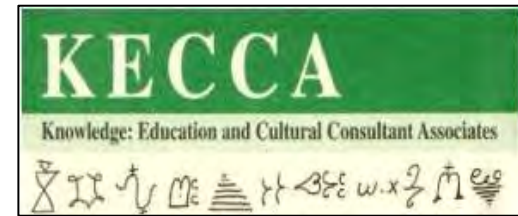


BRINGING ATK INTO DFO'S FISHERIES MANAGEMENT PLANNING CYCLE
FOR SNOW CRAB (GULF MANAGEMENT AREA 12)



Murdena & Albert Marshall

Elders & Doctors of Letters, *honoris causa*
Eskasoni community, Mi'kmaw Nation
albertmarshall@ns.sympatico.ca



Cheryl Bartlett

Member of the Order of Canada
PhD and Professor Emerita
Canada Research Chair in Integrative Science (retired)
Professor of Biology (retired)
cheryl_bartlett@cbu.ca; www.integrativescience.ca



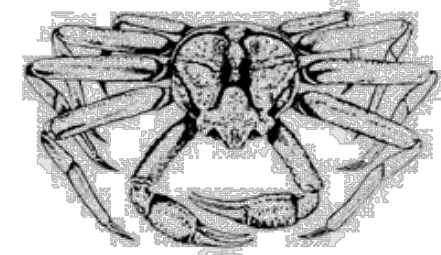
Aboriginal Traditional Knowledge

PRESENTATION FOR APC FISHERIES WORKSHOP
5-6 FEBRUARY 2013, MONCTON, NB

BRINGING ATK INTO DFO'S FISHERIES MANAGEMENT PLANNING CYCLE FOR SNOW CRAB (GULF MANAGEMENT AREA 12)

Outline

1. **ATK inclusion: goal, steps, and overall**
2. **ATK inclusion: via Two-Eyed Seeing**
3. **ATK inclusion: the Elders have spoken ...
APCFNC/AAEDIRP Elders' project**
4. **ATK: some general comments and
a healthy communities model**
5. **Mi'kmaw TK ... some basics**
 - Ta'ntelo'lti'k
 - Netukulimk
 - Knowledge model (Murdena's)
 - Teachings
6. **Appendices**

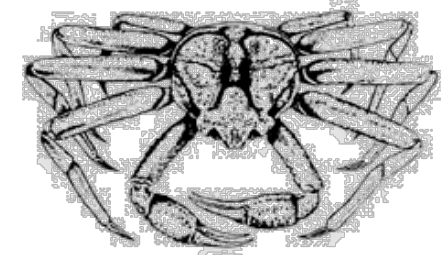


Artist Gerald Gloade;
Millbrook First Nation

Aboriginal Traditional Knowledge

BRINGING ATK INTO DFO'S FISHERIES MANAGEMENT PLANNING CYCLE
FOR SNOW CRAB (GULF MANAGEMENT AREA 12)

OUR GOAL ... ATK inclusion:
**Let's navigate our way forward (in the
snow crab fishery) using input from
both ATK and DFO's western science
... while we acknowledge that our
challenge is to learn how to gather,
communicate, and use,
in an integrative way
via Two-Eyed
Seeing, input
from two cultures,
two worldviews.**



Artist Gerald Gloade;
Millbrook First Nation

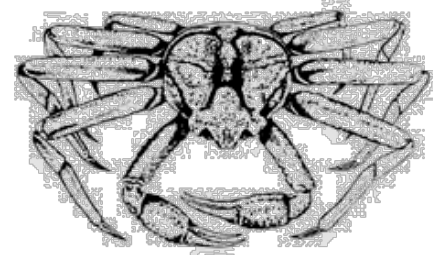


Artist Gerald Gloade;
Millbrook First Nation

Aboriginal Traditional Knowledge

BRINGING ATK INTO DFO'S FISHERIES MANAGEMENT PLANNING CYCLE
FOR SNOW CRAB (GULF MANAGEMENT AREA 12)

NECESSARY STEPS: We need to elevate the consciousness about ATK for DFO and also among Lnu'k. We all need to understand that ATK is based in *Netukulimk*. Although DFO might not completely “get it”, we need to help them see where it can go. Lnu'k need to see this also. We then need to learn where we can input ATK into programs, processes, etc.



Artist Gerald Gloade;
Millbrook First Nation

Aboriginal Traditional Knowledge

BRINGING ATK INTO DFO'S FISHERIES MANAGEMENT PLANNING CYCLE FOR SNOW CRAB (GULF MANAGEMENT AREA 12)

OVERALL: We know that some ingredients (e.g. programs, processes, research) are already in place. Our challenge is to integrate with them and/or expand upon them so we do not compromise the integrity of Mother Earth, not jeopardize the next Seven Generations.

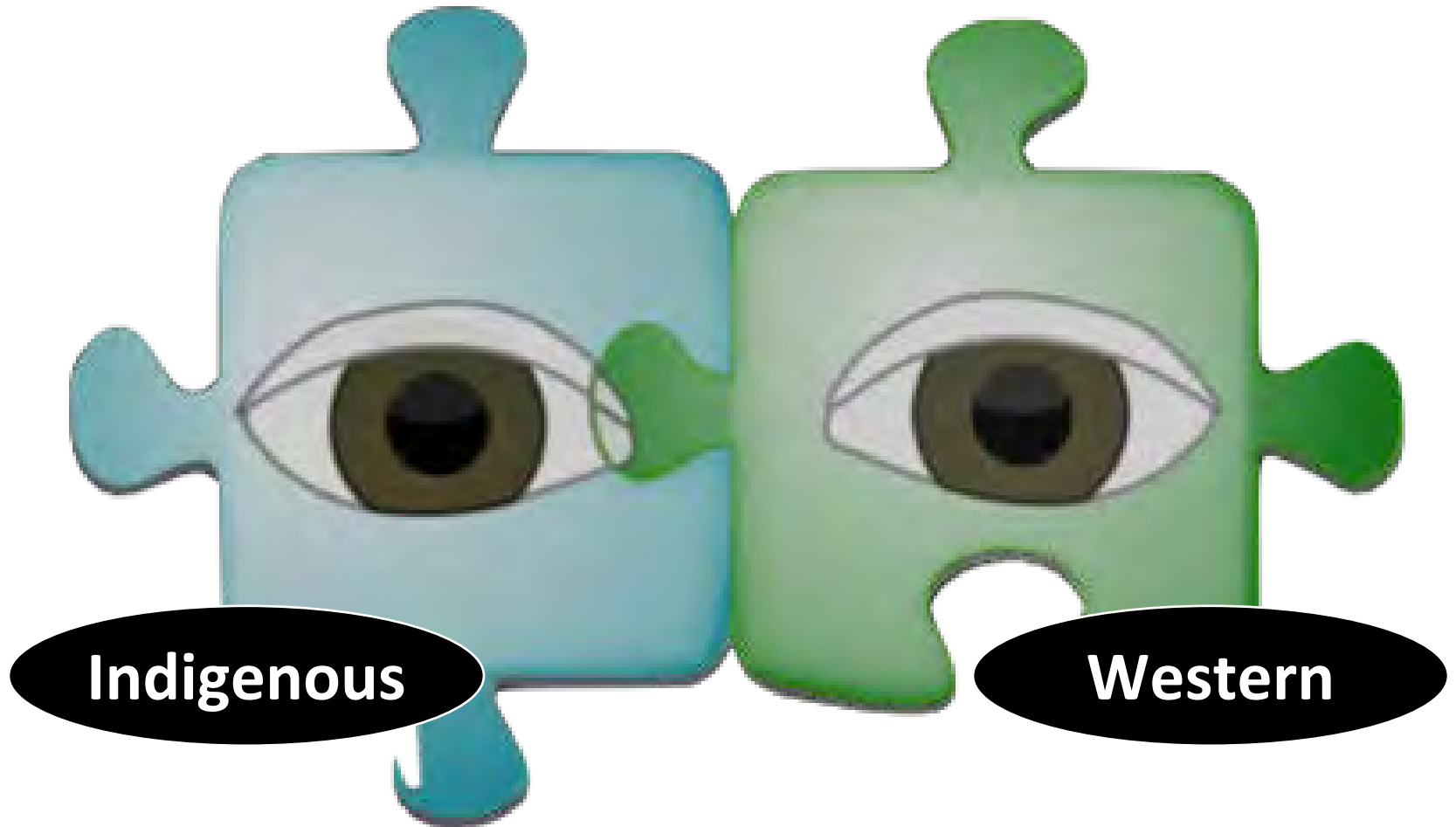


Artist Gerald Gloade; Millbrook First Nation



Aboriginal Traditional Knowledge

ETUAPTUMUK - TWO-EYED SEEING





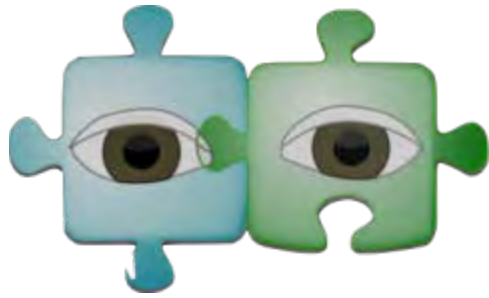
TWO-EYED SEEING

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.**

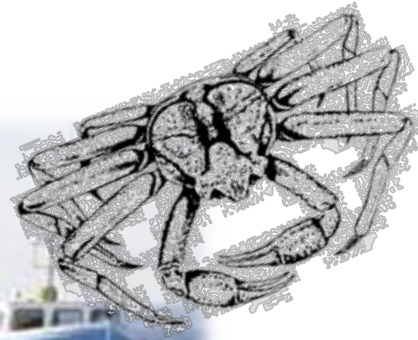
(words of Mi'kmaw Elder Albert Marshall)



