

Title: EDI Colloquium - Rediscovering our knowledge

Speakers: Laurie Rousseau-Nepton

Date: September 27, 2023 - 2:00 PM

URL: <https://pirsa.org/23090110>

Abstract: During this colloquium, I will discuss my journey in looking for astronomical information hiding in the ancestral knowledge of my community. I will show concrete examples of my findings and encourage communities to engage in similar practice to provide content that could be used to teach indigenous Astronomy in classrooms.

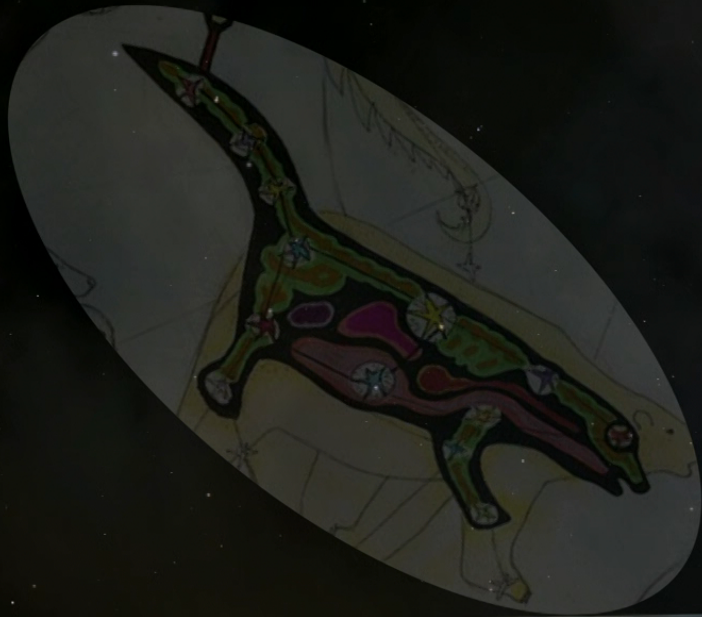
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Zoom link <https://pitp.zoom.us/j/96069555091?pwd=dGx2b1YvOWNPK3dEOTU2K205clg5Zz09>

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Bio:

Laurie Rousseau-Nepton is a new faculty at the University of Toronto and the Dunlap Institute for Astronomy and Astrophysics. She comes with six years of experience working as a resident astronomer at the Canada-France-Hawaii Observatory supporting various instruments including wide-field cameras, high-resolution spectrographs, Fourier Transform Spectro-imager. She received her diploma from Université Laval by studying regions of star formation in spiral galaxies and helping with the development of two Fourier Transform Spectro-imagers, SpIOMM and SITELLE. She is now leading an international project called SIGNALS, the Star formation, Ionized Gas, and Nebular Abundances Legacy Survey, which sampled with the SITELLE instrument more than 50,000 of star-forming regions in 40 nearby galaxies to understand how the local environment affect the young star clusters characteristics.



