

Understanding Climate Change through Cultural Keystone Places: Inuit Knowledge and Repeat Photography in Nunatsiavut



Taylor Montgomery-Stinson
Université de Montréal
Alain Cuerrier, Andrew Trant, Robert Way
December 18, 2025



Nakummek

Nakummek to Lauren Pilgrim, Geraldine Andersen, and John Winters for your key roles in this project.

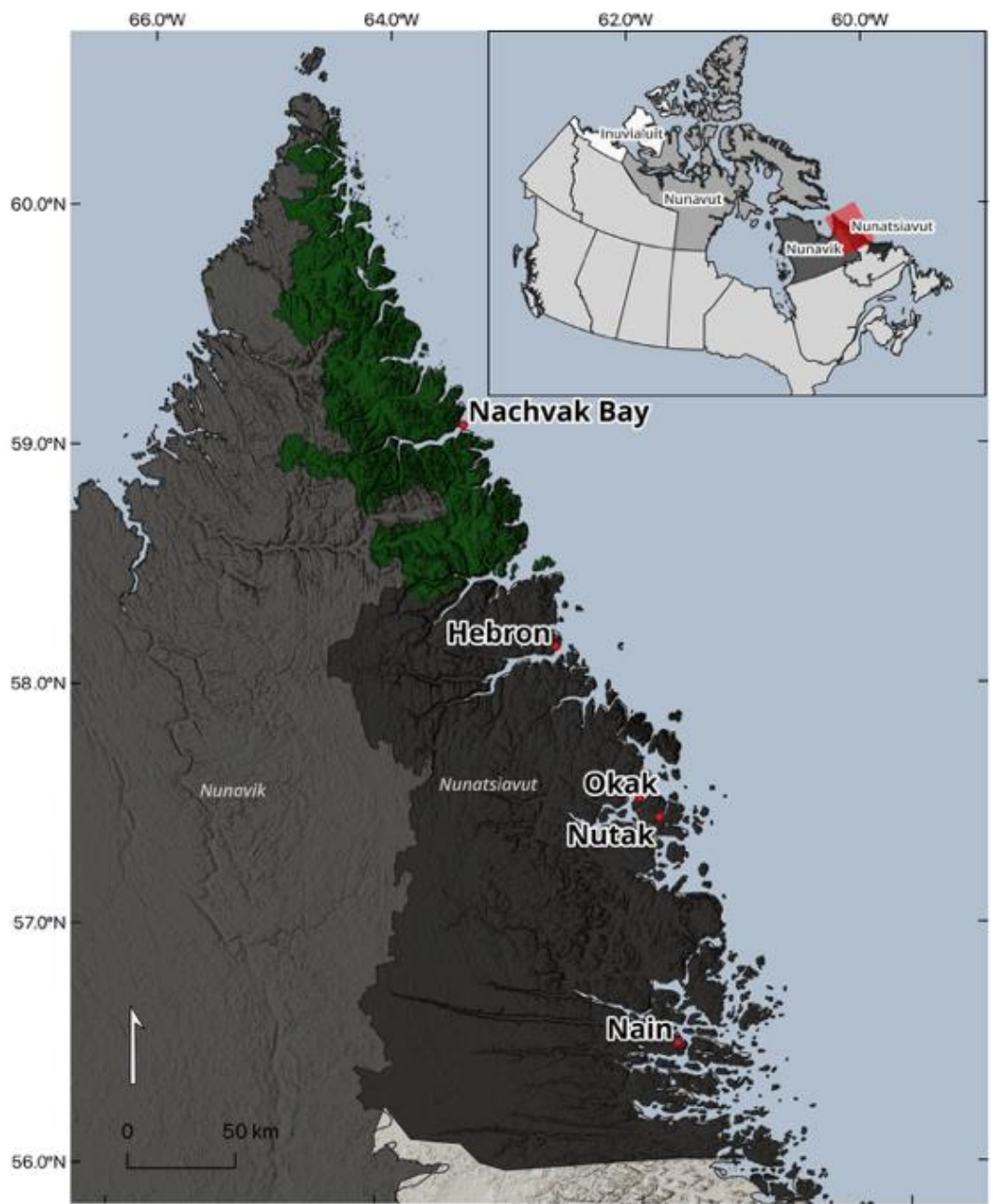
Nakummek to Michelle Saunders, Joseph Onalik, Liz Pijogge, Chaim Andersen, Elaine Obed, Fred Dwyer-Samuel, and Carla Pamak at the Nunatsiavut Government Research Centre and to Labrador Inuit Lands.

