

# Pathways

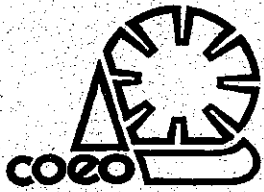
Volume 6, No. 6  
September/October, 1994

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION



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September/October, 1994

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# Editor's Log Book

*COEO is  
a viable  
network that  
promotes  
growth!*

**A**s the summer fades to autumn and all of nature begins to gear down for winter, outdoor educators instead gear up for another school year. This issue features lots of meaty material to get your grey matter up and running.

For your further stimulation, we recommend the fall conference. Over 150 people had already signed on before the final registration package was dropped in the mail late in August. Space is limited to 200, so if you haven't already registered, please do so this week. We'll look forward to seeing you there, and hope that the range of presentations and workshops in the programme will stimulate some exciting *Pathways* articles from participants.

We'd like to take this opportunity to apologize for the late arrival of the summer issue. All was on schedule, and Reprographics had them printed and ready to go, but Canada Post sent our envelope of labels astray. Vacation schedules meant that no one was able to print a replacement set until 3 weeks later, hence the mid-summer arrival.

As always, we welcome your letters, comments, ideas, feedback, and of course, submissions for future *Pathways*. We're also always on the look out for advertisers who offer products and services useful to our members. Please let us know if you have any contacts we could solicit for advertising. Our print schedule is printed on the inside of the front cover. Feel free to contact any Editorial Committee member for further information.

We, the Editorial Board, would also like to extend our thanks to Merrily Walker for her two years of service to our board and would like to welcome aboard Clarke Birchard as a new member to the Editorial Board.

Dear Editor,

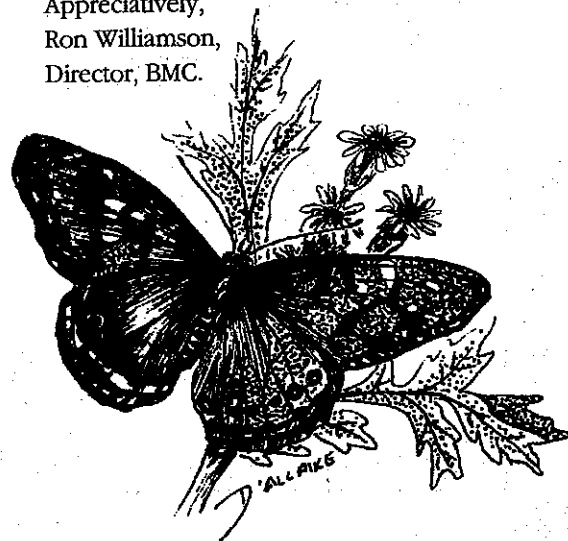
Thank you MJ Barrett, Chris Anjema and Bert Horwood for the time, effort and synergy I recently experienced at the Integrated Colloquium (August 24-26, Bark Lake). My spirit was rejuvenated and it was powerful to be with all of the other outdoor educators. COEO is a viable network that promotes growth!

Dear COEO Members;

On behalf of the staff of both West Carleton S.S. and the Bill Mason Centre, I'd like to express our heartfelt thanks and deep appreciation to our many COEO colleagues who rallied behind us in support of our efforts to keep the Bill Mason Centre operating for 94/95! Your letters, phone calls and personal counsel were all significant and truly helpful in assisting us in persuading the Carleton Board of Education to fully retain all aspects of our current operations and staffing complement! Indeed, in light of recent cutbacks to many other valuable CBE initiatives, it was particularly gratifying to receive such a whole-hearted endorsement from our senior Administrators and Trustees!

We hope to thank each of you more personally at "The Gathering" in late September! Despite the pressures and rhetoric to the contrary, our recent experience indicates that the "heart of COEO" continues to beat strongly.

Appreciatively,  
Ron Williamson,  
Director, BMC.



I hope that all of you had a great summer vacation and are ready and refreshed for the challenges that a new school year will bring to your life. Regardless of where you teach I hope that you will keep the importance of outdoor education in your mind as you design your program of studies for the year. In this time of restraint and the move to accountability in the areas of language and mathematics, outdoor education is often seen as a subject that has very little or no room in the curriculum. I would urge you to do your best to get your students outside as much as possible, throughout every season. With so many of our students living in urban environments and with many of them coming from other countries, getting in touch with the natural environment is essential if we are to build within each student an understanding of their place in the ecosystem of the Earth.

If you have not already arranged to participate in Conference '94 at Camp Arowhon in Algonquin park, please make an effort to do so. It promises to be a richly rewarding experience for everyone. The response of the membership to this conference has far exceeded the hopes of the organizing committee. I would like to take this opportunity to formally thank those involved in making this conference a reality; Mike Elrick, Jim Gear, Ian Hendry, Bob Henderson, Linda Leckie, Lee Wilson, Margit McNaughton,

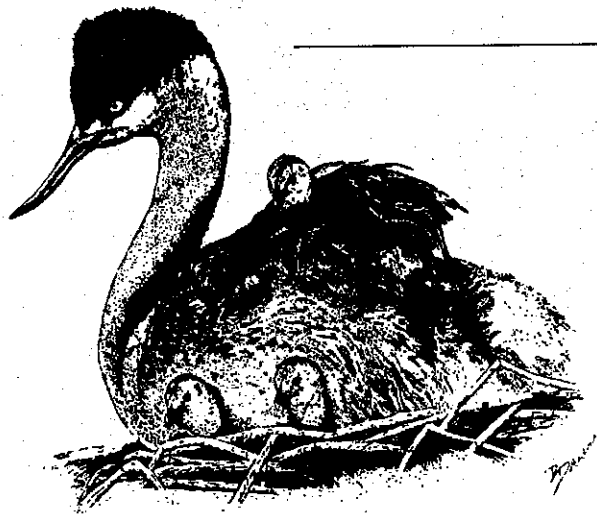
John Pyke and Cheryl Dignan. I am sure that there are unknown others who have made contributions and to them I also express the gratitude of the membership for their involvement.

The response of COEO members to Conference '94 has proven that a significant number of you are willing to put forth the effort to support the activities of this organization. At the conference you will all have an opportunity to suggest ideas for future events and to volunteer to help out in the organization of activities in your region. Please give this some serious thought. If you are unable to attend the conference then contact your regional representative with your suggestions and they will carry this information to the conference for you.

During the past year the overall membership in the organization has grown by one-third. This is very encouraging. I would ask all COEO members to do their best to introduce one new person to the organization this year. If we all did that then we would have one of the best membership years ever.

As you begin the new school year remember that COEO members have free access to the educational resources of The Green Brick Road. If you need information about a wide range of environmental topics or want to know more about the services offered through The Green Brick Road, give them a call at (905) 946-9617.

*Glen Hester  
COEO President*



Dale D'Allaire is an Artist-Naturalist who works for the North Bay-Mattawa Conservation Authority in conjunction with the East Parry Sound Board of Education. A large part of her time is devoted to preparing and delivering special programmes about the natural world to elementary school children in East Parry Sound. Heather Nowak is a special education teacher with the East Parry Sound Board of Education. Together they form Bear Paw Enterprises.

They met in the fall of 1991 when Heather changed teaching assignments and was asked to share a portable with Dale and another special education teacher. They soon discovered that they shared many common interests, including their love and concern for wild animals. The two decided to combine their talents to produce materials that generate an understanding about, and promote positive attitudes towards, wildlife. They reveal the

magnificence of wild animals through a combination of sketches and descriptive writing that highlights unique facts about each species.

Presently, Dale and Heather are producing a wildlife art hasty note series. Future endeavours include wildlife prints, children's books, and environmental games. A portion of their proceeds is given on an ongoing basis to organizations that care for and preserve wild animals.

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## TOWARDS A HOLISTIC AND ECOCENTRIC CANADIAN UNDERGRADUATE ENVIRONMENTAL STUDIES PROGRAMME

by Tim Boston

If undergraduate environmental studies programmes at Canadian universities are to promote and uphold the notion of sustainability (i.e., the need for intergenerational equity and ecospheric egalitarianism), I believe they will first have to begin by strengthening their programmes; programmes which I feel have a vital role in teaching students how to protect the intricate bonds of life itself. At present, undergraduate environmental studies programs are plagued with what I see as being three illnesses. First, there is an overemphasis on resource conservation. Secondly, there is a prevalent belief in the dominant scientific worldview. Thirdly, there is a general lack of environmental action and co-op courses.

### The Prevalent Belief in Resource Conservation

There appears to be a particular commonality among many of the environmental studies programmes at Canadian universities. After a detailed analysis of course descriptions, it is clear that most environmental studies programmes support a resource conservation perspective. Many people would be pleased to hear that such a perspective was so prevalent. They would argue that we need far more of these rational and objective environmental studies programmes in Canada's universities. After all, resource conservation involves using, managing, and protecting resources so that they will be available on a sustainable basis for present and future human generations (Miller, 1990: 12). So, why should we not have all environmental studies programmes encouraging a resource conservation ethic?

It is fundamentally important for us to acknowledge that what is now in the process of bringing down the ecosphere is a lethal systemic mix of human numbers, human tools and instruments, and human ideas ... (Bradley & Duguid, 1989). Our humanistic religions, our experientially stultifying science, our philosophical chauvinism, and our instrumental rationality are all contributing to the destruction of the socio-biophysical environment (Bradley & Duguid, 1989). And, it is this almost indomitable worldview of anthropocentric utilitarianism that is at the very foundation of resource conservation. The bottom line is that resource conservation is not 'environmental' per se but rather it views non-human natural entities and systems as having only instrumental value as 'resources' for human use (Rodman, 1983).

*Secondly, the resource conservationist's commitment to maximizing value through maximizing human use leads logically and in practice to an unconstrained total-use approach, whose upshot is to leave nothing in its natural condition (for that would be a kind of 'waste,' and waste should be eliminated); all rivers should be dammed for irrigation and hydropower, and all native forests replaced with monocultural tree plantations managed for 'harvest.' This amounts to an unjustifiable species imperialism (Rodman, 1983: 83).*

Thus, can we have any environmental studies programmes promoting such a mindset? A position can be put forth that environmental studies is about embracing a new, holistic, and environmental worldview and moving away from the dominant paradigm. Granted there is a tremendous amount of pressure from the normative and dominant

*After all, resource conservation involves using, managing, and protecting resources so that they will be available on a sustainable basis for present and future human generations. So, why should we not have all environmental studies programmes encouraging a resource conservation ethic?*

forces within our Canadian society to marry and weld elements of an anthropocentric and expansionist paradigm to environmentalism, and consequently a number of environmental studies programmes feel they must provide the compromising resource conservation perspective. Yet, it can also be argued that these programmes and the universities that house them are causing harm by upholding this politically comfortable approach to environmentalism.

