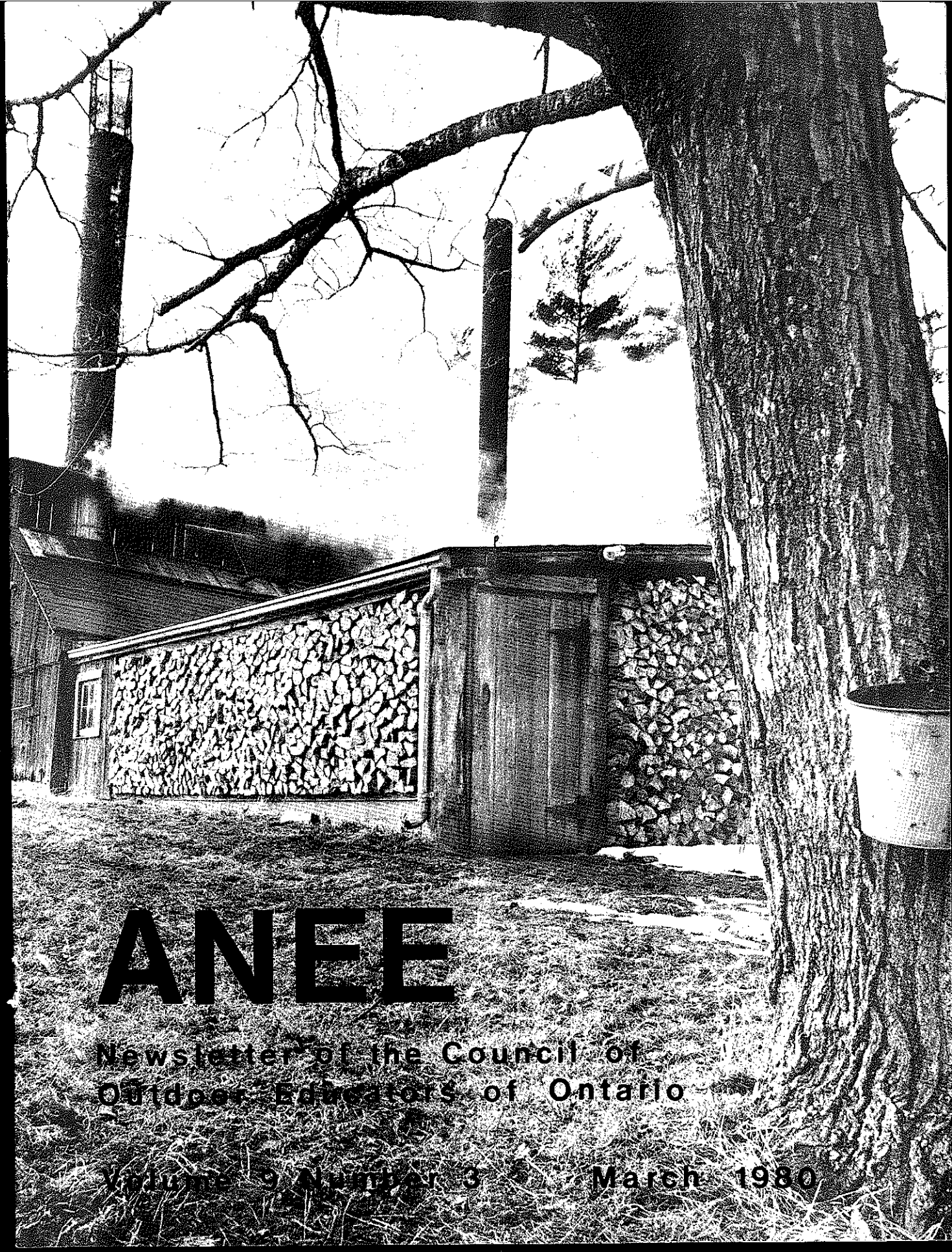

ANEE

Newsletter of the Council of Outdoor Educators of Ontario

Volume 9 Number 3 March 1980

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IN THIS ISSUE

Cover Photo: Elmvale Ontario.
Courtesy of Ministry of Tourism

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Cover Photo: Metro Zoo; Toronto. Courtesy of Ministry of Tourism.

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ANEE, the newsletter of the Council of Outdoor Educators of Ontario is published seven times each school year. The publication is mailed to C.O.E.O. members only. Membership can be arranged through the membership secretary whose address appears opposite.

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ANEE (AH-NEE) IS AN OJIBWAY WORD USED AS A GREETING OF FRIENDSHIP, IT IS USED AS A CORDIAL SALUTATION AMOND FRIENDS MEETING INFORMALLY. OUTDOOR EDUCATION IS A DISCIPLINE WHICH HAS AS ITS FOUNDATION A DESIRE TO LIVE IN HARMONY WITH THE ENVIRONMENT; THE TRADITIONAL WAY OF LIFE OF OUR NATIVE PEOPLE CHERISHED THIS ATTITUDE. ANEE IS A MEANS OF COMMUNICATING AMONG OUR MEMBERS WHO ARE SCATTERED ACROSS A LARGE PROVINCE. IT IS HOPED THE GREETING -ANEE- IS FELT THROUGH THESE PAGES.

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Printed on de-inked recycled paper.

FROM THE EDITOR'S DESK

From Environment Ontario
LEGACY
Vol. 8, No. 3

IS FIVE SELLS CONSERVATION SUPPLIES

The supply of materials and services to people interested in the conservation of energy and resources is the main aim of a unique "Conservation Store" in Toronto. Attached to the store is a depot for the collection of glass and paper for recycling.

Among the items offered for sale are composters, reusable shopping bags, recycled paper products, firewood recovered from waste wood. Other products are related to heat and water conservation, organic gardening, insect control, nutrition, fitness and transportation.

The store will also serve as a clearing house by referring customers to contractors or organizations able to fill conservation needs, and will provide literature on a wide range of topics.

The Conservation Store is operated by the Is Five Foundation, an organization devoted to the development of a conserver society. The Foundation's name is derived from the concept of synergy, according to which the whole is greater than the sum of its parts -- a concept expressed in the formula, two plus two is five.

The store is situated at 477 Dupont Street, and is open Monday to Saturday from 10 a.m. to 6 p.m., Thursday and Friday till 9 p.m. Telephone 531-3548.

Sheila Mudge,
Editor.

LETTERS TO THE EDITOR

To the Editor:

This has been a good month for excellent mail across my desk and so here is a personal invitation to read, heed and take whatever action you want.

First

ONTARIO MUSEUM ASSOC.

Mini Courses - Professional Development.

Two workshop/courses caught my attention

i. The Museum and the Community

ii. The Museum and Education

These two workshop/courses look excellent for any of you who are involved in the Pioneer Programs at your Field Centre or in an historic village.

These courses require O.M.A. membership whixh is only about $12 and a worthwhile investment.

For further information contact:

The Ontario Museum Assoc.,
38 St. Charles St. E.,
Toronto, Ont.
M4Y 1T1 Phone - 416-923-3868

Second

Possible Position Available!

We are participating in a job opportunity retraining program.

Requirements:

- Age 16-24 : out of school for Minimum of 3 months
- Unemployed minimum of 3 months, having never held a full time job in your field of endeavour
- self-motivated, self disciplined, interested in children, recreation, biology-education background.

Third

If you are interested in a trip to the Eastern Arctic this summer contact:

Brent Lysart
457 Stillmeadow Circle
Waterloo, Ontario.
N2L 5M1

Phone - 519-885-1289
or
885-2836

REGIONAL NEWS

CONFERENCE 1980 September 26 - 27 - 28th. Sudbury, Ontario.

The planning for the 1980 Conference is well under way. Our expectations are that it will be a very good gathering. The hosts are the Far Northern Region and the Conference will be located in Sudbury.

