

Sense of the Arctic - Episode 5

Tero Mustonen

[00:00:00.000 → 00:00:03.440] [MUSIC PLAYING]

[00:00:03.440 → 00:00:13.160] Welcome to Polar Times, the podcast that brings you

[00:00:13.160 → 00:00:15.800] science and stories from literally the coolest

[00:00:15.800 → 00:00:17.480] places on the planet.

[00:00:17.480 → 00:00:19.280] Welcome to a new episode.

[00:00:19.280 → 00:00:22.120] But first, I wanted to tell you, if you didn't know,

[00:00:22.120 → 00:00:24.400] that this week is special, because this week is

[00:00:24.400 → 00:00:26.720] the Apex International Polar Week.

[00:00:26.720 → 00:00:28.880] There will be a couple of activities,

[00:00:28.880 → 00:00:32.200] the first one being the release of self-reflective poetry

[00:00:32.200 → 00:00:35.360] submitted by polar scientists and other polar interested

[00:00:35.360 → 00:00:36.520] people.

[00:00:36.520 → 00:00:39.080] The second main item is an invitation

[00:00:39.080 → 00:00:43.280] to learn and reflect on the governance of the polar regions

[00:00:43.280 → 00:00:45.800] from fisheries to international law.

[00:00:45.800 → 00:00:49.520] There will be a few highlights about green energy projects

[00:00:49.520 → 00:00:52.480] in the Samí homeland or UN programs

[00:00:52.480 → 00:00:54.440] to protect marine diversity.

[00:00:54.440 → 00:00:58.400] So I encourage you to follow Apex on social media

[00:00:58.400 → 00:01:02.960] on, for example, Instagram and Twitter to learn more.

[00:01:02.960 → 00:01:06.480] And this last theme is actually exactly the theme

[00:01:06.480 → 00:01:08.280] of the podcast of today.

[00:01:08.280 → 00:01:11.360] We are joining again, Nicholas and Inge,

[00:01:11.360 → 00:01:14.640] for an episode of the Sense of the Arctic mini-series

[00:01:14.640 → 00:01:18.800] that highlights power and knowledge of indigenous people.

[00:01:18.800 → 00:01:21.160] I will let them present their guests.

[00:01:21.160 → 00:01:24.360] And I will just thank you for joining us

[00:01:24.360 → 00:01:25.840] and wish you a very good listening.

[00:01:25.840 → 00:01:29.200] [MUSIC PLAYING]

[00:01:29.200 → 00:01:32.680] Hi, everyone.

[00:01:32.680 → 00:01:35.520] Welcome to the fourth episode of Sense of the Arctic,

[00:01:35.520 → 00:01:38.000] a special series of conversations organized

[00:01:38.000 → 00:01:40.880] by the Apex Science and Diplomacy Project Group

[00:01:40.880 → 00:01:44.760] and released as part of the Apex podcast Polar Times.

[00:01:44.760 → 00:01:48.320] My name is Inge Descheper and I'm a PhD candidate

[00:01:48.320 → 00:01:51.600] at Université Laval in Quebec City, Canada.

[00:01:51.600 → 00:01:54.760] However, I'm studying remotely from South Africa.

[00:01:54.760 → 00:01:58.360] And my study area is biogeochemical modeling

[00:01:58.360 → 00:02:00.760] in the ocean and sea ice.