Nakummek to Edward Sillitt, Shawn Solomon, William Ikkusek, Boonie Merkuratsuk, Noah Nochasak, Hulda Fox, Joas Fox, Amos Fox, and Benigna Fox for your generous support for field work.

Nakummek to all those who contributed their time and knowledge to this project through interviews, including Maria Merkuratsuk, Toby Kojak, Gary Millie, Chesley Semigak, Susie Semigak, Douglas Kohlmeister, Jamie-Dawn Okkuatsiak, Elizabeth Kohlmeister, Austin Williams, Betty Green, Eugene Lampe, Susan Hay, Chris Igloliorte, Jeffrey Millie, Adam Igloliorte, Emma May, Solomon Suarak, Toby Pijogge, Dennis Merkuratsuk, Jennifer Semigak, Christine Lampe, Jayne Andersen, Maggie Suarak, Samuel Tuglavina, Trougott Nochasak, Boas Fox, Jerry Martin, Robert Millie, Chaim Andersen, Katie Winters, Edward John Flowers, Harry Haye, Karen Dicker, and Gus Dicker.

Nakummek to everyone in the lab family

Nakummek to Them Days Archives, The Peary-MacMillan Arctic Museum and the Mountain Legacy Project.

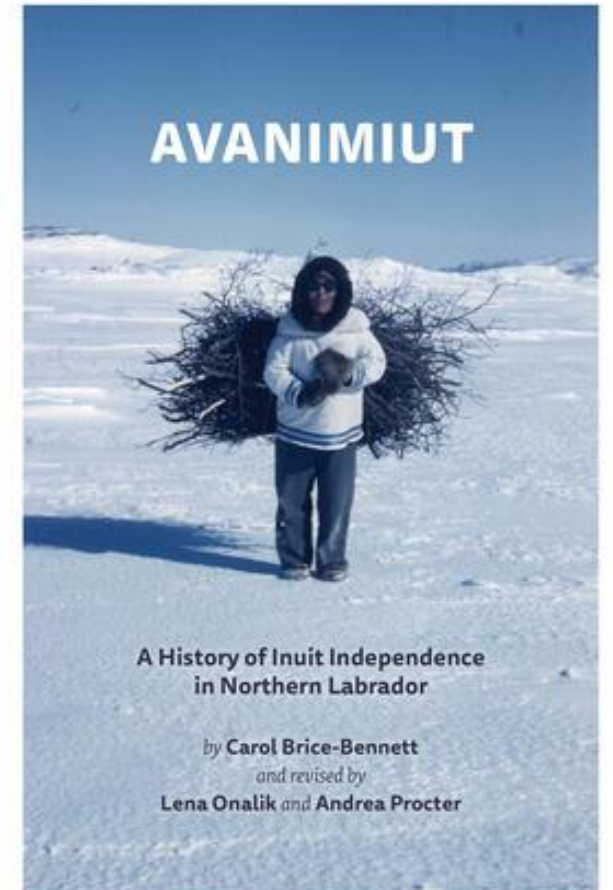


Context

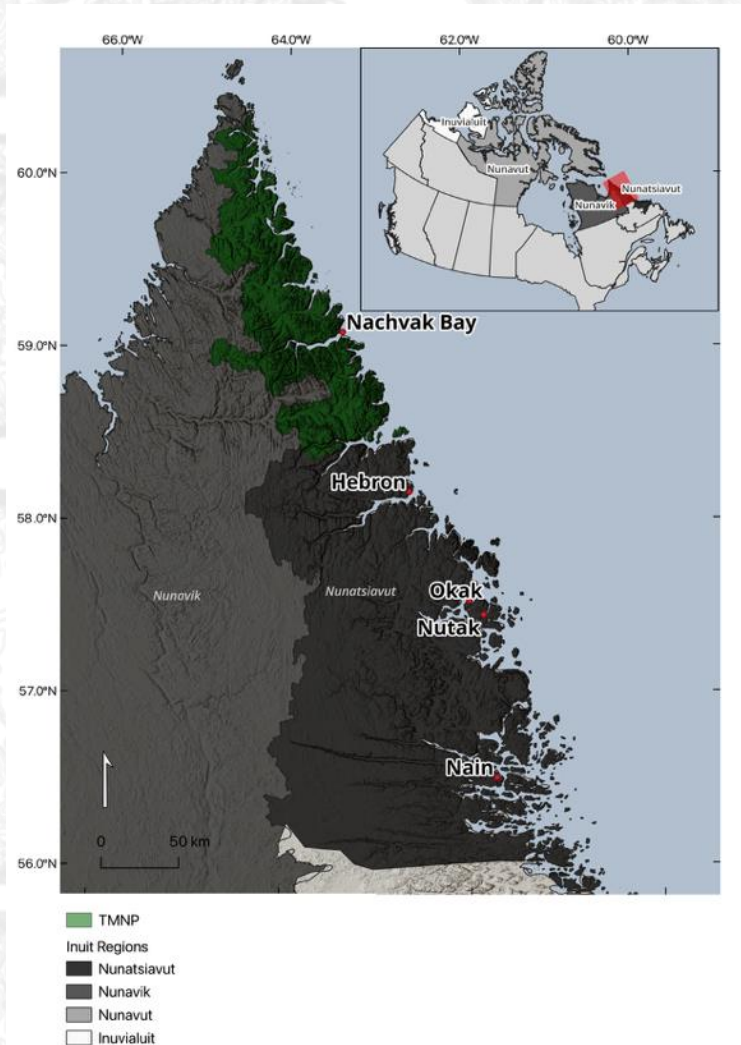
Okak, 1913



Source: MUN Archives



Book cover: Brice Bennett, Onalik and Procter; Avanimiut (Memorial University Press, 2023).



Inuit Knowledge is a **way of life**

Inuit Knowledge (IK) is as much about **what is known**¹ as it is about **how to interact with each other and the environment**^{2,3,4}



Photo source: Moravian Archives Bethlehem

Climate Change

- Inuit in Nunatsiavut are living climate change now
- Impacts are experienced in specific places
 - Homes, trails, berry patches, fishing and hunting locations...



Cultural Keystone Places (CKPs)

