



Conference: ENVIRONMENTAL HISTORIES,
ENVIRONMENTAL FUTURES, AND
PRINCE EDWARD ISLAND

13-18 June 2010; University of PEI, Charlottetown, PEI

Ta'ntelo'Iti'k

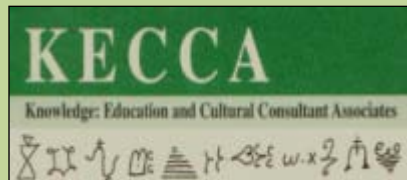
Mi'kmaq Knowledge + Two-Eyed Seeing

Albert Marshall¹

with **Murdena Marshall¹** and **Cheryl Bartlett²**

¹ Elder and HonDLitt, Eskasoni community, Mi'kmaq Nation

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Ta'ntelo'Iti'k

Mi'kmaq Knowledge + Two-Eyed Seeing

- 1. Time and “This Place”:** Ice & Mi'kma'kik
 - 18,000 years ago to present
- 2. Mi'kmaq Language and Knowledge**
 - wholeness and interconnectiveness
- 3. Two-Eyed Seeing**
 - strengths in different worldviews
- 4. Two-Eyed Seeing Worldviews**
 - philosophies walking and talking together

An abstract painting featuring numerous wavy, horizontal bands of color. The colors range from dark brown and purple to light green and yellow, creating a sense of depth and movement. The bands are layered and overlap, giving the impression of a textured, organic surface.

Ta'ntelo'Iti'k

*how we
Lnu'k are*

artist Basma Kavanagh



**Time and “This Place”
Ice & Mi’kma’kik – Last Glacial Age**

Ta'ntelo'Iti'k

*how we
Lnu'k are*

Time and “This Place” Ice & Mi’kma’kik – Last Glacial Age



Information Source: Signage on Mi’kmawey Debert Interpretive Trail

Time and “This Place” Ice & Mi’kma’kik – Last Glacial Age

18,000 years ago



Extent of ice at its peak 18,000 years ago. The glacier was over a kilometre thick!

Time and “This Place”

Ice & Mi’kma’kik – Last Glacial Age

13,000 years ago



Extent of ice 13,000 years ago. There is very little land on which to live.

Time and “This Place” Ice & Mi’kma’kik – Last Glacial Age

12,000 years ago



Extent of ice 12,000 years ago. The large continental ice sheet retreated, leaving localized areas of glaciation.

Time and “This Place”

Ice & Mi’kma’kik – Last Glacial Age

11,000 years ago



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

Time and “This Place” Ice & Mi’kma’kik – Last Glacial Age

9,000 years ago



Sea level was at its lowest 9,000 years ago largely due to land bouncing back from the weight of the glaciers.

Time and “This Place” Ice & Mi’kma’kik – Last Glacial Age

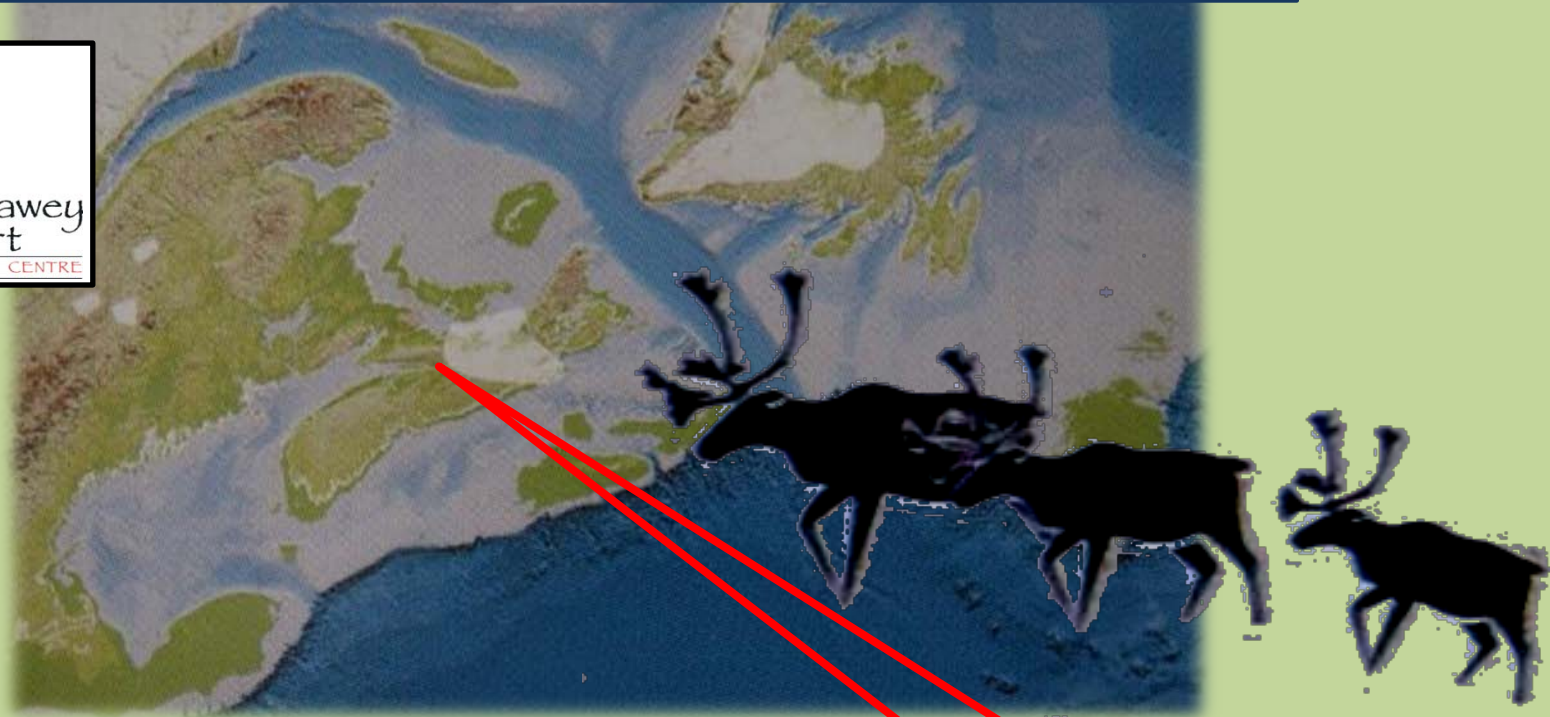
6,000 years ago



By 6,000 years ago the shoreline was much as we see it today.

**Lnu'k with wholistic knowledge
have been in "this place" a long time.**

Mi'kma'kik: 11,000 years ago



Lnu'k (people) lived at the **Debert site
between 11,000 and 10,000 years ago.**

**Lnu'k with wholistic knowledge
have been in “this place” a long time.**

Mi'kma'kik: 11,000 years ago



Artwork by Dozay Christmas; Mi'kmawey Debert Interpretive Trail Signage

MI'KMAQ TRADITIONAL KNOWLEDGE

Mi'kma'kik: today

**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 communities.**

words of: Elder Murdena Marshall,
Eskasoni community, Mi'kmaq Nation

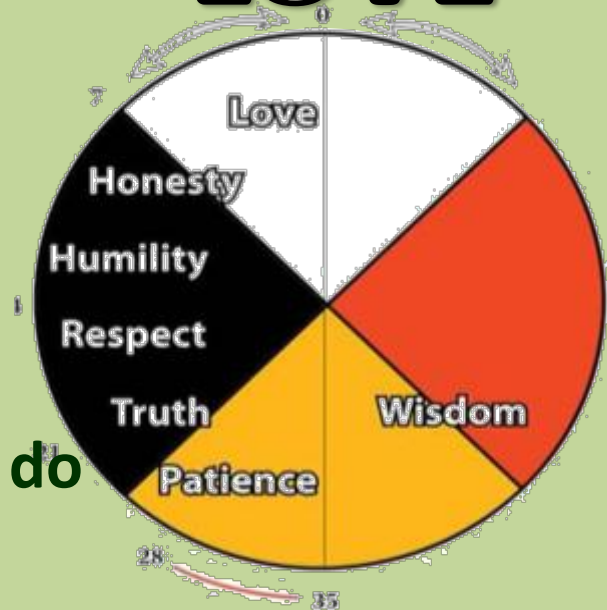


MI'KMAQ LANGUAGE

Our 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) sespıte'tmnej = worry about what you do
... *action is guided*



MI'KMAQ LANGUAGE: more than Place



Mi'kma'kik: pre-contact and today

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

MI'KMAQ LANGUAGE: more than Place

Unama'kik
"Land of Fog"
(Cape Breton Island)

**Abegweit /
Epekwitk**
"Lying in the Water"
(Prince Edward Island)

Mi'kma'kik: pre-contact and today

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

MI'KMAQ LANGUAGE: more than Place

Pitupaq

**“flowing into oneness”
(Bras d’Or Lakes)**

Mi’kma’kik: pre-contact and today

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

MI'KMAQ LANGUAGE: more than Place

Traditional Districts



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

MI'KMAQ LANGUAGE: more than Place

Traditional Districts



map (modified) from: www.muiniskw.org

Unama'kik

Land of Fog

Epekwitk

Lying in the Water *and*

Pitukewa'kik

Explosive Area

Eski'kewa'kik

Skin Dresser's Area

Sipkne'katik

Wild Potato Area

Kespukwitiq

Land's End

Sikniqtewa'qkik

Drainage Area

Kespe'kewa'qkik

Last Land

Ktaqmkuk

Land Across the Water

MI'KMAQ "Place": Kinship

The animals, our friends – our relations, are on our map.