### **A Prevalent Belief in the Dominant Scientific Worldview**

Resource conservation is not the only prevalent perspective in environmental studies, the dominant scientific worldview is pervasive throughout the environmental studies programme. It finds its way into the resource conservation perspective and almost every area of thought that exists in environmental studies. Every undergraduate environmental studies programme in Canada's universities has a considerable selection of science courses. While it is important to present the scientific perspective in environmental studies, it should not dominate the undergraduate environmental studies programme. For science itself operates according to deterministic laws and is reductionist and mechanistic by very nature; essentially it does not encourage a holistic analysis of natural phenomena. As David Suzuki, a prominent geneticist-scientist and environmentalist states:

*We believe that science is the major source of truth and knowledge, providing us with the information we need to understand and control nature. Every scientist knows that the uniqueness of science as a way of knowing is that scientists do not try to explain everything in the universe. We do not try to obtain an all-encompassing worldview. Instead, we focus on one tiny part of nature. We isolate a fraction of nature. We hone in on it. We bring it into the laboratory, look at it through the microscope, control*

*everything impinging on that fraction of nature, measure everything coming out, and thereby gain tremendous insights into that isolated fragment. We gain knowledge about nature in bits and pieces and, ever since Newton's time, it has been assumed that if we could accumulate enough pieces, we would be able to put them all together. And, like putting in pieces of a puzzle, we could recreate the entire universe (Abu-Labon, 1989: 397).*

This reductionist scientific worldview simply does not work because of the synergistic interactions of components and the unpredictability of properties at each higher level of complexity (Abu-Labon, 1989). Science also has a history of objectifying nature. Nature, in the world of science, is constituted by impersonal masses and forces. It in essence functions like a machine and thus has no inherent rights. And it is with this scientific vision that we are led to believe that nature can be used and manipulated for our benefit. The science of resource conservation very much ties into this mindset. Thus, we must be wary of placing too much emphasis on science as a subject of study for the undergraduate environmental studies programme. While science can be used as an effective tool for analyzing environmental problems, it must be put into context and its limitations must be recognized.

### **The Lack of Environmental Action and Co-op Courses**

Another concern that must be addressed is the lack of environmental action and co-op courses. There are only three undergraduate environmental studies programmes in Canada's universities that have environmental action and co-op courses. Environmental action and co-op courses are those courses which are practical in design (co-op in this essay means paid and unpaid work). Field studies or practicum courses are not included within this category, for while they often take



the student outside the halls of academia, they rarely ask the student to take physical action to help protect the environment. One of the reasons why so few programmes have embraced practical education is because it is seen as being non-academic. There are still elements of the European classical education paradigm in the Canadian university which, in turn, funds and houses the undergraduate environmental studies programme. This makes it rather difficult to promote an organic farming course where the students learn the physical act of eco-agriculture or a co-op course which, for example, might require the student to work at the local recycling depot. From ecoforestry to restoration projects, there are numerous possibilities for providing the necessary practical training for the environmental studies student if only the university and its environmental studies programme would break its last few ties to the classical paradigm. While there are many student groups and individuals within the university that are taking practical education to heart, it is time that undergraduate environmental studies programme fully embrace the virtues of practical knowledge and experience by creating courses that truly help save the environment. The following quote expresses the need for the individual environmental studies programme to not only provide a theoretical component to their programmes, but to also recognize the importance of their role in the physical act of protecting the earth:

*There are some who still find it easier to blame it all on 'the system,' on the wicked multinationals, or on this or that political ideology. But in allocating responsibility for the parlous state of the Earth today - let alone for the enormous and continuing human suffering in the poorer countries of the world - we do well to start with ourselves and our own role in perpetuating those wrongs. Of course it is absolutely true to argue that the world will not be saved just because a small group of people choose to learn how to grow organic vegetables or restore*

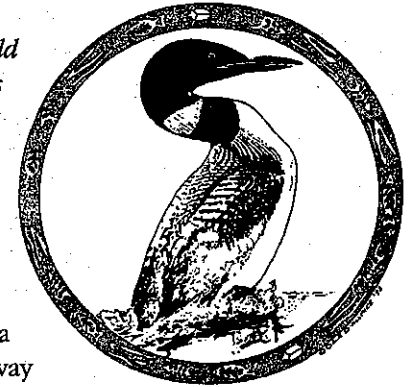
*a small section of land back to its natural state, but neither will the world be saved unless we make such choices (Button, 1989).*

### The Need for Deep Ecology

One of the suggested solutions to the previous concerns just discussed, is a change of mind-set. Deep ecology is a way of life that goes beyond the reductionist vision of resource conservation and the scientific worldview. It is a philosophy of life that creates the active permaculturist. Deep ecology or sometimes called holistic ecology openly espouses the interconnection of a greater web of life, systems, and consciousness. This romantic and neotranscendentalist ecological vision recognizes nature as the source of all intrinsic value. Progress in this paradigm is not limited by a mere belief in neoclassical economic development but rather it is defined by a multitude of ecosophic values; spiritual, moral, aesthetic in nature.

*Ecological consciousness and deep ecology are in sharp contrast with the dominant worldview of technocratic-industrial societies which regards humans as isolated and fundamentally separate from the rest of Nature, as superior to, and in charge of, the rest of creation. But the view of humans as separate and superior to the rest of Nature is only part of larger cultural patterns. For thousands of years, Western culture has become increasingly obsessed with the idea of dominance: with dominance of humans over non-humans, masculine over the feminine... Deep ecological consciousness allows us to see through these erroneous and dangerous illusions (Devall & Sessions, 1985: 65-66).*

For deep ecology views all life as being equal. From the Douglas fir tree to a human being, all that exists lives and functions according to the principles of intergenerational



equity and ecospheric egalitarianism. With the belief that all is equal, comes the perspective that all must be treated with respect. Thus, concepts such as power, control, and manipulation do not fare well in the world of the deep ecologist. On the other hand, diversity, autonomy, decentralization, symbiosis, and classlessness are concepts that the deep ecologist readily accepts (Naess, 1972).

Leading intellectuals of the dominant paradigm have viewed deep ecology as just superstition and they question the objectivity of this alternative worldview. But, deep ecologists would argue that nature, life is too complex to define and to objectify. So-called superstition, on the other hand, allows for freedom to experience beyond a limited Euro-American scientific humanistic monism.

There is a need for deep ecology and other alternative environmental worldviews within undergraduate environmental studies programmes. Programmes should have a significant selection of courses which focus away from the dominant paradigm. Undergraduate environmental studies programmes must not be fearful of moving towards those perspectives which are not traditionally accepted within mainstream academia. In fact, it is fundamental to question the very essence of traditionalism, for as alluded to before, it is this 'business as usual' philosophy which is causing so many environmental problems. Environmental studies programmes are supposed to be providing answers to some of the most pressing questions of our time. In all, there is a moral responsibility for these programmes to explore new areas of inquiry that lead us towards ecospheric egalitarianism even if this might challenge the academic prejudice of the university.

### **The Need for a Balance Between Yin and Yang**

As mentioned in the two previous subsections, there are a disproportionate amount of science courses and not enough alternative courses in undergraduate environmental

studies programmes at Canadian universities. This is a reflection of our Western society's overemphasis on yang values (see below).

#### **Yin**

Feminine  
Contractive  
Conservative  
Responsive  
Cooperative  
Intuitive  
Synthesizing

#### **Yang**

Masculine  
Expansive  
Demanding  
Aggressive  
Competitive  
Rational  
Analytic

(Capra, 1988: 38).

Looking at this list of opposites, it is easy to see that our society has consistently favoured the yang over the yin - rational knowledge over intuitive wisdom, science over religion, competition over cooperation, exploitation of nature over preservation, and so on (Capra, 1988). This emphasis, supported by the dominance of sensate culture during the past three centuries, has led to a profound cultural imbalance which lies at the very root of our current crisis - an imbalance in our thoughts and feelings, our values and attitudes, and our social and political structures (Capra, 1988: 39). Thus it is with this in mind that it seems only reasonable to recommend that undergraduate environmental studies programmes at Canadian universities begin to shift towards the balanced environmental studies curriculum. A programme which embraces the fine arts and the creative arts as well as a new holistic science and social science will help achieve this balance between yin and yang. If the undergraduate environmental studies programme wishes to provide directions for maintaining ecological well-being, then it must provide a programme structure which has this delicate balance between yin and yang.

### **The Need for Holistic Education**

So far, I have discussed both the need for deep ecology and the need for a balance between yin and yang. While I have suggested

that we move towards excepting these principles, it will not be possible to encourage such alternative perspectives without an alternative education paradigm: a holistic paradigm that has students and faculty understanding the concept of Invitational Education. The invitational undergraduate environmental studies programme has the following characteristics:

### The Invitational Programme

#### 1) **Respect for individual uniqueness.**

Each student is viewed as unique and capable. Student involvement in the evaluation process is encouraged and errors are viewed as a source of information rather than as a sign of failure.

2) **Cooperative spirit.** The inviting programme encourages students to participate in the life of the programme by tutoring other students and being involved in the decision-making process. Co-operation tends to be emphasized over competition, and the use of the learning team approach is very congruent with the inviting programme.

3) **Sense of belonging.** The inviting programme values community warmth and togetherness. Both students and teachers feel a commitment to the programme and think in terms of our programme. Teachers care for their students so that students feel part of the programme community.

4) **Pleasing Habitat.** Teachers and students work together to provide a pleasant interior and exterior to the programme. Extra efforts are made to ensure that when interaction occurs in the classroom, lighting, acoustic qualities, temperature, room design, window areas, furniture arrangement, colours, use of space, displays, all make a contribution to an appealing and comfortable setting.

5) **Positive Expectations.** Similar to control theory, Purkey and Novak claim that learning is something that happens primarily inside the person. Faculty view students and each other in a positive manner and students are encouraged to make decisions in what they study and how fast they will learn.

(Miller, J. 1988)

Ultimately, invitational education is only one example of the many strands that make up the holistic education paradigm. In order for educators, faculty and students to understand how to detect what is and what is not holistic education, they must be accepting a perspective which is similar to the following definition:

*The focus of holistic education is on relationships - the relationship between linear thinking and intuition, the relationship between mind and body, the relationship between various domains of knowledge, the relationship between the individual and community, the relationship between self and Self. In the holistic program faculty and students examine these relationships in order to gain both an awareness of themselves and the skills necessary to transform their relationships where it is appropriate*

(Miller, J. 1988).

At present, a traditional, mechanistic educational paradigm pervades the greater Canadian university system and, in turn, has considerable influence on the undergraduate environmental studies programme. The dominant paradigm, according to Robert Kay, an educational consultant, encourages the following:

*Confinement, physical inactivity, studying in isolation, teaching before the brain is ready to learn, overcrowding, emphasis on 'deficiencies,' public humiliation, unrelenting pressure, petty rewards, threats, full bladders, forced competition, failure, required courses, lectures, disconnected facts, unannounced quizzes, grading, grouping, stigmatizing...*

(Kay 1991: 11).

While there are a number of undergraduate environmental studies programmes that have been able to provide seminar courses, student-faculty interaction within and outside the classroom, extra curricular activities, small group teaching, and many other important parts of holistic education, many other have made little effort to move away from a tradi-

tional model of education and still others for one reason or another are not presently in the position to accept educational change and the move towards a holistic educational paradigm. Whatever the position of the programme may be, all the undergraduate environmental studies programmes must continuously strive for the holistic education ideal. An ideal that brings out the yin values in both students and faculty and that ultimately provides the kind of social, academic, and spiritual environment that is needed in order to understand the complex problems that face the ecosphere.

In all, if undergraduate environmental studies programmes are to encourage and uphold the notion of sustainability, in particular, if they are to provide an academic environment which embraces the principles of ecosophy-ecologically wise principles that will help ensure that life as we know it will continue - then they will have to provide for true holistic undergraduate environmental studies programmes. The environmental studies programme must allow for and truly accept ecocentric environmentalism which recognizes species equality and a need for the Yin-Yang balance. But more importantly, it must promote holistic education which in turn provides an appropriate atmosphere for students to learn about the need to care for and respect the earth. Ultimately, if the Canadian undergraduate environmental studies programme does not create this organic curriculum and instruction, then it will have to take responsibility for excepting elements of an expansionist mind-set: the very utilitarian notions which I believe will move us ever closer to a justification of technological optimism, a narrow vision of progress, and a resulting ecological degradation.

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## The Mythologies of Outdoor and Adventure Recreation and the Environmental Ethos

By: Gary Morgan

**"Recreation development is not a job of building roads into lovely country, but of building receptivity in the still unlovely mind" (Aldo Leopold, 1949:295).**

Professionals in the outdoor recreation and education fields are often looked upon as champions of the environmental cause. A number of assumptions appear to be made to this end. Yet, many of these assumptions may be based in mythology. The intent of this article is to highlight the major arguments put forward supporting the significance of outdoor and adventure recreation as tools to develop a new environmental ethos; identify the assumptions within the arguments; and then expose the potential mythology surrounding the assumptions.