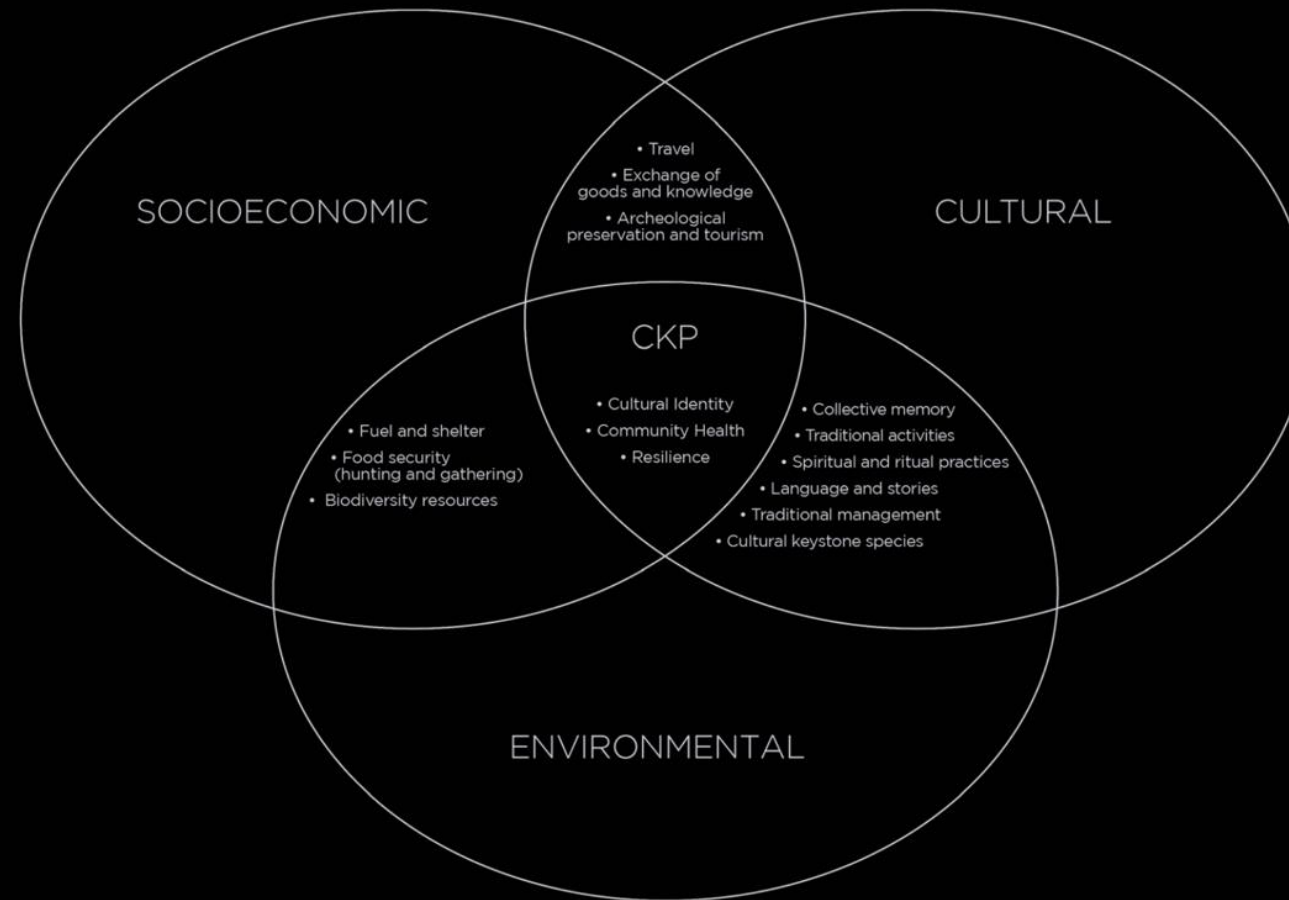
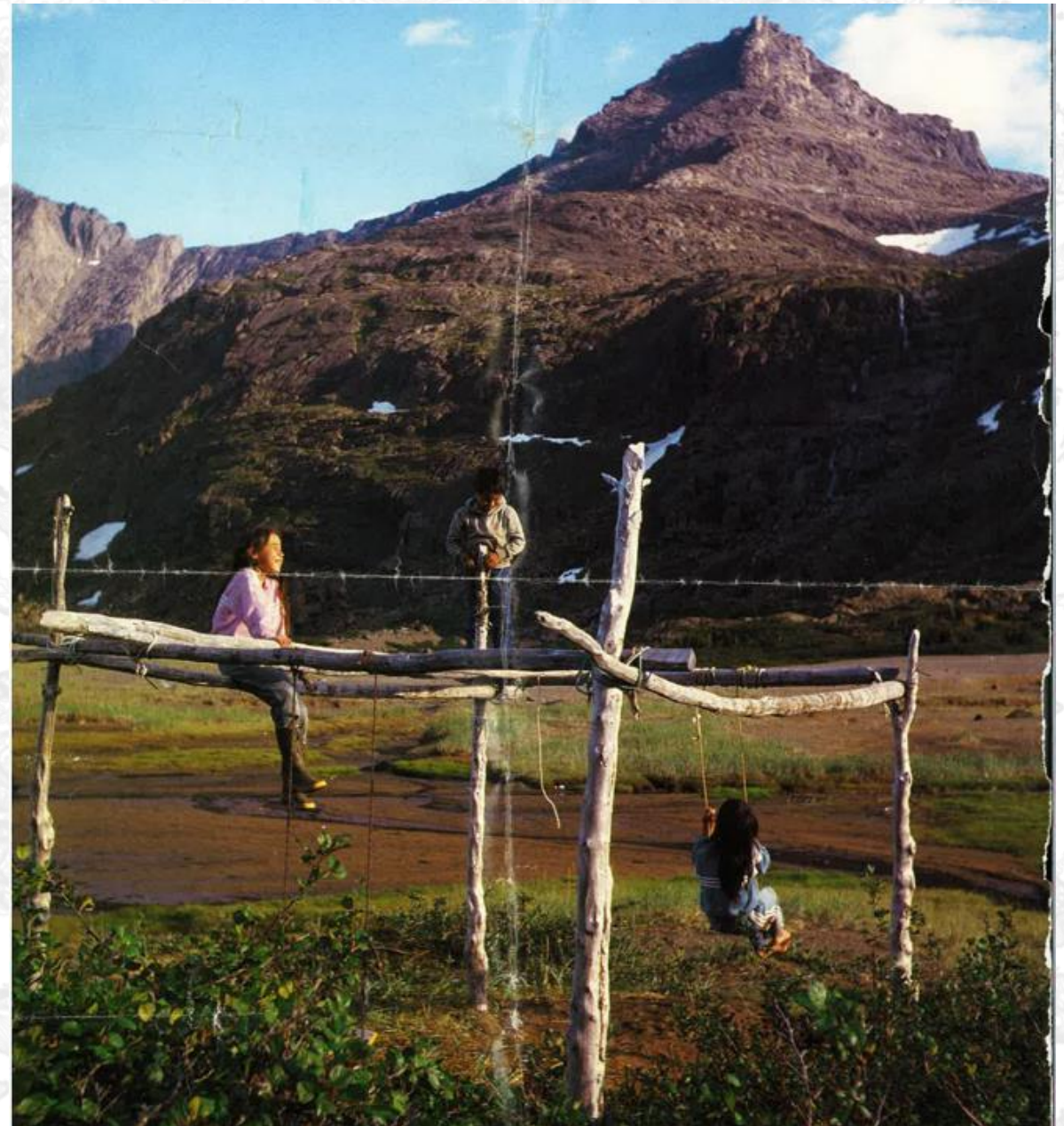