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



MI'KMAQ KINSHIP

KLUSKAP CREATES THE MI'KMAQ

A long time ago, after Kluskap created animals, birds and fishes, Kluskap became lonely and decided to make a human creature. The animals didn't like the idea and told Kluskap how they would mistreat the humans. Kluskap decided to teach them a lesson. Kluskap shrank all the giant creatures to make them humble.

Then Kluskap created the Mi'kmaq.

The animals were fascinated by the human beings.

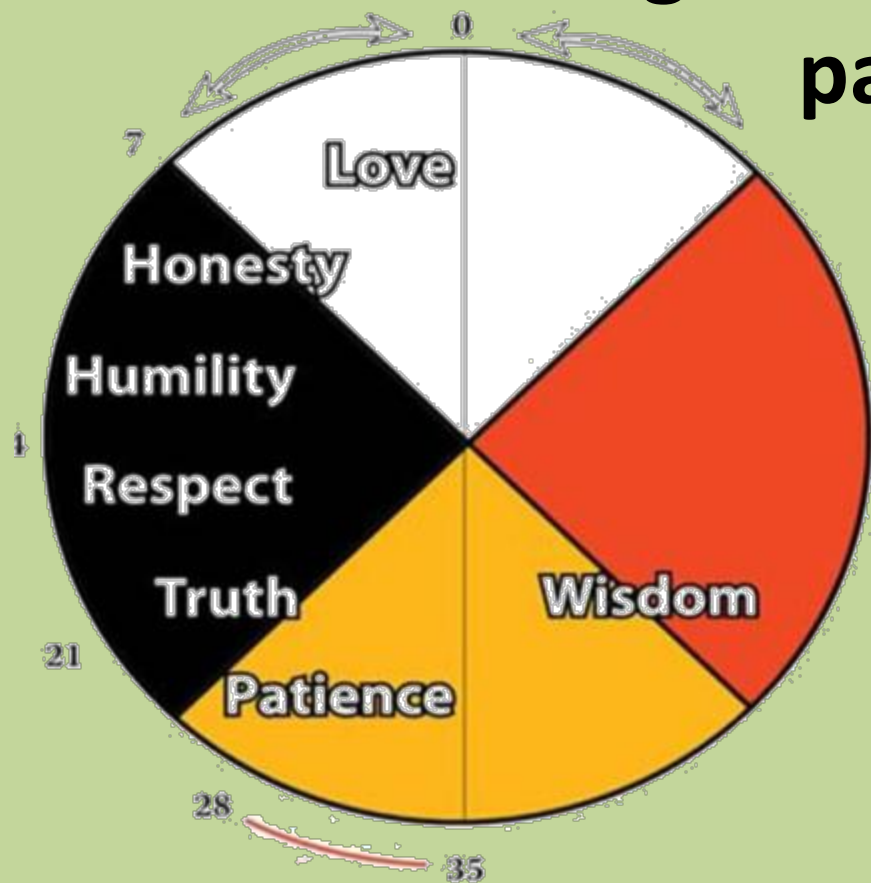
That is why to this day, the Mi'kmaq and the animals are friends.

relationship = friends

Story Source: Signage for Mi'kmawey Debert Interpretive Trail

MI'KMAQ KNOWLEDGE: Wholeness & Interconnectiveness

**Knowledge is spirit. It is a gift,
passed on through
many people. We
must pass it on.**



**Seven
Sacred
Gifts of Life**

MI'KMAQ KNOWLEDGE: Wholeness & Interconnectiveness



MI'KMAQ KNOWLEDGE: Wholeness & Interconnectiveness



MI'KMAQ KNOWLEDGE: Wholeness & Interconnectiveness



MI'KMAQ KNOWLEDGE:
Wholeness & Interconnectiveness

wisawtaqji'jkl

wisaw + taq
(= golden
spreading)

+ ji'jkl
(= little things)



Netukulimk

“sustaining ourselves”

yes ... but really is a
much richer concept;
it is wholistic.

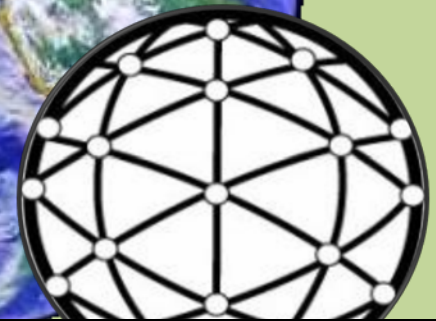
All Our Relations



Netukulimk

All Our Relations

Co-existence
Interrelativeness
Interconnectiveness
Community Spirit



<http://blog.silive.com/weather/2007/09/red-maple-tree.jpg>



http://images.enature.com/fishes/fishes_1/fi0016_11.jpg

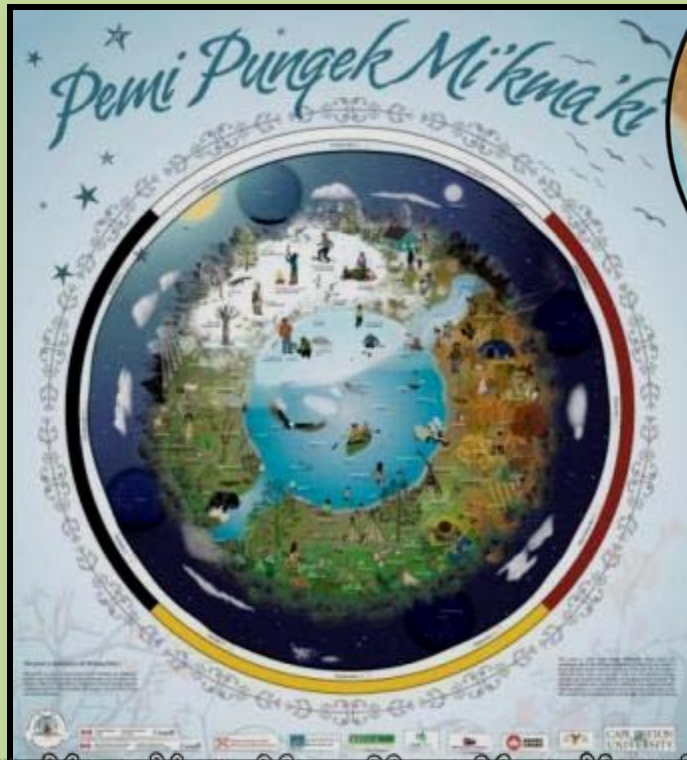


http://www.krisweb.com/krisshoopscot/krisdb/html/krisweb/aqualife/atlantic_salmon_asc_beland.jpg

Netukulimk

All Our Relations

Co-existence
Interrelativeness
Interconnectiveness
Community Spirit



... 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.