The arguments put forth in support of outdoor and adventure recreation are based on an article found in the December 1992, issue of *Recreation Canada*, written by Professor Jude Hirsch of Acadia University. The intent is not to discredit the fields of adventure/outdoor recreation and education, but to separate fact from fiction, a task that is essential if we are to meaningfully contribute to the building of a new environmental ethos.

### The Argument for Outdoor and Adventure Recreation:

Jude Hirsch (1992), argues that leisure education and social service agencies must play a more prominent role in the development of this new environmental ethos. Within the umbrella of leisure education she identifies adventure and outdoor recreation as having the potential to provide a positive contribution

to the needed social change. While making her arguments, Hirsch puts forward six rationales often used to justify outdoor and adventure recreation. The six general arguments are as follows:

1. The setting for adventure recreation places the participant in direct contact with the natural environment. Therefore, the recreator has a fundamental need to protect the environment for adventure recreation purposes.

2. Risk recreation participants value aesthetic experiences highly, with many seeking or preferring exposure to natural environments. The aesthetic experience will result in an increase in the basic level of regard people hold for the environment.

3. Appreciation for nature is an integral part of the adventure recreation experience. This appreciation produces a particular kind of environmental understanding, as the setting allows opportunity to take one's life into one's own hands and to test skills and apply personal resources.

4. The adventure recreator must be knowledgeable about the natural environment in order to pursue an activity safely (i.e., weather patterns, ice and snow conditions etc.). Therefore the participant relates intellectually to the setting and cultivates a much deeper understanding about the natural environment.

5. Many adventure recreators experience a spiritual relationship with the natural environment and a person having a spiritual relationship that is in harmony with nature, is



most likely to be concerned with the future of the planet.

6. Remembering that adventure recreation is valued primarily for the social-psychological benefits of self-esteem, we will be more likely to be concerned about the state of the environment if we are not so concerned about our own state of mind.

By reviewing a cross section of the literature in the field, this article will briefly examine each of the six rationales put forth by Hirsch. It is my position that these six arguments are based on a number of assumptions, some of which contribute to the mythology of outdoor recreation as a tool for change.

### Exploration of the Arguments

#### Rationale Number One: Participant Advocacy for Wild Areas Protection

The first argument put forward by Hirsch, suggests that because the adventure activity is in a natural setting, the participant will be motivated to advocate for the protection of the environment for future adventure recreation purposes. This argument is based on a fundamental assumption that humans act in their own self-interest. Therefore, if more people are actively involved in outdoor recreation activities, there will be more pressure to set aside natural areas for recreation. At face value, there is support for this assumption. Closer examination of the argument, however, reveals two more subtle but significant assumptions.

The first of these assumptions implies that the recreator has a fundamental need to protect the environment. If this is the case, data provided by David Foote (1990) suggesting that outdoor recreation will continue to grow into the next century, should increase support for the protection of natural communities. There is research, however, which challenges this assumption. Stewart and Carpenter (1989) found that the concept of need is directly related to the knowledge and experience base of the individual. While

investigating the use of "Expectancy Theory" as a tool for recreation planning, they found that people new to the activity accepted negative impacts to the environment without feeling that these impacts affected their outdoor recreation experience. Stewart and Carpenter's findings suggest that unless the recreator has experience or contrary knowledge, s/he will likely expect a substantially degraded environment. Furthermore, Cable and Udd (1990) identified a trend where the experienced outdoor recreator tends to move on to new areas when an environment becomes degraded, and not advocate for the protection of the existing areas.

The second assumption implies that the needs of the recreator are the same as the needs of the natural community. This assumption appears to be based almost completely in mythology. There is a large body of evidence suggesting that the needs of the outdoor recreator often run counter to the needs of the natural community. For example, Schereyer and Beaulieu (1986) found that as specialization of recreational activity increased, so did the dependency on managed environments with particular attributes (ie., ski hills, dam controlled white water river etc.). Miles (1991:12) draws our attention to the fact that in the State of Washington, plans to reintroduce the grizzly bear back into its indigenous homeland are being met with resistance by the outdoor recreators who fear for human safety. Possibly of even greater consequence than the site specific issues, are the commercial implications of mass outdoor recreation. Simpson and Yoshioka (1992:225) argue that participants are becoming more concerned with the intensiveness of consumption than the intensiveness of experience. They further contend that not only does the glitz of mass recreation run counter to an attitude of moderation, but it exemplifies activity at odds with reflection in the natural world.

It must also be noted that the entire discussion of preserving wildness on the grounds of human needs has an inherent philosophical problem. Inevitably the discus-

sion turns to the issue of quantifying need. In the industrial world, quantification of needs becomes an exercise of economics. Bergstrom and Cordell (1991:68) exemplify how this logic is applied to wilderness protection. They attempt to use dollar values to justify the needs of outdoor recreations.

"There is general agreement in the field that the **appropriate** measure of the value of outdoor recreation to an individual is consumers surplus or net economic value."

They go on to say that the value of outdoor recreation in the United States is 122.3 billion dollars annually. This anthropocentric rationale is hazardous to the cause of biological preservation, as it objectifies everything nonhuman to a commodity and evaluates nonhuman needs on the human construct of the dollar.

### Rationale Number Two: Participant Value Aesthetic Experiences

The second rationale put forward by Hirsch, contends that outdoor and adventure recreation participants value aesthetic experiences and prefer exposure to natural environments. She then argues that this aesthetic experience will result in an increase in the basic level of regard the person holds for the environment.

This rationale also implies two important assumptions. The first is that people involved in adventure recreation value the aesthetic experience. Although there is no doubt that spiritual rejuvenation is an important element of the wilderness experience for some, it does not appear to be the norm. According to David Orr (1991:101), many people who experience the outdoors do not appreciate the aesthetics or experience a spiritual bond with nature. He argues that our North American culture actually stifles this kind of relationship. To highlight his point, he quotes an editorial by Ron Miller, printed in the spring 1990 edition of the **Holistic Review**.

*"Our culture does not nourish that which is best or noblest in the human spirit. It*

*does not cultivate vision, imagination, or aesthetic or spiritual sensitivity. It does not encourage gentleness, generosity, caring or compassion. Increasingly in the late twentieth century, the economic-technocratic-statist world view has become a monstrous destroyer of what is loving and life-affirming in the human soul."*

It appears we will only be adding to the mythology if we believe that adventure recreation will cultivate aesthetic sensitivity. Yet, we cannot refute that some people regard the aesthetic experience as important and valued. Therefore, Hirsch's second assumption needs to be further explored. This suggests that the aesthetic experience will result in an increase in the basic level of regard people hold for the environment. Again I have found little empirical evidence to support this assumption. But this does not surprise me, as issues of the human soul and spirit are difficult to articulate and even more difficult to quantify.

### Rationale Number Three: Adventure Recreation Leads To An Appreciation of Nature

The third argument put forward by Hirsch, states that the appreciation for nature is an integral part of the adventure recreation experience. She further argues, this appreciation produces a particular kind of environmental understanding as the setting allows opportunity to take one's life into one's own hands and to test skills and apply personal resources.

This argument appears to be purely based in mythology. While the statement may be true for some specifically focused programs, research into the area clearly refutes the assumption. A study by Wellman and Roggenbuck (1982) attempting to quantify the norms and behaviours of canoeists, found significant differences in the behaviour





patterns and attitudes of participants in the same activity. These findings are supported by Schereyer and Beaulieu (1986) who suggest that the appreciation of nature will only be an integral part of the recreational experience if the recreator is open to the experience. Most adventure recreation experiences, however, are not structured in a manner that enhance the appreciation of nature.

As an illustration of this point, Joshua Miner, the founder of Outward Bound USA, is quoted as saying: *"Outward Bound aims to use a wilderness experience to help its students grow in confidence and personal competence. Whether they learn anything about the mountain is incidental"* (as quoted by John Miles, 1991:12).

Based on Miner's comments it appears that in the Outward Bound experience, perception is focused inward; nature is a medium or object and appreciation is not an integral part of the experience.

### **Rationale Number Four: Cognitive Knowledge Deepens Understanding**

Hirsch conjectures that while participating in outdoor and adventure recreation, the recreator must develop a knowledge of the natural environment to pursue an activity safely. In doing so, she argues that the participant relates intellectually to the setting and cultivates a much deeper understanding about the natural environment.

The first assumption of this argument implies that cognitive knowledge of the natural environment leads to a deeper understanding of nature. Few would disagree with this assumption on face value; however, the context or filter in which the knowledge is based plays an important role in how this "understanding" is translated. Kathie Bishop (1991:147) observed that when knowledge gained through outdoor education was contextually framed in the reductionist, rational model of science, it encouraged technological solutions to environmental

problems. Furthermore, it reinforced the student's view of themselves as observers of the natural systems and not integrated members of the biotic community. Therefore, although knowledge was gained, the "scientific" filters have blocked the ability for the in-depth understanding of self in nature and as nature.

Also implied in the argument put forth by Hirsch, is the concept that knowledge and deeper understanding translate into behavioral change including environmental advocacy. Wellman and Roggenbuck (1982) began their study of behaviour differences between experienced paddlers and novices, with this premise in mind. The study, however, demonstrated no significant difference in behaviour between the experienced outdoor recreator and the novice.

Wellman and Roggenbuck's observations are consistent with the findings of Bruce Elkin. Elkin (1982), a theorist in approaches to experiential education, argues that awareness is not enough to change behaviour. He further argues that the roots of the environmental problem lie in our lack of understanding of our environment, our own behaviour, and the connections between them. Therefore, to change behaviour we must learn in ways that incorporate knowledge into our lives and daily living. He suggests adventure recreation and environmental education can incorporate learning in such a manner, but as Bishop (1991) emphasizes, this type of learning does not often occur in the present culture.

### **Rationale Number Five: Outdoor Recreators Experience Spiritual Relationship**

Hirsch's fifth argument contends that most adventure recreators experience a spiritual relationship with the natural environment. She then builds upon this assumption by asserting that a person having a spiritual relationship that is in harmony with nature, is most likely to be concerned with the future of our planet.



The first assumption in this argument is that most outdoor recreators have a spiritual relationship with nature. This is an area of study where very little work appears to have been done. I suggest this is possibly because the concept of spirituality is difficult to articulate and defies the rational model used in research. Furthermore, it is a concept not given much legitimacy in our culture. What little research I have found is anecdotal in nature. Bob Henderson, an Outdoor Educator and lecturer at McMaster University, notes that certain types of adventure recreators do not exhibit any spiritual relationship with nature; to the "bagger", the environment is irrelevant to the quest for adventure. Having met this type of adventure recreator, I have to concur with Henderson. Often termed "jocks" (river, rock, or whatever the sport), these individuals view the natural environment as an object to be conquered. They appear to lack a spiritual relationship with nature and do not conceive of themselves as part of nature, for to do so, I suspect would pose a conflict within themselves.

The "bagger" subgroup within the outdoor recreation community, however, is a relatively small proportion of the total. Again from anecdotal experience and an informal survey of colleagues in the outdoor fields, I have found that although many of them could not directly articulate a spiritual relationship with nature as apart of their attraction to the field, they did indirectly describe a spiritual bond.

The second assumption Hirsch presents in this rationale, suggests that people who sense a spiritual relationship with nature are going to be more concerned with the future of the planet. Again, this is an area of thought that has been little investigated. Livingston (1981:102), however, does address this issue. He partially accepts the assumption put forward by Hirsch, but emphasizes that wildlife preservation hinges upon not simply a connection, but a spiritual **bond** with nature. He further contends that if we accept ourselves as a part of nature, then wildlife preservation for its own sake, is also for our sake.

