

Pathways

THE ONTARIO JOURNAL

OF OUTDOOR EDUCATION

Volume 8, No. 4
July/August, 1996



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Pathways

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20 Linn Cres., RR#3, Caledon East L0N 1E0
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(H) 519-823-0006 (Fax) 519-823-0006
e-mail: ianhend@village.ca
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457 Stillmeadow Circle Waterloo N2L 5M1
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- Government Liaison:** **Wilson McCue**
Recreation Services Section
Ministry of Citizenship, Culture and Recreation
77 Bloor Street W., Toronto M7A 2R9
(B) 416-314-7680 (Fax) 416-314-7455

COEO Office:

Council of Outdoor Educators of Ontario
1185 Eglinton Avenue East,
North York, Ontario M3C 3C6

For information regarding *Pathways* or
advertisement, contact
Mark Whitcombe at (705) 435-4266.

For COEO information, contact
Glen Hester at (416) 394-7860 (B).

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Pathways Editorial Board

Chair: **Mark Whitcombe**

34 Blind Line, Orangeville, L9W 3A5
(B) 705-435-4266 (H) 519-941-9966
Fax 705-435-4281
(e-mail) mwhitcombe@headwaters.com

Mary Jeanne Barrett

RR#1, Orangeville L9W 2Y8
(B) 905-846-6060 (H) 519-942-0075
(B) Fax 905-584-9823
(e-mail) marybarr@village.ca

Clarke Birchard

Box 490, Chesley, N0G 1L0
(H) (519) 363-2719
(e-mail) cbir@bmts.com

Caroyn Finlayson

P.O. Box 421, Caledon, L0N 1C0
(S) 519-883-9603 (H) 519-927-3161
(e-mail) finl9364@mach1.ylu.ca

Bob Henderson

4124 - 126 Street, Edmonton, T6J 2A4
(H) 403-435-2307

Clare Magee

270 Rogers Rd., Newmarket L3Y 1G6
(B) 905-833-3333 (H) 905-898-0467
(Fax) 905-833-2085

Barrie Martin

c/o L.M. Frost Natural Resources Centre
Dorset POA 1E0
(B) Fax 705-766-9677 (B) 705-766-2451
(e-mail) martinbb@epo.gov.on.ca

Barbara McKean

c/o Royal B.G. Box 399 Hamilton, L8N 3H8
(B) 905-527-1158 ext. 247
(H) 905-523-8961 (Fax) 905-577-0375
(e-mail) bmckean@mcmaster.ca

Tom Potter

School of Outdoor Recreation, Parks and
Tourism, Lakehead University P7B 5E8
(B) 807-343-8843 Fax 807-346-7836

James Raffan

Faculty of Education,
Queen's University, Kingston
(B) 613-545-6209 Fax 613-545-6584
(H) 613-387-3568
(e-mail) raffanj@educ.queensuk.ca

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Outlook

Your Board of Directors are enjoying their summer holidays as I hope you folks are. While you're outdoors, grab your camera and capture those special moments of "Children in Nature". We are sponsoring a special member's only photo contest at the annual conference, with some great prizes. If you haven't yet registered, what are you waiting for? There's a super line-up of sessions, two great pre-conference workshops and it's COEO's 25th Anniversary to boot! De Dwa Yea Nah...Come join us. See you in September.

Linda McKenzie

In our continuing series of articles commemorating the 25th anniversary of C.O.E.O., this issue of *Pathways* features a detailed retrospective look at Conservation Education in the Metropolitan Toronto and Region Conservation Authority, the oldest and the largest of the Conservation authorities in Ontario.

Over the years since its creation, M.T.R.C.A. has developed the most ambitious set of programmes and facilities for Outdoor Education, in the most heavily populated part of the province. Centres operated by the M.T.R.C.A. have been the settings for many O.E. courses and workshops and for many C.O.E.O. meetings and events. They have been the training grounds and inspiration for generations of teachers and students and the models for many other programmes and facilities.

For these reasons, the Editorial Board has included this detailed retrospective of Outdoor Education in this Conservation Authority. In a later issue of *Pathways*, Kathy Reid, a past-president of C.O.E.O. and staff member of the Otonabee Region Conservation Authority will provide an overview of the development of Conservation Education in the other Authorities across Ontario.

We are reprinting the major portion of an article that was written by Terry Carr for the New Jersey School of Conservation on the occasion of their 40th anniversary in 1990

C.O.E.O. members have been leaders in creating and implementing curriculum integrated programmes. It is fitting, therefore, that *Pathways* should serve as a voice for programme ideas, fundraising, evaluation issues, and research concerning integrated programmes. It is our hope that as such programmes increase in numbers that people from across the country will turn to *Pathways'* text in witness of our readers' and contributors' long commitment to outdoor experiential education curriculum integration. We offer three items concerning integrated curriculum here.

We are experimenting with a return to photo images with this issue (1990 was the last time). It adds a bit of cost to the journal, but we hope the addition will add to the overall look of *Pathways*. What do you think?

It is wise from time to time to review our columns' intentions. They are as follows: *Explorations* presents research ideas in Outdoor Education (OE)

In the Field features programmes and/or a curriculum idea

Backpocket is an activity or new resource feature

Opening the Door is a sample of students' work

On the Land is an environmental update

Reading the Trail is a book/music/CD-ROM or other review

Intersections deals with issues concerning outdoor experiential education integrated curriculum package programmes

Tracking presents events, news, and announcements — past or future

Sketchpad concerns the issue's featured artist, and finally

At the Fire of the Mohawk and *The Gathering* are additions for 1996 to help celebrate the upcoming conference to be held at Oshweken, near Brantford in conjunction with the C.O.E.O. anniversary. *At the Fire of the Mohawk* is thanks to Mary Henderson's curriculum work with the Ahkwesahne to create a foundational integrated science, ecological, and spiritually based curriculum. Watch for *The Gathering* for conference news, before and after major C.O.E.O. conferences.

Finally, with this issue, the Editorial Board would like to welcome Tom Potter from the School of Outdoor Recreation, Parks and Tourism at Lakehead University and James Raffan from the Faculty of Education at Queen's University to the Editorial Board. Beginning in January 1997, we hope to feature in every other issue, activities, ideas, and programme descriptions from various colleges and universities in Ontario. Tom and Jim will help us facilitate this idea. Also, Bob Henderson will be on a research leave in Edmonton from July 1996 to August 1997. Note his new address. Mark Whitcombe will step in as head of the Editorial Board for this time.

Enjoy the summer, and as *Prospect Point* writer Christian Bisson writes here, 'listen to the music'.

THE EDITORS

THE PADDLE DANCE

The paddle dance is a dance activity that would be played at gatherings of Euro-Canadian Voyageurs and native peoples at times of trade and reunion. One such meeting, the most significant gathering in the fur trade era, was the Grande Rendezvous at Grande Portage (later Fort William). Here in the summer, the western travelling Ottawa River/Great Lake 'pork-eater' voyageurs would meet up with the south and eastern travelling 'Nor-westers' from the western interior where they had been wintering over at remote fur trade posts. The pork-eaters, note this is meant as a disparaging statement of the Nor-westers, carry west-ward the trade goods sent to Montreal from Europe. The Athabasca Nor-westers carry out to market the furs gathered over the winter at the fur trade posts throughout the Northwest. Their role carries with it a higher status, or at least that is their opinion and gamefully challenged by the Montreal brigades. They exchange their initial supplies for the return trips at Fort William, in the early 1800s, the major exchange was made, associated with a grand celebration of arrival.

THE PADDLE SPIN CONTEST

There would be many contests of strength and endurance with such reunions. One pre-dance challenge, all part of the good fun and mutual respect, was the paddle spin. One voyageur would challenge another. Certainly the mainstay of the contests would involve selected members from the Montreal and Athabasca brigades who had been the best from the group practice sessions perhaps carried out on idle wind bound days. (This is good interpretive material teaching both history and geography for dramatizations.) The simple, in theory, challenge involved one voyageur holding a paddle high over his head and spinning 10 times, then placing the paddle flat on the ground and jumping over it and back as many times as one's dizziness allows. The gathering crowd serve as a circle of spotters (and are certainly necessary). Many challenges can be made with a bravado that only comes with the confidence of months of paddling and portaging close to half a continent each year back and forth. Consider this the day's warm up for the more humbling evening dance.

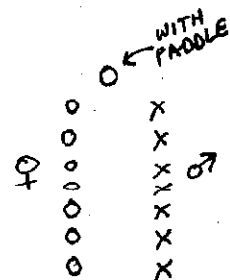
THE PADDLE DANCE

Amidst the background of jigs and reels (ceilidh music) all would gather, voyageurs of many ethnic and mixed background with many the posts' native women for a variety of line and square dances. The paddle dance involves the following set up (see diagram). The men (Voyageur) and women (native) line up in single file facing each other. One woman (let's say) stands at the head of the two lines. As the music begins, two men approach her and vie for her preferred attentions in fun and animated manner (see interpretative notes for ideas - tell these comments to all dancers). She must choose one of the two and then hands the paddle to the less preferred voyageur. Now the two, man and woman, dance together hand-in-hand down through the centre to take their place at the end of the line. All other participants clap and hoot to the music and fanfare. Now it is the woman's turn to seek the preferred attentions from the lone voyageur with paddle in hand and a pattern of lone female, male, female, etc. continues until all have had a chance to work their way up to the top of the line.

INTERPRETIVE NOTES

- Voyageurs like to boast, i.e.; best paddler 'feel my muscles; never gets dizzy, hence the paddle twirling event; loudest singing voice, so whooping and hollering; lots of colour, kerchief waving. Be creative.
- Men held women with the back (top of hands) so she would not feel his calloused hands from paddling.
- Men usually shaved with the axe before dancing to attract women and buttoned up their shirt to the collar to show no chest hairs (that native women were not use to body hair)
- Men liked the long, braided hair of the native women. Swirl that long hair around.
- Can whisper in ear, rub shoulders, do friendly appropriate general courting behaviours to impress the next dancing partner. (Flash credit cards and promise to pay for his/her next canoe adventure down the Nahanni.)

PADDLE DANCE



FINAL THOUGHTS

This is a truly Canadian dance. It originated from a mix of European and native cultures. Male voyageurs and native women are all on equal humble terms having a chance to pick their partner or be picked to swing together down the line to what we think of now as traditional Celtic music, known as Ceilidh music. (Ceilidh music can be found on records by the English group Fairport Convention; by Irish groups, the Bothy Band; and by Canadian groups, Tamarack Tanglefoot and Figgy Duff, to name only a few.) Ceilidh meaning a celebration. The celebration is a celebration of arrival, of getting together as cultures in partnership, of the paddle, and the canoe.

BOB HENDERSON and ZABE MAC EACHREN
Zabe and Bob introduced this dance in the Camp Arowbon celebrating the C.O.E.O. conference gathering of 1994. Bob teaches outdoor education at McMaster University and Zabe in 1996/1997 begins her Ph.D. studies in the Faculty of Environmental Studies at York University.

THE METROPOLITAN TORONTO AND REGION CONSERVATION AUTHORITY'S CONSERVATION EDUCATION PROGRAMMES A FORTY-YEAR RETROSPECTIVE 1950 -1990

Allen Terry Carr

THE 1950s

All of the 33 Conservation Authorities in Ontario have been interested and involved, to varying degrees, in developing education facilities and programmes since the first authorities were founded in the late 1940s.

The first efforts in the Toronto Region involved activities such as student conservation tours, essay competitions, tree planting, and fishing days. As more land was acquired by the Authority in the 1950s, it became apparent that these lands represented outdoor classrooms which could accommodate outdoor and conservation education needs of this large metropolitan population. The first signs of partnership between education and conservation interests began to develop. Schools began to formally plan out-of-classroom trips and often used the staff of the Conservation Authority as resource people to get across the story of the use and management of natural resources. The teachers could also cover the more curriculum-oriented subjects of outdoor education such as geography and science while at the same time 'marrying' with those subjects the attitudes, ethics and practices of conservation.

A good example of this trend towards cooperation and partnership was the approach to the Humber Valley Authority in 1953, by two staff members of York Memorial Collegiate Institute, a Metro Toronto high school.

Blanche Snell and Catherine Scholes had just returned from a trip to England where they had visited a number of outdoor education projects that were operated by the Field Studies Council of Britain. Their enthusiasm for the social benefits of residential centres and their interest in conservation were translated into action when they approached Kenneth Higgs,

Field Officer of the Humber Valley Authority. The resulting first 'camp school,' which ran for three days in late May of 1953, was the forerunner and prototype of the M.T.R.C.A. residential Field Centres. That was a pilot programme which ran for 11 years and culminated in the establishment of the Albion Hills Conservation School in the fall of 1964.

I will insert a personal note at this time. The author was a grade nine student at York Memorial in 1954 and was affected for a lifetime by the second annual camp school held in May of 1954. This experience had a profound influence on my understanding of the natural environment. It was one of the major events that led me into teaching and subsequently into outdoor and conservation education as a profession.

Many other significant conservation education events occurred in the 1950s. The Black Creek Pioneer Village had its start and began attracting both school groups and families. It was, and still is, a well-respected 'living village' in which the staff are able to demonstrate rural life and use of natural resources as they would have been in the early pre-Confederation days of Canada. The most elaborate conservation trail set up by an authority was the Don Valley Conservation Trail of the early 1950s. Twenty-four stations with signage and a conservation booklet helped over 7,000 Grade 7 and 8 students understand more about conservation in the area in its first two years. Soil and land judging contests also attracted attention in the 1950s. The first soil judging competitions were held in Peel County in 1955. These conservation education contests helped senior secondary school students to recognize the factors (drainage, texture, and land use methods) that affected soil management and crop success.

This decade ended with an already strong

tradition of conservation education established by the M.T.R.C.A. The York Memorial Camp School, held in May, had become an annual event with many members of the Authority staff taking part and an obvious interest being shown in this project by other schools and school boards. Thousands of Metro Region students as well as the general public were coming regularly in contact with the Authority and its work through its growing and popular conservation education programmes.

THE 1960s

The official opening of Black Creek Pioneer Village started up this new decade of conservation education. With historic buildings being added and new programmes developed, the attendance by 1963 had reached 300,000. It continued to play an important role in teaching Ontario's history to broad segments of people in the province. The education programme at the Village was attracting 60,000 school students by the mid-sixties. A new programme that was designed for a half-day visit and called Pioneer Life began in November of 1967. This represented a hands-on approach to the use of pioneer resources by the participants. This remains a popular and well-attended programme within the Village.