Consciousness of Knowing



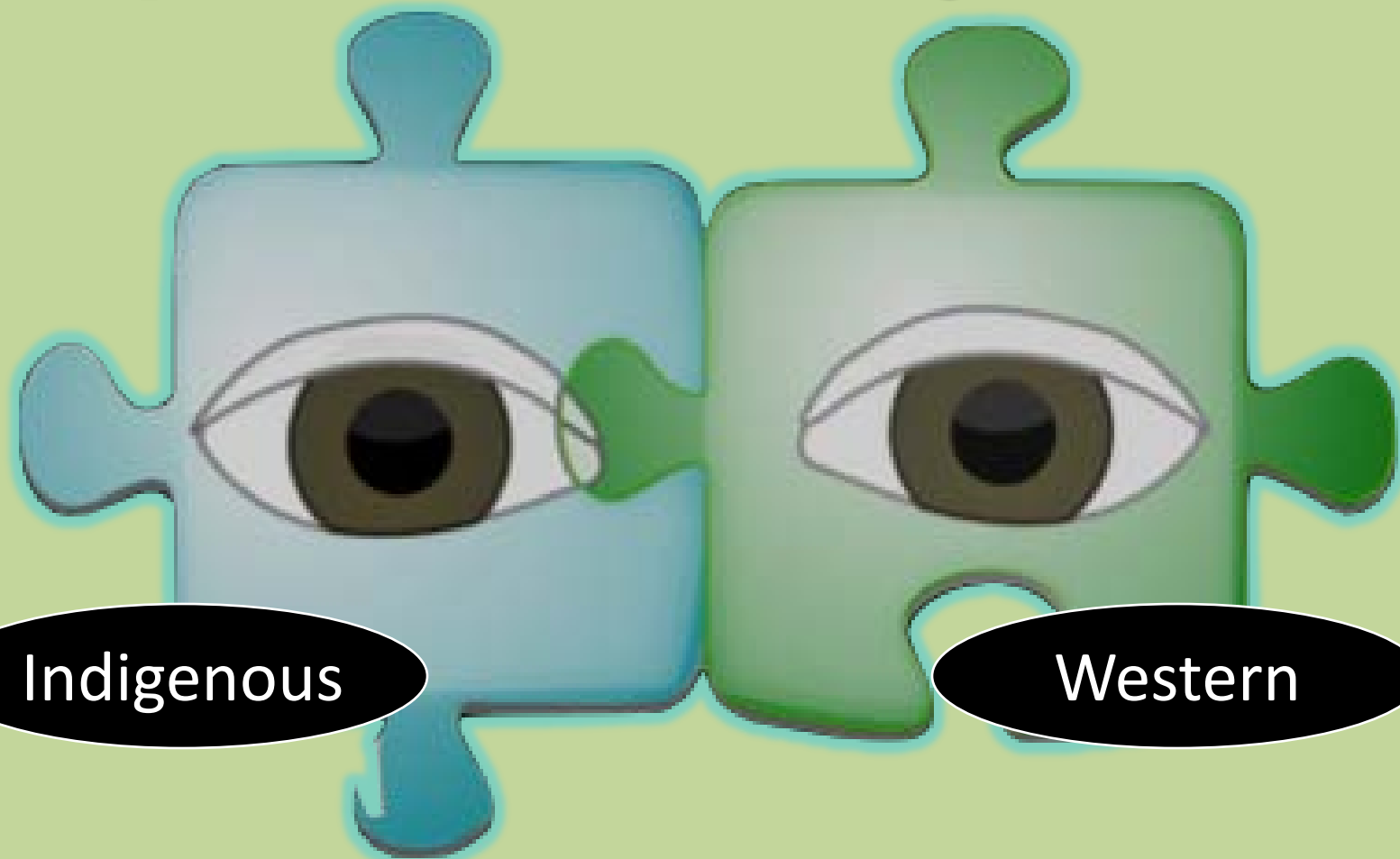
artist Basma Kavanagh

***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.**

Our Guiding Principle

Etuaptmumk – Two-Eyed Seeing



Indigenous

Western

As Elders in Our Time

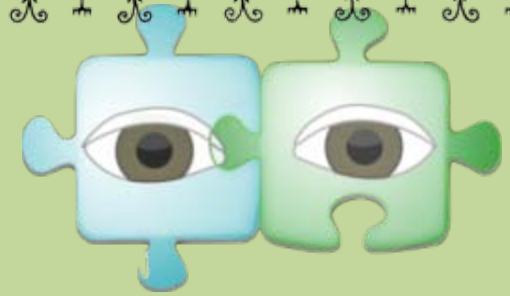
We seek to be a conduit for wisdom of our Ancestors.

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.



Two-Eyed Seeing

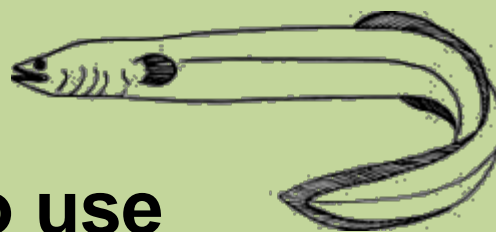
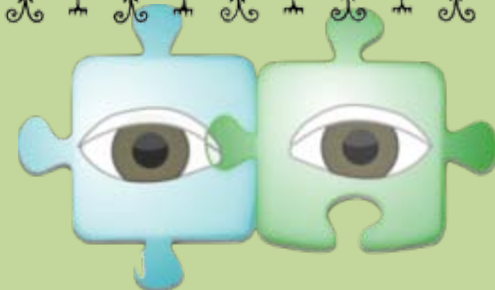
**It is not enough
to go through life with
one perspective.
Rather, we must
embrace
all the tools
we have ...**



Two-Eyed Seeing

LEARN ... to see from one eye with the best in our 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.

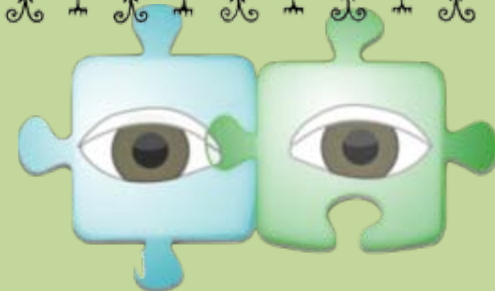


Two-Eyed Seeing

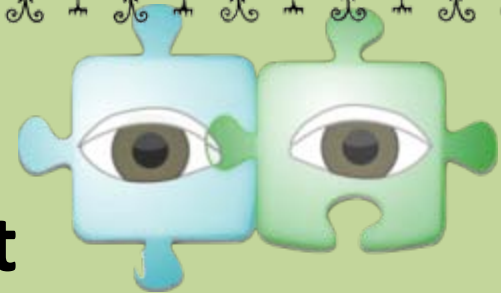
Hard to convey as does not fit into any particular subject area or discipline ... is about life ... what you do, what kind of responsibilities you have ... is a Guiding Principle for how one lives while on Earth that covers all aspects of our lives: social, economic, environmental, etc.

Advantage:

Because you are always fine tuning your mind into different places at once, you are always looking for another perspective and better way of doing things.



Two-Eyed Seeing



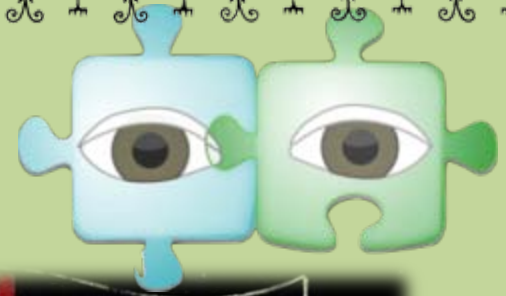
Our language teaches us that everything alive is both physical and spiritual.

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.

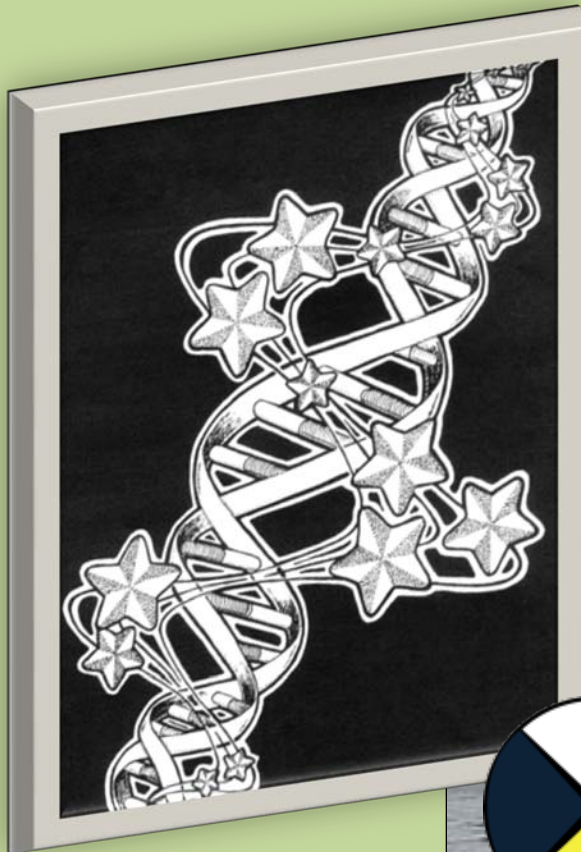
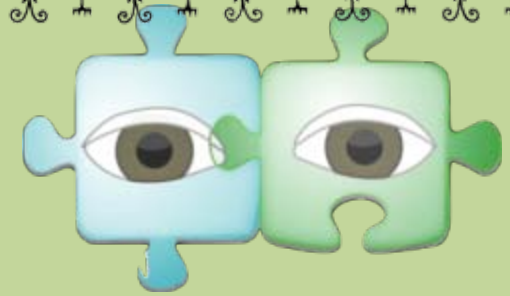


