potentially perpetuates ". . . exploitive, hierarchical, patriarchal structures and practices" in society. I also enjoyed hearing her say yesterday that she now sees some positive results apparently motivated by "stewardship."

In the first part of this paper, I will provide an overview of the Natural Heritage Stewardship Program, and explain how we came to use the term "stewardship" in this context. In the second half of the paper I will comment on the concept of stewardship, and suggest an alternate model for discussion.

The Natural Heritage Stewardship Program developed first in 1983, shortly after the formation of a coalition of groups interested in conservation of natural areas in Ontario. The coalition, known as the Natural Heritage League, was composed of both leading government agencies and non-government organizations which shared common concern over the loss of natural heritage to intense development pressure.

Initially, two pilot studies were run during the summers of 1983 and 1984 to establish how rural landowners would react to a direct personal visit, to encourage them to protect the natural features of their land. The response was overwhelming right from the beginning. Most rural landowners agreed with, or were sympathetic to, the conservation message, and all landowners agreed with the direct personal approach.

The first pilot studies were followed up with further programs in the summers of 1985 and 1986 in the Carolinian region of Southern Ontario, funded as part of the World Wildlife Fund's "Carolinian Canada" program. These studies specifically tested the willingness of private landowners to enter into voluntary or "handshake" agreements to conserve natural areas. The voluntary agreement concept and the landowner contact approach were both modelled directly after work by the U.S. Nature Conservancy, as described by Hoose in the book *Building an Ark* (1984).

The result was the development of the Natural Heritage Stewardship Award, a voluntary stewardship agreement which landowners could make to protect the significant natural area portion of their land. It involved a "handshake" commitment to the Natural Heritage League, in return for which the landowners received a plaque signed by the provincial premier honouring their commitment.

Landowner reaction during the following years when the programs turned from testing the idea to implementing this "stewardship program" continued to be positive. The program continued in Carolinian Canada for three years, and expanded to the Niagara Escarpment, and then to the Wetlands Habitat Agreement, which involves wetlands throughout Southern Ontario. The latter of these continues today.

During the presentation, the Natural Heritage Stewardship Program was illustrated with a short series of slides showing both natural areas and landowners. A wide variety of land-owners, both farm and non-farm, and a variety of sites across Southern Ontario have been involved.

Over these years well over 1000 landowners have entered into a voluntary commitment to protect the natural heritage on their land. Well over 40,000 acres of natural areas are now involved.

In addition, many landowners who do not wish to make an agreement with anyone, for whatever reason, can clearly be described as "conservation-minded."

In total there have been over 1300 landowners, owning over 40,000 acres of natural areas who have agreed to voluntary "Stewardship Awards."

Carolinian Canada Program	■ 436 landowners ■ 12950 acres
Wetland Habitat Program	■ 700 landowners ■ 26000 acres
Niagara Escarpment Program	■ 167 landowners ■ 4133 acres

Overall, approximately 40% of owners have made voluntary stewardship agreements, approximately 35% are termed "conservation-minded" and there are 25% who are never found, unavailable for a visit, or disagree with the program.

There are additional benefits. These landowners are now much more knowledgeable about the significance of their land; they are requesting further, more specific information, and they are politically more supportive of conservation at the local level in at least some cases. A newsletter, *Land Matters*, is mailed to all landowners, and other forms of follow-up including a booklet tentatively entitled "Caring for Your Land: A Stewardship Manual for Rural Landowners" are now being produced.

A number of major themes have become apparent during the operation of the program. These include:

1. A widespread positive landowner response;
2. The failure of government agencies to provide follow-up or integration of information;
3. The emergence of local Land Trusts and leadership of the non-government sector;
4. The building of support for conservation at the local level;
5. The promotion of an "ecosystems approach."

The major benefit of the program has been the recognition of landowners as potential partners in conservation, a perspective that opens the door to new avenues of co-operation between conservation groups and agencies. This is the revolution in perspectives that the program has encouraged, in contrast with earlier emphasis on regulation and purchase as the avenues through which to protect natural areas.

The fact is that the regulatory approach to conservation has often failed politically, but government agencies are hesitant to give up the power that rests in regulations in order to allow local communities to take control. Agencies have also failed to achieve integration of programs, policies and services. The result is that community organizations such as Land Trusts are emerging to provide leadership in this area.

In my opinion, landowner contact programs promoting private stewardship have the potential to raise awareness in local communities to the extent that political thresholds of support for conservation are passed. Such work with private landowners also promotes an integrated "ecosystems" approach in contrast to the sector by sector organization of agencies, since landowners prefer to deal with their land or its problems in their entirety, not discipline by discipline.

So why was the term "stewardship" used in the Natural Heritage Stewardship Program? The choice was entirely pragmatic, and was certainly not based on a theoretical or theological understanding of the term. In fact, I have avoided referring to this literature in preparing this paper, in order to bring you a purely practical view of the concept.

> Private stewardship programs can be defined as "experimental approaches to building a commitment on the part of private landowners to good land stewardship," or on the community level as "community responsibility for stewardship of land and water resources."

I take the term stewardship as we have used it in this program, to imply three things. First, it implies a degree of "care" for the land, by the landowner. Within this simple word "care," I believe the notion of leaving the land in at least as good condition as we found it for the next generation, in other words, using it sustainably, is also implied. Thirdly, regardless of your religious understanding, the term stewardship to me implies an ethical commitment. It is more than just management; it will sometimes require decisions that are not economically beneficial, at least in short run conventional economic terms.

By directly educating landowners as to the significance of their land, while also listening to all the concerns they express, we are trying to instill a practical land ethic, based on improved understanding of the environment. The anecdotal evidence we have from the program is that this approach works. There is also accumulating evidence of examples where local communities are taking greater responsibility for their own resources, with innovative results.

Let me turn now to comment on the concept of "stewardship," with some particular references to Beavis' article on "Stewardship, Planning and Public Policy" (1990), an article which partly provides the basis for this workshop.

In this paper, Beavis drew several cautions to the growing use of the term stewardship in planning circles, matching it to the term "sustainable development" in terms of its inherent conservative philosophy, and equating it with natural resources management. In comparison to the deeper understanding provided by Deep Ecology, Ecofeminism, Social Ecology and Bioregionalism, she suggested that:

> . . . the idea of human stewardship/management of nature fits well into the stratified, paternalistic structures of government and bureaucracies. . . . in political rhetoric, "stewardship" tends to be used to legitimize—even baptize—policies and programs that many environmentalists find inadequate, at best (Beavis, 1991, p. 78).

In many ways, let me say I agree with Mary Ann's cautions. As we heard in this symposium yesterday, as a concept, "stewardship" does have historic roots in a patriarchal, sometimes oppressive view of society. When a Hazardous Waste Corporation refers to the "stewardship of wastes" it controls, I think the term is being badly misused. It is also misused when it is used merely as a synonym for "conservation." But when it comes to my experience with private landowners in the Natural Heritage Stewardship Program, I think the term stewardship is a very useful one, and a revolutionary one which ecofeminists and deep ecologists should take note of.

My view is a very pragmatic one, and I must admit I don't worry as much as I should about terminology and language. I also believe in incremental social change, and in dealing with the mainstream—trying to shift the direction of the system.

In other words, we need a revolution, but how are we going to get there from here?

I do not believe that voluntary restraint based on ethics will ever be enough. Human use of the earth will continue in one way or another, if we are going to survive. We need to change behaviour; ethics will follow.

So, what about the term stewardship?

First, one argument against the use of "stewardship" is its inadequate Biblical basis. It clearly emerges from a patriarchal, hierarchal society. I take this as historical reality, and assume that values change, without eliminating the fundamental truth of religious ideas. For example, we do not condone slavery today, but this does not mean we dismiss the Biblical concern of caring for one another. We should not reject the term stewardship because of its historic use in the Bible.

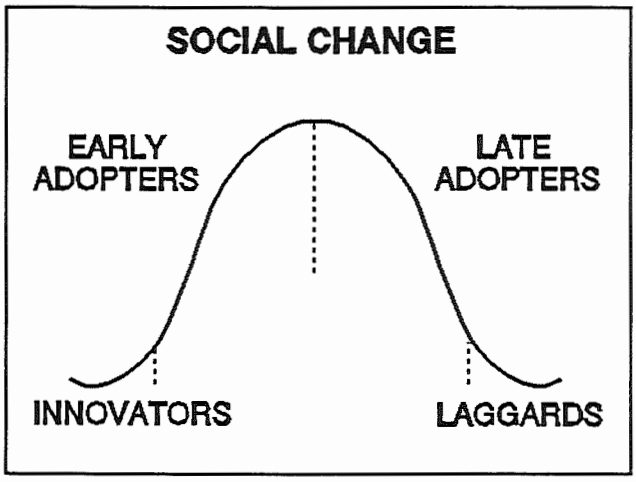
Second, I would argue that we do not need to choose between an anthropocentric or biocentric ethic—because we really need both. For most people, concern for future generations is the ethic that

will change behaviour. People care for their children and the world they are leaving for them. This is equally true whether you examine the ecofeminist and Native view, or the motivations of those who work in agriculture and business, even if it has been described as a "weak anthropocentric ethical position."

It is often said that exploitation of the earth is the same as the exploitation of women and other people (among whom I would include men). In my opinion, stewardship is anti-exploitive, or life-affirming of the earth *in content*, but at the same time it is life-affirming of people *in process*—based on respect for landowners and communities as well as the earth—as I have used the term.

This is not to say that stewardship will always work—as we have heard, a lot intervenes; as Dr. Dwivedi said last night, there is no shortage of, and no religious monopoly on, stupid greedy people! But stewardship does appear to have some ability to lead to fundamental change over time, through crossing political thresholds in local communities. And I say that from having seen it happen.

A third important aspect of stewardship as an ethic is that it provides a practical framework, based on behaviour, for social change in mainstream society. If you have read any literature on social change, you will recognize the accompanying diagram. Practices in society change through adoption of new patterns of behaviour first by innovators and early adopters, and then more slowly by late adopters, and finally the laggards—if the change is successful.



What we have to do is invent ways of being that make the new desired behaviour the norm for the majority of people. For example, the Environmental Farm Planning Program in Ontario is directed at eventually making the implementation of Environmental Farm Plans the norm. Today, it is only at the innovator stage, but it is moving toward a fundamental change in view . . . if it is successfully adopted by the majority of farm landowners.

In my opinion, small changes can lead to fundamentally new positions. If we want a new ethic of living on the earth, we have to start with small steps. People are much more willing to accept small steps in a new direction than a revolution in behaviour all at once. Concern for children and grandchildren is the admittedly anthropocentric starting point that will appeal to most in achieving this.

Two key principles that Mary Ann suggested in her article, and that are often found in the literature of ecofeminism and deep ecology are:

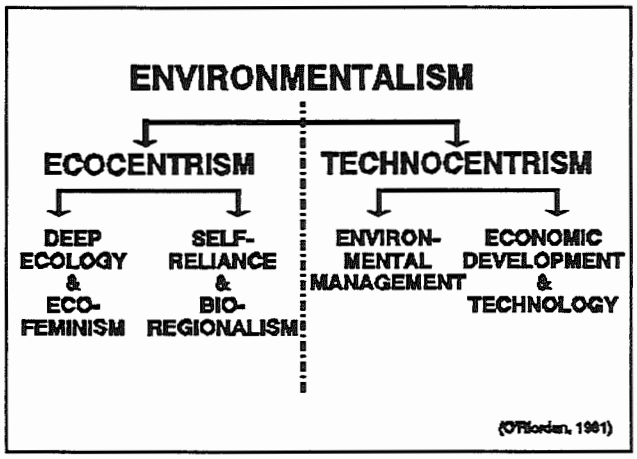
- self-reliance
- co-operation.

Stewardship as I use the term—applying to private landowners and community groups—embodies both these ideas, among others.

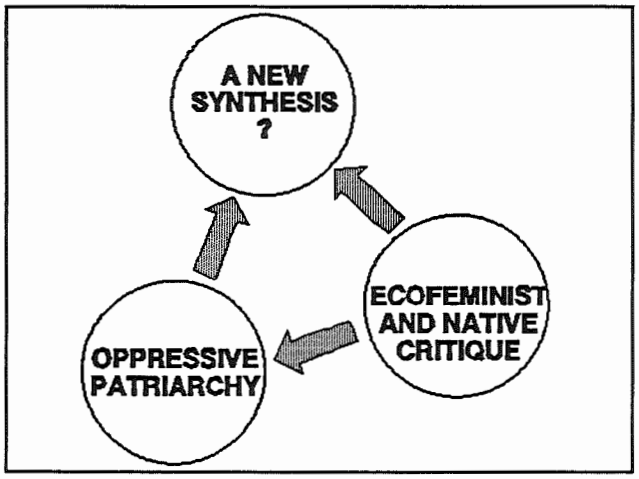
One of the key failures in our relationship with the earth is divorce of action from responsibility; we have heard a lot of this these two days. And it is all inter-connected. The scale of industry often destroys this connection, and the mandate of the bureaucracy destroys it (not the individual people in either of these situations). We must design ways to reconnect them, through landowners and community responsibility. This would be a revolution in "resources management" in Canada.

Along the way, let me note that I was asked yesterday if the concept of "private stewardship" could be applied to public land. This sounds like an intriguing idea, though we don't have time to explore the implications here.

Finally, let me turn back to the choice of an anthropocentric or biocentric ethical view. Mary Ann in her article cited a continuum of "Environmentalism" from O'Riordan, that is expressed in the diagram below. I have always had trouble with this continuum, because while I agree personally with the ethical end of the spectrum, a lot of "soft technology" also appeals to me, there is still the practical business of management to be done, and technology still has its benefits—whether in conservation, in computers, or in medicine.



I found myself thinking yesterday, what we need is really a new synthesis rather than a choice of biocentric or anthropocentric viewpoints. This new synthesis would emerge out of a shift from an old "oppressive patriarchy" through a very justified ethical reaction to this, to building something new.

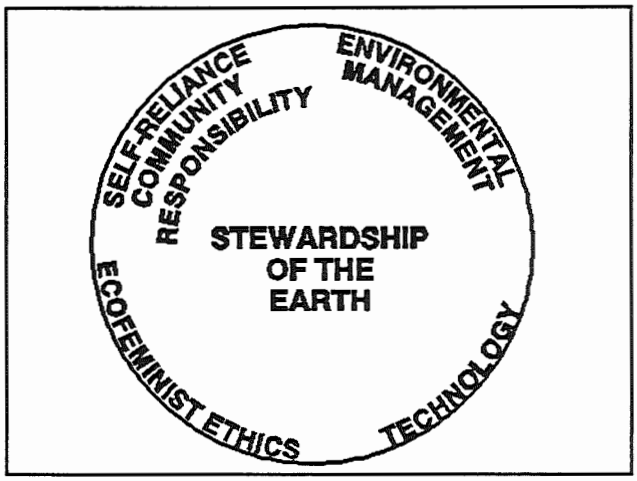


There is a tendency in the ecofeminist and Native critique, to dismiss all of the old as useless, but we must move beyond such critique to new practices that are a blend of old and new. For example, the feminist point of view has justifiably spoken out against the exploitation of women, but we now need a view of the world that includes a useful role for men. The biocentric view of the world is put forward as a reaction to current anthropocentric views, but in reality we need elements of both.

There is an enormous danger that a new synthesis will be merely new forms of exploitation. Whether it is or not, will depend on:

- the strength of our ethics,
- the scale of operations,
- the reconnection of action and responsibility for the consequences.

We cannot avoid the fact that we are the most influential species on earth, and have come close to destroying it. But to me, it is not a choice of patriarchy and oppression *versus* biocentrism—it is a question of *how we get there from here.* Stewardship as applied to private landowners and community groups can provide critical, practical and potentially revolutionary steps in the right direction.



In conclusion, let me come back to the image of the idyllic cottage on the shore of a lake. Such a cottage can easily represent an exploitive situation if uninformed by ethics and unconstrained by having responsibility for the consequences of your actions. But it can also be a very positive and life-affirming connection to the earth—whether cottage, garden or farm. The point is that there are elements of both anthropocentric and biocentric values here—a creative tension—in my terms, reconnecting the circle of life.