### Rationale Number Six: Adventure Recreators Are Equipped to Fight For Environmental Causes

Hirsch's final argument suggests that adventure recreators have the opportunity, through their activities, to develop high levels of self esteem. In doing so, participants of adventure recreation are socio-psychologically better prepared to advocate on the behalf of the natural community.

The argument is founded on the assumption that people who feel confident in themselves are more likely to look beyond themselves and address environmental concerns. This assumption is based on "Maslow's Hierarchy of Needs." According to the theory, self esteem needs must be met before a person can attempt to meet the needs of self actualization, and it is in the area of self actualization that a person looks beyond self.

Much has been written about the contribution adventure recreation can make towards improving self-esteem and entire institutions have been built around this utilization of the outdoors. For example Outward Bound, Project Dare, and numerous drug rehabilitation programs have all successfully used the outdoor setting as a medium for personal growth. Robinson (1992) states that intense cognitive and affective recreation experiences in general are likely to contribute to the enhanced quality of one's psychological well being. The connection between a person's general well being and the ability to promote what is important to them, appears to be a well documented. Whether the individual advocates on behalf of the environment, however, is not as clearly linked.

### Conclusions:

After examining the assumption put forth in this article, it appears that many common beliefs we share as outdoor recreators are not soundly based. Outdoor and adventure recreation as activities that promote a new environmental ethos are surrounded in

mythology. The assumptions that fuel these myths are born of partial truths, and as these truths become generalized, they take on a life of their own. In part, the danger of these myths is in how they become commercialized and then utilized to exploit the natural communities they claim they are protecting. The eco-tourism industry provides many examples of this type of exploitation. All one has to do is read the promotional material to see that the protection of the environment can be stated in the same sentence as the phrase "economic resource", with no apparent contradiction. There is no apparent contradiction because, as with many mythologies, the myth clouds our critical thought.

Does outdoor and adventure recreation have a role in the generation of new attitudes towards our relationship with nature? As an outdoor practitioner, I believe our activities can contribute to the student's understanding of their place in nature. These activities, however, must be critically examined and the strengths and limitations well understood. It is from this foundation we can then frame our activities for an effective program.

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## DEVELOPING AN ECOLOGICAL CONSCIENCE ACHIEVING A SENSE OF PLACE

By Suzanne Weber

### SCHOOL PROGRAM

#### Purpose:

To come to better know one's 'place', as a means of connecting the local to the universal. An understanding of place will develop by beginning with the local area, and relating local phenomena to cycles and events in other cultures, the earth as a whole, the solar system, the universe....

Many of the societal and environmental problems we face in our world today result from an alienation from the natural world and from each other. Instilling a sense of place, or sense of really dwelling where one lives, in young people will help the next generation to be guided in their actions by an ecological conscience. An ecological conscience is a greater awareness of the interconnectedness of humans with all other living and non-living components of our world.

#### Time frame:

This program is designed to be implemented through the course of a regular elementary or secondary school year, with the purpose of progression, continuation, and integration into the students' overall education. Ideally, full attention will be given to all of the seasons, continuing from one school year to the next.

#### Content:

A variety of activities will combine to a total of two to three half-hour sessions per week. These activities will include short weekly or bi-weekly exercises, on-going reports, discussions and experiences, and several larger field-trip activities planned every month or so.

The appropriateness and level of the activity will depend on the age of the students and the format of the classes within the school. If one teacher conducts the class for most of the day, then the activities can be integrated into most of the specific subject areas. In the situation of rotation of teachers for different subjects, some of the activities can be coordinated through a 'homeroom' teacher, and others as collaborative efforts between two or more teachers and their classes.

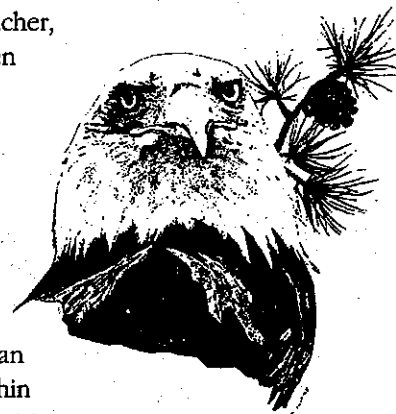
### LOOKING AHEAD AND SETTING GOALS

#### Visioning Using the Story Model

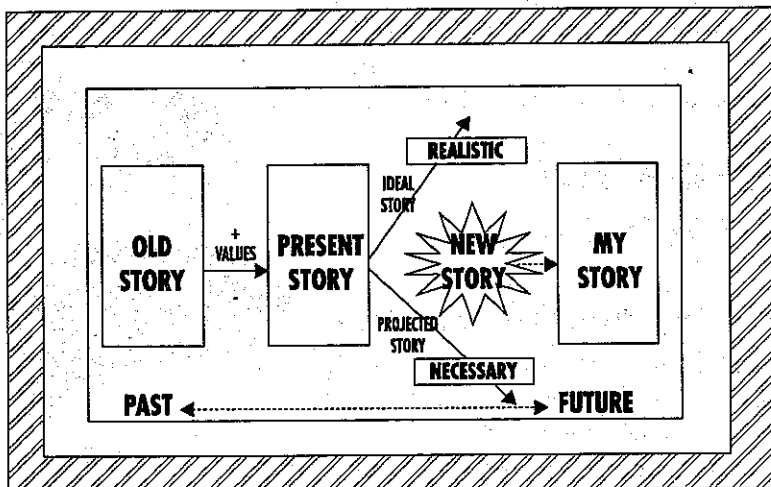
It is important that students come to an understanding of their personal place within the context of the greater environmental crisis which is being experienced in our society. The Story Model described below will be used in understanding the present situation, and coming to a vision of a future sense of place and ecological conscience.

As the program for developing an ecological conscience and a sense of place progresses through the year, the Story Model can be used to clarify many of the issues which will arise. Initially, the steps outlined below will be followed near the beginning of the school year, through one's own story better knowing the importance of individual understanding and action. The process will be repeated at the end of the year, when students will have acquired greater knowledge about 'environmental issues', and a greater sense of place.

In her book, *Developing an Integrated Curriculum Using the Story Model*, Susan M. Drake proposes the use of stories as a method of instruction. As she states on page 9: 'We believe that the process works for any topic at



any educational level. It is essentially a model for understanding the process of change. The basic premise of the Story Model is that we make meaning by telling stories. Humans for all of recorded time have told stories. We believe that students will come to develop meaning and understanding by exploring their own personal stories and the stories of others.' The diagram below, taken from Drake's book (p.12), helps to visually understand the underpinnings of using the story model in curriculum delivery.



Drake emphasises that 'In all stages of identifying the story, the personal narrative of the student is intended to be connected to the cultural narrative.'

Working with the class, either as a whole or in groups of 3 or 4, use the following guidelines to help each student come to an understanding of the present situation, the 'new story' which is developing, and his or her own story in the larger cultural context.

1. Identify why the present story is in a 'state of flux' or change, in terms of the relationship between humans and their environment.

2. Identify the roots of the conflict by looking at the past or old story. Identify the explicit and implicit values in the old story.

3. Explore the future through:

- the projected story (if we continue to

act according to the implicit values of the old story);

- the ideal story, which can be developed by examining alternative views of the future proposed by such groups as environmentalists, Greenpeace, futurists, feminists, and holistic educators. Elicit the values inherent in these emerging stories.

4. Create a new story by integrating the **realistic** from the ideal story and the **necessary** from the projected story.

5. Develop a personal action plan which will facilitate the new story becoming a reality.

The new story is constantly in a process of evolution, and can often be a site of contradiction. In the process of developing the new story and recognizing the environmental crisis, the student may experience conflict, guilt, disorientation and confusion. It is in the personal working through of each individual story that the student will come to a greater understanding of his/her place in the broader societal context of the 'environmental crisis' and the process of working towards a better future.

## CLASS/GROUP ACTIVITY:

### Calendar of Our Place

With the class, create a calendar of place which the class will add to as further research reveals dates important to them. Students should feel free to choose their own highlights, to add to the examples below.

### Categories:

- phases of the moon (full, new, waxing, waning)
- date of appearance of constellations (i.e., Orion - winter)
- summer and winter solstice, fall and spring equinox
- open and closed seasons for nearby parks, conservation areas, and pro-

- grams offered at these centres
- important social and religious events; these should include celebrations in the various cultures in which students have their roots, other events researched, and special local events
- a natural, ecological record of the year, which will be added to each day, including details such as:
  - high and low temperature
  - sunrise and sunset
  - sunny or cloudy skies
  - when the leaves change colour
  - when leaves begin to fall from the trees
  - first and last frost
  - first snow
  - ice on the surrounding bodies of water
  - signs of spring
  - births, deaths, and migrations of animals and plants the students know
  - outdoor activities associated with these natural events

The **Calendar of Our Place** serves as a focal point, being updated or discussed daily, or at least a minimum of three times a week, in the class. At the end of the year, it will provide a summation of various events of importance to the students, some of which they might never have thought about previously.

### INDIVIDUAL FOCUS:

#### Neighbourhood hike

Theme: Recording the Changes

In the area around your school, plan out a hiking route through streets and parks. Once a month, or timed according to a change of season or the appearance of the area, walk with the class around the route. Encourage the students to keep their eyes and ears open, and observe everything possible, without disturbing the observing experience of the other students.

Upon returning, have each student record his or her impressions of the surroundings in

one of several ways listed below (feel free to originate other ideas of your own):

- draw or paint a picture of a memorable spot along the route, including buildings, plants, animals, open spaces, etc.
- write down a descriptive paragraph of the sounds, smells, and physical sensations experienced during the hike.

Have the student (or the teacher) collect these works in a file. The descriptions of the area are reviewed at the end of the year, in order to compare the changes which have occurred over the course of the year. The students can even be encouraged to continue this process over the summer, handing in a report in September to their new teacher about further changes which occurred over the summer months.

### CLASS/GROUP PROJECT:

#### Map-making

Theme: Creating maps with features important to the user.

A final map of the neighbourhood hiking route can be developed by the class, including important landmarks, relief, and significant features discovered during the hiking exercise.

This exercise can incorporate the program of developing a sense of place and ecological consciousness into the traditional classroom discipline of Geography, by teaching geographical concepts to the students in the process of creating the local map. Emphasize that a map is only a representation of the real area, which can seem very different when experienced by the students themselves.

The final version of the map can be used to introduce new students and teachers to the surroundings of the school.

## CLASS/SCHOOL PROJECT:

### School Garden

A garden, including trees, wildflowers, even fall bulbs, is designed and planted on the school grounds. The design of the garden and the plants in it can be adapted according to the conditions of the school grounds. The students will have a stake in the garden, which will encourage them to care for and enjoy it.

If funding for such a project is a difficulty, each class in the school can participate in fund-raising projects, with a specified goal. For incentive, an award could be given to the class which raises the most money. Alternatively, families could donate necessary equipment and plants, if these resources are available among the students.

#### Designing the garden: Research project

The garden can be planned to include native species of plants, and plants which attract certain butterflies or birds to enhance the beauty and interest of the garden. Education about plants invading from other continents, such as purple loosestrife which invades marshes and out-competes native vegetation, can be incorporated in the classroom design of the garden.

The class can be divided into groups in the design process, each researching a different plant for the garden. Facts about each plant most useful to include in this research project are:

- method of planting (seed, seedling from greenhouse, bulb)
- when to plant
- care of the plant
- plant's life cycle, reproduction
- physical structure of plant
- season of flowering
- winter survival strategies

For higher level science and biology programmes, the development of the school garden can serve as an example of local plant life and provide specimens of different species for examination or identification.