[00:02:00.760 → 00:02:03.240] And I'm Nicholas Parlato, a PhD student

[00:02:03.240 → 00:02:06.080] at University of Alaska Fairbanks studying marine
[00:02:06.080 → 00:02:09.240] and coastal resource management and politics.
[00:02:09.240 → 00:02:12.240] So as we've heard from the first three episodes,
[00:02:12.240 → 00:02:14.680] the importance of community-driven research
[00:02:14.680 → 00:02:17.360] and how it is essential to the success
[00:02:17.360 → 00:02:21.080] of contemporary interdisciplinary Arctic science.
[00:02:21.080 → 00:02:23.080] We now head to the European continent
[00:02:23.080 → 00:02:25.120] to hear about some of their perspectives
[00:02:25.120 → 00:02:29.040] on community-based and community-driven research.
[00:02:29.040 → 00:02:33.200] Our guest today is part of the Snow Change Cooperative
[00:02:33.200 → 00:02:35.960] in Finland, where their work focuses
[00:02:35.960 → 00:02:38.880] on advancing and preserving not just Finnish,
[00:02:38.880 → 00:02:43.200] but Arctic indigenous community cultures and traditions.
[00:02:43.200 → 00:02:45.560] Dr. Terro Mustonen is a Finnish researcher
[00:02:45.560 → 00:02:47.400] at the University of Eastern Finland
[00:02:47.400 → 00:02:49.880] and the president of Snow Change Cooperative.
[00:02:49.880 → 00:02:52.120] He is currently living in the village of Selkie
[00:02:52.120 → 00:02:55.240] in North Karelia, Finland, and is also a lead author
[00:02:55.240 → 00:02:59.480] on the sixth IPCC assessment released in 2021.
[00:02:59.480 → 00:03:02.440] Dr. Mustonen, we're really happy to have you here today.
[00:03:02.440 → 00:03:04.160] And Inge is gonna start us off
[00:03:04.160 → 00:03:06.440] with our first question for you.
[00:03:06.440 → 00:03:07.520] - Great.
[00:03:07.520 → 00:03:10.680] So while I was doing your biography
[00:03:10.680 → 00:03:12.480] and I was looking up online,
[00:03:12.480 → 00:03:17.440] I noticed that it was mentioned that you're a winter seigner.
[00:03:17.440 → 00:03:20.240] Could you please briefly explain to our listeners
[00:03:20.240 → 00:03:23.760] what it means and how you were introduced to it?
[00:03:23.760 → 00:03:26.520] - Well, Inge and Nicolas,
[00:03:26.520 → 00:03:29.640] thanks for having me on this wonderful podcast
[00:03:29.640 → 00:03:33.520] and greetings from the small boreal forest of Selkie
[00:03:33.520 → 00:03:35.880] where our community is located.
[00:03:35.880 → 00:03:38.920] This is about 62 latitude north.
[00:03:38.920 → 00:03:43.240] As to winter seining, I have two jobs essentially.
[00:03:43.240 → 00:03:45.960] One is to lead a very precious
[00:03:45.960 → 00:03:50.960] and quite unique professional fishing team or fishery.
[00:03:50.960 → 00:03:54.560] It's a freshwater lake system.
[00:03:54.560 → 00:03:59.560] And what we do on our lakes is something called seining.
[00:03:59.560 → 00:04:04.000] And people might have heard how seining happens
[00:04:04.000 → 00:04:07.800] out in the oceans and on the coastal fisheries.
[00:04:07.800 → 00:04:12.000] But the ice based winter seining happens
[00:04:12.000 → 00:04:15.520] only during the winter when the ice allows us to go
[00:04:15.520 → 00:04:16.360] and harvest.
[00:04:16.360 → 00:04:19.680] And what we are doing is that we are on a lake,
[00:04:19.680 → 00:04:23.760] we are pulling nets under the ice through the morning.
[00:04:23.760 → 00:04:26.320] So it starts usually around 6 a.m.

[00:04:26.320 → 00:04:28.760] And we are hopefully done by 1 p.m.
[00:04:28.760 → 00:04:30.360] or something like that.
[00:04:30.360 → 00:04:33.400] And the distance that we pull is about half a kilometer
[00:04:33.400 → 00:04:36.720] or half a mile, depending on the site.
[00:04:36.720 → 00:04:39.960] And this particular kind of fishery,
[00:04:39.960 → 00:04:44.680] the winter seining has been going on at least for 700 years.
[00:04:44.680 → 00:04:47.080] And actually the world's oldest net finding
[00:04:47.080 → 00:04:49.440] is from our region, Karelia,
[00:04:49.440 → 00:04:54.160] which is demonstrating how the old people
[00:04:54.160 → 00:04:57.240] probably 10,000 years ago were doing the same.
[00:04:57.240 → 00:05:00.480] I guess this is a sign of how we have not evolved
[00:05:00.480 → 00:05:03.800] what much over the centuries, but oh well.
[00:05:03.800 → 00:05:08.400] - Well, evolution is certainly a relative concept.
[00:05:08.400 → 00:05:13.120] And in this case, it's not losing critical food traditions
[00:05:13.120 → 00:05:14.680] and food ways from the region.
[00:05:14.680 → 00:05:17.000] So I think evolution in this case
[00:05:17.000 → 00:05:19.000] would have been maladaptive.
[00:05:19.000 → 00:05:21.880] But this is really interesting 'cause here in Alaska,
[00:05:21.880 → 00:05:25.440] a lot of people also researchers are also engaged
[00:05:25.440 → 00:05:27.920] in kind of land-based activities,
[00:05:27.920 → 00:05:30.840] hunting and fishing and berry picking.
[00:05:30.840 → 00:05:32.760] And I'm really curious,
[00:05:32.760 → 00:05:36.240] here it definitely inflects and changes how people relate
[00:05:36.240 → 00:05:40.800] to the conduct of research and to being in the place
[00:05:40.800 → 00:05:42.760] that they're researching rather than researching
[00:05:42.760 → 00:05:45.320] somewhere that they only visit occasionally.
[00:05:45.320 → 00:05:49.600] And so I wanted to ask you what your personal work
[00:05:49.600 → 00:05:52.960] with this practice of seining and fishing,
[00:05:52.960 → 00:05:55.720] how has it contributed to and influenced
[00:05:55.720 → 00:05:58.000] your scientific practice and engagement
[00:05:58.000 → 00:06:01.400] with local Sami people who have the traditional knowledge
[00:06:01.400 → 00:06:05.240] and have been practicing these life ways for centuries?
[00:06:05.240 → 00:06:08.560] - Well, the starting point for the understanding
[00:06:08.560 → 00:06:10.800] of what's going on in this part of the North
[00:06:10.800 → 00:06:13.560] and the work that we do is no change
[00:06:13.560 → 00:06:17.440] and also in the fishery begins by appreciating
[00:06:17.440 → 00:06:20.960] the very special socio-historical context for Finland.
[00:06:20.960 → 00:06:25.640] And what I mean by that is that clearly the Sami people
[00:06:25.640 → 00:06:28.320] are the indigenous peoples by constitution,
[00:06:28.320 → 00:06:31.040] but they are linguistically related to Karelian
[00:06:31.040 → 00:06:35.480] and Finnish communities that are the main population
[00:06:35.480 → 00:06:37.920] of Finland, the Finnish people.
[00:06:37.920 → 00:06:40.440] To give you an example, we would say we are
[00:06:40.440 → 00:06:45.440] Suomi people and the Sami of course call themselves Sami.
[00:06:45.440 → 00:06:49.720] Or if I say a lake in Finnish, it's Jarvi
[00:06:49.720 → 00:06:52.000] and in Sami it's Jauri.