INDIGENOUS KNOWLEDGE SYSTEMS AND CROSS-CULTURAL ASPECTS OF ENVIRONMENTAL STEWARDSHIP

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Indigenous knowledge systems refer to localized knowledge systems unique to a particular society or ethnic group. Although ignored for many decades through a legacy of colonial neglect, many African governments are now recognizing these systems as a national resource that provides the basis for sustainable approaches to agriculture and natural resource management. By recording the indigenous knowledge and decision-making systems, development workers can understand how community-based organizations identify problems and attempt to deal with them through experimentation and innovation. A rapidly growing data base provides insights into highly creative contributions to the conservation of biodiversity and water and soil resources, as well as cost-effective approaches to agricultural and livestock production and management. This paper will summarize important steps taken since 1979 to incorporate indigenous knowledge into the development paradigm, steps that are providing the foundation for innovative approaches to development in the twenty-first century. One of the most significant steps is the establishment of a growing global network of indigenous knowledge resource centres that are influencing development policy. This network of formally established centres includes centres in The Netherlands, Indonesia, Nigeria, Ghana, Mexico, the Philippines, Burkina Faso, Sri Lanka, Cameroon, Venezuela, Kenya, Brazil, Madagascar, Uruguay, and South Africa.

In 1979, Robert Chambers edited a special issue of the *IDS Bulletin* and in 1980, David Brokensha *et al.* edited a book on *Indigenous Knowledge Systems and Development*. These were the first two publications that explicitly advocated a development paradigm that worked with and through and built upon existing knowledge systems for a given community. The 1980 collection of essays had:

> several aims. First, we are concerned to demonstrate the richness, variety and value of indigenous knowledge. Second, we think that rural development must include, as an integral part of all programs, this knowledge. We see indigenous knowledge as complementary to conventional science, which has proved to be inadequate, on its own, to solve problems of rural development.
>
> To incorporate in developmental planning indigenous knowledge: is a courtesy to the people concerned; is an essential first step to successful development; emphasizes human needs and resources, rather than the material ones alone; makes possible the adaptation of technology to local needs; is the most efficient way of using Western "Research and Development" in developing countries; preserves valuable local knowledge; encourages community self-diagnosis and heightens awareness; leads to

> a healthy local pride; can use local skills in monitoring and early warning systems; involves the users in feedback systems, for example, on crop varieties.
>
> These positive reasons—together with the negative reasons, such as the likelihood of failure without using indigenous knowledge—constitute a strong case for incorporating this knowledge in development programs" (Brokensha *et al.*, 1980, p. 8).

Two indicators of the increasing acceptance of this approach to development are (1) the growing number of formally established indigenous knowledge resource centres—including three global, two regional and fourteen national centres in North America, Europe, Africa, Asia and Latin America, and (2) the rapid spread of interest in indigenous knowledge from the fields of anthropology and geography into numerous other academic fields. In 1980, most of the contributors to *Indigenous Knowledge Systems and Development* were anthropologists and geographers. The contributors to *Indigenous Knowledge Systems: The Cultural Dimension to Development* (Warren *et al.*, 1994) represent two dozen academic disciplines including soil science, plant pathology, animal science, entomology, veterinary science, forestry, ecology, horticulture, agronomy, aquatic science, agricultural economics, and management science—in addition to anthropology and geography.

Proponents of the role of indigenous knowledge in development stress that this approach is the only viable one that will allow donor agencies to actualize the concepts of participatory decision-making, empowerment of local communities, sustainable approaches to development, and capacity building of individuals and institutions involved in development at the local levels. Since 1980, considerable effort has been directed towards understanding the reasons leading to the marginalization and neglect of indigenous knowledge, particularly in countries with a colonial heritage (see Slikkerveer, 1989; Warren, 1989; Jiggins, 1989).

Several indicators are available that show that the role of indigenous knowledge in sustainable approaches to development has moved from the margin towards the mainstream of development efforts, strongly setting the foundation for development in the twenty-first century. These indicators include newsletters that focus on indigenous knowledge such as *ILEIA News* (see Alders, 1985), *Honey Bee* (see Gupta), and the *Indigenous Knowledge and Development Monitor* (see Tick, 1993) that supersedes *CIKARD News* and is sent to more than 4,000 recipients in 112 countries. CIKARD sponsors monograph and bibliography series that make new studies available inexpensively and quickly. These include publications on the cost-effectiveness of incorporating indigenous knowledge into development projects (Titilola, 1990), and bibliographies on ethnoveterinary medicine (Mathias-Mundy and McCorkle, 1989) and on the management of trees (Mathias-Mundy *et al.*, 1992). A series of books on indigenous knowledge and development is being made available by Intermediate Technology

Publications (e.g., Warren *et al.*, 1994; de Boef *et al.*, 1993; Reijntjes *et al.*, 1992). Mainstream academic journals are including contributions on indigenous knowledge and development (e.g., Warren, 1991a; Pawluk *et al.*, 1992; Warren and Rajasekaran, 1993; Rajasekaran *et al.*, 1991).

The number of case studies on indigenous knowledge and development has increased at an enormous rate over the past decade. Each of the indigenous knowledge resource centres is establishing a documentation unit. CIKARD and SRISTI in Ahmedabad, India (Gupta, 1993) have each processed into computerized data bases nearly 4,000 documents. The number will continue to grow at an exponential rate as a growing number of committed individuals identifies more documents through the established centres. Examples of indigenous natural resource management include the following:

- **Cree Resource Management in the James Bay Region of Canada.** A growing number of analyses of Cree land-use management indicates a sophisticated approach to trapping, hunting, fishing, and gathering based on rotational systems that ensure that the resources are not overexploited (Berkes, 1977, 1987, 1988; Berkes et al., 1993).
- **Kayapo Biodiversity Management in the Brazilian Amazon.** The Kayapo Indians of Brazil consciously create forest islands that enhance biodiversity. On one island surveyed 75 percent of the 120 species identified had been planted (Posey, 1985).
- **Australian Aboriginal Resource Management.** Aboriginal knowledge of the use of periodic controlled burning of the bush results in an improved feeding habitat for game (Lewis, 1989).
- **Pastoral Resource Management in the Sahel.** Pastoral groups in the Sahel manage the grazing land through a rotation system known as transhumance (Niamir, 1994).
- **Micronesian Aquatic Resource Management.** The ecological knowledge of the inhabitants of Palau in Micronesia provides the basis for sustainable approaches to the harvest of aquatic resources (Johannes, 1981).
- **The Management of Biodiversity in Sri Lankan Forest Gardens.** Small-scale Sri Lankan farmers carefully plant dozens of species of plants in ways that take advantage of the characteristics of each plant (Everett, 1994).
- **The Rehabilitation of Ancient Andean Resource Management Systems.** Recent studies have discovered a vast complex irrigation system of raised beds (*waru waru*) on the high plateau around Lake Titicaca in Peru and Bolivia. The Canadian International Development Agency and Canada's International Development Research Centre have been instrumental in the reconstruction of parts of this system. It is now known that

this ancient system has numerous advantages over contemporary dryland potato production in the region (Tapia and Banegas, 1990; Erickson, 1993).

- **Balinese Resource Management.** The thousand-year system of rice production on the island of Bali has been managed through Hindu water temples. The system optimizes rice production (3 crops per year) and minimizes crop pests without chemical pesticides. Soil fertility is maintained without inorganic fertilizer, while the management of the water resource by the water temple priests minimizes social conflict (Lansing and Kremer, 1994).
- **Environmental Management in the Colombian Amazon.** Several small-scale societies in the Colombian Amazon have evolved a sophisticated system for managing the forest resources based on cosmological principles (Reichel, 1992).
- **Water Conservation Practices in the Sahel.** A systematic survey of indigenous approaches to water and soil management in the Sahel indicates a wide array of cost-effective conservation techniques in Burkina Faso, Mali and Niger. These include the construction of rock bunds, stone terraces, basin systems and small weirs. These techniques are also used to rehabilitate degraded soils (Reij *et al.*, 1988).

The number of workshops and conferences on indigenous knowledge and development also continues to grow. These include national workshops held in the Philippines and Nigeria sponsored by the Ford Foundation and one scheduled for March 1994 in Sri Lanka sponsored by SAREC and IDRC. Regional workshops include one for West Africa scheduled for June 1994 at the African Resource Centre for Indigenous Knowledge in Ibadan with IDRC support. The International Development Research Centre sponsored a global conference in 1992 that was held at the Asian regional center in Silang, Philippines, the proceedings being published in the second issue of the *Indigenous Knowledge and Development Monitor.* The European Community is helping to sponsor an international conference on indigenous knowledge in July 1994 sponsored by the national center in Indonesia.

Major international development agencies, both multilateral and bilateral, are increasingly concerned with the role of indigenous knowledge in development. Both IDRC (see Lalonde, 1993; IDRC, 1993; Inglis, 1993) and CIDA (see Obomsawim, 1993) have sponsored formal reviews of the potential role that IK could play in their development efforts. The World Bank has published a discussion paper on the topic (Warren, 1991) and sponsored a conference on Traditional Knowledge and Sustainable Development in September 1993. The World Bank also publishes *Vetiver Newsletter* which disseminates a growing data base built on an ancient Indian set of practices using this important plant (see National Research Council, 1993; Grimshaw, 1993). The U.S. National Research Council

has sponsored studies on indigenous knowledge. In addition to the one published on *Vetiver Grass*, there are also studies on *Neem* (1992b) and *Conserving Biodiversity* (1992a). Another NRC effort (1991) resulted in *Towards Sustainability*, the basis for the USAID-funded Collaborative Research Support Program for Sustainable Agriculture and Natural Resource Management, managed by the University of Georgia (see SANREM Ecolinks, 1993).

Agenda 21 called for major efforts to be directed to the recording of indigenous knowledge. Donors have reacted positively to these directives (see Widstrand and Aird, 1993). The United Nations system as well as the Consultative Group on International Agricultural Research (CGIAR) have been particularly responsive to these requests. The CGIAR Programme on Plant Genetic Resources includes a section on IK (see CGIAR, 1993). The Food and Agriculture Organization (FAO) has highlighted IK (see Herbert, 1993; Saouma, 1993) as has its International Board for Plant Genetic Resources (IBPGR) (see International Board for Plant Genetic Resources, 1993). In an important policy initiative, the IBPGR announced in 1993 that it intended to "take account of the human socio-economic and cultural aspects (SECA) of conserving and using plant genetic resources" focusing strongly on indigenous knowledge (Opole, 1993; see also Pandey and Chaturvedi, 1993). Ms. Elizabeth Dowdeswell, UN Under-Secretary-General of the United Nations Environment Programme and United Nations Centre for Human Settlements announced several initiatives directed at the indigenous knowledge of indigenous peoples (Dowdeswell, 1993).

The Society for International Development has provided a forum for other contributions on the topic (e.g., Blake, 1993; Mundy, 1993). Keynote addresses at major international conferences have included the topic of indigenous knowledge (see e.g., Warren, 1990; Warren, 1992a; Warren, 1993; Mathias-Mundy, 1993). The number of studies reflecting the wealth of indigenous knowledge within the developing country context is growing rapidly. Key examples are Atte (1992) on rural development, Massaquoi (1990) on off-farm technologies, Niamir (1994) on pastoralism, McCorkle and McClure (1994) on the indigenous agricultural research and extension system in Niger, Reij (1993) on indigenous soil and water management systems, Richards (1986) on indigenous knowledge on rice, and Warren (1992b) on indigenous Nigerian soil classification and management systems.

One of the most important areas of progress over the past decade is the realization that indigenous knowledge is merely the starting point of a dynamic cycle. This cycle includes analyses of the role that indigenous knowledge plays in indigenous approaches to decision-making, particularly the role that indigenous organizations play in providing community forums for identifying and prioritizing problems, leading to local approaches to solving or modifying these problems through indigenous creativity—often reflected in local-level experimentation and innovation. The results of this

creativity are discussed and evaluated, often through indigenous communication channels, with the results being incorporated into the indigenous knowledge system.

During the past decade the following lessons and principles have emerged that relate to the role of indigenous knowledge in development:

- IK is most overlooked in countries with a colonial past.
- IK is now being recognized as a national resource.
- IK has both strengths and weaknesses that are recognized by local people and can be identified by outsiders.
- IK can be compared and contrasted with international knowledge systems.
- All knowledge systems are dynamic, characterized by both continuity and change:
  - Change can be endogenous, reflecting indigenous creativity, and exogenous;
  - Change is predicated upon indigenous problem identification and solution-seeking decision-making; and
  - All decision-making/management systems are based on knowledge.
- Participatory decision-making in development is predicated upon common understanding of goals and objectives mutually defined by the client group and the change agent:
  - The onus for understanding the IK falls on the change agent; and
  - Local defined problems may be solved by exogenous technologies that a change agent can identify and present to a community for self-assessment—e.g., Neem tree biopesticide.
- Ethnic/linguistic diversity complicates the development and extension processes but diversity in indigenous knowledge is as important to preserve as biodiversity.
- IK training modules can be added to educational curricula, with recorded systems being deposited at national indigenous knowledge resource centres.
- IK can best be recorded and compared with international systems by interdisciplinary teams (e.g., anthropologist and soil scientist).
- IK is a cost-effective component in the development process that facilitates communications and understanding between clients and change agents.
- Indigenous and international knowledge systems are complementary—each can benefit from the other:
  - Mixed cropping and sustainable approaches to agriculture and natural resource management;

- Holistic medicine; and
- Social control mechanisms for common property.

- Capacity building is best achieved by working with and through, building upon, and strengthening indigenous knowledge and indigenous organizations for development.

In addition to the nineteen indigenous knowledge resource centres that have already been established, there are twenty countries in the process of establishing national centres. By the beginning of the twenty-first century, it is anticipated that most development efforts will be based on existing African knowledge and organizations that will facilitate truly participatory and sustainable approaches to improving the quality of life in every community.

Photo 8: D. Michael Warren—Indigenous Knowledge

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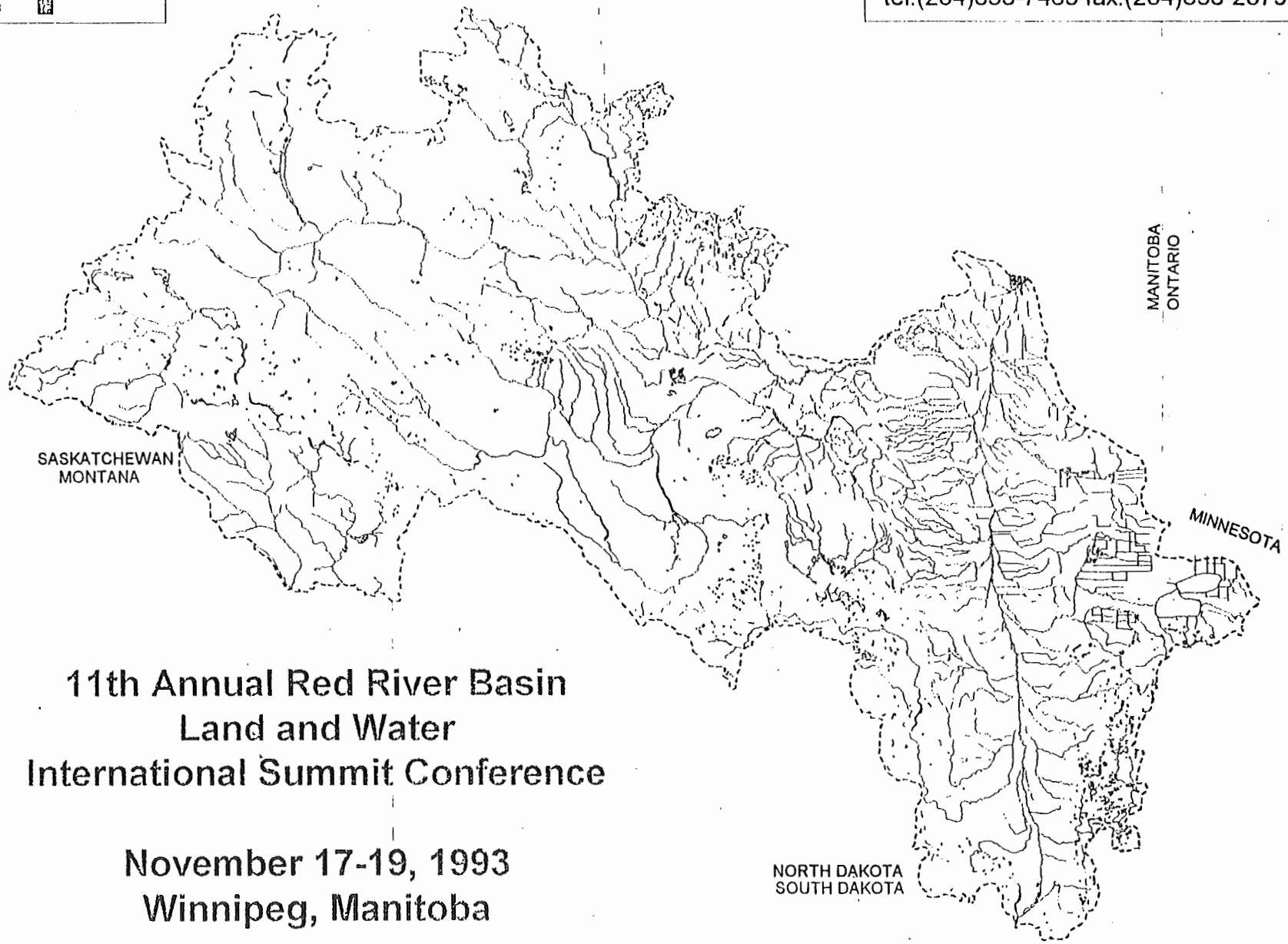

11th Annual Red River Basin Land and Water International Summit Conference

November 17-19, 1993
Winnipeg, Manitoba

STEWARDSHIP OR SUSTAINABLE DEVELOPMENT: WHICH APPROACH FOR THE RED RIVER WATERSHED?