TWO-EYED SEEING

a Guiding Principle
for trans-cultural collaboration

for bringing together different knowledges



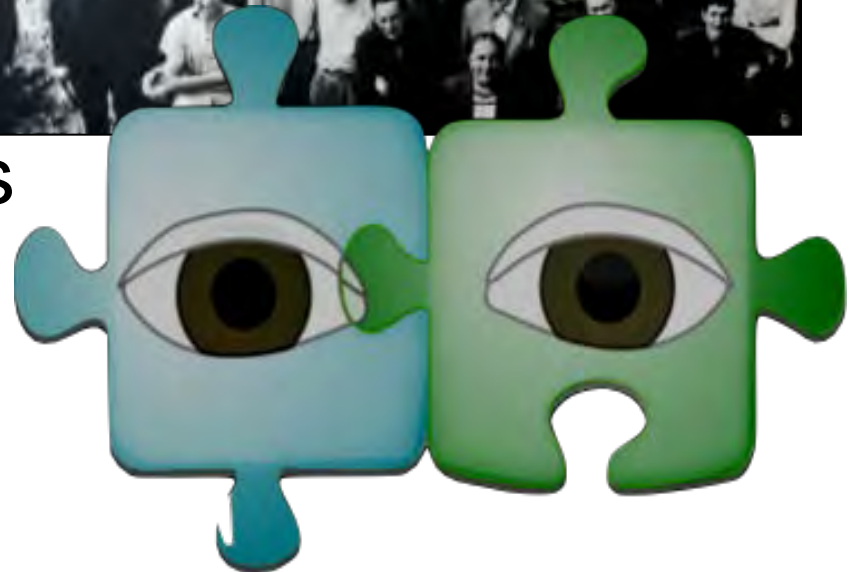
**for bringing
ATK into DFO's
fisheries management
planning cycle
for snow crab
(Gulf Management Area 12)**

AS ELDERS IN OUR TIME

words of Elder Albert Marshall:

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 bringing it together with the wisdom of our Ancestors.



APCFNC / AAEDIRP

12-14 August 2010, Millbrook FN

ELDERS MAWIO'MI

Honouring Traditional Knowledge

23 Elders from four
Aboriginal cultures
of Atlantic Canada

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





Atlantic Policy Congress
Of First Nations Chiefs Secretariat
www.apcnc.ca

APCFNC/AAEDIRP Elders Research Project

Honouring Traditional Knowledge

Artist Gerald Gloade; Millbrook First Nation



ELDERS' RECOMMENDATIONS

Eight formal recommendations:

- based on discussions at 2010 Mawio'mi
- reviewed at subsequent gathering in 2011
- indications as to how Elders would like to be consulted when sharing TK



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Honouring Traditional Knowledge

Artist Gerald Gloade; Millbrook First Nation



ELDERS' RECOMMENDATIONS

Recommendations concern all aspects of Aboriginal community life, including economic development, fisheries, health, social, law, environment, and education, etc.

[see Appendix #2 for full text of Elders' Eight Recommendations]



Atlantic Policy Congress
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APCFNC/AAEDIRP Elders Research Project

Honouring Traditional Knowledge

Artist Gerald Gloade; Millbrook First Nation



ELDERS' RECOMMENDATIONS

Atlantic Chiefs reviewed the Eight Recommendations at a meeting on 29 September 2011 and, by consensus, supported all of them.



Atlantic Policy Congress
Of First Nations Chiefs Secretariat
www.apcfn.ca



Atlantic Policy Congress
Of First Nations Chiefs Secretariat
www.apcfcnc.ca

APCFNC/AAEDIRP Elders Research Project

BACKGROUND

The Atlantic Policy Congress of First Nations Chiefs (APCFNC) brings together 38 First Nations in the Atlantic region of Canada as well as the Inuit in Labrador. Through the Atlantic Aboriginal Economic Development Integrated Research Program (AAEDIRP) administered by the APCFNC, Mi'kmaq, Innu, and Inuit Elders have been involved in a project

to explore the critical importance of consulting with Elders and having them involved in community economic development projects and in research on

ways to proceed for the project. The project was supported by APCFNC members. As a foundation for the work on economic development in the Atlantic region, the project sought the views of Atlantic region Elders on how they would like to be consulted and on their traditional worldviews. As part of the project, the Elders have shared their views concerning Traditional Knowledge and its importance.

After having reviewed the eight recommendations from the General Meeting on September 29, 2011, the APCFNC Council resolutions put forward by Atlantic Region Elders are set out in All Chiefs' Resolution #2011-14.

Chief Mi'sel Joe, Miawpukek First Nation
Chief Roderick Googoo, Waycobah First Nation
RESOLUTION: Passed by consensus
DATE: September 29, 2011

TRADITIONAL KNOWLEDGE COMPONENTS

10

During the meeting in Mi'kmaq brought together Elders from four regions — the Mi'kmaq, the Wolastoqiyik, the Innu, and the Inuit. The meeting was held in Millbrook First Nation at the Glooskap Heritage site and was videotaped. They directed that a transcription of the proceedings be prepared.

Traditional Knowledge

This document contains Traditional Knowledge. Under the Elders' guidance the document was prepared by the Elders Ma'wio'mi. It can be viewed by going to:

Recommendations concerning Traditional Knowledge. The recommendations are set out in the document Ma'wio'mi. See next page.

This document contains ethics and best practices for the sharing of Traditional Knowledge in Atlantic region Elders in research. It contains community economic development 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 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.

1. It needs to be recognized that Atlantic Aboriginal communities are losing their Elders, their knowledge very rapidly. Therefore, Aboriginal communities and organizations need to recognize the urgency and importance of working alongside Elders and knowledge immediately.

Involved in all aspects of the territorial, cultural, linguistic, political, and social affairs of Atlantic Aboriginal communities. Prioritize what is most important because of their collective

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

Involved in meaningful ways and have advisory roles for all Aboriginal communities. This includes implementation, and evaluation taking place. Meaningful roles include steering committees and advisory committees, so that Elders are involved in the decision-making process.

Traditional Knowledge should be shared and passed on before it is lost. The ways in which this should be done need to be directed by the Elders from each territory.

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

The Council would engage in a process of co-learning with the Atlantic region Elders to explore how the process of this knowledge transfer could occur.

The Council would explore and approve educational curriculums related to Traditional Knowledge in Atlantic region community schools and provincial and post-secondary schools.

Traditional Knowledge should be woven into the social studies, science, and language curriculums in secondary schools in Atlantic Aboriginal communities. This would include working alongside Elders in education for Aboriginal learners, enable the communities to explore and develop their own learning methods, and better prepare for the future.

The Council would be compelled to seek guidance from the Elders Council (Resolution #6) to develop appropriate curriculums related to Traditional Knowledge in post-secondary programming.

The Council would encourage the use of traditional practices, which are being passed on to younger generations to learn about such as traditional laws, cultural and spiritual practices, language, hunting and fishing, food gathering, medicine, ecology, science, etc.

[HonouringTraditionalKnowledgeFinal.pdf](#)



FOR MORE INFORMATION PLEASE CONTACT:

Gillian Austin
Research Coordinator
Atlantic Aboriginal Economic Development Integrated Research Program, AAEDIRP
APCFNC

Phone: 435-8021 (office) or 402-1733 (cell)
Email: gillian.austin@apcfcnc.ca

APCFNC Elders Project:
**HONOURING
TRADITIONAL
KNOWLEDGE**



Atlantic Aboriginal Economic Development
Integrated Research Program



REPORT SYNOPSIS

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

We must bring our Aboriginal Traditional Knowledge into the present so that everything becomes meaningful in our lives and communities. (words of Elder Murdena Marshall)



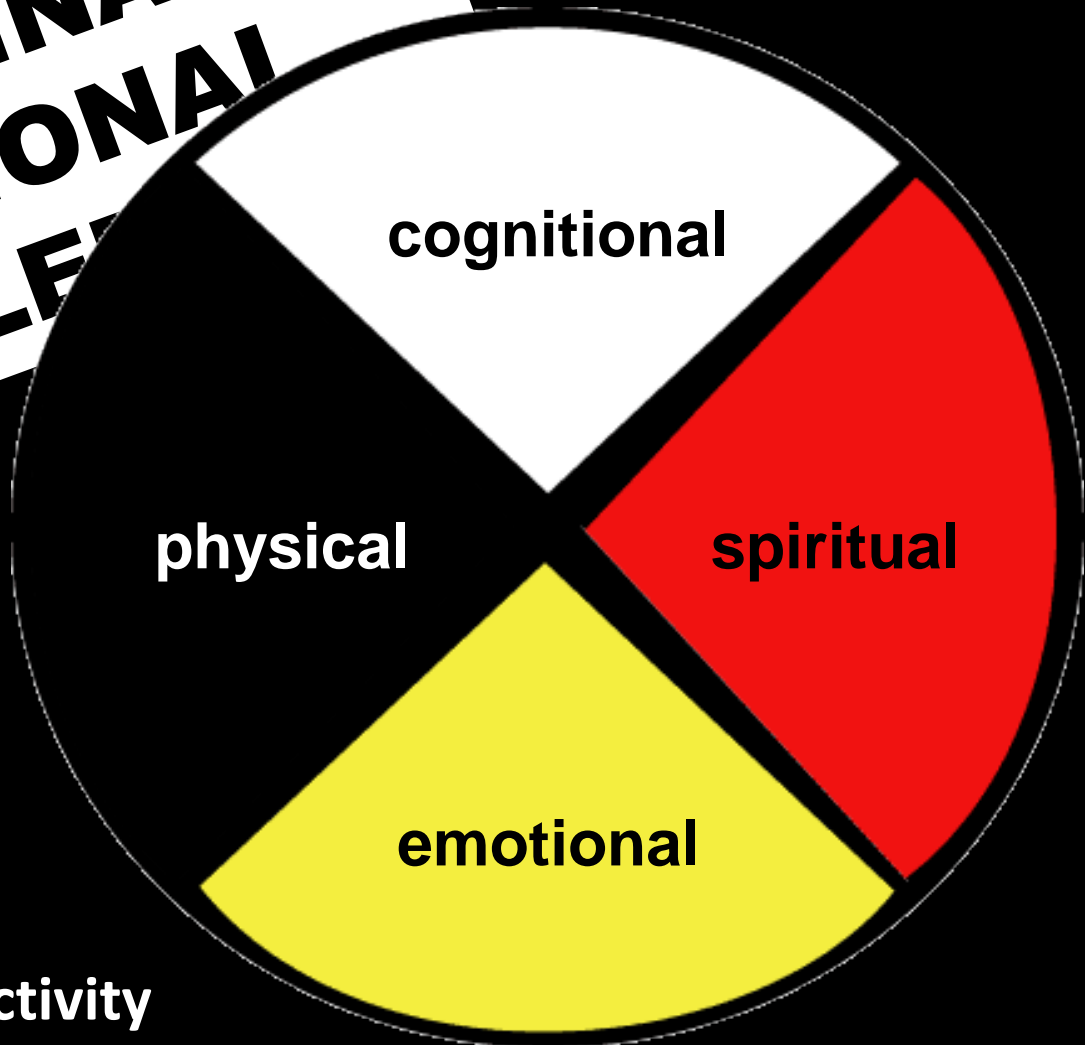
Artist Gerald Gloade; Millbrook First Nation

