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Ancestral Science Podcast

The Ancestral Science Podcast explores scientific topics through conversations between Knowledge Keepers and Scientists, while *experiencing* the origins and depth of science on and with “the Land”. Join us as science COMES ALIVE when knowledges are shared alongside ancestor plants, rocks, animals, and rivers, creating connections between personal, Indigenous, and global science.

The Ancestral Science podcast is a place for *everyone* to see themselves in science, to be inspired by the SCIENCE that is all around them and expand the definitions of both *ancestor* and *science*.

SEASON 3: Episode 23 with **Dr. LAURIE Rousseau-Nepton, WILFRED Buck, ROB Cardinal, & Dr. ALVIN Harvey** “**Sacred Sites: protocols, science, & stories (Part 1)**”

We were grateful to speak with a superhero line-up of... [Dr. LAURIE Rousseau-Nepton](#) (Innu), [WILFRED Buck](#) (Opaskwayak Cree), **ROB Cardinal** (Siksika), & **Dr. ALVIN Harvey** (Dine Navajo) about stars as reconnection to stories and Ancestors, Indigenous and Ancestral science to make *whole*, connections between living on Mars and living on the rez, validating science of land and ancestors, importance of who and what defines a sacred site, re-defining the term “medicine wheel,” and a teaser of the precision and depth of alignments between sacred stone circles, sacred sites, and star cycles from thousands and thousands of years ago....

Much appreciation to [CULTURAL SURVIVAL](#) for the support of this episode and this project. Stay tuned to part two of this topic where we dig much deeper into the science within the sacred sites of which prompted a gathering of Indigenous astronomers, scientists, Knowledge Keepers, and Elders from across Turtle Island and beyond. If you are interested in either having us look closer at a sacred circles site near you OR want more information about this project or the "Stones, Stories, and Stars" event in October, email us at relational.science@gmail.com

Remember, you can support the pod and rock some unique Indigenous Science merch at www.relationalsciencecircle.com/shop, all proceeds go towards Knowledge Keeper honoraria, following protocols, and keeping the pod going. Please like, share, follow, and rate the pod, it goes a long way to share this knowledge.

Thanks to Emil Starlight ([@mikadikadzi_redfoot](#)), the pod’s multimedia podcast producer and [Walter White Bear](#), Sharon Ann Foster, and Emil Starlight for composing and performing our opening tune.

Want us to look into a sacred stone circle site in your community?? Email us!!
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SHOWNOTES:

-What prompted you to do the work you do with the stars?

Wilfred: stars was always a familiar connection

- Indigenous star stories validated knowledge that couldn't be from a lab
- knew I needed to re-interpret stars through our own stories

Rob: always understanding how little we actually know.

- these star knowledges from the ancestors are more instructive and intrinsic than knowledge in a textbook.

Laurie: I was always curious, as both a hunter and scientist

- but just getting a piece of paper didn't make me feel whole, I needed to re-learn astronomy through an Indigenous perspective, through Ancestral knowings.
- now I feel like I have a purpose.

Alvin: growing up on the Navajo Nation, without light pollution, I heard a lot of star stories growing up.

- made me think "living like an astronaut is similar to living on the rez"
 - no water, no resources...
 - made me ask "how do you then support people living like an astronaut?"
 - how can we connect people back to space environments?
- how is science/engineering a pathway back to Ancestral Knowledges?
To quote **Douglas Sinclair** (Anishinaabe, Ojibway) said "the one thing around the world that people all share is the stars."
 - stars connects all humanity

-how do you approach conversations about Indigenous Science as being a tale, legend, story, child-ish, and therefore not as "valid" as global/western science?

Rob: I don't have these conversations

- for me, I don't feel like I have learned knowledges without their connections to the land or culture.

Laurie: going back to "the first story" – story is simple but length and information is difficult to explain.

- you can continue to learn from the same story depending on where you are in your life, your experiences, and readiness and openness to learn.

Wilfred: stories are applicable across times and experiences

- take the Sky Woman Story
 - about special anomalies, multiple realities, quantum physics...
- but you have to be ready and open to listen and learn
- all knowledge includes the unknown- this connects to humility that was mentioned previously

Alvin: there are a lot of questions within Indigenous Science, especially within engineering where there is a lot of diplomacy.

- but, there IS a lot of validation of our data and information!
- makes me think of coyote/trickster, who is always looking for the universal truths

-check out Ancestral Science Podcast episode with Drs Miwa Takeuchi and Eun-Ji Amy Kim titled “Friends of Indigenous Science” [Spotify](#), [Apple Podcasts](#).

-Who and What defines a Sacred Site?

Wilfred: All of North, Central, and South America is a sacred site

-the Ancestors left our footprints everywhere...

-unfortunately, much of these sights were colonized, destroyed, stolen.

-sacred sites were often connected with the stars

-example: where meteorites landed were sacred sites for many Indigenous peoples as their connections to the star people.

-these sites were seen as a hinderance in converting Native people to Christianity, and to help with this, the sacred meteorites were removed and a church built on those sites.

This disconnected people from the star ancestor and from that sacred site. It was a way to *try* to erase us.

-this story was explained by Wilfred in his amazing film on *Crave* titled “[Wilfred Buck](#)” directed by [Lisa Jackson](#) of [Door Number 3 Productions](#).

-“Wilfred Buck” [trailer](#)

Rob: In Blackfoot, there isn’t a word for “sacred”

-our stories ARE scientific

Laurie: There are both Personal and Community Sacred Places.