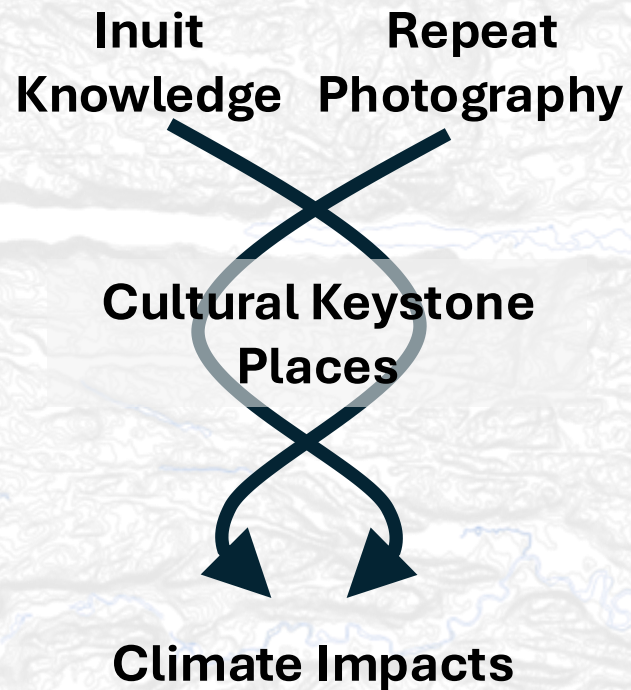