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ABSTRACT

For more than a decade, The International Coalition (TIC) has promoted a vision of stewardship to address land and water concerns within the Red River drainage basin. TIC's success in fostering positive, lasting change on the landscape is now being evaluated; and course of action for the future will soon be established. How can emerging planning paradigms be incorporated without forsaking founding principles? One option is considered.

INTRODUCTION

ORGANIZATIONAL OVERVIEW

Since 1979, after severe flooding of the Red River affected many communities in Manitoba, Minnesota, and North Dakota, TIC has worked hard to collect and provide accurate information regarding the natural watershed systems and the human activities which affect all Red River Basin residents. TIC has been successful in creating a non-confrontational forum within which various interests from throughout the basin may learn more about their watershed and about each others' different needs and aspirations. Through education and project activity, TIC has also strived to promote stewardship solutions for economic, social and environmental sustainability within our watershed community. Through these efforts, TIC aims to assist local residents in shaping co-operative, credible, and effective consensus recommendations for use by decision-makers in addressing important land and water management issues. To this day, TIC, a registered charity, is the only such international transboundary effort in North America.

Currently, some 12,000 basin residents in Manitoba, Minnesota, North Dakota, and Saskatchewan are connected to the TIC forum, as defined by the hydrologic boundaries of the Red River drainage basin (Figure 1). TIC members include: approximately 10,000 citizens contacted via our Individual Membership Programme during the past year; more than 200 businesses; and some 170 local governments. These members receive TIC's balanced and unbiased information regarding Red River Basin issues; and are instrumental in helping shape TIC direction and activities.

TIC's efforts are now being focused on methods by which to apply its consensus approach to particular issues and areas such as specific sub-basins and communities of interest within the Red River Basin.

THE NEED FOR STRATEGIC PLANNING

By the above description, it may appear that The International Coalition has easily developed into a successful charitable entity, providing an interesting array of useful public services. However, the road has been long and not without its rough spots. After some success during the early 1980s, the organization fell into a period of unfocused activity in the latter part of the decade. This was then followed by a short burst of rapid growth in 1990-92. Unfortunately, this unfocused growth resulted in a set of severe problems which nearly destroyed the organization. Over the past year and a half, TIC has been working hard to get back on track—back with a 1994 version of its initial mission to assist local citizens in addressing the various land and water problems which generally affect the quality of life for the region's residents.

Today more than ever, non-profit organizations require a clear sense of vision. The goals comprising this vision must be clearly expressed within the organization's mission; and a plan must be developed to effectively carry out the mission over time. Too many organizations are disappearing these days because their missions are not clear, or expressed that way, even if the services they provide are considered beneficial to society.

It is now particularly imperative that charitable organizations, especially unique ones such as The International Coalition, have clear goals and plans. Government scrutiny of charitable groups is at an all time high right now; and organizations largely dependent on funds from the public sector are feeling the pinch. Combine this with a high level of scrutiny among the general public, a significant number of charitable organizations looking for money, and the current economic situation in Canada, and it is not hard to see why the effective presence of such organizations is being eroded.

John Bryson from the University of Minnesota has outlined the critical need for strategic planning among non-profit organizations. He uses the following very pertinent quote to highlight how a group must be aware of the opportunities, acting on them at the right time in order to be effective:

I skate to where I think the puck is going to be.

—Wayne Gretzky

HISTORY OF THE INTERNATIONAL COALITION

1979-1985: EARLY BEGINNINGS: THE NEED IS CLEAR WITH A CRISIS

In 1979, there was a major flood on the Red River. The problems were particularly severe near the international boundary where Manitoba, North Dakota, and Minnesota meet but are separated by the river. At that time there were strong local perceptions that the flooding problems were made worse by the drainage actions of landowners upstream. There was great tension among people across these political boundaries, between urban and rural communities along the river, and between various governments. There was even a case of farmers toting shotguns on either side of the Canada-U.S. border in order to *protect their own interests.*

This was by no means the first time flooding problems had inundated the region; floods are legendary in the Red River Valley. In fact, both flooding and drought are typically problematic, sometimes within the same year. Frustrated and feeling like their governments could not or would not do anything for them, a small group of people began talking to each other. Although they resided in different places—some in towns, some in the country, and some in different U.S. states and a Canadian province, there were a couple of common themes which brought them together. They believed the Red River Valley would be a better place to live if flooding and drought concerns could be addressed to some degree; and they believed all residents could work together to take better care of land and water resources within the region. Interestingly, many of the members in this small group were associated with the Lutheran or Mennonite faiths; and their churches were used to make more people aware of the issues.

The early efforts of this small group culminated in a meeting which saw some 800 people arrive in Fargo, North Dakota to discuss the problems of living in the Red River Basin. They all agreed: *that more could be done at the local level; that an organization should be formed to begin the task; that the entire Red River watershed should be considered regarding land and water management; and that a stewardship ethic should be promoted as the guiding principle in all activities and operations.*

Over the next few years, the organization was established and efforts began towards the achievement of several of the goals listed above. During this time, many local governments became involved in The International Coalition through a annual conference focused on a particular theme each year. Members received regular information regarding the issues, and TIC's stewardship approach. Talks were given to schools and community groups; and much public awareness was generated. Several staff were hired, and a permanent office established.

1986-1989: DIVERGING FROM OUR MISSION?

After TIC's early success, it became apparent that a significant amount of government and foundational funding could be available for many goals of the organization. Unfortunately, the criteria for these grants were fairly restrictive; and TIC began to take on projects which were somewhat distant from its original goals (i.e., GIS in Minnesota). Perhaps the group became tempted by the ease with which funding was available, and planned to get back to the initial mission at a future date, as a stronger organization. The reasons are not totally clear.

For whatever reason, TIC seems to have catered to the needs of government, and the interests of several large-scale funding organizations during this period. With a significant amount of staff and overhead at this time, it is likely that TIC would have had a difficult time surviving without these major grants. There were no serious floods during this period to focus the general public's concern, and thus support for TIC's efforts lessened.

1990-1992: DIVERGENT PROBLEMS THROUGH RAPID GROWTH

This period saw the hiring of additional staff to carry out the new projects, the purchase of expensive computer and other office equipment, and the establishment of a second office. Unfortunately, there were serious management problems; and work on various large-scale projects began to falter. With additional project costs, TIC was forced to obtain several bank loans to stay solvent. The magnitude of the problems was compounded by TIC's involvement in projects for which it was not really capable or had not missioned itself to do.

FROM THE PAST TO A NEW VISION FOR THE FUTURE

1993-1994: A COMMITMENT TO PLANNING

In July 1992, at the recommendation of an external advisory committee, TIC initiated a process of directional planning. Since that time, TIC Board members and staff have reviewed the organization's past; and offered some comments regarding future directions and dreams. Board members participated in a *mission and roles* workbook process; while staff met regularly to prepare a draft plans for the future. Conference directives received from TIC members in November of that year were also carefully considered; and the Board provided guiding feedback on an earlier draft document at their annual retreat in 1993.

Existing realities and specific issues facing the organization have been discussed at length. Much of this work has focused on the need to clarify who we are and why TIC should continue to

exist; and how to meet the challenges and opportunities we will face in the near future. Preparation of a concise draft mission statement, a comprehensive draft vision and set of values, and a draft three year strategic plan served to tangibly document the critical re-building process.

Now, after more than a year of reflection, TIC is ready officially to implement its new vision, mission, and three year strategic plan. In April, these tools will be formally adopted by the TIC Board; and an annual review process will be put into place. This will greatly assist all associated with TIC, making the roles of Board and staff clearer, and our successes easier to realize. It has been an exhausting process for many of us. Below, I outline some of the critical issues TIC has had to face in this process.

PAST PROMOTION OF STEWARDSHIP: *TALKING THE TALK*

Since the earliest days of the organization, TIC's driving principle has been the public promotion of the stewardship ethic as a means of approaching serious land and water problems facing residents within the Red River Basin. Back in 1979, this was a radical approach; as not many people, particularly the engineers who managed water, were of the view that ordinary people could help take care of the environment.

Consequently, TIC was able to attract much public interest in its efforts; and people in may parts of the Red River Valley—rural and urban people in two U.S. states and one Canadian province, began to understand each other better. They began to understand each other's concerns better; and they began to believe they could work together to address each other's concerns.

This public awareness was primarily developed through local governments. At that time, local government was perceived to be the "grassroots," the first representatives of local people. While local government may not be the real grassroots today, many local officials throughout the Red River Valley came to understand and accept the stewardship ethic promoted by TIC. Today, as evidenced by this workshop, "grassroots stewardship" has become a popular approach for addressing land and water management problems.

REAL CHANGE ON THE LANDSCAPE?

While local elected officials and many state and provincial government people throughout the Red River valley region appeared to be accepting the concept of stewardship, it would be difficult to prove that any tangible changes have occurred since 1979. TIC's vision of applying this principle to land and water management activities while keeping the whole watershed, and its residents, in mind has not yet been realized.

While there has been improvement in some areas, many of the same serious land and water management issues are as prevalent today as in 1979. Flooding and drought concerns still exist in many areas. Wetland drainage continues. Conflicts over the appropriation of water rights and distribution abound. Soil erosion by water and wind is still common; and a variety of other problems need to be addressed if the quality of life for future generations of Red River Basin residents is to be sustained.

WALKING THE TALK: STEWARDSHIP *ACTION!*

To truly become an effective agent of change on the Red River Basin landscape, TIC considered various models which could it could incorporate as part of its planning process. There was a desire to return to the organization's roots established back in 1979. The original vision of that small group of people who started talking to each other across the borders wanted to participate in a process where their individual input could translate into actual change on the landscape, towards the resolution of serious land and water problems which had plagued them for so long, and which no government could seem to adequately address. The process for change was to include the stewardship ethic as a foundation, but long-term change would only be demonstrated with tangible activity, not just public promotion and education.

As I mentioned earlier, that first small group of people got together to see what could be done to solve the various land and water problems which reduced their quality of life. These people began working together in order to improve their livelihoods; and to preserve a comfortable lifestyle for their families well into the future. This I believe, demonstrates a popular effort rooted in *self-interest*, not *altruism.*

I believe the term "stewardship" reflects the critical theme of *self interest* more than many people would care to admit; likely more than many people at this workshop would admit. However, self interest, not altruism is the one thing which drives us all to do most anything in life, especially when it comes to resolving environmental problems which may require changes in our lifestyle (i.e., effectiveness of water conservation initiatives).

So, today, most people see "stewardship" in the vein of "we should all do our part of take care of the earth." When our organization began re-thinking how we should plan our future, we began to wrestle with these concepts; and the definition of "stewardship" was not on the table for discussion or review. Stewardship is in our name: stewardship stays! was the prevailing attitude. However, TIC had to begin defining itself as an organization working for change on the landscape. How could we promote a form of "stewardship action?"

Some particularly helpful insight was provided by Dr. Ian W. Dickson, one of Manitoba's great thinkers as far as watershed management goes. He suggested that TIC should consider connecting its stewardship vision with the exciting possibilities associated with sustainable development:

> I would like to suggest that this coalition is uniquely positioned to capitalize on opportunities and circumstances that have, heretofore, never been available to such an organization. Should it chose, the Coalition can play an ever more significant role in influencing water and land use in the basin.
>
> There is a unique linkage between stewardship and sustainable development. Stewardship provided the vision and sustainable development provides the opportunity. Stewardship implies a strong measure of preservation, protection, and conservation while sustainable development, when interpreted in terms of environment and economy, extends the stewardship ethic to include business strategies, finance, employment and partnerships, audits and accountability. The opportunity to enhance and reinforce the mission of The International Coalition through the interests of sustainability is most timely. The knowledge and resources are in place, mechanisms by which to identify and deal with specific issue are well understood, the willingness to entertain partnerships and joint ventures is being fostered by a commonality of interest, and small well-organized groups know how to get the job done.
>
> The Coalition is likely to be most successful if it uses its small, focused organizations in pursuing sustainable development opportunities. These organized interests—properly structured and focused on their assignment, clear in mandate with professional and technical support, have proven to be one of the most effective and efficient mechanisms for dealing with land and water issues.*

INCORPORATING SUSTAINABLE DEVELOPMENT INTO THE PLANNING PROCESS

The TIC Board had been wrestling with how to address the concept of sustainable development for some time; as there was real concern that the foundational principle of stewardship could be lost in favour of the "new fad" of sustainable development. Many Board members have worked to maintain that TIC's stewardship roots would not be lost within the planning process.

Over time, Dr. Dickson's presentation will be viewed as a non-threatening means by which many of the important concepts behind sustainability could be introduced through and by TIC without losing the organization's stewardship vision. As such, TIC's planning process has continued with these themes in mind. Dickson's suggestion of the use of small groups of mutual interest to develop partnerships and joint ventures paves the way for TIC to develop actual land and water management initiatives within small measurable areas such as sub-watersheds. It is anticipated that exponential

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*Dr. Dickson presented the Banquet Address at TIC's 1993 Annual Summit Conference, Winnipeg.

benefits can be derived via this method when considering the landscapes and downstream communities within the entire Red River Basin drainage region.

CONCLUSION

Armed with its new vision, mission, and three year strategic plan, TIC will soon be ready to get back to the task at hand, helping residents of the Red River Basin to ensure a high quality of life for today's and all future residents of the region. TIC's prognosis for success is good as a long history of well planned activity rests behind its vision for the future.

The organization's founding roots have not been lost. TIC has undergone a process which has included taking stock of itself, re-focusing, and re-visioning for the future. The critical principle of stewardship has been supported by the action-orientation of sustainable development. TIC expects to become much more involved in tangible projects which improve the quality of the local landscape, local economies, and local people within the Red River watershed.

Photo 9: Evelyn Pinkerton, Presenter

CONCLUDING REMARKS

Mary Ann Beavis
Conference Co-ordinator

Biologist Edward O. Wilson, the author of the acclaimed book *The Diversity of Life* (1992) concludes that:

> The stewardship of environment is a domain on the near side of metaphysics where all reflective persons can surely find common ground. For what, in the final analysis, is morality but the command of conscience seasoned by a rational examination of consequences? And what is a fundamental precept but one that serves all generations? An enduring environmental ethic will aim to preserve not only the health and freedom of our species, but access to the world in which the human spirit was born.