**Everything that we
do to our natural world
... we also
do to ourselves.**



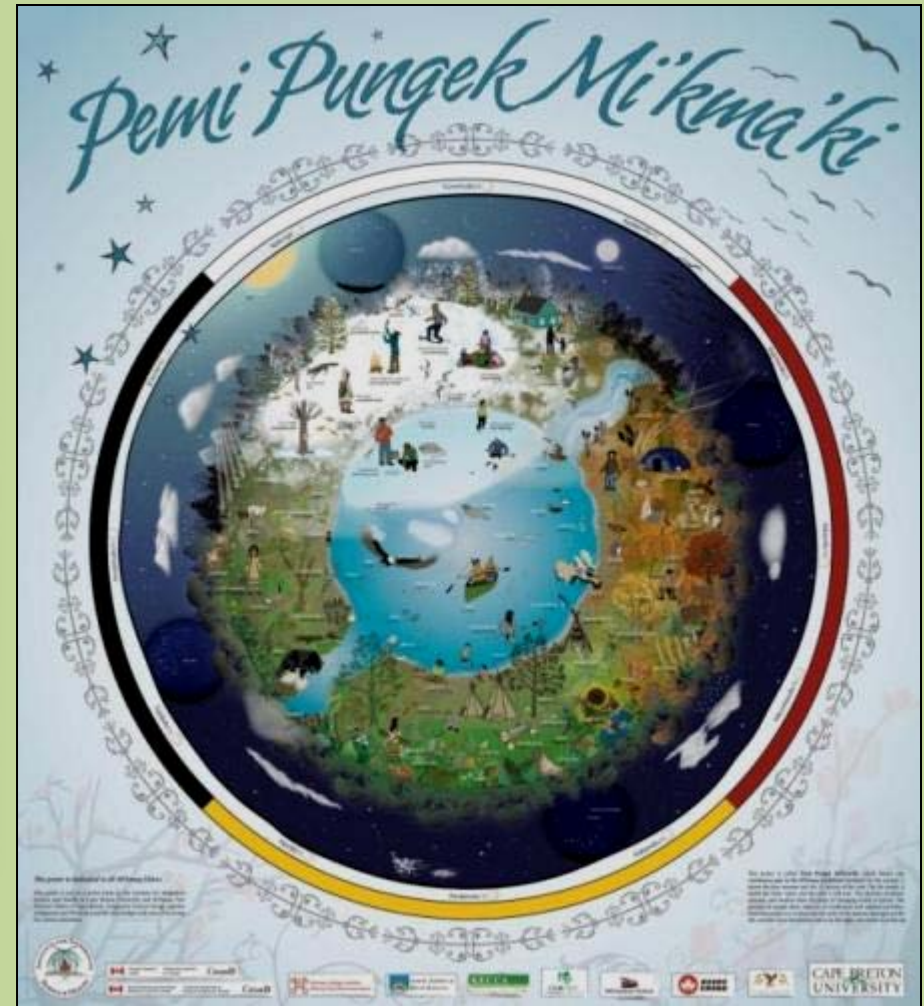
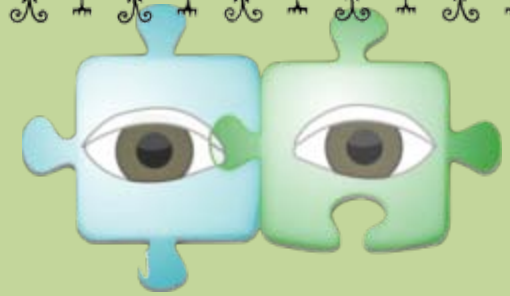
Artist Basma Kavanagh

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

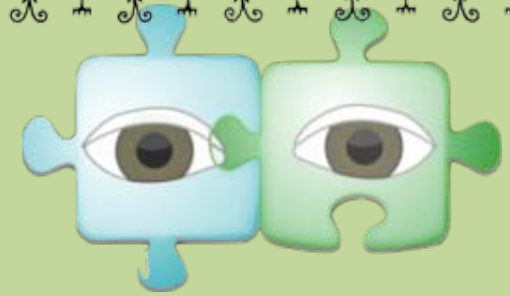


Artist Basma Kavanagh

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



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

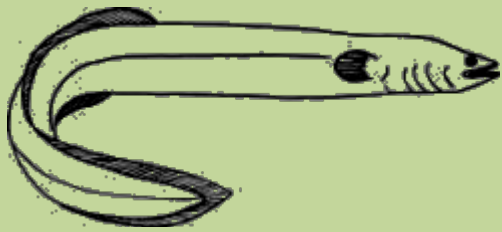
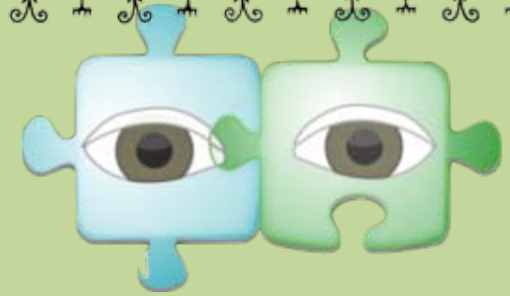


**Ples
(Passenger Pigeon)**

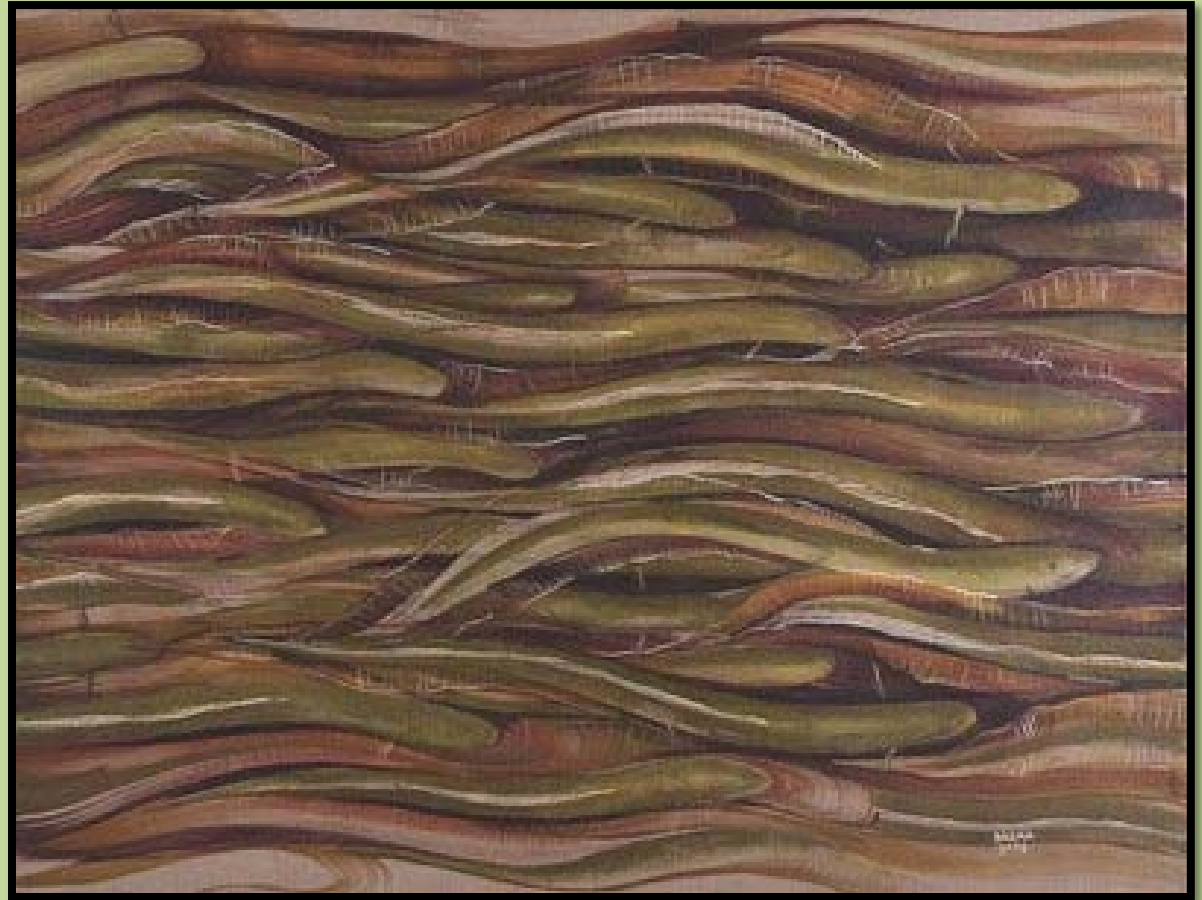
http://www.pollsb.com/photos/o/31479-last_passenger_pigeon_dies_cincinnati_zoo.jpg

