Pathways The Ontario Journal of Outdoor Education Autumn 2008, 21(1)







Pathways,

Our mailing address:

The Council of Outdoor Educators of Ontario 1185 Eglinton Avenue East Toronto, ON M3C 3C6

Our website address:

www.coeo.org

COEO

Formed in 1972, The Council of Outdoor Educators of Ontario (COEO) is a non-profit, volunteer-based organization that promotes safe, quality outdoor education experiences for people of all ages. This is achieved through publishing the *Pathways* journal, running an annual conference and regional workshops, maintaining a website, and working with kindred organizations as well as government agencies.

Contributions Welcome

Pathways is always looking for contributions. If you are interested in making a submission, of either a written or illustrative nature, please refer to page 36 for the submission guidelines.

If you are interested in being a guest editor, or if you have any questions regarding *Pathways*, please direct them to Kathy Haras, Chair of the *Pathways* Editorial Board.

If you'd like more information about COEO and joining the organization, please refer to the inside back cover of this issue or contact a Board of Directors member.

Our Advertising Policy

Pathways accepts advertisements for products and services that may be of interest to our readers. To receive an advertising information package, please contact Kathy Haras, Chair of the Pathways Editorial Board. We maintain the right to refuse any advertisement we feel is not in keeping with our mandate and our readers' interests.

The Council of Outdoor Educators of Ontario Board of Directors

Ontario Board of Directors			
President:	Zabe MacEachern		
Past President:	Shane Kramer		
Vice President:	Kyle Clarke		
Treasurer:	Chris Lee		
Secretary:	Laura Yakutchik		
Volunteer Coordinator:	Jane Wadden		
Director At Large:	Denise Biega		
Director At Large:	Kate Humphrys		
Director At Large:	Margot Peck		

W. Scott McCormack

Director At Large:

Pathways

THE ONTARIO JOURNAL OF OUTDOOR EDUCATION

Autumn 2008, 21(1)





Pathways Editorial Board

Chair: **Kathy Haras**

Adventureworks! Associates Inc.

Scott Caspell

Bob Henderson

Department of Kinesiology, McMaster University

Ian Hendry

Zabe MacEachren

Duncan MacArthur Hall, Queen's University

Darrell Makin

School of Outdoor Recreation, Parks and Tourism, Lakehead University

Gavan Watson

Managing Editor: Randee Holmes

Features

Education for Character4
The Journey to Inspire
Darren Black
Education for Curriculum10
Integrating a Critical Multicultural Science Education
Approach in Outdoor Education
Azza Sharkawy
Education for Environment14
Photos and Plants Through Time: Monitoring Environmental
Change in the Canadian Arctic with Implications for Outdoor
Education
Morgan Ip, Bryan Grimwood, Anita Kushwaha,
Nancy C. Doubleday and Shawn G. Donaldson
Education for Wellbeing19
A Waka Ama Journey: Reflections on Outrigger Canoe
Paddling as a Medium for Epistemological Adventuring
Nālani Wilson
Columns

Editors' Log 2)
Greg Lowan and Scott Caspell	
President's View 3	,
Zabe MacEachren	
Explorations24	Ļ
Greg Lowan	
In the Field)
Cathy Bernatt	
Beyond Our Borders	•
Colleen de Coninck Smith	
Backpocket34	Ļ
Charlotte Jacklein and Scott Caspell	
Submission Guidelines)

Pathways is published four times a year for The Council of Outdoor Educators of Ontario (COEO) and distributed to COEO members. Membership fees include a subscription to Pathways, as well as admittance to workshops, courses and conferences. A membership application form is included on the inside back cover of this issue of Pathways.

Opinions expressed in *Pathways* are those of the authors and do not necessarily reflect those of the *Pathways* Editorial Board or COEO. Advertising included in *Pathways* should not be interpreted as an endorsement by COEO of the products or services represented. All rights reserved.

Articles in *Pathways* may be reproduced only with permission. Requests must be made in writing and should be directed to Kathy Haras, Chair, Pathways Editorial Board.

> ISSN: 0840-8114 Pathways is printed on recycled paper.



E ditors' Log.

After a year in progress, we are pleased to bring you this special theme issue, *Cultural Considerations in Outdoor Education*. We are thrilled that our call for articles was heard far and wide, resulting in submissions from a diverse range of authors discussing outdoor education in a variety of cultural and geographic contexts.

Beyond our borders, Nālani Wilson shares her experiences as a Hawaiian facilitating cultural learning through outrigger canoe paddling in New Zealand. Darren Black discusses his journey to inspire youth to their potential through his work with Outward Bound Australia. Cathy Bernatt also provides an overview of Outward Bound Japan's experiential language program.

Closer to home, COEO member Bryan Grimwood co-authors a piece with colleagues from Carlton University about a collaborative research project that monitors ecological change in Cape Dorset, Nunavut. This article provides several strategies for educators to foster place-based learning while keeping an eye on environmental change in their communities. Colleen de Coninck Smith discusses the complexities and successes of her experience as an environmental educator in Kenya. Azza Sharkawy shares ways that outdoor educators can develop a critical multicultural science perspective through the use of storytelling. Greg Lowan also contributes with a discussion on his master's research into Outward Bound Canada's Giwaykiwin Program for Aboriginal Youth.

Over the past few years, the two of us have had the opportunity to teach and learn in an

array of physical and cultural landscapes. Our experiences range from working with indigenous youth across Canada to community education projects in New Zealand to involvement with Outward Bound courses in Ontario, Northwest Territories, Quebec, Alberta, Australia and Japan. While playing an important role in shaping our personal and professional paths, these experiences have also made us critically aware of the complexities and challenges often involved in facilitating, researching or participating in intercultural educational programs. Our intention is that these articles will foster culturally sensitive thought, dialogue and practice. As outdoor and environmental educators, let us remember to celebrate and nurture cultural as well as ecological diversity in our communities and classrooms.

We hope that you will find this issue both informative and thought-provoking. As the autumn daylight hours continue to wane, we encourage you to find somewhere special to absorb and engage with this volume of *Pathways*. Enjoy!

Greg Lowan and Scott Caspell

Greg Lowan is happy to be living close to the Rockies again while pursuing doctoral studies at the University of Calgary. Greg welcomes correspondence at gelowan@ucalgary.ca.

Scott Caspell is enjoying his exploration of cultural considerations in outdoor education through his travels and work with Outward Bound Canada. Scott welcomes correspondence at scottcaspell@hotmail.com.

P resident's View _

Another fall of warm colours is upon us and like so many COEO members, I too am trying to balance the hectic-ness of busy schedules with the quiet contemplative time of just kicking up a few leaves while on a hike and sighing at the sight of another dazzling landscape of colour.

Many thanks go out to the COEO members who organized a fabulous conference at Camp Kandalore. It was wonderful to be in the north and at the home of the first canoe museum. The workshops and speakers made us think. And the dancing, in true COEO fashion, got us all hot and sweaty, not to mention dizzy and silly. Personally, I loved the way the wooden floor shook and held together.

A lot of people keep congratulating me on accepting the presidency of COEO, but I'm not always sure congratulations are in order. As a past board member and routine conference-goer, I am well aware of the enormous amount of work Shane Kramer (now the past president) completed. Needless to say, I feel somewhat intimidated by all of his work. He may look up to me in height, but I definitely look up to him with respect for all he has eloquently done throughout his term. Well done and thank you, Shane. I look forward to working with you, learning from you and trying to fill your shoes.

As I was leaving the conference site, I had a few conversations with some long-time COEO members. Everyone was quite pleased to see new younger members join the board, and I agree. COEO has always existed due to the relentless ability of new and older members to

volunteer their time to make things happen. So thanks to the returning members — Kyle Clarke, Laura Yakutchik, Jane Wadden, Denise Biega, Margot Peck and Shane Kramer — and welcome to the new members — Scott McCormack, Kate Humphrys and Chris Lee. We will soon get down to working (and playing) and sorting out how the new board structure will be handled.

One reason I was interested in running for the presidency was to learn more about Ontario's political process in order to advocate and comment upon the Ministry's new policy concerning outdoor and environmental education, to be released in late February. Already I feel immersed in the process as drafts and information concerning it fill up my inbox. Luckily, I took the train to Quebec City for the International Camping Congress — during the ride, I sorted through my computer inbox. At the conference, I met many camp directors (especially from Ontario) who are increasingly opening their facilities' doors to educators and offering environmental programs. Also, I was able to suggest that some researchers' studies would be suitable for publication in Pathways, enabling us all to benefit from their work when lobbying for outdoor education here in Ontario.

So, as they say, I have hit the ground running. But I look forward to serving COEO in my new position as president. Now I just need to learn to enjoy the fall leaves at this "running" speed.

Zabe MacEachren

ducation for Character_

The Journey to Inspire

by Darren Black

I will begin by sharing two fundamental beliefs that form the foundation of the views put forward in this paper. The first is also one of the fundamentals of Outward Bound Australia: the belief in human potential — that within each of us is a gift, a unique and special talent, to share with the world. With this underlying belief in human potential comes both a tragic reality and a responsibility.

The tragedy lies in that, for many, their gift or talent remains latent, undiscovered. Without discovery and development of the gift, one's life is never fulfilled, that unique potential is never realized. In the worst case, people pass through their whole lives without realizing their gift.

Now to responsibility. This is the exciting and challenging part for us as parents, teachers and educators. It is our responsibility to help our children, our students find their gift, their unique potential and then to help them develop and fulfill that potential.

The second underpinning belief is that all education is about human development, about empowering the creativity in every one of us, and that "secondary education should be preparation for life itself, not just for qualifications" (Wright, 2006, p. xxiv). I also assert that the present system of secondary education in Australia is not focused on the holistic development of all students, but instead, is focused on academic achievement through a competitive system of examinations.

This paper puts forward the premise that the inspiration we seek to create in our students comes at the juncture of two great educational goals: the ignition of passion and the discovery of potential. That which excites and energizes combined with areas where we have competence, talent and skill gives rise to our inspiration. Furthermore, this paper suggests that our collective goal as parents and educators is to help our children connect with their passion and potential in order to find inspiration and achieve personal greatness. This paper explores how to achieve this great educational aim.

Fundamentals of Outward Bound

There is more in us than we know, if only we can be brought to realize this we may never again settle for anything less.

- Kurt Hahn

At the heart of Outward Bound and, I would argue, at the heart of the holistic development of our youth, are a few basic principles. Let me refer to these as the Fundamentals of Outward Bound. In the creation of Outward Bound, the founders "tried to analyze the roots of victory in the lives of men who had won through in life and had shown an unusual power to overcome" (Hahn, 1960). These principles are not new, as Prince Max von Baden of the Salem School said many years ago: "In education, as in medicine, you must harness the wisdom of a thousand years." So these fundamentals are the collective wisdom over the ages harnessed by Outward Bound and applied through at least the past 50 years. They can be summarized as:

- Adventure and challenge
- Experience of nature and a "place apart"
- Solitude and reflection
- Meaningful service projects

Adventure and challenge: The value of the expedition

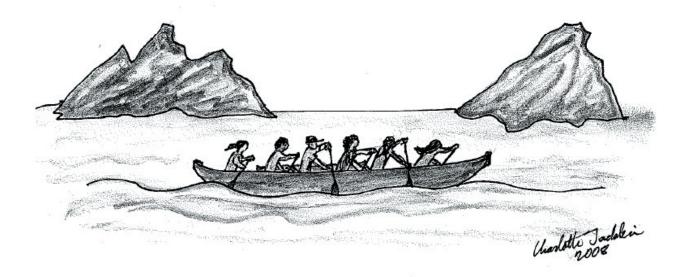
These days, when speaking with parents, teachers and potential partners about the value of the Outward Bound experience, we seem often to be dealing with the perception that the program is too adverse. I often ask people: When in your life did you learn the most about yourself and what you're capable of? Was it a time of comfort and ease, or was it during a time of difficulty? The answer is always the same: We learn the most about ourselves when we are pushed out of our comfort zones, when we are forced to explore our own values and the limits of our own resources. Therein lies one of the fundamentals of Outward Bound and of personal development.