Many of the planned workshops will be similar to those which have proved to be popular in the past. We are also planning workshops which are naturals for the Sudbury area. Would a mine tour interest you? How about seeing an underground vegetable garden? The mining industry is trying:- come and see the land reclamation projects. A tour of the famous Sudbury mineral basin is being planned. The geologists among us might be interested in seeing the meeting place of the Great Lakes Lowlands and the Canadian Shield on a tour of the Little Current and Manitoulin Island area. For those of you who have not seen the beautiful Killarney Provincial Park area; you may wish to choose a day long canoe trip there. Would you like to improve your white water canoeing and kayaking skills? We shall try to accommodate you.

While we have planned a wide variety of workshops, we may not have included an area that you would like to see offered. Please feel absolutely free to send us suggestions. Are you willing to present a workshop or know of some one who should present a workshop:--if so let us know.

Send suggestions to: George Oldenburg
109 Garland Cres.,
Sudbury, Ont.
P3B 3P2

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WESTERN REGION

So far the Western Region Executive has been planning activities for the spring. However, we did send out a Western Region Newsletter which included minutes from the Oct. 25 Western Region meeting and information on upcoming workshops and activities being offered by other groups but open to C.O.E.O. members. A second will hopefully be out by the end of January.

We have two workshops planned for the spring. One in Waterloo Region in April on pioneer skills and a spring gathering in May. Further information will be forthcoming.

CENTRAL REGION

Central Region COEO held its January meeting at Forest Valley Outdoor Education Centre. Over twenty people were in attendance, including visitors from as far away as Niagara Falls and Bradford, Ontario.

During the meeting several items were discussed:

1. Central Region financial position.
2. Anee coverage.
3. School Yard Workshop. There will be a primary and junior school yard workshop in April, sponsored by Central Region.
4. Direction for Central Region. General discussion by members who were present. Two information sheets with suggestions about Central Region's responsibilities were distributed. No concensus was reached about an exact role definition as yet.
5. Boards of Education Contact Persons. One person in each of the Boards, with responsibilities to:
   i) distribute information in Board mail.
   ii) report dates of Professional Development days for both elementary and secondary panels.
   iii) report names of chairpersons and co-ordinators for a directory of elementary and secondary panels.
   iv) have available new membership forms for COEO.
6. Resource Persons. Discussed the formation of a file of addresses and telephone numbers of people who would be willing to act as resource persons.

These discussions were followed by the highlight of the evening - a visual arts workshop by Ralph Ingleton. Trees were used as a focal point to explore different methods of presentation: pencil, charcoal, brush and pen. Visual sensitivity was enhanced through exercises which at times involved drawing, acting and word association. These activities were particularly appropriate as they provided involvement and enjoyment for all those present.

Ralph concluded with a slide presentation which illustrated the basic artistic fundamentals: texture, shape, colour, line and form. The sharing of information and ideas, and especially the total involvement of the participants, made the workshop a great success. Thank you Ralph, for a job well done.

The next Central Region Meeting is on March 10, 1980 at the Hillside Outdoor Education Centre (near the Metro Zoo.) Sheila Mudge will be presenting "Drama in the Outdoors." Come out and join us for the evening.

Nancy Henderson.

Eastern News

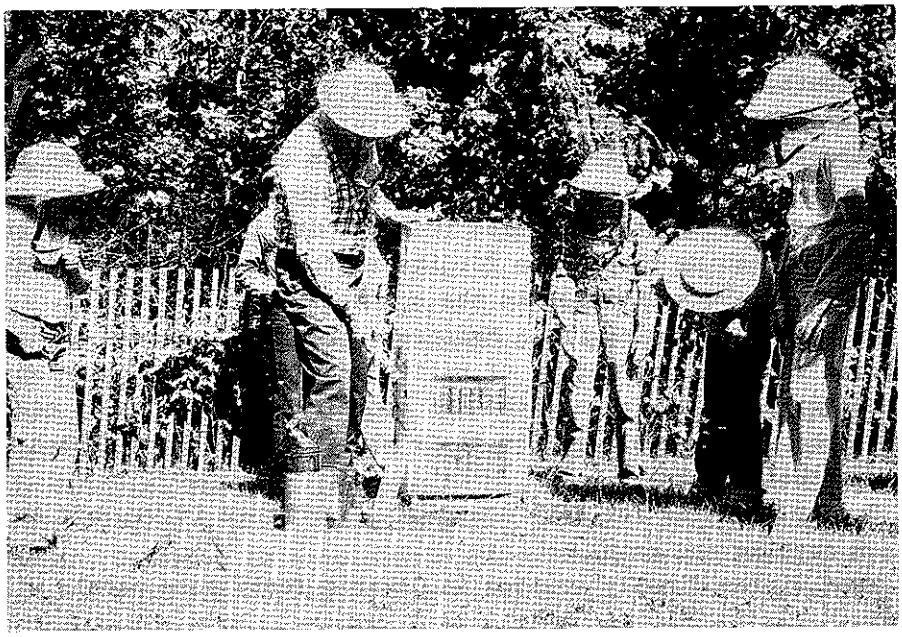
In this issue the Eastern region features the Ottawa Board-owned MacSkimming Natural Science School.

MACSKIMMING NATURAL SCIENCE SCHOOL

The Ottawa Board of Education became committed to outdoor education in 1966 when it purchased two hundred acres of land, twenty eight kilometers east of Ottawa on the Trans Canada Highway. Since then, it has been officially named the MacSkimming Natural Science School in honour of Dr. W. T. MacSkimming, former Director of the Ottawa Board of Education and a strong beleiver in the educational value of outdoor education. The school has grown since its conception so that it now encompasses a land area of two hundred and eighty eight acres, has four fully staffed field centres, and a staff of fifteen, including professionals and paraprofessionals.

Affectionately known as "The Farm" by elementary students and teachers, the school provides day visits and a limited number of residential experiences for twenty-five thousand students yearly. Teachers are encouraged to look upon MacSkimming as their second classroom and make their visits with their students an extension of the classroom learning experience. Prior to each classes' visit, extensive preplanning sessions are held in every school, with every teacher, so that not only is the day visit carefully planned well in advance, but pre and post classroom lessons are established to insure that maximum learning potential is achieved from each visit. Teachers are encouraged to consider experiences relating to any segment of their curriculum, whether it be mathematics, science, language arts, social studies, physical education or even second language lessons. The cross-disciplinary approach to learning is emphasized.

At each field centre, two fully qualified resources teachers combine with the classroom teacher for a teaching team of three. This allows for a pupil-teacher ratio of between 8 and 10 to one. Each centre is unique. The Agricultural Area, with more than one hundred and fifty typical Canadian farm animals, is a favourite of the primary grades. Here children become involved in everything from gathering and grading eggs (both brown and white) to taking body temperatures and heartbeats of other animals, and to sheep shearing each spring. Once the sheep have been sheared, much of the raw wool is then sent on to the Pioneer Village where students, dressed in period costume, wash, card, spin, dye (using natural materials) and then either weave or hook it into area rugs. Many of these finished rugs can now be found in other buildings throughout the village. Other programmes popular in the Village are: hand-dipping tallow candles, pioneer cooking on a woodstove, or making and repairing period furniture in the carpentry shop.



Forest Edge field centre is popular with camera buffs. Students are lead to appreciative nature and their environment from a different perspective, through the camera lens; from focus to framing, they experience it all. During the spring and fall seasons things really hum around this centre, literally; it's here that the school's bee yards are located. So whether it is checking for brood conditions in spring or extracting in the fall, this is an experience they don't soon forget. Both Forest Edge and Trail's End provide a wide variety of forestry, ornithology and orienteering programmes. Seasonal programmes include cross-country skiing, canoeing, survival and gardening to name only a few.

Regardless of which field centre the classroom teacher and her students select, the overall aim is the same; make the students' day as enjoyable and meaningful as possible and send them away at the end of each day while they are still eager to learn more.

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NEWS ITEM

Camp Tawingo has added to the winter and spring accommodation available for visiting groups.