<http://www.wunderland.com/WTS/Andy/ProjectEBAY/pics/Death.icon.jpg>

If species become extinct,
some of our relations are
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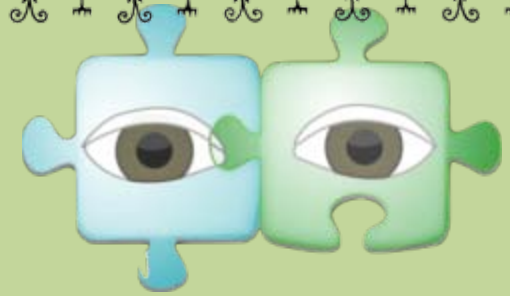


Eels (Kataq)
are now a
*Species of
Concern.*



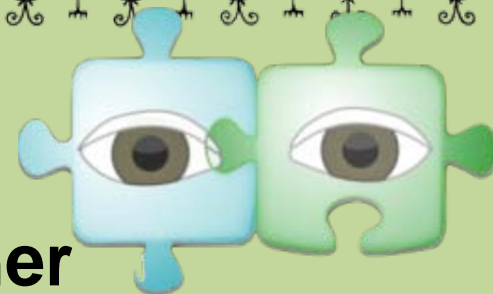
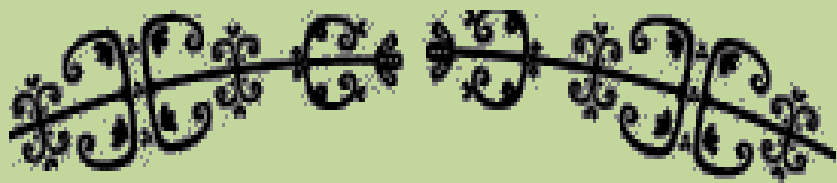
Artist Basma Kavanagh

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



**We have to
dissociate
ourselves from the
“*Myth of False Security*”
that the industrial
revolution has
instilled in our minds.**





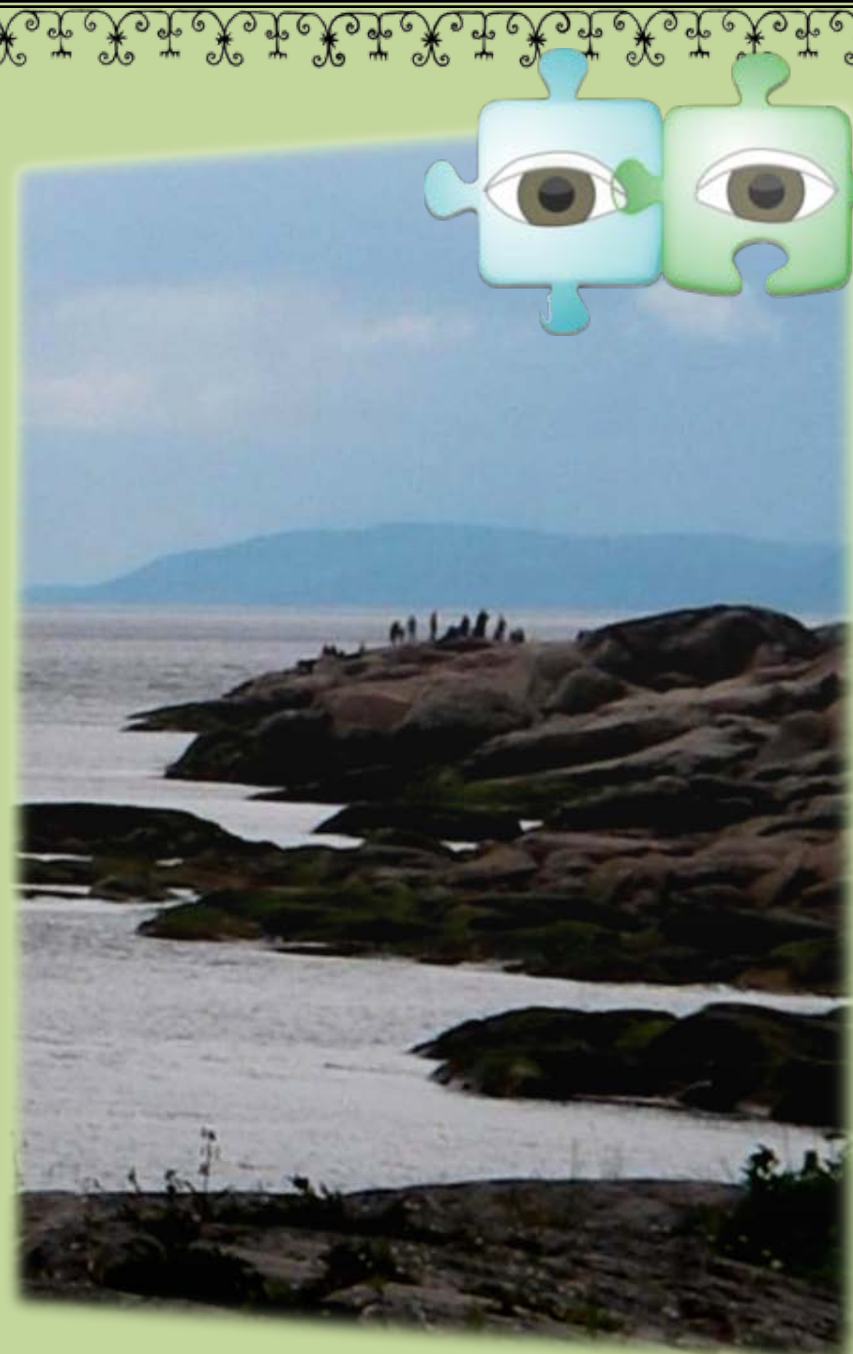
**We need to
come together
as one where all these
things can be taken in.**



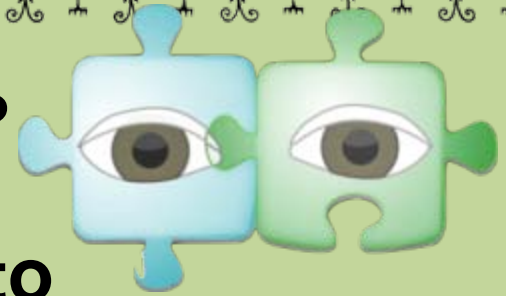
Our Mi'kmaq culture is
still very much alive ...
and we can extract
those principles of how
one can sustain
oneself without
compromising abilities
for the future.

Through utilization of the Gifts from Creator we can become whole. We can take care of our needs: living, dwelling, physical, and spiritual.

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



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.