Outward Bound Australia uses the expedition as a fundamental learning construct and there is always an element of adversity in what we do. In one of his most beautiful passages in *Lord Jim*, Joseph Conrad tells us that it is necessary for youth to experience events which "reveal the inner worth of the man; the edge of his temper; the fibre of his stuff; the quality of his resistance; the secret truth of his pretences, not only to himself but to others" (1900, p. 53).

Experience has taught me that expeditions can contribute greatly towards building strength of character.

As we know, expeditions are by no means universally popular; however, we should again remember the wisdom of Hahn, who said, "I am certain that it is neglect not to give the young the strength and the opportunity to overcome adversity." How many of your students willingly volunteer for programs that they know are going to provide "adversity and challenge"? Yet how many of you have "climbed mountains" with your students, amidst their complaints and discomfort, only to have them say later that, whilst they didn't think so at the time, it was one of the best things they've ever done?

Aside from encouraging student participation in adventurous activities, we also today have to overcome the anxiety of parents. On many of our school's courses, the first challenge seems to be to address parental fears about releasing their children for an activity where they are exposed to the elements; where there is the unknown; where they may get hot, cold, dirty, not have access to showers, toilets or running water, and be without their mobile phones. I put it to you that the challenge therefore remains with us to be determined



in overcoming these various environmental challenges to ensure we continue to provide challenging adventures for our youth to learn about themselves and the world around them.

Experience of nature and a "place apart"

As with many outdoor education programs, Outward Bound deliberately creates a place apart from many of the everyday distractions of life. A place where a person can pause, think and be. A place where a person can connect with the natural world around them. Today, our children are exposed to a vast amount of information and stimulus, much more than any generation before them. Through the Internet, email and mobile phones they are the most connected generation in history. On Outward Bound, we try to create a place free from all that. When students arrive on Outward Bound, one of our first tasks is to separate them from their gadgets (mobile phones, MP3s, etc.). This severance from day-to-day connectivity can be traumatic for some adolescents, but we believe it is also crucial to the creation of the desired learning environment.

I recently came across Richard Louv's (2006) book *Last Child in the Woods*. He describes the various disorders now afflicting our children and uses the term "nature deficit disorder." His hypothesis proposes a direct link between the lack of nature in the lives of today's children and attention disorders, depression, obesity and a host of other emotional problems. I wonder how you would respond to such a hypothesis? Perhaps further scientific evidence is needed to support this theory, however, exposure to nature has for a long time been a fundamental component of Outward Bound and this prognosis would come as no surprise to us.

We believe that it is important to get children out into nature — for their own benefit, but also for the benefit of the planet. Giving

children access to wilderness is a gift to them. Teaching children to appreciate our natural environment at a young age creates lifelong benefit and, we suggest, also helps develop the next generation of environmental advocates. Surely at this critical time in humankind's history, with our climate changing and our natural resources diminishing, there can be no more urgent need than to educate our children on the vital importance of living in harmony with nature.

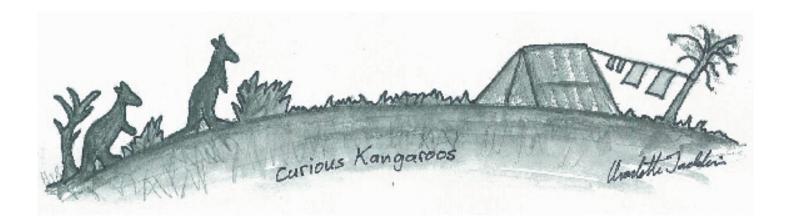
Solitude and reflection

Closely aligned with the fundamental need to expose children to nature is the principle of solitude and reflection. Consistent with the knowledge that today's youth are dealing with more information than any generation before comes the importance of creating time and space for reflection.

Core to Outward Bound is the reflective process. We believe this is fundamental to experiential learning. I am sure many of you have experienced moments at the end of a day in the field, possibly sitting around a campfire, when through de-briefing and reflection, the "lights have come on." This is often where the real learning takes place.

Continuing from the collective, or group reflection, comes individual reflection.

The "solo" experience has long been a fundamental of Outward Bound. This is where we create a solo time and space for students to sit and be, with themselves and nature. During that time (anywhere from one to two hours on shorter OB courses to two to three days on the long courses), students are given questions to contemplate. These are typically used to guide the internal thought processes to help the student to reflect on their values, what they have learned on the journey, and what goals or changes they intend to make for the future.



Meaningful service projects

Hahn (1960) said:

There are three ways of trying to win the young. There is persuasion, there is compulsion and there is attraction. You can preach at them, that is a hook without a worm; you can say "You must volunteer," that is of the devil; and you can tell them "You are needed": that hardly ever fails.

Back in those early days, Hahn often spoke of the need for youth involvement in the "Rescue Services," our modern-day equivalents of the Coast Guard and the Surf Life Saving Association.

During the Poverty Commission inquiry into Secondary Education in Victoria in the 1980s, the subjects expressed an overwhelming need and desire to make a difference. This desire is not unique to young people in Australia or of a certain generation, but one that I believe to be universal and timeless, irrespective of culture.

Both Hahn and Wright (2006) focus on the need to provide activities that "fuel youthful idealism as they make a difference for good" (p. xi). They suggest that by involving students in meaningful projects where they interact with their communities one can "develop their muscles of responsibility and

compassion" (Wright, 2006, p. x). Today, Outward Bound maintains an element of service in all our programs to ensure that these muscles get exercised. Often the project is environmental in nature and links back to an appreciation for the environment. Aside from the Outward Bound experience, there are many enterprising variations of community service being offered as part of adventure learning journeys in developing nations that we would commend. Providers of these experiences include Raleigh International, Antipodeans and World Challenge — all are growing in popularity amongst secondary schools that can afford to offer such experiences.

Other Imperatives for Teachers

Expeditionary learning principles in the classroom

But what if you cannot create an Outward Bound-like wilderness expedition? The principles of "expeditionary learning" can be applied anywhere, and certainly are being applied in the classroom. It should be remembered that "Outward Bound was originally a short course version of what its founder, Kurt Hahn, was trying to do every day, and over a period of years, with his students at Gordonstoun and Salem, the boarding schools he headed in Scotland and Germany" (Wright, 2006, p. xi). Today, using

the principles of expeditionary learning, the philosophy of Outward Bound can be applied back to what might be called the "long course" — everyday primary to secondary schooling.

For many years, educators have been taking Outward Bound courses in the wilderness and finding a quality of teaching they could use in their own schools to improve teaching and learning. Expeditionary Learning Outward Bound (ELOB) draws from 60 years of crafted wisdom in the extensive professional development it provides to whole faculties in schools that decide to adopt the ELOB design. Today in the U.S., over 140 schools have adopted the expeditionary learning approach.

ELOB schools apply what we might call a project-based learning approach throughout their curriculum. Real-life, hands-on projects that have meaning are used as the vehicle for learning.

As a visitor to the ELOB system in the U.S. a couple of years ago, I witnessed this powerful application of the expeditionary approach to classroom teaching. It was a learning expedition that had real-life application; worked across the curriculum to include geography, history, science and maths; and gave the students invaluable experience in planning, coordination, research and presentation of their project's results. For those of you unfamiliar with the ELOB approach, see www.elschools.org for more information.

Care, compassion and connectedness: It's up to you

Inspiring the youth of today to achieve their potential is a journey, not the result of any individual event or action. It comes from consistent care and compassion, from ongoing commitment to engaging with the child, beyond the classroom. From my secondary school days, I do not remember

my maths teacher, my English teacher or even the principal of the school. The one I remember above all is our science teacher. Not because he was our science teacher, but because of what he gave us outside of the classroom. His time and effort as our rugby coach. His time and effort in organizing and leading the end-of-school camps. The quiet words when we needed encouragement; the laughing and sharing in the successes; and the words I only recognized much later as wisdom, when we were going through our various trials and ordeals. He influenced us because he was connected to us, beyond the academic, beyond the cognitive. Influential (inspirational) teachers are those who commit to the journey, and this is the simplest and most difficult thing to do.

Conclusion: The Journey to Inspire

The role of parents, teachers and those charged with the care and development of our children is vital to the future health of our community. As committed professionals in this realm, yours is a daily act of leadership, compassion and faith. At Outward Bound, we often provide the spark, the catalyst for growth, but it is the job of the parent, the teacher and the school community to carry that spark forward so it can ignite the potential that we are seeking to develop.

The journey to inspire the youth of today is full of frustrations and challenges but also of great beauty and opportunity. This paper has outlined some of the fundamentals of Outward Bound — adventure and challenge, experience of nature and a "place apart," solitude and reflection, and meaningful service projects — and has suggested most strongly that these fundamentals still apply. After outlining how the principles of expeditionary learning can and are being applied successfully in the classroom, the paper has provided a model for that success using the principles of ELOB.

As practitioners in the field of education, you know that there are no shortcuts. If one is committed to the development of the whole child, and to the growth of all our children, then only a full-commitment contract requiring all of our intellect, passion and faith will do.

The aim of this paper has not been to offer you a new set of tricks, techniques or models that will fix our kids. Perhaps no new tools have been provided to assist in your work with children. However, I hope that in sharing what Outward Bound believes to be some of the educational wisdom of the ages, you will be encouraged to persist and to focus on those principles we know to work.

One of the central reasons Outward Bound has been successful in inspiring youth development for so long is because of the "light in the eyes" of our instructors. We employ our staff less for their hard skills in the field and more for their passion and their eagerness to help others to learn and grow. They connect with their students in a way that is empowering because they are there for them, but allow the students to learn their own lessons about self, others and the environment, free of the constraints of exambased curriculum. So too we as parents, teachers and educators have our own internal flame, the light that comes through us when passion is connected with meaningful work that we are good at. There can be no more important or meaningful work than the care and development of our children.

Good luck on your journey to inspire our children to their potential.

References

- Conrad, Joseph. (1900). *Lord Jim.* Britain: Blackwood.
- Expeditionary Learning Schools Outward Bound: www.elschools.org.
- Hahn, Kurt. *Address to the Annual Meeting of the UK Outward Bound Trust, July* 20,1960. Retrieved from www.kurthahn.org.
- Hahn, Kurt. Various principles and sermons of Kurt Hahn: www.kurthahn.org.
- Louv, R. (2006). Last child in the woods: Saving our children from nature deficit disorder. New York: Algonquin Books.
- Wright, A. (2006). A chaplain remembers: Lifelong reflections on the educational and spiritual values shaping the William Carey Chapel. Victoria, UK: Westgate Publishing.
- Wright, A. (1968). The light in their eyes: About youth. A report of the investigation of Outward Bound and its significance for the education of youth today. Unpublished article.