Probably the most significant education event of this decade for the Authority was the opening, in 1963, of the Albion Hills Conservation Field Centre. This facility was the prototype for the M.T.R.C.A.'s four residential field centres. There is no doubt that this facility was the direct result of the experience gained by the Authority through its involvement in the York Memorial Camp School of the 1950s. After 11 years of rather primitive quarters but excellent conservation education programmes, the dream of having a year-round facility and a full-time conservation education staff became a reality. This centre was made possible only with the aid of the newly created Metropolitan Toronto and Region Conservation Foundation (established in 1961) and the hard work of many dedicated people who went about fundraising, planning,

and approaching the regional Boards of Education to seek their participation in the project. The local boards responded with overwhelming enthusiasm and assured the Authority of both their financial support (through a daily fee) and their professional support (through help with programme design and constant consultation). From the very start, there was more demand for time at the centre than could be provided.

The Albion Hills Conservation School, as it was named at that time, opened its doors to students in September of 1963. The site selected was in the beautiful rolling hills of Albion Township, in the northwest corner of the Authority's region. It was, and still is, one of the most attractive, diversified outdoor 'classrooms' that could be imagined. With approximately 400 hectares (1,000 acres) on the headwaters of the Humber River, the conservation area offers every conceivable opportunity to expose students and adult visitors, by direct contact, to the many aspects of resource management that fall under the Authority's jurisdiction. The attractive building, which can accommodate up to 40 guests and their leaders, is the home-away-from-home for approximately 3,000 students annually.

Again, I would like to add a personal note. Between the time when I had been so profoundly influenced by the York Memorial Camp School and the opening of the Albion Hills Field Centre, I had gone to the Toronto Teachers' College and was hired, upon graduation, by the Toronto Board of Education. Shortly after starting my teaching career, I was invited to join the staff of the first year-round outdoor education centre in Canada, the Island Natural Science School. This facility, operated by the Toronto Board of Education, was located on one of the Toronto Islands in the city's harbour. I spent three rewarding years at the Island School, beginning in 1960. This gave me my first opportunity to work with students and teachers on a full-time basis in the out-of-doors. Those memorable years also provided a firm conviction that the residential component of outdoor education was something that deeply interested me and would be a key factor in the



The pressure for more time from the local school boards and the recognized benefits of the single-class unit led to the 1967 opening of the Claremont Conservation Field Centre.

rest of my career. Social implications of the residential experience were, after all, important factors in the philosophy behind the York Memorial Camp School. I was again given a fortunate 'break' in my career when I was invited by the M.T.R.C.A. to join the first staff of the Albion Hills Conservation Field Centre.

There, over time, I witnessed the fulfilment of the wish that was expressed at the November 1962 'sod turning' by the Honourable William G. Davis, Minister of Education at the time:

'May this school, the result of much hard work by the Metropolitan Toronto and Region Conservation Authority, prosper. May its influence spread so that young pupils will enjoy a love for the out-of-doors, establish lasting friendships, gain new knowledge and learn through conservation to become responsible citizens and respect and love their country.'

The Albion Hills Conservation School did prosper. By the mid-sixties there was a recognized need to either add more accommodation or build another centre elsewhere on Authority property. The pressure for more time from the local school boards and the recognized benefits of the single-class unit led to the 1967 opening of the Claremont Conservation Field Centre. It was situated in the far northeast of the Authority's region. The author was again privileged to be appointed as the Supervisor of this new centre. Another 3,000 or so students and interested groups were given the opportunity to take part in a residential conservation education experience every year.

An important partnership was established with the opening of the Claremont Centre. Through a formal agreement with the Faculty of Education at the University of Toronto, a 'wing' of the building was paid for by the University to house student teachers from Toronto's Faculty of Education. While many student teachers had been coming to the Albion Hills Conservation Field Centre, this arrangement at Claremont formalized and made more secure the opportunities to train beginning teachers in the practice of Conservation Education. This agreement was to foreshadow the formal agreements of the 1970s that were negotiated with the region's Boards of Education.

Other very significant events occurred in this decade. A major flood control device, the Clairville Dam, was constructed and began operation. An extra large observation tower was constructed within the structure, which served as an on-the-spot classroom. The Operator of the dam could now instruct visitors on flood control and water conservation. Over the years, many thousands of guests have observed the operation of the dam and have left knowing much more about the Authority's flood control programmes.

The popularity of Nature Trails was growing and, with the able assistance of the Authority's naturalist, Kenneth Strasser, many innovative and interesting trails were established in this period. A new approach was introduced at one of the conservation areas in 1965. A self-guided conservation trail, with an illustrated booklet keyed to points of interest along the trail, allowed many visitors to explore and understand the area without the need of a leader.

During Canada's Centennial year in 1967, more than 100,000 individuals participated in conservation education programmes on M.T.R.C.A. property. Thomas E. Barber, Administrator of Information and Education at that time, emphasised the importance of Authority lands in general and Conservation Areas in particular by saying:

'The role of the Conservation Areas is to offer a programme in Conservation Education which illustrates our need and dependence on our environment for its products - food, fuel and fibre, recreation and aesthetic values.'

Three new Conservation Education programmes were offered by the Authority as the decade of the sixties drew to a close; Pioneer Life and Craft, at the Black Creek Pioneer Village; a Maple Syrup Demonstration at Bruce's Mill Conservation Area which attracted 12,000 in family groups and 6,000 school students in its first spring in 1968, and a third new programme was based at the Cold Creek Conservation Field Centre, established in September, 1968. This facility was set up to accommodate school classes on a daily basis during the week and to provide a meeting place on weekends for sports clubs such as the

Toronto Anglers and Hunters. Special features of the Cold Creek Area included opportunities for riflery safety and practice, archery, trap shooting and the study of a unique 40 hectare (80 acre) Boreal Spruce Bog through which a 300 metre (1,100 ft.) elevated boardwalk was constructed.

This decade represented a highly significant period for the Metropolitan Toronto and Region Conservation Authority's Conservation Education programmes. It ended with many new and exciting programmes established over much of the Authority's lands.

THE 1970s

A new decade commenced with stimulating challenges and innovations in Conservation Education. In 1972-73 the M.T.R.C.A. kindly permitted my family and myself to travel to England where I was able to successfully complete a Masters Degree in Conservation at University College, University of London. What a rewarding and worthwhile experience that proved to be! I am indebted to the Authority for their financial and professional support.

On our return from England, a wonderful new project was underway with a number of school boards in our area. Coordinated by Tom Barber, eight Metro Toronto Region boards had agreed to enter a capital and operating partnership with the Authority and to embark on the planning and building together of a third residential field centre. With the opening in the fall of 1974 of the Boyd Conservation Field Centre an entirely new dimension was added to an already broad spectrum of programmes offered by the Authority.

The building was constructed on M.T.R.C.A. land and the capital costs were covered through grants from two Ontario Ministries; Education, for the school boards' share, and Natural Resources for the Authority. A formal partnership had been drawn up by the Metropolitan Toronto School Boards and the Authority. The M.T.R.C.A. was to provide the operating supervision and administration

including staffing, and the boards were to provide a seconded teacher and a mutually agreed upon daily fee. There was to be a shared capital investment and an allocation between the Authority and the eight partner boards for the cost of operations. Each individual board's share of time and operating cost was to be determined on the basis of size of the school population within that board.

The centre is situated on an ideal outdoor 'classroom' of 800 hectares (2100 acres) of Authority-owned land. It is administered by the M.T.R.C.A. on the advice of the Joint Planning Committee, made up of senior staff of the participating school boards and the Authority. A Programme Advisory Committee, consisting of outdoor educators from these boards and representatives of the Conservation Education staff of the Authority, provides assistance in the planning of programmes that are consistent with the needs of the school boards and with the conservation education objectives of the Authority. The rich and diverse natural and cultural resources of this site have proven to be invaluable for the development of an excellent conservation education facility. It was again the author's privilege to be appointed as Supervisor for this innovative project.

The model was highly successful and it was not long before another 'partnership centre' was being planned by the boards and the M.T.R.C.A. The funding for the Lake St. George Conservation Field Centre was approved in 1978 and the centre, much of which was finished by technical students from the local schools, was opened in 1979. This centre, on the completion of its second phase, was the first two-class residential centre to be operated by the Authority, having a capacity of about five to six thousand students a year. With its two, well-separated dormitory buildings and a central dining facility, this centre still maintains the one-class 'feeling' while providing twice the available time and space. It also represents, with its increased numbers, a considerable economy in operating costs.

The 1970s also heralded in the Kortright Centre for Conservation. It was to fill a signifi-

Eight Metro Toronto Region boards had agreed to enter a capital and operating partnership with the Authority and to embark on the planning and building together of a third residential field centre.

By the end of the decade well over 100,000 people a year and approximately 6000 groups were utilizing conservation education opportunities offered by the Metropolitan Toronto and Region Conservation Authority.

cant void in the conservation education programmes offered by the Authority. There had been a definite emphasis on school groups up to this time. Other than the Black Creek Pioneer Village and the Nature Trail network, there had been very little for adults and family groups. The Kortright Centre has very effectively filled this deficiency. The second conservation education project to be placed in the Boyd Conservation Area, the Kortright Centre's temporary facility was opened in 1974. At that time, 3 portable classrooms served as headquarters for programme development. With the help of the first Supervisor, Ken Strasser, and his assistant, Allan Foster, many creative ideas for the new facility came out of these temporary little buildings. The Kortright Centre for Conservation was officially opened on June 21, 1979 and has been growing rapidly in both its conservation education programmes and its worldwide reputation ever since.

One of Kortright Centre's key objectives is to provide a 'window' to the work of The Metropolitan Toronto and Region Conservation Authority. Another function is to provide special exhibits which illustrate many current conservation problems and possible solutions. The positive response has been reflected in the rapidly growing attendance.

By the end of the decade well over 100,000 people a year and approximately 6000 groups were utilizing conservation education opportunities offered by the Metropolitan Toronto and Region Conservation Authority. Summer credit courses, under the auspices of the Ontario Ministry of Education, were being offered in Archaeology at the Boyd Conservation Field Centre and in Environmental Science at Lake St. George. York University was offering a senior Geography course at the Albion Hills Centre and many hundreds of student teachers were coming from Faculties of Education around the province to have their first 'taste' of outdoor and conservation education at Authority centres. Large numbers of individuals, both youth and adults, were discovering the resources of their region through M.T.R.C.A. programmes. It had been a great 10 years!

THE 1980s

We enter the decade of blossoming environmental consciousness. 1981 marked the Silver Anniversary year of the M.T.R.C.A. The Authority's Watershed Plan was completed and adopted. This plan was a 'monumental programme of guidance and commitment to launch the Authority on an exciting path into the next quarter century.' This 'Blueprint for the Future' had, as one of its 10 components, a programme called Community Relations. This component read as follows:

'The goals of the Community Relations programme are to communicate Authority goals, objectives and programmes to watershed residents, report on achievements through public support, create awareness of the importance of the watershed concept of conservation and engender a positive attitude toward the Authority and its programmes.'

Herein lay the direction and challenge of the 1980s for the Authority's conservation educators. With increased public interest and participation in the decision-making process (partly due perhaps to the exposure of hundreds of thousands of the areas residents to the Authority's Conservation Education programmes), it became very important for this organization to examine and analyze its own mandate. The Authority developed a 'mission statement' to clarify both internally and for the public just what it was all about. After very careful consideration of goals and objectives the Authority in its 31st Annual Report, 1987, stated the following:

MISSION STATEMENT:

The Metropolitan Toronto and Region Conservation Authority is a provincial/municipal partnership established in 1957, under the Conservation Authorities Act, to manage the renewable resources of the region's watersheds.

The Metropolitan Toronto and Region Conservation Authority, with one-third of Ontario's population within its area of jurisdiction, acts in the community's interest through

advocating and implementing watershed management programmes that

- maintain and improve the quality of the region's lands and waters,
- contribute to public safety from flooding and erosion,
- provide for the acquisition of conservation and hazard lands, and
- enhance the quality and variety of life in the community by using its lands for interregional outdoor recreation, heritage preservation and conservation education.

Metro Region Conservation shall seek to fulfil its mission and serve the needs of its constituency in accordance with the highest standards of ethics and integrity.

The Authority thus had examined and described its goals in the Watershed Plan and defined its mandate through the mission statement. Conservation Education, though not a 'core' programme, still represented an important component of the Authority's overall plan.

Growth and consolidation are operative words to describe what occurred within conservation education programmes of this decade. The attendance records again help to tell the story. By 1989 the Kortright Centre alone was attracting well over 100,000 visitors a year. Black Creek Pioneer Village had over 300,000 visitors.

By the latter years of the 1980s, programmes at the M.T.R.C.A. field centres were reflecting the Authority's new Greenspace Plan. The Greenspace Plan for the Greater Toronto Region received consensus and was adopted as a strategy in October of 1988. It reflects a stronger commitment to managing the quality of our resource areas. William A. McLean, the C.E.O. of The Metropolitan Toronto and Region Conservation Authority since January of 1981, stated the following in the 'General Manager's Remarks' of the Authority's most recent Annual Report:

'The Greenspace Strategy being pursued by the Authority does not call on us to do a lot of new things, but do things differently. What the community finds most frustrating in dealing with public

agencies is the blinkers we wear, which seem to prevent us from seeing the larger issues and make us respond only within the narrow confines of our perceived mandates.

It is this limitation which our Greenspace Strategy addresses. We have taken the risk of putting ourselves forward as the managers of the environmental planning process, and have invited the other agencies concerned with resource management, along with public interest groups, to the table to hammer out comprehensive management goals for our watershed resources to which all can subscribe, and to the achievement of which all can agree to apply their individual mandates.'

This strategy, which represents an 'enrichment' and updating of the Watershed Plan, brings into clear focus what the Authority's Conservation Education programmes should be stressing as we reach into the next decade.

Another recent thrust of the Conservation Field Centre programmes was to affiliate ourselves more closely with the Ontario Ministry of Education Curriculum Guidelines. The increased interest and concern regarding the environment has resulted in, for the first time, outdoor education being encouraged and, in fact, insisted upon in these curriculum documents. The conservation education staff was being called on more and more to illustrate and confirm with both young and old, the need for a personal commitment to the quality of our environment.