## INDIVIDUAL OR GROUP PROJECTS:

### History of Pioneer or Earlier Local People

Research projects done in a small group or individually in order to learn more about the history of the people who first settled or lived in the region. The separate projects can be compiled when completed into a class booklet. The research projects could be chosen using the following topics as a guideline:

- culture, language, traditional dress
- traditional medical practices
- myths
- way of understanding the world
- religion
- sustenance/way of life
- present situation of these people.

Feel free to include other topics of relevance to your particular region. The 'pioneer or earlier' local people may include indigenous people, early settlers, or those who first began to make use of resources available in the area.

Once the students have selected topics, have each write a story about that particular aspect of their own life. In this way, the students may more easily identify the similarities and differences between their present way of life, and that lived by the earlier people in the area.

After the research projects are underway, or completed, a visit from a local indigenous person, perhaps an elder, or an older person who has lived in the area for a long time, would provide interesting and relevant personal understanding of the area for the students. The students would prepare questions for the visitor based on what they had already learned.

Alternately, the local guest could provide an excellent resource to the class at the beginning of the project. Before the invited guest arrives, the students will each share their stories of the origins of the region. The indigenous elder will share his/her story of

local history, and together the students, teacher and guest can come to a more complete understanding of this history.

Several sources of information are available in most localities, such as books on local history available in the library. The school library might be willing to supplement their collection with books on local history often available at specialty book and gift stores. People such as the indigenous guest are also an excellent resource for students.

### CLASS ACTIVITY

#### Understanding the Bioregion

A **bioregion** is an area identified by common geographical and biological characteristics, such as watershed, topography, vegetation, and fauna. As a class, develop a map of the local bioregion. The map will be something of a cooperative effort between the subject areas of geography and biology. In fact, if enough time is available, create several maps, each focusing on a different feature.

The following features can be included in the class map(s), varying according to the age of the students and the time available for the project:

- rivers and lakes
- topographical relief
- habitat regions of native plants and animals
- hot spots: - major sources of pollution
- areas affected by this pollution
- settlement patterns - present and historical

The Story Model can be useful in helping students develop a personal relationship with the bioregion.

### CLASS AND INDIVIDUAL PROCESS

#### Lifestyle Audit

In order to make the lessons of this program for developing an ecological consciousness and a sense of place more relevant in the everyday lives of the students, a 'life-

style audit' can be developed and performed. Students will have an increased awareness of how many of these concepts extend into each of their lives. 'Audits' can be performed in the areas described below, and in any other areas the students and/or teacher feel to be relevant.

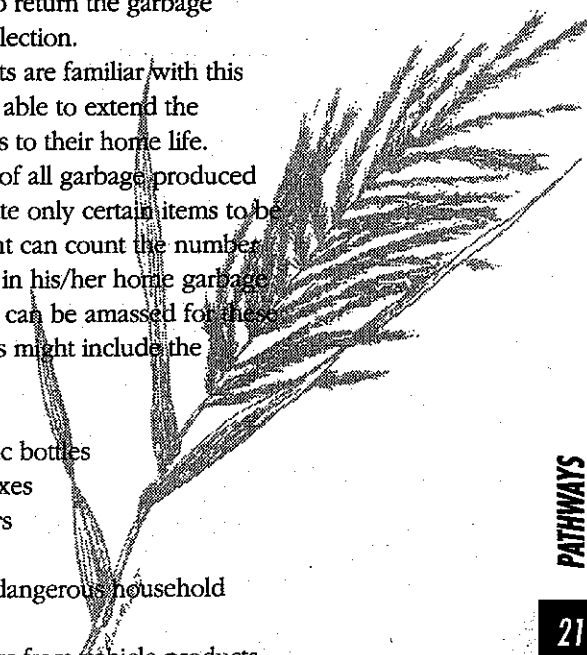
The 'lifestyle audit' process will be a rather large project, and would be best placed near the end of the programme of study, to provide an avenue for self-reflection and personal action on many of the ideas and subjects learned about during the course of the year.

#### Garbage Audit

Conduct a garbage audit for either the class, or the school as a whole. For a period of one week, collect all of the garbage containers about an hour before the custodians normally replace the garbage bags. Separate the garbage into piles of similar materials, such as paper towel, pop cans, pens, pencils, computer paper, binder paper, leftover food, glass containers, etc. Count or weigh the amount of material in each category, whichever is most appropriate. The students may be quite surprised to discover how much garbage they are able to collectively produce on an average day! Do not forget to return the garbage containers before collection.

Once the students are familiar with this process, they will be able to extend the garbage audit process to their home life. Rather than an audit of all garbage produced in the home, designate only certain items to be counted. Each student can count the number of these items found in his/her home garbage cans, and class totals can be amassed for these categories. Categories might include the following:

- tin cans
- glass and plastic bottles
- paperboard boxes
- plastic wrappers
- batteries
- containers for dangerous household chemicals
- waste containers from vehicle products
- paper and envelopes



Alternative disposal sites and recycling depots can be investigated for many of these items which are normally thrown out in the regular garbage.

### Energy and Water Use

Have each student in the class collect information from home about their families' total use of:

- electricity
- natural gas
- oil
- water

Investigate the sources of each of these resources, and make a flow diagram chart of the pathways followed from the source to consumption in the home. Explore alternative sources of energy, and methods of using less energy and water.

### Indoor versus Outdoor Activities

Each student will make two lists, one of outdoor activities he/she is involved in and the amount of time spent per week doing these activities, and a second similar list of indoor activities. The students can evaluate how they encounter the natural world in the course of these activities.

### Transportation

For each family, determine the type of transportation used, the amount of time each week it is used, and the approximate total distance travelled. Find out how many families use private vehicles, public transportation, bicycles, and walking. Record the energy or fuel sources used by each type of transportation, and the approximate amount of this energy used by the families of students. Explore alternatives to private vehicles which can often be used.

### Supermarket Tour

A Supermarket Tour provides an opportunity to learn about the sources of the food we eat, and many other products we use. For food products, the students can learn where the food originates, how it is distributed and

processed before it is available for consumption in the grocery store. The students will be better able to realize how connected we are to other countries in the world. After the Tour is conducted, a class discussion or small research project would serve to investigate local food sources, as alternatives to an increasingly global market for products very basic to life.

### FIELD TRIPS

The exact nature of possible field trips will depend on local resources. Some examples and suggestions are listed below:

- Camping trip to learn outdoor survival skills and/or orienteering. Several programmes and facilities exist to support such activities, such as Kingfisher Lake near Thunder Bay.
- Canoe outing, if this is possible in the area. In the Hamilton-Wentworth watershed, programmes are available through the Royal Botanical Gardens to explore and learn the natural history of Cootes Paradise by canoe.
- Look to the parents of children in the class for ideas. Many will have particular outdoor or gardening skills to share, or a country home or farm which could provide new experiences for those whose main experience has been in the city.
- Visit a local farm to discover how things grow, where eggs, milk, grains, vegetables, beef, chicken, etc., come from. Learn about the concept of, and renewed interest in, organic farming.
- Skiing or snowshoeing outing in winter.
- Visit local industry, and question them regarding their community involvement, concern for the community, and care for the environment.

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*SUZANNE WEBER is a former student in the Arts & Science programme at McMaster University, where this paper was developed for a fourth year course on Environmental Thought. She is currently in the Environmental Studies Programme at the University of Waterloo.*



*The Trailblazers series continues, drawing on Ontario pioneers, movers and shakers, and role models in professional outdoor and environmental education. Can their experience and insight help those of us working in the present to shape a better future?*

## Frank Glew

*Frank is enormously active and effective in his role as Co-ordinator of Outdoor Education for the Waterloo County Board of Education. Their strong day-use centres, progressive Kindergarten to OAC outdoor learning opportunities, the in-school push for environmental literacy that Waterloo students receive, are all traceable to Frank's vision and quiet tenacity. He has a Lao-tse approach to working with fellow educators. His work on values education in helping to understand the development of environmental literacy is known and used by many outdoor/environmental educators.*

## FRANK GLEW

### 1. THE INSPIRATION QUESTION

**Where:** Most definitely while walking through a forest in awe of the life and habitat around me and trying hard to see where we fit in as humans. Canoeing in Algonquin with my family and dog.

**What:** Feeding a chickadee out of my hand and realizing the trust that this little bird has to put in us in order to feed. Are we deserving of that trust?

**Who:** Robert Frost, Bill Andrews, Rachel Carson

**How:** I believe that humans are innately altruistic as a species and can easily transpose positive empathetic feeling towards other species and habitat.

**When:** Spring - in awe and wonderment at rebirth and life at all levels. Anytime I see a child's or teacher's eyes light up from a Gaia experience. Sunset, waterfowl mating rituals, fresh water insects.

### 2. THE SIGNIFICANT EXPERIENCE QUESTION:

I saw students coming out to our centre and expecting to see hundreds of wild animals, but not being patient or quiet enough to really observe properly. Yet I could not give up, so I settled for second best - a simulation of a deciduous ecosystem where students played the role of wild animals trying to survive. *Instincts for Survival* was born (1972). While walking through the woods, I thought of how I might capture their interest and create empathy, but at the same time help them learn something. It turned out to be a good mixture of affective, psychomotor, and cognitive learning.

This success gave me inspiration to work more in this area of values development. I have had students come up to me, even after 10-15 years of playing the game, and tell me what role of animal they played and how it helped them to go further in environmental education. The positive feedback was the biggest reward.

### 3. THE CRYSTAL BALL QUESTION:

**Promote:** Lobby and write to Ministry of Education to put Outdoor Education in curriculum documents. We need to be recognized.

It should be mandated if we are serious about harmony with nature and interconnectedness with the earth.

**Improve:**

1) Make sure you have curriculum connections.

2) Keep up-to-date with all educator's research and apply it to Ontario Education. Example - O.B.E., Environmental Values, Environmental Education, Self-Esteem, Evaluation, Issues.

3) Make sure we are an integrated strategy for all subject areas, not an add-on.

4) Make a visitation to Outdoor Education Centres as easy as possible, i.e. busing, logistics, comfort levels.

**Not Doing:** Don't separate ourselves from other subject areas. Do not be too theoretical. Do not take the wonder and fun out of Outdoor Education.

#### 4. THE BOOK QUESTION:

1) *An Inquiry Into Values for a Sustainable Society* - Lester Milbraith, 1987.

2) *Vanguard for a New Society* - Lester Milbraith, 1984.

##### Future

3) *Fitting Out of Classroom Experiences into Outcomes Based Education and the Real World.*

#### 5. THE VISION QUESTION:

1) Unless we change the present social paradigm of domination and aggressiveness towards nature, we are limiting our future as a species. I hope, as outdoor education leaders, that we can promote and complement Environmental Literacy.

2) We must use the curriculum as a vehicle of social change and learn more about developing environmental values.

**It is not what you know, but what you do with what you know that really matters. What you do is a result of what you value.**

### Ralph Ingleton

*For over 20 years, Ralph supervised the Forest Valley Outdoor Education Centre, a day-use centre of the North York Board. From that position, he kept Forest Valley on the forefront*

*of all site and programme developments in outdoor/environmental education. (He 'retired' in 1993.) Although his sense of humour is what first registers, he may be best known as a champion of causes and networks. His foreground and background leadership towards improved effect and improved professionalism has been felt by professionals in education, outdoor recreation, camping, government, and community.*

## RALPH INGLETON

### 1. THE INSPIRATION QUESTION:

When I lived on our family farm, I learned to live close to the land. As a young boy with an artistic and nature 'bent,' I was inspired by the wonders of streams, ponds, the old sugar bush, and the great wealth of things grown on our fields. The land always inspires me, and I love to travel across it, especially by car or canoe.