Darren Black is the Chief Executive Officer of Outward Bound Australia. He is a graduate of the Royal Military College, Duntroon, and the University of NSW where he has an Undergraduate Degree in Human Resource Development and a Graduate Diploma in Management. Leadership development has been core to Darren's experience over the past 20 years. Darren was drawn to Outward Bound through his belief in developing human potential and the importance of providing "character building" experiences for young people.

Ε

ducation for Curriculum _

Integrating a Critical Multicultural Science Education Approach in Outdoor Education

by Azza Sharkawy

Since the outdoors provides an inherent context for exploring and learning about the natural world, outdoor educators are often well positioned to integrate natural science education into their programs. For example, as students engage in an outdoor experience such as hiking, they can be introduced to some of the characteristics of trees and plants around them. However, science education taught from a *critical* multicultural perspective emphasizes more than just learning *about* the natural world.

As described by Hodson, the central goal of critical multicultural science education (CMSE) is to equip students with *critical* scientific literacy or the "capacity and commitment to take appropriate, responsible and effective action on matters of social, economic, environmental and moral-ethical concern" (1998, p. 4). This emphasis on taking action (i.e., applying one's knowledge for social and environmental change) is also a key aspect of ecological literacy - an important goal for many outdoor educators. According to Roth, ecological literacy is "the capacity to perceive and interpret the relative health of environmental systems and to take appropriate action to maintain, restore, or improve the health of these systems" (1992, p. 8).

On a practical level, it is useful to identify teaching approaches and specific pedagogical tools that could be used to advance these goals. Both critical multicultural perspectives in science and foundational philosophies of outdoor education (Miner & Boldt, 2002) emphasize the whole individual (i.e., cognitive, social, cultural and emotional aspects of the self). They recognize the importance of a holistic curriculum that helps

students make connections between various aspects of their learning experiences.

The integration of the arts can also contribute to a holistic curriculum. Constructing and telling stories helps people make sense of their lives and the world around them. As an art form, storytelling can engage the imagination and encourage people to recognize and explore new possibilities (Eisner, 2002). In the remainder of this article, I explore how outdoor educators can employ storytelling to advance the three goals outlined below — and by doing so, help develop students' ecological and critical scientific literacy:

- Invite students to think critically about the scientific contributions of various cultural groups — for example: Why are some cultural groups' knowledge about the natural world not recognized by the scientific community and society, and what are the implications of this?
- Help students appreciate the influence of culture on science.
- Encourage students to develop respect for the environment.

Stories that encourage students to think critically about the scientific contributions of various cultural groups

The elimination of *all* forms of discrimination is key to social justice. Ecofeminism, which draws from both feminist theory and ecology, emphasizes the interrelatedness of all forms of oppression (Warren, 1998). As Plumwood (cited in Selby, 2001, p. 10) asserts, "oppressions are not only mutually reinforcing but ... their dynamics are similar — whether the oppression is of women, ethnic or ... minorities, environments, or animals."

As noted by Barba (1995), the norms and practices of mainstream science have resulted in the dismissal of the scientific contributions of several minority cultures. Stories that highlight various cultures' knowledge about the natural world can be used as a springboard to help students critically examine why mainstream science and society have not given credit to these cultural groups for their contributions. For example, Barba (1995) notes that for hundreds of years the Quechua-speaking Incas of the Andes had used "Peruvian bark" to cure cramps, heartrhythm disorders and a variety of illnesses. When malaria made its way to Peru, Peruvian bark that naturally contains quinine became the standard method of curing the disease. While Sir Ronald Ross was given the Nobel Prize in medicine in 1902 for discovering that the anopheles mosquito carried malaria from one person to another, the discovery by the Quechua-speaking Incas of the Andes of the cure for malaria 300 years before was never honoured.

There is also a bias in dominant Western society that views products that are formally packaged and legitimized as drugs or medicine by pharmaceutical industries as more legitimate than natural remedies. Historically, in China, for example, a dish of boiled pigs' feet and concentrated black vinegar was prepared for the new mother to eat (Barba, 1995). The vinegar dissolves the bone tissue in the pork and produces a broth rich in calcium. This broth replenishes the minerals the mother loses in childbirth and stimulates lactation. Many Chinese communities continue to prepare sweet and sour pork dishes for new mothers. Educators could share this kind of story with their students and ask them to consider some important questions: What would be considered more scientific in a contemporary Western society: a calcium supplement marketed by a pharmaceutical company or the calcium derived from pigs' hooves? Why? What are the consequences of this kind of thinking?

Stories that shed light on the contributions of various cultural groups as well as those created by different cultures about the natural world can help students develop sensitivity to the cultural contributions and multiple perspectives offered by diverse cultures and help students realize that all people, throughout the ages, have sought to make sense of the natural world.

Stories that encourage students to appreciate the influence of culture on science

In order to engage critically and contribute to a more socially and environmentally just society, students need to question and think about the policies, norms, values and products of the scientific community. An important point to emphasize is that science is, in fact, dynamic. Many revere science as objective, unbiased, empirically based (i.e., involving careful observation of nature) and arising from the rigorous application of a foolproof "scientific method" (Hodson, 1998). These misconceptions limit the ability and inclination of many to think critically about science and technology and to actively work to direct scientific research and policies towards creating a more socially and environmentally just world.

There is widespread consensus among philosophers of science and science educators that scientific observation is theory-laden. Our observations of nature are shaped, in part, by our cultural beliefs, our expectations and our values. For example, as noted by Bell (2008), instead of the Big Dipper, the Egyptians saw these seven stars as The Bull's Hind Leg while the Ostyak of Siberia envisioned a moose. And while the northern Europeans pictured this group of stars as a plow, Native American Sioux tribes imagined the stars as a skunk. Although these images are all based upon the same stars, observers saw likenesses that closely reflected their own culture and experiences. Inviting students to create names for constellations found in

the night sky and sharing with them stories told by different cultural groups about the same constellation introduces students to the role that cultural (and scientific) perspectives played in the identification of these patterns.

Indigenous stories that inspire students to develop respect for the environment

The stories of Indigenous peoples reveal tremendous respect for nature and can help students reflect on the values underpinning their relationship with the environment. These stories often stress the interconnectedness of people and the natural world rather than understanding nature in order to manipulate and exploit it. Keepers of the Earth: Native stories and environmental activities for children by Caduto and Bruchac (1989) is an excellent resource for both outdoor and science educators that provides exactly what the title suggests: a superb collection of stories and environmental activities for children (although it was written for students from kindergarten to grade 6, it could be used with older students too).

In the story "Gluscabi and the Game Animals," included in Caduto and Bruchac's collection, the hunter Gluscabi hunts all the animals in the world and puts them inside his magic game bag. He proudly takes them to his grandmother and tells her that they will never need to hunt again. This is the grandmother's response:

Oh, Gluscabi, why must you always do things this way? You cannot keep all of the animals in a bag. They will sicken and die. There will be none left for our children and our children's children. It is also right that it should be difficult to hunt them. Then you will grow stronger trying to find them. And the animals will also grow stronger and wiser trying to avoid being caught. Then things will be in the right place.

There is much wisdom in the grandmother's response. She emphasizes the importance of considering the needs of other generations and the importance of maintaining a balance



in nature. The difficulties involved in hunting are respected as a strategy to maintain this balance, not as a challenge that should inspire the development of a "technological fix." There is profound respect for animals: They are meant to grow stronger and wiser too! At the end of the story, the hunter takes his grandmother's wise advice and releases the animals.

As noted by Caduto and Bruchac (1991), in some Indigenous cultures, certain stories may be viewed as the property of special groups or individuals. There might be restrictions as to who can tell them and when. Also, since some stories are used in prayer, they may be considered too sacred to tell in other contexts. Caduto and Bruchac (1991) also point out that in their collection, they have avoided retelling stories that have not yet appeared in print and those that might be considered too sacred to include in a book. When sharing Indigenous stories with students, it might be useful to emphasize to them that telling Indigenous stories should always be done with a spirit of deep respect and care.

In summary, storytelling can be used by outdoor educators to integrate a critical multicultural science perspective by provoking students to think critically about scientific observation, the scientific contributions of non-Western cultures and Indigenous epistemologies of living in harmony with the environment. Moreover, if stories from non-dominant cultures are introduced into outdoor education experiences, students from diverse cultural backgrounds might feel a greater sense of belonging and empowerment to contribute towards the creation of a more socially and environmentally just society.

References

Barba, R. (1995). *Science in the multicultural classroom: A guide to teaching and learning*. Boston: Allyn and Bacon.

- Bell, R. (2008). *Teaching the nature of science* through process skills: Activities for grades 3 to 8. Boston: Pearson Education.
- Caduto, M. & Bruchac, J. (1989). *Keepers of the earth: Native stories and environmental activities for children*. Saskatoon: Fifth House Publishers.
- Caduto, M. & Bruchac, J. (1991). *Teacher's* guide to keepers of the earth: Native stories and environmental activities for children.

 Saskatoon: Fifth House Publishers.
- Eisner, E. (2002). *The arts and the creation of mind*. New Haven: Yale University Press.
- Hodson, D. (1998). *Teaching and learning science: Towards a personalized approach*. Buckingham: Open University Press.
- Miner, J. & Boldt, J. (2002). *Outward Bound USA: Crew not passengers,* 40th *anniversary edition.* Seattle: The Mountaineer Books.
- Roth, C.E. (1992). *Environmental literacy: Its* roots, evolution, and directions in the 1990s. Columbus, OH: ERIC/CSMEE.
- Selby, D. (2001). The signature of the whole: Radical interconnectedness and its implications for global and environmental education. *Winter*, 14(4), 1–12.
- Warren, K. (1998). The power and the promise of ecological feminism. In M.E. Zimmerman and J.B. Callicottet (Eds.). *Environmental philosophy: From animal rights to radical ecology* (pp. 325–344). Upper Saddle River, NI: Prentice Hall.

Azza Sharkawy is an Assistant Professor at Queen's University where she teaches elementary science education.



ducation for Environment.

Photos and Plants Through Time: Monitoring Environmental Change in the Canadian Arctic with Implications for Outdoor Education

by Morgan Ip, Bryan Grimwood, Anita Kushwaha, Nancy C. Doubleday and Shawn G. Donaldson

The relevance of place is well documented within the outdoor education community, particularly as a strategy for educating youth about the environment. Indeed, in a recent issue of *Pathways*, Rebecca Francis (2008) elaborated on the value of place-based education and children's play experiences. Others, such as Baker (2007), Brooks, Wallace & Williams (2006), Raffan (1993), Sharp & Ewert (2000) and Sobel (2004), have integrated ideas about place in relation to outdoor experiential education. While place is a central concept in outdoor and environmental education, it is likewise an important constituent of culture, particularly for Indigenous peoples whose connections to the land are closely linked to their maintenance of livelihoods, health and wellbeing (Wilson, 2003; Donaldson, 2007; Kushwaha, 2007).