For the past number of years obtaining a booking at Camp Tawingo has been chancy. Therefore we have increased our ability to be of service in providing educational recreation, recreational education, seminar sites, workshops and conferences.

For group bookings or further information call John Jorgenson or Ron Johnstone at Tawingo (705) 789-5612.

Plan for the spring and next year's field trips now.

Northern Region

The annual trek to the North for a weekend of skiing and winter rambling was all the more appreciated this year with the lack of snow in the South. The workshop, tri-sponsored by COEO, the Tawingo Outdoor Centre and Ontario Pioneer Camps, saw over 40 folks attending and participating in a variety of sessions. Some skiied an all day tour while others snowshoed through a winter interpretation session ranging from track identification to tree imagery. Ski instruction for the new skiers and teaching techniques for instructors were also offered along with snow science activities in the school site.

On Saturday evening Craig MacDonald from the Leslie M. Frost Centre discussed the relative merits of native camping methods using snowshoes and toboggans. Following a night ski and sing song ten hardy campers took to the winter shelters for their sleep while others rested their bones in their bunks.

Sunday saw time for some more skiing and then it was off to the land of lawn cutting and rain.

When winter finally arrives in Ontario forty more people will be ready!

BAFFIN ISLAND

You as a member of C.O.E.O. have a unique opportunity to participate in a professional development seminar - Study Tour Program to Pangnirtung on Baffin Island.

The program is specifically designed to assist you in experiencing the Arctic - The Land and its people - The Inuit and being able to provide you with an opportunity to bring those impressions back to your students and your Board.

Financial assistance is being sought from various sources. Assistance to defray the overall costs plus research grants to encourage participants to develop and design curriculum resource material.

This is an experience you cannot afford to let slip by.

For further details re- the program and <u>possible</u> academic credit contact:

Jim Melady
Ayton Outdoor Education Centre
Ayton, Ontario.

Brent Dysart
Laurel Creek Outdoor Centre
R.R.#3,
Waterloo, Ontario.

COUNCIL OF OUTDOOR EDUCATORS OF ONTARIO

POT POURRI

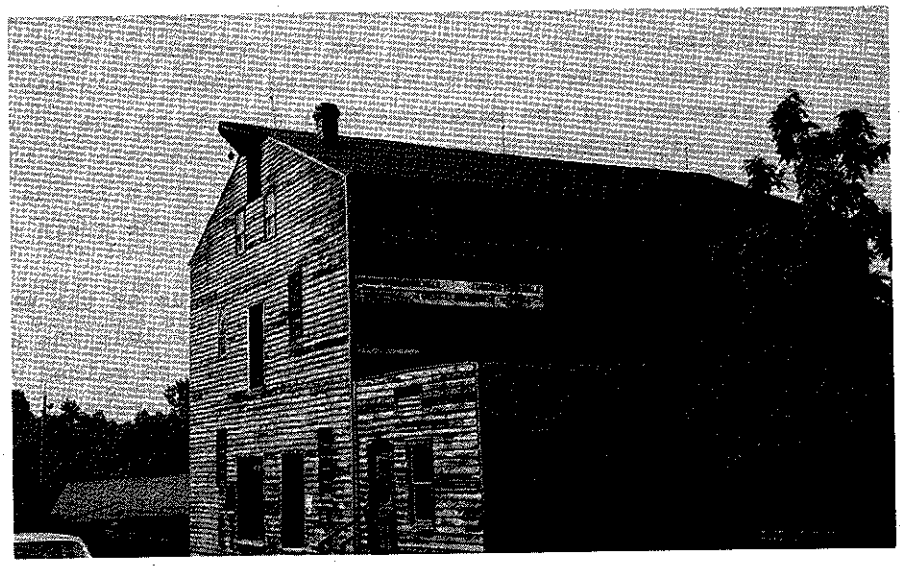
HISTORIC MILL INTERPRETATION

Many Canadian mills are now being restored as "living museums" and as such some are being incorporated into the Outdoor Education studies of schools. The water-powered mill is an excellent example of the use of water by pioneer Canadian industry. A grist, flour or sawmill is not only an ideal focus for historical studies but also lends itself to extensive interpretation by a teacher of basic physics in action.

Following is an insight into the history and interpretation of the John Backhouse Mill - 1799 - the longest continuously operating flour mill in Ontario. This mill is presently owned and operated by the Long Point Region Conservation Authority at the original site near Port Rowan, Ontario, to demonstrate the pioneer use of water. Teachers of grades K - 13 are utilizing the facility in conjunction with guided tours. Interpretation may range from pioneer studies to physics and hydrology. Teachers and the Conservation Authority thus co-operate to produce a valuable learning experience for the students.

JOHN BACKHOUSE MILL - 1798

In 1798, John Backhouse, a former resident of Yorkshire, England, petitioned the government for a tract of land in the Long Point region along Lake Erie. Being a proven manager of an agricultural operation in the Niagara area, he was granted 600 acres of land on the condition that he erect a flour mill. The mill he established was to remain in continuous commercial operation and within the same family for 157 years.

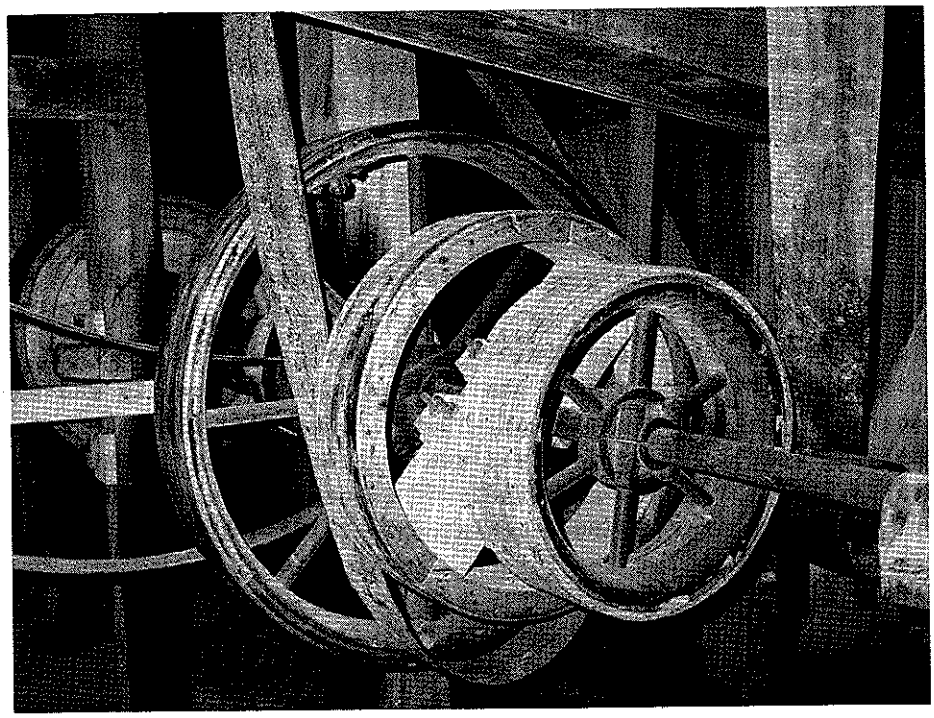


The mill began operation with two sets of millstones and an overshot waterwheel. In 1856, the waterwheel was replaced with a metal turbine waterwheel. This turbine operated more power and used less water to generate power than did the overshot wheel. Natural gas deposits were discovered in the Long Point region in the 1880's. A gas well was drilled near the mill, gas being reached at 1300 feet. The development of this auxilliary power source and the installation of a 25 H.P. internal combustion engine to run in tandem with the water power was instrumental in maintaining the mill in operation for years to come. The mill and surrounding property was purchased by the Long Point Region Conservation Authority in 1955. The mill has since been restored to the original mode of operation and now operates with an overshot waterwheel and millstones as it did so many years ago.