Figure 1. Schematic diagram showing the diverse aspects of interrelationships between people and particular places.

Cuerrier et al. 2015

Cultural Keystone Places as a lens



Methods:

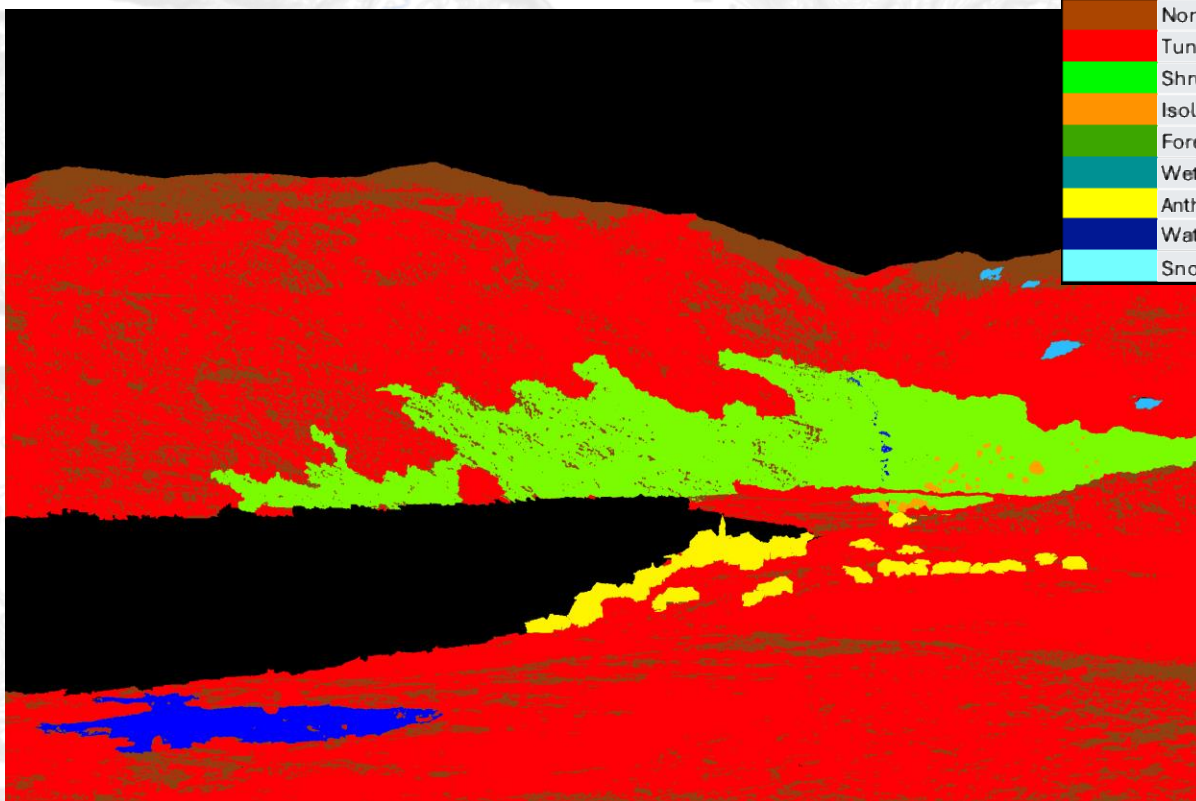
Repeat Photography



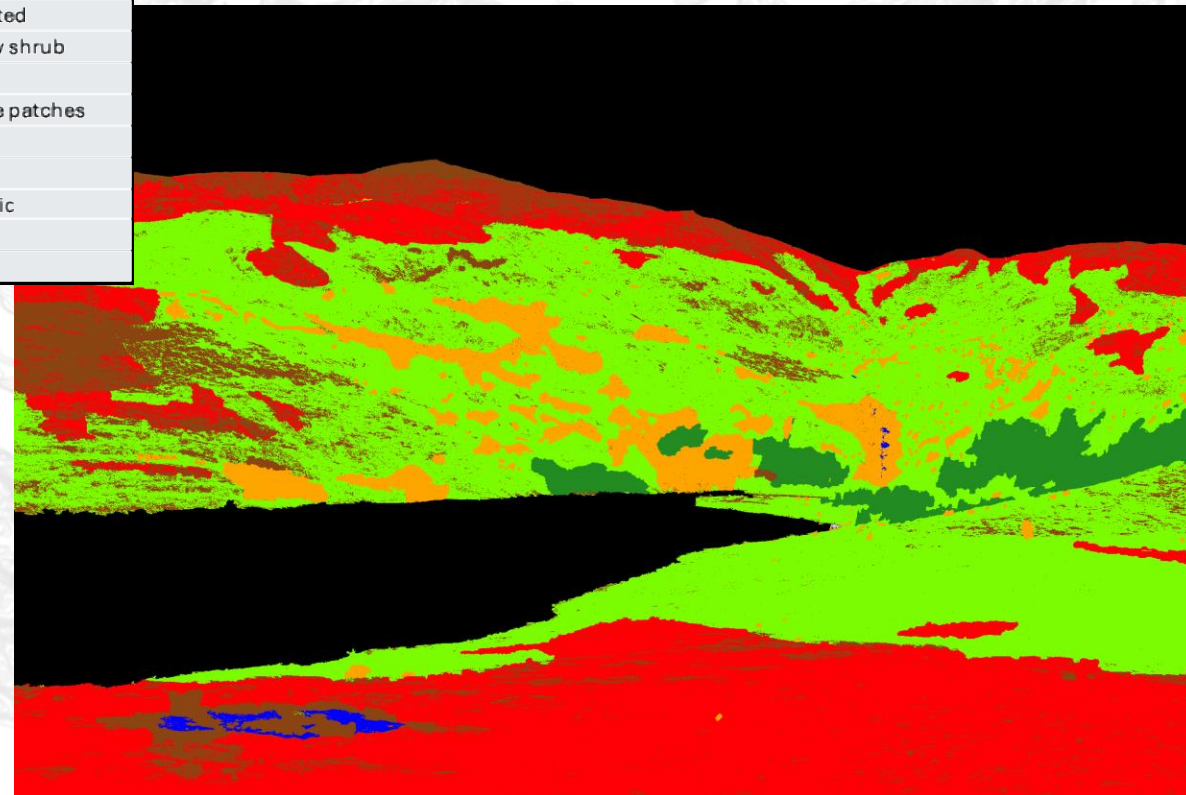


Legend

Colour	LC Class
Brown	Non-vegetated
Red	Tundra / low shrub
Green	Shrub
Orange	Isolated tree patches
Dark Green	Forest
Teal	Wetland
Yellow	Anthropogenic
Blue	Water
Cyan	Snow / Ice



Okak, 1920



Okak, 2024

Methods: Inuit Knowledge

- Open, flexible, and responsive methods to foreground IK and lived experience
- Semi-directed interviews using photos and maps
 - 32 interviews with 42 participants
- Review of analysis with community



Relationship to place

“It's different when we're up around that area. I feel more connected and at peace. It's a really strong sense of home.”