For Inuit, knowledge of place is expressed in many different ways and used to retain or transfer knowledge and memories from one generation to the next (Wenzel, 1999). While researchers often employ quantitative or qualitative measures to disseminate information about a place, some knowledge systems, like that of the Inuit, use storytelling, oral traditions and art to transfer place-specific knowledge (Bennett & Rowley, 2004). All of these approaches, from quantified scientific measurements to traditional narrative accounts, can contribute valuable insights into the dynamic processes of environmental change.

Three fundamental aims pervade this paper. First, we describe an ongoing research

project that attempts to address the cultural complexities and considerations involved in environmental learning and monitoring. Second, we briefly present preliminary and pilot research results and outcomes from this collaborative project, currently being conducted in the community of Cape Dorset, Nunavut. In the spirit of citizen science and cultural diversity, we share these research practices and results as strategic morsels for various outdoor educators to employ in their own practices and in their collective efforts to monitor place-based environmental change. The final section of this paper provides recommendations for pursuing such initiatives.

International Polar Year and PPS Arctic

As consensus builds around the threats of climatic and environmental change in the Arctic (IPCC, 2007), northern communities are being exposed to mounting socioecological challenges (Krupnik & Jolly, 2002). Researchers from around the globe are currently participating in International Polar Year 2007–2008 (see www.ipy.org/). Numerous collaborative, international and multi-year research projects are underway, with a shared hope of building lasting research relationships, infrastructures and community-based initiatives that will serve as a legacy that extends beyond the official Polar Year.

Impacts of a Changing Arctic Tree Line: Photos and Plants Through Time is a research project funded through an IPY program called

PPS Arctic (Present processes, Past changes, Spatiotemporal dynamics; http://pps-arctic.sres. management.dal. ca/). While the overall aim of PPS Arctic is to understand the controls, position and structure of the circumpolar tree line and the social and ecological impacts of any tree line changes, the Photos and Plants Through Time project serves to document local environmental change in various Canadian arctic communities using plant specimens and photographs. More specifically, the purpose of Photos and Plants Through Time is to develop archival databases of photographs and herbariums of local plant specimens to serve as baseline data for monitoring of environmental, social and cultural change.

The project follows a participatory action research (PAR) methodology (Greenwood, Whyte & Harkavy, 1993), which engages community members in monitoring local environmental change and archiving both landscape photographs and plant collections taken from their community. Throughout the monitoring and archival process, community collaborators are invited to share their observations and experiences of local environmental change. This yields a rich account of the socio-ecological impacts of a changing tree line from people living within that place. These archives and communitybased insights are to be used as a basis for continuing dialogue within communities and with future generations that involves documenting and sharing information about the relationship between the environment and local socio-cultural connections.



Preliminary Results and Outcomes

The results reported here were derived from pilot research conducted in the community of Cape Dorset, NU during the summer of 2007. Fieldwork is planned to continue throughout the summer and fall months of 2008 in Cape Dorset, as well as in Sanikiluaq, NU and Baker Lake, NU. Cape Dorset, also known by its traditional name *Kinngait* (meaning mountains or high hill in Inuktitut), is situated among two valleys and the hills of the Jinait Range. This area is considered part of the Foxe Peninsula of southwest Baffin Island (INAC, 2006).

The project proceeded with an introductory and instructional workshop, where local community coordinators were identified

and trained. These teenaged community coordinators have begun collecting plant specimens in a lot located within the hamlet. The specimens are pressed and mounted using irons and wax paper. The plants are identified with common and scientific names, (e.g., mountain sorrel or Oxyria digyna), as well as local Inuit names provided by community members. At the introductory community workshops, participants were enthusiastic to share their knowledge of local plants and to explain how these plants are socially and culturally relevant. This dialogue is an important aspect of the project as it illustrates the connections between people and local "environmental" entities.

During the instructional workshop, Cape Dorset community members were also invited to come together and share their photographs of local landscapes and seascapes. Each photo was documented in a database, scanned and returned to the owner. The intention was to project each image on the wall, enabling community participants to view it collectively and to discuss together what it meant, where and when it was taken, and the stories that accompanied it. Anecdotes related not only to the image itself: The photographs seemed to stir memories of what else may have been going on in the community at the time. As a result, layers of complexity and specificity were revealed about the community and its relationship to the land. In addition, the pressed and mounted plants, which were also on display for the workshop, prompted further discussions. Some dialogue among community participants addressed both the image projected on the wall and the plants on display.

While the project began with the Cape Dorset community, other partnerships with Arctic communities are being nurtured. For instance, the community of Sanikiluaq, a small hamlet tucked into the folds of the sweeping Belcher Islands, has provided support for Plants and Photos Through Time workshops. This

southernmost community of Nunavut is within the range of the tree line encroachment and, thus, changes documented here, in contrast to Baffin Island communities, may prove to be of significance (Hofgaard & Rees, 2008).

Overall, the holistic nature of this project serves to ensure that collections of plants and photos, as well as local observations of the changing environment will be accessible and prove valuable to future generations. Long-term goals include supporting the establishment of herbaria in each participating community, to be used as a historical catalogue of plant life in the area. These herbaria would be designed to facilitate the documentation of both the biophysical changes to local plant life and the human (i.e., cultural) dimensions of these changes. The photograph databases developed in each community would form another similar component of this cache of information.

Opportunities for Outdoor Education

At this point in the research, the images and plant specimens collected in Cape Dorset seem to have generated remarkable dialogue and interest within the community. Already, this research has provided researchers and local people with a collaborative method for better understanding local environmental changes and the subsequent impacts experienced by communities. This process of environmental documentation and subsequent monitoring may serve as a model for place-based outdoor education activities in other communities, both in the North and South, and in culturally diverse communities where land, place and environment carry different meanings.

Based on the initial outcomes of this research, we feel that the Plants and Photos Through Time project offers interesting and novel opportunities for experiential outdoor education. While the environmental change

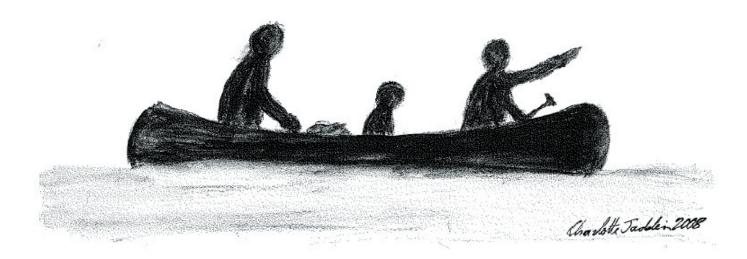
activities described above are transferable to virtually any setting (i.e., a schoolyard, an outdoor education centre, a conservation area), there are a number of experiential exercises in which outdoor students, learners and participants may be encouraged to create or discuss narrative or historic accounts of the places they experienced. We conclude this paper with the following additional program ideas:

- Plant profile: A special page may be inserted into a journal, or be part of a workbook, with a large space for a plant specimen and a table of details about the specimen to be filled in by the participant. Such information may include: scientific or lay identification of the plant, description of its visual or other properties, its location, perhaps sufficient space for anecdotal description of how it was found, why it was recorded and what importance it has. If a plant has specific edible or medicinal properties, there may be a place for recipes or remedies. Such activities may serve to address barriers to ecological literacy (Monaghan & Curthoys, 2008). As there are many plants that are endangered or threatened, it is possible to use a photograph of a plant in place of a pressed and dried specimen - or to sketch, draw, paint or use other methods of representation. These creative recordings may also be used in tandem with pressed plants where appropriate.
- Now and then photograph comparison: Participants obtain a historical picture from the region or place being experienced. The landscape should be reshot from the same vantage point, and preferably at the same time of year as the original. Any changes in the landscape between the older image and the new one can be identified and discussed. Particular discussion can focus on ideas about why these changes have occurred.

For variation, it is possible to take several shots that can be reassembled into a collage. These photographs may be assembled on a page or in a booklet with space provided to note details such as time, dates and locations. As with the plants, there should also be an area where students can share anecdotes, stories, myths and various narrative accounts about the photograph.

References

- Baker, M.A. (2007). Landfullness in adventure-based programming: Promoting reconnection to the land. In B. Henderson & N. Vikander (eds.). Nature first: Outdoor life the friluftsliv way. Toronto, ON: Natural Heritage Books.
- Bennett, J. & Rowley, S. (2004). Ugalurait: An oral history of Nunavut. Quebec: McGill-Queen's University Press.
- Brooks, J.J., Wallace, G.N. & Williams, D.R. (2006). Place as relationship partner: An alternative metaphor for understanding the quality of visitor experience in a backcountry setting. Leisure Sciences, 28(4), 331-349.
- Donaldson, S.G. (2007). The role of local renewable resources in the health and wellbeing of Inuit living in Cape Dorset, Nunavut, Canada. PhD thesis. Carleton University, Ottawa, Ontario, Canada.
- Francis, R. (2008). Play in outdoor experiential education. Pathways, 20(3), 27-31.
- Greenwood, D.J., Whyte, W.F. & Harkavy, I. (1993). Participatory action research as a process and as a goal. Human Relations, 46, 175-192.



Hofgaard, A. & Rees, G. (Eds.). (2008). PPS Arctic manual: Common protocols for field measurements and handling of collected material. *Compiled and discussed at the 2nd annual meeting in Tromsø, March 2007.*Completed and approved by the PPS Arctic group, April 2008.

INAC. (2006). www.ainc-inac.gc.ca/nin/pro/nvt/capedorset_e.html.

Intergovernmental Panel on Climate Change (IPCC). (2007). The physical science basis: Summary for policy makers. www.ipcc. ch/SPM2feb07.pdf.

Krupnik, I. & Jolly, D. (Eds.). (2002). *The earth is faster now: Indigenous observations of arctic environmental change*. Fairbanks, Alaska: Arctic Research Consortium of the United States.

Kushwaha, A. (2007). Monitoring environmental change using Inuit Qaujimajatuqagit in Cape Dorset, Nunavut. Unpublished Master's thesis. Carleton University, Ottawa, Ontario, Canada.

Monaghan, K. & Curthoys, L. (2008). Addressing barriers to ecological literacy. *Pathways*, 20(3), 12–16. Raffan, J. (1993). The experience of place: Exploring land as teacher. *Journal of Experiential Education*, 16(1), 39–45.

Sharp, E. & Ewert, A. (2000). Interferences in place attachment: Implications for wilderness. *USDA Forest Service Proceedings*, *3*, 218–222.

Sobel, D. (2004). *Place-based education: Connecting classrooms and communities.* Great Barrington: The Orion Society.

Wenzel, G.W. (2004). From TEK to IQ: Inuit Qaujimajatuqangit and Inuit cultural ecology. *Arctic Anthropology*, 41(2), 238–250.

Wilson, K. 2003. Therapeutic landscapes and First Nations peoples: An exploration of culture, health and place. *Health & Place*, *9*, 83–93.

Morgan, Bryan and Anita are graduate students at Carleton University in Ottawa, Ontario, studying under the guidance of Dr. Nancy C. Doubleday. Dr. Shawn G. Donaldson is a research scientist and recent Carleton graduate.