The presentations and discussion that have taken place over the last two days have shown that stewardship as a well-developed environmental ethic, with a core of common values and principles:

- "new world view"
- responsibility to future generations, to nature, to God
- rights of future generations, non-human nature
- long-term thinking
- equity
- conservation, protection, restoration
- co-operation, consensus, conflict resolution
- local involvement
- watershed scale
- carrying capacity
- healing and integration
- sharing
- action-oriented
- practical
- voluntarism
- caring, concern
- commitment
- land, place highly valued
- the natural world is viewed as a heritage
- personal development, mutual support, empowerment
- compatible with sustainable development

Most of these qualities of stewardship are congruous with the viewpoints of ecophilosophies such as bioregionalism, social ecology, deep ecology, ecofeminism, *etc.*

Some significant criticisms of the stewardship ethic have also been raised:

- anthropocentric, dualistic, hierarchical, patriarchal—inadequate conceptual framework (from, e.g., an ecofeminist perspective)
- questionable historical/religious connotations (slavery, patriarchal household, "dominion" ideology)
- utilitarian—values nature for its usefulness to humans, not in and of itself
- management model rather than systems model
- liable to distortion, co-optation, being used as empty rhetoric
- culturally exclusive (e.g., is stewardship really a cultural equivalent of Dharma, compatible with Aboriginal/Indigenous spiritualities?)

Some questions that remain for me are:

- Can these reservations about stewardship be overcome to make it, as Wilson suggests, an ethical "common ground" for all concerned persons?
- Is stewardship profound enough to function effectively as a "foundational symbol" in environmental ethics, or should it be viewed as simply one useful symbol among many, both religious and non-religious?
- Is stewardship really a radical enough ecological philosophy to address the fundamental issues of survival facing life on Earth?
- Has stewardship been co-opted by political rhetoric ("stewardship of hazardous wastes") to the point that it should be replaced?
- What is it about the term "stewardship" itself that attracts and motivates people?

I hope that, like me, you have been informed and challenged by the discussions of the past two days. Whatever your interest in "stewardship," whether you are a proponent or a critic, a theorist or a practitioner, I hope that this event will enrich and deepen your commitment to environmental ethics and its applications. Despite the reservations that I expressed about stewardship in my introductory remarks, I am prepared to admit that the stewardship ethic, as articulated by various participants, is a "step on the way" to a more ecocentric perspective, which, as Karen Warren put it can "encourage religious believers and others to **rethink** their relationship to the nonhuman world in non-dominating terms."

APPENDIX 1:

WORKSHOP PROGRAMME

ENVIRONMENTAL STEWARDSHIP: HISTORY, THEOLOGY, ETHICS

DAY ONE - MORNING AGENDA

8:00 - 8:30 REGISTRATION AND CHECK-IN

8:30 - 8:45 OPENING REMARKS

"The Ethical Model of Stewardship in Theory and Practice"

"Stewardship" is a term that has been used for centuries to describe human responsibility within a religious/ecclesiastical framework, but in the twentieth century, the term has been taken up by policymakers and practitioners, as well as by theologians and ethicists, in the context of environmental ethics and practice. This presentation will briefly recount the history of the use of "stewardship" terminology, describe some aspects of the ethic of environmental stewardship - and arguments offered by its critics -, and present the rationale of the Workshop.

Workshop Co-ordinator: Mary Ann Beavis, Institute of Urban Studies, University of Winnipeg

Dr. Beavis has worked as Research Associate at the Institute of Urban Studies since 1989. Her research interests include environmental ethics, sustainable urban development, women's issues, housing and ethnicity and ethics and politics. She also co-ordinates the Institute's publications program, and is the founder and principal editor of the *Canadian Journal of Urban Research.* She has a Ph.D. in Divinity from the University of Cambridge, and Masters degrees from the Universities of Notre Dame and Manitoba.

8:45 - 10:15 SESSION ONE

"Environmental Stewardship: A Christian Theological Understanding"

Stewardship has become widely accepted as a framework for healing the broken circle of ecology, economics and ethics. It is also a foundational symbol pointing to basic beliefs about reality and about the proper relationship between humans and the environment. Liberal Protestant resources for freeing stewardship of dualistic and patriarchal overtones will be explored.

Presenter/Keynote Speaker: Roger Hutchinson, Emmanuel College, Toronto

Dr. Hutchinson received his doctorate in social ethics from Victoria University of the University of Toronto. He is currently a Professor of Ethics and Church and Society at The Centre for the Study of Religion in Canada. He has been invited to serve as the World Council of Churches' representative at an international seminar, "From the Rio Declaration Towards an Earth Charter," to be held in Assisi, Italy later this year.

RESPONDENTS: Freda Rajotte, Canadian Coalition for Ecology, Ethics and Religion
Jack Dubois, Associate Curator of Mammalogy, Manitoba Museum of Man & Nature

10:15 - 10:30 REFRESHMENT BREAK

10:30 - 12:00 SESSION TWO

"Imagining the World, Doing Justice"

The "world" we see and live in is literally an imagined one, a construction. Since the capitalist and industrial revolution (17th Century) we have been imagining it as an entity and resource base - with the resultant threat now to the ecological life-web that took billions of years to construct. Our deadly habits will not be changed if our deadly minds are not, and the language we express them in. Words like "stewardship," "environment," "resource," must be let go as being too human-centred. When, humbly, humans can see themselves as part of the whole (and not at the centre) we can do justice to reality and to the ecological web.

Presenter: Carl Ridd, Department of Religious Studies, The University of Winnipeg

Dr. Ridd joined the faculty of The University of Winnipeg in 1966 as professor and first Chair of the Department of Religious Studies, after having completed a Ph. D. program at Drew University, New Jersey, in Religion and Literature. His publications have been mainly in that area, although in the last 10 years he has addressed himself also to issues of religion and society/ethics. In 1973 he won the University's award for excellence in teaching and in 1989 its award for excellence in community service.

RESPONDENTS: Dr. Ijaz Qamar, Manitoba Culture, Heritage and Citizenship
Sandy Hyman, City of Winnipeg Councillor

ENVIRONMENTAL STEWARDSHIP: HISTORY, THEOLOGY, ETHICS

DAY ONE - AFTERNOON AGENDA

12:00 - 1:15 LUNCH BREAK

RIDDELL HALL CAFETERIA
MAIN FLOOR, CENTENNIAL BUILDING
A separate section will be designated for Workshop Participants and meals will be served directly to you at the tables.

1:15 - 2:45 SESSION THREE

"Environmental Stewardship: An Ecofeminist Philosophical Perspective"

This presentation will discuss the concept of stewardship and the importance of stewardship notions to ecofeminist spiritualities. The discussion will examine how to understand the philosophical significance of ecofeminist spiritualities, and where stewardship notions fit into ecofeminist spiritualities.

Presenter: Karen J. Warren, Associate Professor of Philosophy, Macalester College

Dr. Warren's main scholarly interests are in ethics, feminism (particularly ecological feminism) and critical thinking. She has guest-edited two special issues of *Hypatia: A Feminist Journal of Philosophy*; guest-edited four special issues of the American Philosophical Association (APA) *Newsletter on Feminism and Philosophy*; edited several anthologies and is currently co-authoring a book with Jim Cheney entitled *Ecofeminist Philosophy: What It Is and Why It Matters* (Westview Press, forthcoming, 1994).

RESPONDENTS: Karen Fox, Recreation Studies, University of Manitoba
Peter Miller, Chair, Department of Philosophy, The University of Winnipeg

2:45 - 3:00 REFRESHMENT BREAK

3:00 - 4:30 SESSION FOUR

"Treaty Rights: An Environmental and Economic Protective Device"

A case study of how attacks against Chippewa treaty rights in N. Wisconsin were a precurser to ongoing assaults against sustainable development and rural society. How we looked beyond racism and found common ground with others who share the upper Great Lakes as home. The description of the four forces at work when institutions of rural society are under attack: Misinformation, Intimidation, Rural Gentrification and Resource Colonization. This presentation is documented in *Walleye Warriours,* a New Society publication co-authored by Walt Bresette and Rick Whaley.

Presenter: Walter Bresette, Author/Lecturer/Community Organizer, Anishinabe Niiji

Mr. Bresette is a Lake Superior Chippewa from the Red Cliff Reservation in N. Wisconsin and co-author of *Walleye Warriours,* a recent book which documents Chippewa treaty struggles in Winconsin. He is the founder of Lake Superior Greens and co-founder of the Midwest Treaty Network and Anishinabe Niijii - a mining watchdog group. He is the co-owner of the Buffalo Bay Trading Company, a Native arts and crafts store. An independent radio producer, Mr. Bresette is also an Advisory board member of the Superior Radio Network and Arctic to Amazonia, and an alternate to the Indigenous Environmental Network.

RESPONDENTS: Dan Thomas, Native Education Branch
TBA

ENVIRONMENTAL STEWARDSHIP: POLICY AND PRACTICE

DAY TWO - MORNING AGENDA

MODERATOR: FREDA RAJOTTE

8:30 - 9:30 SESSION ONE

"Stewardship in Federal Aquatic Conservation Policies and Paradigms Beyond"

This presentation submits that stewardship itself will not bring about the societal changes required to address the global crisis. Rather a paradigm shift to a systems view of the world is appropriate and needed. Federal policies will be used to illustrate stewardship as an "environmental" rather than "systems" concept.

Presenter: Diane Malley, Manager, Ecotoxicology Section, Freshwater Institute

Dr. Malley is a Research Scientist, educated at the University of British Columbia (BSc, MSc) and the University of Michigan all in Zoology. Her views have in part been shaped by her extensive volunteer experience with environmental and women's organizations and scientific societies. She was a Chair of the Manitoba Environmental Council and a Chair for the Environment for the National Council of Women of Canada. Presently she is Treasurer for the Aquatic Ecosystem Health and Management Society and a member of the Board of Directors of Learning for a Sustainable Future, an educational program associated with the National Round Table on Environment and Economy.

9:30 - 10:30 SESSION TWO

"Local Environmental Stewardship: Training the Vanguard"

Research on volunteer environmental stewardship groups will be discussed in the context of the constituency-building functions of such activities.

Presenter: Sally Lerner, Associate Professor, Faculty of Environmental Studies, University of Waterloo

Sally Lerner completed graduate work in Political Sociology at Columbia University before emigrating to Canada in 1970 to join the founding group of an undergraduate honours degree program in Environmental Studies at the University of Waterloo. She has taught in that program since that time.

10:30 - 10:45 REFRESHMENT BREAK

10:45 - 11:45 SESSION THREE

"The Natural Heritage Stewardship Program"

The Natural Heritage Stewardship Program is designed to seek voluntary agreements from rural landowners to conserve natural areas. In this presentation, the history and results are described, and the concept of stewardship as it applies to rural landowners is discussed.

Presenter: Stewart Hilts, Director, Centre for Land and Water Stewardship, University of Guelph

Dr. Hilts has written five books, including two training manuals related to rural land stewardship. Over 3,000 rural landowners have been involved in private stewardship programs he has designed.

11:45 - 1:00 LUNCH BREAK

RIDDELL HALL CAFETERIA
MAIN FLOOR, CENTENNIAL BUILDING

A separate section will be designated for Workshop Participants and meals will be served directly to you at the tables.

ENVIRONMENTAL STEWARDSHIP: POLICY AND PRACTICE
DAY TWO - AFTERNOON AGENDA

1:00 - 2:00 SESSION FOUR

"First Nations' Leadership in Multi-Party Stewardship of Watersheds and Their Fisheries"

This presentation documents the first stages of a multi-party collaborative watershed management pilot project initiated by The Shoswap Nation in their Territory in southeastern British Columbia. The pilot project is examined in the context of province-wide fisheries conflicts, because it is an important attempt to create a situation in which these conflicts can be resolved, and a broadly-based local effort can be focused on improving fisheries or watershed management.

Presenter: Evelyn Pinkerton, Research Associate, School of Community and Regional Planning, University of British Columbia

For the last 10 years, Dr. Pinkerton has been researching different ways in which community-based organizations improve natural resource management by participating in decision-making. With the publication of *Co-Operative Management of Local Fisheries* she began development of the theory of how, why and when successful co-management evolves. In recent years, she has worked with various local or regional organizations to document and promote their co-management efforts.

2:00 - 3:00 SESSION FIVE

"Indigenous Knowledge Systems and Cross-Cultural Aspects of Environmental Stewardship"

An understanding of indigenous natural resource management systems provides the basis for participatory decision-making and sustainable approaches to development. This presentation summarizes efforts during the past decade to recognize the importance and powerful contribution of indigenous systems in the development process. Policy initiatives within the United Nations now recognize the importance of both cultural diversity and biodiversity. A growing global network of indigenous knowledge resource centres is facilitating this approach to development.

Presenter: Dennis Michael Warren, Professor and Director, Center for Indigenous Knowledge for Agriculture and Rural Development (CIKARD)

Trained originally as a biologist, Dr. Warren later completed a Ph.D. in Anthropology after Peace Corps service in Ghana. Currently a Professor of Anthropology and Director of CIKARD at Iowa State University, he has completed more than 50 international development assignments and published more than 100 books, articles and reviews, many of them dealing with the role of indigenous knowledge systems in sustainable approaches to development.

3:00 - 3:15 REFRESHMENT BREAK

3:15 - 4:15 SESSION SIX

"Stewardship or Sustainable Development: Which Approach for the Red River Watershed Community?"

For more than a decade, The International Coalition has promoted a vision of stewardship to address land and water concerns within the Red River drainage basin. TIC's success in fostering positive, lasting change on the landscape is now being completed; and a course of action for the future will soon be established. How can emerging planning paradigms be incorporated without forsaking founding principles?

Presenter: Bryan Oborne, Manager, The International Coalition for Land and Water Stewardship in the Red River Basin

Mr. Oborne is Manager of The International Coalition for Land/Water Stewardship (Winnipeg), a Canada/U.S. grassroots organization committed to environmental, economic and social sustainability of the Red River watershed, a 220,000 square kilometre region in the centre of North America.

4:15 - 4:30 WRAP UP

Workshop Co-ordinator: Mary Ann Beavis, Institute of Urban Studies, The University of Winnipeg

Photo 10: Keynote speaker Roger Hutchinson

Photo 11: Walter Bresette, Presenter, and Mary Ann Beavis, Conference Co-ordinator

APPENDIX 2:

WORKSHOP SUMMARY

ENVIRONMENTAL STEWARDSHIP: HISTORY, THEORY AND PRACTICE WORKSHOP SUMMARY*

INTRODUCTION

Since the 1970s, "stewardship" has gained currency among Canadians as an ethical guide to their interactions with, and responsibilities for, other forms of creation.

The term can be found sprinkled throughout official policies, planning documents, political rhetoric, academic studies, and the titles of environmental programs and organizations.

Stewardship's appeal seems intuitive, perhaps in part because of its association with some of the Christian biblical stories that traditionally have informed the lives and outlooks of many North Americans. As well, the ethic implies a more benign and prudent approach to human-nature relationships compared with the norms that have led to contemporary ecological problems.

But do the origins and theory of stewardship justify its widespread and sometimes uncritical adoption? Does the ethic represent a sea change in thinking about human purpose and roles within the universe, or is it just another catchword for incremental adjustments to the *status quo*? To what extent does its apparent magnetism at a conceptual level translate into environmental action? If positive results are achieved, does it really matter in what language or philosophical framework they are cloaked?

Questions such as these were the focus of Environmental Stewardship: History, Theory and Practice, an applied ethics workshop organized by the Institute of Urban Studies and held at the University of Winnipeg from March 10 to 12, 1994.

The event was designed to examine the viability of stewardship as an ethical paradigm or model of human responsibility for the environment. Specific objectives were to:

- bring together "theorists" and "practitioners" of environmental stewardship;
- engage these groups in constructive dialogue regarding directions for future research and practice;
- explore different perspectives on environmental stewardship; and
- contribute to research and practice in environmental ethics.

The proceedings were imbued with a creative tension. Participants recognized the catalytic qualities of stewardship, but also acknowledged the historical "baggage" which seems to sustain the construct as human-centred (anthropocentric), hierarchical and patriarchal.

Such characteristics make stewardship an inappropriate or at least insufficient model for those who advocate more fundamental transformation to a biocentric or ecocentric world view—i.e., where

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*Prepared for the Institute of Urban Studies by Deborah M. Lyon Research and Editorial Services.