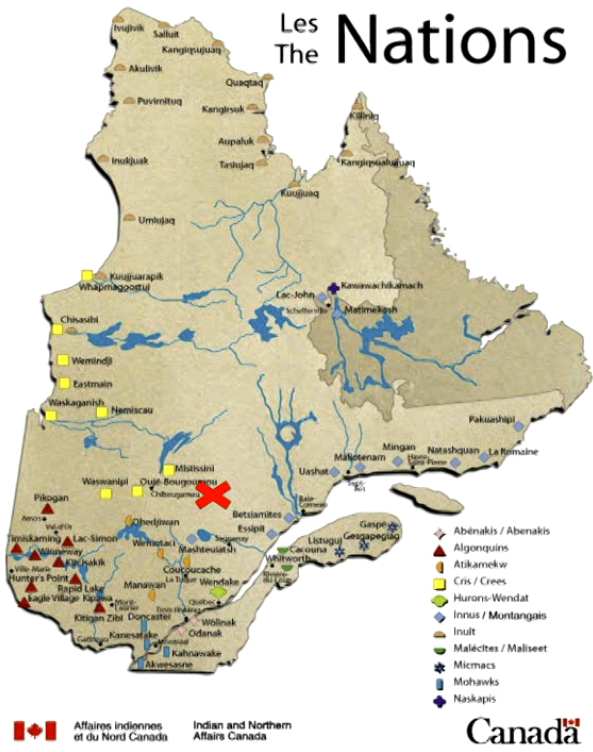
# Rediscovering our knowledge

Laurie Rousseau-Nepton  
Assistant Professor UoT

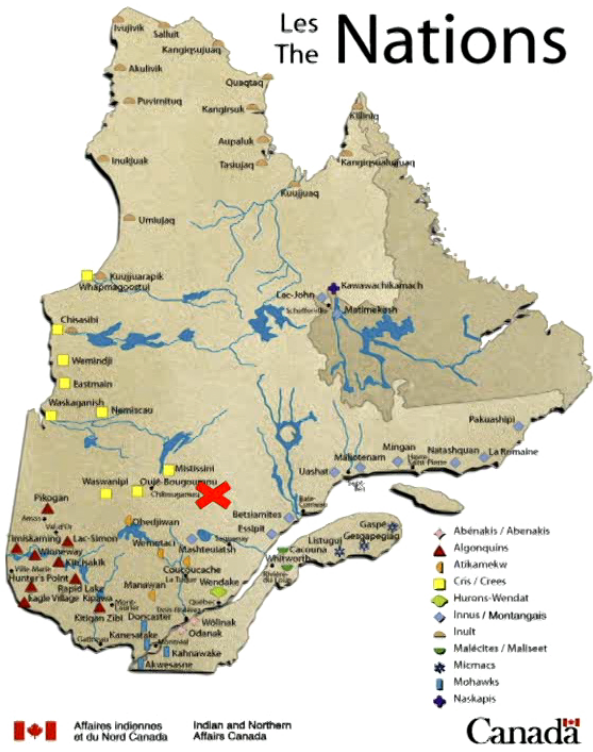
**Kuei!  
Aloha!**

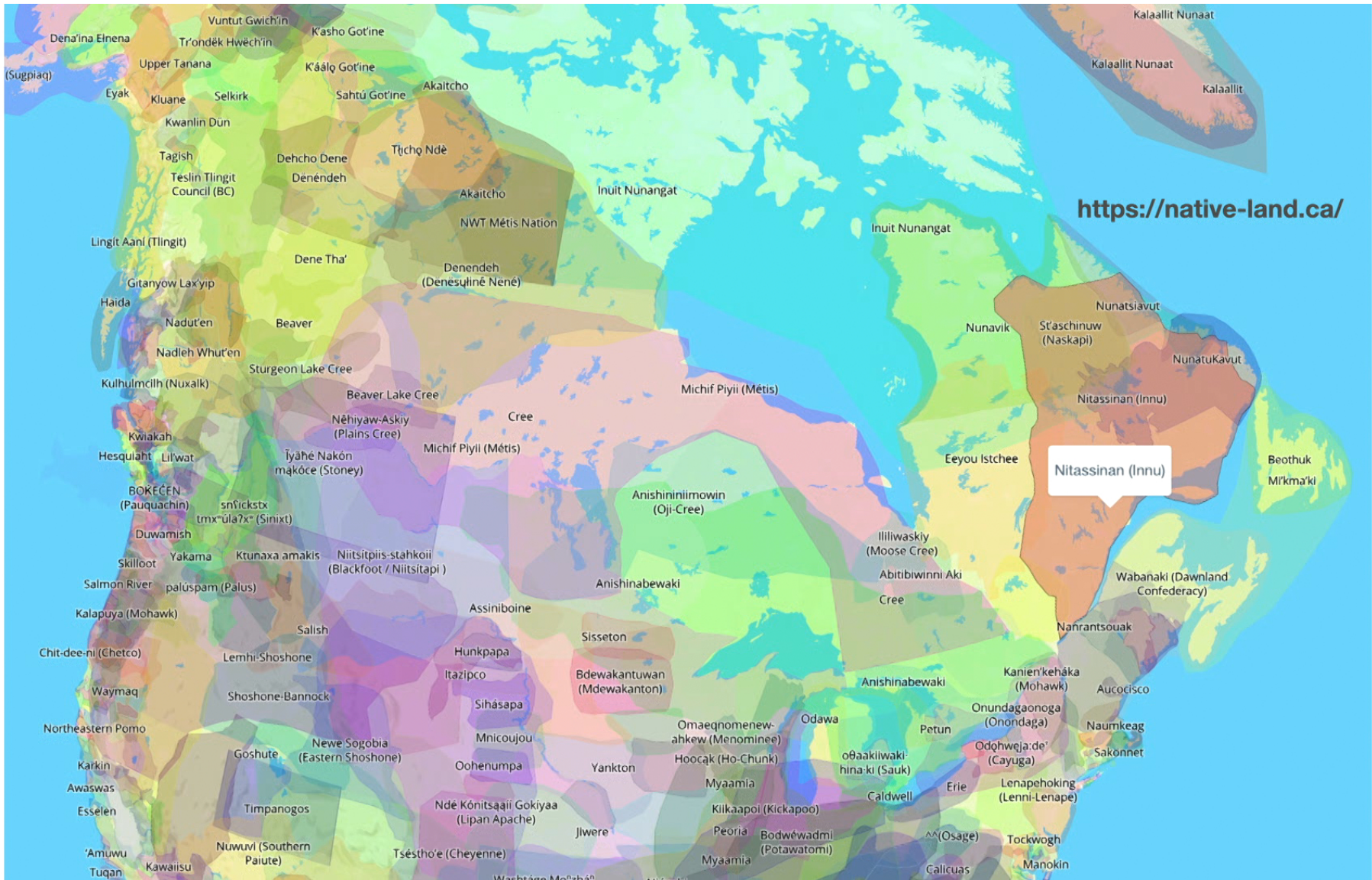


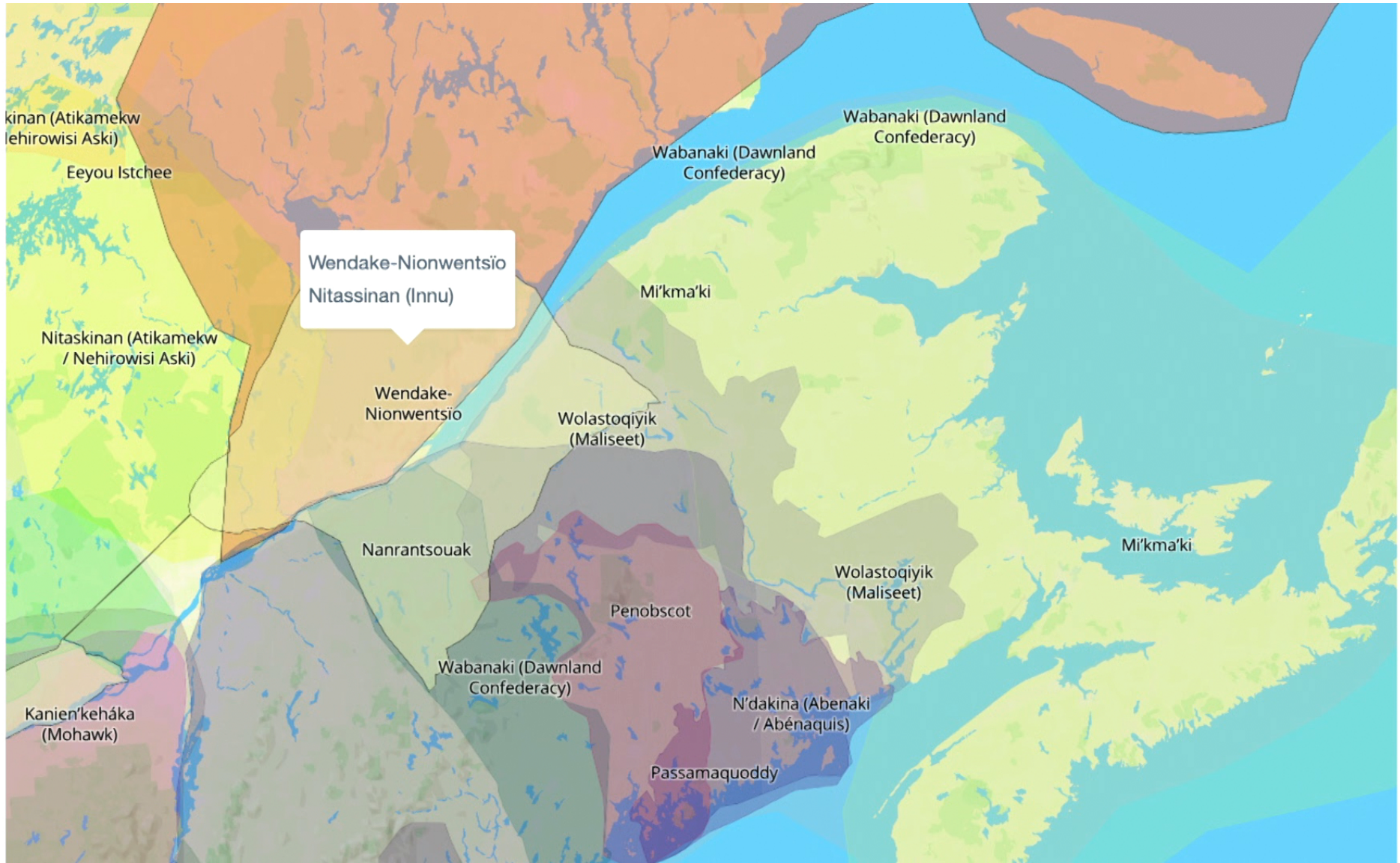
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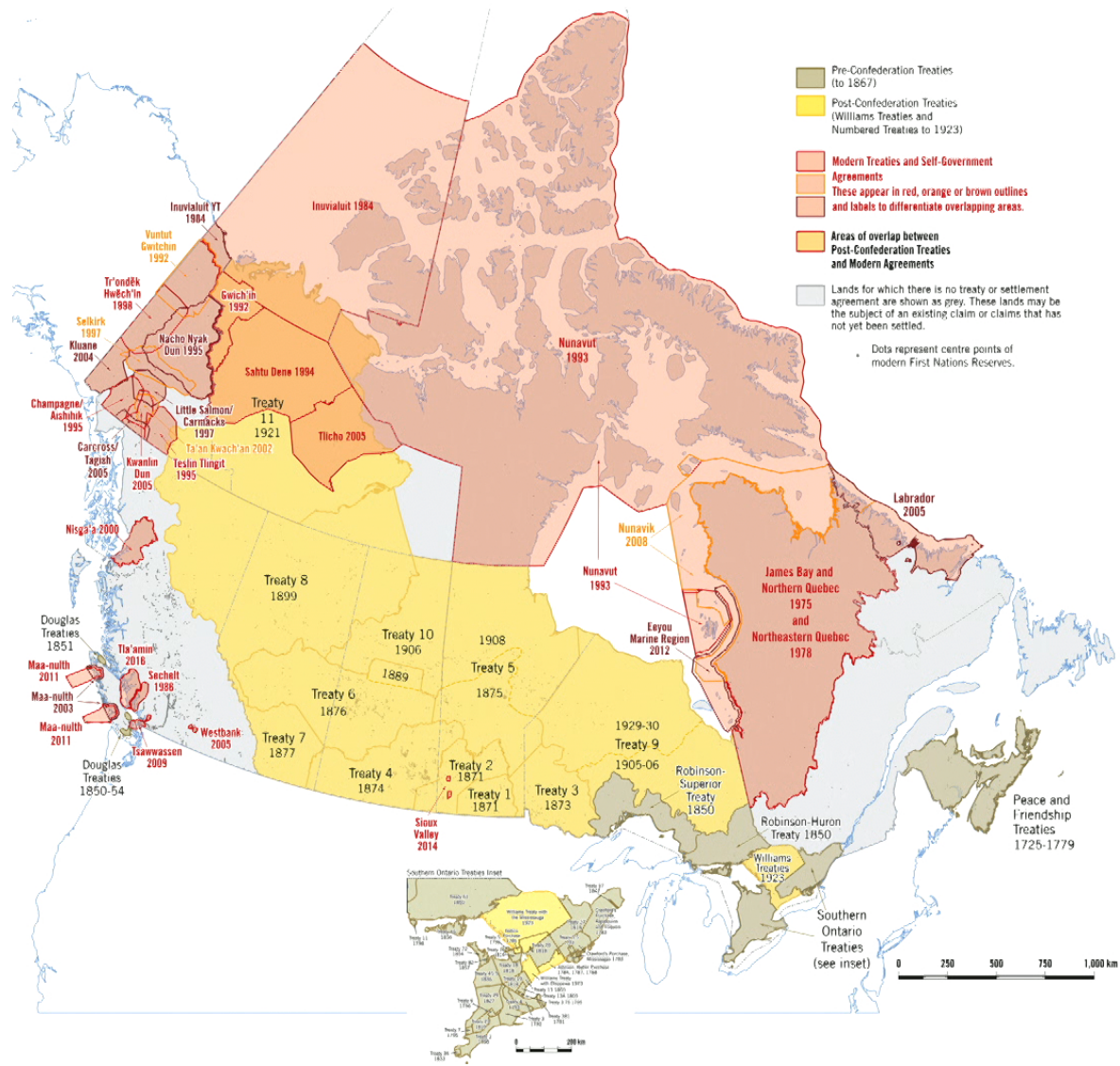