A Waka Ama Journey: Reflections on Outrigger Canoe Paddling as a Medium for Epistemological Adventuring

by Nālani Wilson

Sun setting on the Otākou Harbour, hillsides turning to butter-yellow, the sky a fusion of orange, pink and lavender. Our crew of six rests for a moment to watch the sun fall below the hills, silhouetting the shape of the land from the water. I sing, "`Ūhola ia ka maka loa lā, Pū`ai i ke aloha ā, Kū ka`i ia ka hāloa lā, Pawehi mai nā lehua." Singing to the sun, sky, land and water below us; singing to the wa'a/ waka1 (canoe) and to the ancestors; singing with a grateful heart for the opportunity to share, learn and grow alongside my students, my teachers. In this moment I am reminded that as an educator it is with aloha (love and appreciation) that *a* o (the mutual process of teaching and learning) is shared and experienced. Our kumu (teachers) come in many forms: in the faces of young and old, as well as in the rain, clouds, wind or water — the elements we work with to make our canoe glide through the water.

This article reflects upon outrigger canoe paddling as a medium for facilitating outdoor, experiential, environmental and cultural education and my personal reflections as a foreigner conducting an inter-Indigenous waka program in Aotearoa-New Zealand. The opening paragraph welcomes the reader by sharing a special moment on the waka. Next I map the course I will use to steer our waka from one place to the next, organizing the primary "navigational" points and structure of this article. The first navigational point introduces the place where this writing, teaching and learning

Wa`a is canoe in `ōlelo Hawai`i, the Hawaiian language, and waka is canoe in te reo Māori, the Māori language.

is taking place, acknowledging the First Peoples to these islands and how I came to be here. I then briefly overview Kanaka Maoli (Native Hawaiian) and Māori² connections and highlight the importance of wa`a/waka within both cultures. I provide two examples that illustrate how the canoe can transport us from one physical place to another, and how it can also transport us from one metaphysical plane to another. This section articulates opportunities for shifting from primarily Western worldviews to an Indigenous, Pacific worldview, specifically Kanaka Maoli. Finally, we will arrive at our destination and conclude this short journey together.

As a woman of Kanaka Maoli descent, it is with humility and pride that I reflect on the inter-Indigenous learning I attempt to facilitate along the shores of a region first settled by Kai Tahu³, the Indigenous peoples of Te Wai Pounamu, the South Island of Aotearoa-New Zealand. In this writing, I hope to honour Kai Tahu and the ancestors of this place. I have studied and taught at the University of Otago in Dunedin, New Zealand for the past five years and am still in the process of understanding what this reciprocal relationship of a o/ako (teaching and learning) really means in the context of the outdoor, experiential and cultural programs I design and facilitate.

² Māori is the name used to describe the Indigenous peoples of New Zealand. It was used by Māori prior to Western arrival although each tribe was/is distinct and unique, with their own language dialects and customs (Barlow, 1991).

³ Kai Tahu is the largest M\u00e4ori tribe in the South Island of New Zealand.



Kanaka Maoli and Māori peoples are cousins of the Pacific. From the central Pacific, we migrated in separate directions on large double-hulled canoes, north to Hawai'i and south to Aotearoa. We share the same ancestral roots with similarities in languages, cosmologies and worldviews. The diverse peoples of the Pacific also share the devastating effects of Western exploration, arrival, settlement, colonization, assimilation and struggles for land, rights and autonomy. For Kanaka Maoli, our Māori cousins of Aotearoa have been leaders in the ongoing movement to re-establish their sovereignty, health and wellbeing. It is this relationship that first brought me to these islands to study, and it is this same relationship that encouraged me to stay and evolve into a facilitator of learning. During this time, I have presented several epistemological challenges to my students, the majority of whom are non-Indigenous peoples. I hope that these reflections will also benefit the readers of Pathways.

Ka manu kāhea i ka wa`a holo. The bird calls the canoe to sail (Pūkui, 1983).

As this Hawaiian proverb expresses, my Polynesian ancestors observed that the natural elements decide when a journey will take place. This is an epistemological point. The canoe does not sail until the elements agree. A bird rarely takes flight into the eye of a storm, but in Western contexts we often use calendars and clocks to schedule our outdoor experiential programs. Sometimes the weather does not cooperate with our intentions. For waka ama, it is a matter of utmost safety to observe the weather and messages from the natural world each and every moment. Living in the sub-Antarctic region of Dunedin, it is possible to watch the weather change in a matter of seconds dark clouds roll in, hail strikes on a sunny day and wind doubles in an instant. This past weekend, on an island in the Otākou Harbour, our waka group witnessed thunder and lightning move across the sky without

feeling any wind. By observing these obvious signs from the natural world we knew that a change in weather was rapidly approaching. It was the end of our first day so our canoe was secured and our shelter prepared. We retreated to watch the heaviest rainfall in months drench the land — and wondered what the next day would bring.

Ua `elepaio `ia ka wa`a.

The `elepaio has [marked] the canoe [log]

(Pūkui, 1983).

The next epistemological shift I present to my students is the challenge to see the world as one in which everything is alive and animated. This epistemological point interrelates with the previous one because it includes listening to and learning from the non-human world, all life and those things not normally considered alive from a Western point of view. For example, we journey on our waka acknowledging that it is alive. As the proverb above describes, before a tree is selected and honoured by being chosen to take on a new form as a waka, Kanaka Maoli observe the 'elepaio bird. If the 'elepaio pecks at the tree, it means the wood is not suitable because it is filled with insects and rot; but if the bird flies away from the tree, it means that the wood is healthy and will make a seaworthy waka. After the tree is selected, one life is taken and a new life is formed. The tree is carved into a waka and every time it touches the water it fulfills its life's purpose. The carvers that shape the waka breathe life into the canoe. The mana⁴ of the carvers is transmitted into the wood. Each paddler breathes life into the waka as well. They become a part of the waka's life journey. The Māori terms that express this worldview are wairua (spirit) and mauri (life-essence).

In both Māori and Hawaiian, the canoe has mana; the waka is alive. The use of *mihi* in Māori culture acknowledges the waka as an ancestor. Mihi is an immensely empowering practice that, as a Kanaka Maoli, I have learned from Māori. Mihi is a greeting, a verbal tribute to all that has come before, to your ancestors and special features of the natural world such as a river, mountain and the waka that carried your ancestors to your place of origin (Marsden, 2003).

When a mihi is given, a person usually begins with their waka, mountain, river, people, parents, siblings and concludes with their name. The order might change from one mihi to another, but there are two points of particular interest. The first is recognizing that the natural world comes before oneself. We honour our ancestors before stating our name because without them we would not exist. This approach is very different to a Western worldview in which we begin with our name and rarely mention our parents, grandparents and great-grandparents. The second is that the waka is not only significant because it carried the ancestors across the vast Pacific arriving safely to shore, it is also acknowledged in its own right and it too is considered an ancestor. Furthermore, ancestors are deified within features of the natural world such as a mountain. In Te Wai Pounamu, Kai Tahu consider Aoraki (Mount Cook) to be an ancestor watching over the tribe. The memory of your ancestral waka and the attributes of the land and sea are preserved through the repetition of mihi always honouring that which has come before you.

As our journey together nears its end, a few last reflections. On a personal level, I am moved and inspired by the seemingly

For the very general purposes of this article, mana can be defined as power in both Hawaiian and Māori. It is supernatural or divine power that for humans is passed down through genealogy or

can be used to acknowledge human achievements such as, for example, mastering the art of carving (Barlow, 1991; Pūkui & Elbert, 1986; Pūkui, Haertig & Lee, 1972).



tangible ways that waka can become a vehicle for conducting outdoor, experiential and environmental educational programs, and also serve as a medium for sharing Indigenous, specifically Kanaka Maoli and Māori, worldviews and epistemology. For example, the program I ran on a recent weekend consisted of five non-Indigenous and three Indigenous people. The greatest

challenge was sharing values from one (or two) worldviews with people from diverse cultural backgrounds. Often it is difficult to know if these worldviews will co-exist in intellectual and emotional harmony for each student. While much depends on the openness of participants, I try to begin our program by acknowledging that they need not believe in the values or worldviews I

present: I simply challenge them, during our time together, to consider these different ways of knowing alongside their own beliefs. Program evaluations reflect that students were quite content with their waka journey, as well as the epistemological adventures. The weather was stunning, we journeyed and returned safely, and the participants expressed their knowledge and appreciation of waka, the natural environment on the harbour, and understanding of Kanaka Maoli and Māori concepts and philosophies. My hope is that readers of *Pathways* might also value this literary waka journey and I am very grateful for the opportunity to share my personal experiences.

In conclusion, there are several ways facilitators of learning can enhance their approach to outdoor, experiential, environmental and cultural education. As expressed in the opening paragraph, I have found that it is enriching to realize that teaching and learning is a reciprocal exchange and that one cannot happen without the other. It is also liberating to remind ourselves that "teachers" come in many forms: for example, observing the natural world can teach us patience and humility. As educators, we are also constantly learning from our students. They are our teachers when we humble ourselves to recognize the lessons that they have to share. These are not always tangible lessons, but they can help us grow as facilitators of learning.

My last reflection is that Indigenous and non-Indigenous educators alike are often challenged to locate opportunities to include Indigenous thoughts and perspectives into our curricula. We must make the time and prioritize the long-overdue inclusion of the diverse worldviews that inform the places that we live and visit. I suggest delving into the literature and finding out: Who are the First Peoples of the places you value?

What are their understandings of the place? What are the Indigenous place names? Is there someone knowledgeable who can speak to your students as a guest presenter? Let us honour these diverse peoples and perspectives — challenging ourselves to embark on epistemological adventures and understandings. Waka is merely one medium, so may these reflections inspire various future journeys. *Aloha kākou*.

References

Barlow, C. (1991). *Tikanga whakaaro*. Greenlane: Oxford University Press.

Marsden, M. (2003). *The woven universe*. The Estate of Rev. Mori Marsden.

Pūkui, M.K. (1983). *`Ōlelo no`e`au: Hawaiian proverbs and poetical sayings.* Honolulu: Bishop Museum Press.

Pūkui, M.K. (2001). *Ōlelo no e `au*. Honolulu: Bishop Museum Press.

Pūkui, M.K. & Elbert, S. (1986). *Hawaiian dictionary*. Honolulu: University of Hawaii Press.

Pūkui, M.K., Haertig, E.W. & Lee, C. (1972). *Nānā i ke kumu*. Honolulu: HuiHānai.

Nālani Wilson links her genealogy to the Hawaiian archipelago and the Colorado Rocky Mountains. She spent many influential years studying along the Great Lakes while doing a Bachelor of Arts degree on Indigenous Cultures in Contemporary Society at the University of Wisconsin-Madison and home in Hawai`i where she finished her Master of Arts degree in Pacific Islands Studies at the University of Hawai`i at Mānoa. Nā-lani is currently an outdoor educator and doctoral candidate at the University of Otago in Dunedin, New Zealand.

Paddling Tandem: A Collaborative Exploration of Outward Bound Canada's Giwaykiwin Program for Aboriginal Youth

by Greg Lowan

In the Spring 2007 issue of *Pathways*, I described the initial motivations behind my master's research into Outward Bound Canada's Giwaykiwin Program for Aboriginal¹ youth (Lowan, 2007). I subsequently completed the study and this article summarizes its results.