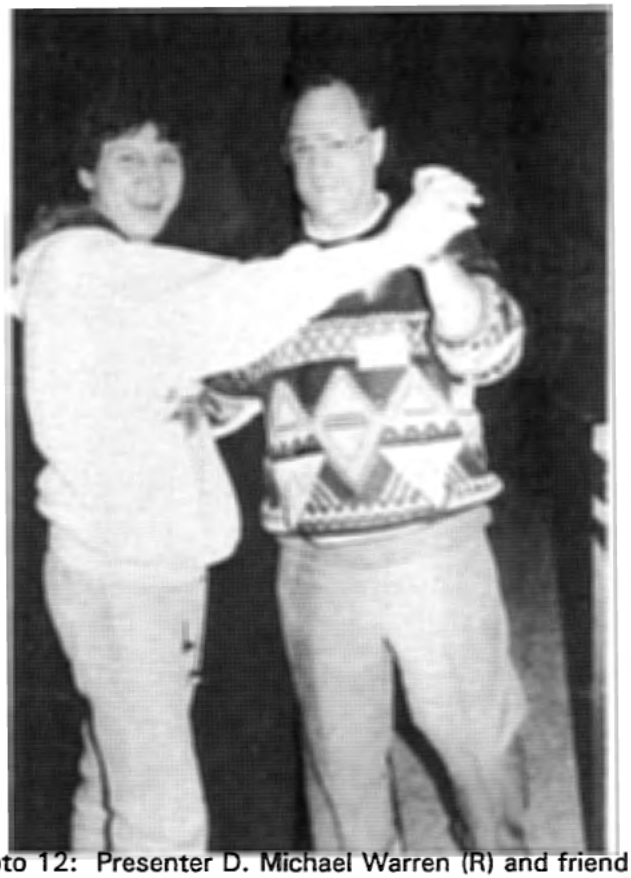

Photo 12: Presenter D. Michael Warren (R) and friend

Photo 12a: Jack Dubois, Respondent

humans perceive themselves, and consistently act as though they are, of and within the ecological web, not apart from, superior to, or in control of it.

In contrast, participants who saw continued merit and relevance in the stewardship ethic stressed its effectiveness as a motive for "good works" and noted that it is an evolutionary, not a static, concept. Moreover, in the search for new visions, standards and collaborations, stewardship may offer points of congruence, or a meeting place, around which people can rally despite differences in religious faiths, political ideologies and ecophilosophies.

These and other themes from the formal proceedings are summarized below.

THE ECOLOGICAL WEB

Two propositions about the state of human-nature interactions permeated workshop discussions without detailed elaboration or contention:

- This is a period of major ecological (and economic) crises both nationally and world-wide, with few, if any, prospects for early relief or reversal of the pressures. Indeed, it was suggested that time is rapidly running out, both for the business-as-usual option that has resulted in so much environmental damage, and for new initiatives that truly will redirect societies toward a more sustainable future.
- At root, these are moral crises, for they entail basic questions about human purpose, roles and responsibilities to one another and to other forms of creation (variously described by participants as the earth, universe, cosmos, biosphere, environment, life support system, natural world, nature, web of life, ecosystem and community of life).

Things need not be this way. Both spiritual traditions and twentieth-century science offer alternatives to the beliefs and behaviours that perpetuate excessive materialism, exploitation of people and other living species, and degradation of the inanimate environment.

SPIRITUAL TRADITIONS

Some of the most pervasive "grand narratives" or explanations about the basic order of the universe, along with prescriptions on how people ought to live in and relate to that order, are conveyed by spiritual traditions.

In the Eastern religions of *Hinduism, Buddhism and Jainism*, for example, Mother Earth is presented as the abode and source of nourishment for one large extended family system that incorporates every entity and organism. The creative spirit is present in each life form and inanimate object, all of which are interconnected in a harmonized whole. Since the large exists in the small,

every act has global and cosmic, not just local, implications. Respect for and care of others thus are integral to human activities.

It is further held that responsibilities, limits and restraints must be self-directed rather than externalized. Ethical guidance in this regard is provided by the concepts of Dharma and Karma.

The former term refers to the essential nature of living beings and objects. It also serves as a code of morality and duty. The true nature of humans is to act in a Dharmic way for the general welfare of all. This is achieved by seeking inner spiritual strength; by working for the social good (i.e., engaging in acts of service and avoiding exploitation of humans and other species); and by pursuing spiritual, social and moral virtues which maintain order, harmony and understanding in relationships with all creation.

The Law of Karma, simply put, is that each wilful act leaves a consequence in its wake. The effect may not be felt immediately or directly, but it will remain in the unconscious mind even through death to the next life. Karma thus is perceived as a universal energy that moves in an unbroken chain, connecting all beings and associating the causes and effects of past, present and future actions. Through careful consideration of alternatives, Dharmic activities can be undertaken with beneficial results. However, individuals (either now or in a later life), society and/or future generations will experience harmful repercussions from Adharmic actions (e.g., destruction of natural surroundings) which do not take proper account of potential consequences or the world's interconnectedness.

In the case of *Islam*, Koranic teachings were described to the workshop as holistic in approach. Emphasis is placed on unity, consistency and order; on balance and harmony rather than extremism or excessive behaviour; and on moderation in consumption. All creation is to be respected, and nature and ethics are to be integrated. Humans are to act as executors of the Lord's injunctions and as trustees protecting future generations. They are managers, not proprietors; beneficiaries, not ordinating forces.

Sikhism holds that humans and nature were created from the same light. They thus share the world with no essential difference existing between them. Moreover, survival of all life forms is closely linked with natural rhythms. Adherents are encouraged not simply to know and do God's will, but also to demonstrate a moral, responsible and selfless everyday life. The proper human-nature relationship is one that conserves balance and harmony; treats others on an equal basis; acknowledges responsibility for others; shares with all creation; and resists efforts at exploitation or control of nature.

Canadian Aboriginal spiritualities also speak to wholeness, balance, equality, respect, and intergenerational responsibility. While the specifics of each cultural tradition differ, there are shared notions that draw from a symbiotic relationship with the earth and recognition that humans and other

forms of life will die if they fail to understand, and act appropriately within, seasonal cycles and other realities of their environment.

All forms of creation are considered sacred and imbued with a spiritual essence. All exist to serve a purpose in intimate and delicately balanced interconnections with each other. Human life and spirit are no more or less significant than anything else. People should interact with other humans and the earth as if all were kin and worthy of respect and equal treatment.

There is a view of the natural and social (human) worlds existing in parallel, just as men and women have been placed on parallel roads to walk through life. Each can learn from the other and each has to be in balance. But, one cannot be the other, or overpower the other, and still remain true to self.

When humans use plants, wildlife, minerals, *etc.*, they must recognize that a spirit is being asked to give of itself so that people can live. There also are caretaking responsibilities, as reflected by concerns that what is done today could have repercussions tomorrow; that present needs should be balanced with the ability of creation to provide; and that humans should act in ways which ensure survival of the seventh generation.

Ecofeminist spiritualities were described to the workshop as earth-based, life-affirming and non-dominating beliefs, values, behaviours, and relationships among humans and toward non-human nature. They are a response to the ways of thinking and systems of domination which currently maintain patriarchal power and privilege over both women and nature, and which sanction beliefs and behaviours that result in dysfunctional consequences such as environmental damage, abuse of children and women, and the "feminization" of poverty. Ecofeminist spiritualities assume or posit some force, energy, being, or deity which can challenge and replace patriarchy with beliefs and practices that are healthy, functional and life-enhancing. This includes recognition of the intrinsic value of non-human nature.

As outlined later in this summary, discussions of *Judeo-Christian* teachings focused on biblical interpretations related specifically to the stewardship ethic. Of particular interest were the creation stories in *Genesis* which suggest humans were made in the image of God and assigned a dual mandate to have dominion over, and responsibility to care for, nature.

The presentations on spiritual traditions were not intended to constitute a thorough review or comparative analysis of precepts, nor was the objective to provide a systematic assessment of whether the stewardship ethic as it is generally understood has direct or indirect applicability across various religions or philosophies. Some participants also cautioned they were not implying that any one spirituality offers *the* answers to contemporary crises, nor were they ascribing blame.

There was a suggestion, however, that scholars give more consideration to the application of religious traditions in specific cultures; in particular, to questions such as what and why gaps arise between philosophies/ideals and actual practice. As a specific example, it was asserted that more attention should be given to the role of Christianity in the aggressive stance toward the environment found in Western societies.

What the workshop offered were glimpses into alternative views about humanity's place within the ecological web. The process revealed some themes or concepts that may offer a basis for interfaith and interracial dialogue and co-operation—e.g., wholeness, interconnectedness, balance and respect. A number of participants stressed that it was important for people to come together, listen to the essential truths offered by each spirituality, and seek ways to deal with their mutual tensions while still respecting different traditions. A concern was raised, however, around the current interest in the world views of Indigenous peoples. Note was made of the potential for a new form of imperialism to occur if people choose only to appropriate what they want from, rather than appreciating the fullness of, a given Indigenous philosophy.

FROM THE SCIENCES

Two themes were struck regarding secular perspectives on how the world works:

- Over the past 400 years, Western societies have adopted science-based paradigms that have served to separate humans from the environment and to sanction forms of organization, action and conceptualization that are increasingly dysfunctional in the face of ecological pressures.
- These societies have not integrated contrary evidence from twentieth-century science, but instead persist in seeking answers to their problems using the old paradigms.

The Scientific (Machine) Age which took off in the 1600s fundamentally changed the Western world view and the approaches employed by humans to understand the universe.

Emphasis was placed on this world rather than on the after-life. The focus of human inquiry shifted from "why" to "how" questions in an effort to discover the "natural laws" governing existence. Truth was sought through rationalism and what could be objectively perceived by the senses (scientific observation) rather than by abstract deductive philosophizing or divine inspiration. Human history was portrayed as linear, not cyclical; as full of movement and change, not static or predetermined; and as cumulatively progressing toward a more perfect state, not unfolding in decay and chaos as the Greeks had suggested.

Particularly influential in the early years were the theories of René Descartes and Sir Isaac Newton. The former held that there was a precise and predictable order to the universe which could

be identified and measured by mathematics; that all reality consisted of two classes of substances—thinking substances or minds, and extended substances or bodies; that human minds (reason) could be used to master nature; and that nature is simply matter in motion. Newton used mathematics to describe the space-time relationships of matter in motion and, thus, the fundamental principles of mechanics.

What emerged, then, was an orderly, predictable and mechanical world view in which physical phenomena were reduced to the motion of material particles; all effects had objectively discernible causes; and the qualities of life were separated from the quantities of which they were a part. Emphasis was placed on the analytical, objective, materialistic, and quantitative, while intuition, integration, synthesis and subjectivity were devalued. Most importantly, nature was portrayed as separate from, and outside of, humanity (and God). As such, it became something contingent to be cared for and used.

Attention subsequently turned to how natural laws applied to humans and their social institutions. Through the work of John Locke, Adam Smith, Charles Darwin, Herbert Spencer, and others, the mechanical world view came to embody notions of individual autonomy, material self-interest, subjugation of nature to produce wealth (i.e., "well-being"), private property, competitiveness, division of labour, and specialization. Progress in this context was seen as the process by which the natural world was transformed into things of greater human (material) value and order.

The paradigm of the Newtonian world-machine persists to the present even though, the workshop was told, it is not supported by contemporary science. In particular, discoveries and theories in physics have led to a systems view of reality—of the universe (including matter, energy, information and human consciousness) as a unified, indivisible whole. The real world is one of space, bits of energy and constant motion. Ultimately, there is no fixed structure to matter, only movement and interconnections. Moreover, those interconnections are independent of location—i.e., the subatomic units (quanta) which make up matter behave as if there is no separateness between them.

Integration of the knowledge that everything is connected to everything else, even if that is not how humans perceive their sensory world, will require major changes in secular beliefs and institutions and in how people relate to the life support system.

Pending this kind of paradigm shift, some scientists have proposed that sustainable human use of the earth be guided by an ecosystems approach which recognizes humans and nature are part of one system and seeks to address research and problem-solving in ways that are ecological, ethical, integrative, and anticipatory. Interest also is turning to the study of fully functioning ecosystems to

understand why they are healthy, what needs to be preserved, and what lessons can be applied to the restoration of environmentally degraded systems.

WHY THE CRISES?

Given the current state of spiritual and scientific knowledge, why is it that humans seem bent on acting out the biblical parable of the Garden of Eden by imperilling the very ecology upon which physical survival depends? Why are there such wide gaps between ethical directives and actual practice? Why aren't current scientific theories and empirical knowledge having more impact on beliefs, behaviour and institutions?

Participants put forward a couple of short responses to questions such as these:

- In simple terms, "stupid people" are the same the world over; no country, culture or religion has a monopoly on intelligence or stupidity.
- Ethics and morals are too often divorced from human pursuit of knowledge.

More detailed responses were as follows:

Materialism and Modernism: Contemporary human activity, it was argued, is characterized by an obsession with economic growth (i.e., material accumulation/consumption), ever-greater reliance on technology to transform nature (including basic genetic systems), and social apathy in terms of environmental consequences.

These are not just features of market or industrialized economies, but instead reflect a global race to achieve Western-style modernism. This race is driven by an assumption within less developed countries that all things Western—including scientific and technological knowledge—are progressive and good, and thus should be copied. Devalued or eclipsed in the process is the Indigenous knowledge which traditionally has been well-attuned to local ecosystems and has responded with sustainable agriculture and other resource-use practices.

Capitalism and the Newtonian World-Machine: Cartesian dualism, Newtonian physics and related concepts continue to be very compatible with the capitalist economic agenda. People living in advanced economies are not following through on the new science because they are too comfortable with prevailing paradigms. They retain faith in the idea of progress as measured by economic well-being and, when in trouble, they readily seek a "technofix" from materialistic and mechanistic approaches.

Indeed, one workshop speaker suggested the significance of the systems view of reality will remain ignored until the pain of changing major beliefs is less than the pain of living with the current dysfunction.

A variation on this theme concerned the need for economic change. The workshop heard assertions that:

- There has been an overdependence on the neoclassical economic model at the expense of the economics of collective action and common property.
- Ability to defend the earth will not advance very far without reformulation of the capitalist system as embodied by transnational corporations.
- The issue is not capitalism as such, but capitalism out-of-scale and beyond local or bioregional control.

A second variation on the theme was the argument that current problems relate to poor use of both science and political process since what and how science is used essentially are political questions.

The Self-Deceptive Power of Language: Newtonian-capitalist paradigms are beguilingly reinforced by everyday language—words so embedded and automatic that it becomes difficult for people to raise questions or to see things as they really are.

As one speaker put it, we live in an imagined, faith-ordered world. Our language invisibly establishes that world and encourages us to take it for granted. Reality thus is a linguistic construct much more than language is a cultural construct. Moreover, what we see and speak about depends on our social location and associated habits and assumptions. Viewed in this light, our descriptions of the natural world are just that—our narratives and the hubris of our imposition of those narratives over how the natural world might describe itself.

Among examples cited at the workshop to illustrate these points were:

- the essence of "life" reduced to "resources";
- a reference to the northern cod fisheries "crash" sounding analogous to a stock market crash;
- objectification of "the environment" as if it were a "thing" when it is not, nor does it "environ" humans except from their point of view; and
- habitat destruction described in economic and other tangible terms (e.g., as loss of merchantable timber or a fishery), but not as an ethical and theological loss from the "community of life."

Hierarchies of Power: The workshop was told that prevailing power relations also reinforce the old paradigms.

As described in one presentation, the real world of public policy-making is one where principles, practices and results are affected by economics, societal pressures and politics. The hierarchy of

power which applies when there are conflicting values and/or objectives generally starts with economics at the top, followed in descending order of importance by political imperatives, social pressures, ethical treatment of humans, and ethical treatment of nature.

A second presentation, which focused on an ecofeminist critique of stewardship, explored the following propositions:

- The prevailing hierarchy has been played out through patriarchy, a dysfunctional social system marked by unequal distribution of power, benefits and burdens and by "isms of domination"—e.g., naturism, sexism, racism, classism, heterosexism and ableism.
- The basic beliefs, values, attitudes, and assumptions which are used to justify this domination are exemplified by language which feminizes nature, naturalizes women, and positions both as inferior to male-gender identified culture. Women thus may be described as pets, chicks, bitches, old bats or hare-brains. "Mother Nature" may be raped, mastered, conquered, or mined. "Virgin" timber is felled; land that lies "fallow" is "barren."
- This oppression is based on a conceptual framework featuring:
  - up-down (not mutual, respectful or reciprocal) thinking;
  - either-or (not complementary and inclusive) thinking;
  - concepts of power and privilege that maintain power-over (not, for example, power-with) relationships; and
  - a logic of domination or justification which is pervasive, self-denying and unresponsive.
- Patriarchy may not be the only cause of environmental destruction, but it nonetheless perpetuates dysfunctional beliefs and behaviours that lead to activities such as strip mining, factory farming, water pollution, and unnecessary use of animals in experimentation, and to attitudes such as "man's God-given right" to exploit the earth and environmental damage as an acceptable price for "progress."

