



THE BLUE HERON

The Bras d'Or Stewardship Society

P.O. Box 158, Baddeck, Nova Scotia B0E 1B0

VOLUME VII

JANUARY 2004

NO.1

This 2004 winter issue of THE BLUE HERON is a challenge when gathering information to provide an informative communiqué to our members. The intent is to focus on the most recent activities of the society. At times, the topical concerns we present are repetitious, as the issues we present are all variations on themes that impact upon the ecological integrity of Bras d'Or Lakes and its watershed.

Our continued emphasis on "responsible stewardship" is a genuine multi-layered approach as the society offers information and support to our members, the public, the native community and various levels of municipal, provincial and federal government departments. The linkages generated by our efforts have facilitated the building of both "constructive dialogue" and "positive interaction" within a broad group of entities never possible in the past. Right now, the "spirit of cooperation" is at an extremely high level with perceivably potent momentum.

In October of 2003, a two day work shop was held at the Wagmatcook Cultural Center in the first nation's community in Nyanza. Our chairman,

Pat Bates, played an important part in organizing this gathering. The event brought together a broad cross section of players representing municipal, provincial, federal and native government interests.

The issue at hand was the future governance of the Bras d'Or Lakes and its watershed. This topic has been on the table for several years with the publication of the document "Taking Care Of The Bras d'Or". This document was submitted to both the Nova Scotia government and the Federal government in 1996. The dedicated effort to produce this document was seen by the participants at the time as a 'waste of time' as no action was taken. It appears that there is a new "political will" to co-operate through the active participation of all parties concerned.

We hope so, as it is not necessary to keep reinventing documents for which the underlying assumptions are mirror images of one another. Such actions waste both time and valuable resources, which include people, time, money and patience. We are pleased to include in this newsletter Teresa Mac Neil's address to the participants of this conference.

A current genuine concern of the Society is the status of the sewage

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NOTICE

THE ANNUAL GENERAL MEETING OF THE SOCIETY WILL BE HELD AT THE ALEXANDER GRAHAM BELL MUSEUM

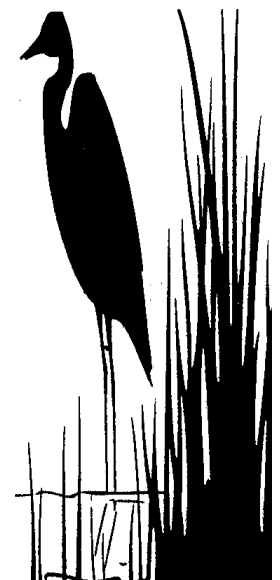
ON

SATURDAY, MARCH 20, 2004 AT 2PM.

ALL MEMBERS ARE INVITED TO ATTEND AS WELL AS INTERESTED CITIZENS WHO ARE CONCERNED WITH THE FUTURE STEWARDSHIP OF THE BRAS D'OR LAKES

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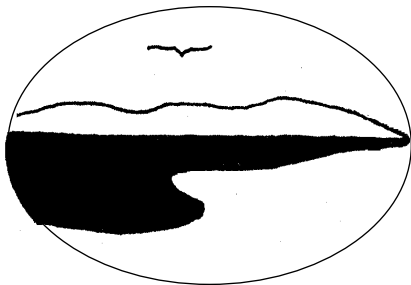


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waste pit located on the Highland Road access to the Cape Breton Highlands. This pit has been a dumping site for septic tank sludge and other waste materials for twenty years. The operator has violated environmental protocol for such sites. Recently, the operator pleaded guilty to violation of the provincial guidelines for sewage dumpsites.

Regulation of such dumpsites is the responsibility of the Nova Scotia Department of Environment. Rules and regulations exist, but no one is out there assessing dumpsite province wide. It is not until serious infractions are brought to the attention of the public and government departments that efforts are made to rectify adverse situations. Our real concern is why the Provincial Department of Environment is not doing its job!

It is the Society's hope that the Province of Nova Scotia will work to rectify any operating infractions associated with sewage disposal pits throughout the province through uniform oversight and enforcement of existing regulations.



Ocean Management Research Network (OMRN)

National Conference - Ottawa - Nov. 13-15, 2003

OMRN is a national organization mandated to conduct research on many issues related to environmental protection and sustainable resource management in Canadian coastal zone areas. This year's national conference was held in Ottawa and Bras d'Or Lakes. Interests, now gaining national recognition, were well represented.

Two particular presentations are worthy of note. One, a presentation on the Bras d'Or Watershed was presented by Lisa Paul and Albert Marshall of the Unama'ki Institute of National Resources. A highly detailed description of the Bras d'Or Lakes and the challenges facing the long-term protection of the Lakes and its resources was well presented. A panel established to provide commentary and expand on the presentation was staffed by Dave Duggan, D.F.O., Laurie Suitor, Bras d'Or Lakes Coordinator for N.S. Dept. of Environment and Labour and Pat Bates for the Bras d'Or Stewardship Society.

Sara Kavanagh and Nadine LeForte made a second presentation for the University College of Cape Breton. The presentation was entitled The Bras d'Or Lakes and Watershed Ecosystem: Using Interactive Science to Learn about "Sense of Place" (see page no. 5). This presentation was well received and opened a series of questions and discussion on the characteristics

and current circumstances as they impact the health of the Lakes. The substance of these and several other papers presented on other subjects and locations should appear in subsequent issues of the Blue Heron. For example, other topics of interest include Marine Protected Areas, Aquaculture, Local Management, Arctic Issues and Tourism.

The long term protection of Canada's Bras d'Or Lake is now ranked with such important Canadian Waterways as Hudson Bay, Acadian Peninsula, Labrador Coastal Communities, and the Arctic. The Board of The Stewardship Society is pleased with the level of Provincial and National recognition awarded the importance of the Lake and very grateful for the support of our membership enabling us to keep issues important to the long term survival of the Lake on the front burner.