An old water-powered flour mill presents many examples of basic physics in action. These mechanical aids are the LEVER, the PULLEY, the WHEEL and AXLE, the INCLINED PLANE and the SCREW. The great millstones made of French Burr stone, weighing over 500 kilos apiece are raised and lowered with a series of levers. The movement of levers is controlled by a screw device. The adjustment of the millstone position is critical to the milling of fine flour. The combination of a lever and a screw (a circular inclined plane) allows one person to raise er lower the great weight of the top stone. The lever is applied to force the weight upon the inclined plane.

Pulleys are utilized in the mill elevator system, the automatic milling invention of Oliver Evans - 1795. The elevator is an endless strap, revolving over two pulleys; one of which is situated on the top floor of the mill, the other in the basement. To the strap is fastened a number of small buckets which fill themselves as they pass under the lower pulley and empty themselves as they pass over the upper one. The elevator straps were originally made of leather and the buckets of willow wood. These materials were later replaced with woven fabric belts and metal buckets. The elevatora of the Backhouse Mill operate at the rate of one foot per second with buckets located at one foot intervals on the strap. Such an elevator system can move over 500 kilos of grain in one hour. Similar elevator systems are found today not only in the grain elevators of the Prairies but in many other industries.

The wheel and axle is a type of lever; the radius of the wheel being the lever and the axle being the fulcrum. Examples include the waterwheel, the great cog wheel and the millstones. No power can be gained upon the principle of lengthening the radius of an overshot waterwheel. The true advantages of a large wheel diameter over small ones arise from the fact that a large wheel serves as a flywheel and keeps a more regular motion.



The inclined plane is used in rolling heavy articles such as flour barrels. The screw is circular inclined plane. The screw is used in many operations such as with levers to raise the millstone with a crane for cleaning.

Another intriguing device is the grain conveyor, put in motion in a trough. The conveyor is an eight-sided shaft, set in all sides with small inclining boards called 'flights,' for conveying grain from one end of the trough to the other.

Apart from the obvious changes in materials of manufacture, many of these machines seen in the mill are not changed when used in modern industry. The basic concepts are the same. Teachers and students are therefore encouraged to make use of local examples of early Canadian industry, to make use of an important resource, our heritage.

by

Marilyn H.S. Light B.Sc.(Agr.) M.Sc.
Curator, Backus Mill and Agricultural Museum
Information and Education Co-ordinator
Long Point Region Conservation Authority

Outdoor Education--Accountability Through Public Relations

As budgets tighten and as the "public" examines the need for "frills" in education, it is not unlikely that any new undertaking in the public school system is going to be questioned and made accountable. For outdoor educators, such concerns must be acknowledged and planned for. Showing happy students working in the outdoors or learning interesting new recreational skills such as canoeing is not enough. Sunny faces and glowing reports on evaluation forms are not sufficient evidence for the concerned taxpayer and community at large. Outdoor educators must be prepared to show that the methodology and content with which they concern themselves is not just part of a "special" area in education, but part of a total in the student's journey through the public school system. We must be able to demonstrate that education outdoors can reinforce, enrich, and support the more traditional methods of learning.

In developing an outdoor program which can successfully communicate the goals and objectives of what is actually happening at the school level, the adminstrator must first set his own goals for establishing a genuine, two-way communication process with the various publics directly and indirectly concerned with public education. There is however, an essential step to be completed even before objectives can be created. The "publics" must be defined. Who is it that we are likely to be communicating with, and are some of these groups more important than others?

First of all, there are the internal publics: students, teachers, school board, administrators and other board employees (e.g. maintenance.) Secondly there are those who are outside of the immediate system or the external publics: parents, taxpayers, special interest groups, government, industry and generally, any component of community life which the outdoor education program touches in some way. A common example might be that of a local landowner whose property is being used for some aspect of the program.

The outdoor education program is quite likely one of the most visible things that a school system is involved with since the activities are taking place outside of the school's walls. Such visibility can be used to advantage if those responsible for the program are open to all possibilities in the public relations areas.

The primary publics with whom the outdoor educator must be concerned are the students, parents, teachers, school staffs and local residents, or, those with whom the educator must deal on a daily basis and on whose support the success of the program will ultimately depend. Of course, these same terms of reference would apply for any educational setting where developing and maintaining an efficient communications system is an important priority.

Once it has been established that there are specific groups which must be dealt with, the next step is to develop the objectives of the actual communications program. The following have numerous applications:

1. To gain public acceptance and cooperation in all aspects of the outdoor program.
2. To build the public support necessary to ensure continuation and funding of the program.

3. To rectify any unfavourable public opinion.

The question then becomes, How can these objectives be realized? What needs to be communicated? Which mediums will be utilized? What channels will there be to allow for communication from the publics?

The following guidelines should be considered:

1. Be prepared for any opportunity to communicate with the public: meetings at the school, various community newsletters, special events in the community.
2. Encourage feedback in writing from those who take part in any outdoor education venture.
3. Make use of the school system's information officer or that person who has already established a relationship with local media.
4. A regional advisory committee leads to early involvement and helps to 'legitamize' the program (parents, students, administration, business leaders.)
5. When communicating with the media, be honest and remember that newsmen are interested in accuracy and items which are appealing to their readers.
6. Remember that all teachers in the system have special needs and that recognition for good work is an important part of working with internal publics.
7. Generally, students, teachers, parents and administration should be informed and involved wherever possible as the program develops.

Aside from these guidelines, what other devices may be employed in order that "understanding and credibility" can be maintained?

Informing Students and Parents

For the students, direct contact is certainly the easiest method of keeping them informed of what is going on. Also, bulletin boards with an outdoor focus can help to inform and educate, but they must be assembled with a creative eye and ideally, by students. Since surveys have shown that parents rely most on their children for information about their schools, students must surely rate as the number one primary public. Student involvement in objective surveys and evaluations should be a natural process undertaken as part of their outdoor experiences.

The nature of the program will determine in part, the methods employed to communicate with the parents. If the students are taking part in a year round program, letters should be mailed home at the beginning of the school term (or inserts included with other mailings.) The letters should tell parents what is happening, provide a rationale for the experience and should also ask them for ideas, concerns, or reactions to the program. When dealing with parents however, personal contact through meetings or phone conversation will certainly provide for a more complete and intimate link in the total communication process.

Any special event at the school can be an opportunity to communicate with parents (and other taxpayers.) These may include a science fair, community meeting, continuing education class, student presentation or a parents' night, to name a few. The first parents' night of the school year, black and white photos, color slides and displays can all be utilized to help the parents understand what is going on and the rationale behind

utilizing the outdoors. Community groups which may include a cross-section of publics, may be interested in these same slides for presentations as program for their meetings.

To Involve the Publics....

If teachers, parents and students have a 'stake' in the program, the chances of its success are much better. Involvement leads to understanding and support.

Parents can assist with field trips, supervision and management of students in the outdoor setting generally, and possibly, actual teaching in certain areas of expertise which they may have to offer. The key here is knowing ahead of time what the competencies of the parents are, and making sure that school board policy allows for such involvements.

Teachers are very busy with their own special interests and curriculum, but any type of assistance from them should be considered as involvement. This assistance may take the form of actual teaching, supervising on field trips, or serving on an advisory committee as representatives of their school or area. If individual teachers are organizing the experiences, support can be provided to them by the various outdoor education specialists which may be available.

The Administration

The various levels of administration must be kept informed of all program developments. This can be done via monthly reports (which can be designed in such a way that the public can also use them,) attendance at meetings and visitations to the programs in operation. As key decision makers who are sensitive to public opinion, they must have an up to date insight as to what is happening. The continuation of a program may depend on their final word.

It has been my experience that one of the best ways to keep a public informed is to have a variety of communication tools ready for use at any time. For example, a one page handout which describes the program should always be available for general distribution to parents, media, visitors, administration and students. Student evaluations, monthly reports, and other printed materials should also be kept on hand where it is accessible.