Let's talk about ATK ...
**ABORIGINAL
TRADITIONAL
KNOWLEDGE**



Artist Gerald Gloade
Millbrook First Nation

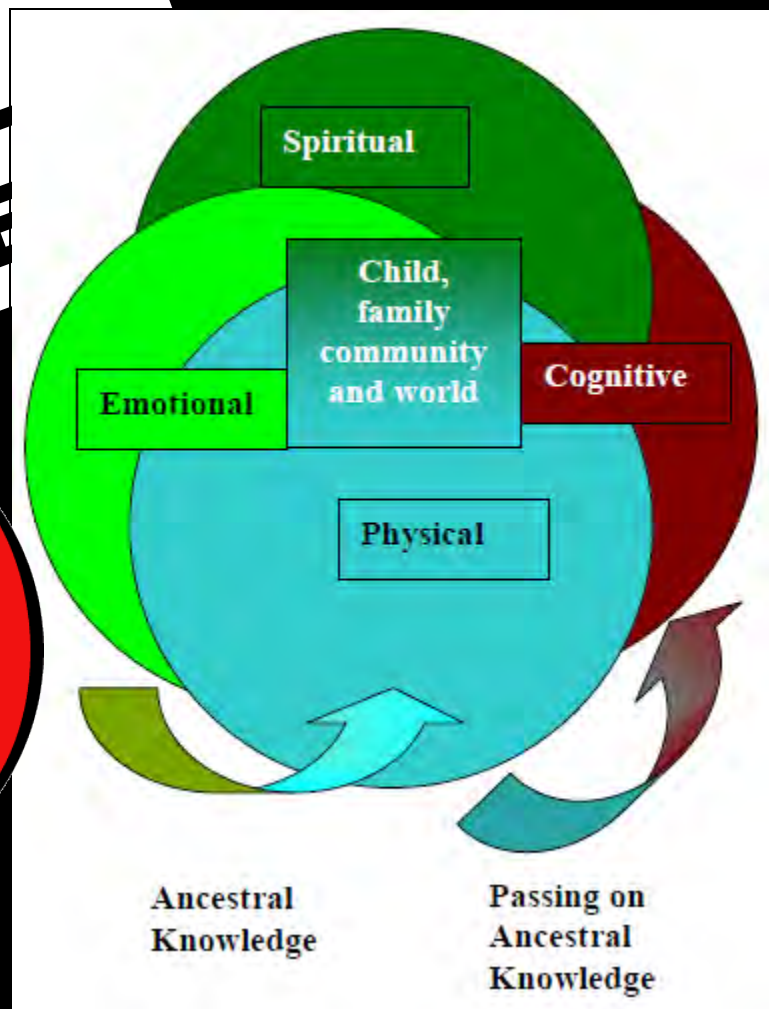
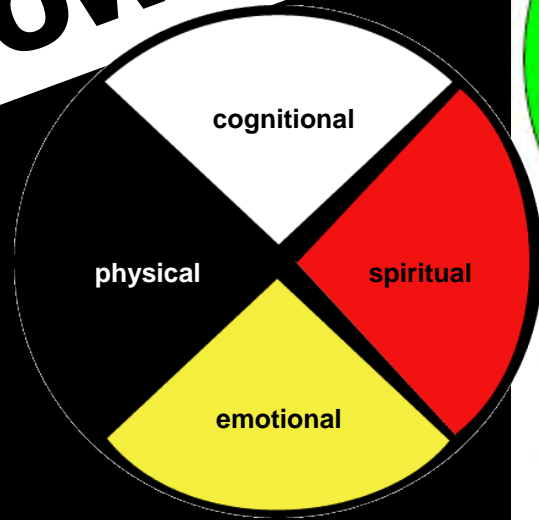
**Let's talk about ATK ...
ABORIGINAL
TRADITIONAL
KNOWLEDGE**



Four Aspects
of
Being Human

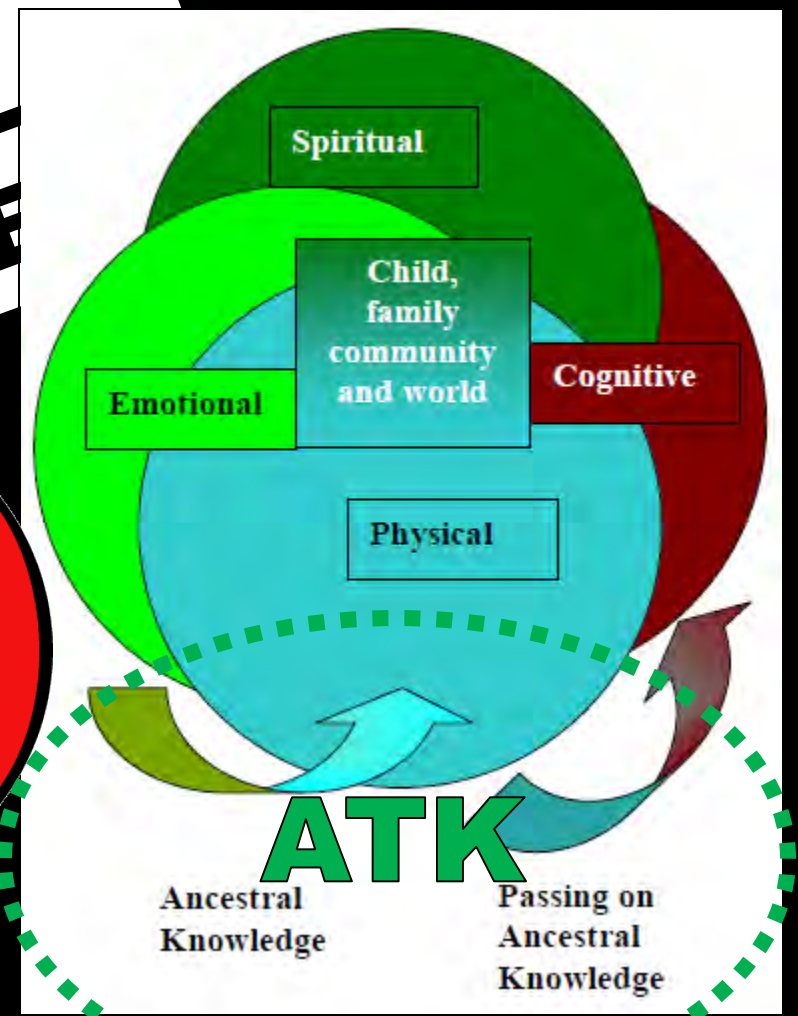
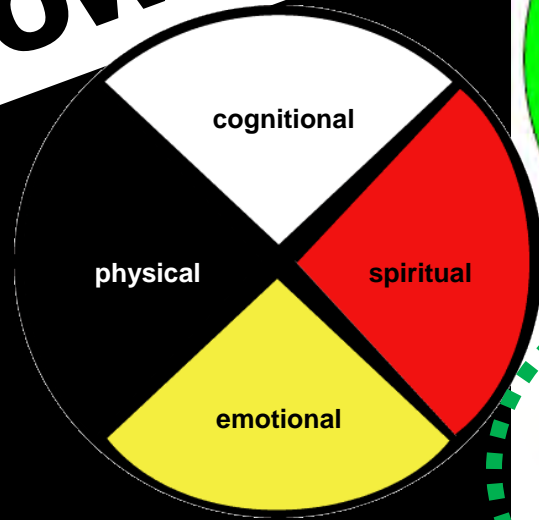
relationship + interconnectivity