Pat Bates

Bras d'Or Watch

THIS PAST FALL IT WAS BROUGHT TO THE ATTENTION OF THE SOCIETY THAT WATERS OF THE BADDECK RIVER ADJACENT TO THE TRANS CANADA 105 BRIDGE WERE POLLUTED. THE POLLUTION CONSISTED OF OBSERVABLE WASTE ITEMS. THERE WAS ALSO A DISTINCT "BAD SMELL" IN THE AREA. QUESTIONS HAVE ARISEN AS TO WHERE THIS CONTAMINATION MAY HAVE ORIGINATED. THE AREA ABOVE THE BRIDGE IS FOR THE MOST PART UNINHABITED EXCEPT FOR A KOA CAMPGROUND, WHICH TREATS ITS SEWAGE IN A LAGOON CLOSE TO THE BADDECK RIVER. WE WOULD LIKE TO LEARN IF ANY OTHER REPORTS OF THIS POLLUTION HAS SURFACED!

NEWS ITEMS:

Semi-Annual General Meeting:

On August 22, 2003 the Society held its semi-annual general meeting in St. Michaels Hall in Baddeck.

Close to forty individuals attended this meeting. Chairperson, Pat Bates, provided a summary of the Society's activities for the year. Lillian MacLeod gave an excellent presentation concerning the unfortunate situation at the Hunter's Mountain sewage pit. The tainted overflow threatens MacDonald's Brook. This brook flows into the Middle River. John Shaw, one of the contributors to "The Oceanography of the Bras d'Or" providing an excellent review of the historical geomorphology of the Bras d'Or Lakes. This meeting allows summer residents to obtain first hand information on business of the society and the status of the Bras d'Or Lakes.

Baddeck Sewer Treatment Plant:

The new 2.5 million dollar sewage treatment plant has been up and running since May 2003. We have reported on this plant from its initial planning stage to its current operational status. The plant seems to be working up to "snuff" using a batch treatment system. For the first time in many many years there is no smell wafting over the shorefront of Baddeck. This is a most welcome relief from the previous malodorous conditions that made it unpleasant to be on parts of the waterfront.

Welcomed Projects:

Recent articles in the press have

announced the "ramping up" of two interesting projects being promoted for the Bras d'Or Lakes. A feasibility study is in process for the proposed Bras d'Or Lakes Aquarium and Research Center in Iona. This project, "Aros Na Mara", is a nine million dollar project to raise 6 million dollars for the construction phase and 3 million for an endowment fund. Currently, Ketchum Canada, a fund raising consulting firm, is currently assessing the feasibility of the Iona aquarium project in terms of financial viability and economic support.

At the head of Baddeck Bay, The Bras d'Or Preservation Foundation is moving ahead with preliminary engineering issues for the proposed Alexander Graham Bell Environmental Stewardship Center. This project is being proposed through a partnership of the "Foundation" and the University College of Cape Breton. This center would be devoted to environmental issues from an academic perspective. The University College of Cape Breton is being groomed to play an important role in the success of this project. No costs have yet been assigned to carrying out the construction of the center. Access to potable water and the adequate treatment system for sewage are of immediate concerns.

Participation in Ottawa Oceans Meeting:

Pat Bates was invited to attend a conference on integrative ocean management in Ottawa in November 2003. This conference focused on the integrative management of specific case sites, one of them being the Bras d'Or Lakes. It is clear that from a national perspective that the Bras d'Or Lakes is considered an important piece of Canadian environmental capital.

The fact that a member from the society was asked to participate is a testimony to our credible profile in the eyes of the powers that be!

Rethinking the Society's Role:

On November 30, 2003 the Society's board with the inclusion of some non-board members debated the role of the Society in promoting the conservation, protection and restoration of the Bras d'Or Lakes and its watershed. The impetus for this dialogue derived from in house concerns as to the Society's future. Every volunteer non-profit organization has a life cycle. Without 'rethinking' our mandate, it is difficult to plan future strategies. Road maps are required to get to a destination. Without some genuine reassessment of the past looking through to the future, it becomes difficult to build the map.

2003 Membership Campaign:

Each year it is most uncertain as to how the Society's membership campaign will unfold. Our membership base is our "life blood". Simply put, without membership contribution, the Society would not exist. We consider our financial success to be directly determined through our independent approach to accountable stewardship of the Bras d'Or Lakes and its watershed. In year 2003, we received just over \$14,000.00 dollars in membership revenue. This is the third year in a row that we have surpassed our \$10,000.00 membership goal. In fact we have we have averaged about \$14,400.00 in membership receipts over the last three years. We once again will set a \$10,000.00 goal for 2003. We hope you will continue to support the Society's efforts.

NEWS ITEMS:

Bras d'Or Lakes Designation:

In September of 2003 the application to designate the Bras d'Or Lakes as a "no dumping zone" for raw sewage for boats under the Canada Shipping Act was finalized and submitted for consideration. A broad based community consultation process preceded the submission of the application. The Bras d'Or Stewardship Society was pleased to help facilitate this community driven debate. Special recognition is to be directed to Laurie Suitor and Karen Malcolm who organized the community consultation sessions. Together, they worked assiduously to provide valid information on the complexities for the designation application to all who participated. We are forever indebted to their efforts.

American Ambassador Visit:

On the Canadian Thanksgiving weekend Paul Cellucci, America's ambassador to Canada and his wife, visited Cape Breton. They were given a tour of the Highland Village and a boat expedition from Iona to Baddeck. Given the importance of US tourism to the Cape Breton economy, it is significant that the Celluccis got a first hand look at the Bras d'Or Lakes. Their visit coincided with the very successful Celtic Colors Festival now completing its seventh year.

