Traditional Ecological Knowledge emerged as a conversation between Hunter Cardinal and Diandra Bruised Head during a fireside chat hosted by the Creative Green Tools Canada. Once every other month, we gather to learn more about Indigenous ways of looking at environmental issues. In this opportunity, Diandra and Hunter helped us reflect on our understanding of traditional ecological knowledge.

WHAT IS TRADITIONAL ECOLOGICAL KNOWLEDGE (TEK)?

Diandra broke it down for us in the following way:

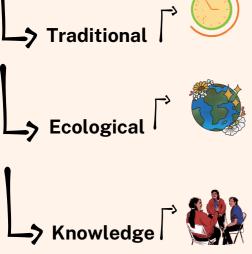
It's over time, it goes back as far as the time when those traditions started being shared with our families.

The root Eco means Earth, the land, so ecological is everything that has to do with the Earth, with our environment.

Knowledge is something that is earned. In the Western sense, we earn our knowledge by going to class, getting degrees; we get experiential knowledge by going through life experiences. In the Indigenous sense, ceremonies and protocols of reciprocity are how knowledge is earned.

COMING FROM THE BLACKFOOT TRIBE, I'M LUCKY THAT MY PEOPLE MANAGED TO HOLD ON TO OUR SUN DANCE CEREMONY THROUGHOUT THE INDIAN ACT (THAT ESTABLISHED IT AS ILLEGAL). IN ORDER TO BE PART OF THESE SOCIETIES, THERE ARE A SET OF PROTOCOLS THAT ONE HAS TO FOLLOW. ONE OF THEM IS GIFTS OR OFFERINGS. WHEN YOU GO TO ASK FOR HELP OR ADVICE (KNOWLEDGE), A GIFT OR OFFERING IS MADE TO THAT PERSON IN EXCHANGE FOR THEIR KNOWLEDGE. WHEN YOU GET THE GIFT OF KNOWLEDGE FROM THAT PERSON, NOW THE KNOWLEDGE BECOMES YOURS TO SHARE WITH SOMEBODY ELSE WHEN THEY COME FOR THE SAME ADVICE.





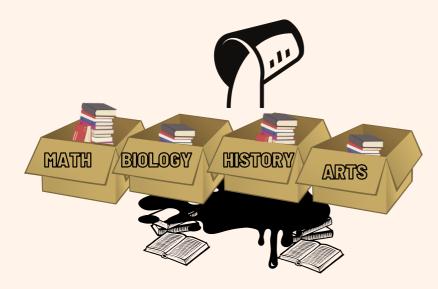


FIRE SIDE CHATS

So TEK is all these practices and protocols that were observed over time since time immemorial, all the observations that have been made about the land Indigenous peoples live on. And it's a very pragmatic system. As Diandra explains, the stories are passed down from generations to generations because they tell the values in which we have relationships with one another, with the other animals, and with the land.

TEK AND WESTERN EDUCATION

In Western education systems, knowledge is segmented. Diandra walked us through the following imagery to explain the challenges of Western education:



When you put subjects, let's imagine, into compartments next to each other and then you pour knowledge into those compartments, you inevitably lose things through the gaps between compartments.

Since little to no connection is established between different subjects, gaps are created in our understanding of how different pieces of knowledge connect.

TEK fills those gaps since it focuses on learning how we are in connection, in relation to everything else (and the two-way impact of these relationships).



66 AND THIS MIGHT BE WHY WE ARE LOSING PEOPLE THROUGH THE OPIOID CRISIS. THROUGH THE WESTERN LENS, OUR PEOPLE DON'T KNOW WHAT'S THEIR ROLE TO PLAY. UNDER TEK, WE KNOW THAT EVERYONE HAS A PIECE OF KNOWLEDGE TO SHARE, AND INCLUDING EVERYONE IS CRUCIAL FOR LONG-TERM SURVIVAL.

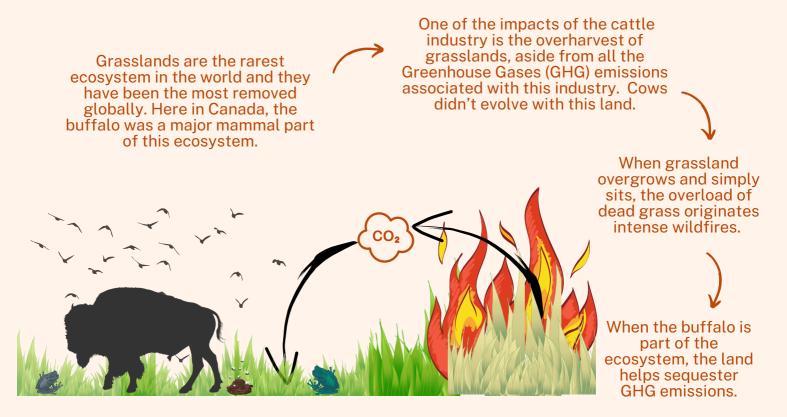
When it comes to climate change, the mainstream Western education system looks at it completely disjointed from societal issues. TEK starts with the relations at the center. Caring about the relations leads to caring about the environment around these relations.