Let's talk about **ATK**
ABORIGINAL
TRADITIONAL
KNOWLEDGE



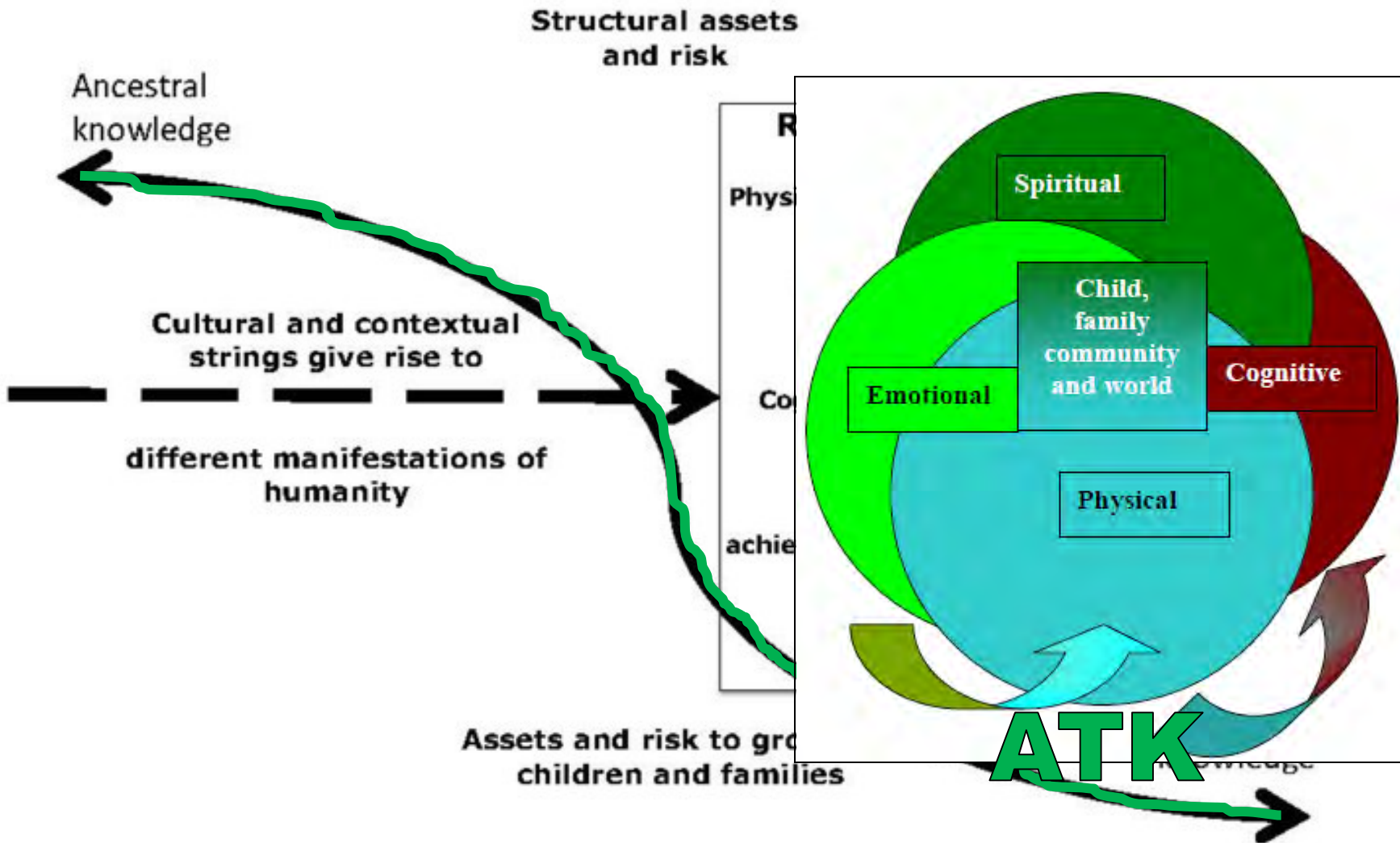
from: Cindy Blackstock 2007; Fig. 1; WIN-HEC Journal
(World Indigenous Nations – Higher Education Consortium)

Let's talk about ATK
**ABORIGINAL
TRADITIONAL
KNOWLEDGE**

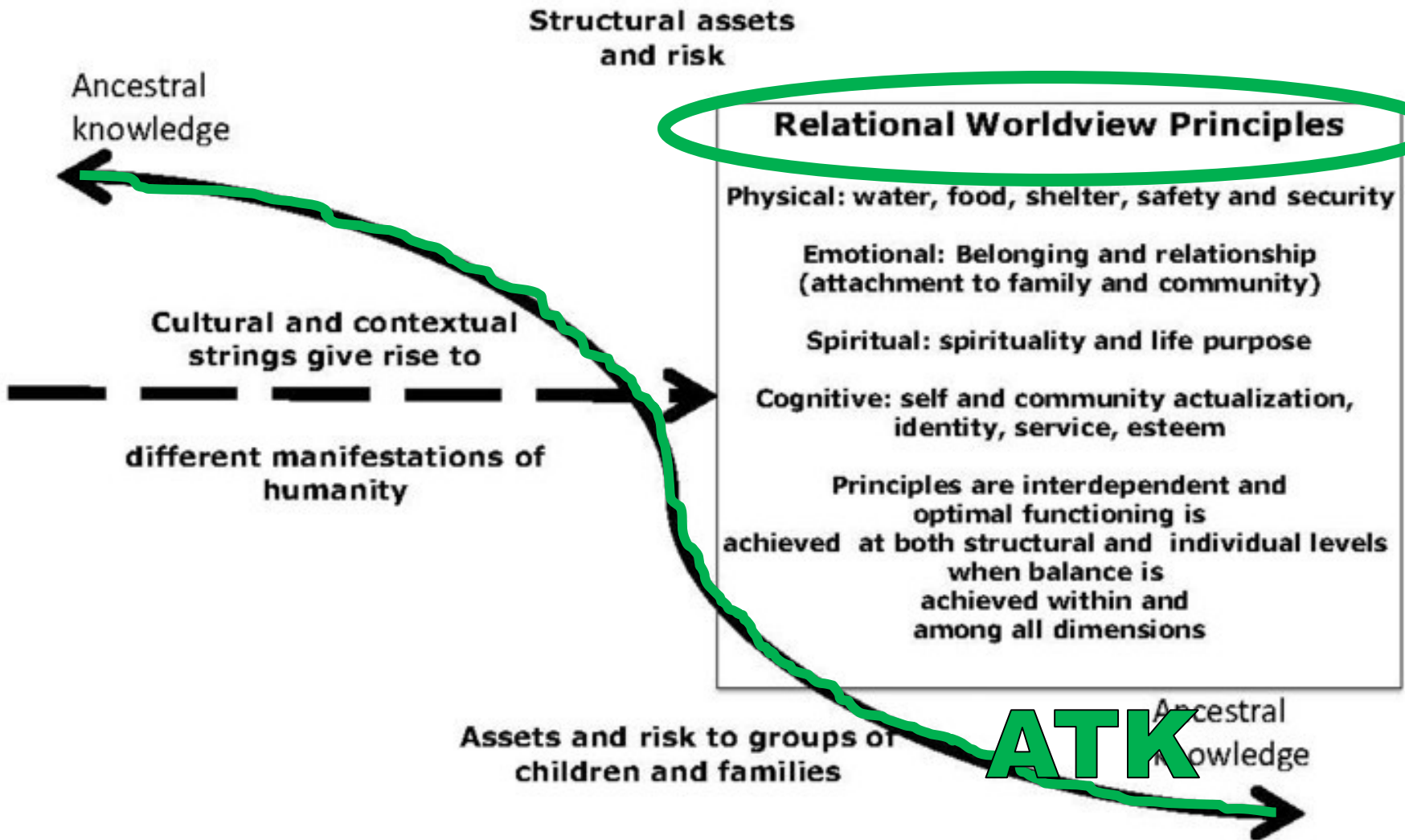


from: Cindy Blackstock 2007; Fig. 1; WIN-HEC Journal
(World Indigenous Nations – Higher Education Consortium)

Blackstock 2011: model for Breath of Life Theory (with 2007 overlay)



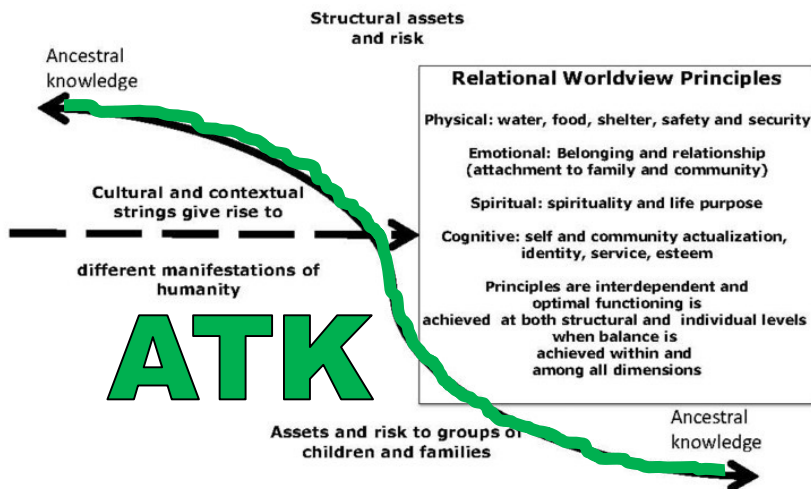
Blackstock 2011: model for Breath of Life Theory – healthy communities



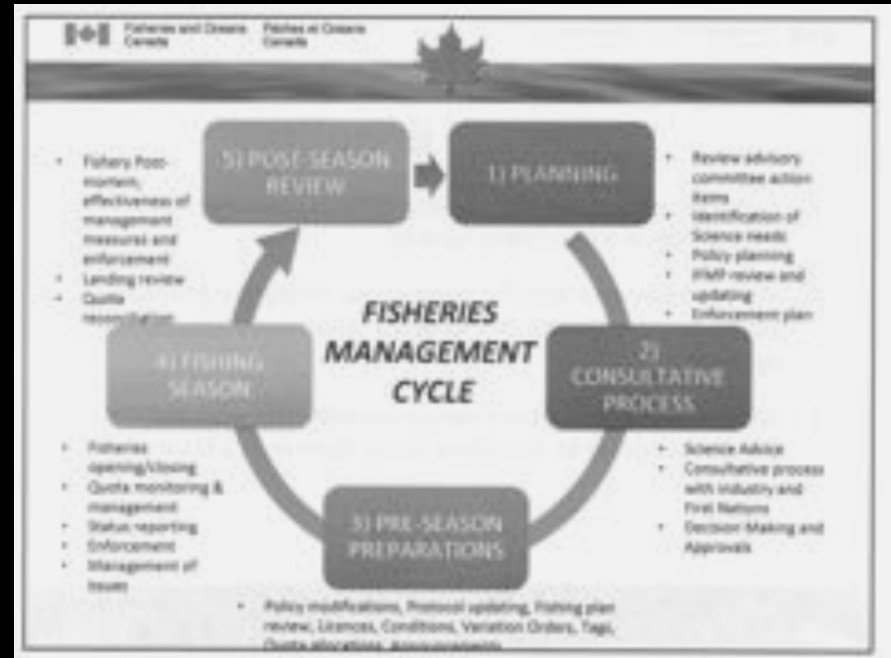
Indigenous

Western

The challenge is to bring together the strengths from both so as not to compromise the integrity of Mother Earth.