When I became a camp director at age 18, the youngsters gave me new insights, because their curiosity and directness of speech were refreshing after being in high school with hip teenagers.

Ken Strasser (former naturalist with M.T.R.C.A.) and I were good friends, and he will always be an inspiration. Lloyd Fraser, with an unique philosophy of 'direct experience learning,' taught me a great deal. Clarke Birchard's broad perspective is always inspiring, and in recent years, Skid Crease, who is often misunderstood, has expanded our view of outdoor education through his global vision.

I have always admired the philosophy of our native people and wished that our economic imperative could be changed to admit their wonderful vision. However, our philosophy of science and economics will not really allow this until we, as educators, can change thinking and economic behaviour.

Dorothy Walter was always helpful as a leader and one who could open doors for Outdoor Ed.

## 2. THE SIGNIFICANT EXPERIENCE QUESTION:

Yes, being appointed a Day Camp Director for Simcoe County at age 18. I had a staff of five and organized a camp for 40 kids, every two weeks, near Barrie. Our programme was nature and water (swimming, etc.) based. Learning was natural and informal, but the effect was evident in the attitudes and knowledge of the kids. After that, I became a teacher, and at every opportunity, used the outdoors for learning. I was a very different kind of teacher, who took kids to beaver ponds (near Capreol, Ont.) to have them observe the beaver and other wildlife living in and around the pond. The kids responded by drawing pictures, writing stories, and recalling events. Good stuff!!

The other experience was the first C.O.E.O. Conference at Dorset and the international conference in Toronto in 1976, The Man-Environment Impact Conference. Good conference!

## 3. THE CRYSTAL BALL QUESTION:

Our first priority is to decide, 'what is the future of outdoor education as presently practised?'

Much O.E. was born in the 'rich sixties' and has not changed in some areas. Too many people perceive O.E. as basically a social experience outdoors. This perception is simply not good enough. There must be a strong appeal to use direct experience to improve knowledge and values towards our biosphere. This is not well organized yet, but there are signs of hope. We must lobby for O.E. as environmental policies are being down-played politically in harsh economic times. We need to evaluate our resources and promote 'the good stuff,' such as healthy lifestyles and a

healthy planet. We must also come to terms with resource uses as we are perceived as tree huggers who do not see that we live by using resources. We must cut the tree down and at the same time, lobby for good practices of cutting those trees.

It is time we recognized economics of the environment or else we will be lost in just dreamy ideals.

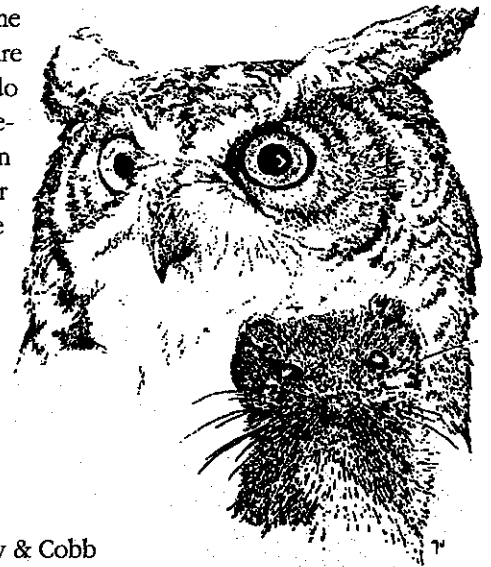
## 4. THE BOOK QUESTION:

*For the Common Good* - Daly & Cobb  
C.O.E.O. needs articles that feature global connections between people and the environment. All the big issues - reforestation, technological impact, human rights, land use and wilderness, endangered spaces, native claims, etc.

We need to help build bridges in secondary school departments and use environmental education as the integration tool. We need models of how to proceed to make integration happen in secondary schools.

## 5. THE VISION QUESTION:

We must decide in C.O.E.O. what is our **common goal** as I do not believe we have one. Outdoor Education in our current context is not understood and therefore difficult to sell (i.e., recent experiences in the Peel Board). When we decide on the goal, we need an action plan that addresses the main planks of the vision. We must, as always, continue to interact with other groups to join forces. There are too many groups now! Stupidity! We need common goals, a common vision, and a revised outlook that reflects real concern and caring for the earth and its people.



## 'WHAT FIRE MAKE?'

by Mark Whitcombe

on exchange to Yenworthy Lodge, Exmoor, Somerset, United Kingdom

### Some journaling excerpts

#### Monday, June 27: A wonderful day at Yenworthy!

- Certainly one of the highlights of the year! I worked all day with three wheelchair kids, Sarah, Paul, and Helen, all about 14 years old and disabled by cerebral palsy. Three kids and nine staff: myself, two Year 10 girls on work experience, and six staff from the special needs school. (You can imagine the requirements of looking after three kids around the clock for a week....)

- Thank goodness for warm, sunny, and dry weather! We put climbing harnesses on the kids and lowered them down the Tube (an 8m long fibreglass tunnel that kids use to slide down the hillside) - screams of joy and excitement! - and many repeats! Then we abseiled/rappelled them in their wheelchairs down a steep grassy slope. I belayed them - they were all somewhat in control themselves, though there was always one staff behind the chair guiding it. Sarah was fully in control with her strong right hand and her wonderful attitude! Paul's hands were not quite so reliable but he was all enthusiasm! And Helen in her excitement (she's non-verbal and uses Bliss symbols to communicate) would grip the rope so tightly that one of the staff would have to go along beside her, prying her fingers loose.... But the thrills!...

- Then after lunch we took nearly two hours to put them all repeatedly down the zip-wire! I think we used as much climbing hardware on them as we could possibly fit, to keep them upright on the board seat: a climbing harness, a broad sling seat, at least four climbing slings, and up to 10 carabiners! But at least they all stayed on the seat, somewhat uncomfortable but more than bomb-proof safe. The screams of excitement and the looks of joy were heart-warmingly wonderful!

The smile in Helen's eyes as she was launched over the chasm!!! Sarah said, as I hoisted her up onto the seat all trussed up, 'This is the most disabled I've ever been!' in a real tone of wonder and appreciation! Somehow that stands out as one of the quotes of the year - though it may not sound like much....

- Lastly, we got them 'climbing' up the wall, Pete climbing up beside them, guiding, and me hauling them up using a Z-hoist rigged with carabiners. This was the highlight of the day for Paul - he had been waiting for months to do this! Not much for us, perhaps, to haul a kid up, but the experience for him was certainly very powerful!

#### Tuesday, June 28: 'What Fire Make?'

- I described three options for the evening to the combined group of Year 8's and Special Needs kids: short walk with reflection time/ North American Native games and stone tools/ the Web of Life Game. Helen had a question for me, which she shakily but with great concentration pointed out on her Bliss board: 'What Fire Make?' - How would I make fire?

So after we rinsed all the surfing gear (Paul and I had a spraying match with the hose! - which he loved!; the rest of the kids loved to see him get me!; and Helen was in constant stitches of laughter!), I gathered everyone on the pavement outside the bootroom and did the fire-by-friction thing, concentrating mainly on the fire and not too much on the stone tool technology stuff. I passed the ember around, ending by blowing it into flame right in front of Helen - the look in her eyes! She was actually able to relax enough to give a sort of puff too! And Sarah got down from her wheelchair onto the ground and tried the fire-bow, as did Paul, showing much more willingness than the regular kids - though after that example, the regular kids did get much more involved ... I also got Helen 'trying' by setting the hearth



board on her wheelchair tray and doing the best I could to gently move her rigid-with-excitement arms.

- What a lesson! - the whole evening programme coming from a simple but good question from a disabled kid whom most of us did not think could even communicate! ... a little sermon to that effect to the kids....

- And the whole day earlier surfing at Puttsborough with the three kids was amazing! Phenomenal rewards working with these kids: the look of glee mixed with terror on Helen's face as she saw waves coming at her, followed by screams of adrenalinized joy as they washed over her!; the pure exuberance of Paul!; the trust of Sarah, who also had a very childish - difficult for her! - time playing with drip castles and 'trombones' with Cathy.

### Wednesday, June 29

- A day of canoeing on Whistlandpound with the disabled kids - more sedate than the exhilaration of the last two days, but still new experiences with great thrills and fears. Tied two wooden poles across 'Canadian' or 'open' canoes (as opposed to kayaks, which are 'canoes' to most folk here ...) to make a catamaran so sturdy that I could walk along the outside gunwhales, and then made an A-frame with poles rigged fore-and-aft to haul up a fly-sheet as a sail. David took the wheels off the wheelchairs and used electricians' ties to strap the chairs into the canoes - the kids would not have been comfortable down on the bottom of the canoes, needing lateral stability and something to keep them from sliding forward, Helen especially, as she becomes rigid with excitement....

Gillian came with me today, 'skiving' from school to be my other sternsperson - a good experience for her as she worked with the different people and carried out the various responsibilities.

- Carrying the kids into the canoes, strapping them in, splashing them ceremonially, paddling away from the jetty, encouraging them as they splashed away sorting out some kind of stroke, helping Helen relax her excited

muscles enough to grip a paddle (hard enough for just one hand, but for two to relax!), having them hold the sail and feel the tug and pull of the wind, Helen's eyes as I waltzed with her across the jetty when we landed for lunch, Paul trying to splash me - and then Helen desperately trying to get her co-ordination together enough to join in - what a wicked sense of humour that kid has! The capping event - for me as much as for them - was oh-so-slowly lowering each in turn into the water with mock helplessness on my part: 'Oh no, you're falling into the water! Help!! Help!!!' Paul nearly wriggled out of my grasp with delight as he felt the water flowing over the tops of his wellies; even marmish Sarah let herself enjoy that silliness; and Helen went stiff with gleeful excitement as I came to lift her out in a bear-hug embrace. I got the very powerful feeling that if I did not soak her to the knees too.... So I waltzed her across the jetty, 'stumbling' her into the water, she with a huge smile and a body stiff with excitement.

### 'Thanks to the human heart by which we live'

So is this wrong, loosing these birds out of their wheelchair and sheltered cages, only having them return home at the end of the week's experience perhaps dissatisfied and shackled? No. Cathy's analogy is with us going on a vacation - or this whole year - and then coming back to everyday life, enriched by the experiences and memories of that unfettered time. As Helen asked, 'What fire make?' - How do we set that flame of liveliness going?

*'Thanks to the human heart by which we live,  
Thanks to its tenderness, its joys, and fears,  
To me the meanest flower that blows can give  
Thoughts that do often lie too deep for years.'*

William Wordsworth

*Ode: Intimations of Immortality from  
Recollections of Early Childhood*

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*Pathways Editorial Board Member  
MARK WHITCOMBE has just returned  
from a year's exchange in England.*

## SMACKERELS OF SOMETHINGS - DEHYDRATING FOOD AND HOW TO USE IT

CARMEN DITZLER

**O**n a 90-day canoe trip from Rocky Mountain House to Thunder Bay, my companions and I used to play a food game. This particular game evolved, as games tend to do within small groups of people on extended trips. During the first part of the trip, the game consisted of bugging Cheryl about what was for supper. Cheryl had planned the menu but delighted in holding back the answer to the occasional casual, 'What's for supper?' comment starting right after we got the canoes on the water in the morning. Later in the trip, as we all had access to the little menu-book and knew what was for supper, the game became like this: the challenge question was, 'What did we have for lunch on ... Day 27?'. The scary aspect of this game is that each of us could make an accurate, if not completely correct, guess at what the answer was. This was not because our menu was the same all the time or went in a pattern, but because the food was usually memorable enough to recall. Maybe we could remember because we were hungry or maybe because it's a link to home, remembering dehydrating and packing it. I do know that if the food is terrible it brings a distinct flavour to the trip - the group no longer thinks about meals the way that Winnie the Pooh does:

*"When you wake up in the morning, Pooh," said Piglet at last, "what's the first thing you say to yourself?"*

*"What's for breakfast?" said Pooh. "What do you say, Piglet?"*

*"I say, I wonder what's going to happen exciting today," said Piglet.*

Pooh nodded thoughtfully.