R/V Navicula 's Existence in Jeopardy:

Communication has been received revealing that the research vessel 'Navicula' may be retired from service. This boat has provided platform for fish population research in the Bras d'Or Lakes and Sydney Bight for the past five years. Much of this research has been under the guidance of Tim Lambert Ph.D., who is a current board member of the Society. Presentations are being made to maintain the R/V Navicula in service for at least one more season. It is hoped that in the interim steps will be taken to maintain the current level of research.

Bras d'Or Lakes Coordinator Dismissed:

In early December 2003, Laurie Suitor, the Bras d'Or Lakes coordinator, hired two years ago by the Nova Scotia Department of Environment, was informed that she had lost this important position. The impetus for her dismissal originated from complaints by disgruntled department of environment employees to their union. The grievance has been long festering. The sad fact is that Laurie has now lost her job. She has been the central figure spearheading the efforts to obtain "designation status" for the Bras d'Or Lakes under the Canada Shipping Act.

The loss of Laurie as the main catalyst behind the "designation campaign" could be a real set back to the progress made to date in terms of the NO DUMPING DESIGNATION application submission, community involvement and educating the public at large as to why the dumping of raw sewage from boats into the Bras d'Or Lakes must be curtailed. The Society is

most indebted to Lorie. We deeply regret her removal as the Bras d'Or Lakes Coordinator. She is a hard worker who carried out the duties of a difficult position with tact, tenacity and success.

***The Bras d'Or
Stewardship Society
is interested in
contributions from our
members. If you have
something to contribute
to the Newsletter or
would like to work with
the society's board,
please let us know.
The society is an all
volunteer organization
that welcomes input from
individuals interested
in promoting the
conservation, protection
and restoration of the
Bras d'Or Lakes and its
watershed.***

THE DELTAS OF THE BRAS D'OR LAKES

The many times I have flown over the shorelines of the Bras D'Or Lakes, I have been fascinated by the number of sand/gravel bars that have developed. Wave action and currents have built these features that have endless variety. From cusped forelands to hooks to baymouth bars to land-tied islands the shorelines are ever-changing. Some streams emptying in the lakes are also building **deltas**. A delta is a fan-shaped or triangular shaped deposit of sediment at the mouth of a stream. The name comes from the shape of the Greek letter **delta** δ . They are the result of streams carrying large loads of sediment and dropping them when the stream arrives at the quiet waters of the lake or ocean it is emptying into. The rate at which the delta builds is dependent on many factors—the speed and volume of the stream, hardness of the material it passes over, and the wave and current action of the receiving body of water. Strong waves and currents can tear the delta apart as it grows.

In Cape Breton, Middle River, Skye River and the Baddeck River are all building deltas. Many other small streams flow into the Lakes but do not build deltas. Each of the three rivers mentioned flow through farmland meadows where soil and sediment particles are easily eroded and transported. The many tributaries of Middle River tumble swiftly from the central Cape Breton plateau. The evidence of very large boulders in the bed of its stream tells us that it is a raging river at times during the year. The tributaries of the Baddeck River also rise and tumble from high elevations of the Crowdis Mountain and Baddeck Highlands areas. Skye River is a bit different, in that it flows gently through the Skye Glen valley and has fewer tributaries that flow so swiftly from high places. River Denys is probably the next large river that empties into River Denys Basin of the Bras d'Or. It has a long tidal mouth from Crowdis Bridge upstream to the iron bridge in River Denys village. About halfway, the river seems to be developing mudflats and some semblance of a delta. The Baddeck River is somewhat similar in its delta development.

Deltas that develop within tidal mouths are referred to as **estuarine deltas**.

An interesting characteristic of these three deltas is the presence of large tree trunks and stumps in their outer edges. These are carried down during freshets and flood stages. Once dropped, they become foundation platforms for gathering sediment and colonizing vegetation. From time to time the main stream is blocked with these obstacles and the principal river splits into several distributary channels. The delta is continually growing and extending seaward out into deeper waters creating new shallows. The shallow waters of the delta and delta islands become a home for many different kinds of salt marsh plants that have a high tolerance for variations in the salinity. Even the occasional larger shrubs and trees begin to establish themselves on the older portions of the delta. In fact, young elm trees can be seen in the delta of the Middle River. The numerous small islands and vegetation that make up the delta become excellent habitat for nesting waterfowl. Many rivers around Cape Breton that flow into the surrounding ocean bring sediments with them, but the power of ocean currents and wave action carry them away from the rivers' mouths. Thus deltas are not formed seaward but in the case of the Margaree, Cheticamp and Ingonish Rivers they form within their estuaries. The Bras d'Or Lakes do not display the power of the sea and therefore deltas have a better chance to form.

The delta is a dynamic and ever-changing feature of a river valley and a shoreline. It is a place where land is created from bits and pieces of land that was previously eroded. Countless thousands of rock particles have tumbled and travelled for many miles to become part of it. Only some rivers build deltas but they are a unique addition to our river and lakeshore landscape.

THE BRAS D'OR LAKES AND WATERSHED ECOSYSTEM: USING INTEGRATIVE SCIENCE TO LEARN ABOUT "SENSE OF PLACE"

By Sana Kavanagh, Nadine Lefort, Cheryl Bartlett

Illustrations by Basma Kavanagh



SENSE OF PLACE

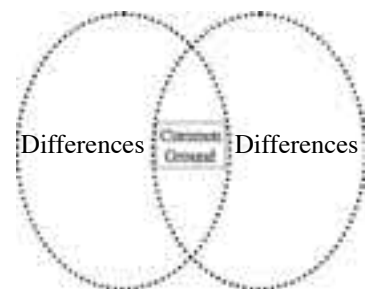
The Bras d'Or Lakes are a group of salt-water lakes that form an inland sea at the centre of Cape Breton Island. What we call the Bras d'Or Lakes depends on who we are: many Cape Bretoners simply refer to "the lakes", since they have no rival in size, beauty, or importance. On the other hand, scientists may refer to "the Bras d'Or Lakes and Watershed Ecosystem", which includes both the lakes and the surrounding land that drains into them. To the Mi'kmaq First Nations who have lived around the lakes for thousands of years, the lakes are known as Pitupak, which means "the place into which everything flows". This name brings together both the idea of the watershed, and the centrality of the water body.