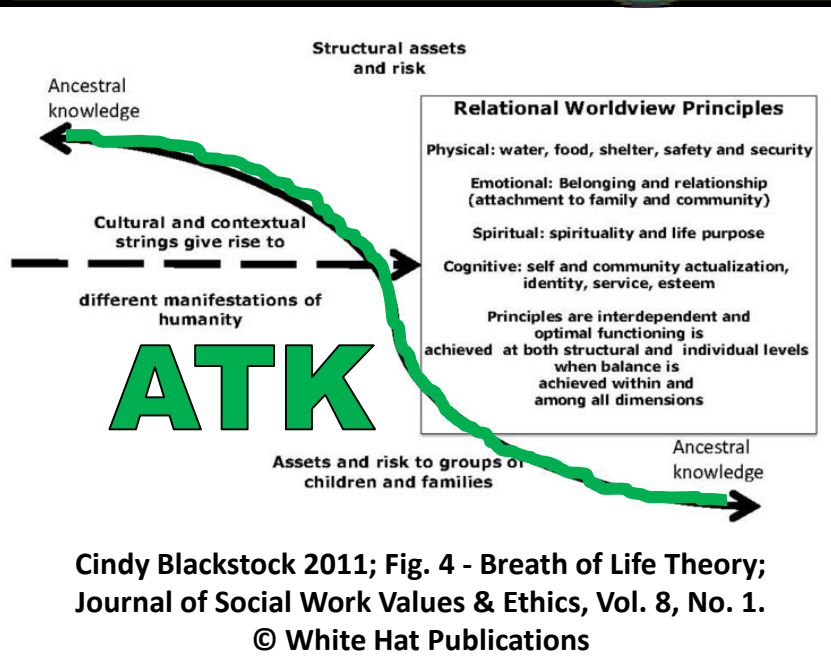
Cindy Blackstock 2011; Fig. 4 - Breath of Life Theory; Journal of Social Work Values & Ethics, Vol. 8, No. 1. © White Hat Publications



Indigenous

Western

The challenge is to bring together the strengths from both so as not to compromise the integrity of Mother Earth.



[Western] Science is distinguished from other pursuits by the precise and limited intellectual means that it employs and the integrity with which it uses its limited means.

The scientific pursuit of truth uses no end of tools, ranging from sensitive scales to register the weight of a hair to observatories of the heavens.

**Let's talk about our ...
MI'KMAW
TRADITIONAL
KNOWLEDGE**



Artist Gerald Gloade;
Millbrook First Nation

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

We Elders need
to share our
understandings of
Traditional Knowledge
to be healthy.



In sharing, I am
trying to live up to
the responsibility of
why I was given
that knowledge.

words of Elder Albert Marshall

Ta'ntelo'Iti'k

how we Lnu'k are

MI'KMA'KI

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

Ta'ntelo'Iti'k

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



Artist Gerald Gloade; Millbrook First Nation

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.



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



... we must bring Traditional Knowledge into the present so that everything becomes meaningful in our lives and communities

(words of Elder Murdena Marshall)

Mi'kmaw Traditional Knowledge

is “LIVING KNOWLEDGE”
and our language teaches us.



Mi'kmaw Traditional Knowledge

is “LIVING KNOWLEDGE”
and our language teaches us.



Language is much more than an instrument, considerably more than a tool. In structuring our thoughts, in coordinating our social relations and in building our relationship with reality, it constitutes a fundamental dimension of the human being. It is in and through language that we live.

message from the Director-General of UNESCO
on the occasion of International Mother Language Day

http://portal.unesco.org/en/ev.php-URL_ID=31787&URL_DO=DO_TOPIC&URL_SECTION=201.html

Netukulimk



Humans possess responsibilities.
ALL OTHER SPECIES
POSSESS RIGHTS.

(words of Elder Albert Marshall)



Netukulimk

**“sustaining ourselves”
... yes ... but really is a
much richer concept:
it is holistic ...**

... it 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.

(words of Elder Albert Marshall)

**RESPECT
REVERENCE
RESPONSIBILITY
RECIPROCITY**



Netukulimk

The laws of nature will need, in some cases, to supersede the man-made laws.
(words of Elder Albert Marshall)

Indigenous thought defines politics and ethics as existing in the realm of ecological communities and ecosystems. Following this logic it makes no sense to limit the notion of politics and ethics to human beings.

(words of Raymond Pierotti,
Indigenous scientist & scholar)

Pierotti, R., 2011, pg. 8-9 in: Indigenous Knowledge, Ecology, and Evolutionary Biology. Routledge, New York

Co-existence

Inter-dependence

Community Spirit



Artist Gerald Gloade; Millbrook First Nation

Netukulimk

Artist Gerald Gloade; Millbrook First Nation

We need to use the tools from the man-made laws to assist the laws of Mother Earth ... that is the best we can do ... then we are living out our responsibilities.
(words of Elder Albert Marshall)



One point consistently missed by Western investigators of TK is the significance of honor and responsibility in Indigenous traditions.

Western science typically fails to consider the responsibility scientists owe toward study organisms. There is also little, if any, discussion of the obvious reciprocal relationship between investigator and subject.

(words of Indigenous scientist and scholar Raymond Pierotti)

Pierotti, R., 2011, pg. 15 & 17 in: Indigenous Knowledge, Ecology, and Evolutionary Biology. Routledge, New York

Netukulimk

We are all connected.
(words of Elder Albert Marshall)

We live within interconnectivity.
(words of Elder Murdena Marshall)

Humans did not descend as angelic beings into this world. Nor are we aliens who colonized Earth. We evolved here, one among many species, across millions of years, and exist as one organic miracle linked to others. The natural environment we treat with such unnecessary ignorance and recklessness was our cradle and nursery, our school, and remains our one and only home. To its special conditions we are intimately adapted in every one of the bodily fibers and biochemical transactions that gives us life.

This is ... the guiding principle of those devoted to the health of the planet. But it is not yet a general worldview ...
(words of mainstream scientist / biologist Edward O. Wilson)

Wilson, E.O., 2002, p. 40 in: The Future of Life, Vantage Books, New York



Netukulimk

Artist Gerald Gloade; Millbrook First Nation

We need to put our TK understandings such that they are not so abstract.

(words of Elder Albert Marshall)



Indigenous people invariably contend that the attitude and philosophy involved, rather than the technology, are what makes a practice traditional.

(words of Indigenous scientist and scholar Raymond Pierotti)

Pierotti, R., 2011, p. 14, in: *Indigenous Knowledge, Ecology, and Evolutionary Biology*. Routledge, New York

Netukulimk

Artist Gerald Gloade; Millbrook First Nation

All Our Relations



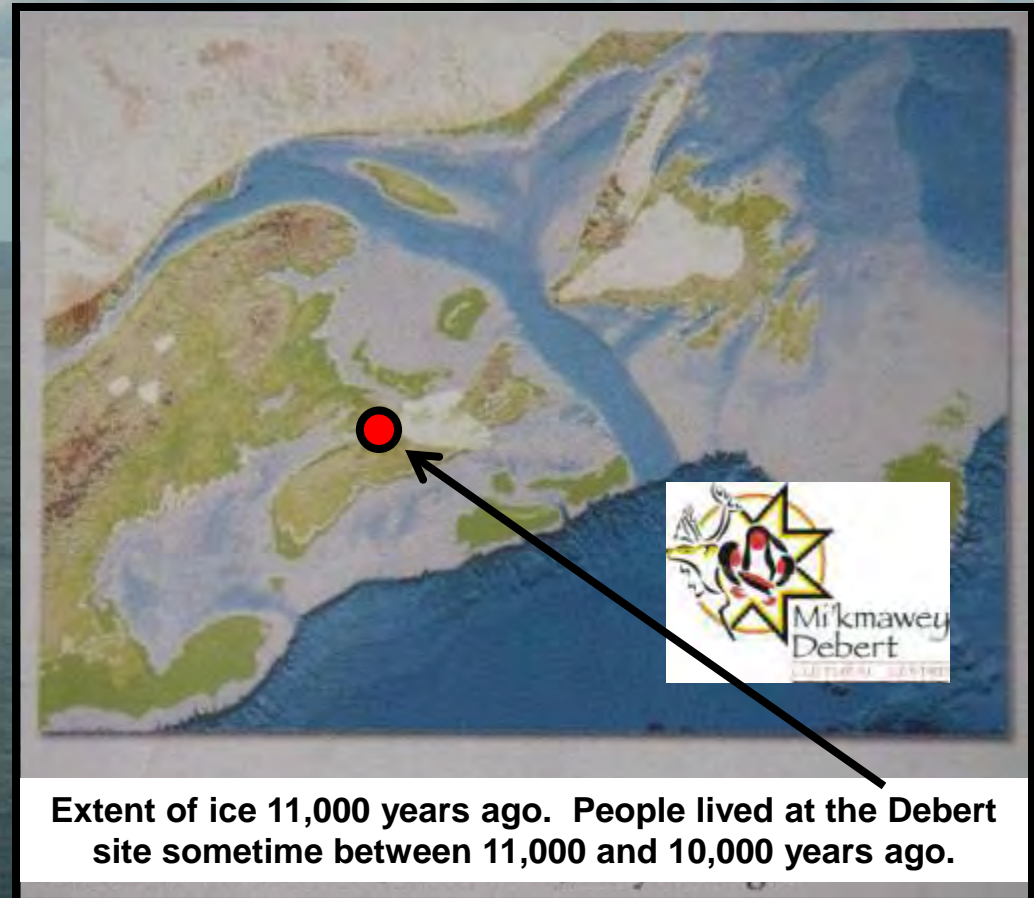
Indigenous knowledge emerges from careful long-term observations of natural phenomena. The data collected are basically an understanding of relationships between specific biological entities (plants, mammals, birds, insects, fish) and among biological and physical entities (rocks, bodies of water), landforms (mountains, isolated hills, unusual rock formations), and meteorological phenomena. This knowledge encompasses practical, empirical, and ideological aspects of understanding and is both the information itself and a way of knowing.