*"It's the same thing," he said."*

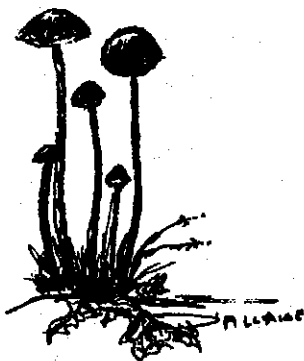
*(Milne, 1926, p. 159)*

Food can be memorable as in, great tasting, or easy to prepare in the rain, or saddest of sad, had an accident like spilling

into the sand and was still good enough to eat. Memorable, tasty, and exciting food makes a good trip into a great trip. My purpose in this article is to give you a few hints and ideas about how you can add variety, flavour, texture, and nutrition to meals by dehydrating food and using it on trips, without having to spend a lot of money on commercially dehydrated or freeze-dried foods.

Dehydrating is the process of taking the moisture out of food so that it becomes non-perishable and lighter to carry while maintaining most of its flavour, texture, and nutrition. With dehydrated foods you can create infinitely exciting combinations of foods for outdoor trips or at home. The second part of dehydrating is rehydrating, which is returning the water to the food. Rehydrating is easy: just soak the food in a container of water ahead of time. I use wide mouth Nalgene containers because they are leak proof, and I can add the water and food, put it back in my pack for the day, and bring it out when I need it. This stage is important for two reasons. One, if the food is not rehydrated properly it adds too much texture and it is hard to eat. Two, if the food is not rehydrated properly, it can cause bowel upset and stomachaches. Both of these important reasons were discovered the hard way - experientially!

There are quite a few books on dehydrating that explain how to build a dehydrator, and how to dry the food, but there are some things that I have learned from six years of dehydrating experience that help the process along. The first secret is that you do not need a fancy dehydrator in order to try this process. It makes it worthwhile to build a simple dehydrator like the one in Gen MacManiman's *Dry It You'll Like It!* only if you are going to use it a lot. A dehydrator in its most simple form is a box with four sides and a top, that holds screens or racks and has a heat source



at the bottom. To try dehydrating and see if you like it you can use your oven, the top of your hot water heater, the space above a wood stove, or the sun. The important concept is to have warm circulating air of 95-100 degrees F or 40 degrees C. The way to accomplish this is to have some screens to put the food on, and to use a thermometer to find an area with the right temperature. Lay some food out in the screens, come back in about twelve hours to check if it is dry, and if not leave it a little longer. Easy ... right?

My food wizard friend, Cheryl, and I, have experimented with many different foods, and some work, while others do not. Food that are fairly 'dry' (not runny) can be placed directly on the racks or screens. Other 'wet' foods are best dried on plastic wrap. Remember to leave room for air circulation around the food on the trays rather than packing them full. The specific instructions for drying that follow also contain some tricks for rehydrating that are just as important for success.

**Vegetables:** Some vegetables can be sliced up very thinly and dried raw. These include:

**Cabbage** - added to soup, almost like fresh

**Carrots** - raw carrots that are dehydrated and then rehydrated can be used in salads, and maintain most of their flavour and consistency

**Green peppers** - lose some of their texture, and are never as juicy, but retain excellent flavour

**Mushrooms** - use only fresh! Canned mushrooms dehydrate too well. They become little black bullets that won't rehydrate, no matter what you do. What are these black things anyway?

Potatoes are a lot of work, and we found that instant potato slices (such as 'Idahoan') work better than homemade and are fairly economical.

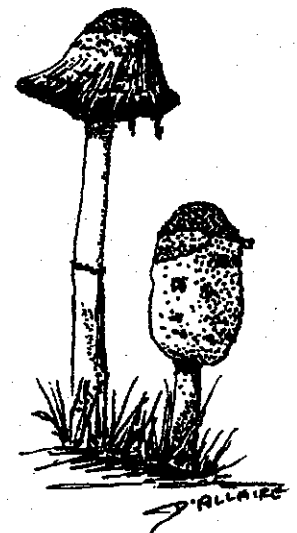
Other vegetables are better blanched prior to dehydrating, such as peas and corn. I buy packages of frozen peas, corn, green beans, and carrots mixed, and oriental mixes of

broccoli and cauliflower. These save time in preparation because they are already blanched. Rinse the frozen vegetables with fresh water, dry off the excess water on tea towels, and then spread them on the racks. We found the only frozen vegetables that do not work are carrot slices. These carrots shrivel into little orange bullets and will not rehydrate. We found this out the hard way after two days of soaking and then boiling them - orange carrot bullets are not a nice addition to carrot loaf in the middle of a trip! If you are blanching your own fresh vegetables, it involves submerging the vegetables in boiling water for a short period of time, (to destroy enzymes that break down the food), but not cooking the food completely.

- It is important to dry food *completely*. Immediately after drying, put the food into airtight containers or Ziplock bags because home dried foods tend to reabsorb water from the air and can then spoil.

- A hint for quantities of dehydrated food is: Measure out how many cups of wet/fresh food you have when you put it on the trays. Record this number, and then divide the dry vegetables into servings accordingly. For example, 3 cups wet vegetables when dried divides into 3. This will equal 1 cup wet vegetables when rehydrated. This may seem like a lot of work, but when you are packing meals using dehydrated vegetables, it becomes impossible to estimate how much you need. An amazingly small amount of dry food becomes a large amount when it is rehydrated on trail and leftovers become difficult to deal with.

**Meat and fish:** I have used canned chicken, turkey, shrimp, tuna, and clams. You could also use beef and pork if so desired. All of the meat and fish must be packed in water or broth, **not oil**. (Oil-based products run a higher risk of food poisoning.) It is safe to dehydrate canned meats in water or broth if they are dehydrated as quickly as possible (usually around 12 hours) and then sealed in airtight packages. I would not recommend storing them for over three months. Special



techniques to make the canned food look better and maintain texture include draining off the juices and flaking it with a fork onto a tray. The meat or fish can be rinsed with water before flaking, to reduce salt and fat. Hamburger is very easy to dehydrate and rehydrate. Cook the hamburger very well, drain off fat, and soak up more fat by squeezing the meat between paper towel, before spreading it on the trays to dry. I keep dehydrated meats in the freezer until I am ready to pack them for a trip.

**Quick Cook Packages:** One of my priorities when I am winter camping is keeping the weight of our packs down. Most groups also want to reduce cooking time. This saves the amount of fuel we need to carry and fills hungry stomachs quickly. Many people use Lipton potatoes and sauce, or noodles and sauce, to achieve this end. We found these packages to be expensive and salty so we came up with our own winter packages or quick cook packages. The greatest find we came up with is that by soaking and cooking beans like chick peas and then dehydrating them, we could make them quick cooking. We did this with various pastas as well. The instant rice available in stores is made this way, by cooking the rice and then dehydrating it. I just buy instant rice from the store because it is more cost/time effective. There is even brown instant rice available now. In winter there is the problem of not having enough time to rehydrate food without it freezing. These foods only need to soak in hot water to reconstitute most of the way. Combined with soup base, meat and vegetables, we had excellent meals that could be ready almost in the time it took to boil water.

**Sauces:** Any sauce can be dehydrated. What I do, is to tape a piece of plastic wrap onto the screen and spread the sauce thinly over the surface. After the sauce loses its sticky consistency, I turn it over (food side down) on the screen to dry it completely. I dry tomato paste, tomato sauce, and salsa primarily, but I know people who dry thick soups and stews as well. After the sauce is dry, I peel

off the plastic and fold the 'leather' and put it in a plastic bag. To use the sauce, I rip it up into little pieces and add water to cover the pieces. Do not add too much water because you can not drain off the excess. For lunch I soak salsa or tomato sauce in a small water-tight container at breakfast (or the night before) and then at lunch I stir it up and spread it on fresh cooked tortillas. Yum! You can make your own fruit leather by blending cooked fruit to a paste or sauce, and drying it the same way. The home-made product does not look like the stuff from the store, but it is better for you because it does not contain colours, preservatives, or extra sugar, and it tastes great as a snack. I tried peanut butter and banana once, but only once, as you can imagine what it looked like!

### Systems for Organizing and

**Rehydrating:** When using dehydrated food, a person has to think ahead a little bit in order to rehydrate the meal ahead of time. It is a real drag to forget to rehydrate something because then you must eat without it or shuffle the menu around to find something that does not have anything dehydrated in it. When I pack food for a trip, I plan a menu and then pack the meals first individually, and then by day. The menu is then recorded into a little coil notebook. For example: on Day 8 we are going to have Shrimp Leeky. I pack a bag with rice, add a package of leek soup mix, and then add a smaller bag containing dehydrated vegetables and shrimp. This bag is labelled Supper Day 8 and then goes into a bag labelled Day 8. In the menu notebook under Day 8, Breakfast, I write: \*rehydrate shrimp and vegetables. This system serves several functions:

1. It reminds whoever is making breakfast to put the supper food to soak for the day so it is ready at night. Different foods need different times to soak, i.e., meats and vegetables need from breakfast to supper; sauces can be from breakfast to lunch or breakfast to supper; and beans and pulses need from the night before. With the menu book you can write in the reminder at the appropriate place.



2. The book can contain instructions for cooking the meal so whoever packed out the food does not have to help with cooking or give instructions the whole trip.

3. This book can also indicate where the food is located - who has it, or which pack or barrel.

**Warning:** Woe betide the individual who loses the little magic book!!!

### Summary Hints:

- Warm, dry place with air circulation.
- Spread food out on trays (dry on screens, wet on plastic wrap). Leave space for air to circulate. Measure amounts.
- Dry completely, store in plastic bags, and label.
- Use your imagination in menu planning. Rehydrate food before using.
- Yum, eat it!

### Conclusion:

"Let's go and see everybody," said Pooh. "Because when you've been walking in the wind for miles, and you suddenly go into somebody's house and he says, 'Hello Pooh,

you're just in time for a little smackerel of something,' and you are, then it's what I call a Friendly Day'." (Milne, 1928, p. 129)

So when you and your group have been walking or skiing or paddling in the wind for miles and you set up camp, and cook up a fast, tasty meal that is different from the day before, it will be a Friendly Day. Happy Dehydrating!

---

*Carmen is completing a Master's Degree at the University of Alberta. She is studying alternative/green lifestyles, both by interviews with others, and by experience.*

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## THE GREEN SCHOOL AND GREENING YOUR SCHOOL

*Book Reviews by Beth Stormont*

### **The Green School:**

A Resource Booklet Published by the Professional Development Sub Committee of the Educational Services Committee, OSSTF 1991

Available from:  
Ontario Secondary School Teacher's Federation  
60 Mobile Drive  
Toronto, Ontario  
M4A 2P3

**Greening Your School: An Environmental Action Plan for Elementary Schools** was written by the **Is Five Foundation** with the financial support of the Ontario Ministries of Natural Resources, and Environment and Energy.

For further information, please contact:  
Linda Price, Education Co-ordinator  
Ontario Ministry of the Environment and Energy  
56 Wellesley Street West, 14th Floor  
Toronto, Ontario M7A 2B7  
Telephone: (416) 327-1486

I recently compared two resource guides, each very different from the other. In spite of the fact that they are both about 'Green Schools,' the theme is where the similarity ends.

**Greening Your School: An Environmental Action Plan for Elementary Schools** - is just that, an action plan - capital A on Action.

If you want some practical hands-on projects for elementary students and you are serious about making an environmental commitment, then this guide is for you! It contains interesting and realistic projects, not just for the classroom but for the entire school.