Any public relations action in outdoor education must be planned so that educators do not react only to negative feedback from their publics. Public relations activities must be conducted through a planned and continuous time framework if the outdoor program is to remain credible, accountable and above all, to be of value to students.

Richard Vinson

The author is a Grade 7-9 outdoor education specialist presently teaching physical education at Tantallon Junior High School, R.R.2, Tantallon, Nova Scotia. BOJ 3JO. He is a graduate of the University of Alberta (B.Ed.) and also of Northern Illinois University, Lorain Taft Field Campus (M. Sc. Outdoor Teacher Education.)

OISE CURRICULUM DEPARTMENT

COURSES IN

ENVIRONMENTAL EDUCATION

During the past year, the OISE Curriculum Department has held on-going consultation with leaders in the field of outdoor and environmental education concerning the possibility of including in the M.Ed. program several courses specifically concentrating on environmental education. Plans for such courses are now approved. The purposes of this announcement are to describe the general features of this M.Ed. concentration, to describe the introductory course, and to invite applications.

The M.Ed. in Curriculum with concentration in environmental education will require the usual number of half-courses, normally eight. One of these is FOUNDATIONS OF CURRICULUM DEVELOPMENT (1300) required of all students in the Curriculum Department. The environmental education concentration also contains three compulsory courses, described below. The four remaining courses will be chosen in keeping with the provisions described on pages 94-95 of the OISE BULLETIN 1980/81.

The three courses specifically designed for environmental education are as follows:

1324F: CURRICULUM ISSUES: SOURCES OF CURRICULUM PRIORITIES IN ENVIRONMENTAL EDUCATION (to be offered at OISE, Fall 1980: See below)
1324S: CURRICULUM ISSUES: CURRICULUM AND INSTRUCTION IN ENVIRONMENTAL EDUCATION (to be offered at OISE, Spring 1981)
1306F: PROGRAMMING COMPLEX OBJECTIVES (with special attention to environmental education objectives) ... (tentatively offered at OISE, Fall 1981)

PLANS FOR 1324F (FALL 1980)

In order that all students enrolling in this concentration will have a firm and comprehensive understanding of the issues (scientific, economic, social, and political) underlying environmental education, and procedures for establishing curriculum priorities relating to these issues, an initial course on curriculum issues in environmental education will be provided in the fall semester of 1980. This course will establish procedures for curriculum priority-setting, with content based in about ten sessions provided by leading authorities on environmental issues. Several of these visiting graduate professors are members of the Institute for Environmental Studies of the University of Toronto. It is anticipated that the course will involve a week-end

(over)

at the environmental study centre on Bruce Peninsula, and a Saturday at the Boyne Natural Science School.

Because this initial course will be mainly lectures and presentations a fairly large registration (about 40 students) can be accommodated. This course probably will not be offered again for two or three years. After this initial course, students will program their additional courses in the usual manner.

It is anticipated that the number of applications for the course will exceed the available places. For this reason some priority may be given to applicants who include with their application a statement of their interest or involvement in environmental education (e.g., teaching, consulting, administering outdoor education programs; teaching environmental studies, science, geography; serving on curriculum teams in subjects related to environmental issues; etc.). Application does not guarantee selection for admission. The date of application will also be a factor in selecting students.

Applicants requiring an OISE BULLETIN should write to the Office of the Coordinator of Graduate studies OISE, 252 Bloor Street West, Toronto, Ontario, M5S 1V6. The Bulletin describes procedures for enrolling in OISE departments and programs. Applicants interested in the environmental education concentration, including current OISE students, should submit the letter referred to above, in addition to usual registration procedures.

Potential applicants wishing more information may telephone or write to:

Miss J. Crotty
Department of Curriculum
OISE
252 Bloor Street West
Toronto, Ontario
M5S 1V6

Telephone: 416-923-6641

OR

Dr. H. G. Hedges
OISE
Niagara Centre
28 Prince Street
St. Catharines, Ontario
L2R 3X7

Telephone: 416-684-8558

THE REVIVAL OF THE O-DAW-BAN

An era in Canadian winter travel has recently passed. Just a few generations ago the hand pulled o-daw-ban served as the chief form of winter freight conveyance in the forested regions of Canada. Originating with the North American Indian, these sleighs predate the arrival of Europeans by untold centuries. Today as a commercial transport device, the o-daw-ban is virtually replaced by motor vehicles, aircraft and the snowmobile. Authentic examples have become nearly as rare as the large birch bark ra-bes-ka trade canoes which formed the basis for summer commerce and communication in the early days of our country.

In the winter on a lesser scale, the o-daw-ban played an equivalent role to the birch bark trade canoe. Once freeze-up came the voyageur and coureur de bois certainly did not hibernate. One important task was the visitation of outlying Indian camps to induce native trappers to come to the post and trade. These snowshoe trips often lasted several weeks requiring o-daw-ban to transport the necessary provisions.

In some areas when fur trade competition was keen, o-daw-ban were also used to carry trade goods directly to the Indian camps. Pre-occupied by trapping and hunting, this convenient "door to door" service all but eliminated any incentive for native trappers to trade at opposition posts before spring break-up. Not only did the trappers benefit from trade goods brought by o-daw-ban at a time when they were most needed, but the voyageurs were often able to secure the bulk of the returns from the fall trapping which accounted for most of the yearly fur production. The furs were usually transported to the post by o-daw-ban on the return trip.

Extreme competition greatly increased winter visitations and in some instances prompted trading companies to upgrade winter snowshoe trails for regular o-daw-ban freighting to Indian winter camps. These trails were known as bibon-o-meekina. Trail improvements on the most important routes included marking the optional alignment, clearing this route of fallen timber and brushing slush holes with evergreen boughs. Small open creeks would be bridged and sometimes log and brush fill was used to smooth out the worst of the rough spots to permit the handling of heavy loads.Bibon-o-meekins radiating from the former Hudson's Bay Company Bear Island Post on Lake Temagomi, Ontario, upgraded by a colourful employee named Petrant in the 1800's, serve as an excellent example of what could be accomplished. Some of these still exist providing evidence of the former days of o-daw-ban freighting by the Hudson's Bay Company.

Despite an inferior freight capacity compared to trade canoes, o-daw-ban were sometimes used to transport supplies along canoe routes to trading posts. A recent example was the provisioning of the H.B.C. Marten Falls Post on the Albany River from Nakina, Ontario, shortly after the turn of the century. To save time and avoid being caught by freeze-up, the last canoe brigade for the season usually cached half its load on a long portage to be retreived by a fleet of o-daw-ban in the winter.

Not all voyageurs were employed making rendezvous with native people at outlying winter camps or freighting supplies. A very select group were chosen for the task of winter communication between trading posts. It was their task to carry the official company correspondence including news of changes in fur price, staff and trading strategies as well as personal mail and small parcels sent by friends or relatives coming often as far away as Europe. Voyageurs undertaking this type of work for the H.B.C. were known as packeteers because they were responsible for transporting this winter mail packet.

Many round trip mail runs exceeded 500 miles requiring great strength and endurance. The packeteers hauling their o-daw-ban, often faced the gruelling task of breaking a fresh trail on snowshoes for virtually the whole route, as there existed no packed snowshoe trails between trading posts in those days.

Twenty miles was an average days work. This rate of travel necessitated continuous labour from first light till darkness and travel during periods of extreme cold when the o-daw-ban were difficult to pull. Even worse, travel was occasionally necessary in thaw when little could be kept dry and heavy slush loaded the tops of snowshoes, making for great misery and hardship.