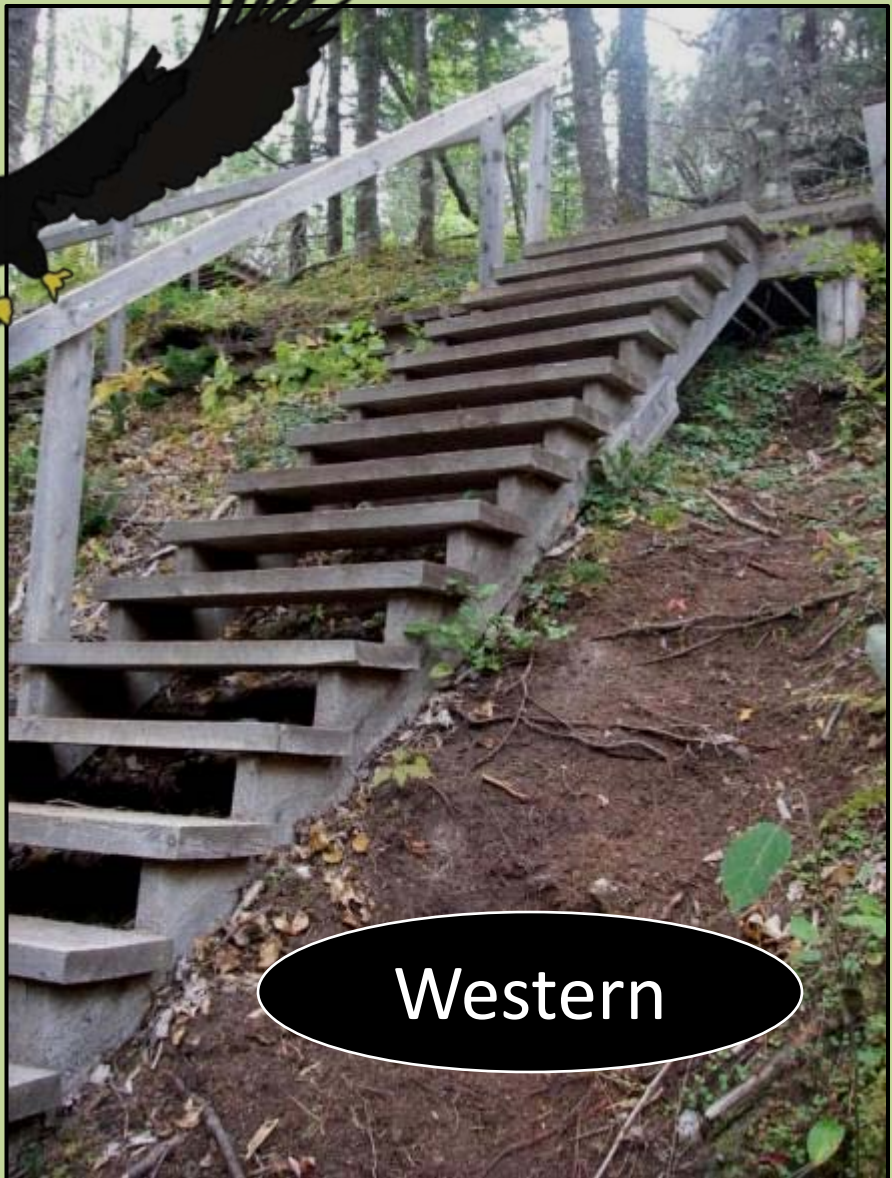
Indigenous

Western

“bringing our philosophies together”



Indigenous

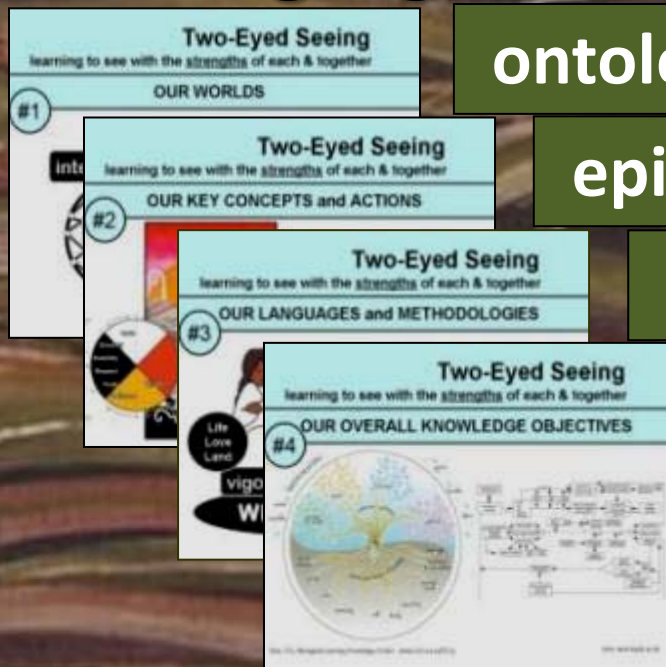


Western

Four Big Patterns for TWO-EYED SEEING



to help recognize and affirm our differences and commonalities, to help enable bringing our strengths together



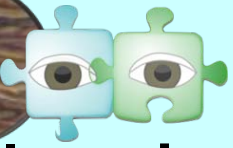
ontologies

epistemologies

methodologies

goals

#1



TWO-EYED SEEING

learning to see with the strengths of each & together

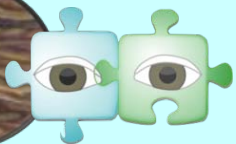
OUR OVERALL KNOWLEDGE OBJECTIVES

BIG QUESTION

**What overall goals
do we have for
our ways of knowing?**



#1



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR OVERALL KNOWLEDGE OBJECTIVES

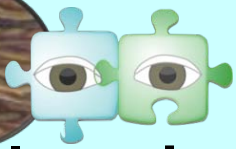
BIG UNDERSTANDING ... IN WORDS

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

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



#1



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR OVERALL KNOWLEDGE OBJECTIVES

BIG UNDERSTANDING ... IN WORDS

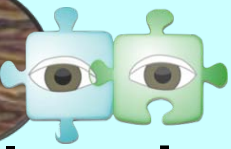
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"place, emergence and
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dynamic, testable,
published knowledge
independent of
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(and "progress")

**towards resonance of
understanding within environment**

**towards construction of
understanding of environment**

#1

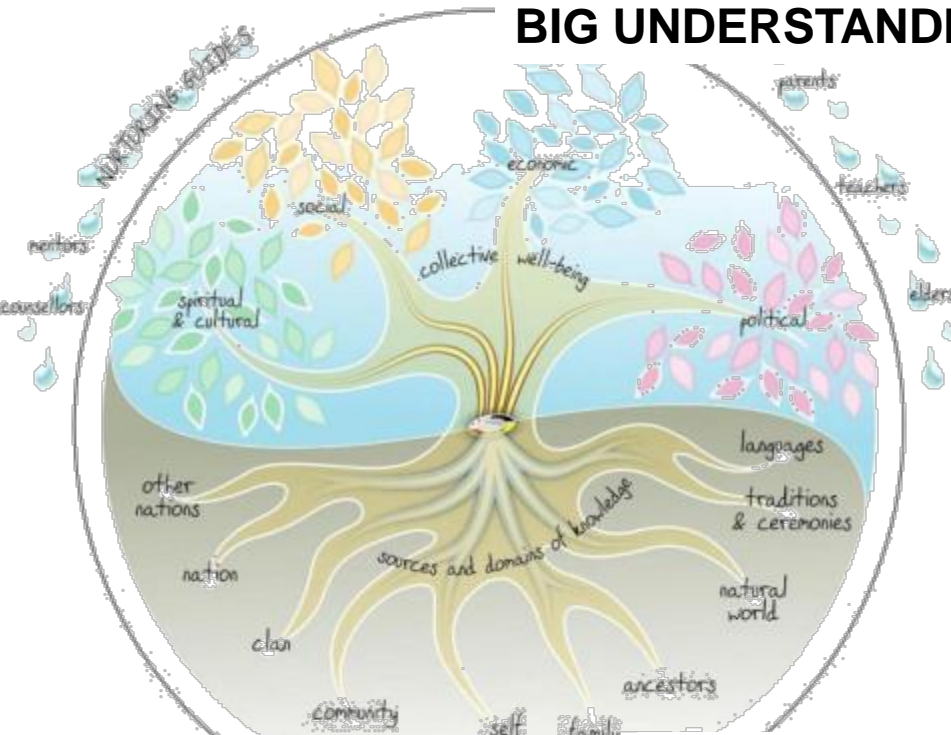


TWO-EYED SEEING

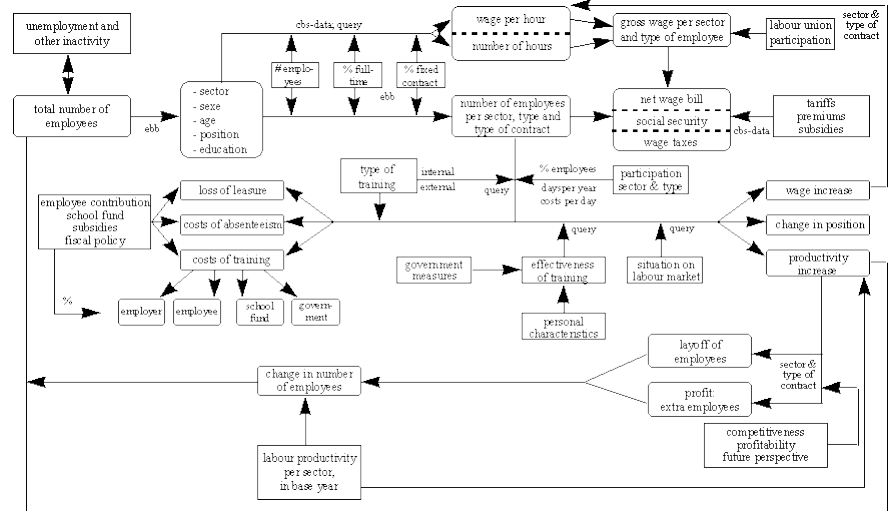
learning to see with the strengths of each & together