# Pekuakamiulnuatsh









# Ashuapmushuan





# Ashuapmushuan





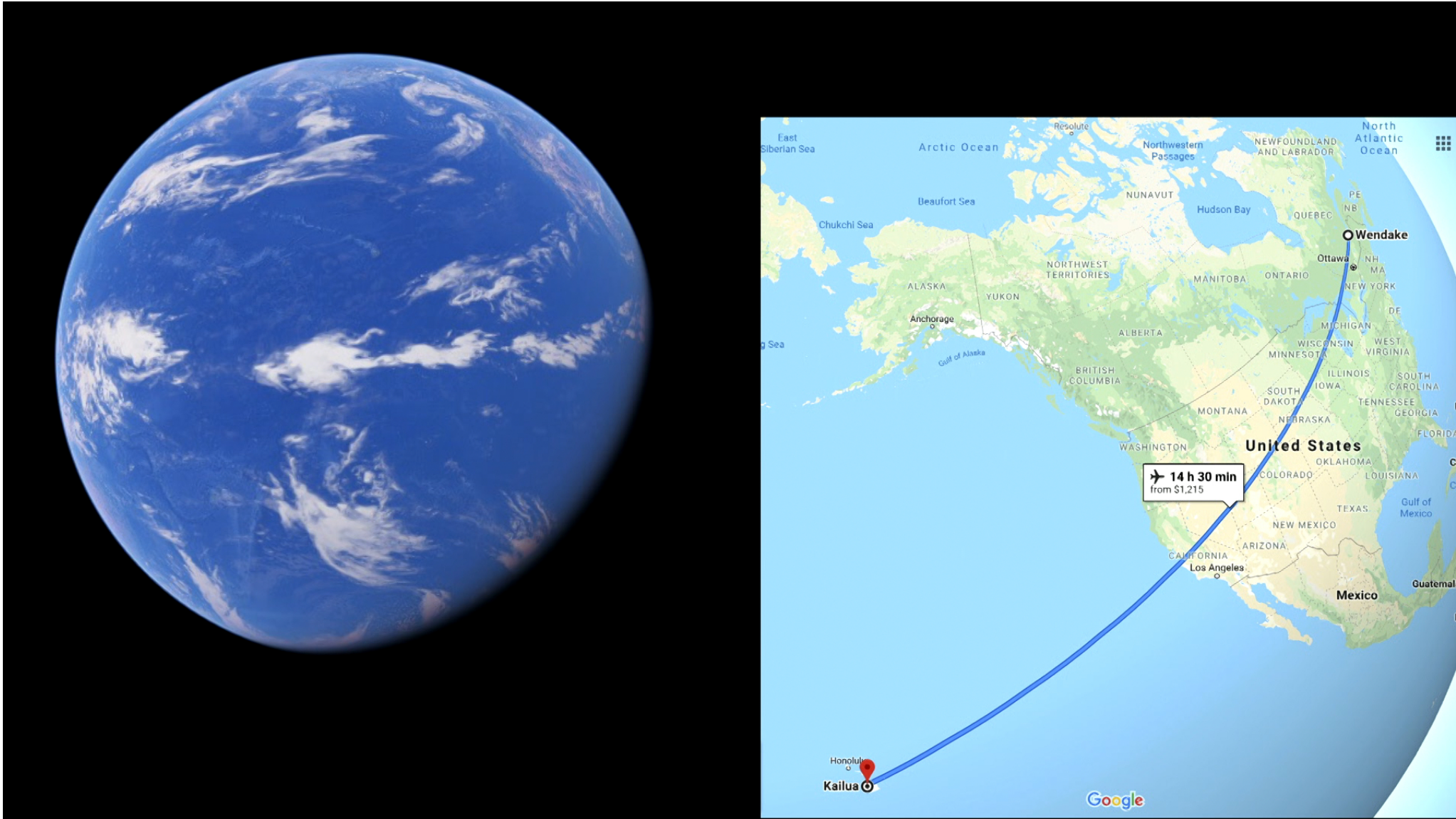
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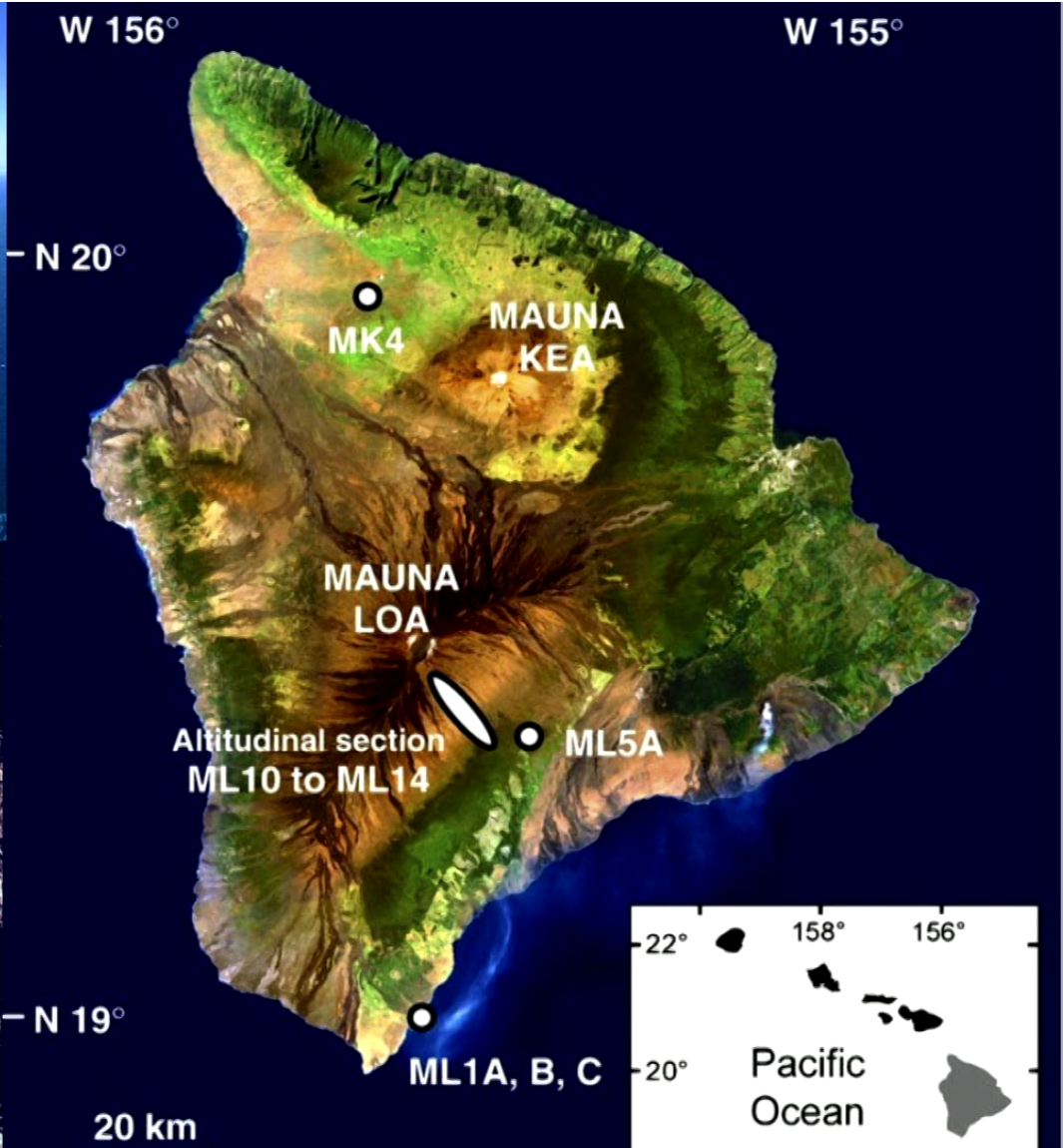
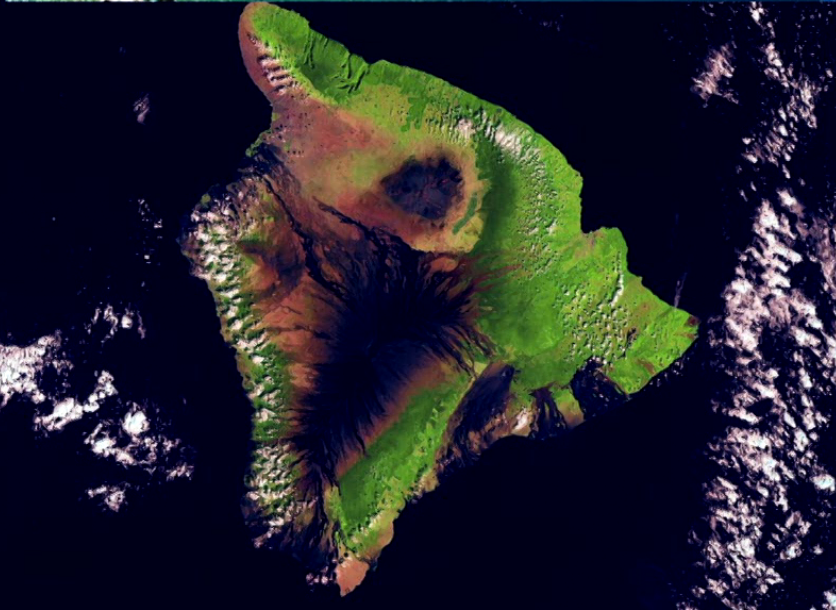