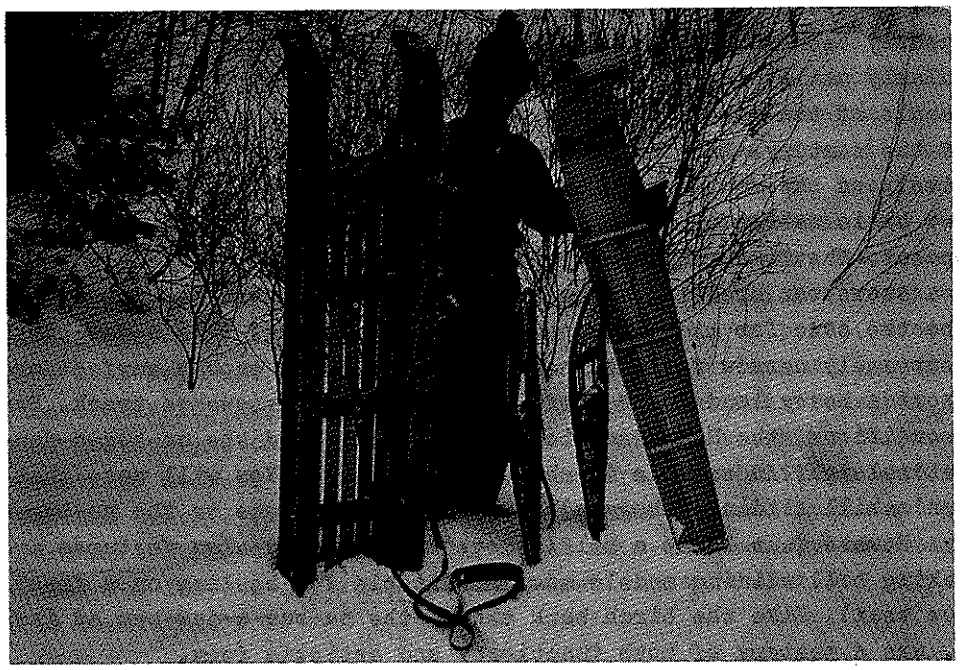
In earlier times, overnight accommodation was obtained in the rudest of shelters, the o-buck-wan. This shelter consisted of a simple tarpauling lean-to placed before a fire. To stay warm at night it was necessary to chop and haul into camp at least half a cord of firewood before retiring. Rest was not without interruption as the fire would have to be restoked every few hours.

This class of voyageur hauled a light outfit to increase speed. Included were the barest of essentials: rifle, axe, knife, frying pan, pail, snare wire, spare babiche, flour, soda, sugar, beans, tea, 2 blankets, one change of clothes, several pairs of mocassins and tarpaulin, as well as the mail bag. Provisions were kept to a minimum as animals and birds were intended to be shot and snared en route. If game was sparse and the snares set overnight failed, starvation was a real possibility.

Unlike summer canoe brigades these voyageurs often travelled for many weeks alone or with just a single partner. The routes they followed were the summer canoe routes, except for shortcuts or extended detours around the ice. Breaking through ice and drowning was a common cause of death. A normal load was normally no more than 100 lbs., but under ideal conditions, the voyageurs were capable of hauling 300 lbs. all day on their o-daw-ban which they themselves referred to as traineaux.

Feats of exceptional snowshoe and o-daw-ban prowess were rarely witnessed as few observers were capable of sustaining the rate of travel or enduring the hardships necessary to accompany the very best of these men. The voyageurs and Indians themselves had considerably more admir-

ation for these heroic man-existing accomplishments than for the more mundane labour of the canoe brigade. Certainly the names of McKenzie, Batisse, Polson, McLaren and Bonin will be long remembered in this regard.



A comparison of the narrow na-bug-o-daw-ban (translation - 'flat sleigh') and the wider and runnered o-kad-o-daw-ban (translation - 'legged sleigh'). These devices were built of entirely natural materials obtained from the forests and held together without the use of a single nail or screw.

Some accomplishments of the older generation of voyageurs and coureur de bois border on the unbelievable, particularly those of Laguimoniere.

During the winter of 1815-1816 Laguimoniere travelled alone approximately 2,000 miles from the Red River Settlement near present day Winnipeg to Montreal bringing news that the colony had been re-established and was in imminent peril at the hands of the North West Company. Contracted by Lord Selkirk to carry several letters back to the Red River Settlement, Laguimoniere reached the western end of Lake Superior before being waylaid and robbed of them by Ottawa Indians working in collusion with Charles Grant of the Fond du Lac Post of the North West Company. The accomplishment of even being able to make the initial journey in the winter without the aid of modern maps is considerable. Today the specific details of his route, or for that matter, principal trans-Canada snowshoe and o-daw-ban route from Montreal to the west remain largely an unsolved mystery. Certainly open water and unsafe ice could not have permitted a precise following of the summer canoe route.

Probably the most significant role for the o-daw-ban was its use for transport by native people who lived off the land by hunting and trapping. Before the advent of the snowmobile, some form of this device was almost as necessary as snowshoes. The designs that were developed have subsequently been modified by the introduction of European technology, particularly nails, screws and wire. Likewise, several changes came about as a result of the more widespread use of dog teams for hauling, around the turn of the century. For the purpose of this discussion, we shall focus exclusively on the most common hand drawn models in their aboriginal form.

Two basic native o-daw-ban designs have evolved through centuries of development. The first and most important was a design that could be pulled behind a snowshoer breaking a fresh trail in deep, untracked powder snow as would be the case for mid-winter hunting and trapping. This o-daw-ban had to be extremely narrow for easy hauling, yet possess enough surface area to support a heavy load in the soft snow of a fresh snowshoe track. For these conditions, the North American Indian perfected the na-bug-o-daw-ban or 'flat' sleigh. An example is shown in the photo. You will note that the children's hill sliding toboggan bears some resemblance to the na-bug-o-daw-ban. However, at least a half a dozen important design features are lacking, making hill sliding models most unsuitable for hauling on a fresh snowshoe trail. Like the birch bark canoe, the na-bug-a-daw-ban at its finest, was a mastery of both functional and artistic form.

When travel conditions permitted, a second and more efficient class of o-daw-ban could be used, which the Ojibwa called o-kad-o-daw-ban or 'legged' sleigh. These sleighs were different from na-bug-o-daw-ban in that they consisted of two narrow widely spaced runners with an elevated carrying bed, usually supported by cross bars and raves connected to the runners by vertical legs or stanchions. (see photo) When these sleighs were used for hauling canoes over frozen lakes in late spring, a low carrying bed was preferred and thus the stanchions could be built as projections of the runners, rather than separate members mortised to the runners.

The narrow runners of all designs of o-kad-o-daw-ban will quickly bog down following a fresh snowshoe track in deep powder snow. However, for well packed and frozen trail surfaces, narrow runners make the o-kad-o-daw-ban easy to pull even with heavy loads. For this reason, o-kad-o-daw-ban were primarily used in the shallow snow depths of early winter or in the spring when thaws had melted the surface of the snow to form a crust strong enough to support the runners. During mid-winter o-kad-o-daw-ban were often confined to well packed tracks in the immediate vicinity of winter camps where they could be used for hauling firewood, fresh evergreen boughs and water.

The utility of o-daw-ban eventually extended far beyond native hunting, trapping and the fur trade. In time, derivatives of the basic designs became standard equipment for timber cruisers, surveyors, and game wardens working in the winter. O-daw-ban were ideally suited for non-mountainous terrain

where networks of frozen waterways provided the principal travel routes. These level surfaces made the hauling of heavy freight much more practical than carrying it on one's back, particularly while snowshoeing. Modern technology, especially the gasoline engine, ended all of this.

Is there a future for the o-daw-ban apart from museums? As with the canoe, the author believes that their revival lies with recreationalists. At the wilderness cabin or cottage, the six foot o-kad-o-daw-ban is ideal for drawing in the winter's firewood, either in the form of split cordwood or turns (long logs) or for a quiet days outing, possibly to ice fish.