The purpose of the study was to explore the experiences of youth participants, instructors, community members and program organizers with Outward Bound Canada's Giwaykiwin Program through qualitative collaborative ethnographic inquiry (Lassiter, 2000) under a lens of decolonizing Indigenous education. I also followed a reflexive research model (Lotz-Sisitka, 2002), exploring my own experiences as an instructor with the program over the past two years. Brookes (2006) highlights the importance of internal critique within the field of outdoor education and the worldwide organization of Outward Bound specifically. It is my hope that this constructive reflection on pedagogical practices and program structure will result in enhanced program quality for both Giwaykiwin students and instructors. The results of this study may also provide insight to other programs in the emerging field of culturally based outdoor education.

As a person of Francophone and Anglophone Métis, Norwegian and German ancestry, I first became involved as an instructor with

the Giwaykiwin Program in the spring of 2006. The program was founded in 1985 by Outward Bound Canada in response to a recognized need for programming specific to students from Indigenous backgrounds (Outward Bound Canada, 2006). Giwaykiwin aims to integrate Outward Bound and Aboriginal philosophies and traditions. Its participants come from a variety of backgrounds – some are referred by social service organizations, while others enrol with the support of their families or communities. Communities or organizations may also request contract courses. Giwaykiwin courses typically consist of a 10- to 15-day canoeing or backpacking expedition and may include rock climbing and ropes course activities and a Sweatlodge ceremony. Aboriginal Instructor Development courses have also been conducted.

Simpson's (2002) discussion of Indigenous outdoor environmental education as a means of cultural survival provided the framework for my literature review. Simpson provides guidelines for creating culturally relevant and authentic learning environments for Indigenous students of environmental education. These include: supporting decolonization, grounding programs in Indigenous philosophies of education, allowing space for the discussion and comparison of traditional Indigenous and Western epistemologies, emphasizing Indigenous ways of teaching and learning, creating opportunities to connect with the land, employing Indigenous instructors as role models, involving Elders as experts, and using traditional languages when possible.

In order to recognize and honour the importance of certain cultural terms and concepts, I will follow Graveline's (1998) example by capitalizing them in this article. These terms include: Aboriginal, White, Western, Indigenous, Elder, Métis and Sweatlodge.

Widespread loss of land, language and cultural traditions along with higher rates of health and social problems for Indigenous people worldwide are commonly identified as the results of European colonialism (Battiste, 1998; Graveline, 1998; Simpson, 2002; Tuhiwai Smith, 1999). According to Simpson (2002), supporting decolonization — addressing the lingering effects of European colonialism is a key consideration for contemporary Indigenous education programs. Battiste (1998) also states, "Aboriginal peoples throughout the world have survived five centuries of the horrors and harsh lessons of colonization. [However,] They are emerging with new consciousness and vision" (p. 16). The revitalization of Aboriginal languages, epistemologies and pedagogies, recognizing the importance of the land, privileging Indigenous voices, the involvement of Elders in education, and Indigenous control of Indigenous education are key factors in the decolonization process (Battiste, 1998; Simpson, 2002).

In this study, I examined the implications of decolonization for Outward Bound Canada's Giwaykiwin program. I was interested in how the research participants' experiences with the Giwaykiwin program compared to contemporary decolonizing literature.

Methodology and Methods

The historic misuse and abuse of research conducted with Indigenous peoples has been well documented (Lassiter, 2000; Tuhiwai Smith, 1999). A history of positivist anthropological and ethnographic approaches has left Indigenous peoples wary of researchers generally, especially non-Indigenous researchers. Many of my research participants are Indigenous and I structured my methodology and methods with concern for their treatment.

This study took a collaborative ethnographic approach (Lassiter, 2000). Collaborative ethnography challenges the researcher to go

beyond simple member checking — simply verifying findings with the research participants. In collaborative ethnography, the researcher and research participants discuss the *meanings* of the findings. Research participants are also given the opportunity to participate in the production of the final product so that their voices emerge more authentically in the text. Lassiter proposes that this form of inquiry produces work that is accessible to a wider range of people outside of the academic world and, most importantly, to the research participants themselves.

Nine adult participants who had participated in various Giwaykiwin programs over the past 15 years were involved in this study. The primary method of data collection consisted of informal 30- to 60-minute tape-recorded interviews. Three Aboriginal participants had been students. One of these former students had also worked as an assistant instructor on non-Aboriginal Outward Bound courses. Four participants were former Giwaykiwin instructors who self-identified as "White." The remaining two participants were program administrators who also self-identified as "White."

Significant Findings

Several interesting themes emerged in the interviews and follow-up conversations. While the research participants provided significant constructive feedback for Giwaykiwin, they also described positive experiences with the program.

An interesting contrast that appeared in the findings was non-Aboriginal instructors' perceptions that students were having positive experiences with the cultural and ceremonial elements of their courses when, in fact, the students interviewed described generally negative experiences. Their experiences ranged from feeling uninformed during rituals such as the offering of tobacco to feeling socially and culturally threatened during Sweatlodge ceremonies. In addition,

when asked to describe their own experiences with ceremony on courses, the instructors often focused on their perceptions of their students' experiences, positioning themselves as outside observers or voyeurs rather than participants.

Echoing contemporary scholars (Rosser, 2006), the students interviewed also emphasized the cultural and regional diversity of today's Aboriginal youth. There was also a recognition of the broad diversity of Aboriginal and non-Aboriginal instructors and staff members at Outward Bound.

Issues of White privilege and dominance (Ellsworth, 1989; McIntosh, 1989) by non-Aboriginal instructors also emerged strongly in the findings. Similar to Ellsworth's (1989) critique of contemporary critical pedagogical environments, it appears that the very structure of Outward Bound's Giwaykiwin courses continues to privilege mainstream Euro-Canadian norms through the dominance of the English language and Western culture in a program originally intended to provide culturally sensitive learning opportunities for Aboriginal students.

Concerns were also expressed by the program administrators about instructor development and training. These concerns included a *perceived* lack of qualified Aboriginal instructors and inadequate preparation of non-Aboriginal instructors.

Despite the frustrations and issues expressed during the interviews, former students all expressed having positive interactions with their non-Aboriginal instructors at different points during their Giwaykiwin experience. They also related positive experiences with overcoming the physical, emotional and social challenges that they encountered during their time at Outward Bound.

Based on the findings, with reference to contemporary decolonizing literature (Battiste, 1998; Graveline, 1998; Simpson, 2002; Tuhiwai Smith, 1999), it can be safely stated that the Giwaykiwin program does not reflect contemporary theories of decolonization. As one program administrator stated, "Giwaykiwin courses are simply those that work with Aboriginal students. Giwaykiwin courses are primarily rooted in Outward Bound Canada's traditions and philosophies with varying degrees of Aboriginal cultural content."

Recommendations

Based on the findings of this study, I have developed six recommendations for enhancing the Giwaykiwin program. A current that runs through all of these recommendations is the fundamental importance of a more localized approach to program design and delivery.

1. Increased involvement of Elders and other community members

As Simpson (2002) and others (Battiste, 2005; Graveline, 1998) suggest, the regular involvement of Elders is key to any successful Aboriginal education program. Elders provide us with wisdom gathered during their long lives as well as a link to cultural traditions and historical perspectives. Participants in this study recognized the importance of this concept and called for increased Elder involvement on Giwaykiwin courses. Some suggested that Elders should accompany Giwaykiwin courses on significant portions of their expeditions. This kind of extended contact would provide students and instructors with the opportunity to learn from Elders, the most qualified cultural teachers (Battiste, 1998; Pepper & White, 1996; Simpson, 2002).

2. Increased cultural awareness training

Several non-Aboriginal instructors suggested that they could have been better culturally prepared. One study participant suggested that Aboriginal awareness workshops could be a part of annual staff training. Ideally, cultural awareness training would be delivered by qualified Elders or respected cultural teachers from specific communities' perspectives prior to instructors engaging with their students.

3. Increased Aboriginal instructor development

Several participants highlighted the ongoing challenge of attracting and maintaining a pool of qualified Aboriginal instructors. They identified two possible solutions to this problem: recruiting and training future instructors from partner First Nations' communities and actively recruiting other Aboriginal people for Instructor Development programs. I also propose that if courses are designed and delivered with greater input from communities, more opportunities be made to select instructors based on criteria other than those used by Outward Bound. Selecting instructors based on standard adventure industry norms such as certifications may exclude highly qualified cultural teachers and leaders. Perhaps Outward Bound could provide some form of safety and risk management training for those who are otherwise qualified to lead culturally based courses.

4. Restricting the teaching of cultural elements to qualified people

The former students in this study highlighted their frustrations with the ceremonial aspects of their courses. They stated that they often felt lost and confused, unsure of what to do while ceremonies were being conducted. Their suggestions for improving students' experiences included increasing dialogue between staff and students about ceremonies and not forcing participation. Pepper and White (1996) suggest that cultural teachings and ceremonies should only be delivered by people trained and qualified in the traditions of their communities. Based on this recommendation and the students'

experiences, I propose that ceremonies such as smudging and offering tobacco be restricted to senior community members and Elders. Whenever possible, these Elders should come from the same Nations as the students with whom they are working.

5. Recognizing the diversity of Giwaykiwin courses

Many of the research participants, staff and students alike, recognized the cultural diversity of their Giwaykiwin experiences. This included diversity within the Aboriginal students and staff members, as well as diversity amongst non-Aboriginal Outward Bound staff. This diversity must be considered when including cultural elements in Giwaykiwin courses.

6. Delivering courses in communities' traditional territories

Cajete (1994) emphasizes the importance of Indigenous peoples' connection to specific places and the profound influence of this relationship on the development of language, culture and oral history. Similar to Rosser (2006), many of the study participants expressed concern with the sharing of generic cultural teachings during Giwaykiwin courses. If these courses are meant to provide cultural teaching, they should be delivered in the traditional territory of students' communities, recognizing the inextricable link of Aboriginal cultures with specific areas of land. With diverse groups this is not always possible, however strong efforts should be made to embody this principle.

Final Thoughts

I hope that these recommendations will be considered in a collaborative and constructive spirit. The overarching theme that runs through all the study findings is the importance of grounding programs as much as possible in the culture and traditions of specific communities. Outward Bound may Throughout the research process I was impressed by participants' willingness and dedication to this study. They invested considerable time and thought, and I am very grateful. I hope these study findings will assist future program developers and instructors to develop and deliver effective and respectful courses.

References

- Battiste, M. (1998). Enabling the Autumn seed: Toward a decolonized approach to Aboriginal knowledge, language, and education. Canadian Journal of Native Education, 22(1), 16-27.
- Brookes, A. (2006). Situationist outdoor education in the country of lost children. Unpublished PhD thesis. Deakin University, Australia.
- Cajete, G. (1994). Look to the mountain: An ecology of Indigenous education. Skyland, NC: Kivaki Press.
- Ellsworth, E. (1989). Why doesn't this feel empowering? Working through the repressive myths of critical pedagogy. Harvard Educational Review, 59(3), 297-324.
- Graveline, F.J. (1998). Circle works: Transforming Eurocentric consciousness. Halifax: Fernwood Press.
- Lassiter, L.E. (2000). Authoritative texts, collaborative ethnography, and Native American studies. American Indian Quarterly, 24(4), 601-614.