January 2017

# Graduation

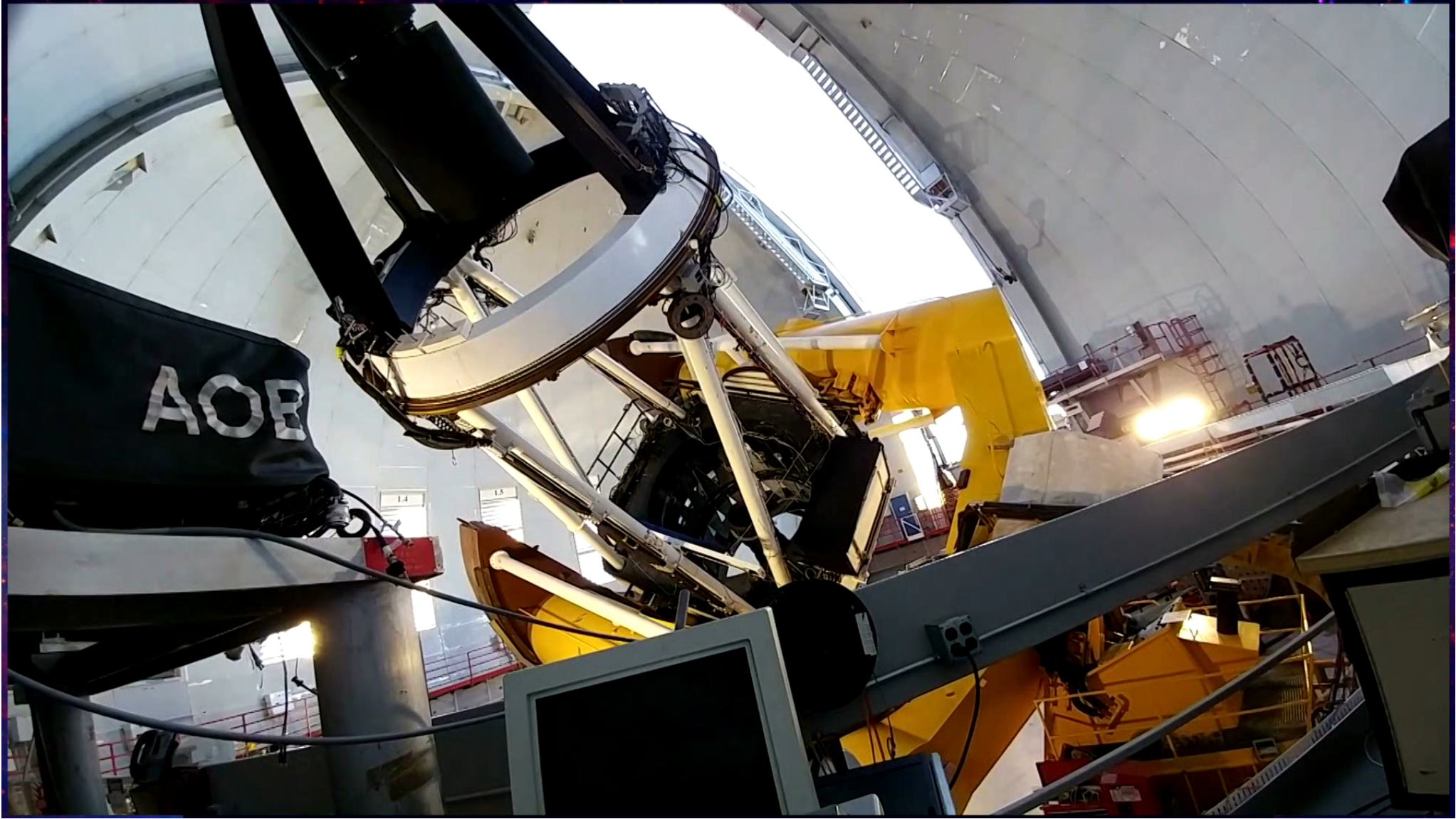




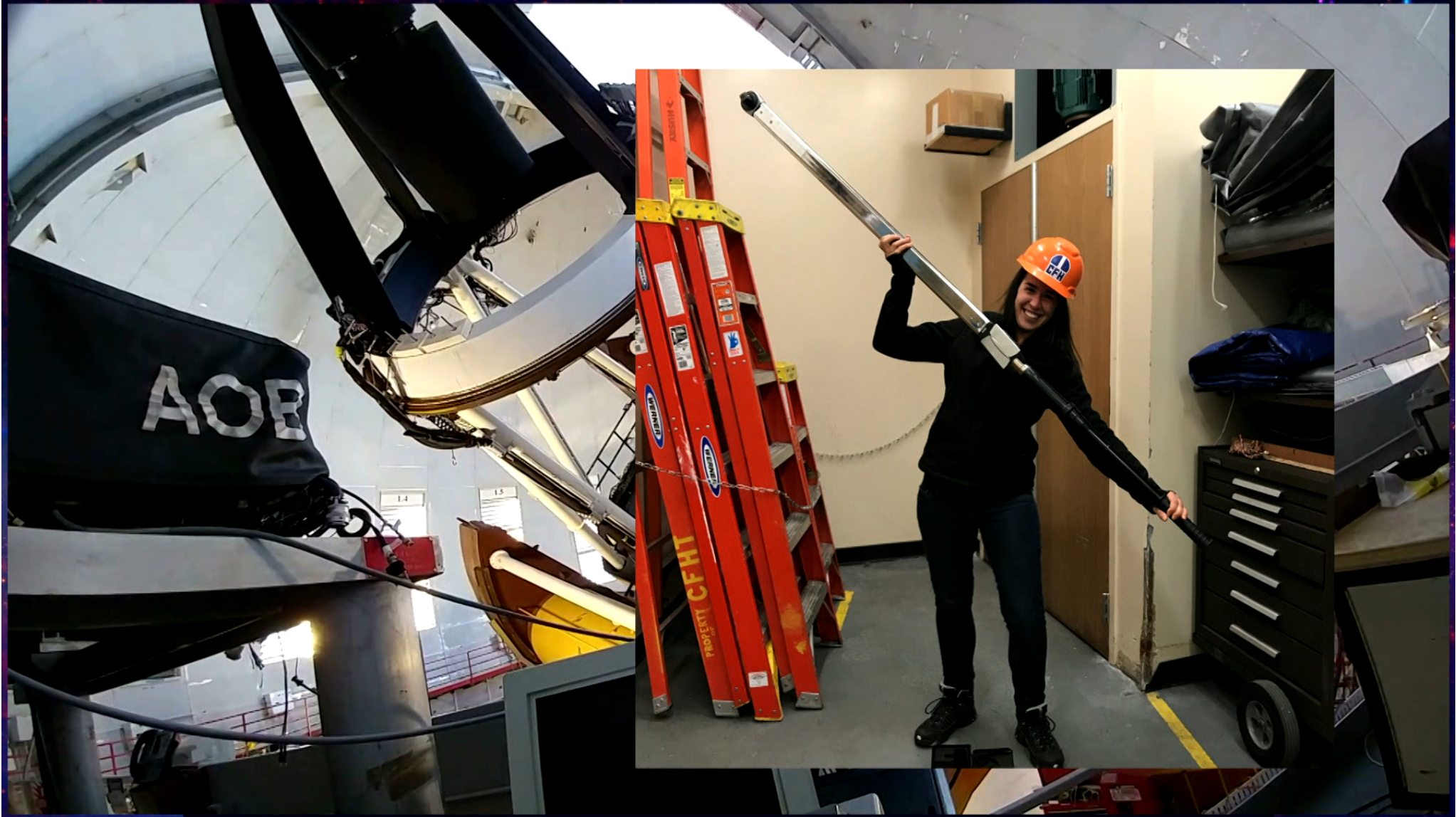






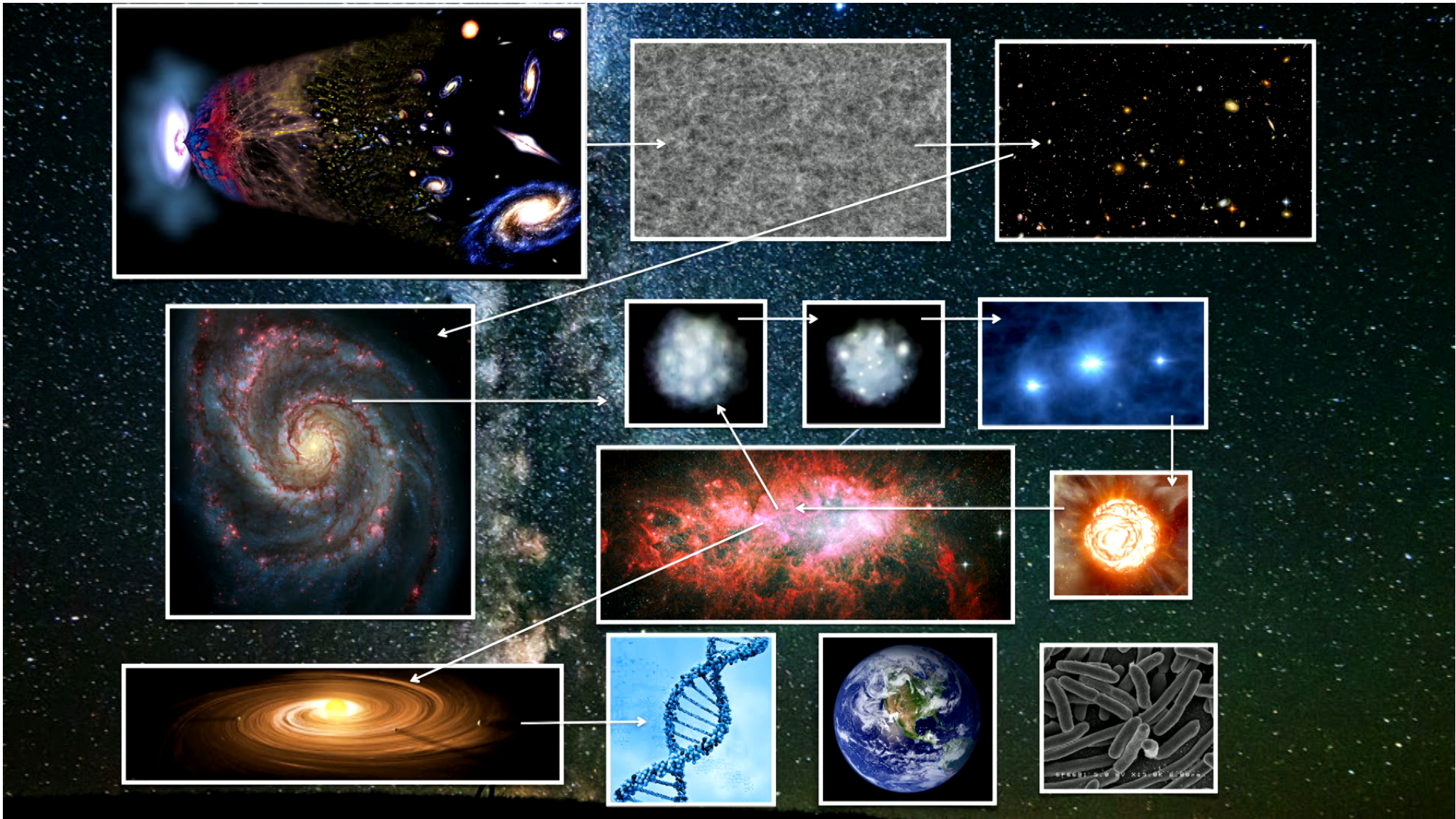












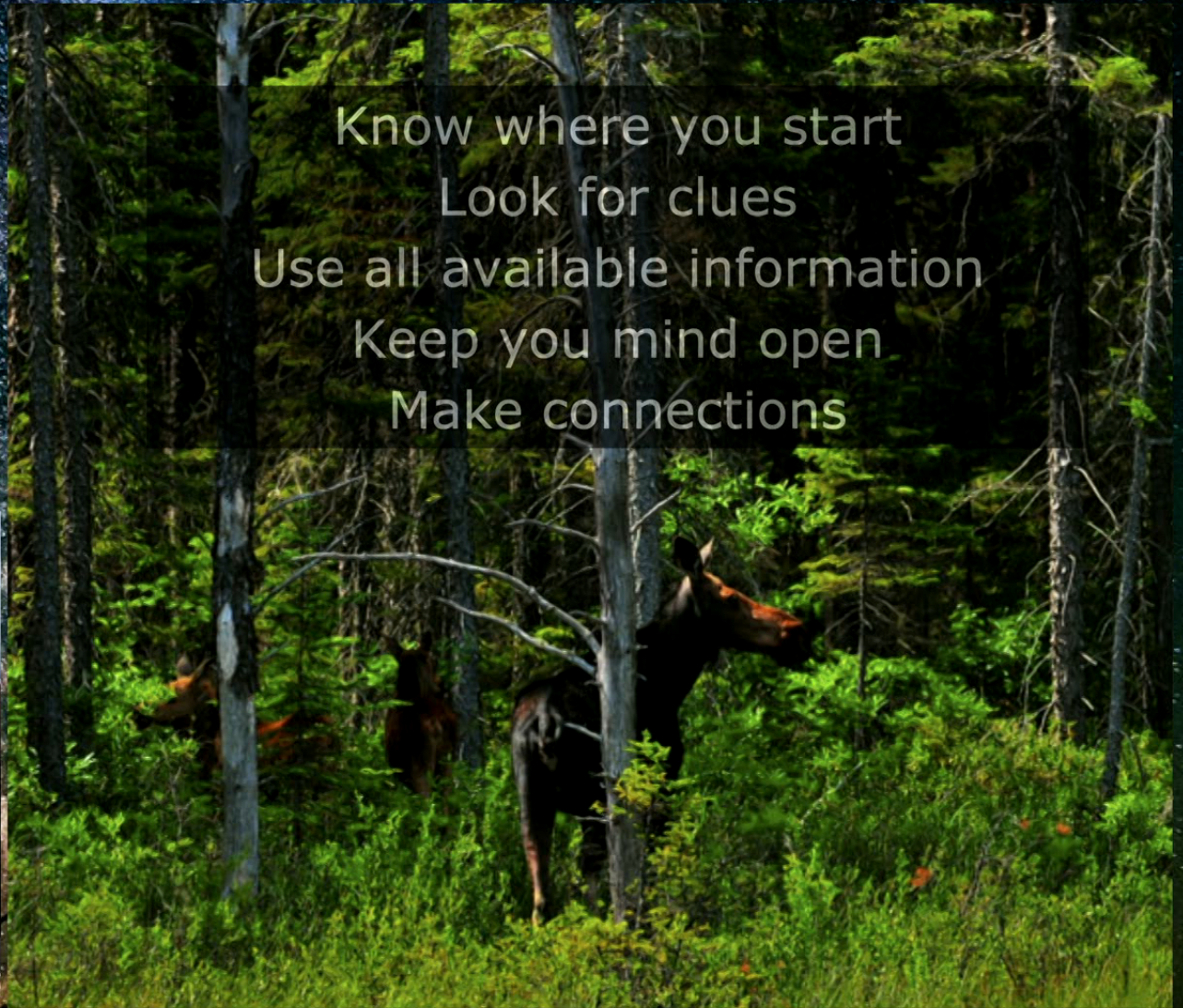
A central graphic featuring a black circle with the text "2017 Solar Eclipse" inside. This circle is surrounded by a bright, glowing white ring that fades into a dark background, creating a halo effect.