As the serious need for hands on, direct experience with the resource is increasing, in the opinion of both educators and conservationists, the demand for staff and facilities grows. Plans for Conservation Education resources that were all but shelved in the 1970s were being implemented in the 1980s. Albion Hills Conservation Field Centre took on a satellite centre constructed on leased Authority land adjacent to the Albion Centre. This new facility, operated by the Etobicoke Board, has its own labs, dorms,

With increased public interest and participation in the decision-making process, it became very important for this organization to examine and analyze its own mandate.

MTRCA Conservation Education, 1990-1996: A postscript to the article (Written by Clarke Birchard based on a telephone conversation with Terry.)

'Since the time of writing of the above article in 1990, and during the period when many O.E. centres and programmes have experienced significant changes and even closings, M.T.R.C.A. programmes and services have survived reasonably well. The author reports that because of their large size and unique arrangements with neighbouring school board user groups, they have been somewhat isolated from the funding cutbacks at the school and school board levels. No M.T.R.C.A. Centres have been closed, and their regular staff ratios are the same as in 1990, although there have been reductions in temporary staff and some rearrangement of administrative and organizational responsibilities. Time made available by the loss of one or more large school board contracts has been filled by direct bookings from individual schools. Many of the school board user groups are no longer paying the full cost for programmes, transportation, accommodation, and meals for students as they once did. Some of these costs are being covered by schools and by parents although the result is the same for the Conservation Authority.'

and lounge areas, and uses the Albion Centre's kitchen and dining facilities.

A new partnership was developed with the Durham Board of Education in the Authority's eastern jurisdiction. They established a year-round day centre in the Claremont Area to work closely with the Claremont Conservation Field Centre. There was also interest in this project going eventually to a residential unit in partnership with the Claremont facility.

In 1989 there was renewed interest in a very exciting concept called the Glassco Conservation Education Campus. This facility was planned to the concept stage with funding from some of the regional boards of education in the 1970s. While shelved for 10 years, the project was revived at the time by one large local board because of their need for greatly increased space and time at residential outdoor education centres. That board approved a policy that, funds and facilities permitting, would provide all their grade eight students the opportunity to experience a 5-day residential outdoor education trip. The numbers of students that are potentially involved with that one board, should it decide to go ahead with this project, could literally fill to overflowing the 3 proposed units of the Glassco Campus.

The 1980s ended, therefore, on a note of optimism for the M.T.R.C.A.'s Conservation Education programmes. We need more facilities with the increase in the public's attention to environmental concerns. Our programmes grew to include not only school groups but adults from all walks of life. Seniors have been well received through Elder Hostel programmes at the residential centres. They have proven to be energetic and enthusiastic students of conservation.

The conservation education staff, then a full-time force of about 30 qualified teachers and resource professionals, were (and still are) a dedicated and enthusiastic group, supported by hundreds of part-time staff made up of practising teachers from our local boards and also of retired teachers who have found a niche within our conservation education facilities.

THE 1990s

In 1990, Terry Carr finished this article with the following: "we will be stretching toward the new millennium in this decade. The questions that the Metropolitan Toronto and Region Conservation Authority's education staff have to answer deal with how we can meet the challenges of the 1990s as they relate to the environment while meeting, at the same time, the goals and objectives of the Authority. Our conservation education programmes must illustrate and support the resource use concept and the objectives of the Greenspace Strategy. They must help the people of our region, who attend our facilities, understand the need for conservation planning and management. Our raison d'être continues to be the support and demonstration of the programmes of the Conservation Authority as well as to meet the objectives of our users who visit with us."

ALLEN TERRY CARR is the Conversation Education Supervisor for the Boyd Conversation Field Centre in Woodbridge, Ontario. He was the first secretary-treasurer of C.O.E.O. and has been a member since its founding. He began his career in outdoor education at the Toronto Island Natural Science School and for the last 30 years has been teacher and/or supervisor at several of the MTRCA residential field centres.



EXPLORING NOTIONS OF SCHOOLING: USING CONCEPT MAPS FOR A HIGH SCHOOL INTEGRATED CURRICULUM PROGRAMME ASSESSMENT

SONA MEHTA and BOB HENDERSON

Curriculum integration programmes with an emphasis in outdoor experiential education have been part of the Ontario secondary schools' offerings since the early 1980s.(1) However, it is only in the last few years that we have seen a proliferation of such programmes.(2) In the early stages of the programmes, the focus of teachers, administrators, students and parents alike is to launch such initiatives into the school's existing course options. Once such programmes are established and running smoothly, attention can naturally shift to evaluations/assessments of programme educational qualities, effectiveness, and shortcomings. With the recent growth in programmes now entering this assessment phase of development, there is a parallel significant interest in appropriate tools for evaluation/assessment.

One tool, concept mapping, is used here to explore student's experiences in the conventional school setting and in the Community Environmental Leadership Programme (C.E.L.P.). This integrated programme, run from Centennial Collegiate and Vocational Institute in Guelph, Ontario, is a four-credit package with an emphasis on outdoor experiential education. Each of the students completed two concept maps for this study: one relating their perspective on schooling in the conventional setting (pre-C.E.L.P.), and the second referring to schooling during C.E.L.P. The pre-C.E.L.P. map was constructed at the programme's onset, while the C.E.L.P. concept map was done at the end of the programme. Concept maps are a unique tool in that they can provide the researcher with complex information to ultimately assess programme effectiveness, while remaining a student-driven and controlled activity.

CONCEPT MAPS

A concept map represents a series of relationships between concepts. The map begins from a seed concept. Related concepts are then strung from the seed concepts, thus creating conceptual strands which radiate outwards. Hence, it is schematic device that encodes in its framework sets of linked concepts. {3}

For the purposes of this study, each student constructed two concept maps. The first was on the second day of the programme, and the second one on the ninth last day of the programme. A set text was read aloud to students at both meetings, so as to ensure reproduction of conditions and to eliminate possible researcher bias in the interactions. The following sketch outlines the preamble and instructions given to the students (see Appendix A for script).

After introducing concepts as the mental images we have for words, the researchers stated their goal as trying to understand what students themselves learn and understand about learning both in a conventional school and in the C.E.L.P. school setting, and to learn more about concept maps as a way to explore student meaning. Students were divided randomly into two groups. Group A was given a list of 30 words, shown an example of a concept map {4}, and given the starter word, 'school,' which they were instructed to place in the middle of the page. They were able to select from the 30 words as they wished, using as many or as few of the words as they desired. They were told to add their own words of personal relevance. To link their mental images, they could get more specific with each rung down the link, and they could use connecting words such as where, like, sometimes, etc. to form the links. They were also able to cross-link groups of words that were

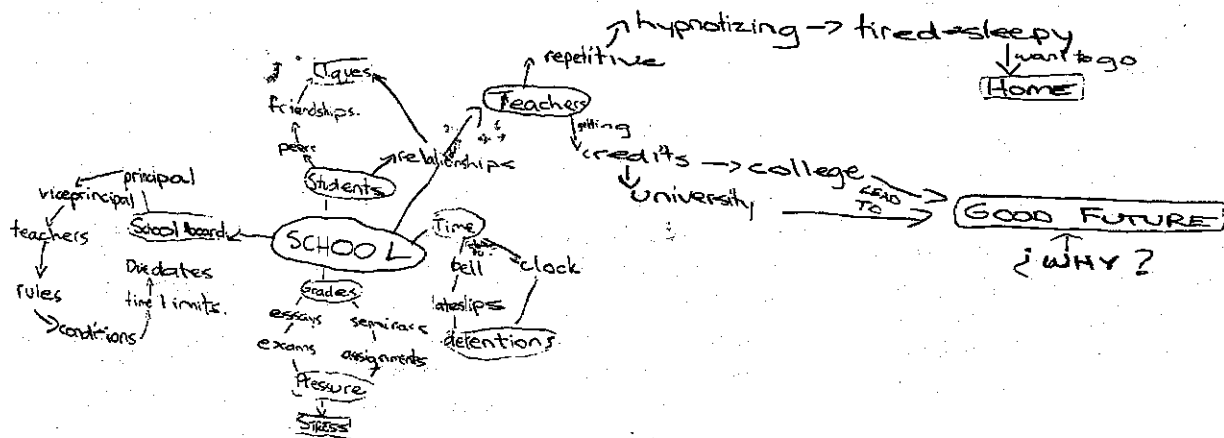
Concept maps are a unique tool in that they can provide the researcher with complex information to ultimately assess programme effectiveness, while remaining a student-driven and controlled activity.

otherwise on separate branches. Finally, they could offer specific examples of events or objects on their maps. The other half of the class, Group B, heard the same directions, except that they were not given a list of words. Nineteen students were present.

The same directions were repeated at the end of the programme. Group A students were

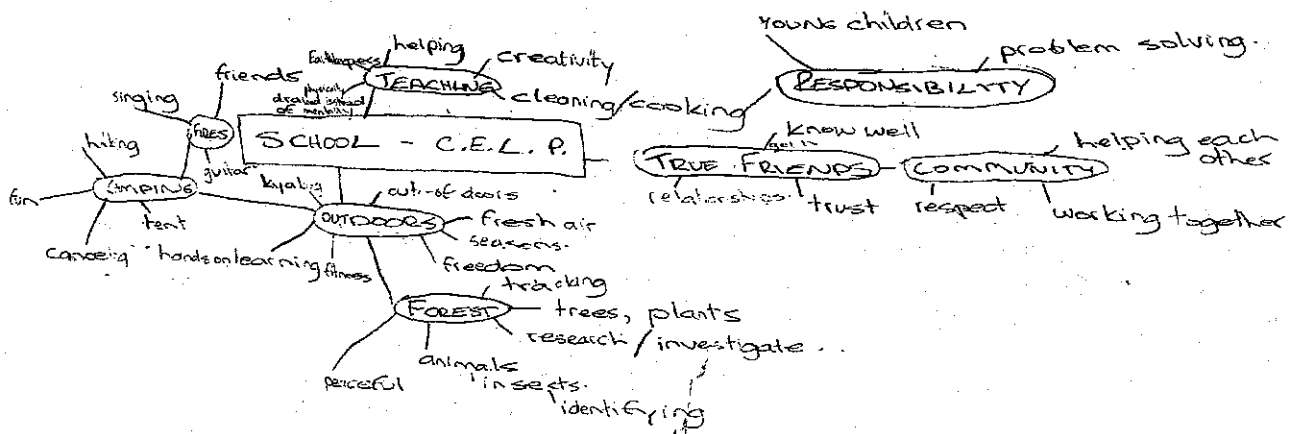
given the same list of 30 words, while group B was not. There were 15 students present on that day, and each completed a C.E.L.P. concept map. For analysis, the maps of only those students who completed both the pre-C.E.L.P. concept map and the C.E.L.P. map were used. An example set of a pre-C.E.L.P. concept map and a C.E.L.P. concept map from the same individual are shown in Figure 1.

Figure 1a



Group 1

Figure 1b



Group 1

C.E.L.P. IN A NUTSHELL

Community Environmental Leadership Programme (C.E.L.P.), is an initiative of Mike Elrick and Centennial High School in Guelph, Ontario. Twenty students spend their spring semester with Mike and one or two teaching assistants, in a package that provides them with four Grade 11 credits. The credits are Outdoor Education, Environmental Science, Personal Life Management, and Environmental Geography. The subjects are integrated to as great an extent as possible. Conceptually, C.E.L.P. sits atop four foundation stones: developing community skills, relationships with the natural world, leadership and responsibility, and a heightened awareness for low-impact lifestyles. Some of the students' activities include a 5-day winter camping trip and a 4-day canoeing trip. There is also a mentoring component in the programme, whereby C.E.L.P. students teach the entire Earthkeepers programme to elementary classes in the spring. The elementary classes come to Crieff Hills, C.E.L.P.'s home base camp, for the Earthkeepers Programme.

The 19 students enrolled in this programme in 1995 ranged from Grade 10 to OAC students.

As in most integrated curriculum packages, C.E.L.P. students and teachers are an independent unit from the school. There are several features that distinguish C.E.L.P. from the conventional school structure, and these features likely effect students' attitude regarding schooling:

- The program's home base is off school property. Students are bused to a 150 year-old log cabin set amidst 250 acres of fields and woods.
- Days can be planned without the constraints associated with a class rotation schedule. This increases flexibility for local trips, work in the community and extended field trips.
- The dynamism of the programme instructor and assistants, whose energy and enthusiasm sets the stage for the students' learning, is enhanced with the focused attention of one curriculum package to one group of students.
- An intimate class community is engendered by close daily contact between students, teachers, and members of the greater community.

NOW WHAT?

Confronted with 15 sets of roadmaps that illustrated student's perspectives on schooling,

the researchers searched for a holistic manner in which to evaluate the concepts presented. A quick review of the literature shows that concept mapping has been used as an evaluation strategy to measure students' knowledge of a particular subject.^{5} However, given that we were assessing the nature of differences between the conventional schooling model and the integrated curriculum model, and were ultimately concerned with an overall programme assessment, we had no clear guide to follow.

After scanning the maps, several concepts emerged consistently. The thematic concepts were: teachers, evaluation, and community. Each student's pre-C.E.L.P. (conventional schooling) and C.E.L.P. concept map was surveyed for the presence of concepts reflective of the aforementioned general themes. Links of pertaining ideas were recorded and analysed. To ensure that this process did not preclude any less prevalent themes, the starting concept in each conceptual strand was recorded. Re-evaluation of the themes based on this exercise showed the pertinent themes to have been covered by teachers, evaluation, and community.

In light of the fact that Group A students were given a list of words for possible inclusion in their concept maps, whereas Group B were not, the researchers surveyed the maps for differences due to this subdivision. However, a significant difference in the nature of the response was not found between the two groups. The word list appeared not to be used as a significant aid to formulate the students' concept maps.

In addition, qualitative trends and sentiments evoked by the maps were recorded to round out the process. Another initial consideration was the physical layout of the concept map itself (i.e., linear vs. clustered or circular). While there was one clear structural metamorphosis from the pre-C.E.L.P. to C.E.L.P. map, this turned out to be an infrequent event. Also analyzed was the degree of cross-linking present in the map, but again, this was found to be erratic and did not contribute to the overall programme assessment.

THE MAPS

Throughout this paper, concepts quoted from students' pre-C.E.L.P. (conventional

*Conceptually,
C.E.L.P. sits atop
four foundation
stones: developing
community skills,
relationships with
the natural world,
leadership and
responsibility,
and a heightened
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low-impact
lifestyles.*

schooling) and C.E.L.P. concept maps will be found in italics.