Social Fragmentation: In Western industrialized societies at least, modern life is characterized by profound fragmentation, disenchantment and real (as well as imagined) disconnection from nature.

There are no unified visions for public policy or shared standards for individual action. The circles which should unite practitioners and theorists, experts and citizens, environmentalists and planners, are broken. Urban dwellers, in particular, seem to have lost their sense of place in the cosmos and to be without any effective means of re-establishing it.

In part, it was suggested, the situation reflects a decline in adherence to religious traditions which formerly offered a sense of purpose, direction and wholeness of life through their grand (cosmic) narratives. But, the disenchantment also illustrates people's physical separation from the land and

from "gut-level" experiences within the ecosystem. As put by one participant, it can be very difficult for folks immersed in Western science, technology and consumerism to cut through the Saran Wrap and central heating to recreate a basic feeling of being in and of nature.

Economic Decline: Human pressures on the environment are exacerbated by current high debt, unemployment and other problems in Western economies.

The workshop was told there seems to be a lack of appreciation among Canadians about how brittle their economy is and, in turn, how that places the ecosystem at risk. More holistic approaches are needed to address environment-economy interrelationships and to begin moving toward a more sustainable system, it was argued.

One participant countered that perhaps the ecology and economy cannot both be maintained—i.e., if the earth does not survive, nothing else will. In reply, it was agreed the current economic system is dysfunctional. But, if it were to collapse rather than undergo more gradual transformation, the threat to the ecosystem could be even greater.

TOWARD RE-ESTABLISHING THE WHOLE

Several participants focused on the perceived need to change prevailing beliefs about human-nature relationships. If contemporary crises essentially are moral ones, it was argued, then solutions must be sought in individual and collective ethics. Moreover, it is through a major reorientation of value systems that people will begin to rethink and reshape their institutions, technology, and economic, social and political systems.

In one instance, it was suggested that new or reformulated grand narratives and "signals of transcendence" are needed—i.e., physical cues and/or stories which can give reality to daily existence in technological, pluralistic societies by helping people deal with the basic questions of life, including their place in the greater cosmic whole, and their duty and accountability toward nature.

The workshop was told that proposals such as this can engender powerful opposition from those wedded to empiricism or otherwise suspicious of metaphysics. Most people, however, still rely on some form of grand narrative to guide them through life, regardless of whether it is called a spiritual tradition or whether they adhere to an organized religion.

In other cases, speakers framed their comments in terms of reconceiving the world as something other than tightly ordered Newtonian and patriarchal paradigms.

Somewhere, suggested one, the energy must be found to stimulate a great imaginative shift where humans learn to redefine themselves as both in, and a product of, a living, dynamic ecological web—and not as consumers of an inanimate, objectified, external world. If this deep relation can be

established as a foundational experience, rather than an esoteric or mystical one, then people will want to stop polluting the air and water because they will see themselves in those phenomena and will seek to avoid self-injury. They will want, in biblical terms, to show that they know and obey God, and are prepared to enact their faith by labouring for justice which is, at heart, what God is. (Justice was described in this context as equity, evenness, non-exploitation, and the strong helping to empower the weak, thus building real community).

A second speaker called for rejection of the axiom that nature has no reason to exist except to serve humankind. Instead, what should be sought is environmental, along with economic and social, justice. At minimum, human activities should be such that they do not endanger the natural systems which support all life forms. This would entail establishing compatible limits on acquisitive materialism and the growth ethic.

In another presentation, it was noted that when ecofeminists experience non-human nature as intrinsically valuable, they gain a means for "getting outside" patriarchy. Once that is achieved, they are in a position to challenge and replace patriarchy's beliefs, values and behaviours with non-patriarchal and feminist ones. Ecofeminist spiritualities thus are more than an ideal or utopian vision of how the world might be different. They offer constructive empowerment strategies for the here and now—an antidote that can be used by individuals and groups within contemporary patriarchal culture.

Yet another participant called for a new synthesis of anthropo- and biocentric ethics, arguing that the two represent the extremes of a continuum, not an either-or choice. What ultimately will change behaviour is a very human-centred motivation—concern for our children (i.e., for future generations). Inter-human relations thus will reflect anthropocentric visions and values, but biocentrism should guide how people relate to (use) the earth.

What, then, might be the new grand narratives or syntheses? No explicit consensus was voiced at the workshop, although the thrust of public commentary conveyed a view of humans as part of—not apart from, at the centre of, or in dominion over—the ecological web, all elements of which come together as an interconnected and interacting whole.

Among other suggestions for building new visions were:

- Accepting the intrinsic value of the ecosystem.
- Valuing earth as mother/parent or a community of life, but not as a commodity.
- Regulating human activity by ecological norms.
- Becoming and acting as something more than human transients on earth.

- Being good corporate/individual citizens of the earth by being good citizens of where we work and live (e.g., by demonstrating respect for democracy/home rule, and for social, environmental and economic justice).
- Integrating an intergenerational perspective—i.e., ensuring survival of the seventh generation; recognizing that we do not own anything, we just borrow it from our children.
- Seeking balance and harmony in relationships.
- Anticipating imperfect human knowledge, error and uncertainty by incorporating appropriate avoidance measures and margins of safety in human activities that affect nature (i.e., the "precautionary principle").
- Promoting/protecting cultural and knowledge diversity, not just biodiversity.
- Affirming human life; incorporating concern for human as well as human-nature relationships; pursuing "human resources stewardship," especially in these difficult times when relationships are eroding (i.e., by showing respect for ourselves in relation to one another; also by valuing and preserving diversity).

Issues/Questions: Not all participants were convinced that the primary focus ought to be on changing ideals and beliefs. A number argued instead for an emphasis on action and behaviour.

This theme was underlined in different ways. Some participants held that people best respond to involvement in something practical. If behaviour can be changed through such activity, then beliefs and ethics will follow. Others suggested that incentives which tap the motive of self-interest may garner a more direct response than appeals based solely on stewardship as the right thing to do. In the area of water use, for example, it was noted that manipulation of pricing systems can be an effective means of achieving more appropriate patterns of consumption and conservation.

From yet another perspective on this theme, it was argued that having an agreement on ethical guidelines is not necessarily a guarantee that consistent action will result. Some key controversies in Canadian water and fisheries management, for example, have arisen, not because of a lack of principles, but because certain political decisions have been made that are contrary to established policies.

Participants also posed for further consideration a number of questions about human-nature relationships:

- How do we get in touch with deeply buried assumptions about the basic order of the universe and the proper end of human and non-human life? How do we replace the narrative of materialistic progress with richly diverse alternatives that teach about justice, participation, character, and good stewardship? How do we nurture those alternatives over time?

- Can we draw appropriate values out of our various cultures and traditions to establish a sustainable order?
- In defining new visions, is there a danger of appropriating fragments of different spiritualities in ways that create a new form of cultural imperialism?
- Is the sin of pride too deep to permit fundamental shifts in ecological world views? Is it possible to get humans to accept a view of the universe that does not put them at the centre? Is it only when humans find an economic use for a resource that they will support its management or wise stewardship?
- All forms of life modify their surroundings. Humans have been exceptionally destructive in this regard but, whatever care is taken in future, survival inevitably will entail continued impacts on the earth. Return to a mobile hunter-gatherer status does not seem a realistic option. What, then, should be the appropriate human-nature relationships? What specific types of changes are required in human beliefs, organization and conduct?
- We cannot start over as if all that humans have done in their history is bad and we now know all the good things we should do. What beliefs, values, science, technology, institutions, *etc.*, should we be retaining from our past and present?

What are the implications of humanity's cognitive and other capacities to analyze, alter and shape, not merely react to, other parts of the ecological web? Does this mean humans have distinctive powers, roles and responsibilities within nature? If so, what are they?

- Why do we shrink from the term "management"? Isn't management of human behaviour a key issue in environmental ethics and practices? Isn't management necessary where there is a resource (e.g., a salmon fishery) subject to multiple human pressures and/or more than one political/administrative jurisdiction?
- North American societies do not have the socio-cultural constructs that in other times and/or places enabled self-regulation and more balanced interactions with nature. How, then, do we establish human duty, responsibility and accountability toward nature? What can be learned and possibly applied from existing or past self-management models?
- If we deify nature, how do we develop a constructive ethic for its rapacious, parasitic and other similar features?
- If patriarchy were to come to an end, would excessive consumption, exploitation of nature, famine, *etc.*, also end?
- Does the metaphor of Mother Earth fuel patriarchy or denote respect, nurturing, a sense of kinship? Is it wrong to use this metaphor and, if so, what is the alternative?

THE CONCEPT AND PRACTICE OF STEWARDSHIP

THE TERM

Secular definitions of stewardship emphasize its managerial and servant dimensions. Stewards are said to work on behalf of others, supervising households, property, finances, legal affairs, official posts, groups of workers, clubs, or events such as balls, exhibits and races. In particular, stewards historically have been associated with food catering, table service and provisioning. This "attendant" aspect of their role has been applied over time to passenger service on aircraft, trains and ships.

Implicit in such definitions are:

- a hierarchical order of relationships between masters and subordinates;
- delegated, not inherent, authority;
- a mandate with defined or limited scope;
- relationships based on duty and trust; and
- accountability for performance and consequences.

Similar references to stewards as household managers, overseers and servants are found in Christian biblical usage. Some New Testament writers also employed the term to describe their responsibilities before God to preach the gospel and administer the church. By the nineteenth century in North America, this meaning had been extended to membership recruitment, fund-raising and social action by Protestant sects dependent on voluntary (*versus* state) support.

There are additional biblical versions of stewardship. For example, the second chapter of *Genesis* in the Old Testament suggests humans were put in the Garden of Eden to cultivate and take care of it. This implies a nurturing, respectful and benevolent approach to nature. Another image is that of the good shepherd who tends to the well-being of the flock. It too can stand as a metaphor for ecological practices that protect and preserve.

In contrast, the story in *Genesis 1* commonly has been interpreted as sanctioning a more despotic managerial relationship involving human dominion over, and instrumental exploitation of, other forms of creation. It was noted during the workshop, however, that:

- Later biblical writings speak of a more democratic, loving and procreating God.
- By being empowered to manage creation in the image of God, humanity has the obligation to understand and follow God's directives regarding the exercise of that mandate.
- If creation is understood as a single ontological order in which people are united with other species, then nature cannot be something apart from, inferior to, or of less intrinsic value than humanity.

In recent times, more secular connotations of stewardship have come to the fore as use of the term has evolved to denote appropriate management of time, talent, mission, money, and other aspects of human experience. Interest also has grown since the 1970s in stewardship's potential as an environmental ethic. This latter movement has struck a popular chord among policy-makers, planners, academics, environmental activists and lay persons.

With the 1987 publication of *Our Common Future*,[1] stewardship was joined in the lexicon by the term "sustainable development," defined as development which meets the needs of the present without compromising the ability of future generations to meet their own needs, given limits of technology, social organization and the biosphere's absorptive capacity.

The workshop heard one example of an explicit linkage between the two terms which has been made by the International Coalition for Land and Water Stewardship in the Red River Basin. As part of a recent evaluation and planning process, that group has reaffirmed stewardship as its foundational ethic, but is now proposing to become more action-oriented by adopting sustainable development as a strategy to guide implementation of local land and water projects, as well as management of coalition affairs.

At present, stewardship is a public-policy catchword, as indicated by British Columbia's Stewardship Pledge program, statements of principle by various environmental roundtables, the most recent version of Winnipeg's development plan,[2] and various other examples. Even when the term is not used explicitly, analogous concepts can be found in official documents, as illustrated during the workshop by an overview of Canadian fisheries legislation and policies.

Not all participants were convinced, however, that the rhetoric is being matched by real commitment and intent. Indeed, one speaker identified lack of government leadership and support for stewardship as a key issue for practitioners.

It also became evident during the workshop that stewardship has become a term of convenience, one that is applied sometimes unthinkingly as a kind of shorthand to describe what is being, or should be, done to address environmental issues.

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[1]World Commission on Environment and Development, *Our Common Future*, Gro Harlem Brundtland, Chair (Oxford/New York: Oxford University Press, 1987).

[2]City of Winnipeg, Review 92 Coordinating Committee and Board of Commissioners, *Plan Winnipeg: Toward 2010* (Winnipeg: City of Winnipeg, 1992 draft), chap. 3.

IN PRACTICE

The prevailing theme of discussion about stewardship in practice concerned the role this ethic plays as a stimulus and rallying point for community-based action. Field experience suggests stewardship taps both altruistic and self-interested motives within the populace and thus is a potentially powerful means of effecting change.

From Research on Environmental Activism: Recent survey work involving locally-based environmental groups has underlined that, indeed, self-interest is often the initial spur for stewardship activities.

People react to local pollution, an undesirable development proposal, or the loss of trees, fish or green space. They join sports and naturalist groups to learn about and enjoy "the outdoors." They preserve natural habitat and/or adopt different agricultural practices because they want land passed on to subsequent generations in at least as good, if not better, condition as when they first used it.

Over time, however, motives and perspectives tend to broaden as people become more knowledgeable about issues, more skilled in advocating or implementing change, and more frustrated by the inaction of government, business and others who have authority, money and expertise to make a difference.

The research data indicate that groups which begin with a single-issue advocacy focus tend to move on to broader environmental concerns, while those traditionally involved in outdoor sports, recreation and nature-watching often become more oriented to advocacy, education and/or hands-on projects because of threats to their valued places or species. Moreover, as their interests converge, citizen groups are engaging in new coalitions and other forms of mutual support.

Their organizations not only make a positive difference in local environments, but also serve as an ethical and political training ground for the "grassroots environmental vanguard"—i.e., people who are learning to identify with and care about nature for its own sake, and are part of a strong constituency pressing for proactive planning, conservation, education, monitoring and enforcement.

Most citizen-activists are not deep ecologists or ecofeminists. Indeed, they may not think about or express their involvement in terms of any type of ethical framework. Nonetheless, members of stewardship groups, especially those with little or no professional environmental training, appear to have an innate belief or feeling they are part of greater creation. One participant described the phenomenon as an unarticulated connectedness to spiritual roots, coupled with disconnection from the prevailing corporate ethic. In whatever way the phenomenon is portrayed, it needs to be recognized and better understood, the workshop was told.

While specific groups and individuals may come and go, it was asserted that community-based environmental activism is not about to disappear. The almost constant sprouting of new local crises means that the movement is unlikely to become redundant. Moreover, local groups tend to be highly dependent on volunteer effort and fairly resilient during tough economic times, perhaps more so than regional and national organizations whose activities can be seriously eroded by falling donations. Local groups can suffer from member burn-out and turnover. But they also can have staying power because they offer comradeship, a sense of coherence, shared vision, and tangible opportunities to build self-esteem and competence.

A couple of workshop case studies reinforced some of the points noted above.

For example, it has been found that rural property owners who voluntarily participate in the Natural Heritage Stewardship Program in Southern Ontario generally display a pre-existing sense of responsibility and commitment that seems to come out of an intimate relationship with the land. Once in the program, owners usually are motivated to learn more about their holdings and about conservation issues in general. Many also have crossed political thresholds to become active in advocacy or in projects such as community land trusts.

Another example underlined how a crisis can serve as the catalyst for pulling diverse interests together. The International Coalition for Land and Water Stewardship in the Red River Basin (TIC) was formed after serious flooding in 1979 led to open tensions between residents of North Dakota, Minnesota and Manitoba over drainage and other practices.

The idea for a cross-border organization grew out of discussions by a small group of rural and urban dwellers who believed that the effects of recurring floods and droughts could be ameliorated if steps were taken at the local level to improve care of the watershed. The concept attracted some 800 people to a workshop on river basin problems. TIC subsequently was formed to engage in various consultation, awareness-raising, research, and information-sharing activities, plus some specific projects.

There are now about 12,000 individual, government and business members. Their notions of self-interest, altruistic collaboration and stewardship—plus a commitment to have a forum for consensus-building and grassroots direction—have sustained TIC even though the coalition has experienced growing pains in recent years, some of its members are involved in potentially divisive water projects or proposals, and its work to date has not resulted in many tangible changes to the landscape.