**2017 Solar Eclipse**



# Find Your Path

Know where you start  
Look for clues  
Use all available information  
Keep you mind open  
Make connections



A night sky photograph of the Milky Way galaxy. The galaxy's core is visible as a bright, yellowish-white band of light, surrounded by a dense field of stars. A person's silhouette is visible at the bottom center, pointing towards the sky. A bright meteor streak is visible in the upper right quadrant of the image.

**Know where you start**



# Grateful Prey

Rock Cree  
Human-Animal  
Relationships

Robert Brightman

## WOLVERINE CREATES THE WORLD



### LABRADOR INDIAN TALES

Gathered and Retold By  
LAWRENCE MILLMAN

## FAR NORTH TALES

STORIES FROM THE PEOPLES  
OF THE ARCTIC CIRCLE



Translated and Retold by Bonnie C. Marshall  
Edited by Kira Van Deusen

# Archives

<https://numerique.banq.qc.ca/patrimoine/details/52327/1999109>



# Books/Texts

SANDRINE ICETA

## L'ESPACE-TEMPS SUBARCTIQUE : LE VÉCU ET LE CONÇU MONTAGNAIS

Mémoire présenté à la  
Faculté des études supérieures de  
l'Université Laval  
pour l'obtention du grade de  
maître ès arts (M.A.)

Département d'anthropologie  
FACULTÉ DES SCIENCES SOCIALES  
UNIVERSITÉ LAVAL

JUILLET 1997



MYTHES ET RITES  
CHEZ LES MONTAGNAIS DE LA COTE NORD  
par Yvette Barriault, s.c.q.

Thèse présentée à la Faculté des Arts  
de l'Université d'Ottawa en vue de  
l'obtention du Doctorat en Sciences  
Religieuses.



Ottawa, Canada, 1969



Joséphine Bacon



Florant Volant

# The Meanings and Symbols in the Sky: Mistapeo

## Mishtapeu: The Great Man

In the life of a Human, there is two path.

**The first is paved by our ancestors**, it is heavy since deep in sadness and joy.

**The second is invisible.** Traced by the light of life. A human can access it from the strength of its Mistapeo.

Those two paths are linked somewhere in the world we live in and the world of the spirits which we travel through in our dreams.

\*\*\* Translated from Rita Mestokosho, Eshi Uapataman Nukum, Hur jag ser på livet mormor, Göteborg, Beijboom Books AB, 2010, p. 30.

## reminder

### Wolverine Creates The World

**L**ong, long ago was a time of great floods. Almost the whole world lay underwater. Wolverine was able to keep dry only by leaping from stone to stone. He said to himself: If these floods get any worse, even my stepping stones will be submerged and that'll put an end to my wandering, perhaps my life, too.

So he called a meeting of all the water animals. He asked each to help him save the world from drowning.

First he talked to Otter. "Dive down, Otter," Wolverine said, "and bring me some ground."

Otter dived down, but he came up without any ground. He said he couldn't see anything down there except weeds and a few fish.

Next he talked to Beaver. He said: "If you bring up some ground, I will find a pretty little wife for you."

Beaver also went down, but he didn't bring back any ground, either. "I can't swim deep enough to reach the bottom," he gasped, "and as for a wife, I'd rather live without one than drown."

So Wolverine asked Muskrat to bring him some ground. "I'll try," Muskrat said, "but only if you tie a thong to my leg."

The thong was tied and Muskrat jumped into the water. He was down there for quite a while. I hope he

### *Wolverine The Trickster*

didn't drown, Wolverine thought. He pulled up the rope and when he did, up came the thong ... without Muskrat.

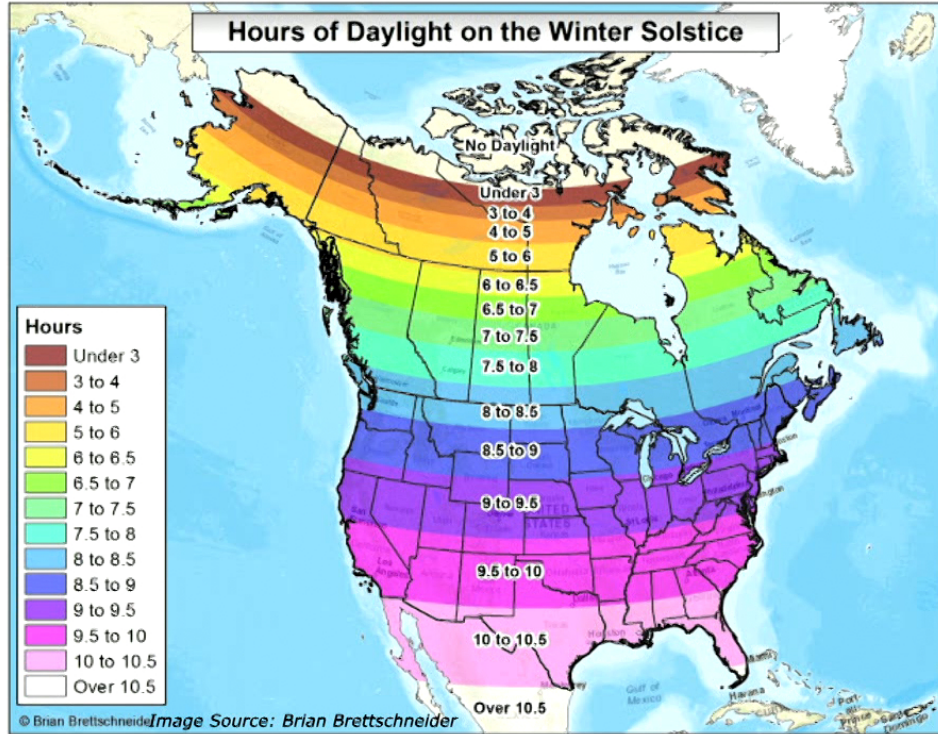
Too bad, thought Wolverine. That means only water, water, and more water from now on.

But just when he had given up, Muskrat surfaced. His mouth was so full of ground that he couldn't talk. Nor could he breathe. Wolverine put his lips to Muskrat's ass and blew as hard as he could. Out came the ground from Muskrat's mouth, more and more ground, heaps and heaps of it, seemingly without end.

This ground is the very earth we walk on today.

# When Everyone was an Astronomer/Engineer

## Season and Diurnal cycle



- Year = 1 winter or 12/13 moons  
How old are you? = How many winter are you?
- Days and long distances express in nights and moons  
A place can be three nights away or one moon away.
- Counting time and distances with stars motion  
e.g. I will be back when this star will touch the horizon







# Tipishkau-pishim<sup>u</sup>

## 12 Moons, but...

**reminder** 10 days check Starry Night

«Et maintenant, combien y aura-t-il de lunes par hiver ?», demandèrent-ils à Caribou. Caribou répondit : «Autant qu'il y a de poils entre mes doigts de pieds !»-«Ce sera trop, dirent-ils, la neige s'accumulera tellement que tu ne pourras jamais creuser assez pour trouver la nourriture. Et toi Castor qu'en penses-tu ?»-«Il devrait y en avoir autant que j'ai de rayures sur ma queue»-«Ce sera trop. S'il y en avait autant que cela, tu resterais pris dans la glace et tes tunnels s'englaceraient. Et toi, Geai gris, que suggères-tu ?»-«Autant que le nombre de mes poils»-«Ce sera trop, dirent-ils; S'il y en avait autant que cela, tes petites branches sèches seraient emportées par le vent, et tu n'aurais rien à manger.»-«D'accord!», répondit Geai. Soudain Pic maculé étendit les jambes. «Je crois pour ma part qu'il devrait y avoir six lunes dans un hiver!» Il avait six doigts de pieds. «D'accord, dirent-ils, c'est le nombre qui convient.» C'est le nombre de lunes qu'il y a dans un hiver. Ils s'étaient inspirés des pattes du pic (Savard 1973 : 16).



# Tipishkau-pishim<sup>u</sup>

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### The Departure Of Tchakapesh: A Conversation

**Y**ou see Tchakapesh up there?"  
"Up where, *tshinish?*"

"Up in the moon, of course. After he killed all those giants, he became Man in the Moon. His sister is up there, too. Or so my grandfather told me, back fifty years ago and more."

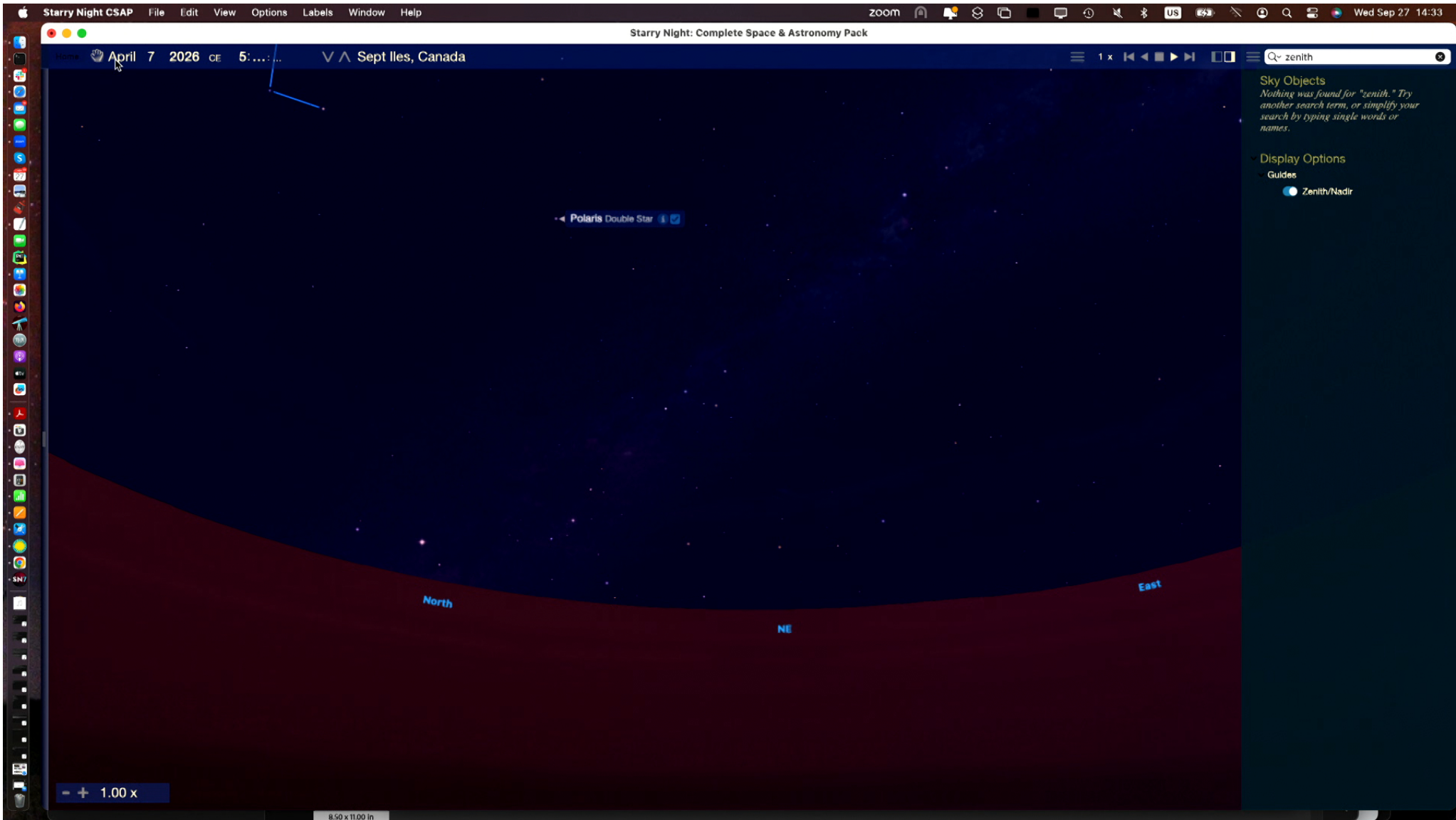
"Tell me how Tchakapesh got to the moon, *tshinish.*"