The idea that evaluation goes hand in hand with students' thoughts on schooling was a strong message of the pre-C.E.L.P. concept maps. Some form of evaluation was noted in 13 of the 15 pre-C.E.L.P. concepts maps. Of these responses, the most common concepts were tests and marks (see Table 1).

Concept	No. of Times Used
Tests	10
Marks	9
Essays/projects	7
Homework	3
Failing	1
Expectations	1
Due dates	1

Table 1: Concepts referring to evaluation on pre-C.E.L.P. (conventional schooling) concept map

Thus, both the method of evaluation and the subsequent mark figure prominently as an experience of schooling. To a lesser degree, students associated evaluation with pressure, as is evident the concepts *failing*, *expectations*, and *due dates*.

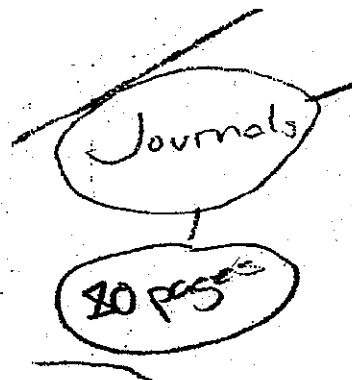
On a comparative basis, students are also graded in the C.E.L.P. programme through a variety of means. Evaluation techniques include written tests, interviews, a portfolio, journals, and presentations. However, evaluation as a theme is reflected in a smaller proportion of C.E.L.P. concept maps. Only one-third, or five of 15 C.E.L.P. concept maps refer to evaluation. Table 2 summarizes the links made on the C.E.L.P. maps.

Concept	No. of Times Found
Tests	2
Journals	2
Projects	1
Homework	1
Original	1

Table 2: Concepts referring to evaluation on C.E.L.P. map

From the students' perspective, it appears that evaluation is conceived of differently in C.E.L.P. Perhaps it plays a less prominent role than in the conventional school setting or it is received as a very different part of schooling in C.E.L.P. In the case of the latter, it is possible that students

have yet to construct a personal language that expresses this experience fully. One of the students who mentioned journal writes of it with obvious personal pride:



In two of the C.E.L.P. maps, the concept of *testing limits* seems to denote a personal form of evaluation unique to the situation. Thus two things are apparent regarding the C.E.L.P. concept maps: first that fewer students identify with a test and mark-based evaluation system, and secondly those students who do reflect on evaluation in the C.E.L.P. concept map are more likely to conceive of it in a favourable light.

The second major conceptual theme tackled was teacher. The word 'teacher' shows up in 12 of the 15 pre-C.E.L.P. concept maps. In contrast, the same word appears in only 2 of 15 C.E.L.P. maps. This is a significant change. To try to get at the sense in which the concept *teacher* is used on the maps, we looked to the words which followed 'teacher' in that particular conceptual strand. Table 3 shows the frequency of a particular word used by students in link with 'teacher' in the pre-C.E.L.P. concept map.

Concept	No. of Times Found
Evaluation	6
Rules	2
Caring	2
Boring	2
Clash	2
Administration	2
Authority	2
Confusion	1

Table 3: Concepts associated with teacher on pre-C.E.L.P. concept map

In addition to the concepts that directly followed 'teacher', it is important to note the

general gist of the branch on which the concept is found. Often the link is shared with *principals* and *administrators*, in essence reflecting the teacher as part of the institution. Another common grouping is of a mechanical nature - teachers amidst physical structures such as *classrooms*, *desks*, etc. Thirdly, several students put teachers on branches dealing with *low self-esteem* and *frustration*. Thus, from the responses, one could categorize students' perspective on teachers as one of reserved distance or seeing teachers as contributors to their perceived problems.

The absence of the teacher category on the C.E.L.P. concept map is dramatic. In the two instances where teachers are mentioned on the C.E.L.P. concept map, the following words are associated:

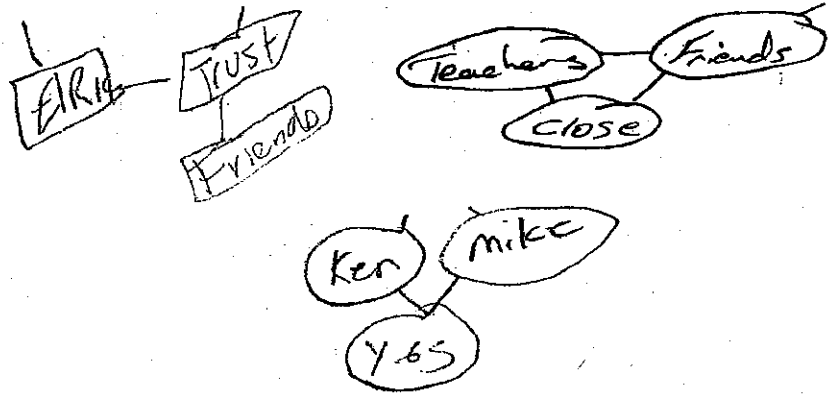
Concept	No. of Times Used
Friends	2
Evaluation	1
One-to-one	1
Close	1

Table 4: Concepts associated with teacher on post-C.E.L.P. concept map

A further three students refer to the teacher and assistant by their names (Mike Elrick and Ken) on the C.E.L.P. concept map. There are no references to institutionalized, mechanical, or low-self-esteem links that appear in the pre-C.E.L.P. maps. Their responses are more aptly captured in a pictorial reproduction of the links on their concept maps.

We find the idea that teachers are simultaneously friends expressed through a majority of the concept maps. We believe that the omission of the word teacher is a purposeful acceptance of teachers into the broader categories of *friends* and *community*. Additionally, references to institutionalized or mechanical links, which appear in the pre-C.E.L.P. maps, are conspicuously absent on the C.E.L.P. concept maps.

The trend from segregation and labelling people by their roles in the pre-C.E.L.P. concept map towards a melting of identities into community is a strong theme among almost all students' responses. In addition to the subversion of the student-teacher binary, the C.E.L.P. maps reduce the girl-boy division. Whereas in the majority of pre-C.E.L.P. concept maps, peers are clearly separated as girls and boys, on the



C.E.L.P. map the broad concept *friends* appears commonly. Thus, in general, the C.E.L.P. map focuses on an undifferentiated community.

Perhaps one of many factors in this attitudinal shift is that the students themselves assume teaching positions within C.E.L.P. They are responsible for teaching the Earthkeepers programme to 16 classes of children in Grades 4 to 6. The mentoring component within integrated curriculum programmes is not uncommon. Four of the 24 programmes identified in Ontario offer some significant form of student teaching experience. (6) This experience forms a lasting impression, reflected in its conceptualization on 7 of the 15 concept maps. Under the initial concept, teaching, students linked the word *Earthkeepers* 4 times, *responsibility* 3 times, *leadership* 2 times, and *kids* 2 times. They clearly see themselves as teachers too — this may partially account for the lack of reference to teachers on the C.E.L.P. map, and hence the emphasis on the action of *teaching*. In breaking down the student-teacher binary, it appears students see *community* as the more appropriate title.

They clearly see themselves as teachers too - this may partially account for the lack of reference to teachers on the C.E.L.P. map.

SUBTLER FINDINGS

In both the pre-C.E.L.P. (conventional schooling) and C.E.L.P. concept maps, there are no strong divisions of schooling by subjects. It seems surprising that students choose not to mention particular courses. Particular activities, such as identification (which was part of the life and habitat unit), are mentioned in the post-C.E.L.P. concept map. The focus on particulars is expected from the C.E.L.P. map, as students are able to focus on a short period of time (one semester) as compared to their many years of

The sense of inescapable consequences came out most forcefully in the numerous linkages between teaching, Earthkeepers, kids, and responsibility.

semester) as compared to their many years of schooling that they refer to in the pre-C.E.L.P. concept map. The many years of schooling that students are asked to consider in displaying a personalized concept map may mean that particulars such as subjects, sports, and clubs get blurred into larger concept headings.

A grim trend of the pre-C.E.L.P. concept maps is the student perspective on after-school activities. The maps show remarkably little extra-curricular involvement. Sports are occasionally mentioned, while clubs were mentioned once, and drama, councils or other common activities are completely absent. This may be a reflection of larger high schools where students do not feel themselves to be an integral part of the school. At the same time, information from staff and students at Centennial High School, shows extra-curricular activities to be a source of strength and pride within the school. This makes these findings curious. Even activities which one normally associates with youth, such as music and socializing, are given little voice on the pre-concept map. One student wrote of school as *same four walls*. It seems the students associate school with evaluation, teachers and authority figures, cliques and conflicts. Thus the sentiments expressed range from a lack of rootedness to the school community to a homogenous disdain for the actual school day and the traditional after-school activities.

On some concept maps, this bleak attitude extends in both time and space. One unsettling theme in several pre-C.E.L.P. concept maps is the sense of lost purpose, often termed learned helplessness.⁽⁷⁾ This was reflected in concepts such as: *future - why?*, *life sentence*, and *jail*. One student noted the following: *straight-edged smothering does not teach how to live*

One interesting point to note was the contrasting use of language in the pre-C.E.L.P. concept map and the C.E.L.P. concept map. The pre-C.E.L.P. concept map showed a greater reliance on nouns, such as 'classroom', 'blackboard', 'walls', 'teachers', 'principals', 'cliques', 'freaks', etc. The C.E.L.P. map, however, had a clear change to verbs as the predominant language. The common words were often 'teaching', 'learning', 'challenging', etc. Even the nouns used tended to refer to character traits, such as 'trust', 'responsibility', and 'friendship'. The language expresses the shift towards active learning in yet another dimension.

FEATURES OF INTEGRATED PROGRAMMES

- AS CATEGORIZED BY HORWOOD

In 'Energy and Knowledge,' (*Pathways: The Ontario Journal of Outdoor Education*, May/June 1995), Horwood sets out six central features that characterize a successful integrated programme: community, experiential education, responsibility, whole process, authenticity, and challenge. To this end, concept mapping proves to be a useful tool to measure the presence of these features. Concepts frequently referred to from Horwood's central features include: *community*, *responsibility*, and *challenge*. They were found in 10, 10, and three of the C.E.L.P. concept maps respectively. Authenticity, whole process, and experiential learning are not overtly used, but are inherent in the students' language. For instance, the concepts' whole process, authenticity and experiential learning are implied through *cleaning*, *cooking*, *teaching kids*, and *responsibility*.

Horwood also outlines three key factors associated with the specifically out-of-school or out-of-doors field experiences as: *sense of wonder*, *inescapable consequences*, and *personal growth*. The sense of wonder is apparent in students' detailed notation of the different animals, insects, and plants that form their ecosystem at the base camp. In almost all the maps we find a reflection of the physical surroundings as the outdoors, or as one student put it: the great outdoors. A sense of active personal growth is reflected in the following conceptual branch:

involvement volunteering leadership challenging

The sense of inescapable consequences came out most forcefully in the numerous linkages between teaching, Earthkeepers, kids, and responsibility.

LASTING IMPRESSIONS

In the pre-C.E.L.P. (conventional schooling) concept map, everything has a label, and the labels add to a cross-spectrum negativity. There is simply no way to get around the grey attitudes expressed by the students. The meanings with which they associate certain concepts are clear in the words found on the



"Preconceptions Unravelling"

same conceptual strands. Students were more apt to use nouns on the pre-C.E.L.P. map, such as jocks, geeks, administrators, and other labels, or things, such as blackboard and eraser. It is as though they look upon their lives as a set of Russian dolls, where school is just one more layer of negativity. It is very important that we note that the negativity is not just directed at school. There is a very deliberate link made to life beyond school, as evidenced through concepts such as *life sentence*, *jail*, etc.

Turning to the C.E.L.P. concept map, we are greeted with students who seem to feel empowered. Two-thirds of them speak of trust and responsibility. The broader connection to society comes through *community* and *community service*. One student's C.E.L.P. map is intriguingly circular in design, so as to suggest all the facets are linked into one whole experience. The same student's pre-C.E.L.P. map is linear with small clusters of concepts.

Throughout the students' concept maps, there is a sense of promise reflected through life skills acquired. The schooling experience can be positive, as one student notes, *want to come to school*. It is noteworthy that for the students C.E.L.P. is school - it is taken as part of schooling even though it is different in its physical surroundings and style. They write of moments which obviously are meaningful, for example 'Mike guitar campfire'. C.E.L.P. seems effective in breaking the negative mold of student thought.

In exploring the mechanism of this severance of habit and thought, Mike Elrick's [C.E.L.P. instructor] reflections are timely. He remarks that the outdoors acts as a catalyst for students to signal a completely different experience. After that initial contact is forged, students seem to turn toward community as the most important feature of C.E.L.P. A great effort is made within the programme to build this community. Signposts of this active bonding come through such events as the Friday Community Day, where students prepare a meal for each other and invite guests from the local community to share the day with them. While the outdoors play a lesser role on the surface, it is as though the seeds are being sown for the students to revisit this meaning throughout their lives. Thus, both the physical context and the

interpersonal and group dynamics likely function as key elements to this revolution in thought as expressed by the C.E.L.P. concept maps.

Certain qualities of C.E.L.P., and more generally of integrated programmes, stand out as essential features to changing teaching and learning. First is the ability to have a small group of people work in close contact everyday, all day. Clearly this helps put the student in an active role, and thus eliminates the isolation and segregation of the traditional school. The community thus formed makes a clear impression on the students. 'Community' is used on two-thirds of the concept maps, as is 'trust' and 'responsibility'. Communication also figures strongly. They spoke of personal challenges in the outdoors. Their concepts also show a personal onus to make things work, thus reflecting an authentic and complete experience. No doubt their new-found roles as teachers within their schooling experience as well as their outdoor field experiences play a significant role in the realms of personal challenges, communication, community, and initiative.

While this study represents a small sample of students, it shows the potential residing in concept maps as a programme assessment tool. We are excited by this ability to learn about the nature of integrated curriculum with tools that are most effective in ascertaining such information. The effectiveness may lie in the very fact that they model the creative learning processes employed within this schooling context and allow the student to reflect on their experiences with the personal language which they have constructed. The pre-C.E.L.P. and C.E.L.P. concept maps prove to be a rich source of student-driven insights into the nature of conventional schooling and schooling in the context of the C.E.L.P. integrated curriculum programme.

SONA MEHTA and BOB HENDERSON. Sona is a graduate of McMaster Arts & Science Program. Bob Henderson teaches at McMaster.