For the 'purist' winter camper, both the na-bug-o-daw-ban and o-kad-o-daw-ban can transport the traditional winter camping gear, such as the wood burning kee-jab-ki-sigans and large canvas tents which for years have provided a very high level of 'indoor' comfort at the campsite, even in severely cold weather. With the o-daw-ban, the explotation of Canada's old snowshoe trails for sustained periods during mid-winter is feasible even for the most northerly woodlands. Apart from mountainous terrain, they are the most practical mode of transport in woodland areas prohibiting motorized snow vehicle travel. Every outdoor recreationalist should have one.

Persons wishing to obtain either style of o-daw-ban should contact the author for further information. Long live the o-daw-ban and our Canadian tradition!

Craig Macdonald,
Frost Centre,
Dorset, Ontario.
POA 1E0.

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POT POURRI

Environment Canada has provided C.O.E.O. with a file of clippings and transcripts of media coverage of the Action Seminar on Acid Precipitation. These are available to all C.O.E.O. members for reference and information. Contact Anee for further information.

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MOVING?

If you are moving, John needs your new address to get ANEE to you:

Name_____**C.O.E.O. Membership Number**_____

Old Address_____

_____

_____ **(postal code)**

Mail to John Aikman, Membership Secretary, 14 Lorraine Drive, Hamilton, Ontario. L8T 3R7

THE NATURE OF ADVENTURE EDUCATION

continued

The Objectives of Adventure Education

The justification and the rationale for the outdoor adventure approach in education are not limited to experience adventure. "education about adventure" has some merit as it may prepare a person for a wider range of leisure activities or for reacting more efficiently in case of an emergency or a disaster; this latter outcome is often referred to as survival education.

However, it appears that most adventure programs are guided by a humanistic philosophy which can be summarized by "Education through Adventure." The people of Project Adventure in Massachusetts identify the educational goals of adventure education in the following categories:

1. To increase the participant's sense of personal confidence.
2. To increase mutual support within a group.
3. To develop an increased level of agility and physical coordination.
4. To develop an increased joy in one's physical self and in being with others.
5. To develop an increased familiarity and identification with the natural world.

"Their struggles are often the beginning of maturity which we believe entails, in part, having real experience with a wide range of natural human reactions--fear, joy, fatigue, compassion, laughter, pain and love." (Rohnke, 1977, p. 8.)

The Outward Bound School of Colorado developed a series of instructional objectives based on Meager's model of behavioural objectives. (Harmon 1974.) An overview of these is presented as follows:

1. Effective Objectives--Improvement in Attitudes and Values.
   - Increased sense of personal worth and self-confidence.
   - Improved interpersonal communications (one to one.)
   - Improved group interaction skills.
   - Improved social attitudes (attitudes towards society and unknown strangers.)
   - Improved spiritual, moral and ethical values.
   - Increased environmental awareness.
2. Cognitive Objectives--Improvements in Intellectual Knowledge and Skills.
   - Improved knowledge of first aid.
   - Improved knowledge of map and compass.

- Improved knowledge of wilderness environment.
- Improved knowledge of group interaction processes.

3. Psychomotor Objectives--Improvements in Physical Fitness and Skill.
   - Increased physical adaptation to outdoor living.
   - Increased backpacking skills.
   - Increased mountaineering skills.
   - Increased river rafting skills.
   - Increased seamanship skills.

The affecting domain is receiving priority in the goals of adventure programs. It is in this area that research has demonstrated significant gains in exposing young people to physical challenge, risk and stress. (Cousineau, 1978.)

For example Smith and others (1973) utilized operational definitions of four criterion objectives in the measure of the effective domain for Outward Bound programs: self-esteem, self-awareness, self-assertion and acceptance of others.

1. Self-Esteem: A person high on this scale will endorse statements which indicate his valuing of himself as a person of worth, his perception of himself as neither vastly superior or inferior to other people, his acceptance of himself regardless of weaknesses, his acceptance of his physical body, his mental abilities, his ability to relate to others, and his own standards. He will reject self-deprecating comments, as well as fears of judgment of him by other people.
2. Self-Awareness: A person scoring high on this scale will show evidence of self-examination and analysis by indicating that he has engaged in these processes and feels in touch with himself and aware of his emotions, abilities, potential and limitations.
3. Self-Assertion: A person scoring high on this scale will endorse statements which show activity rather than passivity, which indicates taking rather than avoiding leadership and responsibilitym which indicate confronting rather than avoiding fear-provoking or challenging situations.
4. Acceptance of Others: The person who endorses statements of compassion for other people will score high on this scale. Acceptance of others regardless of their weaknesses, willingness to assist the less able person, taking responsibility for others when it is necessary, are all components of this construct.

Of course, what adventure education hopes to achieve and what it in fact achieves are probably two different things. We know of some of the impacts of adventure education but we certainly have not measured them all.

Some of the values of adventure education, which are rarely mentioned, are in the area of environmental education and cultural education. Many programs of environmental education have limited themselves to studying, in a scientific manner, what is wrong with the environment today. This approach is negative, pessimistic and discouraging. Without refuting the need for fact finding about the environment there is reason to believe that conserving and caring attitudes will only be developed if accompanied by a certain amount of emotion and affection for the earth. The "dumb love affair" with the earth should not be refuted because it is irrational or unscientific; we must remember that learning and human behaviour are often also irrational or unscientific. Adventure experiences are great opportunities to immerse the participant in what is beautiful about the environment. It is a chance to encounter the sublime with heart and soul. It is for the attuned leader to capitalize on this opportunity so that the participant can progress through the three stages of environmental education--to know, to care, and to act.

"To Know" must include affection, passion and appreciation of the awesomeness, mysteries and aesthetics of nature because it appears that human beings care and act upon only those things that they love. There should not be any shame in using emotions as a starting point in environmental education.

Many of the adventure experiences are closely similar to the aboriginals' and pioneers' way of life. This is a great opportunity for living history and consequently the development of greater appreciation of our cultural heritage. In the preparatory phase of an expedition much reading related to the land to be travelled should be prescribed. For example, the study of the Fur Routes and the different types of native canoes utilized for travel will greatly enrich a canoe trip experience and make it much more meaningful than a mere physical trek.

The Conditions of Adventure

It is rather difficult to define adventure, therefore, some criteria are necessary to set the parameters of what is adventure in the context of education.

Many programs define adventure by listing the activities that are commonly practiced; in many cases adventure education is limited to rope courses, group initiative games, rock climbing, and in some instances canoeing, backpacking and winter camping.

Adventure is a state of mind, it is not an activity. Naturally this state of mind is more easily attained by the practice of certain activities more than others. It is a state of mind where one becomes aroused by the excitement of the experience. It is taking a calculated risk, sustaining a certain stress and being able to say, "ouf!" when the challenge is successfully met.

The activity in itself is not a condition of adventure, it all depends how it is being presented, who are participants and what level of challenge is expected.

Generally speaking, an adventure should meet a combination of the following conditions:

1. The situation should be new and unusual. Adventure is the opposite to routine and the same adventure cannot be relived twice. Adventure is a directional process toward the unknown (new knowledge, places, people, skills or feelings;) once the unknown has become known, it is time for another challenge. Contrary to what the novice adventure may think, one can never run out of newness, only imagination.
2. The situation is deliberately sought. The records show that many people have overcome some very outstanding challenges in disasters such as wars, earthquakes, fires, plane crashes, ship wrecks, and other similar accidents. These circumstances were not undertaken with a purpose, they just happened, they were undesireable. For the survivors who were victims more than adventurous, we can safely assume that much was learned during the ordeal, however, this is not the type of educational experience that is proposed for youth. The notion of voluntarism is of prime importance in the pedagogy of adventure education.
3. The situation offers charismetic moments. Adventure is man expressing his playful dimension. It is undertaken to be exciting, amusing and pleasurable. This does not mean that effort, pain and stress does not enter the picture, but in the balance there seems to be more pleasure than pain. Not all adventures finish with a profit on pleasure. The sponsors and leaders must carefully calculate the odds in favour of a pleasurable outcome.
4. The goal of the endeavour is uncertain. Contrary to sports where everything is predetermined, even when it is going to be over, adventure is dealing with uncertainties and a bit of suspense. The more suspense and uncertainty, the greater the thrill and consequenrly the greater the risk. Adventure is anywhere between total uncertainty and total certainty. But by definition, there is no adventure if there is no chance of loss, failure or even peril. It is even suggested that it is by experiencing risk of death that one can really become alive. Planning in adventure education is extremely important, but overplanning also diminishes the adventure effect.