[00:06:52.000 → 00:06:55.440] And these languages belong into a linguistic
[00:06:55.440 → 00:06:58.880] and cultural group called Finno-Eukric peoples.
[00:06:58.880 → 00:07:04.360] And these boreal and Arctic civilizations or peoples
[00:07:04.360 → 00:07:08.240] are forming a bit like the Inuit languages
[00:07:08.240 → 00:07:13.240] and peoples vast stretch of Northern communities
[00:07:13.240 → 00:07:17.520] ranging from Western Siberia with the Hanti and the Muncie,
[00:07:17.520 → 00:07:22.200] the Nenets people going further into West, Komi, Karelians
[00:07:22.200 → 00:07:25.400] and then onto Finland and in the Northern most tip
[00:07:25.400 → 00:07:29.480] of the European North, you have the Sami people.
[00:07:29.480 → 00:07:34.480] And the way cultural history happened here
[00:07:34.560 → 00:07:39.560] is that all of these peoples are, maybe you can say
[00:07:39.560 → 00:07:44.560] that these peoples have adapted to the boreal landscapes,
[00:07:44.560 → 00:07:49.320] the lakes, the rivers, and of course the forest herself.
[00:07:49.320 → 00:07:53.880] And that's where we come from in the sense that
[00:07:53.880 → 00:07:57.240] it's not only the Sami that practice very traditional ways
[00:07:57.240 → 00:07:59.340] of harvesting or even reindeer herding.
[00:07:59.340 → 00:08:04.120] And this is a marked difference between Sweden and Norway.
[00:08:04.800 → 00:08:08.800] In relationship to Finland, where Finns are also reindeer
[00:08:08.800 → 00:08:13.800] herders in the North boreal forests, in addition to the Sami.
[00:08:13.800 → 00:08:17.760] This is not to say that travel don't exist, it does.
[00:08:17.760 → 00:08:22.520] The relations have been very horrible at times
[00:08:22.520 → 00:08:26.640] and the state of Finland has certainly had a bad legacy
[00:08:26.640 → 00:08:30.200] of ill treatment towards the Sami and the colonial context.
[00:08:30.200 → 00:08:32.880] But it's important to understand that there is also
[00:08:32.880 → 00:08:36.640] this boreal set of communities, especially in the Eastern
[00:08:36.640 → 00:08:39.900] part of the country, which have maintained things
[00:08:39.900 → 00:08:43.320] like the winter seining, which are Finnish speaking
[00:08:43.320 → 00:08:45.620] and Finnish communities.
[00:08:45.620 → 00:08:49.480] And to give you a very short overview of why I would
[00:08:49.480 → 00:08:52.820] be doing this, which is to finally answer your question.
[00:08:52.820 → 00:08:56.780] I was privileged enough to grow up in a family
[00:08:56.780 → 00:09:00.920] ever since from birth in 1970s that was constantly
[00:09:00.920 → 00:09:05.320] conducting cultural harvesting fisheries, longlining,
[00:09:05.320 → 00:09:08.200] gill netting and all sorts of fish traps
[00:09:08.200 → 00:09:10.040] and other forms of fishery.
[00:09:10.040 → 00:09:13.960] So I grew up into the world of Lake fishery.
[00:09:13.960 → 00:09:18.040] We even had a small scale commercial sales
[00:09:18.040 → 00:09:22.920] because we were financially very poor in 1970s and 80s.
[00:09:22.920 → 00:09:26.880] And then the minute I could, I started to apprentice
[00:09:26.880 → 00:09:32.040] under some master fishers in late 1990s, early 2000s.
[00:09:32.040 → 00:09:34.720] So I had kind of a other university
[00:09:34.720 → 00:09:39.240] where I grew up on the ice harvesting and slowly emerging
[00:09:39.240 → 00:09:42.640] into the master class, which is the winter seining, of course,
[00:09:42.640 → 00:09:46.120] the communal age old practice.
[00:09:46.120 → 00:09:49.440] And by living on the lake, on the ice,
[00:09:49.440 → 00:09:52.120] or then in the summertime, of course, harvesting