(Indigenous scientist and scholar Raymond Pierotti 2011 citing Barsh 2000 and various other authors)

Netukulimk

**Lnu'k have
been here
a long time ...
sensitivities to
eco-patterns and
eco-relationships
have developed
over millennia**

**Indigenous knowledge emerges from
careful long-term observations of
natural phenomena.**



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

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.
(words of Elder Albert Marshall)



But, at the same time as we are using Gifts from Creator, we must NOT compromise ecological integrity, and we must ALWAYS look into the future so next generations have the same opportunities.
(words of Elder Albert Marshall)

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



Artist Gerald Gloade; Millbrook First Nation

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



Artist Gerald Gloade; Millbrook First Nation



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.

Mi'kmaw Traditional Knowledge

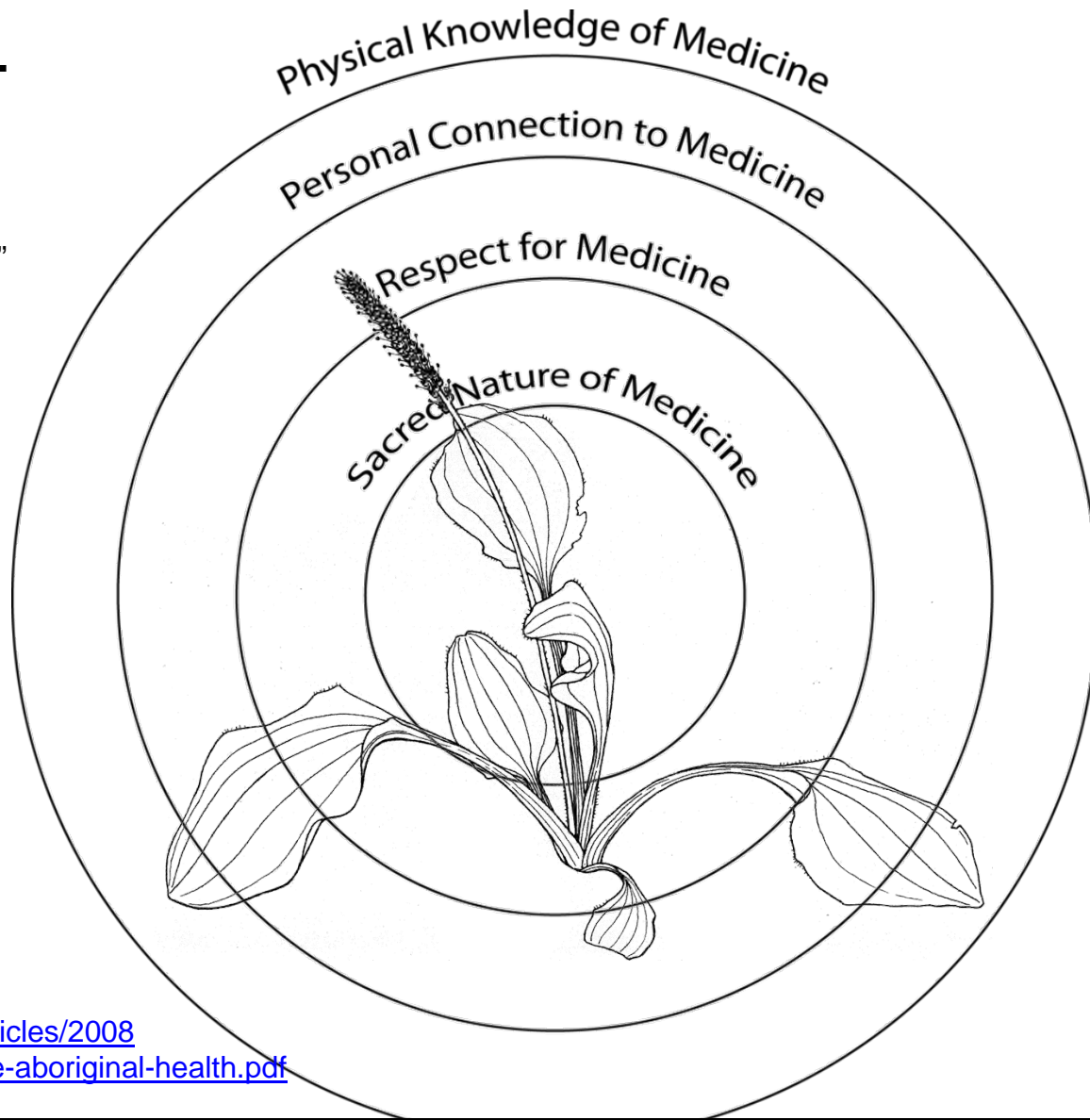
from:

Murdena Marshall. 2008.

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



**Murdena's
Concentric Circles
model for TK**



* 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)

Mi'kmaw Traditional Knowledge



Kepme'kl
Mi'kmawe'l
Kina'matnewe'l

Teachings of
Elder Murdena Marshall



Mi'kmaw Traditional Knowledge



Mi'kmaw
Seven
Sacred
Gifts
of Life

Teachings of
Elder Murdena Marshall



(words of Elder Albert Marshall)

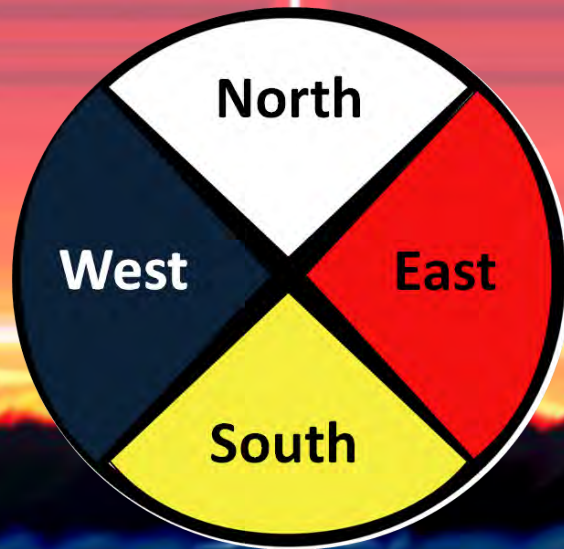
Our Mi'kmaw language is the key to how our actions will unfold. Each word is much deeper than only taking care of an object. Animacy brings personal connection ... such that actions fit actions (everything is in the picture) and we are always mindful of the ...

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*





QUESTIONS

Wela'lioq Thank you

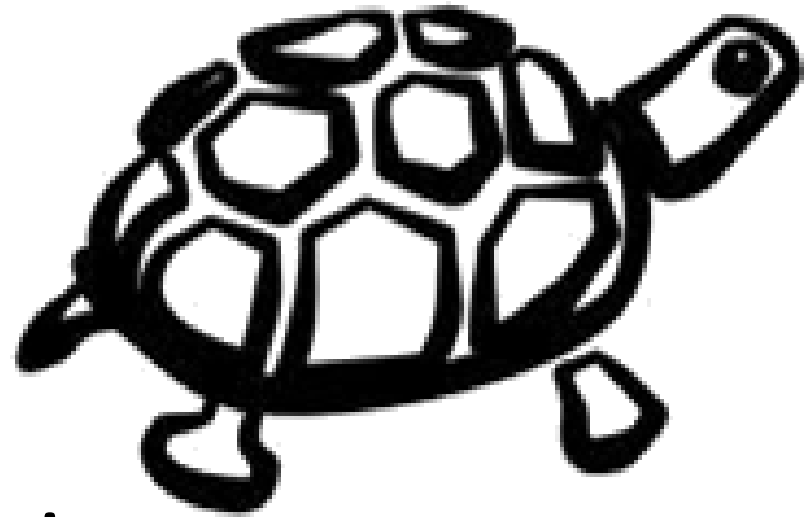
artwork with permission of:

Gerald Gloade
Millbrook First Nation
gerald@cmmns.com



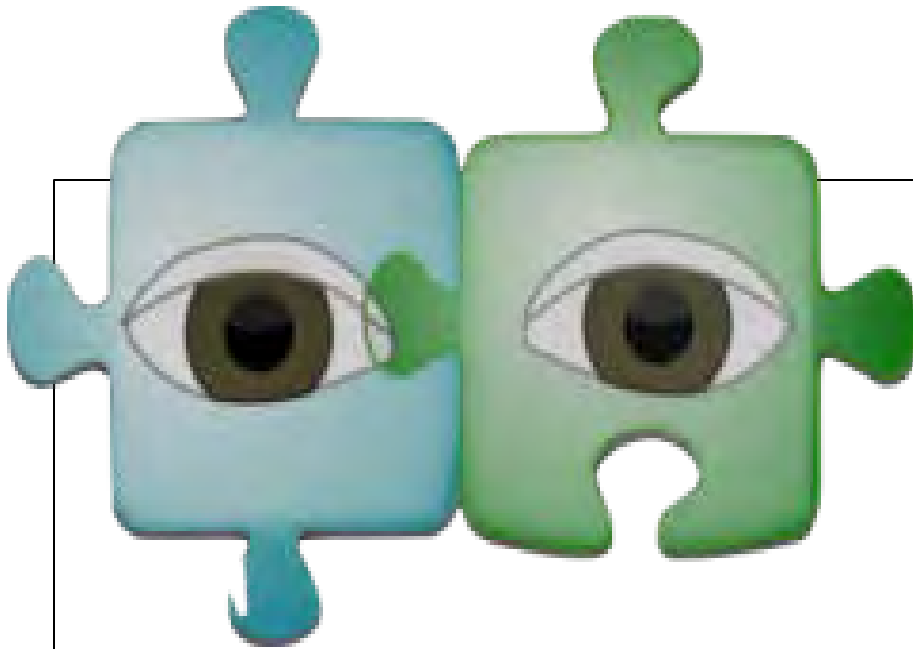
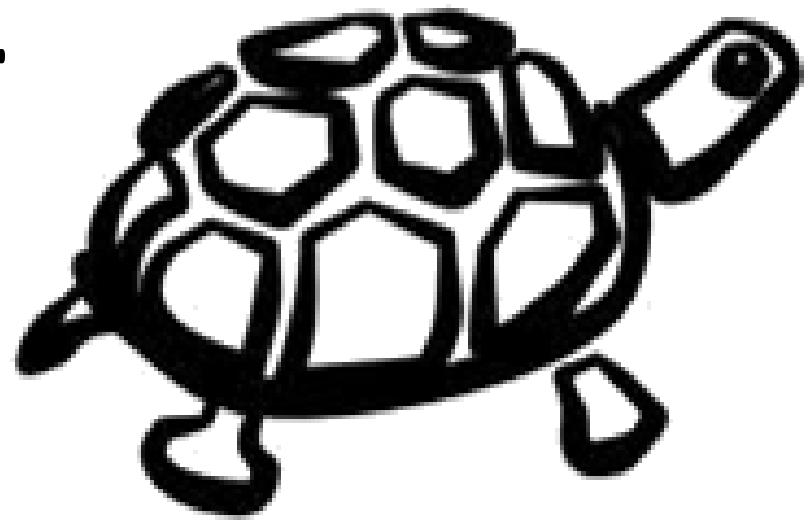
Artist Gerald Gloade; Millbrook First Nation

