



Atlantic Policy Congress  
Of First Nations Chiefs Secretariat  
[www.apcfn.ca](http://www.apcfn.ca)



moving forward with  
**ELDERS' RECOMMENDATIONS**  
from APCFNC Elders Research Project

**“Honouring Traditional Knowledge”**

• considerations from **TWO-EYED SEEING** and **CO-LEARNING** •

Artist Gerald Gloade  
Millbrook First Nation

# TWO-EYED SEEING

and

# CO-LEARNING

## Honouring Traditional Knowledge in Academia



## Murdena & Albert Marshall

Elders & Doctors of Letters, *honoris causa*; Eskasoni community, Mi'kmaw Nation  
APCFNC Elders Project – Elder participants and Advisory Committee members

[albertdmarshall@ns.sympatico.ca](mailto:albertdmarshall@ns.sympatico.ca)



## Cheryl Bartlett



Canada Research Chair in Integrative Science; Professor of Biology  
APCFNC Elders Project – Advisory Committee member

[cheryl\\_bartlett@cbu.ca](mailto:cheryl_bartlett@cbu.ca); [www.integrativescience.ca](http://www.integrativescience.ca)

CAPE BRETON  
UNIVERSITY

(presentation for AAEDIRP's university partners & others, 30 March 2012, Cole Harbour, NS)

# OUTLINE OF PRESENTATION

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## 1. Introduction

- goal and acknowledgements
- APCFNC and AAEDIRP

## 2. Honouring Traditional Knowledge (TK)

- APCFNC's Elders Project
- project results: Elders' recommendations regarding TK
- TK currently in academia

## 3. Two-Eyed Seeing (TES) and Co-Learning for TK

- TES: guiding principle for different worldviews working together
- TES: uptake across Canada (examples)
- TES: Mi'kmaw TK (some explanation)
- TES: Co-Learning in Transdisciplinary Research

## 4. Moving Forward with Elders' Recommendations

- encouraging AAEDIRP's university partners (and others)



# OUTLINE OF PRESENTATION

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## 1. Introduction **RELATIONSHIPS**

- acknowledgements and goal
- APCFNC and AAEDIRP

## 2. Honoring Traditional Knowledge (TK) **RESEARCH**

### **RECOMMENDATIONS**

- APCFNC's Elders' Project
- Project Results: Elders' Recommendations regarding TK
- TK currently in academia: status, challenges, visions

## 3. Two-way Learning and Co-Learning for TK **RE-VISIONING**

- TES: guiding principle for different worldviews working together
- TES: uptake across Canada (examples)
- TES: Mi'kmaw TK (some explanation)
- TES: Co-Learning in Transdisciplinary Research

## 4. Moving Forward with Elders' Recommendations **RENEWAL**

# OUTLINE OF PRESENTATION

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**RELATIONSHIPS**



**RESEARCH  
RECOMMENDATIONS**

**RE-VISIONING**

**RENEWAL**

**LET'S ALL HELP  
EACH OTHER**

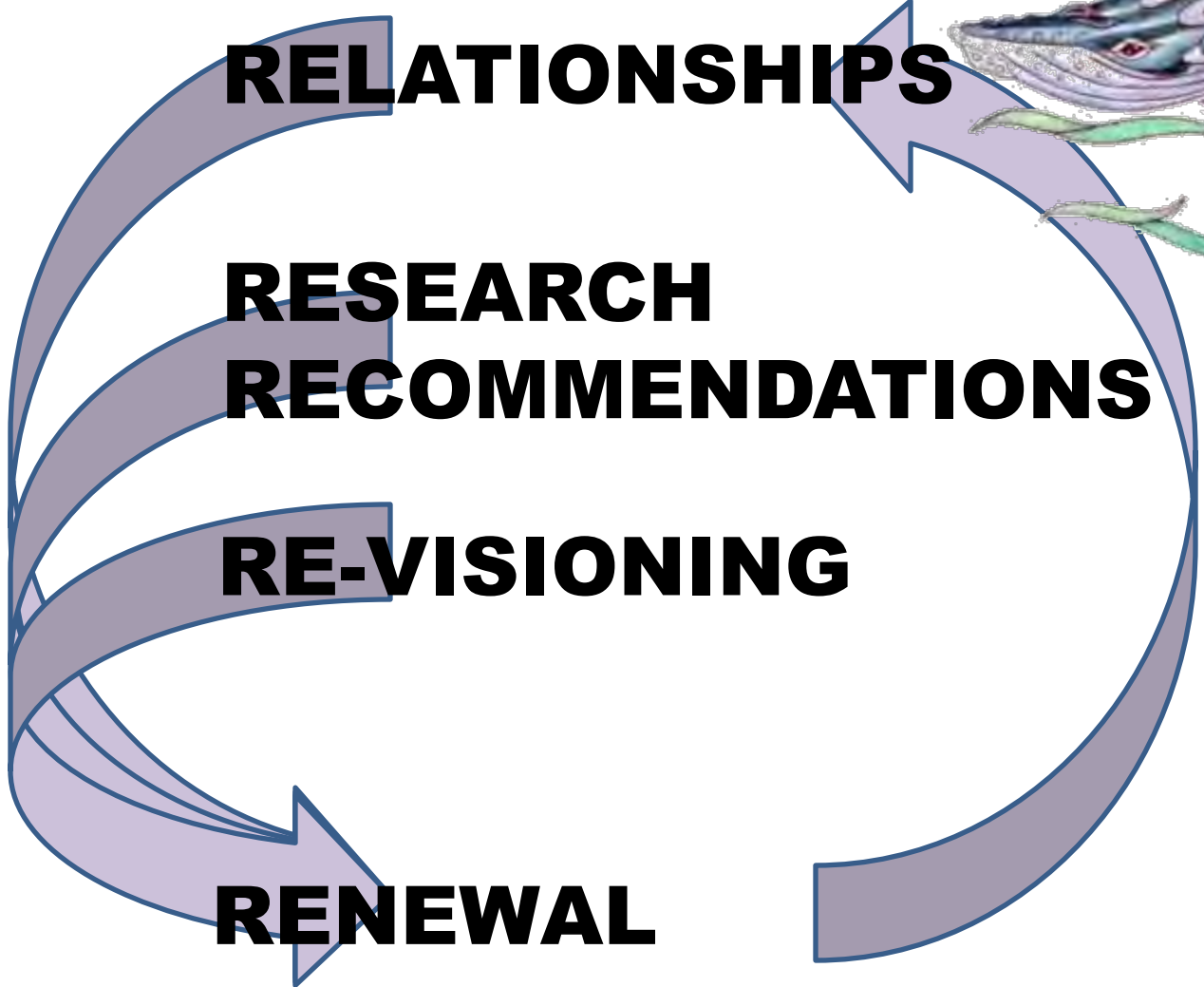


**RELATIONSHIPS**

**RESEARCH  
RECOMMENDATIONS**

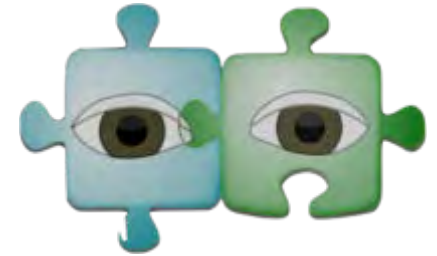
**RE-VISIONING**

**RENEWAL**



Artist Gerald Gloade  
Millbrook First Nation

# LET'S ALL HELP EACH OTHER



**CO-LEARNING  
JOURNEY**  
guided by  
**TWO-EYED  
SEEING**

L'nu'tukulimk · Wolipunsultina ·  
Tshe tshi tuapatemen meneniuen ·





Canada Research  
Chairs

Chaires de recherche  
du Canada



Social Sciences and Humanities  
Research Council of Canada

Conseil de recherches en  
sciences humaines du Canada

Canada  
Canada

# Thank you / Wela'liog

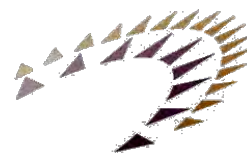
**MANY  
ELDERS**



IAPH  
**CIHR IRSC**

Canadian Institutes of  
Health Research    Instituts de recherche  
en santé du Canada

CAPE BRETON  
UNIVERSITY



Canada Foundation  
for Innovation  
Fondation canadienne  
pour l'innovation



Membertou  
Elementary



AAEDIRP



Mi'kmawey  
Debert  
CULTURAL CENTRE



Mermaid Theatre  
of Nova Scotia



Eskasoni First Nation Detachment  
Royal Canadian Mounted Police    Gendarmerie royale  
du Canada



Mi'kmaq College Institute  
Mi'kmaq Espi Kina'matno'kuom



**The support of various  
partners and funding agencies  
is gratefully acknowledged.**



Artist Gerald Gloade; Millbrook First Nation

# Spirit of the East

Light

Beginnings

Renewal

Hope

Courage

**GOAL:** encouragement towards uptake of  
**Elders' Recommendations**

(from APCFNC Research Project)

**by AAEDIRP's university partners (and others)**



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# APCFNC

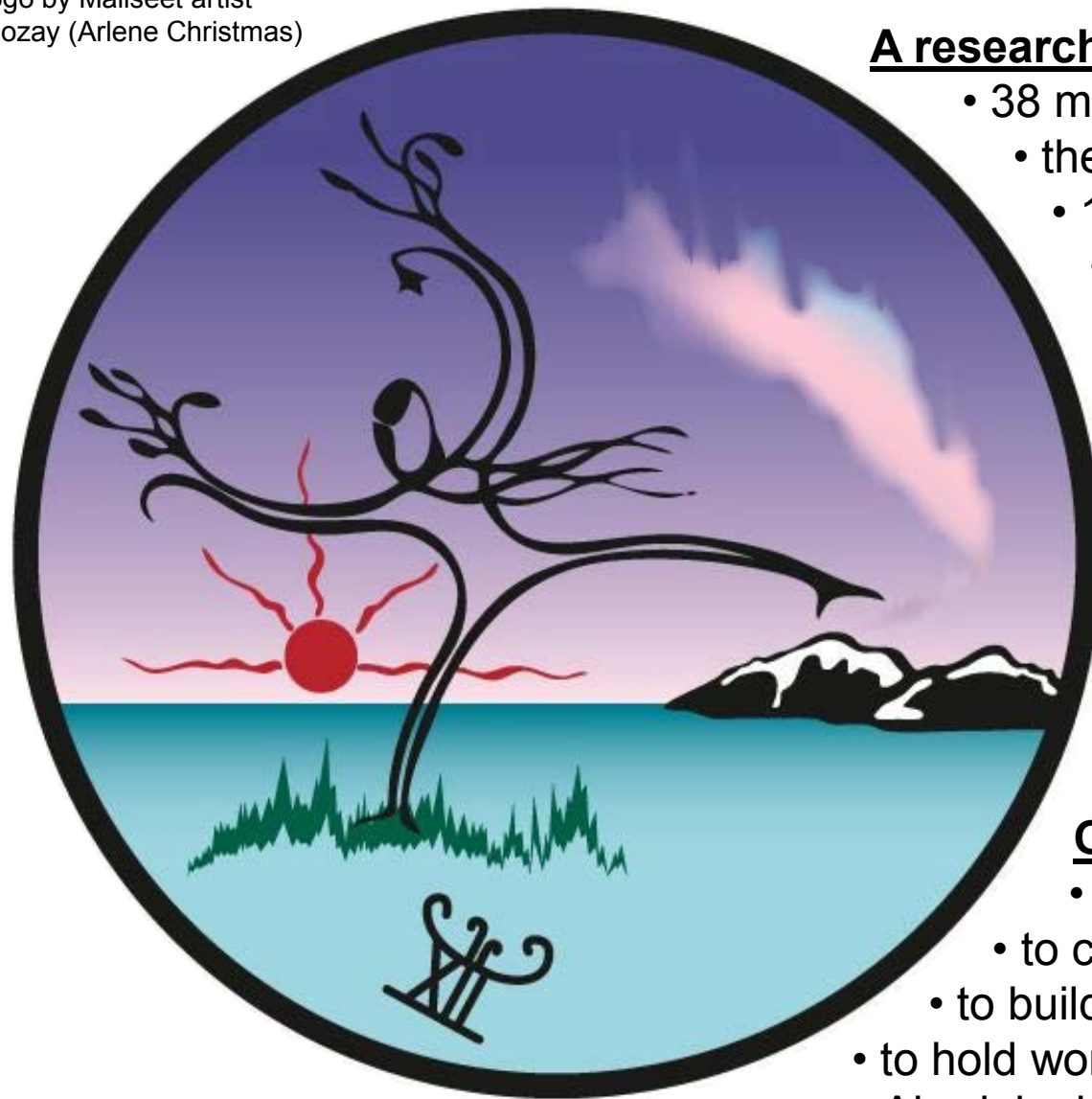
The APC Secretariat is an advocate for speaking with one voice on behalf of First Nations communities. Through research and analysis, we develop and table policy alternatives

for matters affecting First Nations communities in Atlantic Canada, Quebec, and Maine. Our mandate is to "research, analyze and develop alternatives to federal policies that affect the Mi'kmaq, Maliseet, Innu and Passamaquoddy First Nations in the Atlantic region."

**strategic areas of focus for change:**

economic opportunities; housing and infrastructure; health; education; relationships; closing the gap between First Nations communities and Canadians

source: <http://www.apcfnc.ca/>



## A research program partnership:

- 38 member communities of APC
- the Inuit
- 12 Atlantic universities
- 4 government funders, both federal and provincial

### Purpose:

to improve the knowledge base of Atlantic Aboriginal economic development, in order to improve the lives of the Aboriginal people in the region

### Objectives:

- to conduct research
  - to create a database
  - to build Aboriginal research capacity
  - to hold workshops
- on Aboriginal economic development

# AAEDIRP

Atlantic Aboriginal Economic Development Integrated Research Program

source: <http://www.apcfn.ca/>

logo by Maliseet artist  
Dozay (Arlene Christmas)



## A research program partnership:

- 38 member communities of APC
  - the Inuit
- 12 Atlantic universities
- 4 government funders,  
both federal and provincial

## UNIVERSITY PARTNERS

*Dalhousie University*

*St. Thomas University*

*Acadia University*

*Saint Mary's University*

*Memorial University*

*Université de Moncton*

*Mount Allison University*

*Cape Breton University*

*University of PEI*

*St. Francis Xavier University*

*University of New Brunswick*

*Mount Saint Vincent University*

# **AAEDIRP**

**Atlantic Aboriginal Economic Development Integrated Research Program**

source: <http://www.apcfnc.ca/>

logo by Maliseet artist  
Dozay (Arlene Christmas)

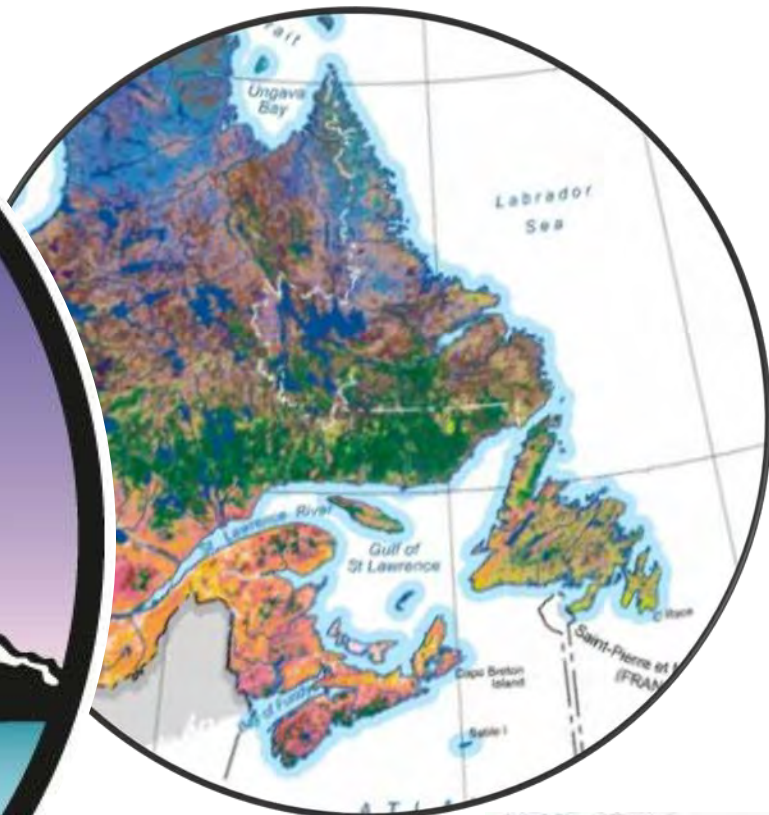


- a tree extending across the water, signifying to reach and to teach
  - the sun, representing the People of the Dawn
- the double curve, commonly used within the Wabanaki tribes
- the snow-capped mountains and the Northern Lights, representing the Innu and Inuit

**AAEDIRP**

Atlantic Aboriginal Economic Development Integrated Research Program

logo by Maliseet artist  
Dozay (Arlene Christmas)



# AAEDIRP

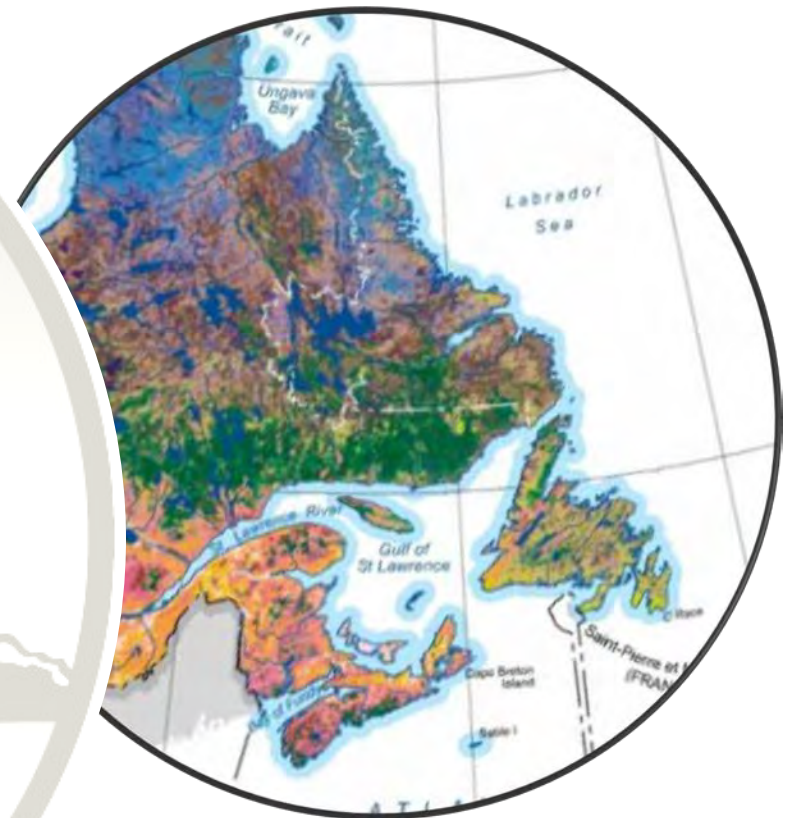
Atlantic Aboriginal Economic Development Integrated Research Program

# Honouring Traditional Knowledge

an APCFNC research project\*  
within AAEDIRP's objectives:

- to conduct research
- to create a data base
- to build research capacity
- to hold workshops

... on Aboriginal economic development



## AAEDIRP

Atlantic Aboriginal Economic Development Integrated Research Program

Artist Gerald Gloade; Millbrook First Nation

words of  
Elder Murdena Marshall

# Traditional Knowledge

was never meant to be static and stay in the past.



Rather, we must bring it into the present so that everything becomes meaningful in our lives and in our communities.

... on **Aboriginal economic development**

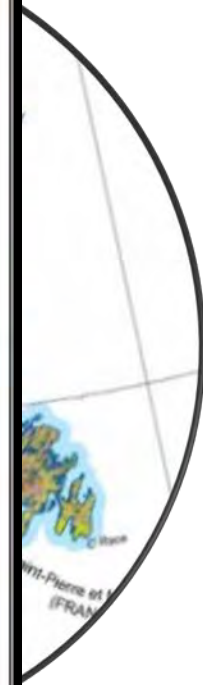
## AAEDIRP

Atlantic Aboriginal Economic Development Integrated Research Program

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- to hol





**APCFNC Elders  
Research Project**

# **Honouring Traditional Knowledge**



The project was initiated because of the critical importance of consulting with Elders and having their perspectives included in community economic development projects and in research on Aboriginal economic development. Elders determined the process and outcomes for the project. The project was supported by APCFNC staff and Aboriginal community members. As a foundation for the work on economic development research, APCFNC sought guidance from Atlantic region Elders on how they would like to be consulted when sharing Traditional Knowledge and Aboriginal worldviews. As part of the project, the Elders have made eight recommendations concerning Traditional Knowledge and its importance.

APCFNC Elders  
Research Project

# Honouring Traditional Knowledge



## RESEARCH PROCESS:

### Elders Mawio'mi

12-14 August 2010, Millbrook FN

Elders asked that this be videotaped and a transcript be made for educational purposes.

“Elders’ Recommendations” list made, based on discussions.

### Let’s All Help Each Other

Moncton Conference

16-18 March 2011

Elders discussed and approved list of eight “Elders’ Recommendations”.

APCFNC Elders  
Research Project

# Honouring Traditional Knowledge



## RESEARCH PROCESS:

Elders Mawio'mi



Let's All Help  
Each Other  
Moncton Conference  
16-18 March 2011

Elders discussed and  
approved list of eight  
"Elders' Recommendations".



APCFNC Elders  
Research Project

# Honouring Traditional Knowledge

**RESEARCH PROCESS:**



Elders Mawio'mi



Let's All Help  
Each Other

Moncton Conference

16-18 March 2011



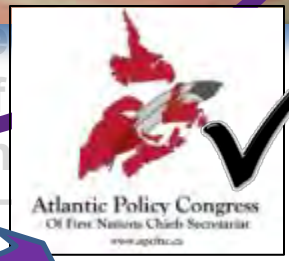
Elders discussed and  
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“Elders’ Recommendations”.

APCFNC Elders  
Research Project

# Honouring Traditional Knowledge



**RESEARCH PROCESS:**



# PROJECT REPORT

<http://www.apcfncc.ca/en/resources/HonouringTraditionalKnowledgeFinal.pdf>

## BACKGROUND

The Atlantic Policy Congress of First Nations Chiefs (APCFNC) brings together 18 First Nations, well as the Inuit in Labrador. Through the Atlantic Aboriginal Research Program (AAERP) administered by the APCFNC, biologists, linguists, and Inuit Elders have been involved in a project of Traditional Knowledge.

of the critical importance of consulting with Elders and having country economic development projects and in research on.

outcomes for the project. The project was supported by APCFNC members. As a foundation for the work on economic development of Atlantic region Elders on how they would like to be consulted, and Aboriginal wisdom. As part of the project, the Elders developed a paper concerning Traditional Knowledge and its importance.

having reviewed the eight recommendations of General Meeting on September 29, 2011, recommendations put forward by Atlantic Region in All Chiefs' Resolution #2011-14.