This is not just another curriculum docu-

ment - in fact, when the idea for this project was being explored, teachers commented that they did not need another resource guide. Teachers wanted an action plan to accomplish projects that made a difference. **Greening Your School** is not just about learning, but about doing.

**Greening Your School** takes you step-by-step through the 'greening' process, beginning with a school assessment to help your school determine 'where it is at' environmentally. The guide goes on to show you how to help reduce waste, conserve water, cut energy use, avoid harsh chemicals, and bring natural habitats back into the school yard. One of the benefits of this Action Plan is the financial savings which can be achieved through the implementation of the outlined projects and activities.

This guide is currently only available to schools and school boards through a one-day workshop. Participants will receive the **Greening Your School** booklet as well as a Learning Materials Kit complete with a variety of games and other activities.

If you would like further information about the **Greening Your School** project, a 10-minute video is available through the contact listed above.

**The Green School** is targeted at secondary schools and is primarily a curriculum document. All the activities are curriculum based and teacher tested. Emphasis is cross-curricular, with activities ranging from Modern language, Family Studies and the Arts, to Science, Law, and Technical Education.

This Resource Guide is broken down into lesson plans that each include clearly stated objectives, and the amount of time required to teach the unit. Teaching units can require anywhere from 15 minutes for an introductory activity to 3-4 weeks of classroom time. There is a good balance of indoor and outdoor activities, considering that this guide is for secondary schools.

Included in the guide is an extensive resource listing, for everything from green

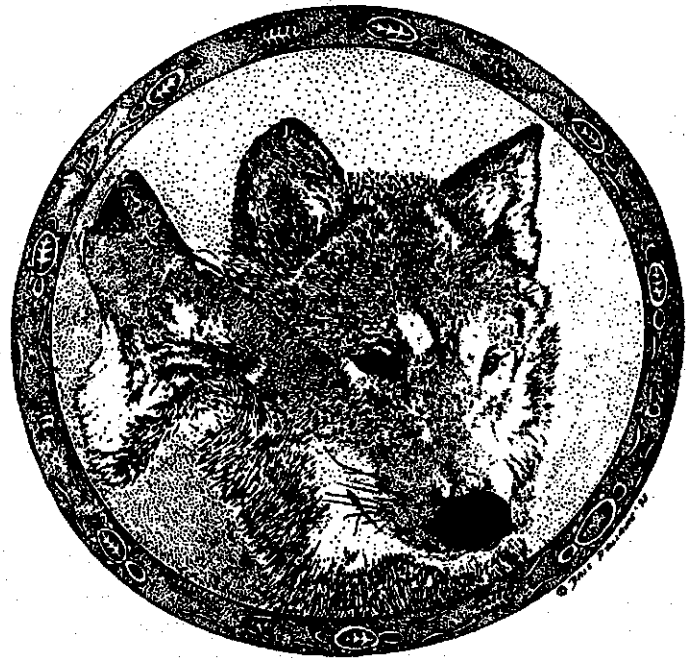
clothing suppliers to fund raising sources for field trips, resource kits, and useful contacts.

Another focus of this guide is the development of positive attitudes and communication for both students and staff.

This book has activities in it for all teachers within the secondary school system. It is nice to see an effort like this being made for secondary schools, as sometimes it seems that they get left out of the 'green' picture.

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*BETH STORMONT is Teacher-Naturalist for the Hamilton Region Conservation Authority.*



*From The Arctic Institute of North America of  
The University of Calgary*

## **SHIELD COUNTRY: THE LIFE AND TIMES OF THE OLDEST PIECE OF THE PLANET**

*by Jamie Bastedo*

280 pages, 3 maps, 20 pages of colour photos, b&w photos, glossary, references, index. Softbound. To order, send \$20.00 plus \$3.00 postage and handling to The Arctic Institute of North America, The University of Calgary, 2500 University Dr. N.W., Calgary, Alberta T2N 1N4.

From the introduction, '...this book is part personal journal, drawing on events that illustrate my relationship with this land. It is also part storybook, portraying the land's past, present, and future as I see it. It is also part reference book, complete with systematic descriptions of ecological phenomena, an extensive glossary of terms and a detailed index. And finally, it is part field guide, providing sufficient information on the region's geology, plants and animals for you to recognize the main ecological players on this particular northern stage.'

An environmental consultant and intrepid naturalist, Jamie Bastedo has authored numerous publications on northern natural history and resource management. *Shield Country* springs from Jamie's unquenchable curiosity about his natural home - the evergreen, granite-studded crown of the continent known as the Taiga Shield.

## **RESIDENTIAL OUTDOOR- ENVIRONMENTAL-EDUCATION CANADIAN/AMERICAN CONFERENCE**

*13th Annual International*

The 1995 Annual Meeting of the Regional Outdoor Environmental Education conference will be held at the Mt. Evans Outdoor Educa-

tion Laboratory School in Evergreen, Colorado between February 18-21, 1995. The conference will be hosted by Jefferson County Public Schools and the Mt. Evans Outdoor Lab School, located in the Rockies west of Denver, Colorado.

The theme for this conference will focus on COMMUNICATION, EXCHANGE OF IDEAS, SOLUTIONS, IMPROVEMENTS, AND NEW CONCEPTS. Participants are encouraged to submit presentations in a variety of ways and means to represent your programme. For further information contact:

Outdoor Education Laboratory School  
201 Evans Ranch Road  
Evergreen, Colorado 80439  
U.S.A.  
Telephone: (303) 674-3633  
Fax: (303) 674-0847  
TRACKING

## **PLANNING FOR SEVEN GENERATIONS**

### **Guideposts for a Sustainable Future**

*By Mike Nickerson*

'It is traditional in some societies, to consider the interests of the next seven generations, whenever decisions are being made. For today's world to do the same would mark our passage to maturity.'

**Planning for Seven Generations** presents the options. Should we make sustainability our goal and re-organize our world? Or should we continue to strive for ever-increasing material growth as we have long done?

The book discusses:

- our relationship with the Earth's ecosystems;
- how certain customs and institutions have become part of the problem;
- the position of economics in the larger field of ecology;
- the **Guideposts for a Sustainable Future**;
- how to assess our every day activities, government policies and development proposals;

- key elements from Our Common Future;
- the variety and nature of the problems we face;
- ways of fulfilling ourselves which actively help overcome the global crisis;
- techniques for co-operation;
- personal and political action, along with ways to place the issue of sustainability on the public agenda.

For information on this publication contact:

**Sustainability Project:**  
P.O. Box 374  
Merrickville, Ontario  
Canada K0G 1N0

## **1994 INTERNATIONAL EXPERIENTIAL LEARNING CONFERENCE**

**November 9-12, 1994**  
**Washington, D.C.**

### **A Global Conversation About Learning**

Sponsored by The Council for Adult & Experiential Learning, The National Society for Experiential Education, and The International Consortium for Experiential Education.

Speakers include Dr. David A. Kolb and Dr. Arthur Chickering, as well as David Hunt of OISE.

For further details, contact the conference committee at 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606 U.S.A.

THE SOIL AND WATER CONSERVATION SOCIETY announce the Environmental Adventures Series, a series of cartoon booklets and teachers' guides covering topics including water quality, horticulture, wildlife, and land management.

For further details on these and other publications, contact the Society at 7515 Northeast Ankeny Road, Ankeny, Iowa 50021-97.Y U.S.A. Telephone: (515) 289-2331.

## **Learning Grounds: A Conference on Naturalization**

Learning Grounds is a regional training session designed to give communities, teachers, landscape architects and students the tools to transform their school grounds into natural outdoor classrooms. Participants will visit local naturalization projects, and attend sessions covering project benefits, planning, case studies, sources of materials, fundraising tips, curriculum integration, community involvement and maintenance.

This workshop has been made possible thanks to the generous support of The Evergreen Foundation, Royal Botanical Gardens, The University of Guelph Arboretum, Environmental Partners Fund, Federation of Ontario Naturalists and La Fondation Yves Rocher.

Where: Royal Botanical Gardens Centre, Burlington

When: Friday and Saturday, November 4 and 5, 1994, 8:30am-5pm

Fee: \$60 (includes meals and tour bus) before October 14 (\$75 after). Student fee available.

Call Royal Botanical Gardens (905)527-1158 for a registration package. (Fax 905-577-0375 / e-mail - bmcckean@mcmaster.ca).

### **Rare Wildflowers of Ontario - Teacher's Resource Guide**

This 32 page booklet provides information on rare plants in Ontario, highlighting 12 species from across the province. Includes range maps, photocopyable drawings and information on present status and reasons for their decline. Also includes 18" x 22" full colour poster. Send cheque, money order, or credit card order for \$10.00 (includes GST and postage) payable to 'Royal Botanical Gardens', to RBG Education Dept., Box 399, Hamilton, Ontario L8N 3H8. Extra unfolded copies of the poster are \$5.00 each.



## ENVIRONMENTAL EDUCATION: ON THE THRESHOLD OF CHANGE

Virtually every nation of the world has agreed, at least in principle, to adopt the concept of sustainable development. At this point in time, however, sustainable development is a theoretical construct, a proposed strategy that seeks ways for present generations to meet their needs without impairing future generations from satisfying theirs.

Of course, theory and practice can often be separated by many miles of rocky coastline. In this instance, most of the world's nations are not miles, but light years away from the practices required to build a sustainable society. To reach this goal, fundamental changes are needed. Environmental education can play a significant part in this process.

As it is currently practiced, however, EE generally fails to support the ideological framework essential to a sustainable transition. In fact, it could be counterproductive. Why?

Most environmental studies classes focus primarily on the issues in isolation from one another. And solutions typically discussed in classrooms are mere palliatives - stop-gap measures. Not surprisingly, most nations address their problems similarly.

Although the segmented issues approach is logical from many standpoints, it draws attention away from the root causes that underlie all environmental problems. Thoughtful consideration reveals many root causes to the current crisis of unsustainability, with several that stand out - inefficient use of resources, abysmally inadequate recycling systems, and our heavy dependence on fossil fuels. Our general failure to restore damaged ecosystems, our failure to control human population growth, and our environmentally hostile ethics are also to blame.

To achieve a sustainable global community, the nations of the world must refashion basic human systems, such as energy, industry, agriculture, waste management, and transportation. Economics, government, and education stand in need of restructuring as well. Why?

The environmental dilemma is not just a collection of environmental ills. It is a crisis of unsustainability - of people living at or beyond the Earth's carrying capacity. More

importantly, the crisis stems from the systems we depend on, which more often than not disrupt natural cycles and deplete resources, thus undermining present and future generations, not to mention the future of the millions of species that share this planet with us.

To be an active part of the sustainable revolution, educators must engage their students in an exploration of root causes and root-level solutions. In addition, we must encourage a systemic rethinking and redesigning of basic human systems.

Do we abandon our course outlines, lecture notes, and textbooks? Only if they perpetuate the myth that environmental problems can be solved separately through end-of-pipe measures.

For now, my recommendation is to stick with the issues approach, but to change the focus to root causes and root-level solutions. And, wherever possible, engage students in a systems redesign.

Recognizing that a total redesign is no easy task, we can encourage students to look at immediate and long-term goals. We can encourage visionary thinking, for without a vision of where we need to be in 100 years it is unlikely we will arrive.

Opportunities are rife for promoting a systemic redesign of human civilization in class discussions, reading assignments, and class papers. In so doing, we can help bridge the gap between where we are and where we need to be.

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*Dr. Chiras teaches in the Environmental Policy and Management Program at the University of Denver and is author of numerous articles and books on sustainable development. He is co-founder/president of the Sustainable Futures Society, 7652 Gartner Rd., Evergreen, CO 80439 U.S.A.*

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# Pathways

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2. quality people, equipment, resources or programmes.

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