OUR OVERALL KNOWLEDGE OBJECTIVES

BIG UNDERSTANDING ... IN VISUALS



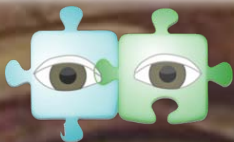
from: CCL Aboriginal Learning Knowledge Centre (www.ccl-cca.ca/CCL)



from: www.leads.ac.uk

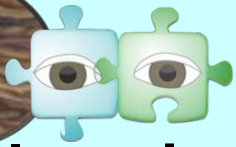
towards resonance of understanding within environment

towards construction of understanding of environment



artist Basma Kavanagh

#2



TWO-EYED SEEING

learning to see with the strengths of each & together

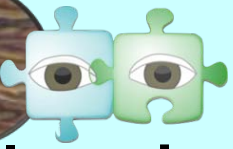
OUR WORLD

BIG QUESTION

**What do we believe
the world or cosmos to be?
(ontology)**



#2



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR WORLD

BIG UNDERSTANDING ... IN WORDS

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:

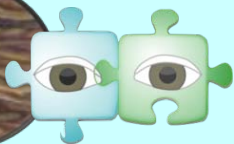
energy + matter

with

EVOLUTION

with systems and emergences

#2



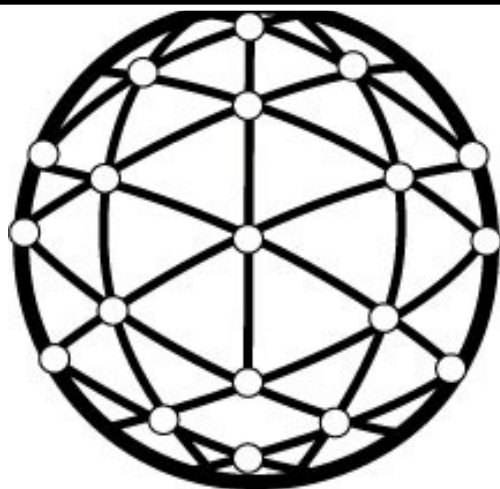
TWO-EYED SEEING

learning to see with the strengths of each & together

OUR WORLD

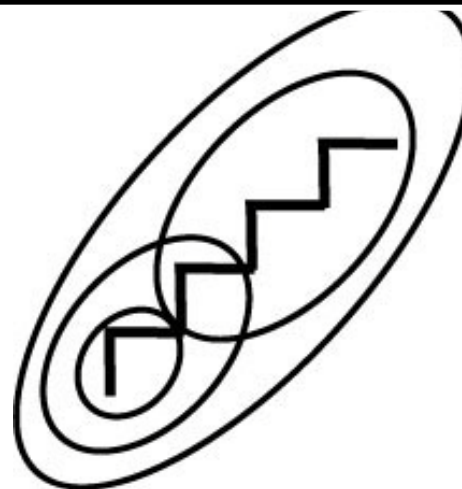
BIG UNDERSTANDING ... IN VISUALS

interconnective

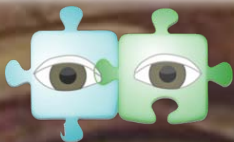


CONSTANT CHANGE
within balance and wholeness

parts & wholes

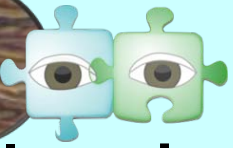


EVOLUTION
with systems and emergences



artist Basma Kavanagh

#3



TWO-EYED SEEING

learning to see with the strengths of each & together

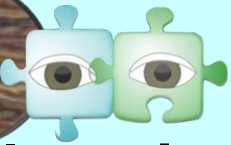
OUR KEY CONCEPTS and ACTIONS

BIG QUESTION

**What do we value as
“ways of coming to know”
the cosmos?
(epistemology)**



#3



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR KEY CONCEPTS and ACTIONS

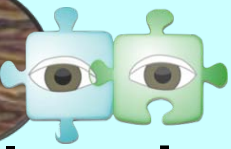
BIG UNDERSTANDING ... IN WORDS

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

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



#3



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR KEY CONCEPTS and ACTIONS

BIG UNDERSTANDING ... IN VISUALS

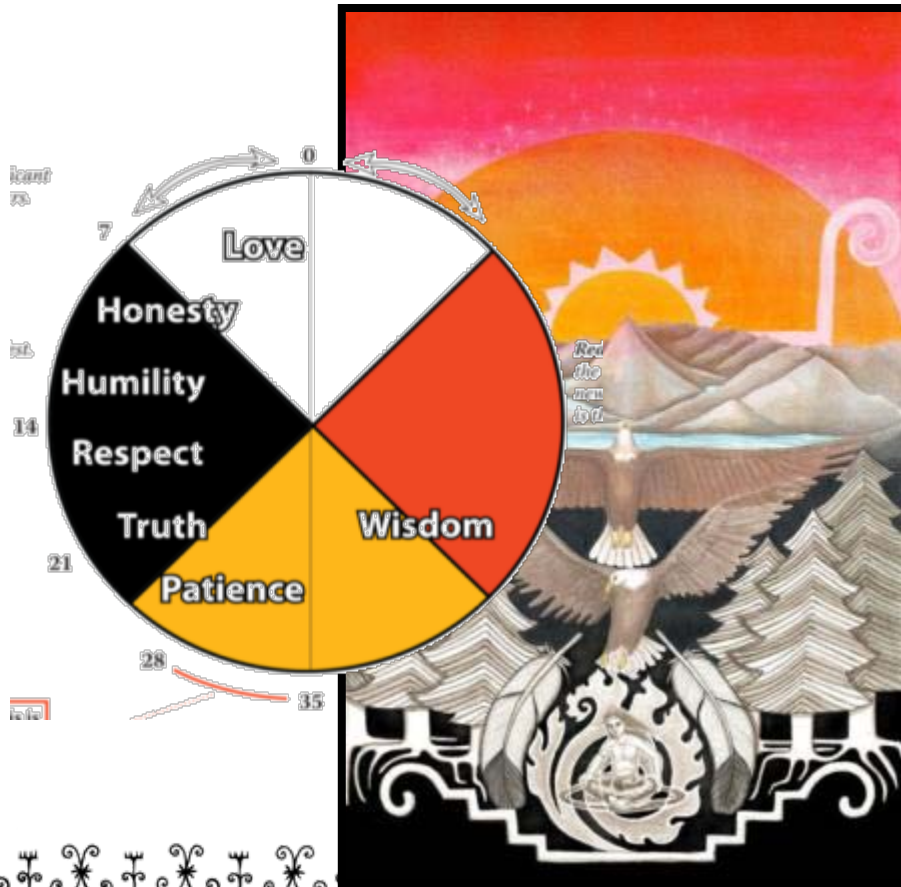
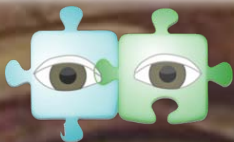