**Chief/Chief Joe, Miawpukek First Nation**  
**Chief Roderick Goggin, Weymouth First Nation**  
**VISION: Passed by consensus**  
**DATE: September 29, 2011**

## TRADITIONAL KNOWLEDGE COMPONENTS

### 2010

gathering in Miramichi brought together Elders from four regions — the Mi'kmaq, the Wolastoqiyik, the Innu, and the Inuit. gathered in Miramichi First Nations at the Glenskap Heritage Centre to be videotaped. They directed that a transcription of the oral purposes.

### Traditional Knowledge

Elders and Traditional Knowledge. Under the Elders' guidance the oral the Elders did witness. It can be viewed by going to

recommendations concerning Traditional Knowledge. The recommendations Elders Meeting. See next page.

of best practices for the sharing of Traditional Knowledge Atlantic region Elders in research. It contains community a living document that will be added to on an ongoing basis.

## ELDERS RECOMMENDATIONS

The following is the list of recommendations from the APCFNC Elders Project Honouring Traditional Knowledge. It is a list of recommendations concerning how Elders would like to be consulted when and acknowledging the list of recommendations developed with Atlantic Aboriginal communities.

Atlantic Aboriginal communities are having their Elders, their knowledge very rapidly. Therefore, Aboriginal communities and urgency and importance of working alongside Elders and knowledge immediately.

involved in all aspects of the territorial, cultural, linguistic, and social affairs of Atlantic Aboriginal communities. Elders are what is most important because of their collective

involvement in all aspects of Aboriginal community life, including health, social, law, government, and education, etc.

meaningful ways and have advisory roles for all Aboriginal, implementation, and resolution taking place. Aboriginal members of steering committees and advisory committees to

developed and passed on before it is lost. The ways in which are needed to be directed by the Elders from each territory.

Elders that would advise on matters related to the sharing of knowledge for the Atlantic region. The Council would advise on ethics and the best practices for the sharing of Traditional Knowledge for working alongside Elders. This would include working community life and development including research.

would engage in a process of co-learning with the Atlantic. plans to have the process of this knowledge transfer co-learning

developing and approving educational curricula related to traditional community schools and (post)secondary and post-secondary.

work into the social studies, science, and language, secondary schools in Atlantic Aboriginal communities. This would location for Aboriginal learners, enable the communities learn and Aboriginal learning methods and better process to

to be completed to seek guidance from the Elders Council (Resolution #6) to develop appropriate curricula related to post-secondary programming.

to encourage the use of traditional practices, which are such as traditional law, cultural and spiritual practices, language learning and fishing, food gathering, medicine, ecology science.

[Honouring Traditional Knowledge.pdf](#)




## INFORMATION PLEASE CONTACT:

**Gilban Austin**  
 Research Coordinator  
 Economic Development Integrated Research Program, AAEDIRP  
 APCFNC

Phone: 455-8001 (office) or 454-1735 (cell)  
 Email: [gilban.austin@apcfncc.ca](mailto:gilban.austin@apcfncc.ca)

**APCFNC Elders Project:**  
**HONOURING TRADITIONAL KNOWLEDGE**



 Atlantic Aboriginal Economic Development Integrated Research Program

  
 ATLANTIC POLICY CONGRESS  
 OF FIRST NATIONS CHIEFS SECRETARIAT



# **ELDERS MAWIO'MI**

12-14 August 2010, Millbrook FN

## **Honouring Traditional Knowledge**

23 Elders from four  
Aboriginal cultures  
of Atlantic Canada

- Mi'kmaq
- Wolastoqiyik (Maliseet)
- Innu
- Inuit





**MAWI WIQSONULTINE  
MAWI APO'QNMATULTINEJ**

\*  
\*

**MAMU UAUITSHTUTUA  
LNONNATAIKAJUTTIGELAUTTA**

**LET'S ALL HELP EACH OTHER: A CONFERENCE ON ABORIGINAL COMMUNITY-BASED RESEARCH  
MARCH 16-18, 2011 – CROWNE PLAZA HOTEL, MONCTON, NEW BRUNSWICK**



# Elder Gwen Bear (1948-2012)



**MAWI WIQSONULTINE  
MAWI APO'QNMATULTINEJ**

\*  
\*

**MAMU UVAITSHITUTUA  
LNONNATAIKAJUTTIGELAUTTA**

LET'S ALL HELP EACH OTHER: A CONFERENCE ON ABORIGINAL COMMUNITY-BASED RESEARCH  
MARCH 16-18, 2011 – CROWNE PLAZA HOTEL, MONCTON, NEW BRUNSWICK



Artist Gerald Gloade  
Millbrook First Nation

Elders  
Wisdom  
Thinking  
Understanding  
Analyzing  
Integration



Light  
Beginnings  
Renewal  
Hope  
Courage

Darkness  
The unknown  
Perseverance  
Reflection  
Respect for  
others' beliefs

Generosity  
Determination  
Goal setting  
Ability to set aside  
strong feelings in  
order to serve others

APCFNC Elders  
Research Project

# Honouring Traditional Knowledge



## ELDERS' RECOMMENDATIONS

Therefore it be resolved that the Atlantic Chiefs, having reviewed the recommendations at their meeting on 29 September 2011 hereby support the 8 recommendations put forward by Atlantic Region Elders as part of the APC Elders Project: Honouring Traditional Knowledge.



Atlantic Policy Congress  
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The following is a list of the eight  
**ELDERS' RECOMMENDATIONS**  
from the APCFNC Elders Project\*  
“Honouring Traditional Knowledge”.

**It is an initial list concerning how Elders would like to be consulted when sharing Traditional Knowledge.**

Reading and acknowledging this list of recommendations should not be considered a form of consultation with Atlantic Aboriginal communities.

\* project report: <http://www.apcfn.ca/en/resources/HonouringTraditionalKnowledgeFinal.pdf>



# **ELDERS' RECOMMENDATIONS**

**1. It needs to be recognized that Atlantic Aboriginal communities are losing their Elders, their languages and their cultural knowledge very rapidly. Therefore, Aboriginal communities and leadership need to recognize the urgency and importance of working alongside Elders and learning from their Traditional Knowledge immediately.**



# **ELDERS' RECOMMENDATIONS**

**2. It is imperative that Elders be involved in all aspects of the territorial, cultural, linguistic, ecological, economic development and social affairs of Atlantic Aboriginal communities. Elders are in a position to help prioritize what is most important because of their collective cultural knowledge.**



# **ELDERS' RECOMMENDATIONS**

**3. Traditional Knowledge should be woven into all aspects of Aboriginal community life, including economic development, fisheries, health, social, law, environment and education, etc.**





# **ELDERS' RECOMMENDATIONS**

**4. Elders should be consulted in meaningful ways and have advisory roles for all Aboriginal community planning, development, implementation and evaluation taking place. Meaningful involvement would include being members of steering committees and advisory committees so that Elders have input into decision making.**



# **ELDERS' RECOMMENDATIONS**

**5. Traditional Knowledge must be shared and passed on before it is lost. The ways in which Traditional Knowledge is passed on, needs to be directed by the Elders from each territory.**



# **ELDERS' RECOMMENDATIONS**

**6. An Elders Council, appointed by Elders, that would advise on matters related to the sharing of Traditional Knowledge, should be formed for the Atlantic region.**

**The Council would advise on matters related to protocols and/or ethics and the best practices for the sharing of Traditional Knowledge as well as the best practices for working alongside Elders. This would include working alongside Elders in all areas of community life and development including research.**



# ELDERS' RECOMMENDATIONS

**6. An Elders Council, appointed by Elders, that would advise on matters related to the sharing of Traditional Knowledge, should be formed for the Atlantic region.**

**The Council would advise on matters related to protocols and/or ethics and the best practices for the sharing of Traditional Knowledge as well as the best practices for working alongside Elders. This would include working alongside Elders in all areas of community life and development including research.**



The Elders Council, once formed, would engage in a process of co-learning with the Atlantic region universities to create a template for how the process of this knowledge transfer could occur.

# **ELDERS' RECOMMENDATIONS**

**7. Elders should be involved in developing and approving educational curriculum related to Traditional Knowledge for Aboriginal community schools, provincial and post-secondary institutions in the Atlantic region.**



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**7. Elders should be involved in developing and approving educational curriculum related to Traditional Knowledge for Aboriginal community schools, provincial and post-secondary institutions in the Atlantic region.**

Traditional Knowledge should be woven into the social studies, science and language curriculum for primary and secondary schools in Atlantic Aboriginal communities. This would ensure proper and meaningful education for Aboriginal learners, enable the communities to develop a balance between western and Aboriginal learning methods and better prepare Aboriginal children for their future paths.



# ELDERS' RECOMMENDATIONS

**7. Elders should be involved in developing and approving educational curriculum related to Traditional Knowledge for Aboriginal community schools, provincial and post-secondary institutions in the Atlantic region.**

Traditional Knowledge should be woven into the social studies, science and language curriculum for primary and secondary schools in Atlantic Aboriginal communities. This would ensure proper and meaningful education for Aboriginal learners, enable the communities to develop a balance between western and Aboriginal learning methods and better prepare Aboriginal children for their future paths.



Post-secondary institutions should be compelled to seek guidance from the Elders Council (described above in # 6) to develop appropriate curriculum related to Traditional Knowledge for relevant post-secondary programming.

# **ELDERS' RECOMMENDATIONS**

**8. Each Aboriginal community needs to encourage the use of traditional practices, which are products of Traditional Knowledge. This would encourage younger generations to learn about and respect traditional practices, such as traditional laws, cultural and spiritual practices, language learning and practices related to hunting and fishing, food gathering, medicine, ecology, science, arts and education.**







# APCFNC ELDERS PROJECT RECOMMENDATIONS

Artist Gerald Gloade  
Millbrook First Nation

# Elder Carolyn Gould (1919-2011)



“Well, hurry up ...  
before we are  
all dead.”

*request by Elder Carolyn  
and many other Elders*

CEPI Workshop October 2004

# KNOWLEDGE IS SPIRIT.

It is a Gift passed on through many people.  
We must pass it on.

*words of  
Elder Albert Marshall*




Artist Gerald Gloade; Millbrook First Nation

**EMPHASIZE**: We must bring Traditional Knowledge into the present so that everything becomes meaningful in our lives and communities.



Artist Gerald Gloade  
Millbrook First Nation



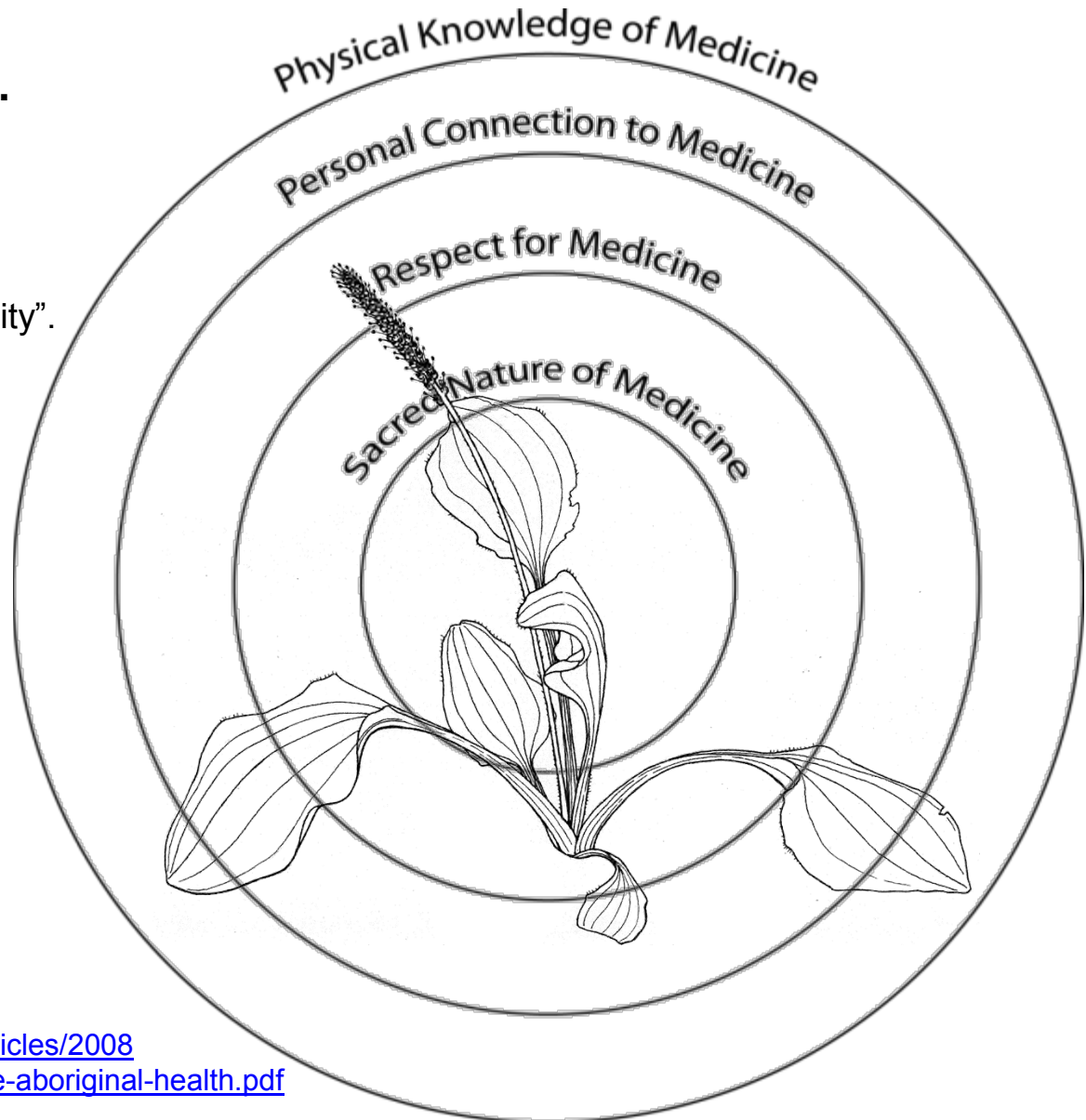
**What is  
TRADITIONAL / INDIGENOUS  
KNOWLEDGE?**

# Traditional Knowledge (circle layers model)

from:

**Murdena Marshall. 2008.**

\*Health and Healing –  
Death and Dying:  
women’s roles within;  
Workshop Training Materials for  
“cultural sensitivity and cultural humility”.



\* document available at:

[http://www.integrativescience.ca/uploads/articles/2008  
-Marshall-cultural-sensitivity-humility-module-aboriginal-health.pdf](http://www.integrativescience.ca/uploads/articles/2008-Marshall-cultural-sensitivity-humility-module-aboriginal-health.pdf)

**article:** Ganigonhi:oh: The Good Mind Meets the Academy

**in:** Canadian Journal of Native Education, 2008, Vol. 31: 84-197.

**by:** Dr. David Newhouse, Chair of Indigenous Studies, Trent University  
Onondage from the Six Nations of the Grand River, ON

Through the process of decolonization, we as Indigenous peoples come to the table with something of value to offer to the world. This something has come to be called *Indigenous Knowledge* (IK). IK is the knowledge that we have developed over generations: the theories of the universe and how it works; the nature of human beings and others; the nature of society and political order; the nature of the world and how to live in it; and human motivation among other aspects of life. This knowledge has been transmitted from generation to generation, thought about, discussed, refined, discarded, reinforced, and subjected to continual analysis and testing. It has not been static. IK shows how to live in a world of continual change for it is based on a foundational philosophical tenet: the world is constantly in process of transformation and movement. (p.187)



complete article available at:

<http://blogs.mtroyal.ca/fwiddowson/files/2010/04/The-good-mind-meets-the-academy-Newhouse.pdf>



**TRADITIONAL / INDIGENOUS**  
**KNOWLEDGE**  
in academia?



# In the current climate within the university, Indigenous knowledges remain relegated to the margins.

from: \*Haig-Brown, C. 2008. *Journal of the Canadian Association for Curriculum Studies*, 6(2): 8-24. (p. 15);  
\*non-aboriginal scholar, York University



Artist Gerald Gloade  
Millbrook First Nation

**“Outside of indigenous scholarship itself, within academic circles little serious attention has been paid to examining the possibilities inherent in indigenous ontologies”. However, any move to universalise Indigenous belief systems or world view, must also acknowledge that “... ontologies are relative and that the particularities and historicity of indigenous peoples and nations ... give rise to unique characteristics and differences ...”.**



*(quoting Stewart-Harawira, Maori scholar, 2005, pp. 34-35)*

from: \*Haig-Brown, C. 2008. *Journal of the Canadian Association for Curriculum Studies*, 6(2): 8-24. (p. 17);

\*non-aboriginal scholar, York University

# TRADITIONAL / INDIGENOUS KNOWLEDGE

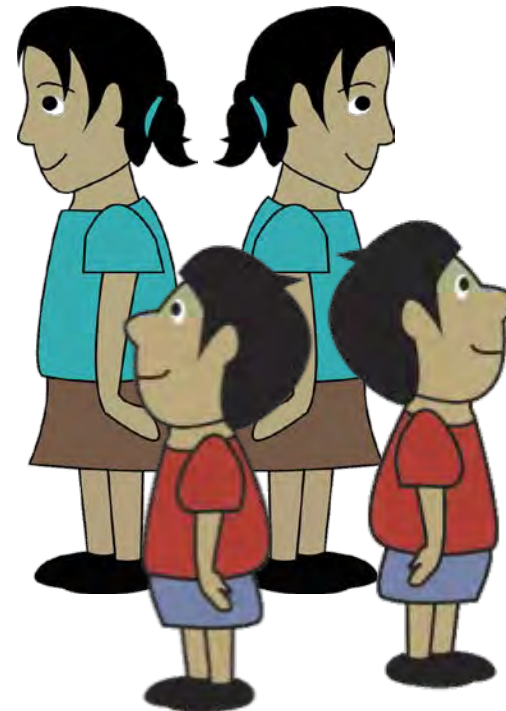
status, challenges, visions ... TK / IK in academia

- what does an Elder with AAEDIRP's Project say?
- what do some Mi'kmaw university students say?
  - what do some researchers and literature say?
- what do/did the AFN and CCL-AbLKC envision?
  - what does some CBU experience reveal?



**Today** ... Mi'kmaw and other Aboriginal youth are poised on the edge of two worlds.

Indigenous



Western

**Elder Albert Marshall**

**holistic health**

**Today** ... Mi'kmaw and other Aboriginal youth are losing their cultural connections.

Indigenous



**Western**

from: "Lifelong Learning: From Youth to Elder"; 2009 AAEDIRP CONFERENCE ON ABORIGINAL EDUCATION  
<http://www.integrativescience.ca/uploads/articles/2009March-Bartlett-Marshall-Integrative-Science-Two-Eyed-Seeing-education-Aboriginal-lifelong-learning.pdf>

And, yet ... we know that health  
*(of individuals and communities)*

**and transmission of TK are strongly related.**

(additional sources: many other Elders; some academic research, e.g. Chandler and Lalonde 2008)

Indigenous

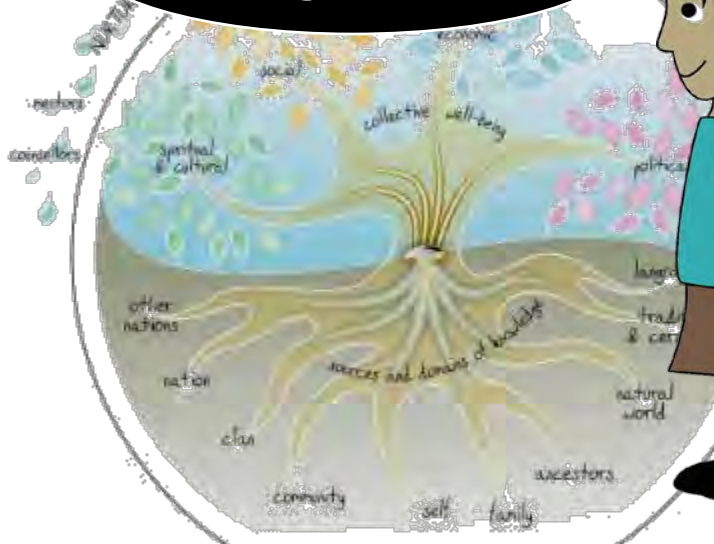
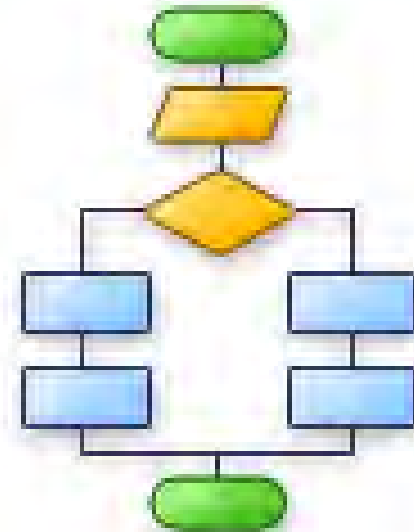


image from: [www.ccl-cca.ca/CCL](http://www.ccl-cca.ca/CCL)



Western



# Elder Albert Marshall

# holistic health

When you force people to abandon their ways of knowing, their ways of seeing the world, you literally destroy their spirit and once that spirit is destroyed it is very, very difficult to embrace anything – academically or through sports or through arts or through anything – because that person is never complete. But to create a complete picture of a person, their spirit, their physical being, their emotions, and their intellectual being ... all have to be intact and work in a very harmonious way.



Artist Gerald Gloade; Millbrook First Nation

from: Bartlett, C., Marshall, M., Marshall, A., and Iwama, M.

Integrative Science and Two-Eyed Seeing: Enriching the Discussion Framework for Healthy Communities

Chapter 3 in forthcoming book: "Beyond Intractability: convergence and opportunity at the interface of environmental, health and social issues"; edited by: Lars K. Hallstrom, Nicholas Guehlstorf, and Margot Parkes. UBC Press.

[http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework\(authors-draft\).pdf](http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework(authors-draft).pdf)

# Ashley Julian

# curricular inclusiveness

- stated in Jan 2010, when Senior Undergraduate, Dalhousie University
- graduated Oct 2011, BA Political Science, Dalhousie University
- Indian Brook community, Mi'kmaw Nation

I may have taken only five courses [at university] where teachers were able to teach me about my people; I'm not born knowing my history.

My family only has a small proportion of it. It was stripped from my Grandparents so they were shy to acknowledge that ... you know ... I'm Mi'kmaq.