Diandra plays a very important role now as a Councilor for the Kainai Blood Tribe people where she is able to bring in this TEK for the benefit of her community.



Diandra understood that bringing buffalo back to Blood Tribe lands was crucial for her community. Bringing buffalo means bringing a whole ecosystem with them:

FIRESIDE CHATS



The buffalo wallows on the ground for mating purposes creating dips that get filled up when the spring rain comes. This invites amphibians to co-inhabit the space. The buffalo's dung serves specific insects that thrive on it and birds eat those insects. It's all this ecological network of connection that helps carbon sequestration and diversity restoration.

Now if you step it up a little bit more, bringing the buffalo also addresses social issues like food security and health concerns.

THE BLANKET AND CLIMATE CHANGE: NOT JUST CARBON

Climate change is heavily impacting people. In order to address the magnitude of the problem, there are two approaches put in place: Adaptation and Mitigation.

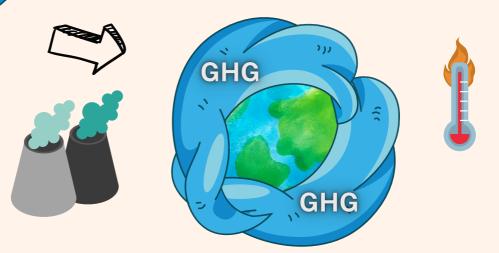
Adaptation is about adapting to the effects and impacts of climate change, particularly in places that are more at risk. Complimentarily, mitigation focuses on carbon reduction. Why? Let's see how Diandra explained it to us:

GHG



The Earth is surrounded by GHG that come from multiple sources like our own breath. These gases help insulate our globe and keep the right amount of heat so life can exist. In a way, these gases serve as a blanket that keeps our baby Earth protected, held, and nourished.

With industrialization, the amount of GHG emissions drastically increased. This constant level of emissions is like adding more layers of blankets onto our baby globe. As all parents know, when the baby is too hot, they turn fuzzy and start throwing tantrums. Unless you address their needs, they are not going to calm down. With mitigation, we are trying to address these needs to restore balance.



Buffalo embodies both, climate change mitigation and adaptation.

This is how Diandra applies TEK for climate change solutions while addressing the needs of her community.

THE BUFFALO IS NOT JUST ASSIGNED FOR LAND MANAGEMENT. THEY ARE NOT JUST THIS ROMANTICIZED VISION OF THE OLD TIPI DAYS. NO. THEY ARE OUR SIGN OF HOPE. BECAUSE WE ARE LOSING MY GENERATION. WE ARE LOSING PEOPLE MY AGE. THAT'S REALLY SCARY BECAUSE NOW WE HAVE ORPHANS, WE HAVE GRANDPARENTS AND ELDERS TAKING CARE OF THEIR GRANDCHILDREN, THEIR GREAT-GRANDCHILDREN, BECAUSE WE'VE LOST MY GENERATION. SO MY WAY OF ADDRESSING THAT AS A COUNCILOR, AS A LEADER, AS A PERSON OF THE KAINAI NATION IS TO KEEP PUSHING FOR BUFFALO TO ROAM.



DIANDRA'S LIST OF ADDITIONAL RESOURCES:

- https://www.buffalotreaty.com/
- @naapis_garden on Instagram
- Indigenous Knowledge and Western Science: Dr. Leroy Little Bear Talk, on YouTube
- @diandra4kainai on Instagram
- @indigbusyness on Instagram
- Kainai Ecosystem Protection Association KEPA on Facebook
- https://bloodtribe.org/index.php/category/blood-tribe-land-management/

ABOUT DIANDRA:

litoomsao'kaasii convocated from the Lethbridge **College with her Renewable Resources Management** diploma, and subsequently, completed her undergrad at the University of Lethbridge, graduating with a Bachelor of Science in environmental sciences. During her postsecondary education. Diandra worked as a junior forest ranger crew leader, forestry technician, and wildlife technician, experiencing nature and its wildness firsthand. As a Blackfoot woman, she aimed her studies on Traditional Ecological Knowledge and the importance of conserving and protecting native environments from an ecological and spiritual perspective. Diandra currently serves the Kainai First Nation as the Climate Change Coordinator; through her training in classical western science, the projects Diandra works on aim to braid Traditional Knowledge into climate change policy in both climate change adaptation and mitigation.



If you would like to be in contact with Diandra, please reach out to diandrabruisedhead@gmail.com







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