We humans call the lakes by different names because we experience them in different ways. How we know the lakes depends on who we are: personality, culture, careers, hobbies, and religion all plays a factor. "Sense of place" is a phrase used to describe the varied and rich way that different people understand the place in which they live. Looking at how Mi'kmaq and Western scientific world-views represent place enriches our understanding of "sense of place" in the Bras d'Or Lakes.

INTEGRATIVE SCIENCE:

Integrative Science is the study and use of common ground between Aboriginal and Western scientific world-views, while also acknowledging their differences (fig 1). We'll be using Integrative Science to enrich our "sense of place" in the Bras d'Or Lakes.

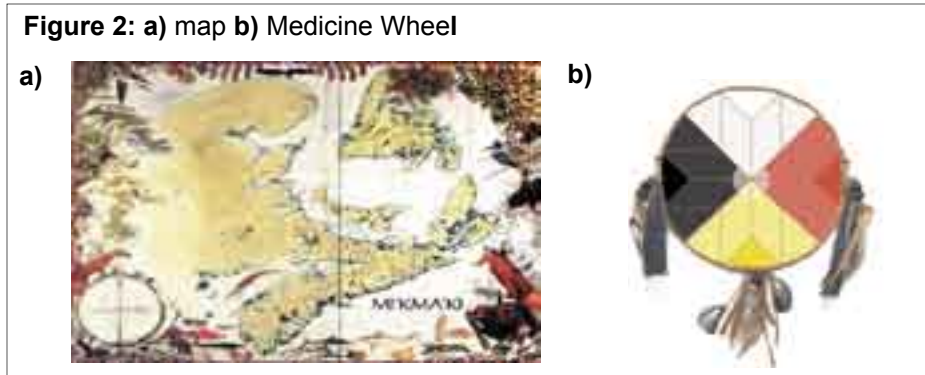
Figure 1: Integrative Science looks at common ground and differences



The Bras d'Or Lakes and Watershed Ecosystem Cont'd on page 7

THE MAP AND THE MEDICINE WHEEL

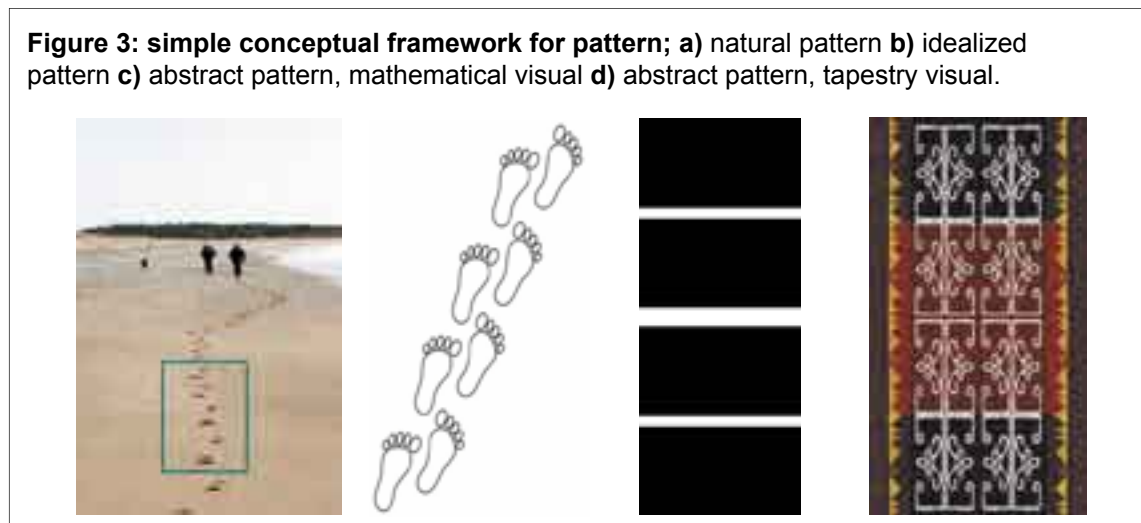
In our work in the Integrative Science program at the University College of Cape Breton, we looked at pattern and how it relates to “sense of place” from Western scientific and aboriginal world-views. Each world-view represents place in a way that reflects its own “sense of place”. Western science represents place as a map (fig 2a). Aboriginal world-views represent place as a Medicine Wheel (fig 2b).



THE PATTERN

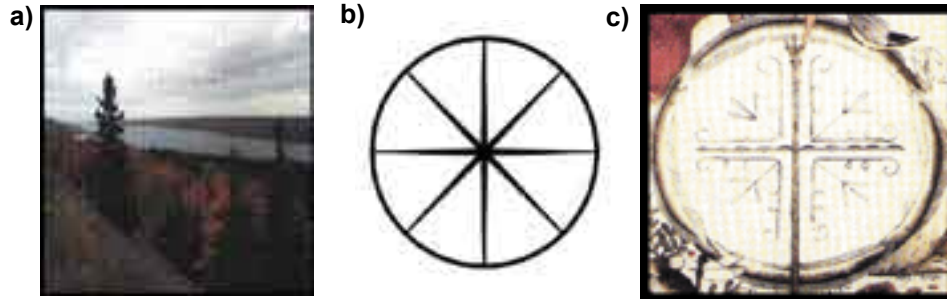
Both Aboriginal and Western scientific world-views use pattern to understand place. Science is perception of and comprehension of patterns from the natural environment; scientists express patterns in several ways, through writing, diagrams, or mathematical equations. Similarly, Mi'kmaq see and understand the natural environment through patterns, which are expressed in a variety of ways, for example story, art, and dance. Common ground between the Aboriginal and Western scientific world-views is, therefore, pattern recognition; one difference is how the pattern is expressed.