(quoted with permission, March 2012)



Artist Gerald Gloade; Millbrook First Nation

*from:* video "First Nations Youth Guiding Youth: Accessing & Surviving Post-Secondary Education";  
based on conference "Accessing Opportunities to Post-Secondary Education"  
organized by MMAYC and APCFNC Secretariat, Moncton, NB, 22-24 January 2010



# Gitpu Nevin

# curricular inclusiveness

- stated in Jan 2010, when on AFN National Youth Council; also, MMAYC
- Senior Undergraduate, St. Francis Xavier University
- Elsipogtog community, Mi'kmaw Nation

I'm really interested in philosophy; I've taken a lot of philosophy courses. And the view of western philosophers is that they were the only philosophers ... you



Artist Gerald Gloade; Millbrook First Nation

know, that they were the only intelligent thinkers in the world. And when they speak about the history of the world or the history of philosophical thought in the world, it always starts for them in the origins of their culture, always. When they speak of the world, it's always only in their context, you know. Where did democracy start? They would never ever mention a native American nation, or anybody in South America, or even in Asia. It's always where their democracy started. And they call it the world. When they talk about world religions, it's primarily western religions. It's ridiculous ... and, like [for me] no, that's not the world - that's your world - that's just your belief ...

there's other people in the world. *(quoted with permission, March 2012)*

*from:* video "First Nations Youth Guiding Youth: Accessing & Surviving Post-Secondary Education";  
based on conference "Accessing Opportunities to Post-Secondary Education"  
organized by MMAYC and APCFNC Secretariat, Moncton, NB, 22-24 January 2010

# Dr. Marie Battiste

# cognitive imperialism

- Professor of Educational Foundations, University of Saskatchewan
- Potlotek community, Mi'kmaw Nation

**article:** Indigenous Knowledge: Foundations for First Nations

**in:** WIN-HEC Journal, 2005

After nearly a century of public schooling for tribal peoples in Canada, the most serious problem with the current system of education does not lie in its failure to liberate the human potential among Aboriginal peoples, but rather in its quest to limit thought to cognitive imperialistic policies and practices. This quest denies Aboriginal people access to and participation in the formulation of government policy, constrains the use and development of Aboriginal cultures in schools, and confines education to a narrow view of the world and its knowledge foundations that threaten the global future.

Cognitive imperialism is a form of cognitive manipulation used to disclaim other knowledge bases and values. Validated through one's knowledge base and empowered through public education, it has been the means by which whole groups of people have been denied existence and have had their wealth confiscated. Cognitive imperialism denies people their language and cultural integrity by maintaining the legitimacy of only one language, one culture, and one frame of reference.



*complete article available at:*

<http://www.win-hec.org/docs/pdfs/Journal/Marie%20Battiste%20copy.pdf>

Artist Gerald Gloade  
Millbrook First Nation

# Dr. David Newhouse

- Chair of Indigenous Studies, Trent University
- Onondage, Six Nations of Grand River, ON

*article:* Ganigonhi:oh: The Good Mind Meets the Academy

*in:* Canadian Journal of Native Education, 2008, Vol. 31: 184-197.



Artist Gerald Gloade; Millbrook First Nation

## best knowledges into dialogue



In my view, one of the fundamental purposes of a university is to help us to understand the world and ourselves and to transmit our knowledge to a new generation of people. It ought also to help us explore what a good life is. And in the 21<sup>st</sup> century, it ought to foster highly creative, innovative human beings adept at creating or, if you will, uncovering new truths. A university ought to bring the best of human knowledges into dialogue so that we might better understand the universe. (p. 189)

*complete article available at:*

<http://blogs.mtroyal.ca/fwiddowson/files/2010/04/The-good-mind-meets-the-academy-Newhouse.pdf>

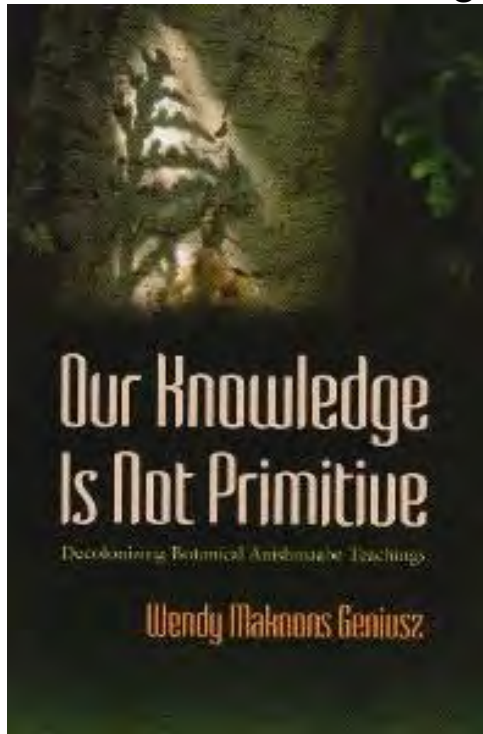
- Director, American Indian Studies, University of Wisconsin

- Anishinaabe

*book (2009):*

## **Our Knowledge Is Not Primitive**

Decolonizing Botanical  
Anishinaabe Teachings



Our priorities in recording or reclaiming this information [TK] differ from those of non-native researchers, who often view their research on us as: a preservation effort, a final attempt to save strands of a dying culture, a bringing of native knowledge to the rest of the world, or a means of gathering data to prove some academic theory.

Instead, our priority is to revitalize this knowledge within our own lives so that it will be there for our children and grandchildren and their children and grandchildren.

(page 8)

# A FIRST NATIONS VISION

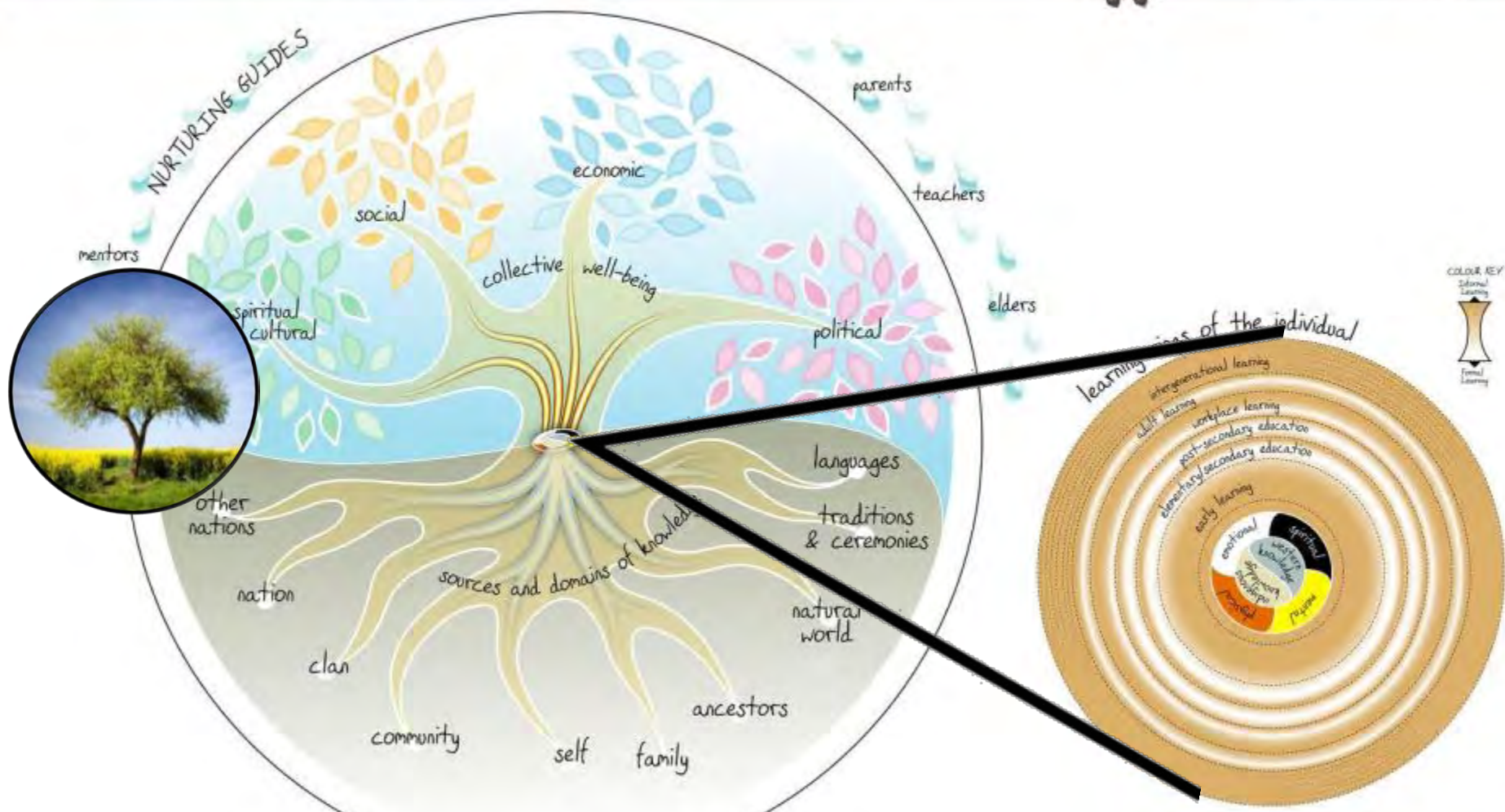
First Nations view education as a process of nurturing learners in linguistically and culturally-appropriate, holistic learning environments that meet individual and collective needs, thereby ensuring that all First Nations people achieve their personal and collective visions within lifelong comprehensive learning systems. (page 6)

complete document available at:

<http://www.afn.ca/uploads/files/pse-dp.pdf>



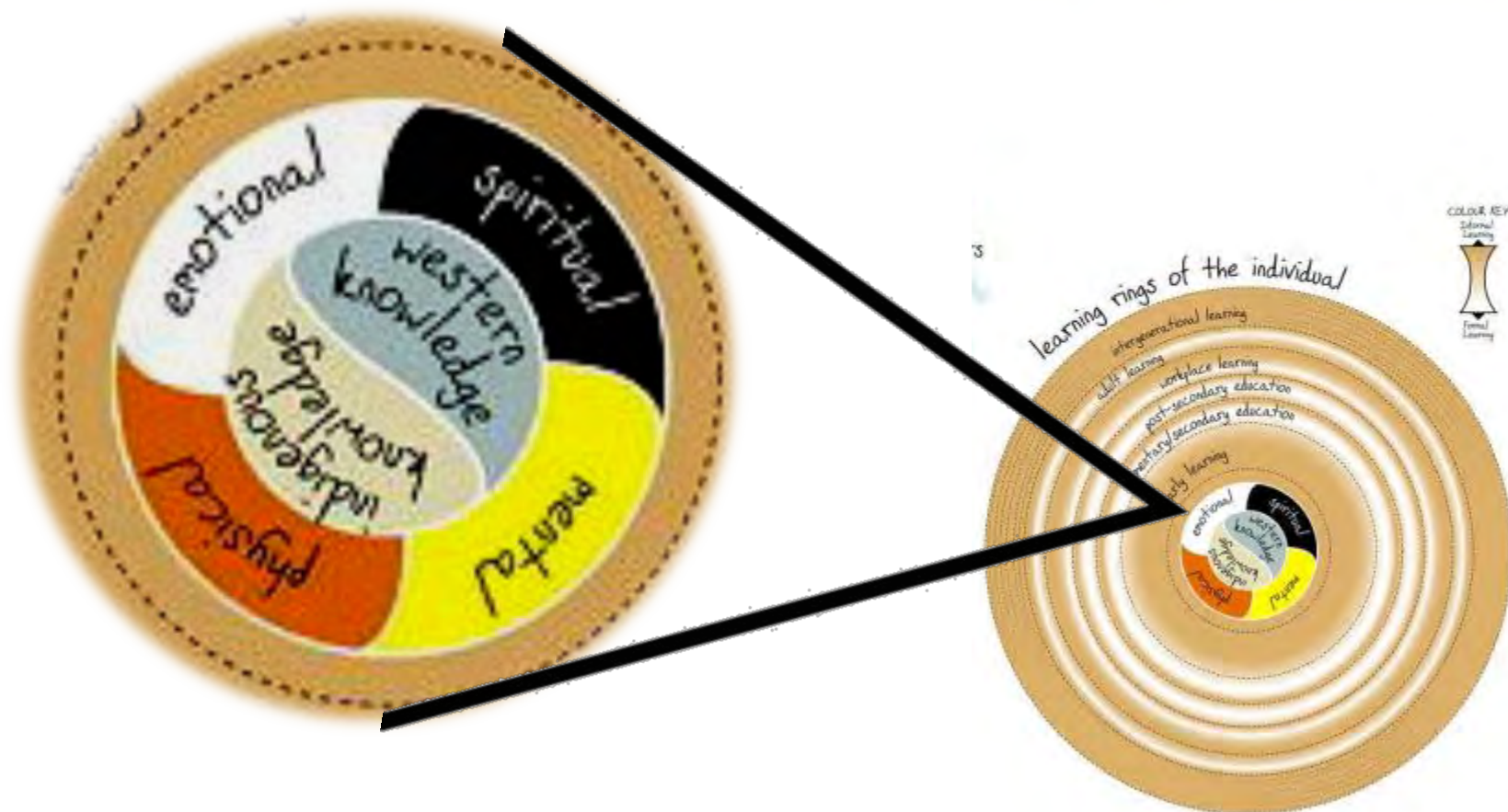
**Assembly of First Nations**



## First Nations Holistic Lifelong Learning Model

from: Canadian Council on Learning: Aboriginal Learning Knowledge Centre

[www.ccl-cca.ca/CCL](http://www.ccl-cca.ca/CCL)



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Artist Basma Kavanagh



# Integrative Science academic program at CBU

Indigenous

our stories  
our sciences  
our worldviews

Western

“bringing our knowledges together”

# Integrative Science academic program at CBU

Since the IS [Integrative Science] academic program was implemented at CBU in 1999 (and the focus of a cover story in *University Affairs* in December 2001), it has achieved a great deal, but it also has encountered many challenges.

Among its achievements, 27 Mi'kmaw students – all with some relationship to IS – have graduated with a science or science-related degree at CBU (fewer than five without IS affiliation have ever graduated); 13 are graduates from the four-year BSc community studies degree, IS concentration. Most now hold key positions (school principal, research scientist or assistant, job coach, natural resource management, nurse, teacher) in their communities. Some Mi'kmaw students who started with IS courses have graduated with a BA or BACS degree while others have left university, a few with intent to return. Mi'kmaw IS undergraduates have presented at academic conferences in Canada and internationally. Thirteen NSERC undergraduate summer research awards went to Mi'kmaw IS students. Up to 2007 and in total, about 100 Mi'kmaw students experienced first-year IS courses, many recruited by the Mi'kmaq Science Advantage Program run by CBU's then Mi'kmaq College Institute.

from:

**“In my opinion” by C. Bartlett: The gift of multiple perspectives in scholarship**  
(March 2012 issue of *University Affairs*)



photo credit: CBU

**FULL TEXT AVAILABLE AT:**  
<http://www.universityaffairs.ca/the-gift-of-multiple-perspectives-in-scholarship.aspx>

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Within academe, the shoals are poorly charted for such innovation. The IS academic program met diverse challenges from the outset – including inconsistencies and insufficiencies at the administrative, faculty, budgetary and recruitment levels – and has floundered in recent years. Since 2007, there has been no new enrolment into the program. Only first-year IS courses are being offered, and they have shifted to fundamentals of science within BA access programming (meritorious in its own right yet not the original IS vision).

**FULL TEXT AVAILABLE AT:**  
<http://www.universityaffairs.ca/the-gift-of-multiple-perspectives-in-scholarship.aspx>



Artist Gerald Gloade  
Millbrook First Nation

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I believe it essential to find better ways to enable collective stewardship and participation by indigenous, First Nations, Métis and Inuit from the aboriginal community, alongside consultation with Elders, wherever traditional aboriginal knowledge is congruent with formal recommendations made by Elders from Mi'kmaw, Wolastoqiyik, and other First Nations communities in Atlantic Canada and approved by the Atlantic Chiefs in September.

**WHAT COULD  
HAVE HELPED  
SUSTAIN  
EARLY SUCCESS?**

**FULL TEXT AVAILABLE AT:**  
<http://www.universityaffairs.ca/the-gift-of-multiple-perspectives-in-scholarship.aspx>

# Challenges re Integrative Science academic program

## (reflections on 15+ years)

- conceptual (science?)
- political (systemic racism?)
- jurisdictional (whose program?)
- structural (what kind of program?)
- financial (resources?)
- instructional (who can / should?)
- physical (where?)
- pedagogical (how?)
- recruitment (who and how?)
- audience (why and whose needs?)
- pragmatic (students' lives?)
- definitional (what is "success"?)
- pragmatic (graduates do what?)
- capacity development (how nurture & make sustainable?)

*from:* PRESENTATION AT 2009 AAEDIRP CONFERENCE  
ON ABORIGINAL EDUCATION; AVAILABLE AT:  
<http://www.integrativescience.ca/uploads/articles/2009March-Bartlett-Marshall-Integrative-Science-Two-Eyed-Seeing-education-Aboriginal-lifelong-learning.pdf>



**Let's consider more than one perspective regarding "challenges".**



Artist Gerald Gloade  
Millbrook First Nation



**E.g., what is "SUCCESS"?**

# **(general) perspective of an institution**



**It's about numbers of students enrolled and graduating.**

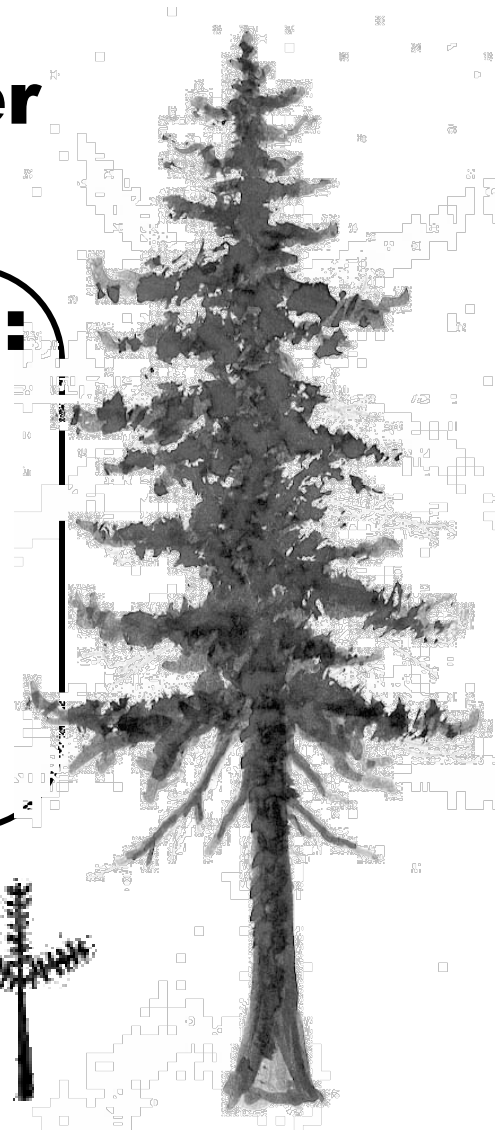
**E.g., what is “SUCCESS”?**

# perspective of an Elder



**It's about realizing:  
“Seeds germinate  
when ...  
the environment  
is appropriate.”**

*(words of Elder Albert Marshall)*



CBU 2009

from: PRESENTATION by C. BARTLETT and A. MARSHALL  
at 2009 AAEDIRP CONFERENCE ON ABORIGINAL EDUCATION  
<http://www.integrativescience.ca/uploads/articles/2009March-Bartlett-Marshall-Integrative-Science-Two-Eyed-Seeing-education-Aboriginal-lifelong-learning.pdf>



# E.g., what is “SUCCESS”?



# LET'S HAVE THE COURAGE

to try ... maybe falter ... but to learn and to keep trying



## Spirit of the East

- Light
- Beginnings
- Renewal
- Hope
- Courage

# What is the way forward?

# LET'S HAVE THE COURAGE

to try ... maybe falter ... but to learn and to keep trying



*words of*

**Elder Murdena:**

There is constant flux within balance: things come together ... then things fall apart ... and

then come back together ... and fall apart again ... and come back together again. That's the way it is, always has been, and always will be.



CBU 2009

## What is the way forward?

# Integrative Science academic program at CBU

from:

## **LESSONS LEARNED: WHAT COULD HAVE HELPED SUSTAIN EARLY SUCCESS?**


“In my opinion” by C. Bartlett: **The gift of multiple perspectives in scholarship**  
(March 2012 issue of *University Affairs*)

I believe it essential to find better ways to enable collective stewardship and participation by interested Elders, educators and others from the aboriginal community, alongside constructive and critical institutional input. Consultation with Elders, wherever traditional aboriginal knowledge has a role, is congruent with formal recommendations made by Elders from Mi'kmaw, Wolastoqiyik, Innu, and Inuit communities in Atlantic Canada and approved by the Atlantic Chiefs in September.



# What is the way forward?





**7. Elders should be involved in developing and approving educational curriculum related to Traditional Knowledge for Aboriginal community schools, provincial and post-secondary institutions in the Atlantic region.**

**Professors  
are not being asked  
to teach what they  
cannot and should not.**

Post-secondary institutions should be compelled to seek guidance from the Elders Council (described previously) to develop appropriate curriculum related to Traditional Knowledge for relevant post-secondary programming.