"Well, he breathed on an arrow. He took one of his birch arrows and breathed on it *hard*. The arrow grew big, like a tree, Then he climbed up this arrow. Breathed on it again, climbed again, until he got to the moon."



# The Milky Way - Tshipai meshkanau

**reminder**



# The Milky Way - Tshipai meshkanau

reminder



How Wolverine Tried To Destroy The World

... **A**nd so Wolverine made the world. But once he tried to get rid of it. I'll tell you about that:

It was winter, and very cold. Wolverine didn't have any wood, so he was burning bones for their fat. Then he ran out of bones, too. Well, he said, maybe I can find some sort of female who'll keep me warm. A while later a pretty young girl showed up at his camp. Wolverine said to himself: I'll get under her dress tonight. He invited her to share some caribou hearts with him. Only if you cook them, she said. I don't have any wood, he replied: no bones, either. Well, she told him, if you won't cook them, I'm not going to eat them. And off she went on her snowshoes. Now Wolverine was so angry that he started tearing up the earth, grabbing it and throwing pieces into the sky. Most of these pieces just came back down again ... they're the mountains. But some stayed up there forever. That's the Milky Way. Isn't it wonderful how things came about?

# The Seven

**The world's oldest story? Astronomers say global myths about 'seven sisters' stars may reach back 100,000 years**

December 21, 2020 5:23pm EST

# The Seven

Pleione —

Atlas —

Appearance in  
100,000 BC

Appearance in  
2020

**The world's oldest story? Astronomers say global myths about 'seven sisters' stars may reach back 100,000 years**

December 21, 2020 5:23pm EST

Venus and Pleiades  
March 27, 2020





# The Seven

Pleione —

Atlas —

Appearance in  
100,000 BC

Appearance in  
2020

**The world's oldest story? Astronomers say global myths about 'seven sisters' stars may reach back 100,000 years**

December 21, 2020 5:23pm EST



# Motion in Time

Digmos

Year ~ 2281999

Digmos

Year ~ 34752



# Tshakapesh



# Tshakapesh



<http://www.nafive-languages.org/stifflegged.htm>  
<http://www.bigorrin.org/archive109.htm>  
Marie-Clara Jourdain de Uashat  
<http://histoires.tshakapesh.ca/Stories/browseby/Pour%20tous/levels:3>

1:56

PHYS.ORG

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Biology news

## Woolly mammoths may have shared the landscape with first humans in New England

4 March 2021



Woolly mammoths may have walked the landscape at the same time as the earliest humans in what is now New England, according to a Dartmouth study published in *Boreas*. Through the radiocarbon dating of a rib fragment from the Mount Holly mammoth from Mount Holly, Vt., the researchers learned that this mammoth existed approximately 12,800 years ago. This date may overlap with the arrival of the first humans



# Tshakapesh



<http://www.nafive-languages.org/stifflegged.htm>  
<http://www.bigorin.org/archive109.htm>  
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PHYS.ORG



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# The Constellations

Big Dipper = Utshek (Fisher Cat), front paddler

Orion = Kuekuatsheu (Wolverine, Carcajou), steersman, back paddler

- The two are in a Canoe that rotates in the night sky from the North to the South, every night and every year. **reminder**

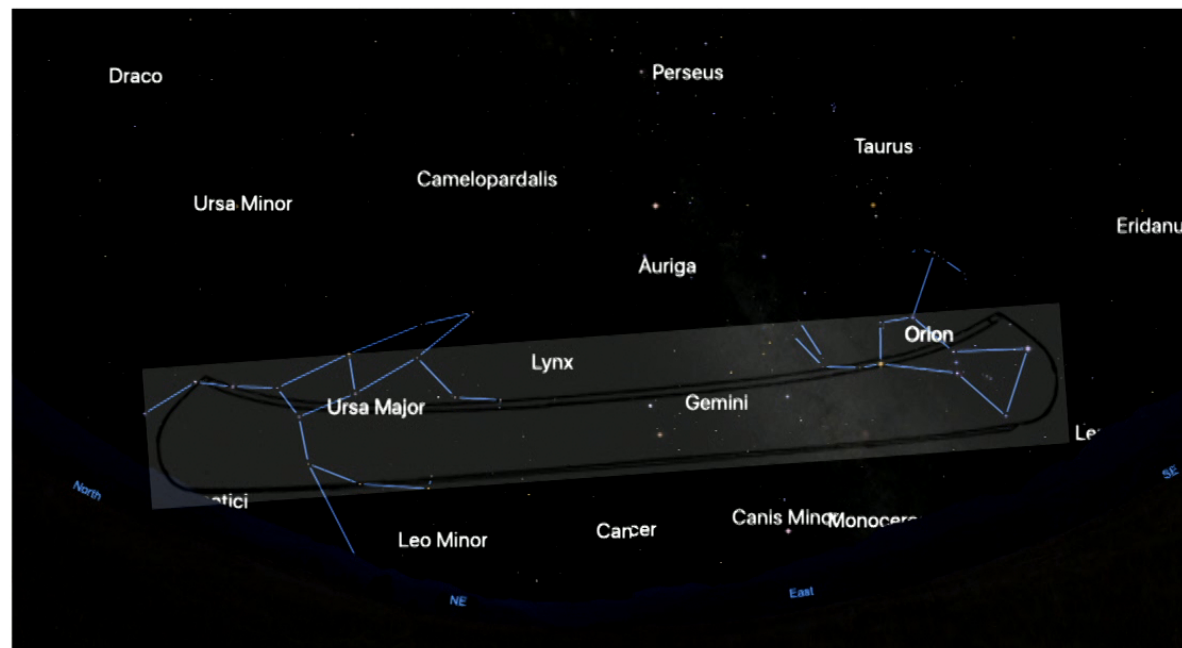
SANDRINE ICETA

L'ESPACE-TEMPS SUBARCTIQUE : LE VÉCU  
ET LE CONÇU MONTAGNAIS

Mémoire présenté à la  
Faculté des études supérieures de  
l'Université Laval  
pour l'obtention du grade de  
maître ès arts (M.A.)

Département d'anthropologie  
FACULTÉ DES SCIENCES SOCIALES  
UNIVERSITÉ LAVAL

JUILLET 1997



# The story of the Summer Bird

... A long long time ago in an eternal winter



Joséphine Bacon



# The story of the Summer Bird

... A long long time ago in an eternal winter



Joséphine Bacon



So then, you know, they started denouncing them, you know,

<http://www.nametauinnu.ca/en/culture/spirituality/detail/61>

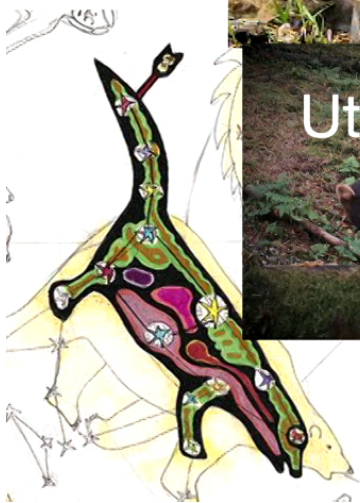
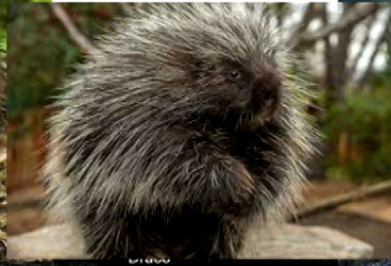
# The Constellations

vidéo: <http://www.nametauinnu.ca/fr/culture/spiritualite/detail/61>

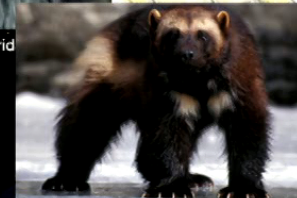
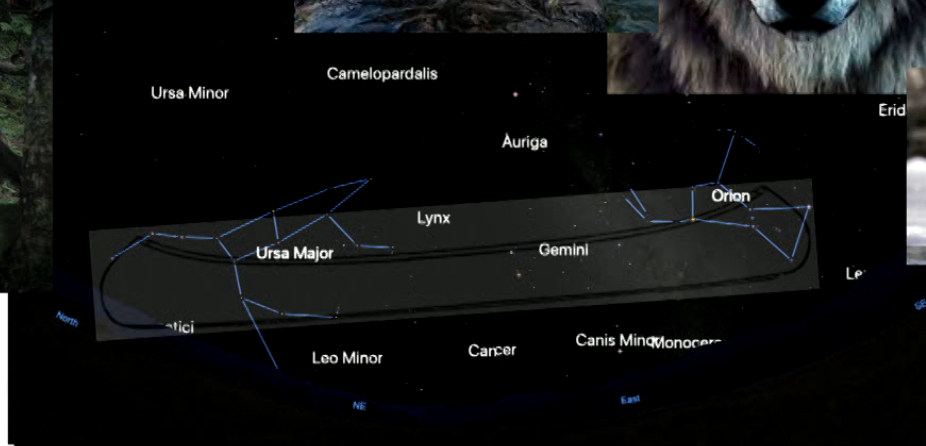
## A Common Story to All