APPENDICES



- #1. Two-Eyed Seeing:
some explanation via
co-learning**
- #2. Elders' Recommendations
from APCFNC / AAEDIRP Elders Research Project**
- #3. AFN model (planning and policy)
for healthy communities**
- #4. Contact Information**

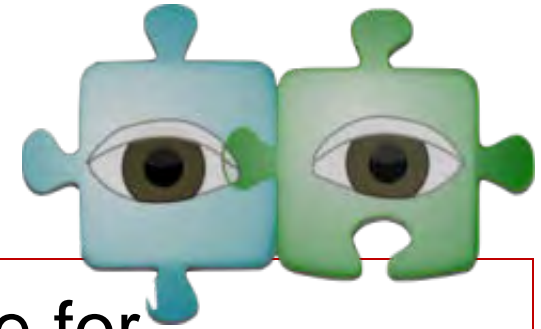
APPENDIX #1



TWO-EYED
SEEING:

some explanation via
CO-LEARNING

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 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?**

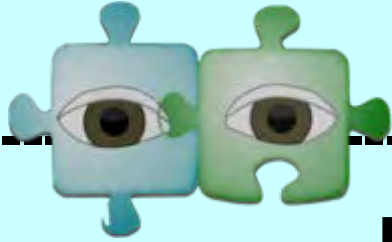
4. Our Overall Knowledge Goals: We can focus on *objectives*. Question: **What overall goals do we have for our ways of knowing?**

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

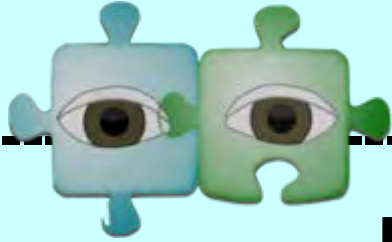
parts & wholes

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

with
EVOLUTION

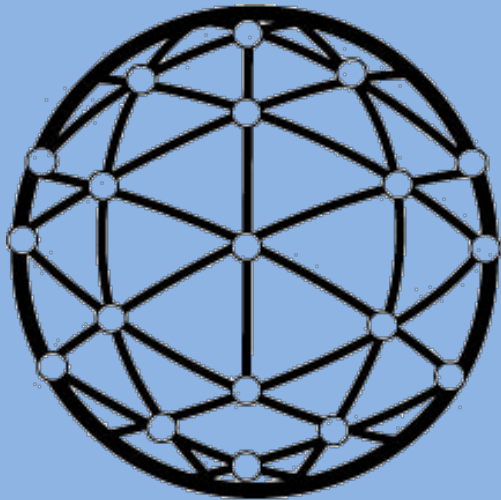
CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together

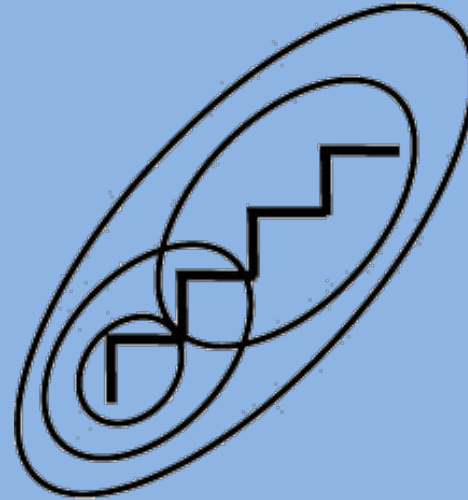


NATURAL WORLD: ontologies

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

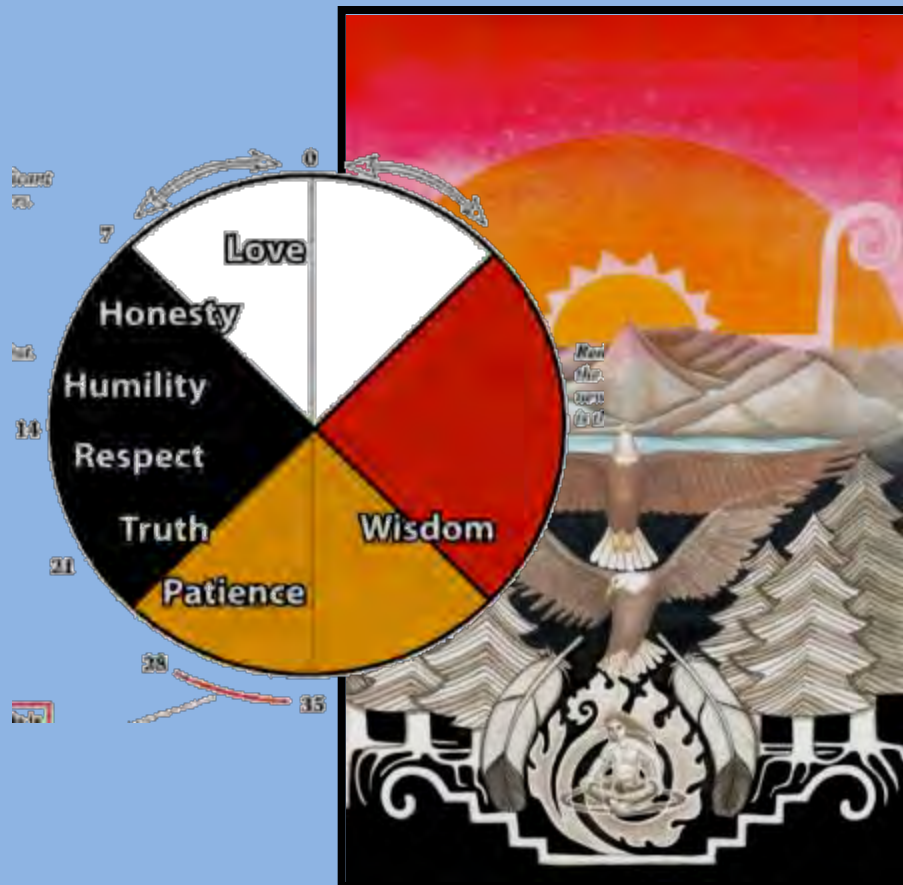
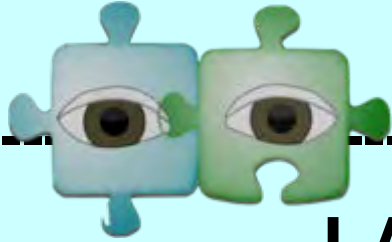


photo credit: NRC

Artist Basma Kavanagh

CO-LEARNING for Two-Eyed Seeing

learning our strengths and learning together



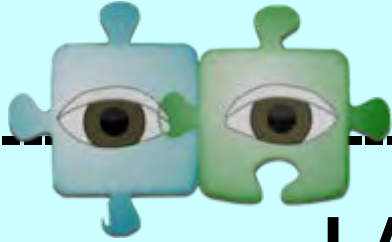
LANGUAGES and METHODOLOGIES

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



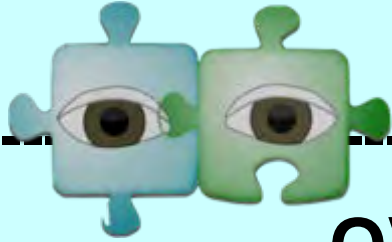
Math
&
instruments

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

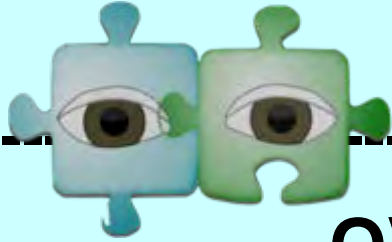
**towards resonance of
understanding within environment**