Ann Ferguson '96

FOOTNOTES

(1) Paul Tamblyn's pioneering work at Acton High School in the 1970s certainly planted the seeds for others. The Bronte Creek Project at Lord Elgin High School was among the first such programmes, launched in 1981. Minn-a-kee followed at Collingwood Collegiate Institute in 1986.

(2) See *An Inventory of Integrated Curriculum Programmes Employing Outdoor Experiential Education at the Secondary School Level in Ontario*. (Henderson, Mehta & Arnott, 1966). Toronto: Council of Outdoor Educators in Ontario. This inventory outlines the framework for 24 such programmes in Ontario. To acquire, contact: C.O.E.O. Secretary at 1185 Eglinton Avenue East, Toronto, ON M3C 3C6.

(3) Novak, Joseph & D. Gowin, *Learning How to Learn* (Cambridge: Cambridge University Press, 1984)

(4) Novak & Gowin, p. 45.

(5) Brody, Michael. 'Understanding of Pollution among 4th, 8th, and 11th Grade Students.' *Journal of Environmental Education* 22, No. 2 (1990-1991): 24-33. See also Novak & Gowin.

(6) Henderson, Bob, Mehta, S. & Arnott, T. *An Inventory of Integrated Curriculum Programmes Employing Outdoor Experiential Education at the Secondary School Level in Ontario*.

(7) Elkin, Bruce. 'The Individual as Environment,' *Journal of Experiential Education*. Spring 1982.

KEY INGREDIENTS TO MEANINGFUL EDUCATIONAL EXPERIENCES

TOM POTTER and NICKEY DUENKEL

*A traveller's view
in this forest is
often limited to the
length of a moose.*

*A large part of the
meaning derived
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is that this activity
is not what the
students expect.*

Worldwide, many colleges and universities have accepted the responsibility of teaching and training tomorrow's outdoor experiential educators. They shine light for their students to see, experience and understand new meanings, and challenge them to venture into the darkness beyond to ignite new candles of understanding.

Our university's experiential programme (at Lakehead University's School of Outdoor Recreation, Parks and Tourism) provides unique opportunities for students to grow: personally, socially, intellectually, and environmentally. Here, our students' first outdoor experiential component immerses them into a wide variety of unique outdoor living experiences. This article will outline two day-long ventures; a navigational exercise through dense bush in Northwestern Ontario, and a Voyageur canoeing activity on the world's largest body of fresh water, in order to illustrate some salient qualities and characteristics of effective outdoor experiential education and show how these elements can be fostered within a university curriculum.

WILDERNESS NAVIGATION

Northern Ontario is distinguished by thick, black spruce forests, gentle rolling hills, bogs, and virtually no distinct reference points, beyond the sun, for navigation. A traveller's view in this forest is often limited to the length of a moose. In short, travelling through this area is a challenging ordeal involving crawling over and under tangles of fallen and semi-fallen trees and slogging through bog. After weeks of navigation in controlled areas, our students are individually dropped off along a gravel road and given a magnetic bearing to follow on their compasses. They are challenged to use their skills to navigate through the woods on their own and arrive at individually predetermined points. It is November, the air is chilled, and ice is beginning to form over the wet areas. Ravens' call resonates through the air. The days are short and darkness waits for no one.

Commitment, investment, self-reliance, accuracy, independence, thoughtful thinking; this day brings it all. No longer can students succeed with an incomplete understanding of navigation by compass; in this situation their peers are not available for assistance. They are alone in an unsympathetic wilderness. This is a real life wilderness situation where success hinges upon one's skill and thoughtful thinking. Making a mistake and becoming disoriented is a real and ever-present risk that can potentially lead to an unplanned solo night in the bush. This reality grows in the minds of the students over the course of the activity.

As the sun tracks its course lower in the sky, one by one, over time, the students emerge from the bush like ants from a log. Many come out a few steps from their mark, most within a stone's throw. All are grateful and relieved to know that it is over; they are 'out.' Back in the last rays of sunshine with their peers, they compare tales: emotions of anxiety wondering if they would 'survive,' feelings of frustration crawling through tangles of forest growth, and emotions of elation as they rejoice their conquered fears and successes of independently traversing a difficult and challenging landscape. In this mixture of feelings, the students have varying levels of satisfaction from the activity, yet all agree that it was a powerful learning experience.

So what is it that makes this intense bush navigation exercise such a potent educational tool? It is unique; it is real; it demands a great deal of personal investment; in short, it is extremely meaningful. Atypically, it is also done individually where the assistance of others can only be relied upon in an emergency situation. This is the first opportunity our students have to be independent and travel alone through wilderness; this is an important step toward building self confidence and trusting one's capabilities.

A large part of the meaning derived from the experience is that this activity is not what the students expect. Prior to the activity, they do not have sufficient frame of reference to prop-

erly imagine the diverse and in-depth components of the experience. They have not had the opportunity to accurately reflect upon themselves and to predict the emotions that will surface while navigating through the forest. Then, once alone in the wilderness, unexpected emotions surface: challenge, fear, frustration, insecurity, awe, excitement, and stubbornness. In most outdoor pursuits, these intense feelings ride like emotional waves; they grow, crest, and fall dependent upon the intensity of personal investment and commitment. This wilderness navigation exercise, however, is sufficiently challenging to keep many of our students in a state of mild dissonance for a relatively sustained period of time. The emotional wave grows as they enter the forest and remains high for hours, until they find their way to their end marker. In addition, and perhaps most significantly, they are continually stimulated in several domains: cognitively, emotionally, and physically.

A SALUTE TO THE VOYAGEURS!

It is eight o'clock on a Thursday morning, and 40 students are once again boarding a yellow school bus on their way to another day-long outdoor experience. The usual excitement and enthusiasm is replaced today, however, by a hint of nervous anticipation. What is today all about? The students remind each other of the little forewarning they received with regards to this session. No, there is no need to bring along any personal or school equipment. They simply need to show up on time for Voyageur Day. As they are encouraged to board the bus by their professor, who for some reason is wearing what looks like a costume from another century, many silently wish they had inquired a little further into what exactly Voyageur Day consisted of! Little do they know that they are about to step way out of their everyday life realities and back into time.

Having arrived at a harbour on Lake Superior, the students are immediately hit by a deluge of senior students who, like their professor, have on costumes from a past era. Who are these people? Are they Voyageurs? What is all this about? 'Hey, Jean Luc - come and look at this!' 'Pitou, Pitou! No, stop that!' 'Guy, what did you do? The bourgeois (gentleman in



charge), he is looking for you!' Gradually, all 40 students are led unknowingly, by those in costume, into a different reality - the nineteenth century reality of the French Canadian Voyageurs, fur traders who propelled European influence across the continent. As we make our way down to the docks, where we can see three 32 foot canoes gently floating in the harbour, the students are made privy to more of the day's plan. We are to paddle for an hour or so before arriving at our final port, at which point we will begin trading our furs. Our furs? 'Of course furs, Jean Paul, we have been transporting and trading furs for years now as Voyageurs!'

Before long, all 50 of us have loaded the Voyageur boats and head out onto the big ocean-like lake. En avant (let's go)! As we paddle and sing our way across the harbour, we learn about the basics of the fur trade and the life of the Voyageurs. Later, with the other crews, we learn and perform a Salut Final (final salute), as in unison all paddles raise high into the air accompanied by outcries of joy and pride.

Ultimately, we all reunite to play some traditional Voyageur games and perform a customary paddle dance. Immediately prior to the buses' arrival, we sit in a circle and chat about the active roleplay we have just experienced. What did it feel like to be thrown, head first, into the shoes of a nineteenth-century Voyageur? Would we really have enjoyed living in that time period? Would we be where we are today had it not been for the fur trade? Are there things which we take for granted today that we should indeed be grateful to the Voyageurs for, as well as the happenings of that epoch?

The bus pulls up and we slowly file on, laughing and singing all the while. The ride

*Gradually, all
40 students are led
unknowingly,
by those in costume,
into a different
reality*

home is in some ways a neutral zone. It is a transition of sorts between the two realities; we struggle in time, somewhere between the era of the Voyageurs and the final years of the second millennium. Soon enough we will step off the bus and back into our present everyday reality. Yet, as we head our separate ways, we will each carry with us a more in-depth understanding of the value of our past, as well as a better feel for our present place in the greater scheme of things.

Again, one might ask oneself where the value is to be found in this somewhat unusual activity. Indeed, that is certainly a question which many of the students silently asked of themselves as they boarded the bus that frosty October morning.

Although somewhat confusing and seemingly purposeless to begin with, the session's objectives progressively take root as the day proceeds and everyone grows to be more comfortable with their newly-found roles in the ranks of the Voyageurs. The plan is for the students to learn, hands on, about the past and how this part of Canada, and for that matter most of central and Western Canada, have come to be through the French Canadian Voyageurs and the establishment of the fur trade. We are all to learn a bit more about an era in history which has in many ways had a significant impact upon our lives today.

Physically, we paddle, sing, and dance all day long. Our minds, too, are constantly challenged as we are called upon to play our roles as realistically as possible and to continually develop them as new learning is integrated and drawn into our personalities, miraculously somehow through some sort of osmosis. The students learn and live their roles simultaneously.

The entire day is centred around the students being able to make an emotional investment into the roleplay. Their willingness to fully take part and commit themselves to the unknown is a vital key to the day's success. To do this though, they must commit themselves to trust their leaders and peers. For the more they cast themselves into their roles, the richer their experience will be. What is at first perceived as somewhat bizarre and peculiar grows to be more and more a part of the students' selves and their identities as they become increasingly relaxed with the idea and with each other. The potency and value of the experience spirals upwards and is reflected in the final debriefing as it becomes

evident that what has transpired this day, on the harbour of Lake Superior, will remain a memorable learning experience for us all. Ultimately, the day helps to create some connections to our past while at the same time bringing us closer to each other.

COMMON INGREDIENTS

What common ingredients can be drawn from these two day-long events which enable them to become such meaningful 'earning experiences for our students? We feel that the following elements (see Table 1) are critical components to successful outdoor experiential education programmes, and that students striving to become professional experiential educators must not only learn to employ these elements in their lessons, but personally embody them as well. While it is unlikely that these elements will simultaneously share equal levels of relevance at any one time, it is crucial that they be consciously embraced as frequently as possible.

TABLE 1: CRITICAL INGREDIENTS FOR EXPERIENTIAL LEARNING

Active (mind and body) - questioning and problem solving

Student Centred - placing students in a position to internalize and develop a sense of ownership for their learning

Purposeful - each activity has clear objectives, and, what is being experienced first hand, will be applicable in the 'classroom' as well as in the students' daily lives

Emotional Investment & Risk - where the outcomes of the experience are not fully known

Wholistically Engaged - physically, emotionally, socially, cognitively and spiritually

Mixture of Content & Process - an appropriate balance of doing and reflecting

Stepping Outside of One's Comfort Zone - where an appropriate level of uneasiness can present powerful opportunities for growth

Meaningful Relationships - with self, others and the natural world

Reality Transition - participants step from their

taken-for-granted everyday lives into a different way of experiencing and being in the world

Reflection - fosters pristine paths to amplify growth

Reciprocal Learning - where participants are both teachers and learners

The first nine of these elements are well evidenced within each of the two previously illustrated experiences. However, the last two elements, reflection and reciprocal learning, although less obvious, are indeed fundamental to the overall experience and, therefore, deserve further exploration.

REFLECTION AND RECIPROCAL LEARNING

Learning through experience takes time, and it is time that we must give in order to gain the most meaning from experience. Months after the navigation and Voyageur activities, we ourselves, the instructors, are still learning from them through continual sharing and thoughtful deliberation. Equally, we must continue to encourage our students to reflect upon experience, long after it is physically completed. However, this type of education, while perhaps the most meaningful, is also the most difficult for students to appreciate, at least initially. Education through reflection takes time, time which many students are not willing to give. In a society which thrives on instant gratification, we seem to be in a rush to immediately take what we can from an experience and leave it at that. Ironically, through reflection, the true value of an activity is often not fully appreciated until weeks, months or even years after it is over. This partially explains why spectators cannot fully appreciate the potency of outdoor experiential education. So how can we best encourage students to deliberate before, during, and after an experience? Maturity, seasoning and excellent role modelling may perhaps be the best teachers, however, we must still bring our students to the reflective trough and encourage them to drink. During that time, they may not consume much, but hopefully from our having

shared time with them teaching, practising and valuing reflection, they will come to realize its importance and potency. Not only is immediate thoughtful consideration important, but reflection over time will ensure that the learning continues long after the compasses and canoes are stored away.

Finally, a key ingredient to experiential programmes is to encourage professional educators to continue learning and to be open enough to look within and beyond in the order to attain as much insight and personal growth as possible from an experience. For even we, as instructors, people who have spent the better part of our lives developing outdoor education skills, still learn and grow from each and every experience that we become involved in, especially the ones we teach. Here students can open windows and guide us through experiences from their unique perspectives. Like points on a compass, they can direct us to countless aspects of an experience to which we are blind, or which have become lost to us due to our well-seasoned positions. Hence, with awareness and an open mind, experiential learning can and should be reciprocal, where each participant can sow seeds for the other to germinate.

When appropriately blended together within the curriculum, all of the above ingredients, along with dashes of hope, enthusiasm and anticipation of the unexpected, seem to irrefutably lead to priceless learning experiences. Although seemingly out of the ordinary and somewhat of a risk from an educator's standpoint, there is no doubt that the journey to developing tomorrow's outdoor experiential educators is a valuable investment in our future. We just have to remember that new lands can only be discovered if we consent to lose sight of the shore for a while.

TOM POTTER and NICKY DUENKEL

Tom teaches in the School of Outdoor Recreation, Parks and Tourism at Lakehead University. Nicky taught with Tom in this programme in 1994-1995. Nicky is now teaching with the National Audubon Institute.

THE GREAT CHAIN OF FOOD

HEATHER DUCHARME and HILLARY LAWSON

This game was designed for a seminar on 'Food: Identity and Control' presented to a university class during a course on environmental philosophy. Since much of this course was dedicated to renovating traditional, hierarchical pedagogical practice - i.e., the straight lecture - we were looking for active ways of presenting material. However, we still needed to include an information-packed survey of the modern Canadian food system: hence, The Great Chain of Food, our attempt at integrat-



ing play and fact-learning. Truth be told, the game seemed to work well; it got the point across quickly, actively, and required little deconstruction afterwards. The actual information was derived from a variety of sources, though Anthony Winson's 'The Intimate Commodity' (1991) is a good resource. The seminal idea for the game came from our own participation in an exercise that assigned about 20 people (adults) to enact a particular bee's role in a hive. In my opinion, this kind of role-playing activity can be used to clearly illustrate any sort of multi-layered system, and contain a lot of fun at the same time.