-where all places have different connections and stories

Alvin: everything is sacred

As [Chief Si’ahl](#) (Seattle) – of Duwamish Tribe, said “All is Sacred”

-sacredness is a responsibility, has its own law of responsibility.

-Is there a Sacred Site on your Ancestral Lands you would like to speak about?

Wilfred: [Cepheus Star constellation](#) is shaped like a diamond.

-that “fuzzy/hazy” part in the middle, when looked at closely, when you have a relationship with this location, you see it is like a medicine wheel.

-now look at its relationship with Polarius, then how it connects to the lodge and the North Door...then the shape of the sundance lodge...

Rob: [Iniskum Umappi](#)* (Majorville Medicine Wheel) and its location in [Wikipedia](#).

-this site was built to connect the Land and Sky

-these sites teach you about both the past, but also about you.

-science is how YOU relate to the knowledge.

*note: with the work Laurie and team is doing with the sacred sites, these dates extend far beyond what has been published to date. Stay tuned for the paper, part 2 of “Stones, Stories, & Stars” on the Ancestral Science Podcast, and connected activities and educational resources. Check back on our webpage- <https://www.relationalsciencecircle.com>

Alvin: Stars are always in relationship with the landscape

-Navajo Medicine man- [Avery Denny](#) said, “time was always in the stars, they tell us when to do things and how to live”

-Arnold Clifford (Navajo Botanist) said “rising of the stars dictates the new year and ceremonies”

[“Nature the Navajo Way”](#) Arnold Clifford (article)

-Astronomy is right here!

-Check out the depth of alignment and science at [Chaco Canyon](#).

Laurie: The ways of understanding these knowledges has been done over years

-the Ancients were scientists, they used the atmosphere, precision, star cycles...to tell us stories.

-they left us these stones to find and understand. They took care of these stones over generations. This is the OG science!!

-Additional Links:

-Dr. Laurie Rousseau-Nepton:

-[“Fireside Chats with Laurie Rousseau-Nepton”](#)

-[“Laurie Rousseau-Nepton on how her Innu background and identity informs her discipline”](#) (The Varsity. Article)

-[“Bridging Science and Indigenous Knowledge”](#) (youtube)

-[“UVic Indigenous Science Speaker Series: Laurie Rousseau-Nepton”](#) (youtube)

-[“North Star”](#) NFB 5-part Series Documentary.

-Wilfred Buck:

[“Indigenous Knowledge Keepers teach others to look to the Stars”](#) (cbc article)

“Alignment of Planets, Stars, & Stories” with Wilfred Buck & Rob Cardinal, [Spotify](#), [Apple Podcasts](#).

[“Star Travelers: Star Knowledge with Wilfred Buck”](#) (youtube)

[“New Asteroid named for Ininiwak Star Guy Wilfred Buck”](#) (article)

-Rob Cardinal:

Rob’s Episodes on the Ancestral Science Podcast

“Alignment of Planets, Stars, & Stories” with Wilfred Buck & Rob Cardinal, [Spotify](#), [Apple Podcasts](#).

“Quantum: Everything is a Reflection” on [Spotify](#), on [Apple Podcasts](#).

“Everywhere and Nowhere all at Once” on [Spotify](#), on [Apple Podcasts](#).

-Dr. Alvin Harvey:

-Alvin’s Episode on the Ancestral Science Podcast

“Space Justice and Cosmic Relationality” on [Spotify](#), on [Apple](#).

-[“Why Space Exploration must not be left to a few powerful Nations”](#) (article. 2025)

-[“On Kinship: Indigenous Knowledge\(s\) & Western Knowledge”](#) (article, 2025)

-[“Stop sending Human Remains to the Moon”](#) (article, 2024)

-[“The cosmos as a uniting pillar of relationships: a Diné & Hózhó Perspective”](#) (article, 2024)

-[“Space for Humanity”](#)

-[“Aspiring astronaut brings Indigenous people’s perspective to space science”](#) (Navajo Times).

[“Diné Culture Camp: Navajo Astronomy”](#)(youtube)

-Corey Gray: Siksika Physicist and lead operator at of LIGO in Hanford Washington. He was part of the team to detect gravitational waves, winning him and his team the Breakthrough

Prize in Fundamental Physica and a Paul F. Forman Team Engineering Excellence Awards, acknowledged by three Nobel Prize in Physics laureates.

-Corey's Episode on the Ancestral Science Podcast

“Gravitational Waves from the Blackfoot MacGyver” on [Spotify](#), on [Apple](#).

-“[Blackfoot Poetry: From Einstein to Spacetime](#)” (youtube)

-“[Blackfoot Songs of Gravity with Corey Gray](#)” (youtube)

-“[Physicist Corey Gray finds threads that connect Einstein and his own Blackfoot heritage](#)” CBC article.

-“[Trip the Gravitational Wave Fantastic](#)” SACNAS. Medium. Article.

Want more Indigenous Science Resources? Check out [Relational Science Circle](#).

Want to learn more about Indigenous Science, Indigenous Science/Mathematics Teacher PD sessions, or have an idea for a guest or topic for the Ancestral Science Podcast, email relational.science@gmail.com

Gratitude to the OG support from Juan-Carlos Chavez, ongoing teachings gifted from Elders and Knowledge Keepers, Ancestors of past and future, and all the science and knowings of Stones and Stars.