A conceptual framework is a structure to organize thoughts; in this case, it can help in understanding pattern. This simple conceptual framework (fig 3), used by Cheryl Bartlett in teaching concepts for the Integrative Science degree program at UCCB divides pattern into three types: natural, ideal, and abstract. For example, footsteps on a beach (a) are a natural pattern. A drawing of footsteps, with each imprint perfect (b), is an ideal pattern. Four blocks (c) show the idea of steps, expressed as an abstract mathematical pattern. The tapestry (d) is another way to express the footsteps as an abstract pattern.



THE MEDICINE WHEEL

Figure 5 (a) Natural pattern of place can be idealized (b) or abstracted (c).



In a First Nations' perspective, the Bras d'Or Lakes can be represented by the Medicine Wheel (Fig 5b and c). Like the example of the map coordinates (latitude and longitude), if you're not familiar with the Medicine Wheel, or the culture that made it, you may not be able to understand the natural patterns it represents.

The Medicine Wheel is a sacred learning tool. It is a representation of many natural patterns expressed in idealized and abstract forms. Although we are most familiar with the Medicine Wheel from the Mi'kmaq and other First Nations, there are many symbols from around the world (fig 6) that show the same natural patterns represented in abstract and idealized form, with their diverse cultural layers of understanding.

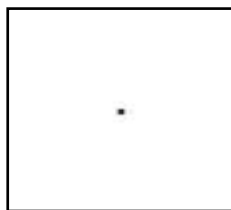
Figure 6: Natural pattern expressed in a variety of idealized and abstract pattern by a variety of cultures



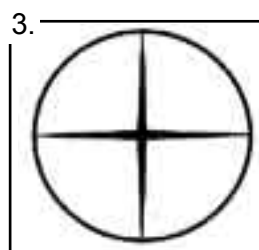
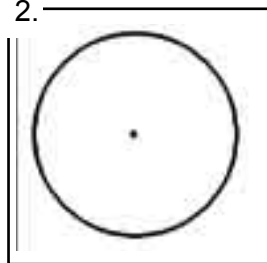
LAYERED UNDERSTANDINGS WITHIN THE MEDICINE WHEEL

Some understanding of the natural patterns represented by the Medicine Wheel that we've reached in Integrative Science show that place can be understood at personal, directional, temporal and cultural levels.

1. The simplest representation of the Medicine Wheel is a dot, which corresponds to the centre of the Medicine Wheel. The dot represents the self.



2. If we put that self in the context of place (a circle), we get this layer. Imagine the dot is the top of your head, viewed from above. The circle is the farthest distance you can see in every direction (the horizon). You have defined a place by its relationship to you, through your senses. This is a personal understanding of place.

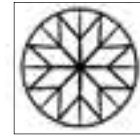


3. This layer corresponds to direction, for example the four cardinal directions in Western science or the Four Winds in Aboriginal world-views. This layer teaches that things occur in relation to each other.

4. This layer represents the positions of the sun on the horizon throughout the solar year. During the summer solstice, the sun rises at its northernmost point on the eastern horizon. During the winter solstice, the sun rises at the most southern position on the eastern horizon. Every morning of the year, the sun rises in a slightly different position between these two points. This layer teaches us that we experience place in the context of time. This is a temporal understanding of place.



5. This layer represents a cultural understanding of place, which includes all the layers that came before. Cultural meaning further enriches it. For example, this cultural layer is represented by the eight-pointed star, a sacred symbol of the Mi'kmaq.



PUNAMUJIKUS / SPAWN OF THE TOMCOD-AN EXAMPLE:



Tomcod can be used to learn about this enriched sense of place in the Bras d'Or. The Tomcod, *Microgadus tomcod*, is a fish common in the Bras d'Or Lakes. It measures between 15-35 cm and can weigh up to 400 g. It is an inshore marine species that regularly enters brackish or fresh waters during winter spawning migrations. In other words, tomcod become a natural pattern observed and experienced by people who live around the lakes.

The personal understanding of tomcod is based on the senses and experience. This understanding comes as people learn to recognize, fish, clean, prepare, cook, eat, and enjoy tomcod. This recipe, for example, shows a personal understanding of how tomcod can be prepared.



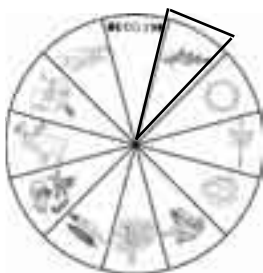
The directional understanding includes knowing where tomcod are found. This map shows the range of tomcod on the Atlantic Coast, which includes the Bras d'Or Lakes. However, as anyone who fishes might tell you, you need a much more specific and local understanding of place to actually go there and fish for tomcod.



The third layer of understanding is temporal understanding. In this case, when can we find tomcod? Tomcod can be caught in the Bras d'Or Lakes in winter. After they spawn inshore, tomcod hang around in saltier waters to rest; this is when people fish them.