THE GREAT CHAIN OF FOOD: ROLES

1. Primary sub-system: The growing components, growers, and those directly associated

Role	# of people	Suggested actions and/or sounds
Soil	1	-lie down and BE the earth, the foundation (silent, strong)
Water	1 (+)	-can move around, dripping and splashing noises
Sun	1	-no sound required, but must beam
Corn stalks	3 (+)	-show growing process - i.e. crouch, move up into the air, sounds of blowing in the wind ('whish'), etc.
Fertilizer	1	-moving around soil, stalks - 'plop, plop' an appropriate sound
Pesticides	1	-again, moving around 'field' but making sounds like a spray 'pssh! pssh'
Combine (Harvester)	1	-also moving in among stalks; rolling arms like the blade of a combine; can chant 'Pick pick pick yer ears,' if so desires
Quality Inspector (from government or processor)	1	-looks stern and officious; cries out 'Check! Reject! Check! Reject!'
Farmer	1	-can encourage the elements and crops to GROW!
Truck Driver	1	-transition from this sub-system to the next; picks up 'ears' and moves to next room. 'Vroom, vroom' and other truck sounds

2. Secondary Sub-system: The Processing Plant

Plant Workers	3 (+)	-stand in a row (as on assembly line) and make hand movements as appropriate. Suggested chants: 'Chop and box! Chop and Box!' or 'Chop, chop, chop! Dice, dice, dice! Until it's all nice!' (the latter was spontaneously adopted by 'my' plant workers)
Truck Drivers	1-2	-sounds as above. These are transitional again - move to next system

3. Tertiary sub-system: Retail and Consumer

Advertiser	1 (+)	-crying out 'Buy buy buy! Sell sell sell!' in the face of the consumer(s)
Big retail boss	(1)	-sits in chair, perhaps counts money, smokes
Grocery clerk	1	-speaking to consumer - 'that will be \$20 please,' or cash register noises
Consumer	1 (+)	-outraged at price of 'can of corn' - 'What!'

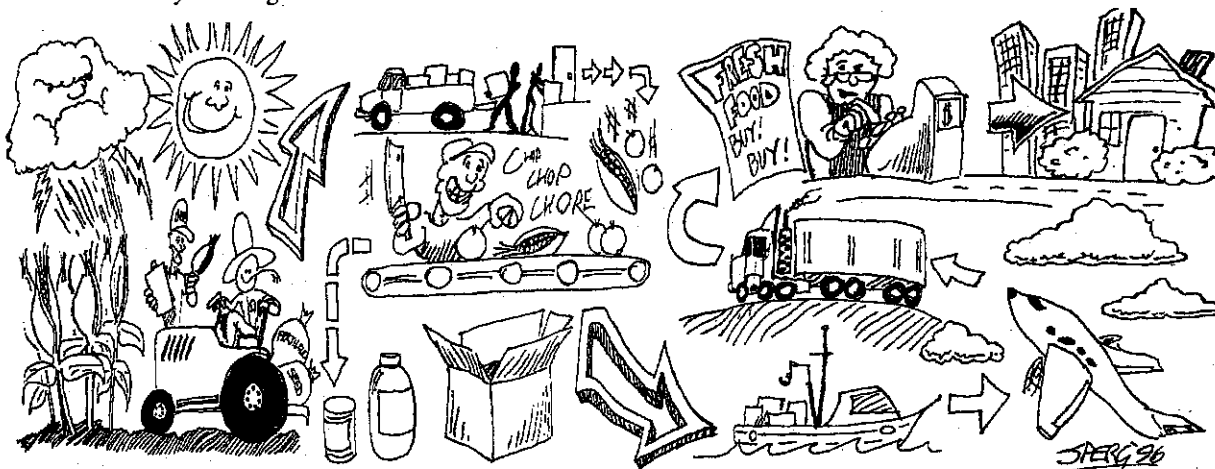
[Total people \pm 21]

A few notes on execution: We were actually in a residential home when we did this, and made use of the small divided spaces to illustrate how the various sub-systems were isolated from each other. After the cast is assembled in their respective rooms/systems, the primary system begins its noises and motions. These are continued - loudly, so that those in other rooms can hear, if not see - for a short time until the trucker moves into the next room/system. This is the cue for the processing system to 'start' (the others could continue, but it might be too hectic). Likewise, the trucker moving to the retail system cues the action there. We ended in a hilarious yelling match between clerk and consumer.

Final note - Variations: The actual number of people playing each role can be varied to suit the size of the group - for example, people seemed to especially enjoy being 'water,' so if the group is large, assign one person to be storms, the other to be gentle rains, etc. As well, alternative versions of the scheme presented here could easily be designed to illustrate certain

points. For example, in this scenario, the proportions are skewed toward the first system simply because the roles there are the most easily portrayed. To be more realistic about the extant producer/consumer imbalance, one could assign only 3 roles: 1 farmer, 3 truck drivers, and the rest as consumers. Other alternatives include emphasizing the biological aspects (assign only 'primary-system' roles) or the economic/social aspects (simplify primary, expand the rest to include stock brokers, marketing boards, restaurants, box, can, car, chemical manufacturers, etc.). The possibilities are endless!

*HEATHER DUCHARME and
HILLARY LAWSON. Heather and Hillary in 1995/
1996 graduated from the Arts and Science Programme
at McMaster. This activity was created
for a class presentation.*



EARTH ODYSSEY INTEGRATED OUTDOOR STUDIES PROGRAMME

POUL VON BULOW and FRANK SAMBELLS

The impetus for this full semester integrated outdoor studies programme at Erindale Secondary School came from a student-initiated conversation by a campfire on an Erindale Outers' Club backpacking trip in Killarney Provincial Park in 1988.

The Earth Odyssey programme at Erindale Secondary School was developed to provide a friendly, personally challenging, active, and adventurous learning environment that promotes the development of co-operative group skills as well as the development of independent inquiry skills. It was designed as a package programme that would allow for the total integration of four multidisciplinary credits within one semester, and still allows for unlimited freedom to employ active outdoor learning experiences without disrupting the schedules and supervisory duties of other teachers within the school.

For the students, Earth Odyssey provides opportunities for classmates to become part of a very close-knit community of students with an environmental focus. They develop strong leadership skills through challenging learning adventures that take them out of the classroom for about 30% of the time.

The impetus for this full semester integrated outdoor studies programme at Erindale Secondary School came from a student initiated conversation by a campfire on an Erindale Outers' Club backpacking trip in Killarney Provincial Park in 1988. Taking their lead from the students, Frank Sambells (Head of Geography) and Poul von Bulow used P.D. days to investigate the possibility of designing a package programme that to paraphrase one of the original campers 'would grant credits for hands-on learning in the woods.' At night around a campfire, the idea of an entire semester of four fully integrated courses offered as a packaged programme sparked an idea that could not be extinguished. Frank & Poul pooled their areas of personal and professional expertise and eventually developed Peel's first fully integrated outdoor studies programme, 'Earth Odyssey' in 1990-1991.

The Earth Odyssey Programme in its present form of two sections is overseen by two full time instructors (both of whom teach Environmental Science, Environmental Studies, and a Leadership and Career Development course) and an English teacher who provides a modified Grade 11 advanced English course with an environmental focus to complete the package of four credits. Former E.O. graduates may apply to assist instructors as a teacher's aide through a full semester co-op placement in their senior year of high school.

INTEGRATION: MEETING STUDENT NEEDS

Earth Odyssey is a Grade 11 advanced level programme that attracts students interested in learning through hands-on real life outdoor experiences. It is a blending of academic rigour and practical skills as students study ideas and concepts through an integration of four courses: SEN 4A0 (Environmental Science), GNS 3A0 (Environmental Issues Studies), NMG 3A0 (Leadership & Career Development), and ENG 3A0 (English) or ADA 3A0 (Dramatic Arts).

Successful students in the programme display ability to accept responsibility, to work hard by demonstrating a commitment to task in all aspects of the programme, both individually and in groups with their peers. A keen interest in the environment and willingness to identify and display suitable attitudes and ethical practices that foster personal stewardship in preserving our environment are attitudes that mark the successful candidate in the programme. A desire to work in a natural setting in a variety of outdoor conditions and to explore their potential through new personally challeng-

ing experiences are additional hallmarks of E.O. students. Students learn to demonstrate a clear potential for commitment, cooperation, and self-growth. Lastly, Earth Odyssey students possess not only a willingness to try but also to show the wherewithal to take informed, calculated risks.

In addition to this, several general level students benefit from the programme. Despite its advanced level designation, the programme offers modifications to general levels for a few students. However, all students, regardless of level of ability, remain an integral part of a team that stays together all day in the same classroom.

Student performance is evaluated not only by regular testing, assignments, and presentations, but also by means of peer and self evaluation performance checklists. Students are members of four-person field teams for the duration of the semester and therefore must deal with interpersonal problems that may arise among their own team or the class as a whole. These reflective self & peer evaluation tools are followed up by personal interviews between the student and teacher to review progress. Individual performance is discussed, problems identified, and problem solving alternatives identified. Students make regular entries in their personal journals of their experiences, and this is used as an alternative form of dialogue with the teacher. This technique has proven to be a successful tool through which the teacher may counsel the student and at the same time maintain a written record of progress.

Earth Odyssey is an adventure in learning for the students. The experience enables students to gain new perspectives by being placed in novel situations, while being supported by co-operative peers and staff. As each student tackles unique problem solving situations, they gain a new awareness not only about the situation but also about themselves. Processing the experiences through debriefing sessions leads to feelings of accomplishment, and the building of self confidence.

Many of the graduate Earth Odyssey students have pursued post secondary education at colleges and universities in the fields of geography, forest and resource management, and outdoor recreation and leisure studies.

THE ORIGINS OF EARTH ODYSSEY

The programme began in 1990-1991 with one full section, where males outnumbered females 6:1. After three years, Earth Odyssey has expanded from one to two sections, with males and females equally represented. It runs in the Winter - Spring semester, thereby permitting the greatest number of seasonal study opportunities. In addition to this advantage, the single semester format allows for the development of a more effective group dynamic among the students, and team teaching among the teachers. As well, the Earth Odyssey programme offers a couple of other senior students the chance to work as a teacher's assistant through a co-op placement programme. In addition to several day-trip activities, there are four week-long field excursions, none of which interfere with the other programme activities in the school. The class sections are capped at 18 students due to safety restrictions. Supervisory ratios for excursions are set by the Peel School Board and Provincial Parks.

THE OUTDOOR COMPONENT

Each of the four week long trips provide students with opportunities to conduct on-site scientific data collection. Pre-trip preparations focus on scientific techniques that will be used in the field and methods that would be most efficient in carrying them out. Rather than relying on textbook data, students use their own data collected from field excursions to test hypotheses and form conclusions. Post-trip activities focus on the preparation and presentation of individual field reports and subsequent investigation of related environmental issues.

Trip destinations include Kinark Outdoor Education Centre in Haliburton, Ontario (winter, snow, and ice studies), Algonquin Provincial Park (temperate mixed forest and soil study), Killarney Provincial Park (Spring lake study), and Costa Rica (tropical wet and dry forest study). Post-trip activities focus on the analysis and presentation of data.

The Earth Odyssey programme in the last five years has been a spiritually uniting experience for both staff and students involved.

A variety of scientific field equipment is used by students while on the trips. Funded through the Geography Department, the equipment includes such things as field test kits for water quality, soil test kits, measuring equipment for running a timber cruise line in order to complete a sample forest inventory, dip nets, and a series of flora and fauna identification books. Personal equipment such as backpacks, tents, sleeping bags, single burner Coleman stoves, cross country skis, snowshoes, etc. are required by students for the field excursions. Some of this equipment is borrowed from the Erindale Outers' Club.

The student course fee of \$200 is used to offset the rental costs of canoes, overnight camping fees, and for special instructional workshops such as rock climbing, the St. John's First Aid Certificate course, and a personal career inventory assessment tool called the Strong/Campbell Inventory.

INTEGRATED OUTDOOR STUDIES PROGRAMMES: An Improvement to Teaching

'Now I see the secret of the making of the best persons.

It is to grow in the open air, and to eat and sleep with the earth.'

In this free verse, the nineteenth century American poet Walt Whitman, sees himself as spiritually united with all aspects of life and presents his own inner experiences as being those attainable by all people. So too, the Earth Odyssey programme in the last five years has been a spiritually uniting experience for both staff and students. Meaningless subject boundaries are blurred by the adventure of learning in the out-of-doors.

For example, it becomes evident to students that the communications skills are equally important in the stories that unfold while tracking animals over winter's fresh snowfall, - in the quantitative analysis of data representing

spring overturn of a melting lake, and in the role playing of special interest groups that seek to exploit our natural resources or to extend our wilderness areas.

For students, Erindale's Earth Odyssey experience creates a sense of family and a clear recognition of the importance of commitment to task. This work ethic is fostered through the team task approach and encourages students to learn and work together in a positive supporting environment. Earth Odyssey builds responsibility to self and group, and provides opportunity for the teacher to counsel students through life's daily trials. Students take with them lasting memories as a result of the collegiality of the learning experience. Evidence of this is the alumni of Earth Odyssey graduates. Founded by students, the Alumni plans annual summer get togethers in Algonquin Park. Such is the extent of the lasting comradeship that is established through the programme.

For the teachers of Earth Odyssey, it provides opportunity to really know students individually on a personal level. Teaching the same students through the day helps to foster a true learning environment where expectations and goals can be clearly established and continually overseen by peers and teachers alike. The integrated experience of Earth Odyssey is a consuming experience for the teacher, but the most rewarding that we have ever had as teachers.

Life in the workplace is an integration of skills. Earth Odyssey is but a first step in preparing students for life in the real world.

POUL VON BULOW and FRANK SAMBELLS

ENVIRONMENTAL ACTION - HOW DO WE MAKE IT HAPPEN?