# **TWO-EYED SEEING**

## **a Guiding Principle for transcultural collaboration**

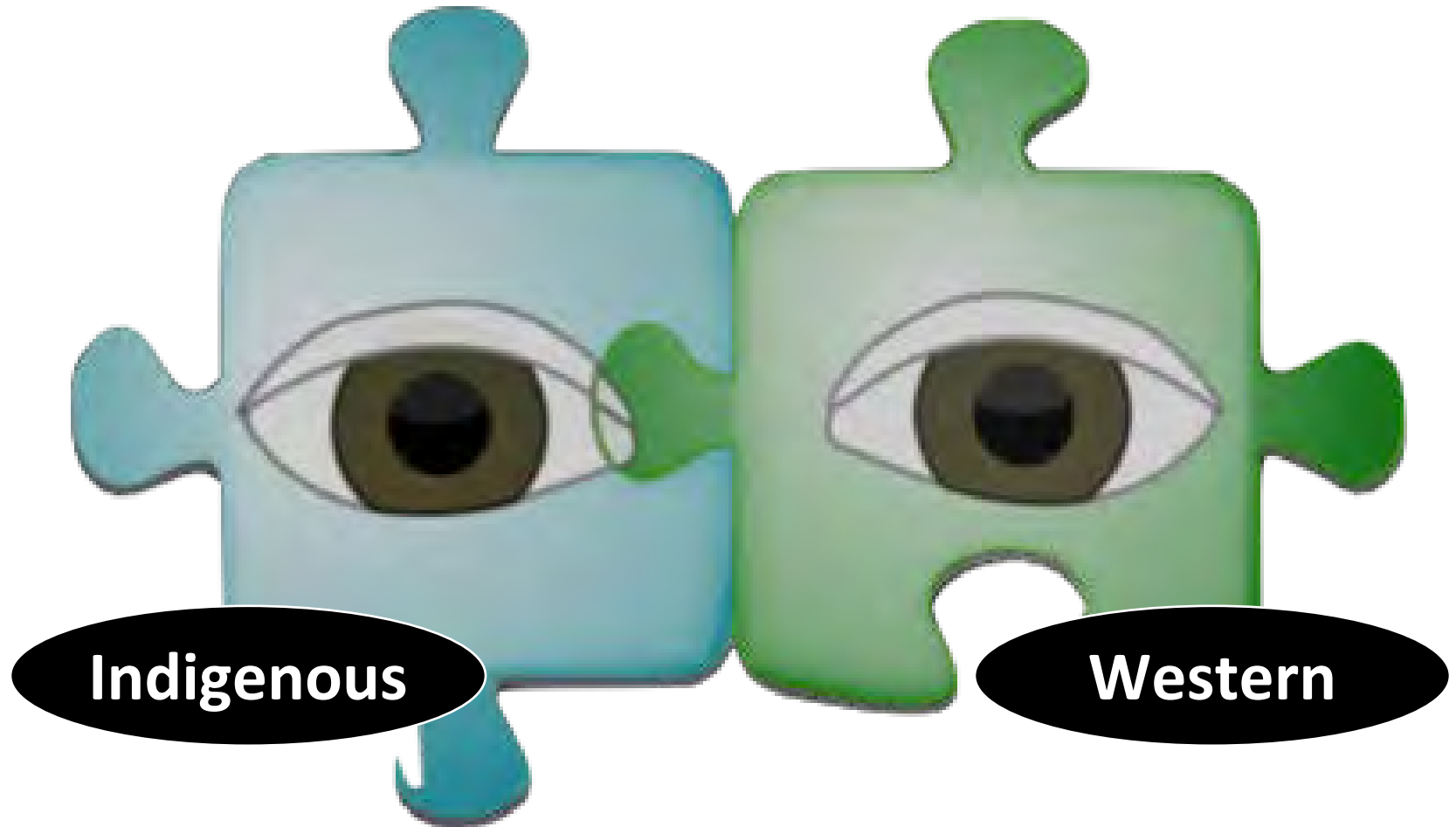
### **(the Gift of Multiple Perspectives)**

**LEARN ... to see from one eye with  
the best in the Indigenous ways of  
knowing, and from the other eye  
with the best in the Western (or  
mainstream) ways of knowing**

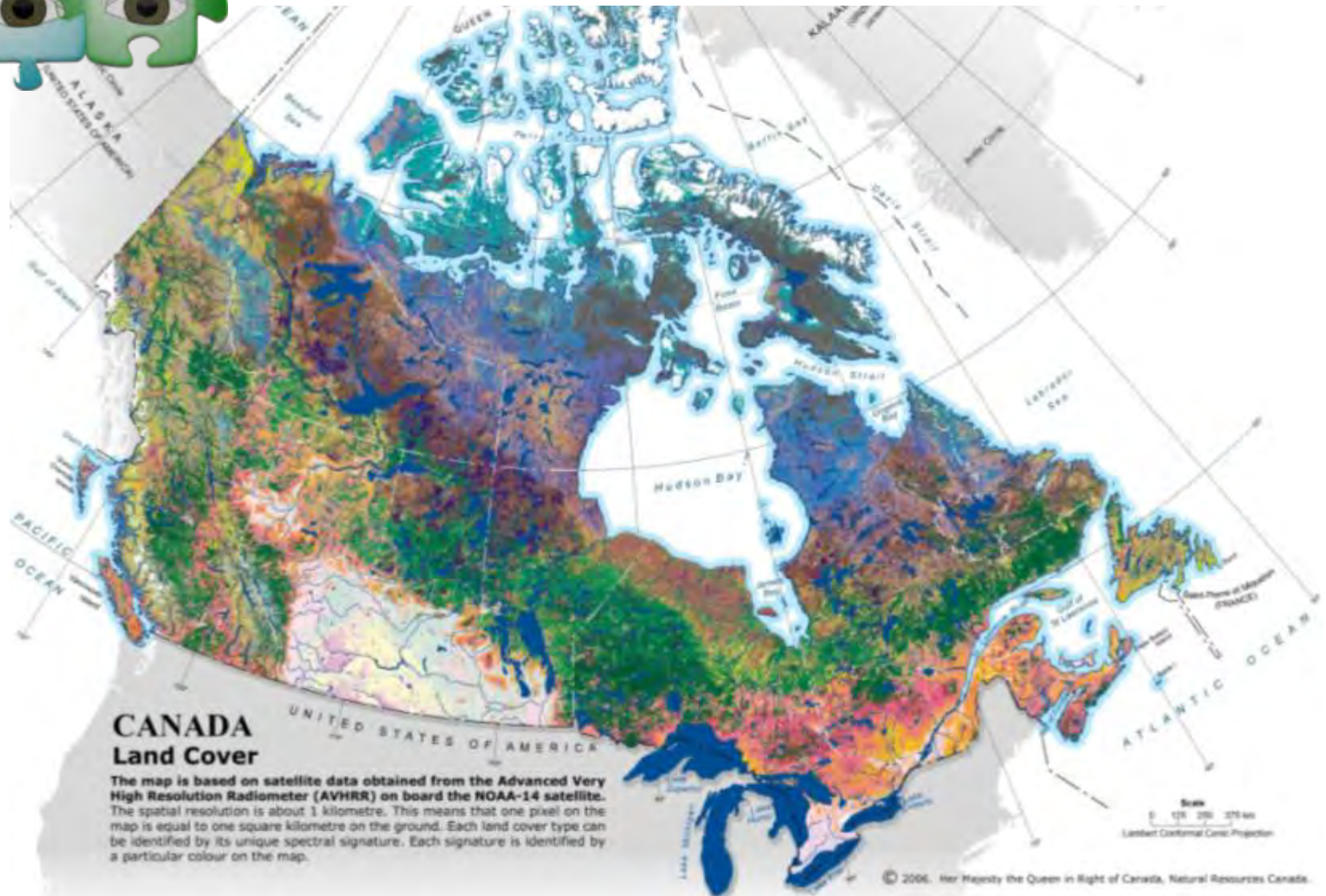
**... and LEARN to use both these  
eyes together for the benefit of all.**

**(words of Mi'kmaw Elder Albert Marshall)**

# ETUAPTUMUK – TWO-EYED SEEING

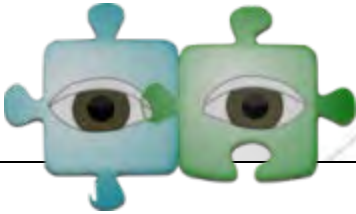


# examples, across Canada, of **TWO-EYED SEEING**



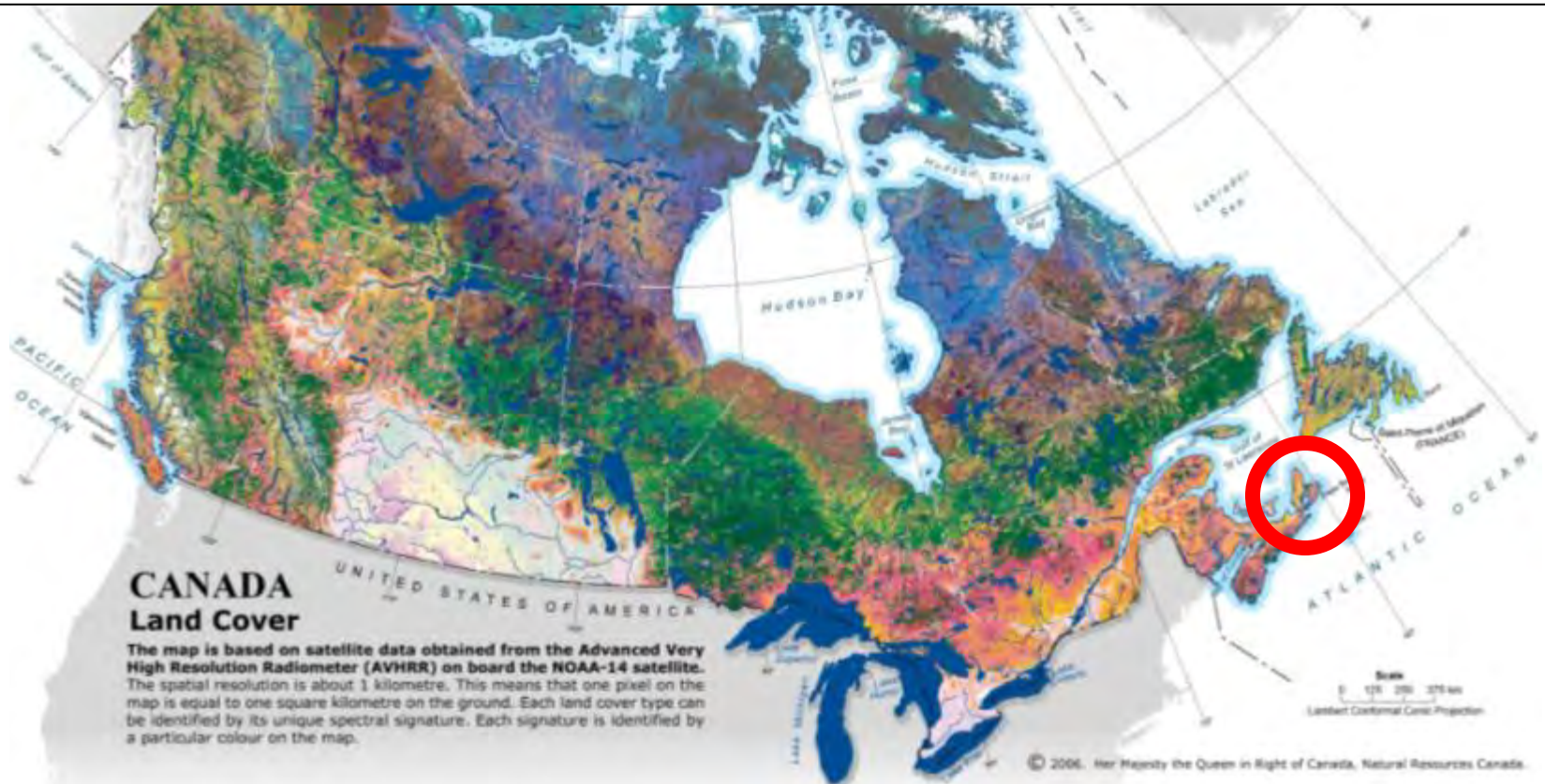


# in Unama'ki - Cape Breton, Nova Scotia “our home”

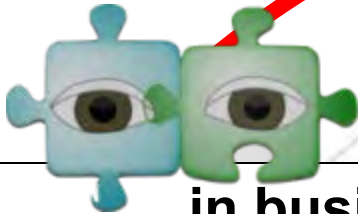


in Integrative Science research  
by university-based researchers and Mi'kmaw Elders

(<http://www.integrativescience.ca>)



# nationally, by IAPH within CIHR



in business case prepared in early 2011 by CIHR's Institute of Aboriginal Peoples' Health for five years' programming (<http://www.ihe.ca/documents/Aboriginal%20Roundtable%20Report.pdf>)

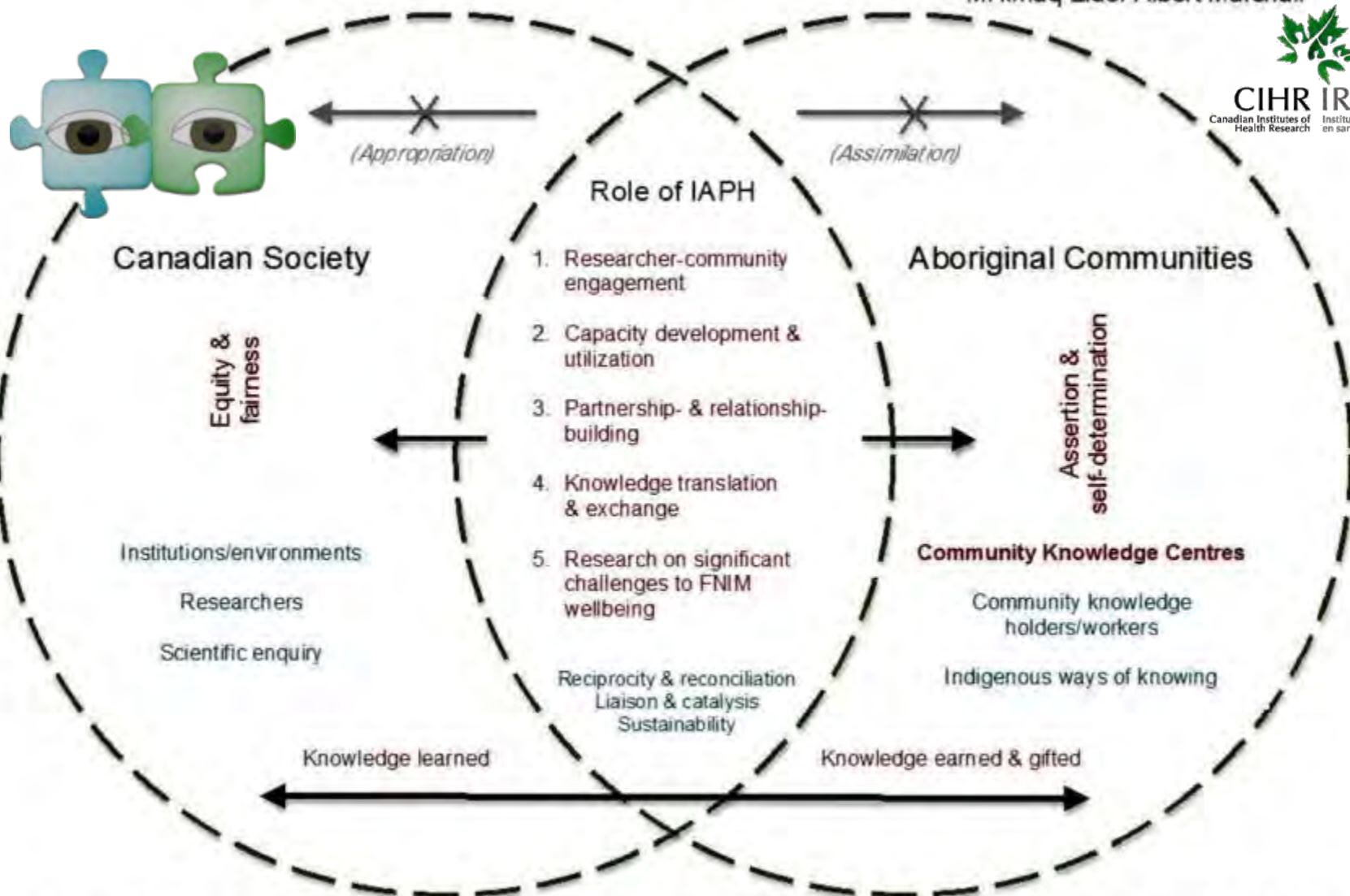


# Two-eyed Seeing\*: A Model for Co-advancement

\*Mi'kmaq Elder Albert Marshall



CIHR IRSC  
Canadian Institutes of Health Research  
Instituts de recherche en santé du Canada



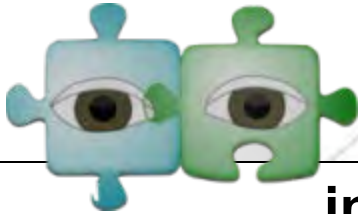
Vision: Healthy & Well First Nations, Inuit & Métis Peoples through Community Knowledge & Indigenous Values

Malcolm King, p. 3 in: \*Aboriginal Peoples' Wellness in Canada: Scaling Up the Knowledge ... Cultural Context and Community Aspirations.

\*Summary Report from the Roundtable in Ottawa, March 3-4, 2011 (Report prepared - May 19, 2011)

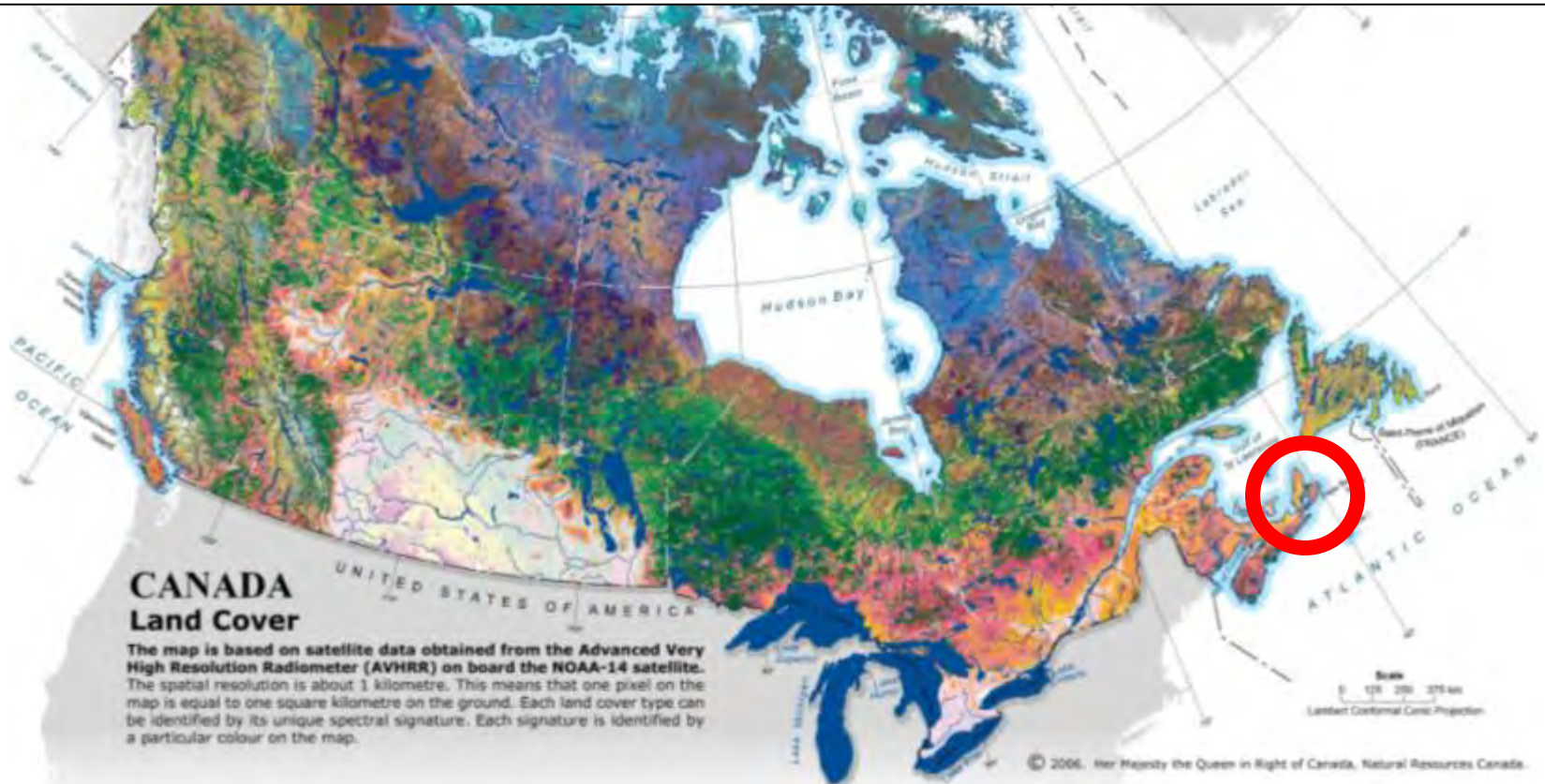
<http://www.ihe.ca/documents/Aboriginal%20Roundtable%20Report.pdf>

# in Unama'ki - Cape Breton, Nova Scotia

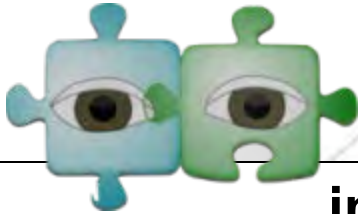


in collaborative environmental planning  
for the Bras d'Or Lake ecosystem and watershed

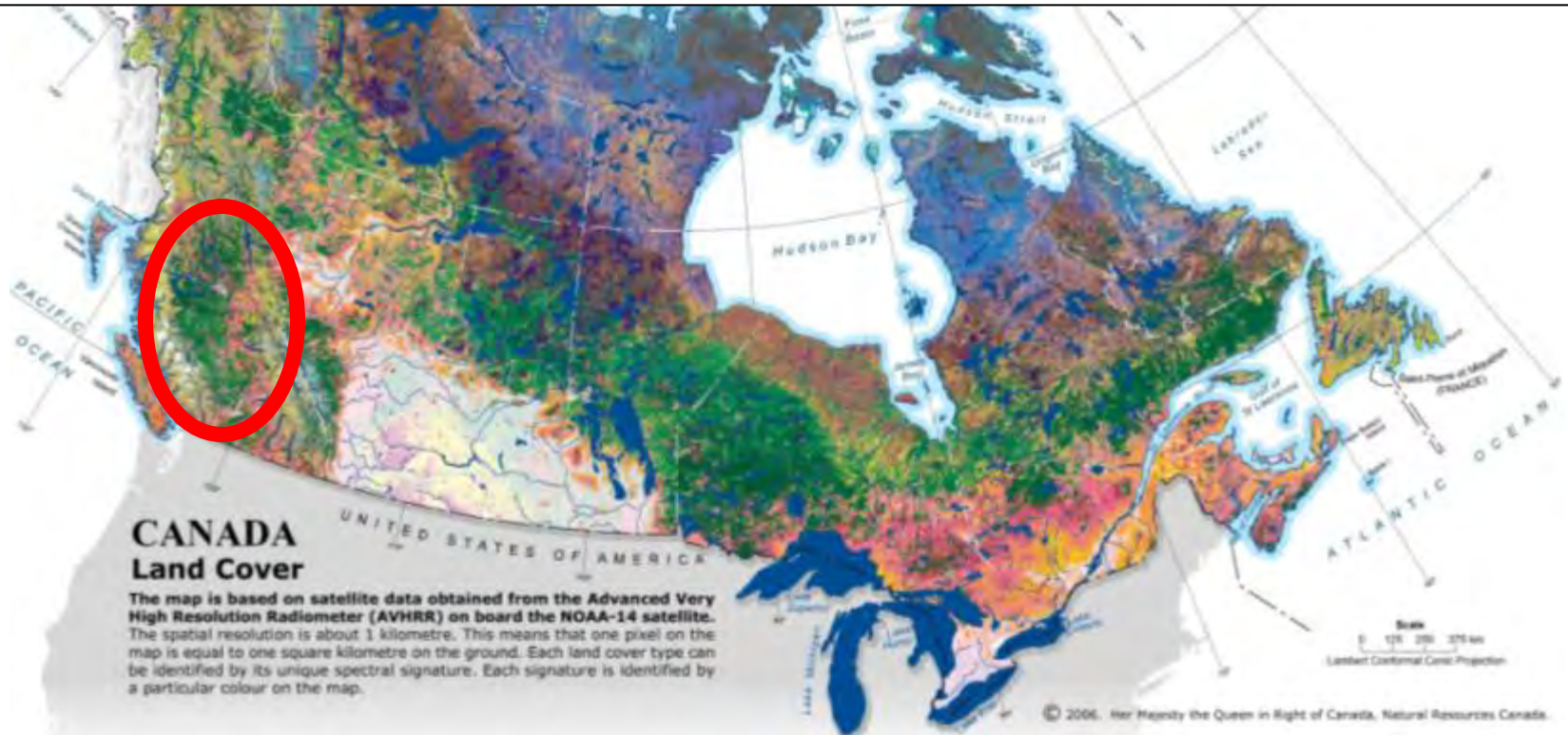
(<http://brasdorcepi.ca/>)



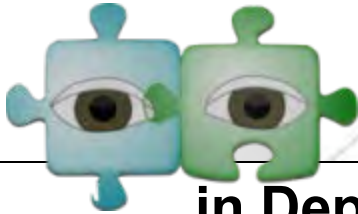
# in British Columbia



in First Nations coalition submission to  
the Cohen Commission on Sockeye Salmon in the Fraser River  
(<http://www.cohencommission.ca/en/pdf/FinalSubmissions/InitialSubmissions/16-InitialSubmission-FirstNationsCoalition.pdf>)



# in Nunavut



in Dept of Environment's and Dept of Education's  
land-based summer camps for youth

(<http://env.gov.nu.ca/node/62>)



## CANADA Land Cover

The map is based on satellite data obtained from the Advanced Very High Resolution Radiometer (AVHRR) on board the NOAA-14 satellite. The spatial resolution is about 1 kilometre. This means that one pixel on the map is equal to one square kilometre on the ground. Each land cover type can be identified by its unique spectral signature. Each signature is identified by a particular colour on the map.