- Chaim Andersen





Change contextualized within IK

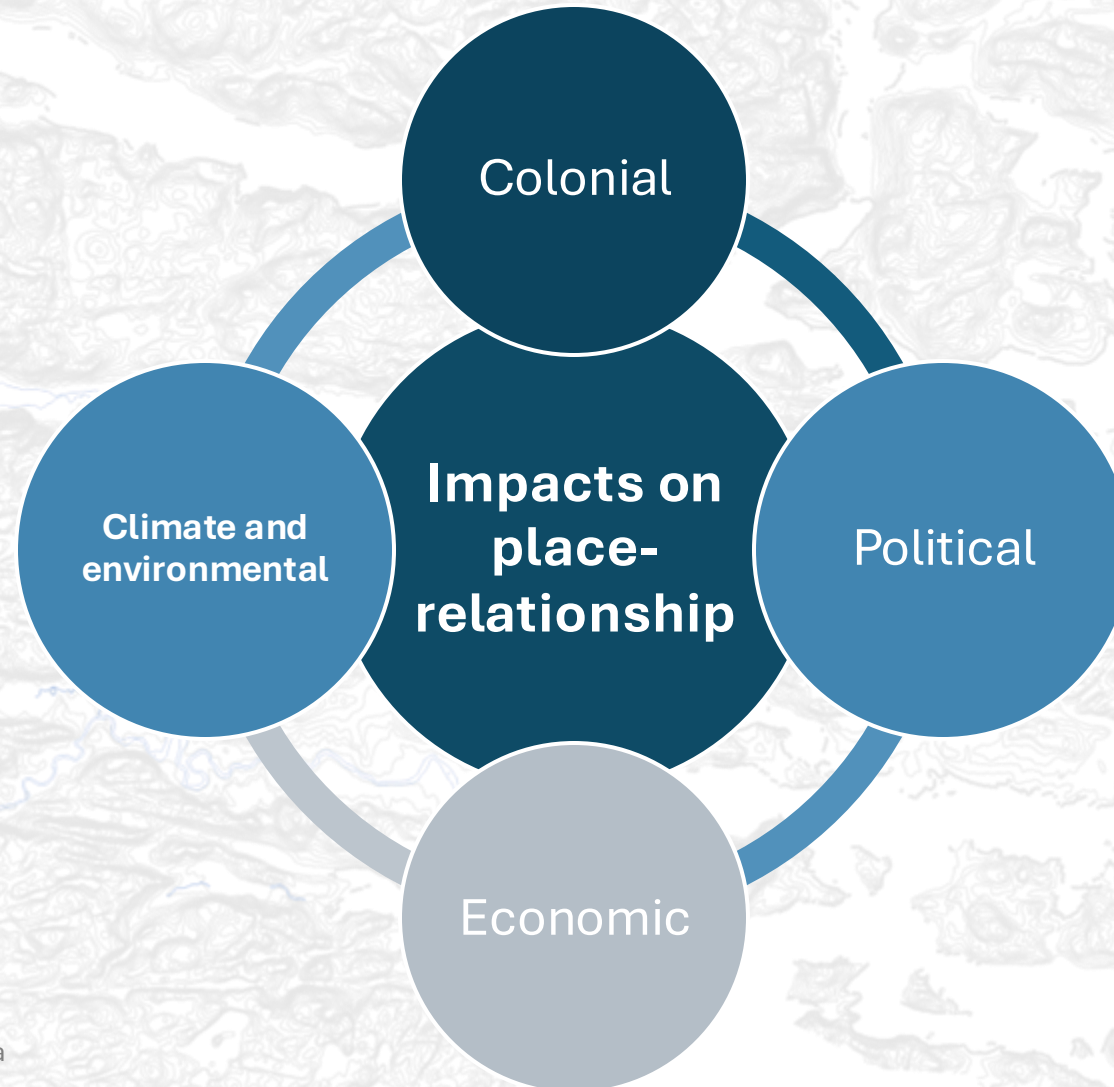
*“It used to be so abundant.
It used to look like the land
was moving with caribou.*

*I used to be so sick of
looking at them. Now I wish
we could even have a taste
of one.”*

– Edward John Flowers



Climate change was understood as part of broader change



Climate and social impacts were felt in the same ways



“I miss being up there. We used to be up there all summer” – Toby Kojak

“If I would go there right now, I would kiss the island and cry.” – Maggie Suarak

How climate change is understood shapes how we respond to it

“How I want to look at is when you're there on the land and sea, you just got to do what you need to do. Because that's how it always was anyway.”