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

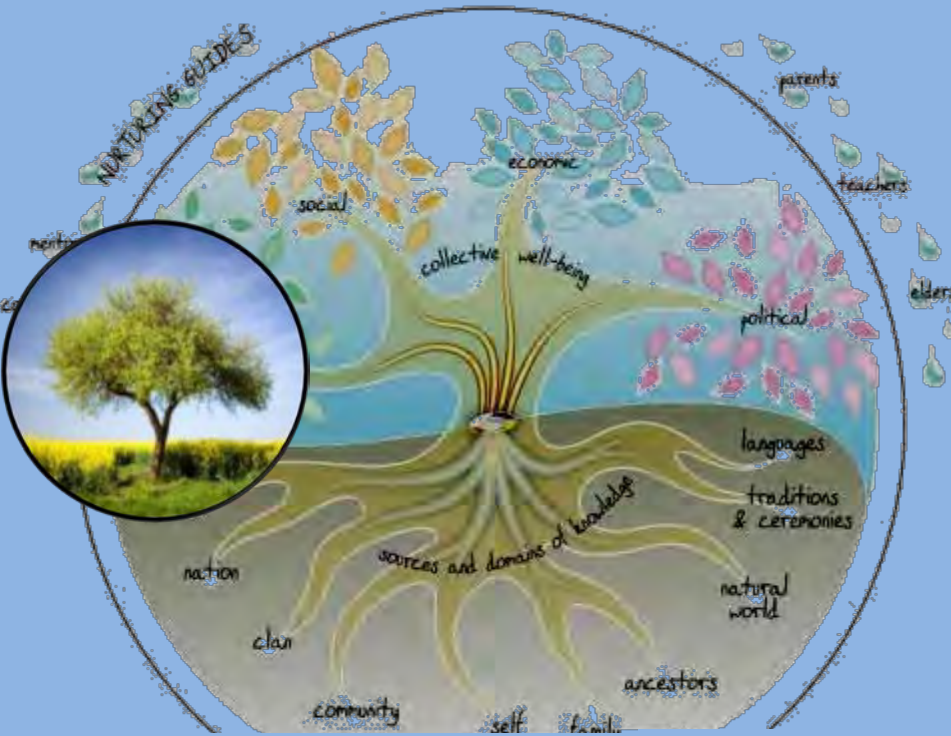
**towards construction of
understanding of environment**

CO-LEARNING for Two-Eyed Seeing

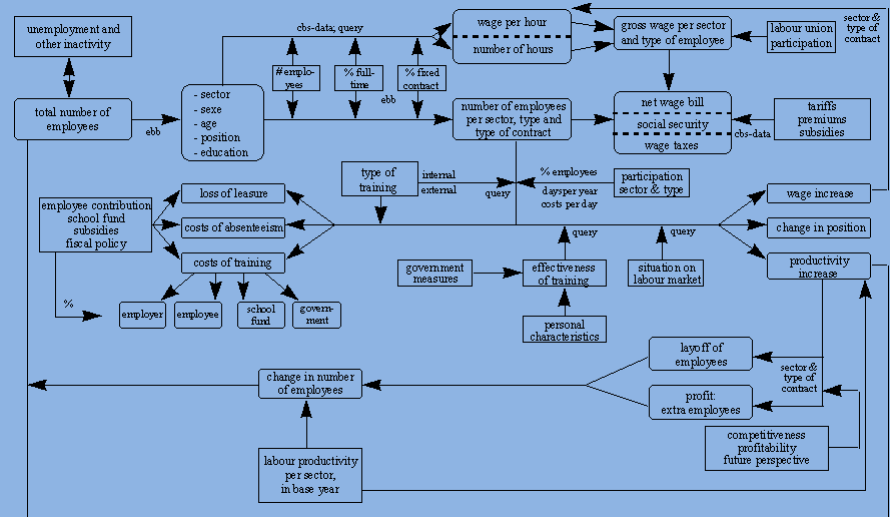
learning our strengths and learning together



OVERALL KNOWLEDGE OBJECTIVES



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

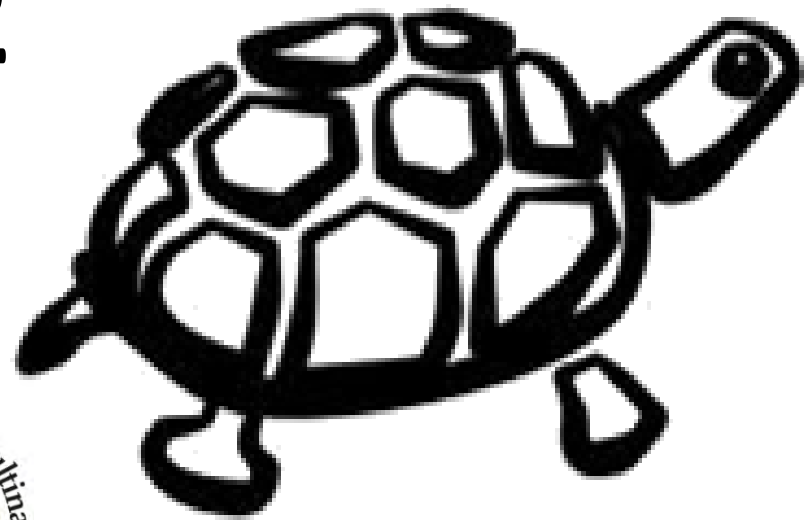


from: www.leads.ac.uk

towards resonance of understanding within environment


towards construction of understanding of environment

APPENDIX #2



APCFNC Elders Project:
**HONOURING
TRADITIONAL
KNOWLEDGE**



 Atlantic Aboriginal Economic Development
Integrated Research Program



ELDERS' RECOMMENDATIONS

from APCFNC / AAEDIRP
Elders Research Project


Atlantic Policy Congress
Of First Nations Chiefs Secretariat
www.apcfnc.ca

**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.apcfnc.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.



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.

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.



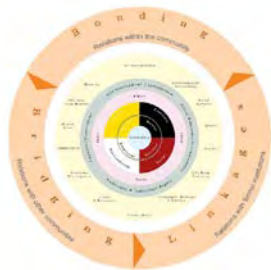
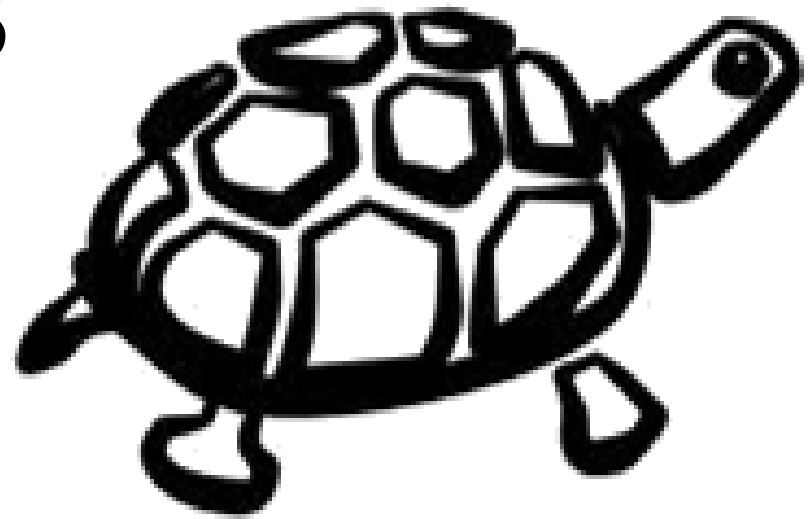
Post-secondary institutions should be compelled to seek guidance from the Elders Council (described above in # 6) to develop appropriate curriculum related to Traditional Knowledge for relevant post-secondary programming.

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.



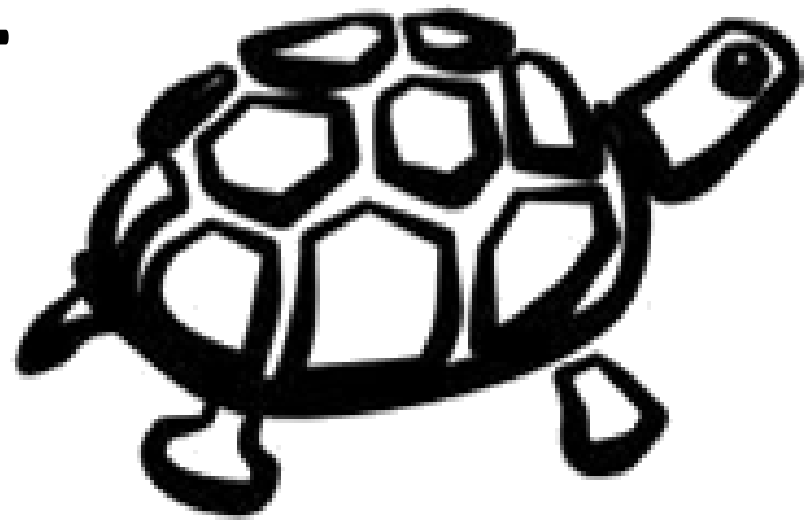
APPENDIX #3



AFN model
(planning and policy)
for healthy communities

http://ahrnets.ca/files/2011/02/AFN_Paper_2007.pdf

APPENDIX #4



Atlantic Policy Congress
Of First Nations Chiefs Secretariat
www.apcfn.ca



CONTACT INFORMATION

Rick Simon
Director of Fisheries

Rick.Simon@apcfnc.ca



Atlantic Policy Congress

Of First Nations Chiefs Secretariat

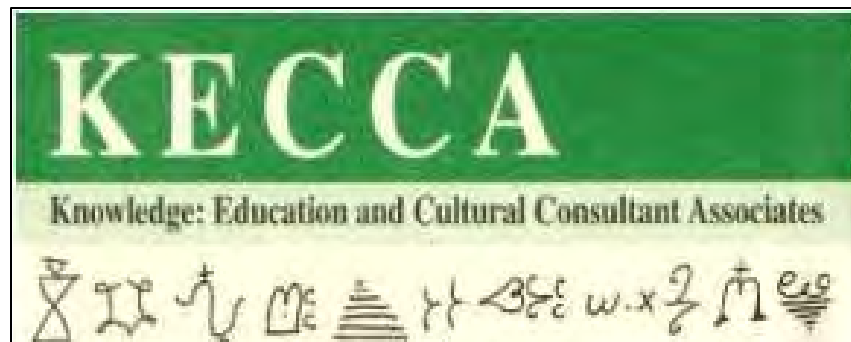
www.apcfnc.ca

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



Cheryl Bartlett, PhD

Member of the Order of Canada
Professor Emerita

Canada Research Chair in Integrative Science (retired)

Professor of Biology (retired)

Director, Institute for Integrative Science & Health

cheryl_bartlett@cbu.ca

MORE INFORMATION AT: www.integrativescience.ca

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