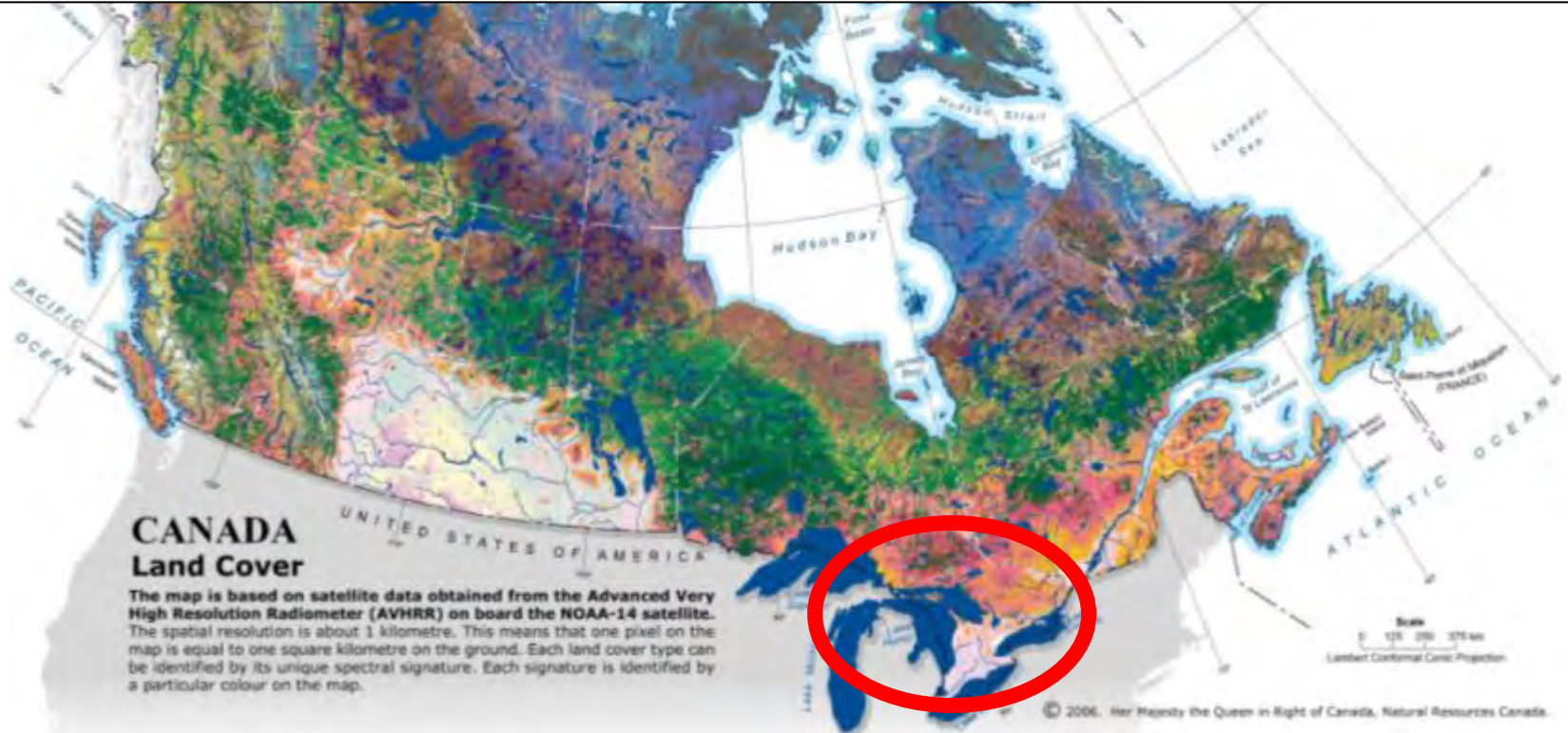
# in Ontario



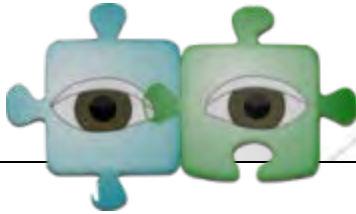
in species-at-risk draft policy  
for the American Eel (*Anguilla rostrata*)



([http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod\\_075572.pdf](http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod_075572.pdf))

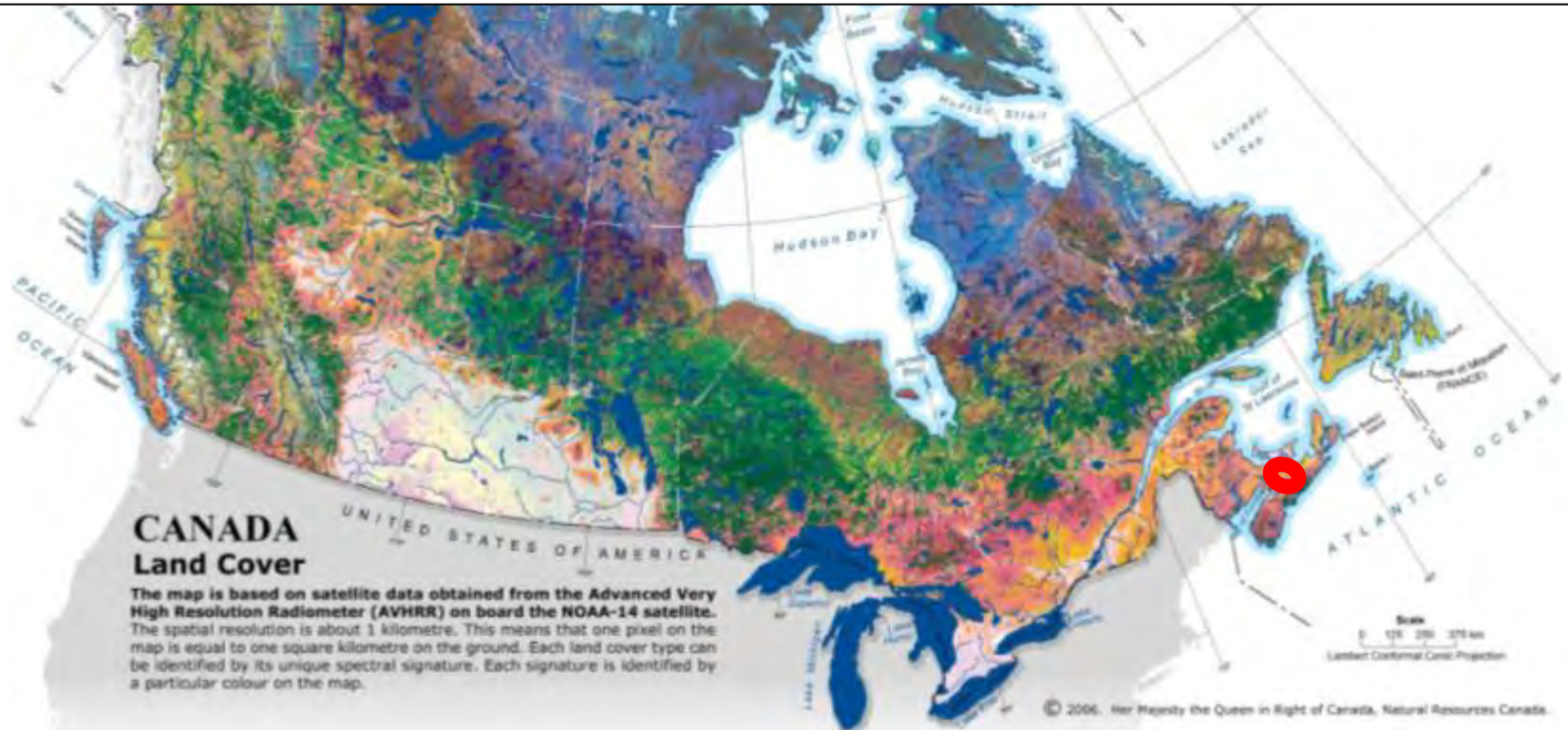


# in Nova Scotia



in interpretive exhibits planned for  
Mi'kmawey Debert Cultural Centre

- a visionary project of Confederacy of Mainland Mi'kmaq (CMM) •  
(<http://mikmaweydebert.com/>)

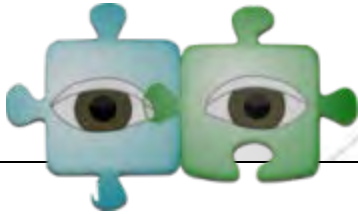


## CANADA Land Cover

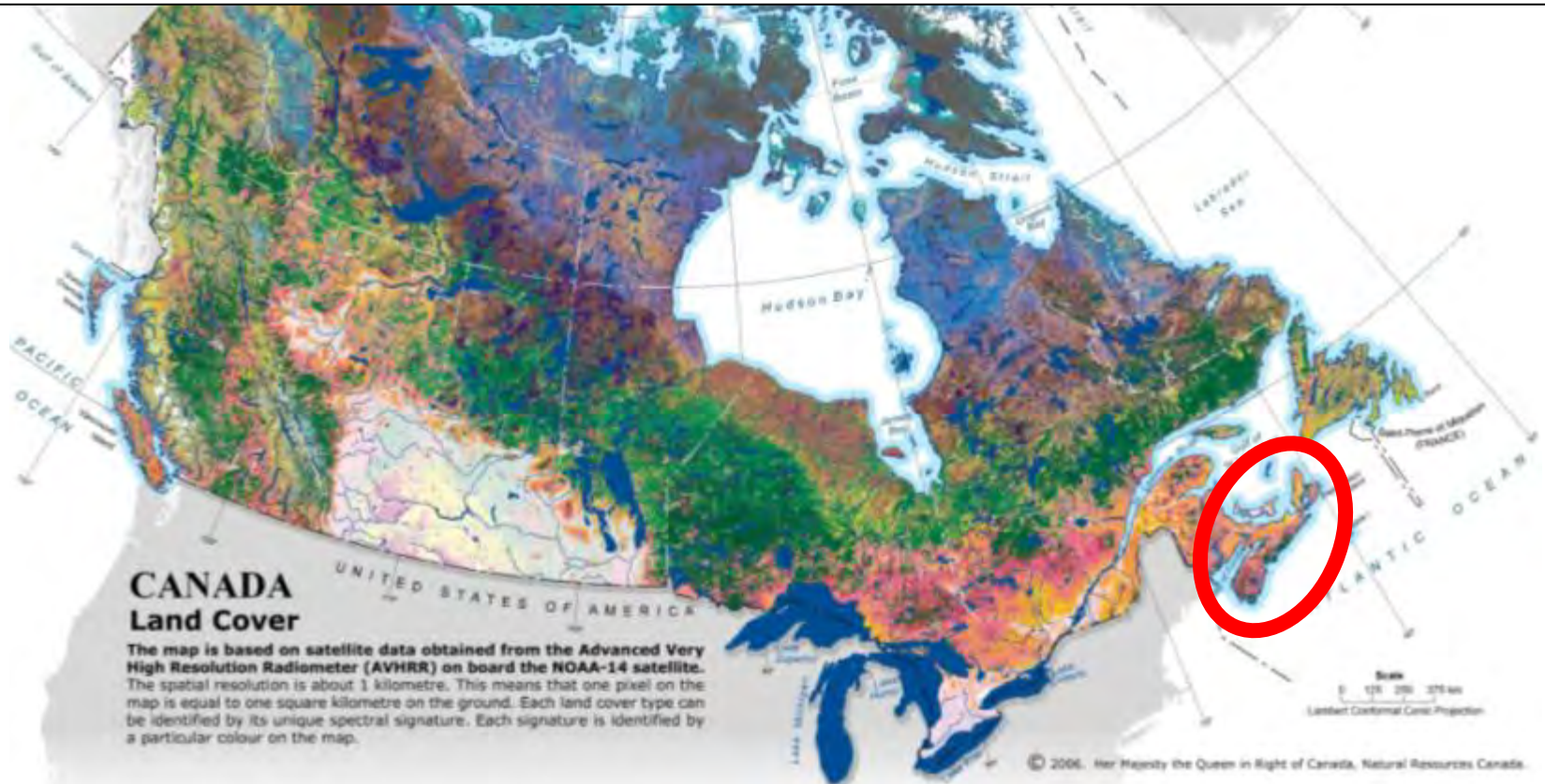
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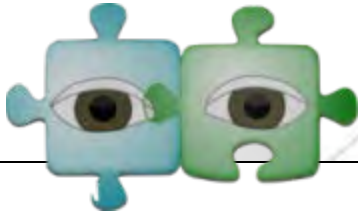
# in Nova Scotia



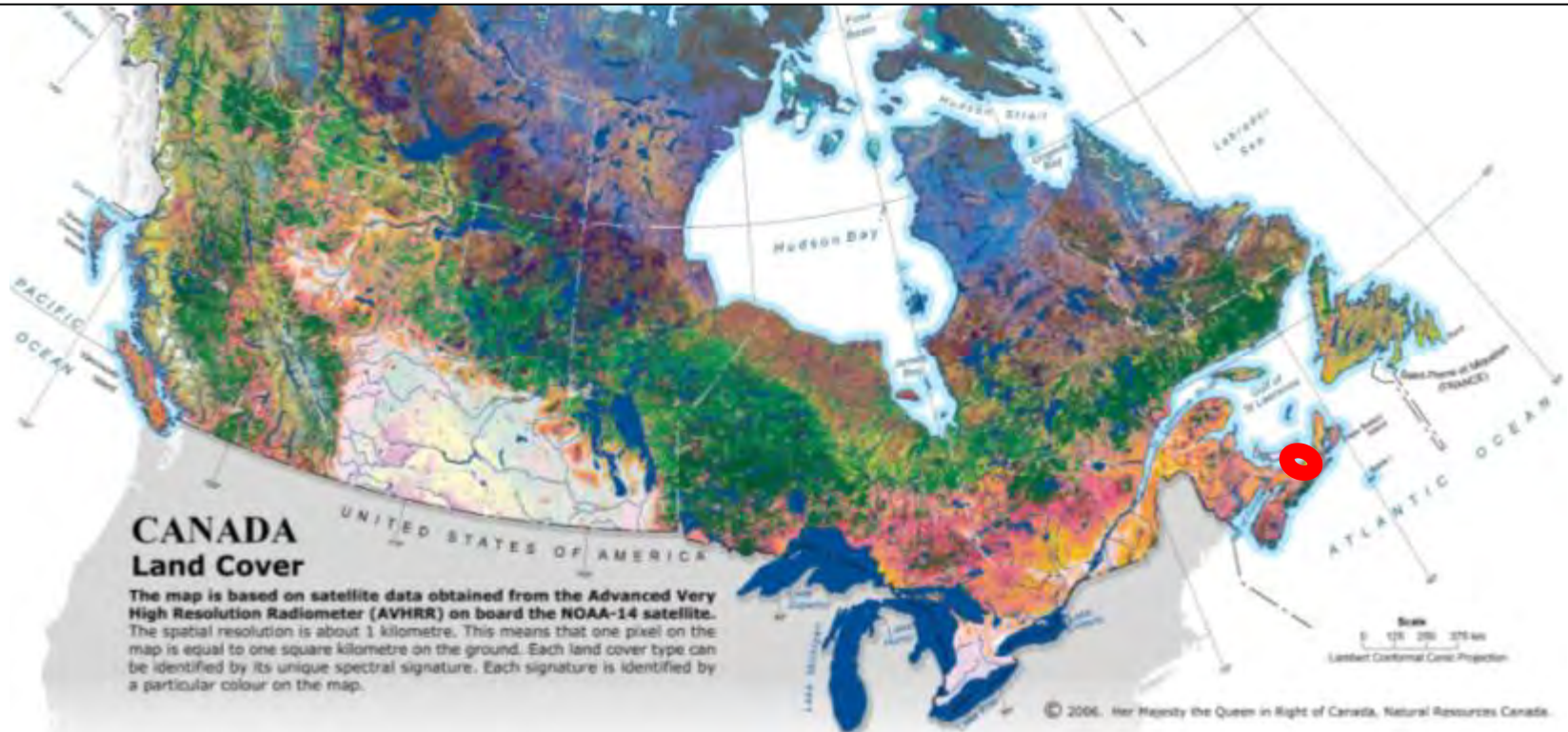
in the 10 year strategic plan  
of the NS Government's Department of Natural Resources  
([http://www.gov.ns.ca/natr/strategy/pdf/Strategy\\_Strategy.pdf](http://www.gov.ns.ca/natr/strategy/pdf/Strategy_Strategy.pdf))

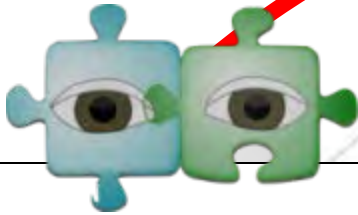


# in Nova Scotia



in CIHR-funded research of  
**Dr. Heather Castleden with women of Pictou Landing First Nation**  
(<http://www.globalnews.ca/health/grant+to+study+decades+of+effluent+on+first+nation+empowering+womens+group/6442587489/story.html>)





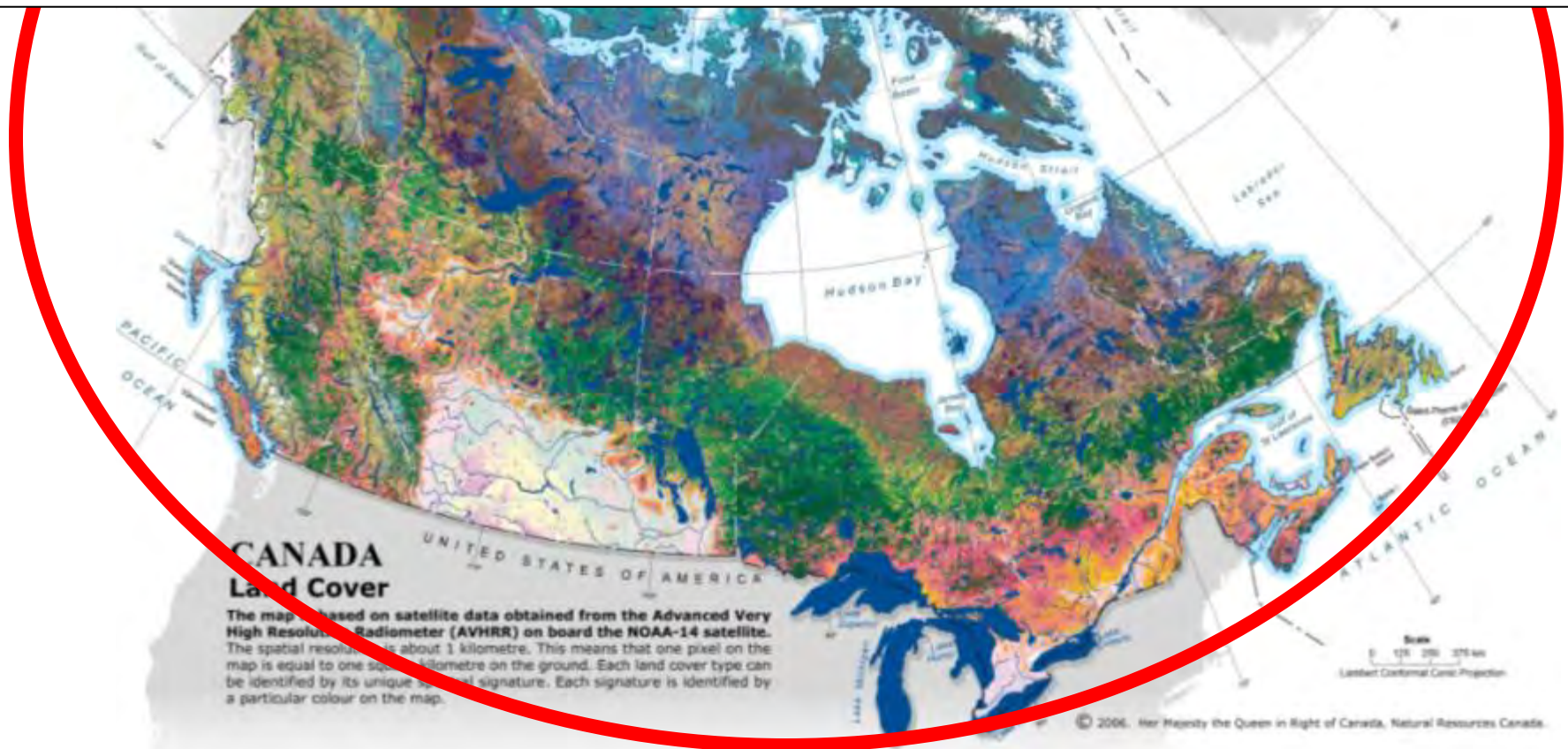
# nationally, by NCCAH



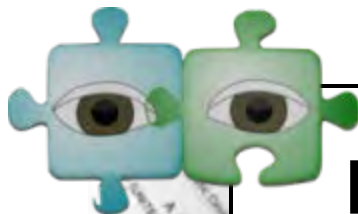
NATIONAL COLLABORATING CENTRE  
FOR ABORIGINAL HEALTH

in various events of  
the National Collaborating Centre for Aboriginal Health

(<http://www.nccah-ccnsa.ca/en/>)