Treaty Rights and Resource Co-Management: Co-management is an emerging partnership and power-sharing model for dealing with environmental problems that involve several parties, possibly

more than one official jurisdiction, and usually multiple and competing demands on a resource. In Canada, the concept is attracting attention as a means of implementing settlements related to Aboriginal land, food-gathering and other treaty rights.

A case study of one initiative which eventually may result in a formal co-management arrangement was outlined before the workshop. It involves a multi-party watershed management pilot project organized by the Shuswap Nation in Southeastern British Columbia. More specifically, the Skeetchestn Band has joined with ranching, sport fishing and other local interests to protect salmon stocks and habitat along the Deadman River near Kamloops.

This effort began in 1988 when band members and other residents formed a volunteer work party to address riverbank erosion. Other task-oriented groups followed, then in 1990, as part of a broader tribal council thrust to encourage watershed planning, the band set up the Deadman Valley Watershed Committee representing all area residents. Collaboration has continued since then, largely on a voluntary basis, with minimal access to funding and expertise, and only grudging acknowledgement from government.

The parties had other incentives to co-operate, however. People generally recognized that fish stocks were declining and habitat was being lost. They shared concerns about resource exploitation by non-residents and whether government policies, such as the federal maxim regarding "no net loss of productive capacity of habitats," would be sufficient to protect the local fishery. Adequacy of water supply also was an issue given the area's semi-arid climate and high demand for irrigation and other water uses.

Positive features which brought people together included a common understanding that the habitat had the capacity to support more fish if it were restored. As well, there were potential opportunities for local interests to intersect—e.g., erosion control measures would protect both fish habitat and ranchers' pastures. The watershed's relatively small geographic scale and sparse rural population further facilitated co-operation, direct communication and mutual monitoring.

It was the band, particularly a couple of key actors or "spark plugs," that took the first steps to build on this favourable context, motivated in part by the need to protect a resource on which its members depend. The legitimacy of its leadership was accepted. Once key connections were made in the broader community and people bought into the idea of joint action, the band was able to offer some logistical and technical support to conduct regular meetings, help with information searches, and co-ordinate work parties, among other tasks.

The initiative is now at a point where decisions are pending on questions such as whether the process should become more formal; how organizational burdens might be shared; what external

financial and technical support might be available for the committee's work; whether a formal watershed planning process should be undertaken, or whether people want to remain more issue- and project-oriented.

A second workshop example was drawn from Northern Wisconsin where the Chippewa have proposed a co-management and economic development program aimed at ecologically sensitive use of local resources. The plan derives in part from a belief that existing treaties provide a framework for attending to the area as a bioregion and for resolving current resource-use conflicts. As well, the treaties are perceived as one of the few remaining bases for legal remedy if environmental degradation occurs as a result of mining, forestry and other developments.

The proposed strategy includes provision for shared jurisdiction and decision-making by the state, Chippewa tribes, non-Native residents, and private companies. Among the specific program ideas are joint government and tribal enforcement of treaty rights; designation of the region a Toxic-Free Zone, with benefits for residents and businesses akin to those offered in urban Enterprise Zones; pollution monitoring and controls; and a 10-year environmental clean-up plan.

Indigenous Knowledge: Long ignored or marginalized, Indigenous (or community-level) knowledge is now being viewed as a source of fresh data and insights on the ecosystem, and as a basis for sustainable approaches to resource use, conservation and maintenance of biodiversity.

After many years of advocacy by its proponents, Indigenous knowledge is gaining increased recognition, both domestically (where it also is called traditional ecological knowledge) and in the field of international development.

This acceptance, the workshop was told, is facilitating cross-cultural exchange of information, technology and practices. It also is fostering reciprocal understanding of how different cultures make decisions and exercise self-management—moreover, that such processes are dynamic and thus subject to both continuity and change.

Attributes such as these have led to innovative, cost-effective technologies and practices that have application outside, not just within, the communities which are the sources of Indigenous knowledge. At the same time, it was noted that there is potential for exploitation through, for example, appropriation and commercialization of substances used in traditional healing.

The workshop heard about recent publications in the field, along with the growing global network of resource centres and computer data bases. Much still needs to be done, however, to preserve, translate and document Indigenous knowledge and to integrate it into education, research and development, environmental impact assessment, and other systems based on "international" knowledge.

ASSESSING STEWARDSHIP AS AN ECOLOGICAL ETHIC

No explicit consensus assessment of stewardship was voiced at the workshop. The spectrum of views on its efficacy as an ecological ethic ranged from a call to abandon the term because it is too representative of old paradigms, to support for its retention and continued conceptual development because it has utility as an agent of change.

Where participants stood on this spectrum seemed to be influenced by their:

- experiences with stewardship in action;
- perspectives on the extent to which the goal should be incremental or transformational change in ethics and behaviour;
- views on whether the most effective initial stimulus for change comes from ideals/beliefs or involvement in practical action; and
- expectations of what pragmatically is achievable in an ethical and socio-political context of fragmented visions and values.

The strengths and weaknesses of the ethic as identified at the workshop are listed in inventory form in Attachment 1. The following section contains a summary of the main arguments.

STRENGTHS AND WEAKNESSES

Integrity: Discussions about stewardship's ethical integrity and scope centred primarily on two interrelated points—anthropocentrism and the dual notion of stewards as managers (despots/masters) and gardeners (shepherds/custodians).

For participants leaning toward biocentric or ecocentric world views, stewardship simply is too human-centred. It is perceived to sustain the precepts that humans are apart from nature and that nature exists only to serve human needs and wants (i.e., that the ecological web does not have intrinsic value). As such, stewardship:

- separates, not unites, the steward and the ecology to be managed, tended or cultivated;
- evokes historical/biblical connotations of human dominion, power and superiority over nature;
- continues to sanction nature as possessions to be owned, subdivided, transformed, cared for, and protected; and
- also sanctions egocentric ideas of nature as somehow deficient and in need of human intervention, irrespective of imperfect knowledge and other human frailties.

The ecofeminist critique presented at the workshop offered a somewhat different analysis. Stewardship, it was suggested, does embody the notion of humans as part of nature—as members of a single ontological order known as the creation—but with a charge to be morally responsible before

God to preserve and protect the natural world in ways that reflect benevolent care and concern for the environment itself. The ethic thus has a place in certain theological contexts to encourage people to rethink their relationships within the ecological web in non-dominating, life-affirming terms.

The key issue from an ecofeminist philosophical perspective, however, is that stewardship is embedded in assumptions and practices which do not make explicit or challenge prevailing structures of power and privilege that underlie anthropocentric and androcentric models of human/non-human relationships. Stewardship is incomplete as an ethic or spirituality because it does not confront the values, beliefs, institutions, and behaviours which maintain injustice (i.e., the various "isms of domination").

Other participants searched for some sort of balance between anthropocentric and biocentric world views, and between the manager and gardener images of stewardship.

It was argued, for example, that human survival inevitably entails impacts on the ecosystem. At issue is what must be done to ensure responsible behaviour. Moral and philosophical guidance in this regard should not be presented as a choice between anthropocentric and biocentric world views but, rather, as a synthesis of the two. The latter can provide direction on how humanity should use the earth. Actual change, however, will arise out of a human-centred concern for future generations. As well, it will be through the anthropocentric perspective that people seek to affirm the value of human life and determine how they should relate to one another.

It was noted by another speaker that humans cannot evade the severe environmental consequences of their activities by now abdicating responsibility to nature, or by continuing to leave things in the hands of those who have been carrying out impacts on nature in humanity's name. There instead is a need to balance the managerial and gardener images of what humans are doing, drawing from understandings of stewardship that go beyond the anthropocentric, hierarchical assumptions of the creation stories in *Genesis.*

Material from *Isaiah* and other biblical sources points to a more democratic, procreating and liberating God. Also emphasized is the covenant of mutual trust, responsibility, faithfulness and morality that is attached to the gifts bestowed on humans so that they may plan, reason, shape, and manage, not as autonomous authorities, but as delegates working with and on behalf of God. In this respect, it was suggested, the challenges ahead are to restore the sense of purpose and wholeness that seems to have been lost by descendants of the Western intellectual tradition, and to re-establish some common understandings of what it means for humans to be accountable moral stewards.

Legitimacy of the Language: Consistent with the debates noted above, some basic differences were voiced over one aspect of the language of stewardship.

It was argued by some that the term reinforces old paradigms rather than empowering people to move outside those constructs to re-imagine their world. The concept does not help people see the forests, atmosphere, wildlife, *etc.*, as doing their own kind of work, as supporting or "stewarding" human life, and as having their own stories to tell, all in ways distinctive from what are conceived by human consciousness. Instead, stewardship has a very human-centred orientation. Moreover, it cannot be separated from its secular and biblical associations with the various "isms" of domination. In short, continued use of such a loaded word perpetuates undesirable precepts.

Other participants countered that stewardship is a redeemable concept—that it can be ecologically focused even though its biblical definition may not appear to be at first glance, and that its historical roots need not impede its evolution to a concept that better fits contemporary needs.

A second, language-related theme involved concerns that stewardship may wear out its welcome or begin to ring hollow because of overexposure and manipulation, especially in political and public policy circles, or in uses where the commitment to change is rhetorical only.

Potential to Effect Change: No major disagreements were aired regarding the apparent effectiveness of stewardship as an agent of action, if not fundamental change. Whatever meaning people attach to the ethic, it has become one they are prepared to run with, either as a statement of what they are practising, or as statement of intent.

The workshop did not explore in depth what reasons there might be for the ethic's public attractiveness other than its resonance among people influenced by Christian traditions. As well, no detailed attention was given to the question of whether stewardship serves primarily to inspire change or to describe, justify and/or reinforce it retrospectively.

Note was made, however, of the concept's simplicity and readily grasped connotations of caring, vigilance, protection, prudence, duty and responsibility. Characteristics such as these appear to offer positive and practical guidance for individual action at the local level. Stewardship thus is something people can do directly and something from which they can experience the satisfaction of tangible outcomes in return for their effort. The ethic also may be compatible with other key cues or motives for changes in behaviour—e.g., self-interest, sense of place, concern for future generations, desire for mutual support and co-operation, and/or interest in building local control and self-reliance.

What Kind of Change?: While not stated explicitly, the sentiment of the workshop seemed to be that stewardship essentially is an agent of incremental, not transformational, change. Challenges to its efficacy thus revolved around whether incremental change is an appropriate or sufficient end.

To the extent involvement in stewardship activity serves as an ethical training ground, and moves people to care about nature for its own sake, then some progress has been made, it was

argued. This is especially so in the North American context where it is hard for people to act in a protective way unless nature is providing them with something they want or need. Moreover, stewardship activity can serve as a stepping stone to political or other activism which may produce more basic change over time. In particular, the apparent motivation and empowerment the ethic offers for individual and locally-based collective action opens up possibilities for creative problem-solving alternatives to government intervention or inappropriate uses of capital and technology.

It was further suggested that incremental change based on practical experience is an effective approach to encouraging and sustaining participation in stewardship activity. This kind of exposure can be expected to build awareness and to shift values and attitudes. At the same time, it does not necessarily threaten or overwhelm people, perhaps turning them off the process or paralyzing them into inaction.

In contrast, participants who advocated transformational change, or perceived that gradualism may no longer be a viable option, found much to criticize in the stewardship ethic—in particular, that:

- It is management-oriented and thus focused on the current order rather than promotion of an entirely new one.
- It draws from a weak power base relative to the economic and political interests which generally lay claim to nature.
- It is not anticipatory or proactive.
- It lacks sufficient substance and implementation strategies to deal effectively with the complexity of contemporary ecological issues.

In short, from this perspective, the ethic essentially reinforces the status quo in power relations and in terms of the fixation with economic and technological development.

QUESTIONS TO CONSIDER

- Should we disregard the origins of the stewardship ethic, or should we be looking for alternative models? Can the objections to stewardship be overcome to make it a concept around which common ground can be established? Do we need common ground?
- Is stewardship an effective foundational symbol, or just one among many useful religious and non-religious metaphors?
- Does the term have resonance and applicability across religions and cultures, or does it denote another form of cultural imperialism? Is it, for example, really compatible with Dharma, or with principles arising out of Aboriginal and other Indigenous traditions?
- Is stewardship radical enough to address issues of survival?

- Has the term been co-opted to the point where it should be replaced?
- What is it about the term that attracts and motivates?
- Where do we locate responsibility? Who are the stewards/managers in an era of global economic reorganization and loss of national, regional and local control over production, investment, consumption, and democracy?

MOVING FORWARD

Conceptual Considerations

Two proposals for reformulating what stewardship might mean as an environmental ethic were put before the workshop. As well, attention was drawn to an apparent renewal of interest in what was called the "common property ethic."

- *Recreating the Circle of Life*

Participants were invited to envision stewardship of the earth as the core concept around which new connections can be made between human action and responsibility within the ecological web.

"Environmentalism," it was suggested, should be seen as the creative interplay, and not as a choice, between "ecocentrism" (deep ecology, ecofeminism, self-reliance, bioregionalism) and "technocentrism" (environmental management, economic development, technology). By using the image of a circle, these influences on human ethics and activities can be brought together in one visual whole. How well they are integrated, however, will depend on the presence of a core concept or value.

It was proposed that stewardship be promoted in this role. It already has shown its utility in stimulating behavioural change. It embodies principles that can effectively reconnect responsibility and action—e.g., principles of self-reliance, co-operation and respect for people as well as the earth. The ethic also is compatible with the need to build commitment and care at both the individual and community level. This last point recognizes that, if sustainability is to be realized, private market and public regulatory mechanisms must be complemented by many voluntary, collaborative and experimental local practices, some of which may not be "economic" in a conventional sense.

- *Redefining Stewardship*

To begin the process of rethinking what stewardship means in contemporary terms, the following phrase was suggested—"management for the long run," modified during workshop discussion to be "self-management, mostly with restraint, for the long run."

It was acknowledged that this proposal offers a strand rather than a complete ethic. In particular, it does not address the contentious matter of what values or ends "management" would strive to achieve. The original phrase also appeared to continue the old language that has been used to sanction human domination of, and intervention in, nature. The term, however, can be interpreted to include self-management and not just what humanity does to transform the earth. Indeed, it was asserted that some of the most significant forms of ecological management will have to be of humans themselves.

- *Toward a Common Property Ethic*

Several participants suggested that there is a movement toward a common property ethic or, at least, an emerging sense of community responsibility for stewardship of land and water.

This fledgling trend is indicated by the presence of community land trusts, conservation easements, designation of environmentally sensitive areas, and other like preservation initiatives, especially in places facing strong development pressures (e.g., Southern Ontario). The trend is welcome because it begins to establish the broader moral and structural supports needed to reinforce what individuals are doing to conserve natural heritage and otherwise resist urbanization or industrialization.

One participant argued that, as more people understand the implications of contemporary science, acceptance of a common property ethic should grow since it will become apparent that property rights, subdivision of land and related constructs are "laughable."

Moreover, the trend is consistent with human history despite Garrett Hardin's critique of the "tragedy of the commons."[3] True common property, the workshop was told, has always been governed by rules about use and shared responsibility, usually enforced through socialization and group pressure. As a result, models of effective self-management can be drawn from Indigenous cultures around the world. The problem in North America, however, is that no community of values exists to serve as a similar control mechanism.

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[3]Garrett Hardin, "The Tragedy of the Commons," *Science,* 162 (1968): 1243-48.

About Process

Workshop discussions about ends, or what ought to be, were accompanied by equivalent concerns about means—how to get from here to there and how to heal broken circles or, conversely, break insular patterns of orthodoxy which perpetuate faulty beliefs and actions.

Examples were cited from British Columbia, Northern Wisconsin and the State of Washington to illustrate the social unrest and environmental damage that can occur in the absence of effective communication, organization and problem-solving processes. Each case involved competing demands on fish stocks and habitat, including reaffirmation of Aboriginal rights to fish for subsistence purposes.

In British Columbia, sport, commercial and Aboriginal fishers have been embroiled in several conflicts over harvesting and conservation of migratory salmon. Tensions already have approached near violence on the Skeena and Fraser rivers. Additional pressures arise from proposals for alternative uses of water and adjacent land—e.g., for export, diversion, hydroelectric dams, waste disposal, forestry, and real estate development. If parties dependent on the fisheries cannot find a way to work together, they can expect to see continued loss of wild stocks and habitat to these other interests, the workshop was told.