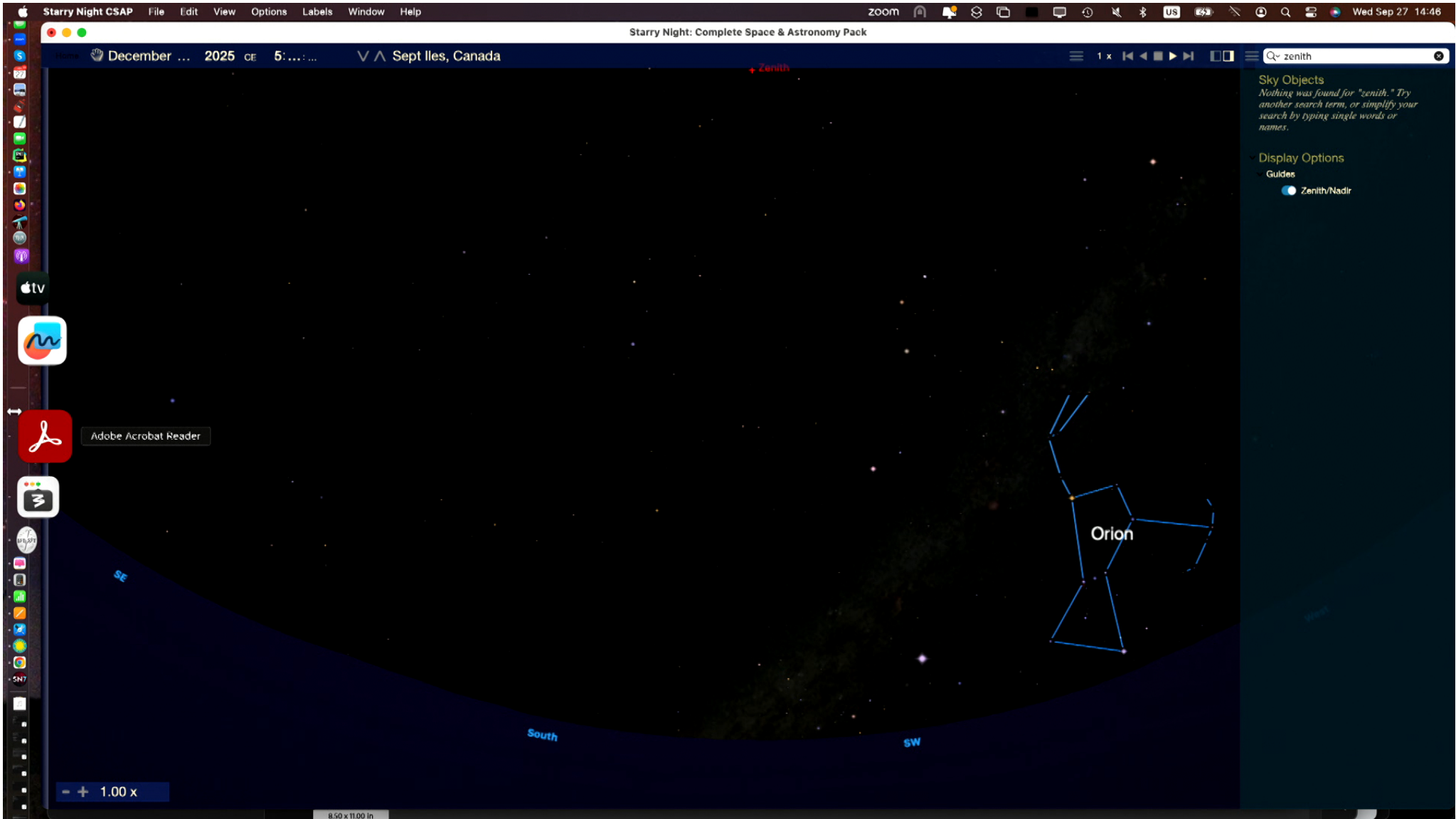


Joséphine Bacon



Utshek





# Outside Influences

La Chasse-galerie also known as "The Bewitched Canoe"



Legend William Wilson

# The Constellations

Cree



By: Wilfred Buck, Annette Lee and William Wilson

Asteroid?

## Where Thunder Comes From

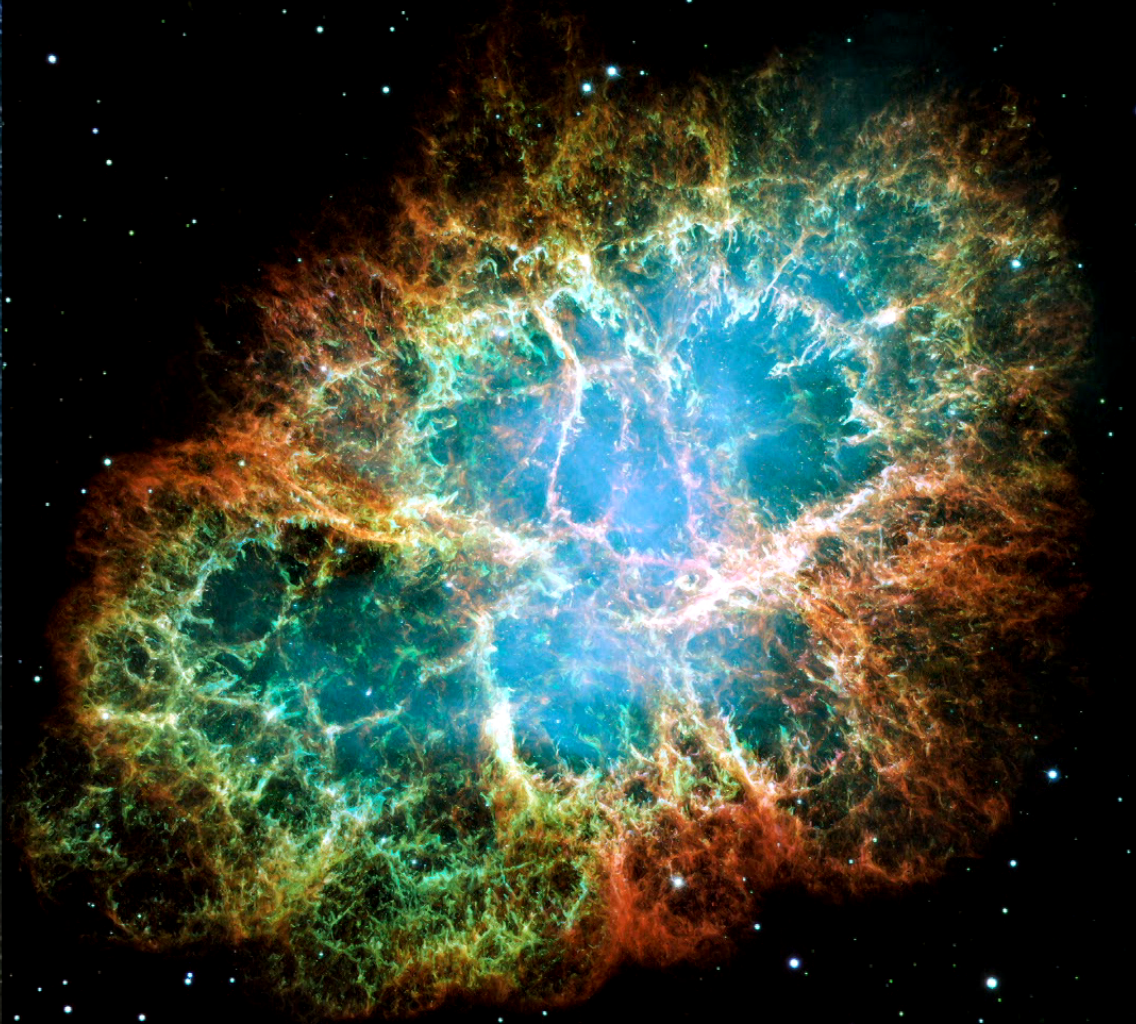
Long ago no one knew where thunder came from. Maybe clouds did it, maybe the stars. Maybe the moon did it, maybe the sun. Maybe Tciwetinowinu himself did it, after eating a bad piece of meat.

One day a *mistapeo* shot an arrow into the sky and an enormous goose fell from the mists. This goose honked so loudly upon approaching the earth that human beings had to cover their ears or they'd burst. It fell into a lake and made this lake so hot that all the fish burned up. Thought the *mistapeo*: It seems I've done a bad thing. So he pulled the arrow from the goose, whereupon the bird made a loud BOOM! and returned to its home in the sky.

Since then, nobody has tried to bring down thunder again.



Supernova?



# Supernova?

Home July 5 1054 CE 2:18:00 x Q~ Moon

NE East

The Moon

M1 (Crab Nebula) Supernova Remnant

The image shows a digital star chart interface. At the top, there is a navigation bar with a 'Home' button, a hand icon, the date 'July 5 1054 CE', a time '2:18:00', and playback controls (play, stop, back, forward, full screen, menu). A search bar on the right contains the text 'Moon'. The main area displays a night sky with numerous stars and the Milky Way. A dark silhouette of a mountain range is visible at the bottom. Two labels with arrows point to specific objects: 'The Moon' and 'M1 (Crab Nebula) Supernova Remnant'. Each label includes an information icon and a checked checkbox. The sky is dark with a gradient from blue at the top to black at the bottom. The Milky Way is visible as a bright, hazy band of stars.