# APCFNC ELDERS PROJECT RECOMMENDATIONS

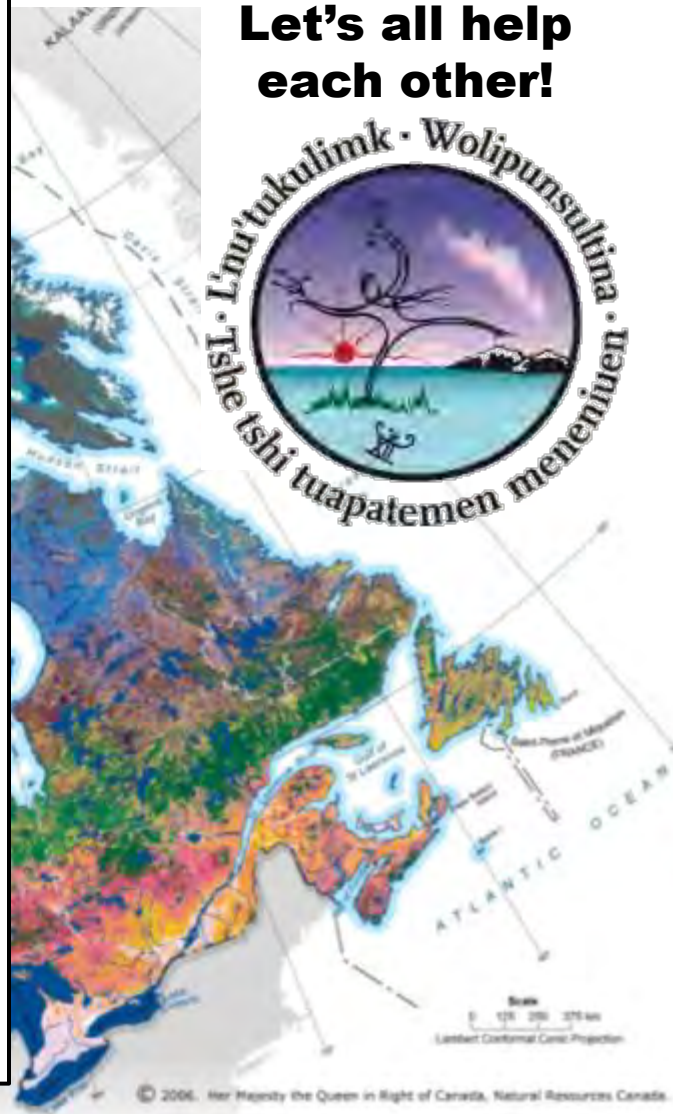


**Let's do it too!**

## AAEDIRP UNIVERSITY PARTNERS

*Dalhousie University*  
*St. Thomas University*  
*Acadia University*  
*Saint Mary's University*  
*Memorial University*  
*Université de Moncton*  
*Mount Allison University*  
*Cape Breton University*  
*University of PEI*  
*St. Francis Xavier University*  
*University of New Brunswick*  
*Mount Saint Vincent University*

**Let's all help  
each other!**

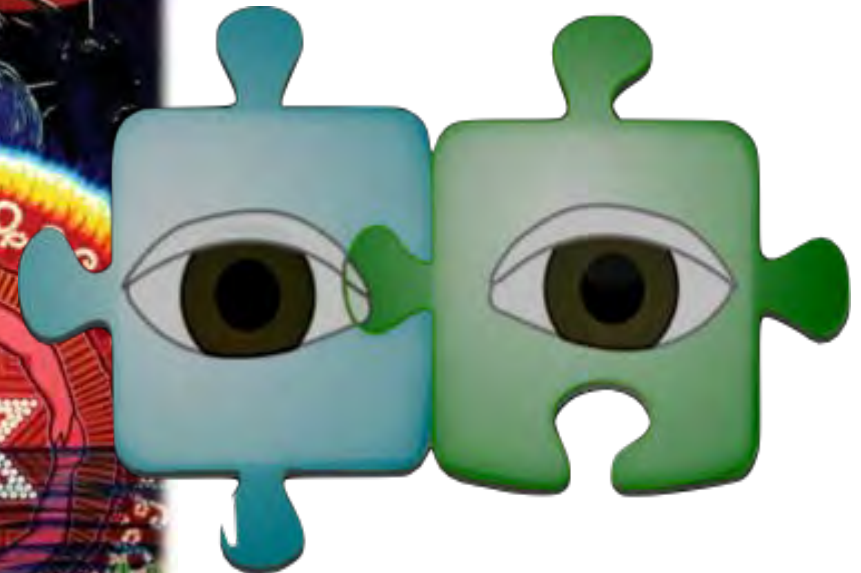


# MI'KMAW TRADITIONAL KNOWLEDGE

some explanation within  
**TWO-EYED SEEING**



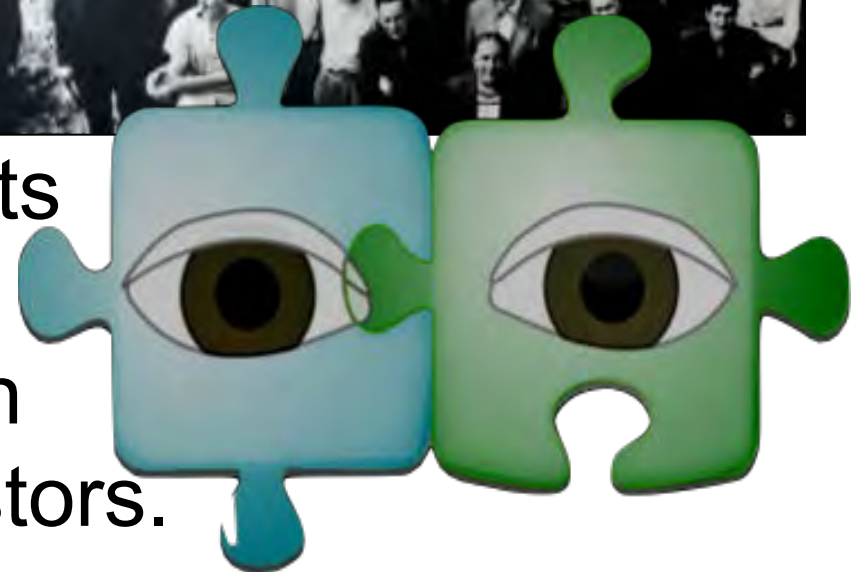
Artist Basma Kavanagh



# AS ELDERS IN OUR TIME

We seek to be a conduit for wisdom of our Ancestors.

We seek to see with **“TWO EYES”** ... to take the accomplishments of the white man’s ways further by blending it with the wisdom of our Ancestors.



# AS ELDERS IN OUR TIME

## We realize:

Knowledge  
is spirit.

It is a gift,  
passed on  
through  
many people.

We must  
pass it on.



# Ta'ntelo'lti'k



MI'KMA'KI

Native Council of Nova Scotia  
Mi'kmaq Language Program  
Artist: Michael J. Martin



# Ta'ntelo'Iti'k

*how we  
Lnu'k are*



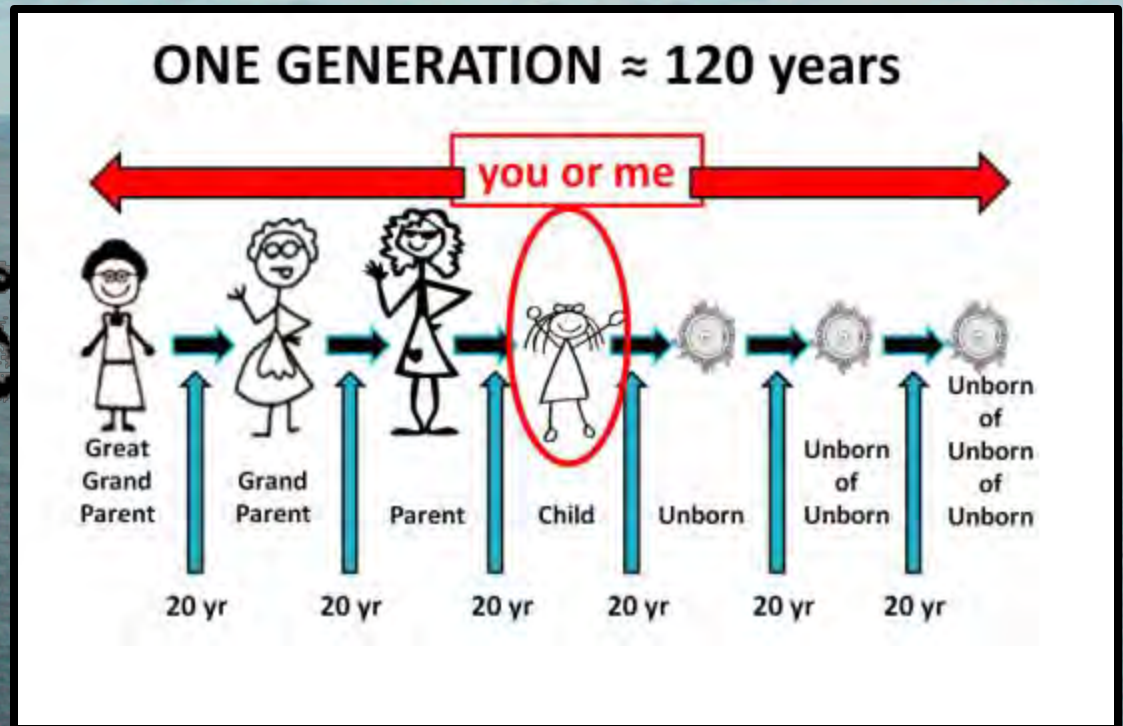
# Ta'ntelo'Iti'k

**Our Mi'kmaw culture is  
built on long term vision  
and our decisions  
were made with the next  
Seven Generations  
in mind.**

*(words of Elder Albert Marshall)*

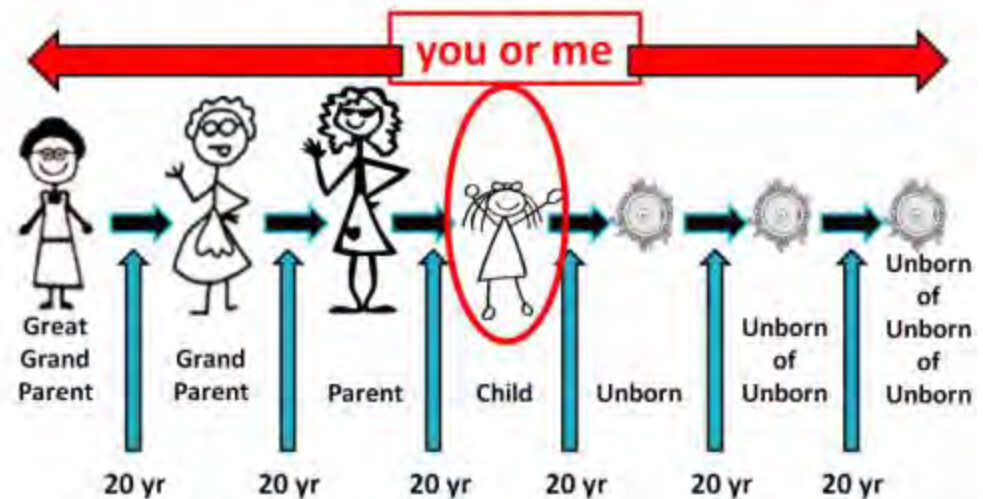


# Ta'ntelo'Iti'k



# Ta'ntelo'Iti'k

7 X ONE GENERATION ( $\approx 120$ )  $\approx 840$  years



**Seven Generations**  
 **$\approx 840$  years**



# Mi'kmaw Traditional Knowledge

**So this is what we truly believe ...  
this is what reinforces our spiritualities:**

**that no one being is greater  
than the next, that we  
are part and parcel of  
the whole, we are equal,  
and that each one of us has a  
responsibility to the balance  
of the system.**

*(words of Elder Albert Marshall)*



# Mi'kmaw Traditional Knowledge

Its **“PRINCIPLE OF HUMILITY”** is based on Lnu'k knowledge ... evolving for 10,000 years.



Extent of ice 11,000 years ago. People lived at the Debert site sometime between 11,000 and 10,000 years ago.

information source: signage on Mi'kmawey Debert Interpretive Trail

# Mi'kmaw Traditional Knowledge

is “LIVING KNOWLEDGE”

Artist Gerald Gloade; Millbrook First Nation



... and was never meant to be static and stay in the past.



# **Mi'kmaw Traditional Knowledge**

**is “LIVING KNOWLEDGE”**

within a worldview in which our

**VALUES,  
ACTIONS,  
and  
KNOWLEDGE**

**... are all towards:**

**INTERCONNECTIVENESS**





# Mi'kmaw Traditional Knowledge

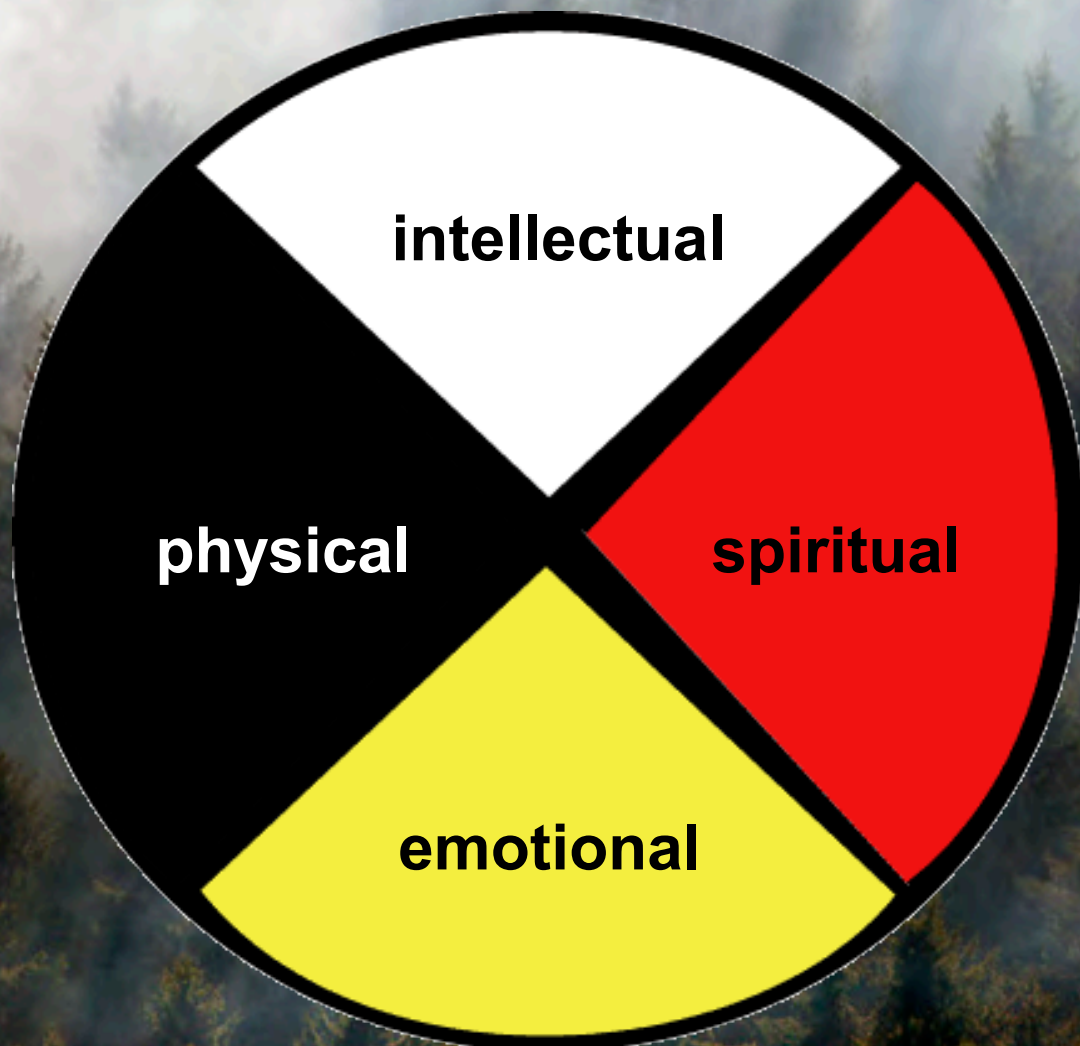
**Relationships pattern our lives.**

- example: family ... who is your mother?

**Relationship patterns become the primary navigators for how we go through life.**

**MAKING OUR WAY:  
PATTERNS of  
INTERCONNECTIVENESS**

# Mi'kmaw Traditional Knowledge



**Four  
Aspects  
of Being  
Human**

thus also with  
Traditional  
Knowledge

# Mi'kmaw Traditional Knowledge

## INTERCONNECTIVENESS



## Mi'kmaw Seven Sacred Gifts of Life

Teachings of  
Elder Murdena Marshall

(words of Elder Albert Marshall)

**Our Mi'kmaw language is the key to how our actions will unfold. Each word is much deeper than only taking care of an object. Animacy brings personal connection ... such that actions fit actions (everything is in the picture) and we are always mindful of the ...**

**First Sacred Gift of Life: LOVE**

**EXAMPLES**

- 1) pekajo'tmnej = consider all aspects  
... *action is harmonious*
- 2) wulo'tmnej = love some one  
... *action is care*
- 3) sespite'tmnej = worry about what you do  
... *action is guided*



**Our language teaches us that everything  
alive is both physical and spiritual.**

**The onus is on  
the person to look at  
our natural world  
with two perspectives.**

**Modern science  
sees objects,  
but our language teaches  
us to see subjects.**



Artist Gerald Gloade; Millbrook First Nation

# MI'KMAW LAND - MI'KMAW LANGUAGE -



Land of Fog  
Lying in the Water *and*  
Explosive Area  
Skin Dresser's Area  
Wild Potato Area  
Land's End  
Drainage Area  
Last Land  
Land Across the Water

map (modified) from: [www.muiniskw.org](http://www.muiniskw.org)

# MI'KMAW LAND - MI'KMAW LANGUAGE -



map (modified) from: [www.muiniskw.org](http://www.muiniskw.org)

**Unama'kik**

**Epekwitk**

**Pitukewa'kik**

**Eski'kewa'kik**

**Sipekne'katik**

**Kespukwitek**

**Sikniktewa'qkik**

**Kespe'kewa'qkik**

**Ktaqmukuk**

**Land of Fog**

**Lying in the Water and  
Explosive Area**

**Skin Dresser's Area**

**Wild Potato Area**

**Land's End**

**Drainage Area**

**Last Land**

**Land Across the Water**

map (modified) from: [www.muiniskw.org](http://www.muiniskw.org)



**Everything that we do to our natural world ...  
we also do to ourselves.**



# Netukulimk

“sustaining ourselves”

yes ... but really is a  
much richer concept;  
**it is holistic.**

*(words of Elder Albert Marshall)*

*All Our Relations*



# Netukulimk

“sustaining ourselves”

*All Our Relations*

**Co-existence**  
**Inter-dependence**  
**Community Spirit**

*(words of Elder Albert Marshall)*



... takes you into a place where you are very conscious of how the human two-leggeds are interdependent and interconnective with the natural world ...

this philosophy / ideology is so ingrained in your subconscious that you are constantly aware of not creating an imbalance.

# Netukulimk ... teaches you



**Co-existence**

**“When we look at Creator, if it was meant for me to know everything that I needed to get along, then I would only be one person in the world. Instead, each person is given a skill and develops those skills.”**

**words of Mi'kmaw Elder Albert Marshall**

*from: Master's thesis research “Mi'kmaw traditional knowledge of eels” by Sana Kavanagh*

# Netukulimk ... teaches you



## Inter-dependence

**“If some person is struggling, apply your skills to compensate for that person. Some days I’m down and out ... the community will not let me go hungry.”**

**words of Mi’kmaw Elder Albert Marshall**

*from: Master’s thesis research “Mi’kmaw traditional knowledge of eels” by Sana Kavanagh*

# Netukulimk ... teaches you



## Community Spirit

**“The sense of community is constantly triggered ... [you’re] fine tuning your skills to live in balance and harmony with others. It’s a sense of community enmeshed in total being.”**

**words of Mi’kmaw Elder Albert Marshall**

**from: Master’s thesis research “Mi’kmaw traditional knowledge of eels” by Sana Kavanagh**

# Netukulimk ... teaches you



Humans possess responsibilities.



Other species possess rights.

# Netukulimk ... teaches you



Artist Gerald Gloade; Millbrook First Nation

# Netukulimk

What is the objective when we speak of economic development?

Are there to be benefits to a select few, or will it be from a First Nation perspective?



We have to sustain ourselves at this particular time (era). But we need not just mirror or copy current economic models where entrepreneurs or others can maximize profit without concern for the collective or for the environment.