- Lotz-Sisitka, H. (2002). Weaving cloths: Research design in contexts of transformation. Canadian Journal of Environmental Education, 7(2), 101–124.
- Lowan, G. (2007). Outward Bound Giwaykiwin: Connecting to land and culture through Indigenous outdoor education. Pathways, 19(3), 4-6.
- McIntosh, P. (1989). White privilege: Unpacking the invisible backpack. Retrieved March 9, 2008 from www.psych.umn.edu/courses/ spring06/songs/psy3301/peggy%20mcinto sh%20white%20privilige.pdf.
- Outward Bound Canada. (2006). Giwaykiwin Native programming. Retrieved December 5, 2006 from www.outwardbound.ca/results. asp?Category=59
- Pepper, F.C. & White, W.A. (1996). First Nations traditional values. Victoria, BC: Aboriginal Liaison Office, University of Victoria.
- Rosser, E. (2006). Ambiguity and the academic: The dangerous attraction of pan-Indian legal analysis. Harvard Law Review, 119, 141–147.
- Simpson, L. (2002). Indigenous environmental education for cultural survival. Canadian *Journal of Environmental Education*. 7(1), 13-35.
- Tuhiwai Smith, L. (1999). Decolonizing methodologies: Research and indigenous peoples. London and New York: Zed Books; Dunedin, New Zealand: University of Otago Press.
- Greg Lowan is happy to be living close to the Rockies again while pursuing doctoral studies at the University of Calgary. Upon completing his Master's of Education at Lakehead University, he spent the summer exploring Japan.

An Innovative Approach to Overcoming Language **Barriers: Outward Bound Japan Participants Achieve More Than They Think They Can**

by Cathy Bernatt

Japanese adults often face a psychological barrier to communicating in English. Bruce Henry Lambert, in a paper titled Wrestling with Japanese Tribalism: Emerging Collaborative Opportunities for India and Japan suggests that,

Much of the problem stems from misapplication of energies to grammar testing rather than toward communicating. Most people are tormented by language classes at school that are technical and boring; they are surrounded by friends and family who believe Japanese people are poor at English; and they are never challenged to use English for practical purposes. (2002, p. 5)

Teaching the language experientially to Japanese is proving to be one way to overcome that barrier. At Outward Bound Japan's (OBJ) English Camp, begun in 1998, participants speak English 16 hours a day. They open restaurants, wait on tables and purchase equipment. They also tackle obstacles in their many outdoor activities — mountain bike rallies, rock climbing and rafting — all in English.

OBJ encourages participants to push beyond their perceived limits and achieve more than they believe they can. They are also encouraged to challenge and check assumptions under which they may be operating.

Yoshi's Story

Yoshi (not his real name), a participant in the 1998 OBJ English Camp, rarely spoke until he had internally translated a question from English to Japanese, then taken the time to formulate his answer from Japanese into English. He wanted each remark to be grammatically perfect. Yoshi assumed that people would think that he was stupid if he spoke with grammatical mistakes. The truth was that participants and instructors alike were frustrated with the long pauses between his being asked a question and him giving his answer. Only after being confronted with the frustration of the group did Yoshi decide to try and overcome his strong need to be perfect, and he began responding to questions faster.

It might be that the traditional Japanese educational system, with its stress on perfection, had exacerbated Yoshi's obstacle. In Japan, students begin studying English in junior high school, with an emphasis on mastery of grammar, reading and writing, rather than on verbal communication. They are strongly discouraged from making mistakes or taking too many risks. Obedience and conformity are expected. Lambert (2002) points out that,

Individuals grow up to feel safer if indistinguishable within a herd. The danger of being different is summarized in the Japanese proverb "the nail that sticks up gets pounded down" (出る杭[釘]は打たれる deru kui [kugi] wa utareru), which encourages harmony regardless of right or wrong. (p. 2)

Traditional classes use the didactic method, wherein students mostly listen passively. Inquiry is not encouraged. After five to nine years of English education, most students

graduate having mastered grammar, but not oral communication. This is a significant handicap for Japan in needing to stay competitive in the world market.

Using all *three* aspects of the learning process - cognitive, affective and psychomotor — OBJ English Camp has proved to be most powerful in helping participants explore the impact that some of Japan's deeply ingrained cultural values, including harmony (Lambert, 2002), have had on their ability to operate in a globally diverse economy. The participants who have attended the OBJ English Camps all work for multinational corporations where business is routinely conducted in English. The complexity of communicating in English, both orally and in written form, is magnified by the reality of having many different nationalities working side by side.

Conflicts Hidden

When Japan was more homogenous, nonverbal communication was key. It was accepted that people could understand one another deeply with but few words being spoken. Indirect communication is still the cultural norm. As cited in Fuki (n.d.),

Kawabata Yasunori, Japan's Nobel Prize winning novelist, has said that the Japanese communicate through unspoken understanding — a type of telepathy — because for them truth is in the implicit rather than in the stated. Japanese call it "ishin-denshin — communication by the heart" (p. 103).

There is a Japanese proverb that beautifully expresses how many Japanese view oral communication: *Kuchiwa wazawai no moto*, which literally means "the mouth is the gate of misfortune." Even today, people tend to keep feelings of conflict to themselves and to communicate nonverbally, generally assuming others understand what they are thinking and feeling. It is in this way that conflict is thought to be kept at bay.

In an indoor *non*-experiential language program, teachers avoid conflict and frustrations. They strive for harmony, on the surface a good thing. However, Canadian management consultant Donna Markham (1999) framed it like being a terrarium with its lid on: a self-sustaining environment, as long as the glass is kept on top of the container. The outside world is kept at bay and the inside world gets along fine.

The increased heterogeneity in Japan today and the range of cross-cultural skills necessary to succeed in global business are missing from this terrarium. In the OBJ English Camp, we take the lid off the terrarium and not only expect, but *welcome*, conflict and frustration.

Dealing with Frustration

People experience conflict and frustration in different ways. How we deal with them determines whether or not we can effectively manage and grow from those experiences in our



daily lives. The OBJ English Camp encourages participants to become more aware of their feelings, thoughts and actions by reflecting inwardly on their experiences, and by truthfully sharing them outwardly. Donna Markham (1999) has stated that truth-telling promotes disruption as it calls for heightened communication. Thus, it may inevitably lead to challenge and confrontation.

Not only has our camp succeeded in overcoming psychological barriers to communicating in English, but it has also fostered rich learning in the areas of cross-cultural negotiation and international business education. A five-day pilot program in 1998 was followed by a four-day camp in 1999, with nine members from two multinational corporations. The subsequent programs have all been four days. From 1998–2004, we ran six corporate English camps, with more than 50 participants.

Based on the success of the English camp, we decided to design and pilot an open OBJ Japanese Camp targeting non-Japanese participants, both in Japan and overseas. We had 10 participants from several multinational corporations. The Japanese camp proved to be much more challenging than the English camp for one very important reason: As stated earlier, all Japanese have at least six years of formal English study, which means that they come with a solid foundation in grammar; many of the non-Japanese who attended the pilot Japanese camp came with a blank slate. As a result, we had to keep lowering our expectations and checking our assumptions about what they would be able to do experientially.

That said, it is my belief that if this style of English camp were developed for Japanese junior high and senior high school students, overcoming some of the communication barriers at a much earlier stage would serve to create a much more adaptable and creative workforce for Japan. After all, communicating in a second language is identified by many corporations as a significant factor in global success (Hugenberg, Lacivita, & Lubanovic, 1996).

References

Clark, D. (n.d.). *Learning domains or Bloom's taxonomy*. Retrieved April 21, 2008 from www.nwlink.com/~donclark/hrd/bloom. html.

Fuki, N. (n.d.). The role of cultural influences in Japanese communication: A literature review on social and situational factors and Japanese indirectness. Retrieved April 21, 2008 from www.kuis.ac.jp/publications/kiyo/pdfs/14/14_06.pdf.

Hugenberg, L., Lacivita, R. & Lubanovic, A. (1996). International business and training: Preparing for the global economy. *Journal of Business Communication, 33*. Retrieved on May 13, 2008 from www.questia.com/googleScholar.qst;jsessionid=LqqKpXmLFQq1K2LnQ2HJXW42.

Lambert, D.H. (2002). Wrestling with Japanese tribalism: Emerging collaborative opportunities for India and Japan. Retrieved April 21, 2008 from http://swopec.hhs. se/eijswp/papers/enswp0143.pdf.

Markham, D. (1999). Spiritlinking leadership: Working through resistance to organizational change. New York: Paulist Press.

Cathy Bernatt's company Creating... specializes in Leadership Training, Conflict Facilitation and Organizational Development. Creating...'s mission is to help realize unlimited potential in people and organizations. Cathy is also the Outward Bound Japan International Program Coordinator and Outward Bound International Global Facilitation Network Leader. Originally from Canada, she has been living in Japan for 17 years.

В

eyond Our Borders .

We Conserve What We Love: Environmental Education in Kenya

by Colleen de Coninck Smith

Armed with my teaching resources and several years' experience as an educator in a Canadian context, I set off for eastern Africa and my position as an Environmental Education Officer. From August 2007 through March 2008 I participated in an internship sponsored by the Canadian International Development Agency (CIDA). Hosted by A Rocha Kenya, a conservation organization located near the coastal town of Watamu, my internship focused on developing an environmental education curriculum, facilitating workshops to train teachers in its use and visiting the eight A.S.S.E.T.S schools to teach environmental education lessons to their Wildlife Clubs.

A Rocha Kenya has initiated many education, conservation and technology projects in an effort to protect the biodiversity of the Arabuko-Sokoke Forest and nearby Mida Creek while improving the livelihoods of people living in the surrounding areas. One such program is the Arabuko-Sokoke Schools and Ecotourism Scheme (A.S.S.E.T.S). Monies paid by visitors to local ecotourisim facilities constructed by A Rocha are channelled into "eco-bursaries." As a result, 230 needy children from eight schools surrounding the Forest and Creek receive bursaries to attend secondary school. This project works to fulfill A Rocha's mission to "connect conservation and communities" both the people and the environment benefit when communities participate in conservation initiatives.

As a graduate of Lakehead University's Outdoor, Ecological, Experiential Education program and an instructor with Outward Bound Canada, I feel as though my experiences as an educator in central Canada have been culturally limited. While in Kenya, my learnings regarding cultural considerations in outdoor and environmental education were significant. My first few weeks in Kenya allowed me to understand just how much one's culture influences methods of educating, ways of interacting with students, and one's perceptions of the environment. In order to be relevant and effective in my work as an environmental educator in Kenya, I needed to start locally.

It quickly became apparent that there were very few employment opportunities available for local people. I also observed that the daily lives of my students and co-workers were directly dependent on the surrounding natural world for food, water and shelter. This led me to investigate their perspectives on the natural environment. The most common perspective I encountered was to view the natural environment primarily as a practical resource: trees for building homes and for burning in order to cook, natural medicines to treat illness, soil for planting food crops, wild animals for snaring as a source of income, etc. In the course of these activities, it appeared that these natural resources were often overused.

It was challenging for me to fully understand the complexities of the cycle of impoverished land and people. It was even more difficult to know how to break this cycle. What energy, employment, agriculture and diet alternatives are available to help alleviate the pressure on the local environment? And how, through education, would I go about addressing these issues and offering solutions? The main reason that A Rocha exists is to work in close relationship with the local communities to transform their daily habits towards ecological sustainability.