5. Stress must be present. The pleasure and educational benefit of adventure are an after-effect proposition. It is how we cope and overcome environmental and psychological stress that determines our feelings of accomplishment. These feelings are directly proportional to the amount of effort that needs to be sustained. In many instances an adventure includes a "point of no return," a commitment to complete a task, a situation where once engaged it must be completed, otherwise the consequences can be very regretful. This is the case of the canoeist engaging in a turbulent stretch of river. He cannot stop the "adventure" at mid-point simply because he feels like it. Adventure in this context is to go along and join the elements of nature rather than conquer and fight them.

6. There is deprivation of comfort and security. To experience adventure is to experience a life style where the commodities that we are used to are removed and where we have to rely more on our own resources than on technology. It is also experiencing the feeling of not being sure if we will succeed, get hurt, get lost, or fall. It is dealing with fear, confronting it and controlling it.

7. There is desire to succeed. This condition must be present, otherwise participation would take on a suicidal element. This has been witnessed on many occasions in accidents where those who survived were those who had a stronger will to survive. Realistic challenge must be established with the calculation of the risk involved and with the assurance that success will be met. There is no place for naivety in adventure.

8. There is an element of faith. To reach an adventurous goal one must show faith and trust in himself, others and the limited equipment selected for the adventure. Adventure develops trust and self-confidence but these are also conditions for success. The unsecured and untrusting cannot fully benefit from adventure, but it is probably this same person who needs it most.

The above conditions do not limit adventure activities in the outdoors only. They can serve as basis for developing educational challenges in the intellectual, social, aesthetic, scientific, and physical dimensions of education.

BY

CLAUDE COUSINEAU

to be continued in future issues.

DATEBOOK

Special Education Workshop
Bolton Outdoor Education Centre
May 9 - 11, 1980

Outdoor environmental education is one of the best available tools for adding true meaning and understanding to the thinking, reading and computing skills of the classroom; for stimulating new interests; for encouraging creativity; for increasing sensory awareness; and for providing opportunities for social interaction.

Yet few Ontario teachers, especially those working with the handicapped children, have had an opportunity to receive any training in the use of nature's classroom, as part of their regular lesson plans.

The Ontario Ministry of the Environment is again sponsoring a special education workshop for teachers of the deaf, vision-impaired, educable retarded, emotionally-disturbed and physically handicapped, which stresses outdoor activities. An agenda outline is attached.

Dates:	Friday, May 9 to Sunday, May 11
Starting time:	7:00 p.m. Friday
Location	Bolton Outdoor Education Centre (approximately 30 miles northwest of Toronto)
Cost:	$65 (includes evening snack on Friday, three meals Saturday and breakfast and lunch Sunday -- accommodation is based on four to a bunkroom)

The discussion leaders and interpreters are recognized specialists actively engaged in outdoor education and interpretation throughout the Province. As a friendly experience-sharing atmosphere is one of the prime objectives of the workshop, the number of participants will be limited to sixty on a first registered, first accepted basis.

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Upcoming Events
at the
Guelph, Arboretum

Maple Syrup Exhibit

Open to the Public on the weekends of March 15-16, 22-23, 29-30, and April 12-13. Tours for groups can be arranged on the Saturday of the above weekends.

Arboretum Maple Syrup and Pancake Festival

Steam will be rising from the Nature Centre sugar shack as we boil away the sap to make syrup, and there will be pancakes on the griddle at

the Arboretum Centre. At 3:00 P.M. a concert has been arranged with musicians and repertoise to compliment the spring festive spirit. Pancakes and maple syrup will be served from 11:00 A.M. to 2:00 P.M.

April's Night Sky

This program will introduce you to star-gazing and the movements of the heavenly bodies. Bring your binoculars and warm clothing. Wednesday, April 30, 8:00 P.M.

Slimy Songsters

The spring chorus of frogs and toads is truly part of the aura of spring. Learn more about them in this tape and slide presentation on slimy songsters and as we take an early evening walk to seek them out. Saturday, May 3, 5:30 P.M.

Spring Warblers

An early morning walk along the nature trails to observe the spring migration of warblers. After the walk, there will be a discussion of warbler migration, slides of warblers and tapes of their songs to aid in identification. Saturday, May 10, 8:00 A.M.

Spring Photo Workshop

This workshop will deal specifically with colour photography and will include helpful hints on close-ups. The evening will be lead by Mr. Don Hamilton, Biological Photographer and Graphic Artist with the Dept. of Environmental Biology. Bring 10 of your best flower or spring slides. Please register by phoning 824-4120 ext.3932, Tuesday, May 13, 7:30 P.M.

Wednesday Evening Excursions

On alternate Wednesday evenings beginning May 14, we will again be taking advantage of longer daylight hours by having outings at 7:00 P.M. Mark the following dates and tentative activities on your calendar and join us for an evening with nature.

May 14 -- Spring Wildflowers
May 28 -- Birds
June 11 --Birds
June 25 -- Pond Study

Wednesday Excursions are cancelled if it is raining!

Summer Bird Survey

An excellent opportunity for the beginner to learn about our summer birds. Birds will be identified by sight and song and a list of species and numbers will be compiled. Bill Girling will devulge tricks of the trade in bird identification along the walk. Saturday, June 7, 8:00 P.M.

Edible Wild Plants

The two evening sessions will deal with the conservation, identification, collection and preparation of a number of edible plants. Foremost in these sessions will be the concern for harvesting with "ecological discretion." Tuesday and Wednesday, June 17-18, 7:00 P.M. Register by phoning 824-4120-ext.3932.

For more information about any workshops, call 824-4120-ext.3932.

SPRING COURSE INFORMATION

N.I.U. COURSE: C.I.O.E. 520 Environmental Quality Education.
Cultural, ecological and educational implications of the environmental movement. Emphasis on factors and influences which lead to environmental quality. Prof. B. Vogal from Northern Illinois Faculty will be teaching the course.

DATE	TOPICS	MEETING PLACE
March 8,9	Registration Environmental education overview Land use	Harbourfront Queen's Quay Toronto
April 12,13	Environmental impact Food and nutrition	T.B.A.
May 10,11	Urbanization Physical and ecological aspects of built environment	T.B.A.
May 23,24,25	Water Quality Agricultural business Alternate energy	Residential Weekend T.B.A.

Time: 9:00 A.M. - 4:00 P.M. except last weekend.
Cost: Tuition.....$145.00
Accommodation for last weekend..... 30.00
Total $175.00

A deposit of $45.00 is required to hold a position in this course. The deposit should be forwarded to:

Ms. Nancy Henderson
645 St. Clarens Ave.
Toronto, Ontario.
M6H 3W8

Make cheque payable to:
N. Henderson, Registrar N.I.U./C.O.E.O.
A refund of $25.00 will be made until Feb. 23, if the Registrar receives a written request for this.

The balance of the tuition will be paid on the first day of the course.

Please note: There are presently 25 participants enrolled in the program. A limited number of spaces are available for new candidates. These spaces will be filled on a first come first served basis. It is therefore important to forward your deposit as soon as possible.

Nancy Henderson
Registrar N.I.U./C.O.E.O.

In the near future, the spring session of the C.O.E.O./N.I.U. Master's program will continue with a course in Environmental Quality Education.

For further information please contact Ms. Nancy Henderson.