## How are we to provide input?

words of Elder Albert Marshall from: **“Two-Eyed Seeing: ‘taking down the boundaries’ between Mi’kmaq Traditional Knowledge and the mainstream”** at AAEDIRP’s *LET’S WORK TOGETHER: A CONFERENCE ON CREATING MEANINGFUL & SUSTAINABLE EMPLOYMENT FOR ATLANTIC ABORIGINAL PEOPLE*; 16-18 February 2010; Dartmouth, NS  
<http://www.integrativescience.ca/uploads/articles/2010February-Bartlett-Marshall-Integrative-Science-Two-Eyed-Seeing-economic-development-Mi'kmaq-knowledge-barriers.pdf>



# Netukulimk



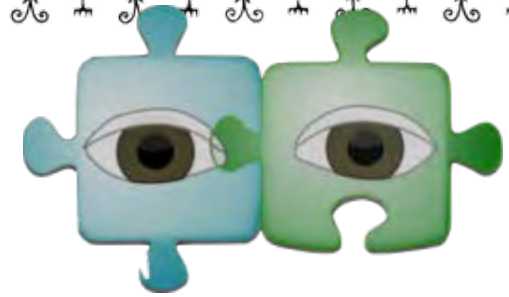
Artist Gerald Gloade; Millbrook First Nation

We understand economic development as somewhat foreign ... one objective has to be to provide opportunities for groups of people so they can sustain themselves adequately, plus the community. But, at the same time as we are using Gifts from Creator, we must:

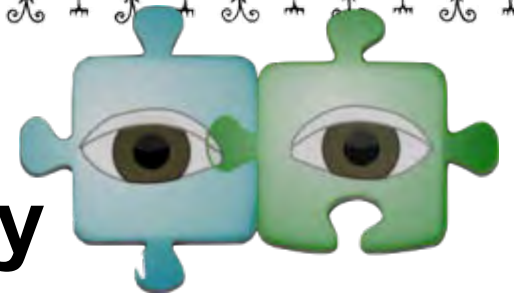
- 1) NOT compromise ecological integrity, and
- 2) ALWAYS look into the future so next generations have the same opportunities.

source: see previous slide

**If people are starving,  
they will not care about  
environmental sustainability ...**



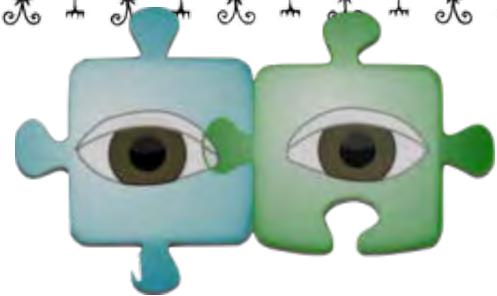
**If pollution exceeds  
the natural cleansing capacity  
of our ecosystems ...**



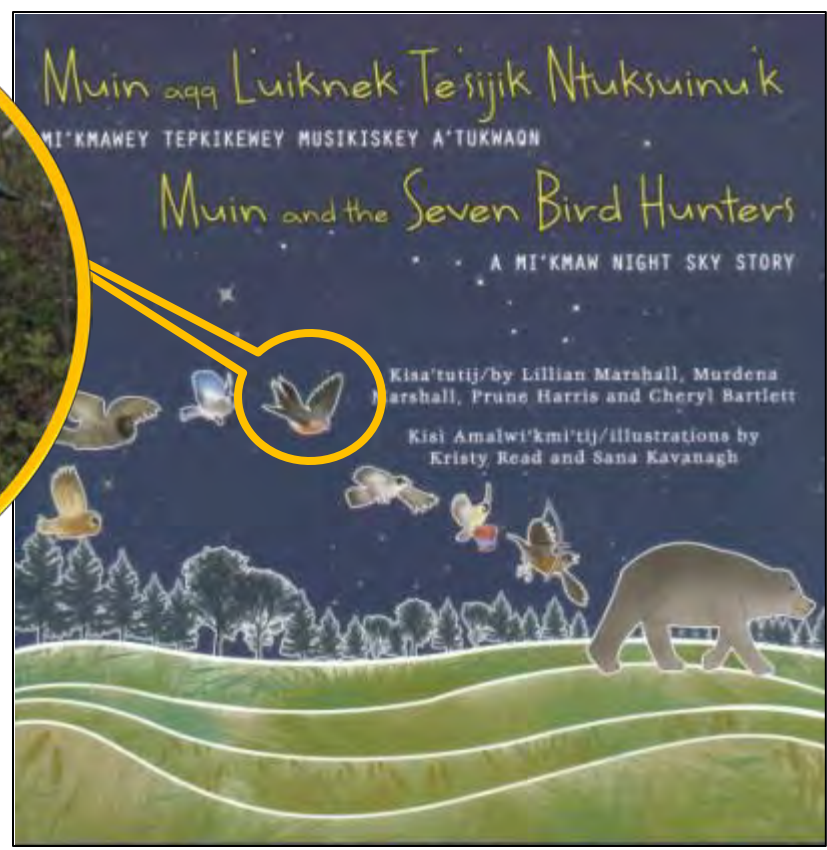
Artist Basma Kavanagh



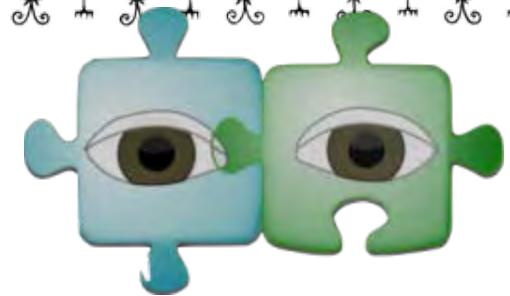
**If species become extinct,  
some of our relations are  
gone forever ...**



**Ples  
(Passenger Pigeon)**



**If species become extinct,  
some of our relations are  
gone forever ...**

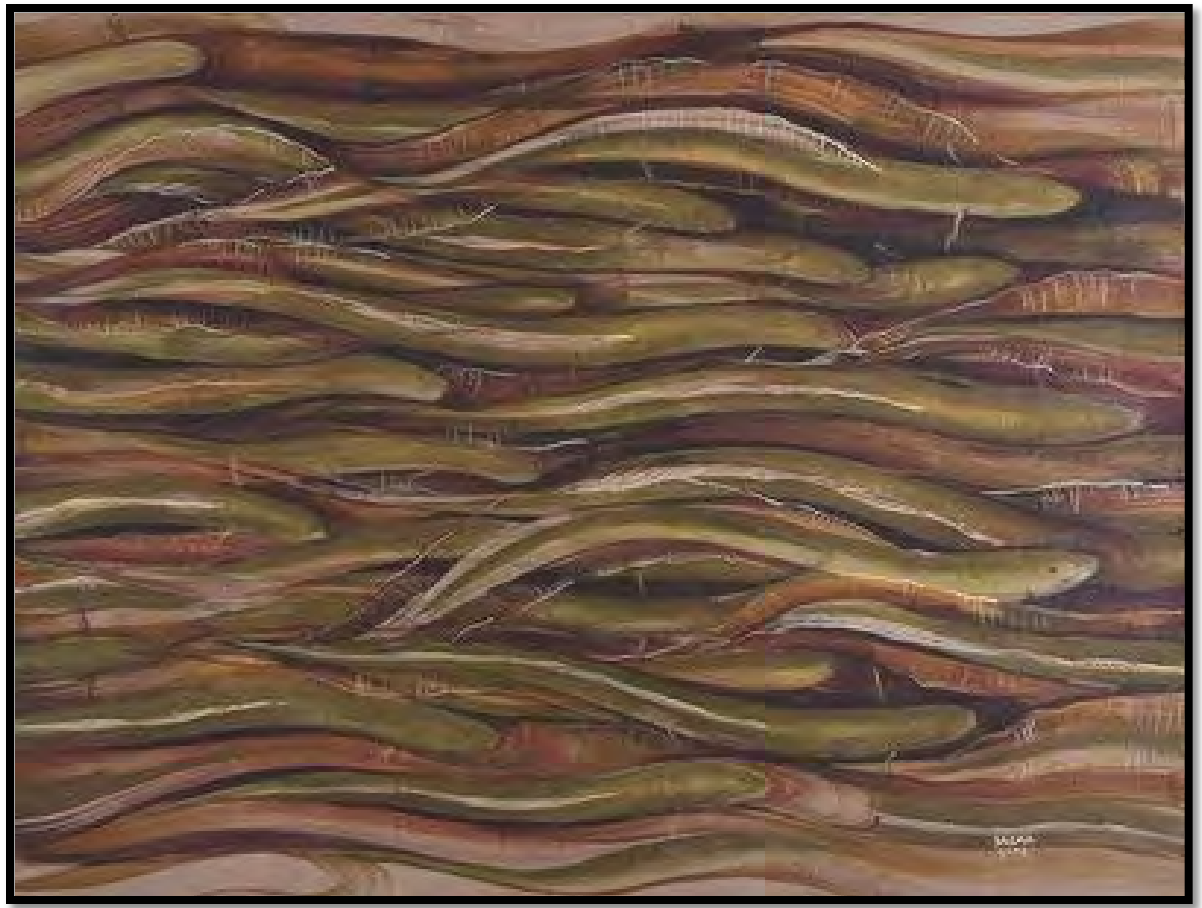


Artist Basma Kavanagh

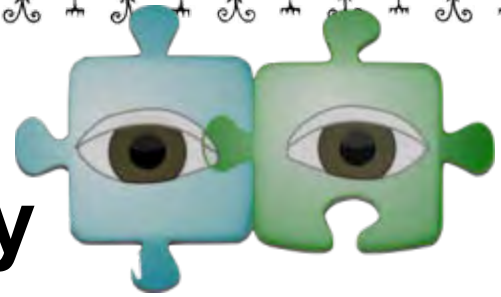


Artist Gerald Gloade  
Millbrook First Nation

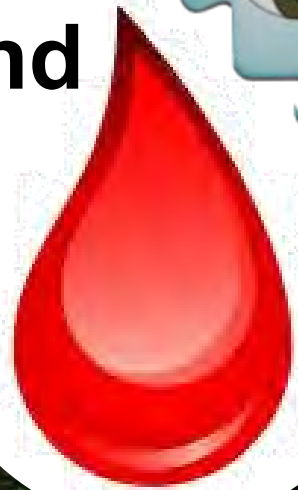
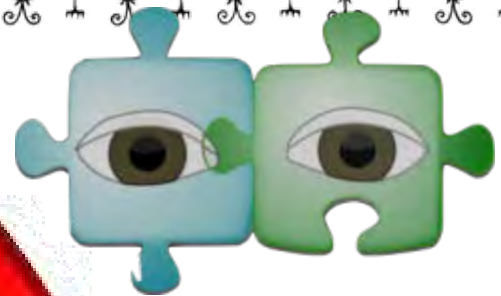
**Eels (Kataq)  
are now a  
*Species  
of Concern.***



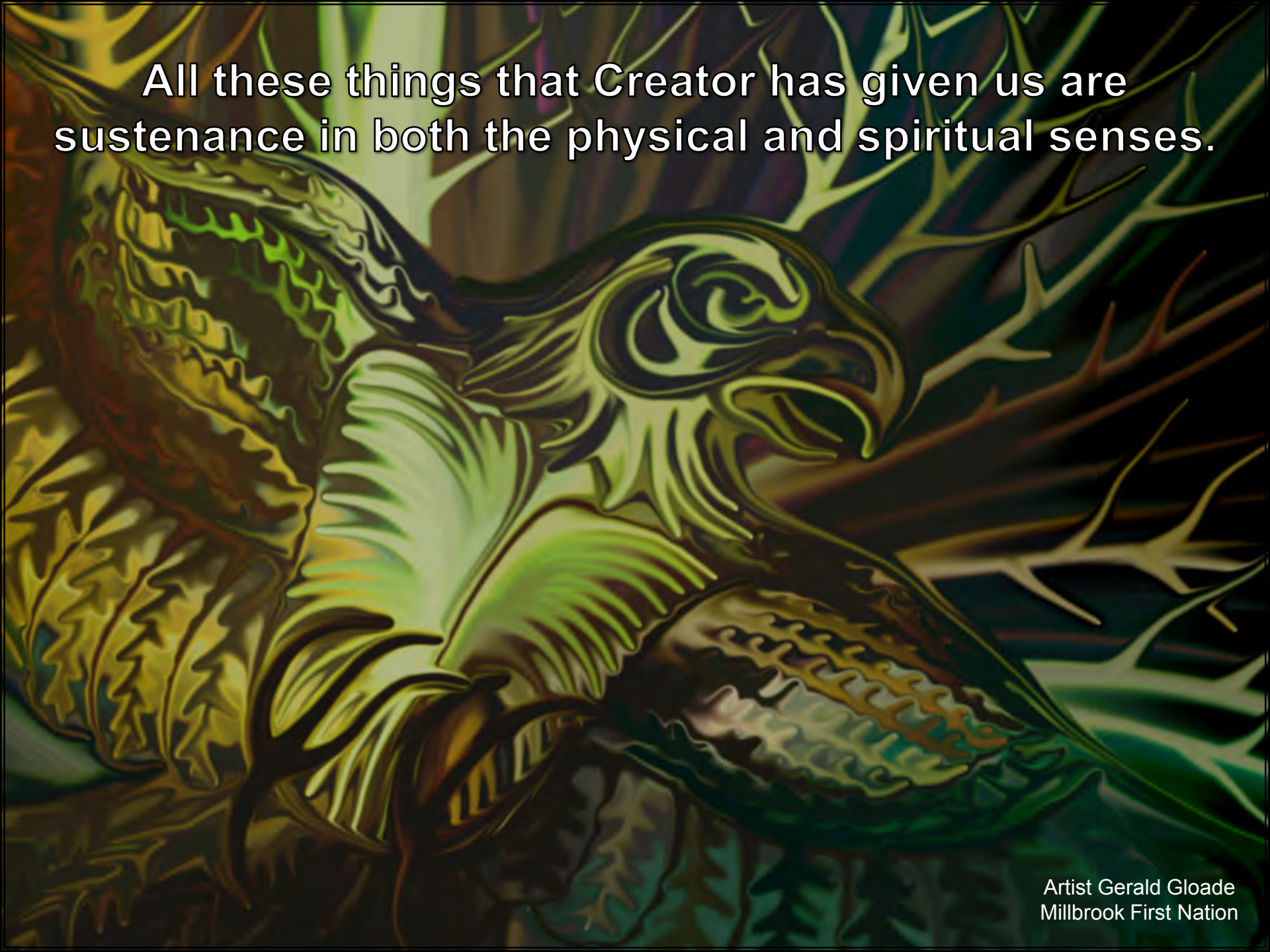
**If consumption of resources exceeds the carrying capacity of our ecosystems ...**



**If we do not recognize that forests are watersheds and thus our life support ...**



All these things that Creator has given us are  
sustenance in both the physical and spiritual senses.



Artist Gerald Gloade  
Millbrook First Nation



Traditionally, nothing was taught as black and white. Everything was story ... where you have the responsibility to listen and reflect. This is a much more profound way of learning because you have the opportunity for relationship with the knowledge.

## **words of Elder Albert Marshall**

I must bring relationships into my life. If a sense of relationship with the knowledge is not identified, then it becomes a duty and you memorize to appease someone. The understandings have not been assimilated; the head and heart have not been connected.

Our language teaches us that everything  
alive is both physical and spiritual.



the “HEALING TENSE”  
in the Mi’kmaw language

*teachings of  
Elder Murdena Marshall*



**WE HEAL  
TOGETHER**



Canada Research  
Chairs  
Social Sciences and Humanities  
Research Council of Canada

Chaires de recherche  
du Canada  
Conseil de recherches en  
sciences humaines du Canada

Canada  
Canada



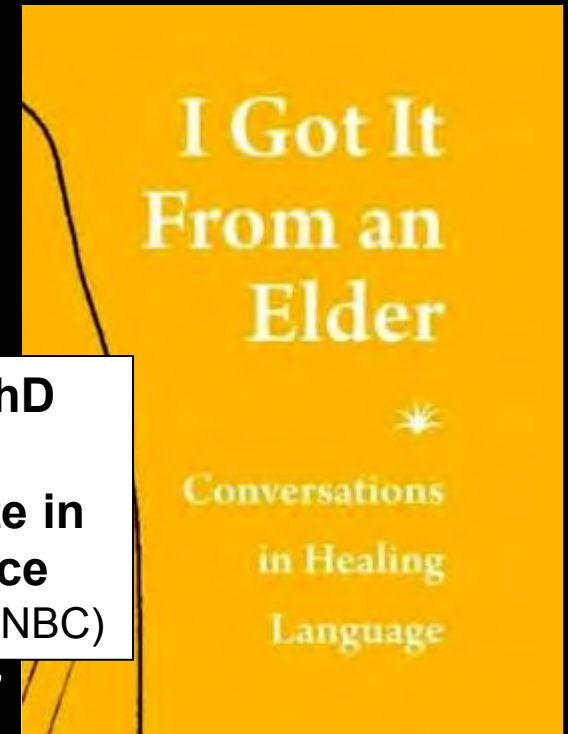
CIHR IRSC  
Canadian Institutes of Health Research  
Instituts de recherche en santé du Canada



**Dr. Ivar Mendez, Director  
Brain Repair Centre,  
Dalhousie University**

**Marilyn Iwama, PhD  
Poet and  
Research Associate in  
Integrative Science  
(now Adjunct Faculty, UNBC)**

**Gaspereau Press, Kentville, NS, 2007  
Iwama, M., Marshall, M., Marshall, A.,  
Mendez, I., and Bartlett, C.**

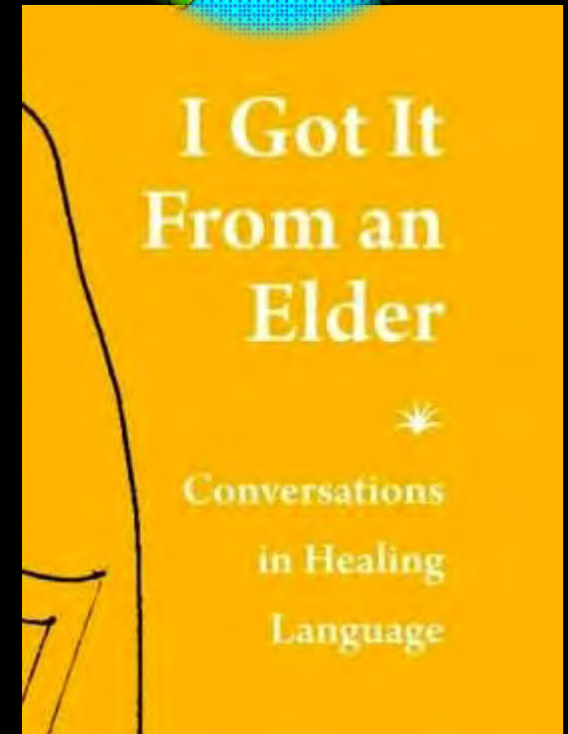


# the HEALING TENSE

... example verb conjugation:

“to be drunk”

- ketkiya (present)
- ketkiyayop (simple past)
- ketkiyayas nek (healing)



# THE HEALING TENSE HEALS

[ ... he] has taken his misdeeds and placed them in front of him and walked around them, and said: “yes, I was there”.

... when he goes into this healing tense, then my attitude has to change ... everybody in the household ... everybody ... has to abide with him

*Murdena Marshall,  
in conversation with Ivar Mendez*



I Got It  
From an  
Elder

✦  
Conversations  
in Healing  
Language

for additional information, see:

Iwama, M., Marshall, M., Marshall, A., and Bartlett, C. 2009.  
Two-Eyed Seeing and the Language of Healing in Community-Based Research.  
Canadian Journal of Native Education, 32: 3-23.

[http://www.integrativescience.ca/uploads/articles/2009Iwama-et-al-CJNE-Two-Eyed-Seeing-Mikmaw-language-healing-community-based-research\[1\].pdf](http://www.integrativescience.ca/uploads/articles/2009Iwama-et-al-CJNE-Two-Eyed-Seeing-Mikmaw-language-healing-community-based-research[1].pdf)

**We need to come together as one where all these things can be taken in.**



**Our overarching understanding has to be: that our culture is still very much alive ... and we can extract those principles of how one can sustain oneself without compromising abilities for the future.**



Artist Gerald Gloade; Millbrook First Nation

# Consciousness of Knowing



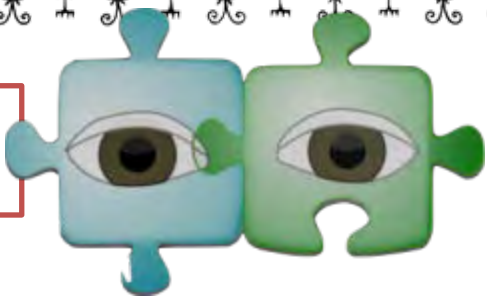
Artist Basma Kavanagh

*Co-existence  
Interrelativeness  
Interconnectiveness  
Community Spirit  
... with each other and  
with Mother Earth*

---

**All people must learn  
Two-Eyed Seeing  
so that knowledge of the  
physical is not separated  
from wisdom of the spiritual.**

**Is this all just philosophy?**



## **TWO-EYED SEEING**

is not going to be salvation, but rather through these things termed “philosophy” ...



... if only we would spend a few moments to determine if there are possibilities for change ... to hear the stories from cultures other than our own.



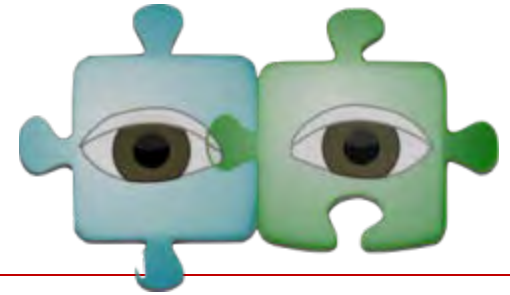


# **TWO-EYED SEEING**

**a Guiding Principle for transcultural collaboration**

Artist Gerald Gloade  
Millbrook First Nation

# **TWO-EYED SEEING** **is more than “just philosophy”!**



it can be viewed as a guiding principle for  
**TRANSDISCIPLINARY RESEARCH**

**TD research = a collaboration of representatives of different thought styles\***

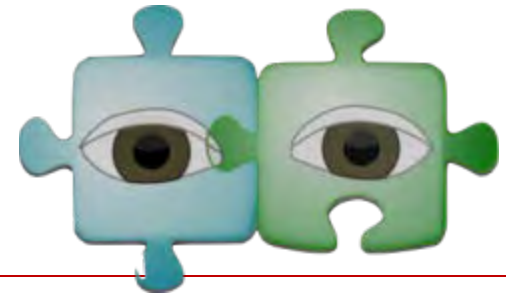
The term “transdisciplinary” has evolved from its more literal meaning of transcending the traditional boundaries of university-based research to include the participation of extra-academic stakeholders. While transcending discipline boundaries certainly remains an important activity of TD researchers, [others] have made reference to a range of related boundaries beyond discipline-based knowledge divides that TD researchers transcend. These include: affect/effect or fact/value; epistemological divides; and various systems conceptualization and boundary judgements. (p. 1147, in Carew, A.L. and Wickson, F. 2010. *The TD Wheel: a heuristic to shape, support, and evaluate transdisciplinary research. Futures 42: 1146-1155*)

**\*from: Pohl, C. 2011. What is progress in transdisciplinary research?**

**Futures 43: 618-626.**

(p. 621)

# TWO-EYED SEEING is more than “just philosophy”!



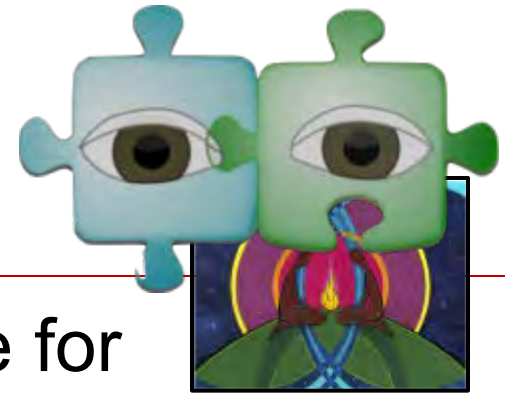
it can be viewed as a guiding principle for  
**TRANSDISCIPLINARY RESEARCH**

**\*Table: Three concepts of transdisciplinarity as combinations of four features**

Transdisciplinarity according to concept	A	B	C
<b>Features of transdisciplinarity</b>			
Relating to socially relevant issues	■	■	■
Transcending and integrating disciplinary paradigms	■	■	■
Participatory research		■	
Searching for a unity of knowledge			■


**\*from: Pohl, C. 2011. What is progress in transdisciplinary research?  
Futures 43: 618-626.  
(p. 620)**

# TWO-EYED SEEING is more than “just philosophy”!



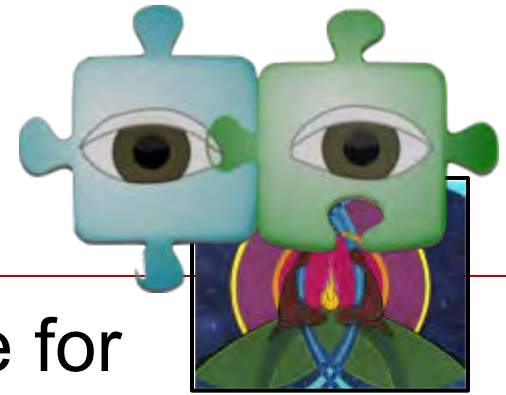
we chose it as a guiding principle for  
**INTEGRATIVE SCIENCE RESEARCH**

\*Table: Three concepts of transdisciplinarity as combinations of four features

Transdisciplinarity according to concept	A	B	C
<b>Features of transdisciplinarity</b>			
Relating to socially relevant issues			
Transcending and integrating disciplinary paradigms			
Participatory research			
Searching for a unity of knowledge			

*\*from:* Pohl, C. 2011. What is progress in transdisciplinary research?  
Futures 43: 618-626.  
(p. 620)

# TWO-EYED SEEING is more than “just philosophy”!



we chose it as a guiding principle for  
**CO-LEARNING**

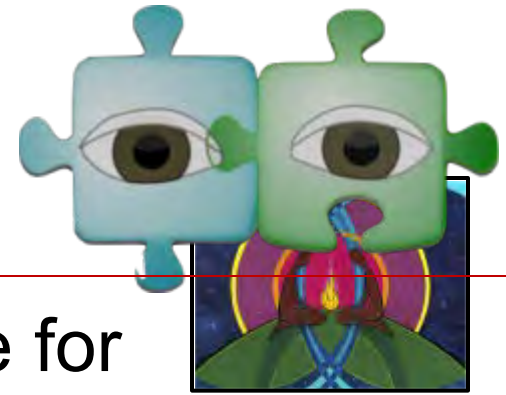
## \* Four purposes for transdisciplinary research

1. Grasp complexity of the socially relevant issue.
2. Take diverse perspectives on the issue into account.
3. Link abstract and case-specific knowledge.
4. Develop descriptive, normative, and practical knowledge that promotes what is perceived to be the common good.