A cultural understanding of the tomcod brings all these layers together - a personal understanding of the encapsulated in the Mi'kmaq Calendar, wherein there is a period that corresponds roughly to the month of January,



called Punamajukus, which translates as "Spawn of the Tomcod". This awareness of natural patterns in the Bras d'Or Lakes is highly suggestive of the enriched "sense of place" that the Mi'kmaq people have. They are aware of the many layers within a particular pattern, and the importance of such understandings in order to live and survive around the Bras d'Or Lakes

This rich, multi-layered sense of place has enabled the Mi'kmaq to live around the lakes for thousands of years, and it has helps to enrich our understandings in Integrative Science, but its relevance is not limited to these examples. Any field that deals with the way people interact with the places in which they live can benefit from an enriched understanding of place: for example, ecology, environmental issues, health, community development, natural resource management, stewardship, education, spirituality, and more. We hope you can enrich your own "sense of place" by taking some of these ideas into your everyday life and your field of work.

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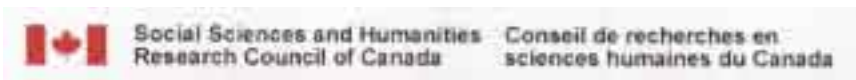
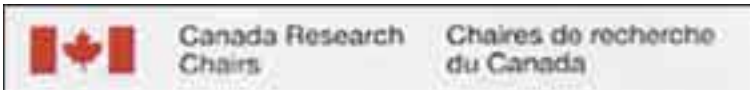


Nadine Lefort (left) and Sana Kavanagh (right) work as research assistants for Professor Cheryl Bartlett, who is the Canada Research Chair in Integrative Science at the University College of Cape Breton, Sydney, and NS. This text is based on the narrative of an oral Power Point presentation given at the Ocean Management Research Network national conference in Ottawa, November 13-15, 2003

Integrative Science is a four-year university science degree program at the University College of Cape Breton. The program brings Aboriginal and Western Scientific world-views together in the classroom, focusing on common ground and acknowledging differences. This program was created to encourage Mi'kmaq First Nations students to study science in university by providing a welcome place for their world-views in classrooms and laboratories; the program is, however, open to all students regardless of ethnicity or area of academic study. Although only in its fifth year, the program has shown success, with over fifty Mi'kmaq students currently enrolled.



Thank you to the Mi'kmaq and scientific communities we work with, the University College of Cape Breton, and the Canada Research Chairs program.



Knowledge: the Magnet and the Glue

PREPARED FOR PRESENTATION TO BRAS D'OR LAKES WORKSHOP

By Dr. Teresa MacNeil, Ph.D.

October 9, 2003

I am honoured to be invited to speak to this symposium. I am also a little anxious. I worry that what I have decided to say will not meet the planners' expectations.

I was asked to speak about the social and economic impact of the Bras d'Or Lakes. My immediate response was to decline because I had neither the knowledge nor the resources to do that difficult job. As I saw it, one would have to cite facts and figures about the dollar value of fish and shell fish harvests, aquaculture production, shipping traffic, employment rates, recreation and tourism revenues - all attributable to the Bras d'Or. These figures are available for larger jurisdictions (e.g., the Province and DFO region), but that have to be broken-down for the Lake. Besides, some of you in this room have a good sense of some of these values. On the social side, one would want to cite facts and figures about the Lake's role as a supporter of healthy, cohesive communities through education, transportation, information technology, and health services. Again, figures can be ferreted out for individual counties and communities, but not for the Lake region as such. Yet, the symposium planners are right: these are critical data for any discussion that leads to (in the words of the concept paper) "collaborative planning to meet the objectives for the Bras d'Or".

Instead of flatly refusing the invitation, I offered to find someone who could find and analyze the figures for the Bras d'Or. That didn't work either. So, I'm sidestepping the explicit assignment. I understand the need for a solid, comprehensive analysis of social and economic benefits attributable to the Bras d'Or. It is a job that must be done if anyone is serious about setting and achieving economic and social development

goals for the Lake region. In itself, the task of pulling together such an analysis is fundamental, necessary and formidable. It is an imperative for the immediate future.

I will speak about the social and economic implications of the Lake, as I see them. I rely on my background, a background that is not terribly different from those of you who spent a major portion of your life living beside the Bras d'Or. My perspective also comes from years of trying to encourage citizens to be the prime movers, rather than the objects of, social and economic development measures.

With social and economic impact in mind, I will attend to three tasks:

(1) describe the way I see the Bras d'Or Lakes area now; (2) consider the idea of building a Lake Community; and, (3) suggest an approach for continuing to build a culture of collaboration. Knowledge is the thread that runs through my remarks; knowledge to produce the Magnets and the Glue that's necessary for the kind of Lake Community I think is being envisioned during this symposium. To give credit, the terms "magnets" and "glue" come from a 1999 book¹ by Rosabeth Moss Kanter, a Harvard business professor. Her concern is about how to thrive locally in a global economy. She sees the magnets as attracting companies and people, with the glue being the stuff in a community that holds the activity and the people together.

How the Lakes Appear Now

I will begin with the Lakes' economic magnets. Speaking in strictly

commercial terms, they are few. That's not new. In the course of my lifetime the Lake was a place where very few people turned for a living, and then only a marginal living. Now, as was well presented here yesterday and again today, fish and shellfish in the lake face disappointing odds. In short, as matters currently stand, commercial level fishing has minimal economic impact. It is not a magnet. The important question is whether it can become one.

The same can be said for wealth generated by shipping. There was a time when wood was shipped through the Lake, and for course there is gypsum. But, do we even know what revenues are gained from Bras d'Or Lakes shipping?

The absolute beauty of the Lake is undoubtedly a magnet that accounts for some of the revenue gained from tourism and from summer-season residents. We have estimates about the value of the Cabot Trail and the Louisbourg Fortress as magnets for visitors, but do we know what it is for the Bras d'Or? There are likely some figures relating to recreational boating and servicing of all crafts that ply the Lake.

Those of us who live here year-round are able to comment on the pleasure we derive from seeing the lake. Some of us will go so far as to say that without it we would not stay. However, as a community we don't estimate the economic benefit on that magnetic feature of the Lake.