Similar divisions over use of the fisheries in Washington turned so bitter in recent years that there was a major breakdown between otherwise natural allies. In the vacuum, destruction of fish and their habitat continued unabated. Among the results, further stocks have become extinct, others are now under severe stress, and alienation has grown between environmental groups opposed to extraction and Aboriginals who rely on the resource for both subsistence and economic exchange. These problems have attracted the attention of the vice-president of the United States; as well, costly planning processes are now underway in some 200 watersheds.

In Northern Wisconsin, open racism and intimidation greeted a U.S. Supreme Court decision that confirmed the right of the Lake Superior Chippewa to off-reserve subsistence food-gathering. Ostensibly spearfishing was at the centre of the controversy. However, an alliance of Native and non-Native people soon discovered the violence was a symptom of larger forces at play in the region. These included long-standing misinformation and poor public education about Aboriginal rights; displacement of family farms by agribusiness; a similar loss of independent local enterprises unable to compete with national chains; real estate speculation related to urban sprawl and "rural gentrification"; and plans by multinational firms to extract the region's mineral deposits. Added to the socioeconomic dislocation of rural society was the perceived erosion of local political control as both the state and

private corporations sought to proceed in unimpeded fashion with development of one of the last natural resource frontiers in the United States.

As outlined below, several process-related points were raised during the workshop. (Note: No order of priority is intended by the sequence in which the topics are listed).

- *Public Awareness and Dialogue*

Various participants commented on the need for more and better public education about environmental issues and protection/conservation options. Although polling data consistently show a fairly high degree of environmental concern among Canadians, questions were raised at the workshop about the quality and scope of public debate, degree of activism, and depth of commitment to real change.

Concern was expressed, for example, that governments place too much emphasis on legislative controls instead of education, even though the latter may achieve more lasting impact on how people value, think about, and interact with nature. Moreover, reliance on regulation tends to perpetuate the misperception of the environment as outside, rather than part of, human existence.

Another participant suggested that our political culture has yet to mature to a point where the "public interest" can be fully explored in open discussion of issues.

Note was made of the dysfunctional language of public discourse. Indeed, participants were urged to begin using their preferred terms as a way of exposing, and offering alternatives to, "the dead language of our disciplines."

Others referred to the biases, presuppositions and subjectivity that weigh on "knowledge" and "facts," and to the adversarial nature of public discussion—all of which can impede understanding and mask the true interests being served by any one perspective or testimony.

For reasons such as these, one speaker stressed, it is important to have inclusive and pluralistic debate as a means of engaging divergent views, challenging closed "circles of orthodoxy," and discovering gaps or weaknesses in available information and reasoning. This approach was taken, for example, when the House of Commons Environment Committee examined climate change. Its hearings provided a forum in which the veracity of scientific evidence could be assessed, including research by those who disputed that global warming was taking place and that it was linked to emissions of gases which cause a "greenhouse" effect.

The strategies employed to stimulate public awareness and participation also received some scrutiny. It was noted, for example, that the quality of information may vary depending on where an issue or policy is situated in its life cycle. In the case of global warming, some of the official documents released by the United Nations prior to the 1992 Earth Summit were long on exhortation

and short on hard evidence because their main purpose was to arouse public opinion. The data became more detailed and complex once the drafting of a convention on climate change was underway.

This issue will enter yet another information and decision-making phase after the convention comes into force in March 1994 when attention will shift to implementation, monitoring and evaluation activities, including the negotiation of action plans. These tasks, it was noted, will provide concrete settings for testing ethical convictions, breaking old circles as different interests emerge, and forming new circles.

- *Problem-Solving Models*

One weakness identified at the workshop is the apparent dearth of innovative models for consultation, coalition- and consensus-building, joint planning, and collaborative action between diverse and potentially competing interests.

Multiple voices may enrich public debate and appeal to democratic ideals, but they also can contribute to the fragmentation of our time. As framed by one speaker, there is a need to heal broken circles between various entities in society, but in ways that respect existing religious and philosophical differences regarding the basic questions of life. It was asserted that it is possible to develop shared techniques of problem-solving, while retaining the integrity of the parties' fundamental beliefs.

Some alternative models—e.g., resource co-management and a consensus-building experiment by the Calgary Institute for the Humanities—were outlined at the workshop. References also were made to governments' current interest in multi-stakeholder consultations.

In general, however, it was suggested more developmental work should be done on structures and processes that may help bring people together and advance them beyond rhetoric to meaningful and concrete points of decision or action. It often is in that movement from the general to the specific that existing processes are vulnerable to collapse, perhaps because fundamental disagreements cannot be bridged, the limits of participant commitment are reached, or resistance is engendered by efforts to arrive at compromise and consensus.

Poor use of problem-solving models also was cited as a concern. In particular, governments were criticized for engaging on occasion in superficial consultative processes, failing to act on directions received from the public, and overemphasizing input from corporate, organized labour and national environmental groups, sometimes at the expense of contrary local opinion and interests.

- ***Interactive Theorizing***

The Calgary Institute initiative mentioned above was an exercise in which theorists drafted stewardship principles on the issue of climate change, then engaged in a group process where

scientists, industry representatives and others attempted to apply the ethical framework to their areas of expertise.

The group proceeded on the assumption that global warming was occurring and that one cause probably was the greenhouse effect. Members then went through various discussion and decision-making steps, beginning with the consequences of climate change, where it was anticipated agreement on principles could be maximized, then moving to more contentious questions of rights, obligations, means, and ends. Another layer of perceptual change involved the group's evolution from adaptation responses (how to deal with climate change) to avoidance (how to stop or prevent the human activities causing the problem).

It was reported to the workshop that the Calgary project's ethical framework and shared language did facilitate clear, effective debate and integration of pre-drafted conceptual tools into the group's reflections. There were, however, two main limitations to the model:

- The consensus reached was fairly abstract or general—i.e., at the level where it may be easiest for theorists and practitioners to form circles of agreement.
- The process was delimited by the decision to accept one scientific perspective on global warming rather than engaging in a fuller initial debate over conflicting scientific claims. Again, people may be most comfortable functioning in circles that share similar ways of looking at issues. This offers a sense of coherence and mutual reinforcement, but it also can be a recipe for circles of orthodoxy which avoid or deny challenges to their internal consensus and fail to interrelate with other circles.

Based on this experience, it was suggested that a more comprehensive framework is required to incorporate debates about whether global warming is a problem and, if so, what its significance is, what responses are needed, and how people should go about making actual decisions on policies and actions, taking into account stewardship principles and potentially conflicting ideological, cultural, gender, religious and other claims.

- *Other Cross-Disciplinary Initiatives*

During the workshop, several references were made without elaboration to the importance of expanding interdisciplinary structures and processes in areas such as education, planning and program/service delivery.

Such approaches are needed, it was argued, to give tangible effect to the systems world view. Yet, in education as one example, support for cross-disciplinary programs at the post-secondary level is not readily forthcoming. In terms of government service delivery, as another example, rural landowners in Southern Ontario have long complained about the fragmentation of expertise and

mandates which makes it difficult for them to access comprehensive advice on how to preserve their natural spaces (i.e., their mini-ecosystems).

- *Treaty Rights and Resource Co-Management*

It was suggested to the workshop that there currently is a rare "window of opportunity" in Canada to press for broader implementation of co-management and other co-operative planning/decision-making models, especially in relation to treaty/land settlements with First Nations. If concerted effort is not made to build on governments' interest in the paradigm, however, concern was expressed that the moment might be lost and difficult to recapture in future.

- *Indigenous Knowledge*

As with resource co-management, mainstream recognition of the importance of Indigenous knowledge has reached a critical turning point. Much remains to be done to record such knowledge and to establish its credibility and legitimacy among academics, policy-makers and practitioners.

- *Community Responsibility and Control*

Implicit in some of the points listed above is the theme of community-based action on environmental issues. A few workshop participants also raised this topic explicitly, suggesting more emphasis could be placed on establishing (or restoring) authority, responsibility and capacity at the local level.

Even when a situation calls for a more broadly-based response, better use might be made of residents' detailed knowledge of the ecosystem and their ability to monitor changes in conditions, resource use, *etc.* It also is at the community level where peer pressure can be applied to encourage changes in environmental perspectives and behaviour, and where the legitimacy of regulatory or other interventions can be reinforced.

Indeed, note was made of a growing trend in the United States to enlist local groups as partners in formal systems of environmental monitoring—e.g., where citizens are equipped to do basic sampling and other data collection that otherwise would not occur. This taps into the sense of self-interest and home place that often motivates people to participate in stewardship activities. At the same time, partnerships such as these are some distance from other models of local involvement (e.g., co-management) which entail a more central citizen role in problem-solving.

- *Economic Change and Voluntarism*

Volunteers in local environmental groups frequently cite lack of time and information as two key impediments to their efforts. There may be an opportunity, however, to address issues such these within the context of global economic restructuring.

In Western industrialized nations, this trend is forcing fundamental changes in the nature of work, especially in how people are connected to paid employment. This has resulted in tremendous dislocation and insecurity. But, it also offers an opening for creating a better balance in people's lives between paid employment and the use of energy, time and talents to care for children, the environment and the community. For such a development to occur, however, the workshop was told that constructive ways must be found to redistribute work and uncouple income from wages (e.g., through some form of guaranteed annual income).

- *Experiential Learning*

Several participants stressed the importance of formal and informal educational efforts to reconnect people, especially children and residents of urban areas, with nature in recurring and direct ways. This was variously described as:

- re-establishing the mind-body link;
- experiencing the systems view of the world that arises out of the new physics; and
- creating a "gut-level" response to, and respect for, the earth—a depth of attachment which, compared to an intellectual commitment alone, is more likely to sustain stewardship in the face of contrary pressures.

Schools should be the key player in this process, exposing children and young adults to information about what is possible for them to experience. The workshop was told, however, that it has been very difficult to date to gain acceptance for curriculum changes that reflect the paradigm shift suggested by contemporary science.

Additional Ideas/Issues

- *Universal Charter of Environmental Stewardship*

This proposal was put forward without detailed elaboration except to indicate that the general purpose of the charter would be to raise consciousness regarding the need to transform the human spirit and heal creation—i.e., to restore and nourish a harmonized, ecologically sound and sustainable order through trusteeship, stewardship, accountability to present and future generations, and a befitting understanding of divine purpose.

- *Green Taxes and Subsidies*

Note was made, again without elaboration, of proposals by the International Institute for Sustainable Development, among others, for reform or "greening" of public-sector fiscal policies. The basic idea is to use economic instruments to discourage undesirable environmental practices and provide incentives for positive behavioural changes. (Examples include reducing or eliminating

subsidies that lead to excessive depletion of forestry, fossil fuel and other resources; introducing polluter-pay levies; expanding waste management deposit systems; lifting sales taxes from "green" products; and other incentives for the production and adoption of "clean" technology).

- *Environmental Farm Plans*

The Environmental Farm Plan (EFP) is a voluntary self-assessment program to encourage environmental responsibility among Ontario's producers.

Participants rank their operations by working through a series of questions packaged into 23 modules on topics such as cropping practices, water management, use and storage of pesticides, and preservation of natural habitat. This enables farmers to determine in a systematic fashion if and where improvements could be made. They file their plans in confidence with the sponsoring organization, but are not compelled under the program to take remedial action.

The EFP was developed by a wide-ranging coalition of producer groups in the context of increased vigilance by regulatory agencies over farm operations and passage by the Ontario legislature of an Environmental Bill of Rights. The farm groups opted to experiment with a proactive, locally-based and voluntary model of environmental responsibility in preference to having something imposed by an external agency.

The model was tested in 1993 with about 400 participants. Funding subsequently was secured through Agriculture Canada's Green Plan for a four-year implementation phase aimed at enrolling 14,000 farmers through workshops and outreach activities.

- *Specific Winnipeg Issues*

Five local policy matters were identified:

- The environmental (and financial) impacts of urban sprawl.
- The need for an inventory of the city's natural areas.
- Lack of political will and accountability to implement the by-laws and enforcement measures needed to stop pollution, encourage recycling and address other environmental issues.
- "Tunnel vision" concerning the economic effects of local environmental problems.
- As a physically older city, the need to give priority to revitalization, not just preservation, of what has been created.

ATTACHMENT 1
WORKSHOP INVENTORY OF STEWARDSHIP'S ATTRIBUTES

Strengths

Stewardship can/does encompass or connote:

- a new world view
- a commitment to God
- an ethical basis
- a sense of caring for, responsibility for, duty toward the earth (caring, concern, commitment)
- a sense of vigilance toward, and responsibility to ensure the well-being of, the earth (analogous to how parents relate to their children, not as possessions, but through an overwhelming need to nurture, protect and respond in times of crisis or need, *etc.*)
- respect for nature
- a sense of healing, integration and sharing
- rights of future generations
- altruism that goes beyond short-term economic considerations
- values of conservation/preservation
- sustainability, or the slow and careful use of resources
- careful, prudent, responsible management
- a way of reconnecting action and responsibility
- a sense of place
- a framework for mutual support and empowerment
- respect for Indigenous knowledge and cultural diversity
- co-operation
- consensus
- local involvement
- self-reliance

Stewardship:

- can be ecologically focused, although its biblical definitions are not
- is amenable to conceptual evolution (its inadequate biblical base can be viewed as historical; precepts can change and develop without altering the fundamental values of the ethic)
- is anti-exploitive
- is life-affirming of people; portrays people as part of the solution and not only as the source of the problem
- mobilizes people
- is easily grasped by the public, an important feature when trying to change behaviour
- is simple, practical and action-oriented
- is accountable for results implied (from biblical tradition)
- is compatible with the ecosystems approach; more importantly, it offers a guide to individual action within what otherwise is the enormous conceptual complexity of that approach
- appears to be compatible with the sustainable development paradigm
- is potentially congruent with ecofeminism, deep ecology, biodiversity

Weaknesses

Stewardship is ethically and conceptually weak. It:

- is hierarchical, not relational
- draws from a biblical base which carries connotations of hierarchical and patriarchal relations—of human dominion/domination of (power over) nature; of master/slave and master/servant relationships; of patriarchal households
- does challenge to some extent the notion of humans as rightful dominators of the earth, but really does not get at the institutional, systematic and structural nature of domination and oppression that characterizes androcentric and anthropocentric models of human/non-human relations
- is not sufficiently radical to get at changes needed in the human-earth relationship because it works within the existing system instead of promoting a different order
- does not overcome dual thinking
- is too human centred, i.e., it:
  - does not value nature, or care of the environment, intrinsically, but only in terms of what humans can get from nature (i.e., is not eco- or biocentric)
  - sanctions nature as "possessions"; as things to be owned, subdivided, transformed, wisely cared for, and protected
  - carries instrumental and exploitative connotations
  - separates the steward from the ecology to managed
  - fails to recognize the reverse relationship—i.e., if "stewarding" is being done, it is of humans by the earth
  - sanctions egocentric and arrogant notions of the earth as somehow deficient and in need of human intervention or protection/care; moreover, that humans really know what they are doing, including the potential consequences of their acts

The language of stewardship reinforces old paradigms instead of empowering people to move outside them and re-imagine their world. The term's historical and conceptual "baggage" is integral to what stewardship has come to mean. The ethic thus may not be readily subject to redefinition to fit contemporary needs.

Stewardship may have value as one of the principles guiding sustainability and as an organizational housekeeping ethic, but it is inadequate as base for broader action. It:

- reinforces the status quo in power arrangements and the obsession with economic/technological growth and development
- is at the environmental, not the systems, level of awareness (i.e., where the environment is still viewed as apart from humans, but there is recognition of the need to implement comprehensive curative approaches rather than trying to deal with problems in a piecemeal way)
- is too light-weight a concept to address environmental complexity effectively
- draws from weak power base relative to the hierarchy of power where economic and political interests, and ethical treatment of humans, prevail over ethical treatment of the environment
- is a management, not a systems model
- is basically reworked natural resources management
- is excessively utilitarian
- is not proactive or anticipatory
- assumes we know what to do and thus overlooks ecological complexity and the need for more knowledge
- lacks an implementation strategy and mechanisms for accountability for outcomes/consequences
- is overworked and abused in public-policy rhetoric and practice
- is liable to distortion and co-optation, especially by governments