The 4<sup>th</sup> purpose means that one of the specific challenges for TD researchers is to ensure that value systems do not operate in the shadows and instead are clarified by jointly developing the meaning of [specific topics or concepts] for the research project's context.

*\*from:* Pohl, C. 2011. What is progress in transdisciplinary research?  
Futures 43: 618-626.  
(p. 620)

# TWO-EYED SEEING is more than “just philosophy”!



we chose it as a guiding principle for  
**CO-LEARNING**  
a means to work meaningfully together

Artist Basma Kavanagh



In Unama’ki – Cape Breton,  
a form of **Co-Learning**\* has been  
pioneered in various research projects  
by Mi’kmaw Elders and educators and  
the Integrative Science research team  
at Cape Breton University.  
Our approach continues to evolve.

\* [http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework\(authors-draft\).pdf](http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework(authors-draft).pdf)

# CO-LEARNING



In contemporary Canada, the words “healing” and “reconciliation” frequently travel together in discussions configured by Aboriginal perspectives and contexts. Elder Murdena offers a key insight with respect to healing; Willie Ermine offers a key insight with respect to reconciliation. Integrative Science has adopted and adapted both.

*from:* Bartlett, C., Marshall, M., Marshall, A., and Iwama, M.

Integrative Science and Two-Eyed Seeing: Enriching the Discussion Framework for Healthy Communities  
*Chapter 3 in forthcoming book: "Beyond Intractability: convergence and opportunity at the interface of environmental, health and social issues"; edited by: Lars K. Hallstrom, Nicholas Guehlstorf, and Margot Parkes. UBC Press.*

[http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework\(authors-draft\).pdf](http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework(authors-draft).pdf)

# CO-LEARNING



**an insight re  
“healing”**



**Murdena Marshall**

For Murdena’s insight, we realize that participants in the co-learning journey need to be able to place the actions, values, and knowledge of their own culture out

in front of themselves like an object, to take ownership over them, and to be able to say “that’s me”. Furthermore, as guided by Two-Eyed Seeing, we need these “objects” for both the Indigenous and Western worldviews. In this way, participants can learn both “that’s me” and “that’s you” to foster working together. Thus, we have developed simple responses (in text and visual form) to four “big picture” philosophical questions. These depictions enable us to put these philosophical considerations for our knowledge systems out in front of ourselves like an object (tool).

*from:* Bartlett, C., Marshall, M., Marshall, A., and Iwama, M.

Integrative Science and Two-Eyed Seeing: Enriching the Discussion Framework for Healthy Communities  
*Chapter 3 in forthcoming book: "Beyond Intractability: convergence and opportunity at the interface of environmental, health and social issues"; edited by: Lars K. Hallstrom, Nicholas Guehlstorf, and Margot Parkes. UBC Press.*

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# CO-LEARNING

## an insight re “reconciliation”



**Willie Ermine**

In the Spirit of the East, we believe such [objects / tools] can help encourage “our place of beginnings” towards the thought frameworks that Ermine’s (2007) insight indicates are required to reconcile the solitudes of Indigenous and Western cultures. That is, we suggest herein that the first phase of entering ethical space for the purpose of reconciling our scientific knowledges and ways of knowing – the ethical space conceived within Ermine’s insight – includes learning to appropriately, correctly, and respectfully acknowledge the “that’s me” and the “that’s you” of our worldviews, as they configure our sciences.

*from:* Bartlett, C., Marshall, M., Marshall, A., and Iwama, M.

Integrative Science and Two-Eyed Seeing: Enriching the Discussion Framework for Healthy Communities  
*Chapter 3 in forthcoming book: "Beyond Intractability: convergence and opportunity at the interface of environmental, health and social issues"; edited by: Lars K. Hallstrom, Nicholas Guehlstorf, and Margot Parkes. UBC Press.*

[http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework\(authors-draft\).pdf](http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework(authors-draft).pdf)

# CO-LEARNING for Two-Eyed Seeing

## four “big picture” questions

**1. Our World:** This relates to *ontologies*, as we share a desire for our knowledge to have an overarching understanding of “how our world is”. Question: **What do we believe the natural world to be?**

**2. Our Key Concepts and Actions:** This relates to *epistemologies*, as we share a desire for our knowledge to observe key values. Question: **What do we value as “ways of coming to know” the natural world, i.e. what are our key concepts and actions?**

**3. Our Languages and Methodologies:** We can focus on *tools we use to structure* our knowledge. Question: **What can remind us of the complexity within our ways of knowing?**

**4. Our Overall Knowledge Goals:** We can focus on *objectives*. Question: **What overall goals do we have for our ways of knowing?**

more explanation available in

[http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework\(authors-draft\).pdf](http://www.integrativescience.ca/uploads/articles/2012-Bartlett-Marshall-Iwama-Integrative-Science-Two-Eyed-Seeing-enriching-discussion-framework(authors-draft).pdf)

# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



## NATURAL WORLD: ontologies

**interconnective**

beings ...  
interconnective  
and animate:  
***spirit +  
energy + matter***

with  
**CONSTANT CHANGE**  
within balance and wholeness

**parts & wholes**

objects ...  
comprised of parts and  
wholes characterized by  
systems and emergences:  
***energy + matter***

with  
**EVOLUTION**

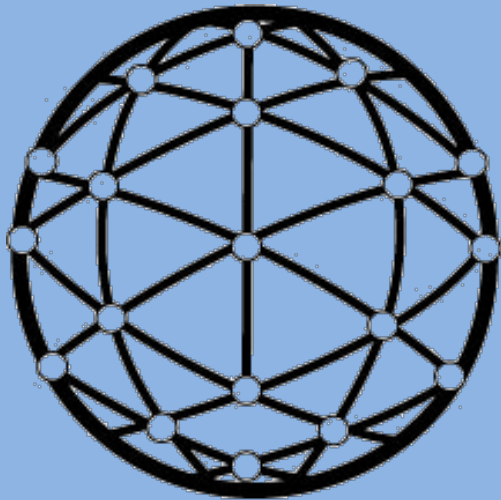
# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together

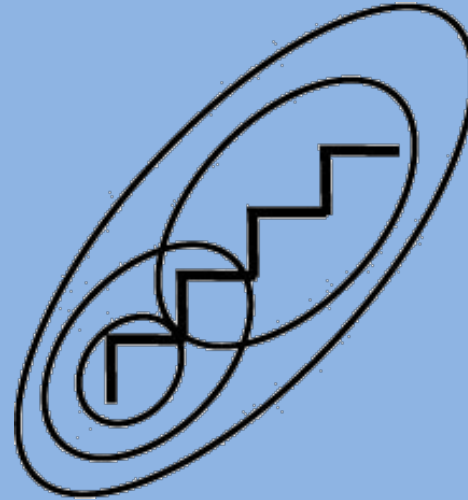


## NATURAL WORLD: ontologies

**interconnective**



**parts & wholes**



# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



## CONCEPTS and ACTIONS: epistemologies



- respect
- relationship
- reverence
- reciprocity
- ritual (ceremony)
- repetition
- responsibility

- the question
- hypothesis  
(making & testing)
- data collection
- data analysis
- model & theory  
construction

# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



CONCEPTS and ACTIONS: epistemologies

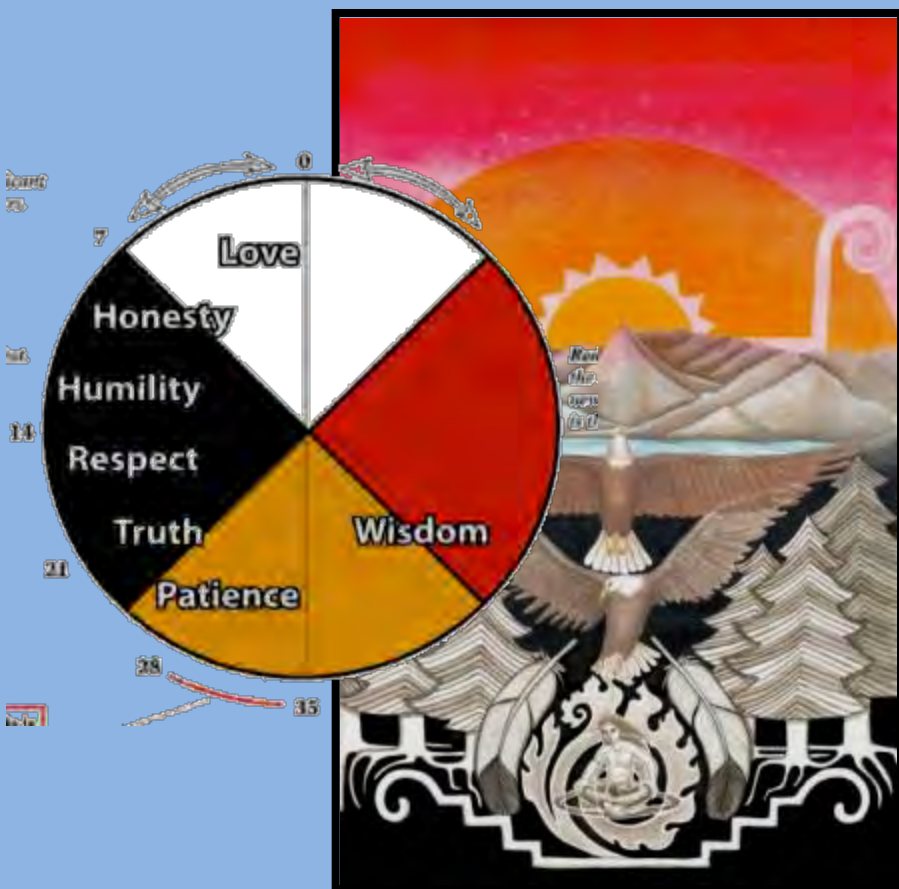


photo credit: NRC

Artist Basma Kavanagh

# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



## LANGUAGES and METHODOLOGIES



*weaving* of patterns within nature's patterns via creative relationships and reciprocities among ***love, land, and life (vigour)*** that are constantly reinforced and nourished by **Aboriginal languages**

*un-weaving* of nature's patterns (especially via analytic logic and the use of instruments) to cognitively reconstruct them, especially using ***mathematical language (rigour)*** and computer models

# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



## LANGUAGES and METHODOLOGIES



Life  
Love  
Land

vigour

**WEAVING**



Math  
&  
instruments

rigour

**UN-WEAVING**



# CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



## OVERALL KNOWLEDGE OBJECTIVES

collective, living  
knowledge to enable  
nourishment of one's journey  
within expanding sense of  
“place, emergence and  
participation” for collective  
consciousness and  
interconnectiveness

**towards resonance of  
understanding within environment**

dynamic, testable,  
published knowledge  
independent of  
personal experience  
that can enable  
prediction and control  
(and “progress”)

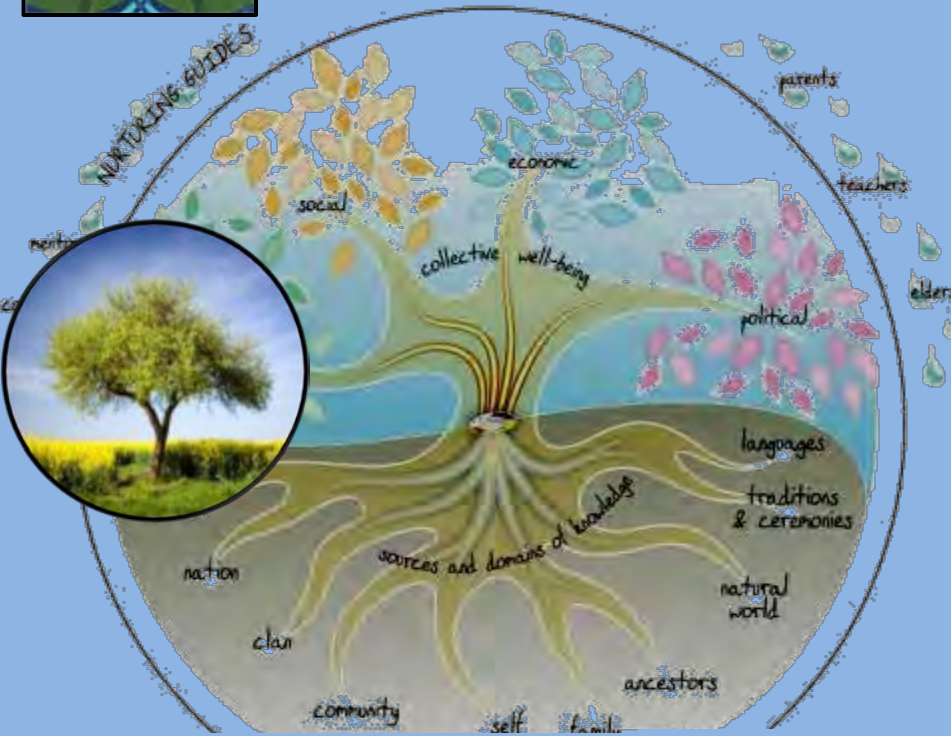
**towards construction of  
understanding of environment**

# CO-LEARNING for Two-Eyed Seeing

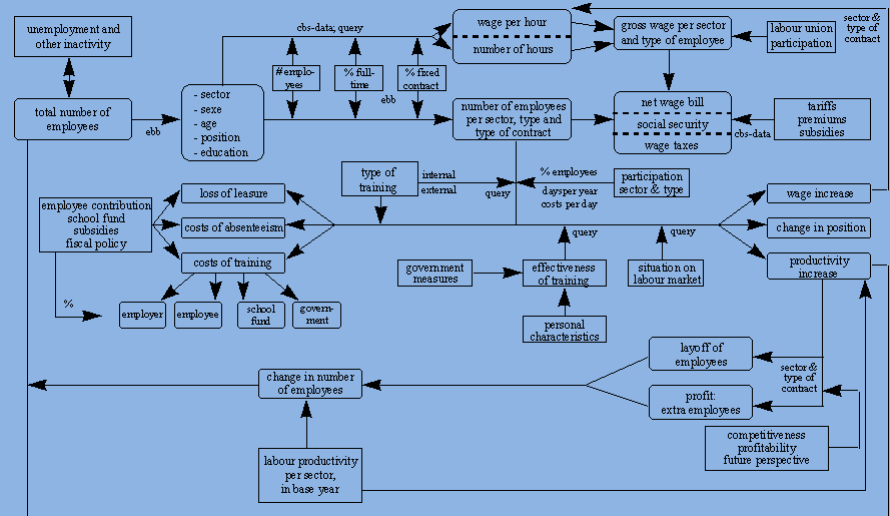
learning our strengths and learning together



## OVERALL KNOWLEDGE OBJECTIVES



from: CCL Aboriginal Learning Knowledge Centre (www.ccl-cca.ca/CCL)

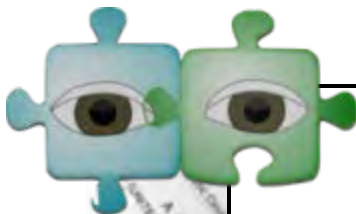


from: www.leads.ac.uk

**towards resonance of understanding within environment**

**towards construction of understanding of environment**

# APCFNC ELDERS PROJECT RECOMMENDATIONS



## AAEDIRP UNIVERSITY PARTNERS

*Dalhousie University*  
*St. Thomas University*  
*Acadia University*  
*Saint Mary's University*  
*Memorial University*  
*Université de Moncton*  
*Mount Allison University*  
*Cape Breton University*  
*University of PEI*  
*St. Francis Xavier University*  
*University of New Brunswick*  
*Mount Saint Vincent University*

**Let's all help  
each other!**



The map is based on satellite data obtained from the Advanced Very High Resolution Radiometer (AVHRR) on board the NOAA-14 satellite. The spatial resolution is about 1 kilometre. This means that one pixel on the map is equal to one square kilometre on the ground. Each land cover type can be identified by its unique spectral signature. Each signature is identified by a particular colour on the map.



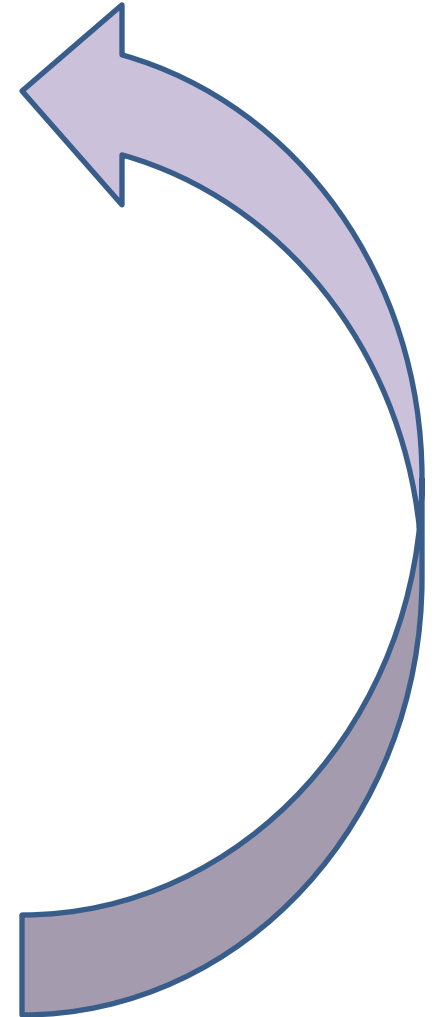
**LET'S ALL HELP  
EACH OTHER**

**RELATIONSHIPS**

**RESEARCH**

**RE-VISIONING**

**RENEWAL**





# As we begin to work together, we must give thought to mechanisms to ensure:

**Authenticity of TK.** We need to recognize the great temptation for some people to “just make it up”. Validation, by recognized community Elders and Knowledge Holders, of that which is brought forward is exceedingly important.

**Appropriate sources for TK.** We need to acknowledge that Elders and Knowledge Holders ... each one of us ... has certain expertise, yes, but none of us knows everything. This is also why TK is collective knowledge.



*key thoughts from  
Elder Albert Marshall*

**Nourishment of the living relationships within TK.** We need to recognize that stories, songs, crafts, practices, family, community, language, ceremonies, and connectivity with the land are important in the transmission of TK. It is living knowledge, not a book-based process of learning.

**The lifelong learning journey for TK.** We need to instill in all learners the understanding that TK is acquired over the whole of a person’s life journey; it is not a 3-4 year process akin to a university degree.



Elders

Wisdom

Thinking

Understanding

Analyzing

Integration

Darkness

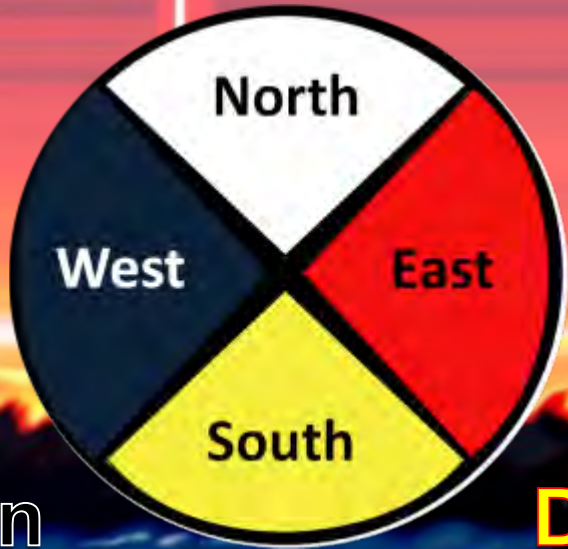
The unknown

Perseverance

Reflection

Respect for

others' beliefs



Light

Beginnings

Renewal

Hope

Courage

Generosity

Determination

Goal setting

Ability to set aside

strong feelings in

order to serve others



Atlantic Policy Congress  
Of First Nations Chiefs Secretariat  
[www.apcfn.ca](http://www.apcfn.ca)



## QUESTIONS

# Wela'lioq Thank you

artwork with permission of:

**Gerald Gloade**  
Millbrook First Nation  
[gerald@cmmns.com](mailto:gerald@cmmns.com)

and

**Basma Kavanagh**  
<http://www.basmakavanagh.ca>



Artist Gerald Gloade; Millbrook First Nation

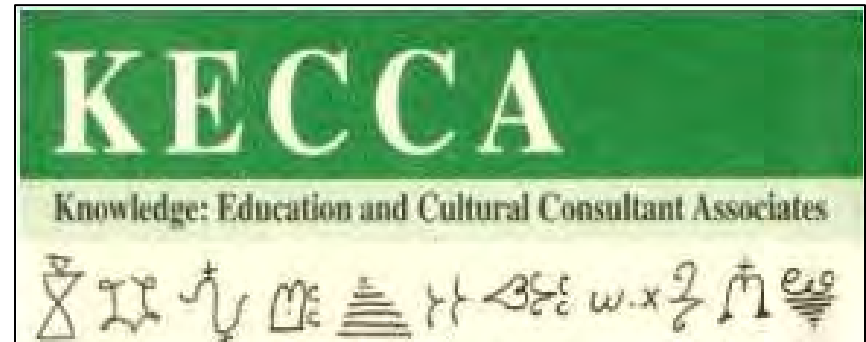
# for additional information:

## **KECCA ... Knowledge: Education and Cultural Consultant Associates**

KECCA is a Mi'kmaw First Nation's community-based entity that provides consulting services with respect to Mi'kmaw Traditional Knowledge.

Services provided are directed towards:

- ensuring accurate interpretation of Mi'kmaw Traditional Knowledge.
- ensuring correct orthography for written Mi'kmaq.
- ensuring protocols for ethical guidance and review via Unama'ki Council of Elders.
- ensuring timely and appropriate consideration for issues related to intellectual property rights.



**Albert Marshall, Elder, LLD, Manager**

**Murdena Marshall, Elder, LLD, MEd**

1 Crane Cove Road, PO Box 8001, Eskasoni Mi'kmaw Reserve, Nova Scotia, B1W 1B9  
Telephone: 902-379-2508

Email: [albertdmarshall@ns.sympatico.ca](mailto:albertdmarshall@ns.sympatico.ca)



for additional information:



<http://www.integrativescience.ca>

[Cheryl Bartlett@cbu.ca](mailto:Cheryl_Bartlett@cbu.ca)