*Knowledge: the Magnet and the Glue
cont'd on page 9*

Easier to estimate is the economic benefit the Lake provides as a site for research and development. The work being done through the Unama'ki Institute of Natural Resources and the Bras d'Or Lakes Aquarium and Research Centre; the studies by various agencies and institutions that track or test aspects of the Lake; these are definitely contributing to our economy, although I expect we do not know the dollar figure. I have a hunch that the Lake as a site for research is the aspect that might become its strongest economic magnet.

Turning to look for magnets on the social side, the story is repeated. We do not have a handle on the impact of the Bras d'Or. We are quite certain that our relatively clean and quiet environment attracts and holds people here. Less magnetic is our business climate - if, for no other reason, because of its small size and scattered concentration. Despite apparent difficulties, our education and health care services are of good quality. Yet, I have observed first hand that promising young people who might either remain here or be persuaded to establish their place of work where they can enjoy the ambiance of the lake are discouraged by remoteness in relation to schools, medical services, recreation amenities, and -for many- by the absence of high speed internet services. Said simply, for many talented and courageous young people the lake's beauty does not merit the trade-off of spending large chunks of their own or their children's lives going through the hassle of accessing normal day-to-day services and amenities.

I am not pleased to present this dismal picture of the Lake as a social and economic magnet. Certainly I don't want it to be that way. I believe, however, it is a serious reality that has to be faced if we want the Lake to be a magnet for economic and social development. If the Lake is to be a

magnetic unit for development the very first task is to be able to describe what that unit now looks like, using indisputable facts and figures.

The Glue part is more encouraging - that's our physical and social infrastructure. There is no denying we live in a pleasantly safe environment where strong family and community support is a hallmark. Yesterday we heard about the very impressive range of activity being carried out to enhance the Bras d'Or. Through the Sustainable Communities Initiative (SCI) and the Pitu'paq partnership there is evidence that our respective levels of government are paying coherent attention to the Lake. This symposium is itself generating glue to hold pieces together as it fashions the Lake into an integrated unit. In the words of the concept paper, it's about "increasing the efficiency of existing players in the Bras d'Or." What the existing players are doing is wonderful. Yesterday we celebrated that fact.

Recently, I had the pleasant experience of gathering representatives of these groups - and a few additional interests - to form a steering committee to explore the prospect of achieving special UNESCO designation for a portion of the Lake (the canyon in St. Andrew's channel). Although that exercise has only begun I am confident about the willingness and ability of that volunteer committee to see what can be made of the opportunity. Taken together, all of these initiatives are evidence of the high quality glue being produced to begin holding the Lakes together as a development unit. Through research and measures to deal with various forms of pollution they are already fostering social and economic benefits.

Encouraging and significant as these initiatives are, they still do not supply enough glue. If the twenty-five Issues listed in the concept paper are valid, they point to the need for enormous economic and social infrastructure. That summary of main issues in the

Bras d'Or lakes (reported in Appendix I) was compiled from existing reports and is essential for planning. It covers a very broad gamut and, as Garth Bangay told us, the issues are to be validated through a consultation process.

This brings me to the essence of the matter. The extensive work that is being done is both necessary, laudatory, and must continue. Furthermore, it now needs to reach out and gradually include more people. The general population living within the Bras d'Or Lakes watershed does not see itself as a community. That understanding has yet to be built.

So, for whom are these "the issues"? Certainly no one in this room would dispute them. However, they are not significant as bases for action until at least a large portion of the population understands - and acknowledges - them as genuine, problematic concerns, as distinct from a list of general headings. That depth of understanding comes only after there is opportunity to relate to facts and circumstances in terms of their own experience. Only then might they be motivated to work with you, to support you as their leaders, as you take action on those issues. It's a long-term job of human development that will lead, in turn, economic and social development. It's a job we don't do very well and I want to encourage this symposium to think very deeply as these issues are being validated. Surely the goal is not just to stir up government action. Better to first build the capacity of many people living around the Bras d'Or Lakes to adopt a vision of a community whose centre is the Lakes - with assistance from government.

It is easy to acknowledge some of the very tangible physical issues such as roads, electricity, sewage disposal, communication services, education and training. We know quite a lot about those, what they cost and why they are not improving the way we

would like. Less easy to see is the need for social infrastructure to solve problems. That's the element that will enable us to find the data and weigh to alternatives to the point of knowing precisely what has to be done and how to do it. This is the glue that brings people together systematically around common concerns with ample information and opportunity to take part in difficult decisions. It is a learning process for everyone. Right now that glue (i.e., the ability to solve problems) is in short supply. More of it will come as various groups proceed to establish a Lake community; as they learn to engage effectively in issues about which they care deeply.

Building A Community

This symposium is a major step in the direction of building a lake community. This assembly of leaders already has a lot of influence over what might become of the Lake. I am very hopeful about you. You know already that it takes enormous trust to work together on common objectives. It is hard to be sure who is in it for the long haul. After all, we have many examples of coalitions breaking down as soon as a brighter option appears. I think, for example, of how some entities within Strait Highlands RDA dropped-out over time to pursue the interests of their particular entity.

As you determine the next steps for developing collaborative management in the Bras d'Or Lakes you will likely select a few issues that will get people thinking about the Lake as a unit for economic and social analysis. Pitu'paq caught our attention last winter with its project relating to dumping of sewage from boats. Although a relatively small issue, it's very controversial. The Stewardship Society relentlessly pushes at the issue of water quality, raising awareness of the sources of contamination. The Preservation Foundation established an exhibition on the Ecology of the Bras d'Or. These and the other important measures we

heard about yesterday are still not sufficient to convince a majority of residents of a need for change, not to mention of their responsibility to get behind change. These measures are raising awareness. But there is a long road between awareness and changed behavior.