- Maria Merkuratsuk

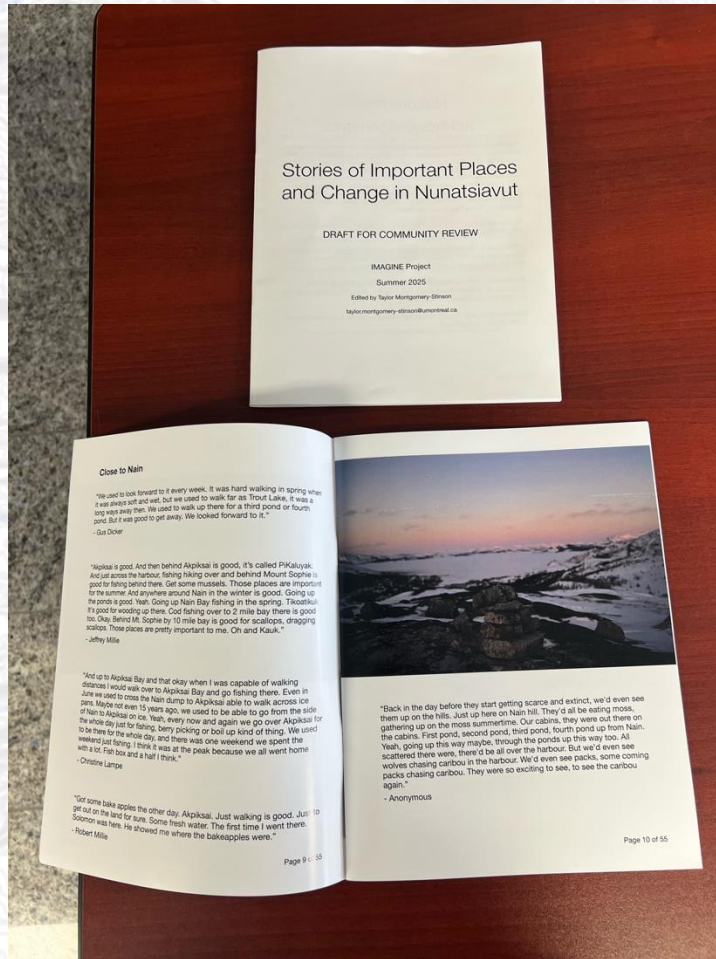




“When it comes to Inuit knowledge, it's because we're out there and we're experiencing those things. So, increasing the access and opportunity to gain that knowledge and skills is really important.”

- Chaim Andersen

Returning Knowledge



“My grandmother was from Hebron, and she got relocated to Nain. All the places from Hebron north, she used to be growing up and hunting and fishing.

It was a special feeling that I went to where my grandmother grew up and hunted and everything.”

- Edward John Flowers



Nakummek

Image pairs



taylor.montgomery-stinson@umontreal.ca

ArcticNet ASM 2025



References

1. Berkes, F. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. (Routledge, New York, 2018).
2. Pedersen, C. *et al.* SciQ: An invitation and recommendations to combine science and Inuit Qaujimajatuqangit for meaningful engagement of inuit communities in research. *Arctic Science* **6**, 326–339 (2020).
3. Wenzel, G. W. *From TEK to IQ: Inuit Qaujimajatuqangit and Inuit Cultural Ecology*. *Anthropology* vol. 41 238–250 <https://www.jstor.org/stable/40316631> (2004).
4. Karetak, J., Tester, F. & Tagalik, S. *Inuit Qaujimajatuqangit: What Inuit Have Always Known to Be True*. (Fernwood Publishing, Black Point, NS and Winnipeg, MB, Canada, 2017).
5. Cuerrier, A., Turner, N. J., Gomes, T. C., Garibaldi, A. & Downing, A. Cultural Keystone Places: Conservation and Restoration in Cultural Landscapes. *Journal of Ethnobiology* **35**, 427–448 (2015).
6. Wright, C., C. Bone, D. Mathews, J. Tricker, B. Wright, E. Higgs, and J. Wiley. 2024. Mountain Image Analysis Suite (MIAS): A New Plugin for Converting Oblique Images to Landcover Maps in QGIS. *Transactions in GIS* 00:1–18. doi: [10.1111/tgis.13229](https://doi.org/10.1111/tgis.13229).