# Supernova?





# Short-mid Term Weather Forecast

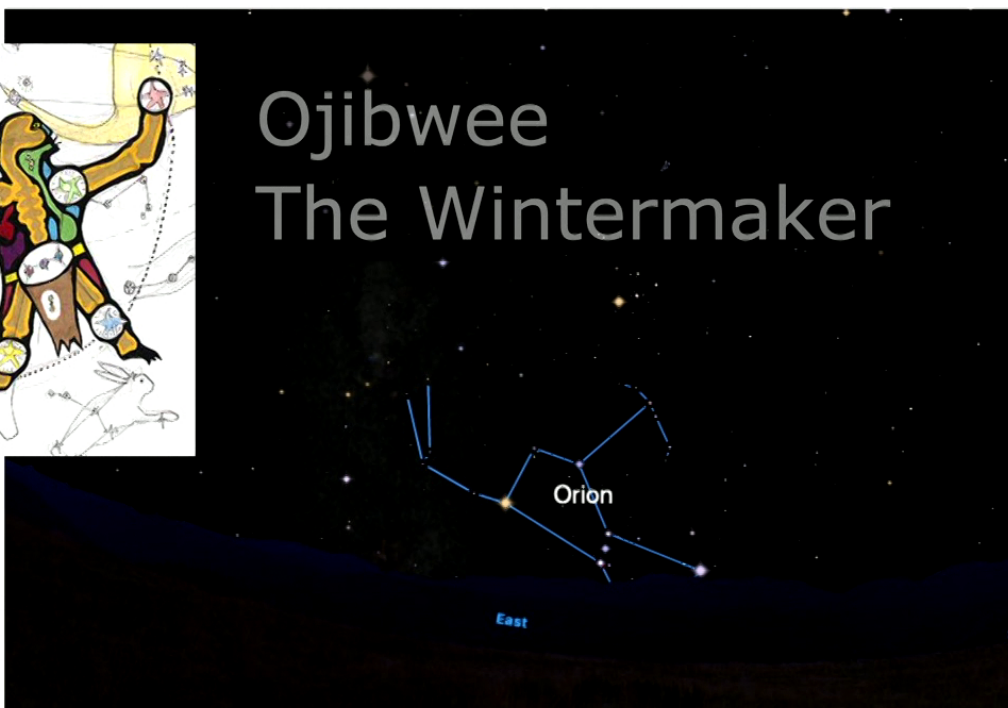
A night sky over a desert landscape. The sky is dark blue with a bright, glowing moon in the center. Numerous stars are visible, some appearing as small white dots and others as faint trails. The foreground shows the undulating, rippled dunes of a desert under a starry sky.

**Moon Halos**  
**Stars Twickling**  
**Sunset colors**  
**Seasonal Haze**  
**Aurora's motion**  
**Kids behavior**

# Long Term Weather Forecast



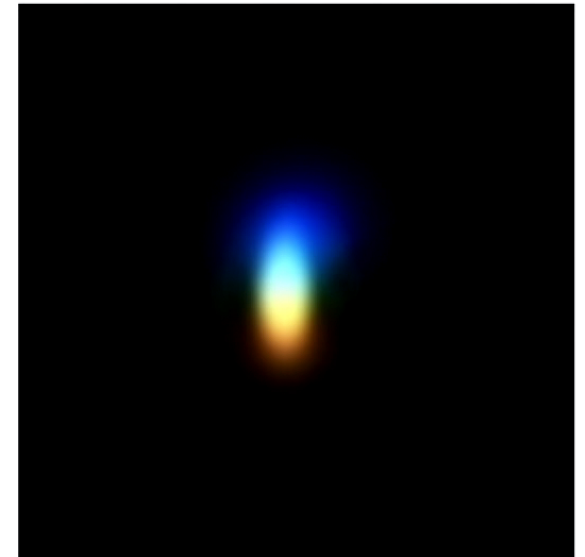
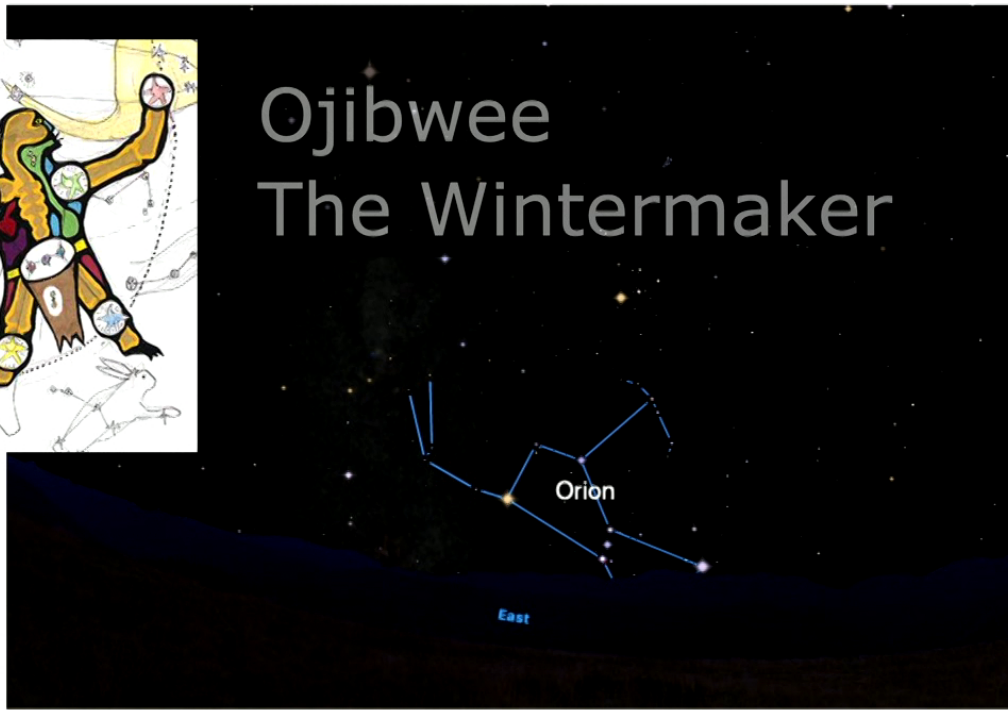
## Ojibwe The Wintermaker



# Long Term Weather Forecast



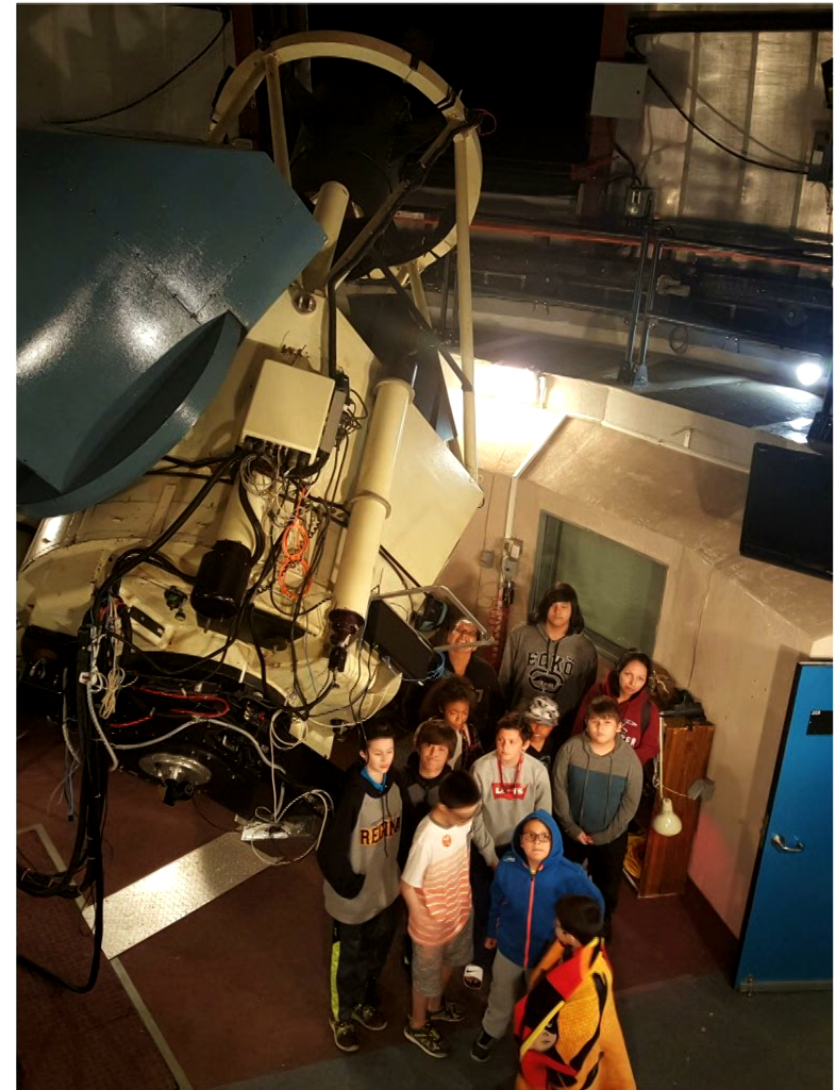
Ojibwe  
The Wintermaker



# Projects

# Astronomy in Indigenous Communities

(Ismaël Moumen et al.)



# Transforming Lives Through Technology

Fostering student engagement and enhanced education outcomes in remote Indigenous communities.

Donate

Explore Program Model



Gella R. donated \$260





**2021 Solar Eclipse**

Translation  
Innu  
Mi'kmaq  
Inuktitut (Nunavik)  
Cree - James Bay  
Inuktitut (Baffin -  
Nunavut)  
Ojibwe  
Oji-cree  
Swampy Cree



Mishta-shashish, innuat apu ut Innu-utshimauht kie apu ut natauht aeshisha.

2021 Annular Solar Eclipse (English -  
Innu Subbed) NOT YET RATED

2 years ago | More

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Eclipse Solaire A...

CFHT



Eclipse Solaire A...

CFHT

# NFB Webseries: North Star





# One Sky Project

## 7 Planetarium Film Shorts

7 films that touch on the topics of finding patterns and building tools that foster connection to the sky and leverage astronomical phenomena to advance societal goals.

[Learn More](#)



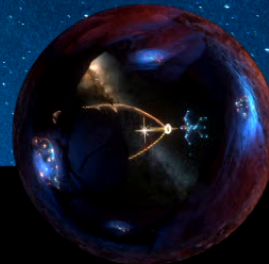
Finding Patterns: The White Tiger



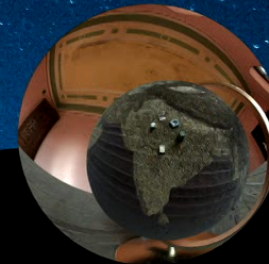
Finding Patterns: Celestial Canoe



Finding Patterns: Wayfinders



To Seek Far: Thunderbird



To Seek Far: Jai Singh's Dream



Finding Patterns: The Samurai and Stars

Shane Akoni Palacat-Nelsen

Pu'uhonua O Honaunau  
National Historical Park

# Piko O Wākea Equinox

## 'Ale'ale'a Heiau March 20, 2023

A central graphic featuring a black circle with the text "2024 Solar Eclipse" in white. This circle is surrounded by a bright, glowing white ring that fades into a dark background, creating a halo effect.

**2024 Solar Eclipse**

Concluding Remarks and  
Questions?

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Thank You!  
Tshinashkumitin!  
Mahalo!