LEIGH HOBSON

For the first time in my life, I marched in protest. The Provincial cutbacks to Education awoke in me a desire to stand up for change, to make a difference, to be an activist. In reflecting on the momentum of that day in Hamilton, I found myself wondering why I put so much more energy into that issue, when I feel much strong about environmental issues. A similar question has been with me since I finished a thesis exploring the impacts of an integrated outdoor education programme. *How do we foster environmental action in students?*

I was fortunate enough to be a part of Mayfield's first integrated outdoor education programme, ROC (Roots of Courage, Routes Of Change). During the five months this programme was in action, I got to see first-hand the powerful impacts of experiential education. For my final year thesis, I decided to explore what the students got out of this programme eight months after it was over. Many gems were revealed, too numerous to mention in one article; however, the question of empowering environmental action came out loud and clear.

The driving force behind ROC was to 'increase environmental awareness, knowledge, and commitment to action through outdoor adventure activities, field work, in-class studies, community involvement, and cultural journalism' (Barrett, 1994). One outcome I wanted to discover was the degree to which students became environmentally active community members. Did they continue to 'do' once the programme was over? From the individual interviews, I quickly encountered a mix of enthusiasm and guilt. All of the students I talked to remained very dedicated to the environment on a personal level, even encouraging their friends and family to follow their example.

'I talk to my friends and I'm trying to lead by example....I've started bringing a cloth

napkin to school instead of paper towels. Some of my friends have seen that and they think, 'Gee, that's kind of stupid' to begin with, but later on they're kind of getting the hint....they don't have the nice matching Tupperware that I have, but they bring margarine tubs and stuff! (C)'

'I don't throw out pop cans anymore. I haven't joined a club or anything, but I still make sure all the recycling gets out on Thursday nights...I make sure the rest of my family does it too. (K)'

In the relatively short period between the completion of ROC and my interviews, I can report little dedication to environmental action on a larger scale. Think globally, act locally sums up the outcome of their action. It has been argued that environmental education has done little to change the way our culture treats the earth (The Conservation Council of Ontario, 1986; Horwood, 1989). Thirty-five years of thinking globally and acting locally have failed to elicit the courage to make significant changes on a large scale. Why is this so?

I ask this question to the students themselves during our focus group discussions. It is evident that they care about the earth and are concerned about human impact. So what is stopping them from pursuing greater environmental action? The students responded as follows:

'Time is a major factor! We were given time last year, but now we have to use our time to do other things like homework during our lunch or spares. (K)'

'In a small group where you know everyone you feel more comfortable reaching out, but in a big group of strangers you don't want to make a bad

So what is stopping them from pursuing greater environmental action?



*It opened their eyes
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impression so you just kind of go with the flow and don't swim backwards (C).'

'It's hard to make people change!...It's not that I don't want to, it just doesn't seem like it's worth it when you don't see the results, it's frustrating! (G)'

These concerns are completely valid; however, in accepting them, we leave ourselves with the same dilemma - the failure of environmental education to promote action. Horwood (1989) and Robottom (1987) have advocated the need to focus on the spiritual elements of environmental relationships. Students need to go further than intellectualizing about environmental issues. They need to 'feel' them deep inside. They have to connect with the environment, so that when the earth is ill, they feel ill. To do so, Horwood (1989) suggests introducing them to special places where they simply feel the atmosphere surrounding them. Educators need to emphasise relationships with our fellow beings and encourage learners to appreciate the gifts of the earth.

Looking back at the activities of ROC, it is evident that M.J. Barrett (their teacher) was well aware of the importance of these connections. She dedicated a great deal of energy to foster these spiritual ties to the earth. Why then do we not see a greater dedication to environmental action among ROC alumni? I believe that the answer lies in the form ROC and all other integrated outdoor education programmes are forced to take. As it stands today, these programmes make up an extremely small proportion of a student's academic career (typically one semester in length). As put by one student: 'ROC was like a vacation that you can come back from and say, 'I went to this Island and this is what I learned'.' Experiential learning on the whole was very new to the students of ROC. It opened their eyes to a whole new way of thinking about their education; however, it should not be expected to completely transform their paradigm. It simply did not have enough time! So what do we do about this dilemma? How do we ensure our efforts are not suffocated

by the pressures faced once students leave the womb? How do we encourage students to continue fostering their own connections to the earth? How do we feed the flames of environmental action?

Perhaps we can start by extending their experience. Not so much in the programme, but through a support network created once the programme is over. M.J. made significant efforts to keep her alumni in touch with R.O.C. through alumni letters, invitations to speak to future classes, and suggestions of learning opportunities to explore. This approach worked extremely well for one student:

'I helped M.J. with a journaling workshop (at a C.O.E.O. conference)...I was there with all these teachers who were exactly like they were in R.O.C...Being there that whole day, I realised I guess I had missed R.O.C more than I thought, 'cause suddenly I was back among friends. So I started journaling again and I've been journaling ever since that weekend...it's coming back to me finally! (H)'

From my brief experience as a protestor, I realized that being an activist isn't easy. It takes more than dedication to a cause. It takes time, energy, and most of all, support. Only then can these new connections to the earth transform into environmental action on a large scale. This challenge is the responsibility of both the teachers, to help students along the fragile bridge between the island and the mainland, and of the learners, to take a chance and go against the flow.

LEIGH HOBSON is a recent graduate from the University of Waterloo Recreation Co-op programme. She has worked in a number of outdoor education programmes, including ROC and Sheldon Centre.

MAKING A CANOE-PADDLE

ROB STEVENS

Ever since elementary school wood-working class, I have loved the beauty of wood as well as the feel and smell of working it. For a variety of reasons, such as always living in rental accommodation, I never really had gotten into accumulating the tools, knowledge, and techniques needed to fashion wood. Only relatively later, as an adult, had I longed to get into wood-working, with a strong desire to create something both beautiful and functional.

Making canoe-paddles was the obvious choice as I had also developed an avid love for outdoor activities. Following the encouraging example of my friend Mike, a seasonal Outward Bound instructor, I finally overcame the inertia and began to dig for some information. I found that there was not much out there in the way of adequately detailed descriptions of how to go about it. Mike provided a few scant too-often-photocopied pages from various sources ostensibly devoted to canoeing rather than making either canoes or paddles. With some very basic tools, I managed to fashion the first effort from a scrap pine board with an eye-like knot in the centre which I picked up at a renovation site.

After some years and quite a few paddles, and several years searching out print resources from which to glean tips to further my technique, I finally got around to putting my experience down on paper to share with others. I have also begun offering paddle-making workshops.

Beyond use of a saw to cut out the basic plank, only one tool (a spokeshave) is needed to make a paddle. With the creative application of already acquired techniques or some experimenting, you may find yourself hooked on paddle-making too. At least you are likely to end up with a hand-crafted paddle that you will appreciate knowing the time, energy, and skill that went into making it yourself by hand.

To get started, you will need access to a jig or band-saw to cut the blank out of a board. Although the rest can be done with a spokeshave, you could also use a jointer or handplane for thinning the blade, and a rasp or 'surform' tool for shaping the throat and grip. Sandpaper, a cabinet scraper, some oil and varnish will nicely finish it all off.

But first, you have to choose an appropriate (and available) wood you want to work with.

Many types will do from soft pine, spruce and cedar to ash, cherry, and maple. I have also made paddles from New Guinea walnut (beautiful, rich black and brown toned stripes!), butternut, black ash, American yellow poplar, curly maple, bird's eye maple (this being the choice of paddle wood of either masochists or extremely patient types as it requires much time and effort to sand out) and sassafras (which gives a pleasant medicine-y smell when worked).

Almost any wood that can be shaped with the tools available to you will suffice, but you also want a paddle that is not too heavy to be practical and useful. Although softwood tends to fray and not wear as well, hardwood is heavier and harder to work; it therefore requires more time to complete a paddle. Hardwoods are more rigid and provide added 'whip' on a hard stroke - which permits one to 'feel' the water. Upper body strength and amount of canoeing experience may be the factors leading one to go with a harder, heavier wood. As long as the paddle will be well water-proofed, you need not worry too much about using a wood that resists rot.

Select a kiln-dried 5/4 (1 1/4") thick board up to 7 inches wide and at least 5 1/2 feet long. Make sure you get a finished length free of an end check (split caused when drying). It should be flat-grained (plain sawn), straight, and free of knots (at least large ones which may interfere with your working of the wood or render the paddle weak). A centred figure or pattern adds to visual beauty. Mineral stains and worm-holes, while interesting, may compromise the paddle's strength or waterproofness.

The overall length may vary according to the paddler's height, paddling position (kneeling, sitting, etc.) and whether you paddle predominantly in shallow (river) or deeper (lake) water. There are several guidelines for determining your appropriate paddle length. These include the length from ground to chin; from top of the foot to just under the nose, or converting numbers (not units) of measurement in the following way: a person 6 ft. 2 in. tall would use a paddle 62 inches in length; a person 5 ft. 6 in. would use a paddle 56 inches long. The grip to throat length should be roughly long enough so that your arms are parallel when holding the paddle in the usual paddling position. A little extra length may give better mechanical advan-

Beyond use of a saw to cut out the basic plank, only one tool (a spokeshave) is needed to make a paddle.



tage though correspondingly takes more energy to draw through the water and weighs more.

The blade pattern you choose is limited only by your imagination and functionality. Some

of the more traditional designs include beavertail, ottertail, trapper/voyageur, and willowleaf patterns. The overriding limit is the surface area presented to the water. This is influenced by upperbody strength, paddling experience, and personal preference, i.e., whether you prefer to paddle at a faster stroke rate pulling more easily or at a slower rate pulling harder. Grip designs also vary in thickness, surface area in contact with the hand, squareness/roundness, etc. Cross-sections through the throat (where the lower hand grips the paddle) may be flatly sloping, rounded or angular (with a ridge down the bladeface).

Transfer the paddle outline to the wood by tracing an actual paddle that you have used and/or like the look of (perhaps one that you have borrowed) or by tracing your own drawn design using carbon paper. For a more permanent template, copy the pattern onto 1/4" plywood or another suitable, rigid material. Either way, be careful to centre the pattern on the board and mark the centre through the length of the shaft and at both the blade and grip ends. Cut out the blank using a jigsaw or bandsaw. Mark a centre thickness line along the full length of the blade to use as a reference for keeping the paddle symmetrical and balanced when thinning and tapering the edges. An out-of-balance paddle is harder to hold 'square' to the water and tends to rotate in your hands.

Any of several alternatives will get the blade down to a rough thickness of 3/8" (in the middle). The easiest is to take multiple passes on a jointer, alternating faces while lowering the in-feed table. This method leaves the paddle face roughly symmetrical about the transverse centre while also thickening towards the throat (as you plane towards the paddle shaft which remains 5/4" thick). Alternatively, you can plane to

thickness using a hand or handheld power plane or a spokeshave. It has even been suggested that this tapered thinning could be done with a router (which I do not personally have) or by resawing the board using a bandsaw.

Once the blade is down to rough thickness, use any combination of a handplane, rasp, spokeshave, or surform to thin the blade outwards towards the edges (to about 1/8" for hardwood), and to shape the throat. Use any combination of these same tools to round the shaft (either round or oval oriented in the direction of paddling) and to shape the grip and neck which combine to form the butt or handle. A flatter neck and slightly squared grip provide more surface area and allow for better twisting leverage. However, some people prefer a more rounded shaft, neck, and grip.

For final smoothing (especially of hardwoods) scrape the blade face with a cabinet scraper then sand through several grades of paper. Wet to raise the grain, let dry and then final sand with fine grit paper. For paddles of open grained wood, it is a good idea to seal the grain (linseed oil enhances the natural tones of the wood) before varnishing with several coats of high-quality, ultra-violet-resistant spar-varnish. Wetsand with 400 or 600 grit paper between coats of varnish to give the gloss finish 'tooth' so the next coat will adhere better. Some paddling purists leave the grip and/or throat unvarnished, thereby having to oil it several times per day while canoeing to keep it water-proof! Depending on the oil used, they may have to sleep with their paddles or risk being visited by nocturnal friends, e.g., porcupines looking for salty wood to gnaw.

A few last words regarding paddle care. Always hang a blank or paddle in a cool, dry place rather than laying it flat or leaning against a wall. This is to prevent warping.

Happy paddle-making! Hey, this may even provide the incentive to enjoy some time out on the water, or even building your own canoe.

ROB STEVENS works in the area of international health and community services. In 1995/1996, he coordinated a successful paddlemaking workshop for students in Outdoor Education at McMaster University.

ALGONQUIN WOLVES: WILD REALITY OR DIMINISHED MYTH?

DEBORAH FREEMAN

I suspect that wolves hold a special place in the heart of many outdoor educators. Certainly for me the very possibility of their presence adds a sense of completeness to my outdoor experiences. Regardless of whether I see or hear them, when I venture to places like Algonquin Park, I take great comfort in the knowledge that wolves are there. By the same token, however, I am deeply distressed by the fact that their welfare and survival, as wild, naturally evolving members of the Algonquin Park community, are far from guaranteed.

The Algonquin wolf is widely recognized as a *Canis lupus* subspecies. It has lost more than half of its historic habitat, and is one of the two most threatened wolf subspecies in North America (out of five subspecies). Those wolves that persist in Algonquin Park exist in semi-isolation, with the possibility of some immigration from the unprotected populations to the north. Since the park is surrounded by small towns, cottages, and semi-agricultural lands on three sides, the movements of wolves are restricted. Large, often permanent, breaks in the natural landscape mean that sub-populations are isolated from one another. As a result, it has become difficult for wolves to interbreed with wolf populations from other areas. A complete cessation of gene transfer between sub-populations would have long-term negative effects on Algonquin wolves by reducing the diversity of their gene pools and thereby lessening their chances of successfully adapting to change.

Wolf studies in Algonquin Park indicate that Algonquin wolves face threats on other fronts as well. Initiated in 1959 by Dr. Douglas H. Pimlott, research has continued on and off since 1978, led by John and Mary Theberge of the University of Waterloo. Their findings show that while inside Algonquin Park, wolves are protected from human killing, yet once they move beyond the park's boundaries, many fall

victim to virtually unregulated killing. (Subject to the 'small game' regulation of the Ontario Game and Fish Act, wolves can be shot in unlimited numbers by anyone holding a small game licence. Likewise, they can be trapped without quotas by anyone holding a trapping licence. On private land, the property owner can kill them without any licence at all. With the exception of a seasonal ban (Dec. 15 - Mar. 31) in three townships bordering the park, for the most part, it is open season on wolves outside Algonquin.)