A Lake Community would have residents who know what the Lake really looks like. They will know, for example, the results of the survey of domestic sewage disposal systems. They will know in graphic terms about the negative effect on the Lake of badly managed landscapes, be that from woods operations, site clearance, gravel pits ... They will know how polluted the lake is where they live, and why. They will come to appreciate that individual householders have to take responsibility for remedial measures with, where necessary, financial assistance to do so. They will know the sources of contamination of the Bras d'Or and what has to be done to stop them. They will know which ones are the more promising directions to go if the Bras d'Or Lake is to contribute much more than it does now to the social and economic well-being of the community.

When a population is broadly informed about the Lake it will assist you, the leaders, to move forward. A population won't do that without very specific information, sometimes - information they have helped to gather, information that is openly and deliberately shared by you, in a timely way and without candy coating. A Lake community that has the glue you provide through honest disclosure will enable you to get things done far more quickly than now.

This brings me back to the list of issues. Taking the one on youth for example, I absolutely agree that the need to stop youth out-migration is an issue. What are the facts about that issue? It's a major concern in all of rural Canada. If a rigorously selected youth group were given a well designed task of examining that issue, they themselves will end up

understanding the implications for themselves and for the community of their decisions to leave or to stay. Presumably they would enable the whole population to see what youth are confronting as they decide to stay or leave. Then there will be some knowledge of what, if anything must change. My point here is that each issue requires probing, preferably probing with the help of those who are key to the issue. That kind of approach to each issue will help to build a Lake community.

Less than a week ago I spent a long, hard day - nearly eleven hours - at the Social Science and Humanities Research Council in Ottawa. It's one of the granting councils for Canada's universities. I was one of nine adjudicators recruited as volunteers from across the country who had just slogged through thousands of pages of tightly crafted words. We had read 38 research proposals to be carried out by partnerships between universities and communities. About half of them will be funded to the tune of a million dollars each. I mention this because the experience told me in no uncertain terms that the "science" of social and economic development is at a very primitive level here and in western society generally. You see evidence everywhere, not least in Iraq where it was known how to destroy a régime, but not known how to foster development of a far better replacement.

Building a Culture of Collaboration

You look forward to building a culture of collaboration. This symposium is helping you to figure out how to do that. If you wanted to build, for example, a super computer, there would be no shortage of tested models and competent advisers. The same is not true for building a culture

of collaboration. The knowledge of how to do that is not well tested. There is no reliable prototype that you can adapt to fit this situation. It is a unique situation to which some general principles can be applied. That in itself is a critical point: agreeing on general principles. For example, you might choose to get up to date information about the social and economic impact of the Lakes by securing funding, hiring a firm to do the job and accepting their report. Or, you might use the need for data as an opportunity for interest groups to learn about some of the challenges of creating a Lake community. Some funds will still be required for them to gather the data with a little help from experienced researchers. That way you will end up with groups of local experts. For example, the Tourist association, or the union of construction workers, or ... will come to know how the Bras d'Or Lakes impacts their industry. You might choose to employ the principle of having people learn about the Lake by being part of the research process. As in the youth example, consider the potential effect of having a range of interest groups involved in the question of what value the Lake has for them.

Why not be at the front of the pack and acknowledge that the very process of developing and executing a collaborative plan for the Bras d'Or is an undertaking that itself can be developmental? I say "the front" because I believe that Canada is rapidly recognizing the need to produce knowledge about building a better society. Thus, a design to achieve a Bras d'Or Lake community within a culture of collaboration is itself a research area; one that can be carefully spelled-out and, subsequently qualify for funding through agencies which are now very concerned about learning how to build modern, democratic, civil society.

As you approach the job I want to

suggest a few questions whose answers have to power to attract the attention and support of a host of interests, including funding agencies.

Why do you want to build a culture of collaboration? In terms of the Bras d'Or Lakes, why is collaborative management necessary?

What is it about the Lake that has to be changed/maintained and where is the evidence?

You know at least some of the answers. The challenge is to catch the attention and

Support of residents to help them learn and to help you achieve your development goals.

How do you bring conflicting views into some kind of productive conclusion? That's the toughest one of all, so that you don't end up with factions of winners and losers.

I will conclude by revisiting a few points I have already made:

- (1) Surprisingly little is known about the social and economic impact (actual and potential) of the Lakes. That will be remedied as work begins on the list of issues that have already been identified; working in a way that creates a lake-centered community where a large portion of the population knows what it takes to build the community it wants.
- (2) In the world of hard science questions are quite easily generated and suitable sources to investigate them are relatively easy to find. In the world of social science, questions are considerably more difficult to isolate but, once specified, may be investigated very fruitfully with the help of those who care about the question.
- (3) I do not mean to downgrade the urgency of the hard science questions. Indeed, I look forward to the prospect of having the Bras d'Or serve as a laboratory

for important aquatic research; that is a potential bright spot for future development - a potential magnet. But I also urge you to think as well about the Bras d'Or as a laboratory for testing approaches to economic and social development by engaging those for whom the issues are significant to discover ways to transform their social, cultural, and political circumstances. That is potential glue.

Finally, I have taken a rather long view of the social and economic impact of the Bras d'Or Lakes, emphasizing the need to treat the Lake as a unit for analysis with respect to its natural resources and those who live within the Lake's watershed area. I have stressed that building a culture of collaboration to achieve a Bras d'Or Lakes community requires digging much more deeply into the minds and hearts of the general population. It is not a sell job; it's a learning job.

In the end it is all about knowledge; knowledge to create effective magnets for wealth production, and knowledge to create all the glue that's necessary to bond together the people who will become convinced that the Bras d'Or Lakes is the precious centre of their community. This symposium is a giant step in that direction. I hope you leave here ready to take the next giant step.

1 Roseabeth Moss Kanter, World Class: Thriving Locally in the Global

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Bras d'Or Watch

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