My initial interactions with the local communities led me to ask a series of tough and critical questions, including: To what extent have colonization and Western influence eroded traditional perspectives and practices and served to encourage and influence these detrimental environmental behaviours? Also, how would I relate to these students and design a relevant educational curriculum when our worldview and understanding of the natural environment were so different? The perspectives that I hold for the environment run more along the lines of care and concern, adventure, enjoyment, awe and love. In order for the conservation of these environments and their biodiversity to succeed, must not the underlying theme be love? Isn't it right that if you love something you will take care of it?

In designing educational curriculum, I found it most important to be centred on the theme of love and empowerment. As a result, lessons covered basic topics such as the water cycle and parts of a tree, but were portrayed through a lens of appreciation, respect and caring. Through simple group assignments, games and songs, the students experienced the beauty of the natural world, the extent of its incredible diversity and the interconnectedness of all its parts. I believe it is important to avoid focusing on the negative issues, but instead to focus on empowering the students toward action. For every "don't" we discussed, we tried to present a "do." For example, many classroom discussions were centred on conserving the Arabuko-Sokoke Forest, as illegal cutting of endangered trees occurs frequently and has threatened

many species close to extinction. Students learned the importance of planting trees, and developed practical skills of gathering seeds and starting their own tree nurseries at home. Students can then plant seedlings in their own *shambas* (farms) or make a small profit by selling the seedlings to the community. I was encouraged to see students become excited about conservation and demonstrate a desire to live more sustainably. It was also heartening to witness the students' sense of satisfaction that they can have a positive impact on their community.

My experience in Africa has added richness and depth to my understanding of outdoor and environmental education, not only in a developing country, but in Canada as well. I believe that the skills, insights and sensitivities that I have gained will form a strong foundation for future work with other cultures and will allow me to create more meaningful and powerful learning experiences for my students.

I encourage you to visit A Rocha's website for more details on the projects underway around the world or to find out how you can become involved in the exciting education work that is changing the lives of hundreds of families in Kenya. www.arocha.org or www.assetskenya.org or www.cida.ca

When not adventuring, Colleen instructs for Outward Bound Canada in the Alberta Rockies. She plans to spend the fall working and travelling in the Canadian North.

Setting Up a Successful Solo: Thoughts and Activities

by Charlotte Jacklein and Scott Caspell

Solitude is a silent storm that breaks down all our dead branches. Yet it sends our living roots deeper into the living earth. People struggle to find life outside them, unaware that the life they are seeking is within them.

Kahlil Gibran

Many cultures have a tradition of using solitude as a means of self-discovery and learning. Solo can also be one of the most unique and powerful elements of an outdoor education experience. Giving students a few creative, thought-provoking activities to complete during their solo helps make this a meaningful experience. Depending on the length of the solo (a couple hours to several days), two or three activities are enough. There should still be enough free time to just sit and think independently, but not so much free time that students simply fall asleep.

The key to making the solo a successful activity is introducing and framing it effectively. Your introduction should explain clearly why do a solo, safety guidelines and the activities or tasks. Have the students repeat their tasks back to you to doublecheck that they understand your instructions they won't be able to ask you questions later. All the following activities should be introduced before the solo and then debriefed with the group after the solo. Departing and returning silently helps students focus and creates a more ceremonial atmosphere. After bringing in the students from the solo, reading a quote is a nice way to transition back into group life.

1. Solo Snapshot

For this activity, each student shares a special moment from his or her solo or a special characteristic of his or her solo spot (e.g., when a bird landed at their feet or how the sunlight glistened on the water). This is a good activity to start the solo debrief, because it helps reduce side conversations and refocuses everyone on their solo experience.

2. Seed and Stone

While on solo, each student looks for a seed (e.g., pine cone, plant seed, etc.) and a stone. The seed represents a goal, something they want to grow or have more of in their lives (e.g., doing better in school, trying new things, having more confidence, etc.). The stone represents something the student wants to leave behind (e.g., being shy in a group, fighting with their parents, etc.). After students have shared their seeds and stones with the group, they each plant their seed in a sheltered spot in the bush and throw their stone into the river/ocean. If there are no stones (or no body of water to throw them into), this activity still works well with imaginary seeds and stones, and the instructor saying, "Now picture yourself leaving your stone behind you ... picture yourself planting your seed and it growing into a strong, healthy tree, etc."

3. Group Gift

While on solo, each student makes a gift to bring back to the group. This could be a poem, song, drawing, weaving, cool rock, a story, a joke, etc. This activity often leads to some lovely and creative gifts, helps bring the group closer together and encourages students to look closer at the resources around them.

4. Element Poem

This activity works especially well with pre-teen or teenage girls who may lack self-confidence or may be over-obsessed with external appearances and need to be reminded of their intrinsic value. Each student writes a brief poem about an element (fire, water, earth, air) from a positive perspective. For example:

Fire is fast and fierce and fearless.

Fire is beautiful as it glows and dances.

When people are cold and tired,
fire gives us strength.

When people feel alone in the darkness,
Fire is welcoming and gives us hope.

When they return to the group, the students share their poems but replace the element with "I" or "me," thus linking themselves to the power of the natural world and also presenting each student in a positive light. For example:

I am fast and fierce and fearless.
I am beautiful as I glow and dance.
When people are cold and tired,
I give them strength.
When people feel alone in the darkness,
I am welcoming and give hope.

5. Dream List

This is an inspiring and fun activity. Explain that only by knowing our hopes and dreams can we begin to make them reality. Perhaps share a few examples of dreams you had/have, and how you were/are making them happen (anything from world peace to learning how to bake bread on trail, etc.).



Then while on solo, students make a list of all their dreams for the future. Once back in the group, students can share two or three of their biggest dreams.

6. Mini-villages

This activity works well for younger students who need to keep their hands busy while on solo. In their various solo spots, each student makes an ideal miniature community, complete with houses, plants, water, food sources, leisure activities, etc. Encourage students to invent history and local lore to make their community unique. Older students can incorporate concepts like passive solar heating, wind energy, etc. After the solo, the group goes to each solo site for a tour of each community. This is a great activity because it encourages students to think about what a healthy community needs and where and how we get our resources - plus there is lots of room for creativity.

7. Lessons Learned

Each student reflects on and then shares three things they've learned about themselves, the group or the environment. An extension of this activity can be to reflect on how these things they've learned can be applied to their life at home.

Charlotte and Scott have facilitated a variety of solo experiences through their work with Outward Bound.

ubmission Guidelines_

Information for Authors and Artists

Purpose

Pathways furthers knowledge, enthusiasm and vision for outdoor experiential education in Ontario. Reflecting the interests of outdoor educators, classroom teachers, students and academics, the journal focuses on the practice of outdoor experiential education from elementary to post-secondary levels and from wilderness to urban settings. Pathways highlights the value of outdoor experiential education in educating for curriculum, character, wellbeing and the environment.

Submitting Material

The *Pathways* editorial board gladly considers a full range of materials related to outdoor experiential education. We welcome lesson outlines, drawings, articles, book reviews, poetry, fiction, student work and more. We will take your contribution in any form and will work with you to publish it. If you have an idea about a written submission, piece of artwork, or topic for a theme issue, please send an email outlining your potential contribution to the Chair of the Editorial Board, Kathy Haras (kathy.haras@lakeheadu.ca).

We prefer a natural writing style that is conversational, easy to read and to the point. It is important for you to use your style to tell your own story. There is no formula for being creative, having fun and sharing your ideas. In general, written submissions should fit the framework of one of *Pathways'* 20 established columns. Descriptions of these columns may be found at www.coeo.org by clicking on the publications tab.

Whenever possible, artwork should complement either specific articles or specific themes outlined in a particular journal issue. Please contact the Chair of the Editorial Board if you are interested in providing some or all of the artwork for an issue.

Formatting

Use 12 point, Times New Roman font with 1.25 inch (3.125 cm) margins all around. Text should be left justified and single spaced. Place a blank line between paragraphs but do not indent. Please use Canadian spelling and apply APA referencing style.

Include the title (in bold) and the names of all authors (in italics) at the beginning of the article. Close the article with a brief 1–2 sentence biography of each author (in italics).

Do not include any extraneous information such as page numbers, word counts, headers or footers, and running heads.

Pathways contains approximately 500 words per page. Article length should reflect full page multiples to avoid partially blank pages.

Submit articles to the Chair of the Editorial Board or issue Guest Editor, preferably as a Microsoft Word email attachment.

Each piece of artwork should consist of a single black and white drawing (cross-hatching but no shading) on $8\frac{1}{2}$ by 11 paper.

Submit artwork to the Chair of the Editorial Board or issue Guest Editor either as a digital file (jpg is preferred) or as a hard copy.

Submisison Deadlines

Volume 1	Fall	September 15
Volume 2	Winter	December 15
Volume 3	Spring	February 15
Volume 4	Summer	April 15

Complimentary Copies

The lead author receives one copy of the issue in which the article appears and one copy for each co-author. Lead authors are responsible for distributing copies to their co-authors.



The Council of Outdoor Educators of Ontario

Membership Application/Renewal Form

Please visit our website at www.coeo.org/membership.htm for more detailed descriptions of the benefits of each membership category. (Please print and fully complete each line below.)

Name (Mr./Mrs./Ms/Miss)					
Street Address					
City/Town		Province/State	Postal/Zip Code		
Telephone Home ()		Business (<u>()</u>		
E-ma	il				
	Т	ype of Membership (Check	one box)		
	0	The state of the s	☐ Family \$60.00 ☐ Organizational \$100.00		
	United States orders 1	please add \$4.00; Internation	al Orders please add \$12.00		
Pathways Journal Format Request (Check one box)					
Please select the format in which you wish to receive your four <i>Pathways</i> Journals: □ I'd prefer to receive a PDF version through password access to the COEO Website □ I'd prefer to receive a printed copy through "snail mail" □ I'd prefer to receive both a digital and a printed version - an additional fee of \$5.00 is required for this option.					
COEO Membership is from September 1 to August 31 of the following year.					

Please send this form with a cheque or money order payable to:

Council of Outdoor Educators of Ontario or COEO

1185 Eglinton Ave. East, Toronto, ON M3C 3C6				
Every <i>Ontario member</i> of COEO will be assigned to a region of the province according to the county where (s)he lives.				
Central (CE)	Niagara South, Lincoln, Hamilton-Wentworth, Halton, Peel, York, Simcoe, Metro Toronto			
Eastern (EA)	Victoria, Durham, Peterborough, Northumberland, Hastings, Prince Edward, Renfrew, Lennox and Addington, Frontenac, Leeds, Grenville, Ottawa-Carleton, Lanark, Prescott, Russell, Stormont, Dundas, Glengarry			
Northern (NO)	Parry Sound, Nipissing, Muskoka, Haliburton, North Bay, Patricia, Kenora, Thunder Bay, Algoma, Cochrane, Sudbury, Rainy River, Timiskaming			
Western (WE)	Essex, Kent, Elgin, Lambton, Middlesex, Huron, Bruce, Grey, Dufferin, Wellington, Waterloo, Perth, Oxford, Brant, Haldimand-Norfolk			



Return to: The Council of Outdoor Educators of Ontario
1185 Eglinton Avenue East
Toronto, ON
M3C 3C6