The Theberges' studies indicate that the territories of approximately one half of Algonquin Park wolf packs abut or go beyond the park boundaries. Additionally, in the winter, many wolves leave the park as they follow white-tailed deer who habitually move to deer feeding yards outside the park during the winter months. Radiotelemetry research carried out by the Theberges has shown that Algonquin Park wolves suffer high rates of human-caused mortality just outside the park. In some instances, death rates have gone as high as 50% of all radio-collared wolves, and whole packs have been eliminated - shot or snared. One of these unfortunate packs was used by Algonquin Park nature interpretive staff to conduct their educational wolf howling evenings.

Over their study period, the Theberges have also observed some startling and ominous changes in the behaviour of Algonquin wolves. Whereas once these wolves relied on social cohesion to survive, it appears that they now rely on avoiding humans. Typically, Algonquin wolves would hunt in packs of six to eight, relying upon one another to help kill prey that is often much larger, stronger, and faster than they are. What the Theberges are now observing, however, is an increase in the number of wolves who are hunting alone, or in pairs, likely a result of the continual, intense killing by humans outside the Park.

One does not have to live or teach near Algonquin, however, to participate in efforts to ensure the long-term survival of these wolves.

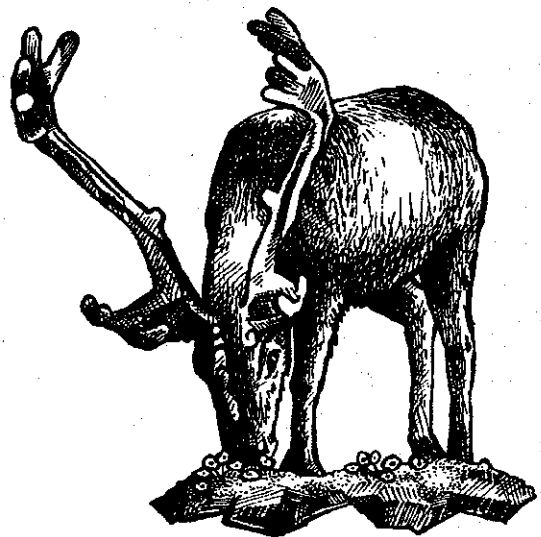
The Theberges have also recorded that denning and rendezvous sites (areas where pups are left when they are too young to join in the hunts) are not being used a second time. Ordinarily, these locations would be used in successive years. The fact that they are not suggests that the packs being studied are having trouble passing down this traditional knowledge to successive generations. Again, this change is believed to be the result of constant, intense hunting and trapping pressure from humans. These problems of knowledge transmission and weakened social structure appear to be having adverse effects on the fitness of the Algonquin wolf packs being studied. Human actions may be forcing wolves to abandon hunting strategies which have evolved over centuries in response to their prey, and to continually search for new, safe places to raise their young.

To address these concerns, the Theberges and representatives from a number of conservation organizations recently met with the Assistant Deputy Minister of National Resources, Gail Beggs, to discuss better protection for Algonquin wolves. Among other things, groups are asking that the hunting and trapping of wolves be prohibited year round in all townships surrounding Algonquin Park. Some are also calling into question legislation and policies that treat wolves as vermin, valuable only for their pelts. I, for one, believe that such laws no longer reflect, if they ever did, the values and desires of most Ontarians. Indeed, general acceptance and appreciation of wolves have grown markedly over the past 20 years. As the complexity and richness of wolf existence is revealed through outdoor interpretive programmes and through books, magazines, and television, a positive image of the animal is challenging prejudices and stereotypes and taking hold of our collective imagination.

Outdoor educators can play an important role in this regard. The popularity of wolf howls in Algonquin Park indicates the potential to enhance people's appreciation of wolves through outdoor experience. One does not have to live or teach near Algonquin, however, to participate in efforts to ensure the long-term survival of these wolves. By incorporating into your regular programmes, where appropriate, stories about the natural history of wolves and information about conservation challenges and initiatives, you can help foster a sense of wonder, caring, and appreciation for the wolves of Algonquin.

For information on how you can help, or to receive a copy of the Wildlands League's Algonquin Region Wolf Conservation Plan, please contact Deborah Freeman at: The Wildlands League, Suite 380, 401 Richmond St. W., Toronto, Ontario, M5V 3A8; phone (416) 971-WILD; fax (416) 979-3155; e-mail: wildland@web.apc.org.

DEBORAH FREEMAN



COUNT YOUR TREES IN!

The town of Smith Falls participated in Count Your Trees In! and inventoried all the street trees in town. The inventory was completed by the 'Scouts' of the community. The High-school environment club then mapped the information and is now assisting the Town planners to determine where tree planting should be a priority in their community.

Saskatoon, Saskatchewan started an inventory of all their elms. The community is learning to recognize Dutch elm disease, has mapped all the elms in the city, and is working together with the planners to ensure the protection of their community green space. More and more communities are signing on to Count Your Trees In! This is your opportunity to participate in a fun and active programme that benefits the health and well being of your environment and your community.

To participate in Count Your Trees In! contact Diane Huffman at (613) 728-3789. This project is coordinated by the Urban Forest Centre and funded by the Eastern Ontario Model Forest.

THANKS TO GO FOR GREEN
NEWSLETTER

ANNOUNCEMENT

'An inventory of integrated curriculum programmes employing outdoor experiential education at Ontario Secondary Schools' is now available for distribution.

- The inventory is a project of the C.O.E.O. research working group containing 24 programmes, a 28 item bibliography, and a brief historical overview.
- The inventory is a working document which we hope to expand on with the growth of such programmes. Perhaps this inventory can serve to promote this end.

To purchase, contact:
C.O.E.O. Secretary/Office

1185 Eglinton Ave. East
North York, ON
M3C 3C6
(416) 426-7000 (voice mail)
Price \$10.00
Cheques payable to C.O.E.O.

For more information, contact (by mail):

M.J. Barrett
Mayfield Secondary School
5000 Mayfield Road
R.R.#4 Brampton, ON
L8T 3S1
Fax: (905) 584-9823 TRACKING

ONTARIO HIKING DAY SUNDAY OCTOBER 6, 1996

Although we are just stepping into summer, plans are already underway for Ontario Hiking Day in the fall! Sunday, October 6 is the day, and groups from around Ontario are organizing walks and hikes for people of all ages and levels of fitness. Last year was a huge success with over 150 groups from across the province participating. Hikes were organized by Trail Clubs, Conservation Areas, Municipal Recreation Departments, Girl Guides, Boy Scouts, and Seniors Centres to name a few. This year we are hoping for an even better turn out!

Hike Ontario is a non-profit organization representing walkers, hikers, and long-distance trails in Ontario. If you would like to organize a walk or event in your part of the province, we can supply you with a leader's kit, posters, and buttons.

If you would like more information on the hikes happening near you on October 6, call Hike Ontario's Walking Centre at (416) 426-7362 or 1-800-422-0522 or drop by 1185 Eglinton Ave. East, Suite 411, Toronto. We are open Mondays, Wednesdays and Fridays from 2-4 p.m. and Thursdays from 6-8 p.m.

THE CANADIAN NETWORK FOR ENVIRONMENTAL EDUCATION AND COMMUNICATION (EECOM)

In May or June of this year, EECOM will begin distribution of the Canadian Journal of Environmental Education, which is being edited by Bob Jickling of Yukon College. EECOM expects that the journal will provide a valuable contribution internationally to the field of research in EE. EECOM continues to produce EECOM News, a quarterly newsletter about environmental education in Canada and welcomes contributions from other NAEE members and Affiliates.

If you would like more information about the new Canadian Journal for Environmental Education or any other EECOM initiatives, please contact:

Anne Camozzi, Chair, EECOM
P.O. Box 1514

Antigonish, Nova Scotia, Canada B2G 2L8
Phone (902) 863-3306 Fax (902) 863-9481
E-mail acamozzi@atcon.com.

VITAL SCHOOLS: TEACHING AND LEARNING INTO THE NEXT CENTURY

Albuquerque Academy will host its second bi-annual 'Vital Schools' conference October 16-19, 1996 in Albuquerque, New Mexico, USA. The conference is an opportunity for schools to work directly with experts in educational reform. The aim of the conference is to help schools prepare in their own way for educational changes and begin to plan for the future. Faculty members include Andy Bryner, Geoffrey and Raine Caine, Mihaly Csikszentmihalyi, Jane Healy, Paul Heckman, Charles Johnston, Dawna Markova, Charles Sykes, Ann Swinker, and others. The conference is designed for team participation. For a brochure, call 1-800-711-5144 or (505) 828-3399.

'CARING FOR THE EARTH' WORLD CONSERVATION CONGRESS

From October 13 to 23, 1996, the eyes of the world will be turned toward Montréal. More than 2,000 participants from 130 countries will gather at the Montréal Convention Centre for discussions on environmental issues on the eve of a new millennium. With the participation of high-profile scientists, environmentalists, politicians, and business people, the Congress continues the spirit of the Earth Summit held in Rio in 1992, by focusing on the protection of biodiversity and the sustainable use of resources.

For more information, contact
World Conservation Congress - IUCN
1410 Stanley Street, Suite 609
Montréal, Québec, Canada H3A 1P8
Telephone: (514) 287-9107 1-800-691-UICN
(1-800-691-8426) Fax: (514) 287-1248

BACKYARD HABITAT FOR WILDLIFE WORKSHOP FRIDAY OCTOBER 4, 1996 - SUNDAY OCTOBER 6, 1996

Leslie M. Frost Natural Resources Centre
Dorset, Ontario (North of Toronto along #35)
The Haliburton Highlands will be ablaze with colour!
Imagine. You can make a difference by transforming your yard into a haven for wildlife. Find out how at an exciting Backyard Habitat workshop designed especially for city and rural dwellers including cottagers with yards. Come by yourself, bring a friend, or make it a family project. This workshop will help you: plan attractive flower gardens for local wildlife; construct habitat improvement schemes suitable for your yard; create landscaping signs for songbirds and other creatures; put structures (life nest boxes) in just the right spot; and a whole lot more! Cost is \$175 for a Family (2 adults, 2 children) and includes 2 meals. (add \$25 for each additional child.) Individual Adult cost is \$100. Adults or family will receive a FREE resource package at the workshop, which includes the Canadian Wildlife Federation's latest book, *Backyard Habitat for Canada's Wildlife*.

C.O.E.O. ANNUAL CONFERENCE '96

"One earth, one people."

What a celebration is in store...

Following Friday evening opening remarks from C.O.E.O. and welcoming ceremony by Six Nations elders, the Kanata Dancers are going to impress, educate, and engage us in a variety of native dance. They'll provide a way to involve us with one of the conference themes, First Nations contribution to outdoor and environmental education and to actively involve us with one another...bring your dancing mocs.

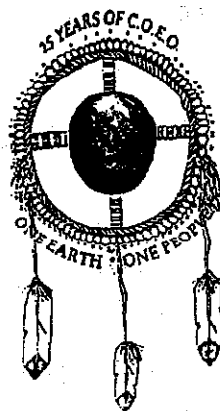
Saturday, mid-afternoon, a plenary panel session "Back to the Future" will occur. This panel mix of "elder" visionaries and "apprentice-elder" visionaries will apply their wisdom to current and future concerns of outdoor and environmental Education in Ontario. This will start an afternoon and evening focused on celebrating 25 years of C.O.E.O. Old photos/slides and the current photo competition entries will be available for viewing. The banquet meal will be replete with "period" skits and lots of warm honouring of all those who have made contributions to a quarter century of outdoor education initiatives in Ontario. If there is a former C.O.E.O. member that you know who might like to attend just this part of the conference, please tell him/her that a special 1/2 day registration is available for Saturday. Call Alice Casselman at (905) 275-7685.

Light celebrations continue on Saturday evening. DJ Bill Webster will host a dance at the Ohsweken Community Centre...an old building with real "sock-hop" appeal. This dance (on dry First Nations land) will be catered by the McKinnon Park Secondary School Students Against Drunk Driving Association. A variety of tasty non-alcoholic drinks will be available from their cash bar.

A more serious celebration option is available on Sunday morning. Mike Pegamagahbo, a traditional Ojibway teacher, will conduct a Sunrise Ceremony at Chiefwood Campground. This is a timeless, meaningful, memorable ceremony recognizing the interdependence of life on the earth.

The concurrent program sessions of the conference will provide lots of intellectual stimulation and "take-home" ideas. (The registration package has a complete program outline.) The informal interactions with fellow outdoor professionals is always restorative and energizing. It will be in the celebrations though, that the delegates' mind, body, and spirit unite...in celebration of 25 years of C.O.E.O. in celebration of First Nations contributions to outdoor and environmental education, in celebration on "One earth, one people".

De Dwa Yeab Nab...Come join us.



REGISTRATION FORM

C.O.E.O. Conference '96

Name: _____ Male _____ Female _____

Home Address: _____

City: _____ Province: _____ Postal Code: _____

Telephone: (h) _____ (w) _____ (Fax) _____ (limits) _____

C.O.E.O. Membership # _____

MAY WE GIVE OUT YOUR NAME FOR CAR POOLING PURPOSES? YES _____ NO _____

Conference Packages and Fees (Fri. eve...Sun. after lunch)

Early Bird (Reg'n received before June 30)	\$150.00	_____
Regular	\$175.00	_____
Student	\$150.00	_____
Student Help (limited numbers)	\$100.00	_____

Pre-conference³ (Friday daytime)

Ecoscope	\$ 45.00	_____
Curriculum	\$ 45.00	_____

Non-member Fee

OR Join now!!! - Membership

Regular	\$ 30.00	_____
Student	\$ 40.00	_____
Family	\$ 30.00	_____
	\$ 52.00	_____

Payment:

Minimum \$50.00 deposit.

Balance payable by post-dated cheque by Sept. 13, 1996.

Cancellation Policy:

After Sept. 1st the \$50.00 is forfeit unless a replacement person is found

Accommodation: You are responsible for booking your own accommodation.

Option #1: We have a block booking at Travelodge in Brantford, located 20 min. from site. The rate is \$59.90 + tax/night for double accommodation (\$10.00 per extra person). Contact number is 1-800-273-3273. Be sure to mention you are with the C.O.E.O. Conference. If you wish a specific roommate, be sure to request it when booking.

Option #2: Camping at Chiefswood Park at Ohsweken, approximately \$14.00 per site. Booking can be made on arrival. Up to 2 tents and 6 people per site. Contact number is 1-519-752-3969.

I will be: Camping _____ Travelodge _____

Please send registration form and cheques (payable to C.O.E.O. Conference '96) to Flora Smith, 3 Leaway Avenue, Hamilton, ON, L8W 1S6.