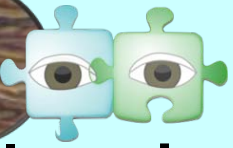
photo credit: NRC



BKAA
2014

artist Basma Kavanagh

#4



TWO-EYED SEEING

learning to see with the strengths of each & together

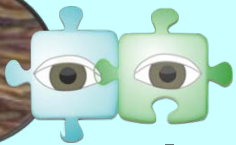
OUR LANGUAGES and METHODOLOGIES

BIG QUESTION

**What can remind us
of the complexity within
our ways of knowing?**



#4



TWO-EYED SEEING

learning to see with the strengths of each & together

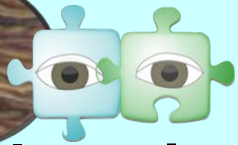
OUR LANGUAGES and METHODOLOGIES

BIG UNDERSTANDING ... IN WORDS

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

#4



TWO-EYED SEEING

learning to see with the strengths of each & together

OUR LANGUAGES and METHODOLOGIES

BIG UNDERSTANDING ... IN WORDS

Life
Love
Land

vigour

WEAVING

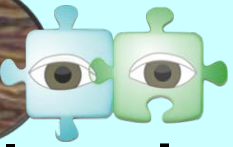
Math
&
Instruments

rigour

UN-WEAVING



#4

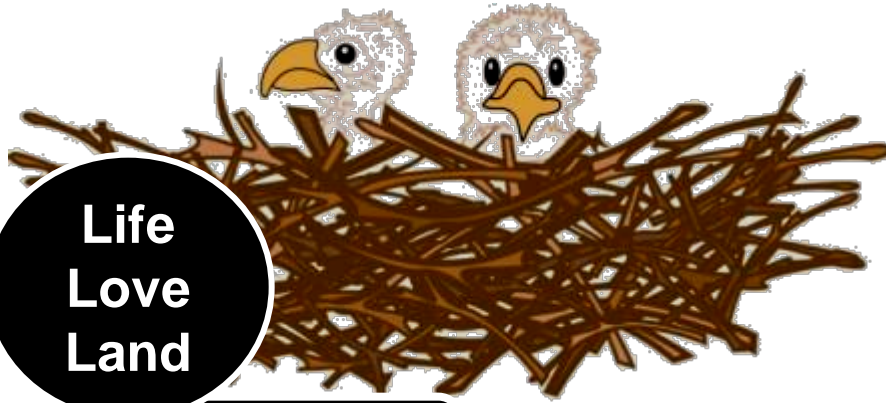


TWO-EYED SEEING

learning to see with the strengths of each & together

OUR LANGUAGES and METHODOLOGIES

BIG UNDERSTANDING ... IN VISUALS



Life
Love
Land

vigour

WEAVING



Math
&
Instruments

rigour

UN-WEAVING



Etuaptmumk – Two-Eyed Seeing





Wela'lioq
Thank you



Thank you / Wela'liog

Mi'kmaq Elders & Students & Research Team





Canada Research
Chairs

Chaires de recherche
du Canada

Canada
Canada



Social Sciences and Humanities
Research Council of Canada

Conseil de recherches en
sciences humaines du Canada



IAPH



Mi'kmawey Debert

Thank you / Wela'liog

CIHR IRSC

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



IWK Health Centre
Foundation



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.

ABSTRACT: Elder Albert Marshall of the Mi'kmaq Nation will speak from the heart in sharing his wisdom and understandings of the environment and Traditional Mi'kmaq Knowledge. He says: *"Knowledge is spirit, a gift passed on through many people. We use it for a while. It is living and we are the conduit. It is not ours to keep. We've got to pass it on. In sharing, I am living up to the responsibility of why I was given that knowledge and I am ever mindful that I am an individual within the collective of the community. Foremost in Mi'kmaq understandings is that our language (like other Aboriginal languages in Canada) teaches us that everything is both physical and spiritual. I am thus very cognizant at all times of the fact that I have to make sure that my actions today do not compromise the opportunities and abilities of the next Seven Generations to live in harmony with their natural world. My consciousness is constantly being challenged with the physical part and the guiding principle of spirit which creates a sense of balance. Elders are not sure that this message is getting out there (to youth, but also to many others) of how to go forward in this world. It needs to be heard and enacted as 'Two-Eyed Seeing' wherein we learn to see from one eye with the best in our Aboriginal ways of knowing, and from the other eye with the best in the Western (or mainstream) ways of knowing ... and we need to learn to use both these eyes together, for the benefit of all. The notion of Two-Eyed Seeing is very simple but effective, albeit hard to convey to an academic audience as it does not fit into any particular subject area or discipline. It is about life ... what you do, what kind of responsibilities you have ... not putting yourself above or below ... knowing that you are part and parcel of the whole."*

TIME AND A PLACE

Environmental histories, environmental futures, and Prince Edward Island

University of Prince Edward Island, Charlottetown, 13-18 June, 2010

	Sunday 13-Jun	Monday, Intro & Precolonial history 14-Jun	Tuesday Forests 15-Jun	Wednesday Water 16-Jun	Thursday Fields 17-Jun	Friday Policy & Practice 18-Jun
~7:30		Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
~8:45		Welcome to UPEI: President W. MacLauchlan	Rapporteur	Rapporteur, <i>I am the road</i> D. Kessler	Rapporteur	Rapporteur
Plenary		Welcome to territory: J. J. Sark; Albert Marshall (Elder) Mi'kmaq Environments and "Two Eyed Seeing"	Dr. Doug Sobey: (University of Ulster) "The Forests of PEI – an Historical Study"	Dr. Edward MacDonald: (UPEI) "Go Fish: The Historical Fisheries of PEI"	Dr. Matthew Hatvany (Laval) "Bridging the Divides: Contexts of Society and Environmental Change in Marshfield, PEI"	Dr. Hans Schreier: (UBC) "Land use change and its impact on water, using GIS and scenario modeling"
~10:00		Break	Break	Break	Break	Break
Panels & workshops		Fieldtrip: Bus and commentary: S. Labchuk and R. Angus; Lennox Island First Nation, Pow Wow grounds welcome, Mi'kmaq medicine trail walk	Forest disturbance: W. Glen; panel response Watershed histories: I. Novaczek; D. Bardati; O. Chouinard; G. Main	Fieldtrip: On the bus commentary invasive species: I. Novaczek Fisheries session: A. Karlsdottir; S. Roach- Lewis; D. Bavington; P. Gallant	"Better the Second Time Around: PEI as an International Model for Sustainability in the 1970s (and Tomorrow?)" A. MacEachern, G. McRobie, R. O'Connor, K. Stuart	"Modeling conflicting values in the past, present, and future": J. MacFadyen, W. Glen, M. Landry Policy maker's panel: J. P. Arsenault, D. Barrett, J. MacQuarrie, G. McRobie
~12:30		Lunch and Lobster Plant Tours	Lunch at UPEI	Catered lunch on the coast	Box lunch on the bus	Lunch at UPEI
Fieldtrips and work- shops	Register at Andrew Hall, UPEI Accommodations; walk/drive to Confederation Centre of the Arts	Pre-contact archeology: H. Kristmanson Impact of colonization on Mi'kmaq resources: J. J. Sark; Williche history and environment: A.M. Olivera Bus to Summerside wind farm Afternoon tea at Eptek Centre	Acadian forest walk: D. Sobey, Strathgartney Provincial Park Workshop: Cultural attachment / sense of place: D. Kessler, Bonshaw Community Centre	Fieldtrip: Pre-contact and Acadian archeological site walks; dune history and conservation walks at Greenwich, PEI National Park: R. Curley, D. Keenlyside, K. MacQuarrie Bus to Souris	Bus to Sweet Clover Farm and traditional organic farming: G. Clauseheide and P. Courtenay Hall Afternoon tea at Orwell Farm Museum Group 1, tour of museum and historic village Group 2 tour of Mcphail woods restoration project	Role of civil society in environmental thought and practice: I. Petrie, W. Wright, L. Hanson, M. Ramos Afternoon tea Panel: academics in: environmental policy, B. Christie, C. Campbell, W. Parenteau Conclusions; evaluations; directions
~5:00	Welcome, reception and Art Exhibition	Public Keynote: Dr. Don Worster (University of Kansas) "North Americans in an Age of Limits" Dinner: Loyalist Inn Summerside Return to Charlottetown	Dinner: The Olde Triangle, Charlottetown	Traditional Lobster Dinner: Bluefin Restaurant, Souris	Dinner: Sir Andrew Mcphail Homestead, Orwell	Buffet banquet, UPEI
Evening events	Public Keynote: Dr. Finis Dunaway (Trent) "Seeing Connections: Environmental History and Visual Culture"	Public Keynote: Dr. Don Worster (University of Kansas) "North Americans in an Age of Limits" Dinner: Loyalist Inn Summerside Return to Charlottetown	Public Keynote: Dr. Graeme Wynn (UBC) "Time, Place and Trees: Forest scenes and incidents in eastern North America"	Public Keynote: Dr. Daniel Pauly (UBC) "Crisis and Opportunity: The History and Future of Global Fisheries" Return to Charlottetown	Public Keynote: Dr. Harriet Ritvo (MIT) "Silent Partners: Animals in Human Environmental History"	<i>Chief Justice Thane A. Campbell lecture on Environmental Law</i> Toby Elaine Vigod (LL.B) "Environmental Law: Are We Making Progress?" Teresa Doyle jazz trio and cash bar

Sponsored by Social Sciences and Humanities Research Council, Canada, Institute of Island Studies and Environmental Studies (UPEI), and NiCHE: Network in Canadian History and Environment