[00:09:52.120 → 00:09:55.640] on the open water season, all that I do
[00:09:55.640 → 00:10:01.280] stems from this coexistence with the lake and our fish.
[00:10:01.280 → 00:10:05.120] And very early on, already in mid-1990s,
[00:10:05.120 → 00:10:07.280] coming after the military, we could
[00:10:07.280 → 00:10:11.880] start to observe how the winters are fundamentally
[00:10:11.880 → 00:10:13.800] changing in the boreal.
[00:10:13.800 → 00:10:16.960] And also the temperatures are very high.
[00:10:16.960 → 00:10:21.600] We have a very shortening of the free sub-season.
[00:10:21.600 → 00:10:23.760] And also the melt events in the spring
[00:10:23.760 → 00:10:26.760] started to happen much earlier than, for example,
[00:10:26.760 → 00:10:28.000] in my childhood.
[00:10:28.000 → 00:10:31.480] And that became kind of a stimulus
[00:10:31.480 → 00:10:36.000] to understand also through science what's going on
[00:10:36.000 → 00:10:40.840] and link the cultural knowledge that I have from our life
[00:10:40.840 → 00:10:43.800] in the bush or in the lakes to what's
[00:10:43.800 → 00:10:45.960] going on in the world of science.
[00:10:45.960 → 00:10:47.160] Thank you so much.
[00:10:47.160 → 00:10:50.080] That was incredible context and really important
[00:10:50.080 → 00:10:56.000] to recognize just the full cultural expanse of the northern
[00:10:56.000 → 00:11:01.160] Scandinavia, as well as that linguistic group
[00:11:01.160 → 00:11:04.560] and those cultural groups extend far across Siberia.
[00:11:04.560 → 00:11:08.920] And I'm curious about, as far as the wind fishing goes,
[00:11:08.920 → 00:11:11.640] do you still fish the same lake that your family
[00:11:11.640 → 00:11:13.800] fished when you were growing up?
[00:11:13.800 → 00:11:16.320] In my family, I have heritage, I guess
[00:11:16.320 → 00:11:19.560] you could say, from both western part of Finland
[00:11:19.560 → 00:11:22.640] and then from here in Karelia, where I have been living now
[00:11:22.640 → 00:11:24.080] for over 20 years.
[00:11:24.080 → 00:11:29.680] And my father is from here in the east, very
[00:11:29.680 → 00:11:31.480] close to Russian border.
[00:11:31.480 → 00:11:34.400] Our region is also world famous because this
[00:11:34.400 → 00:11:38.560] is the place where our national epic Kalevala was recorded
[00:11:38.560 → 00:11:42.960] in the oral poetry that went on to influence Longfellow
[00:11:42.960 → 00:11:46.840] and J.R.R. Tolkien for his "Eleven Languages"
[00:11:46.840 → 00:11:52.120] and ultimately what's the book known as "A Lot of the Rings."
[00:11:52.120 → 00:11:55.920] So in fact, our villages here in Karelia
[00:11:55.920 → 00:12:00.960] have contributed to a world's largest oral history, Korpus.
[00:12:00.960 → 00:12:03.120] And there's a lot of traditional practice here.
[00:12:03.120 → 00:12:05.480] And yes, I am harvesting on the same lake
[00:12:05.480 → 00:12:10.680] where I grew up when I was a child in 1970s, both in Karelia.
[00:12:10.680 → 00:12:13.160] And my mother is still maintaining
[00:12:13.160 → 00:12:17.040] a fish base in the western Finnish area.
[00:12:17.040 → 00:12:21.000] And I do, whenever I can, I go gill netting there.
[00:12:21.000 → 00:12:25.120] And through snow change, we also revitalized
[00:12:25.120 → 00:12:29.640] seining as a communal activity after 70 years of a break
[00:12:29.640 → 00:12:32.320] in western Finland.

[00:12:32.320 → 00:12:38.640] So there is a lot of what I sometimes call collapsing time
[00:12:38.640 → 00:12:41.640] in the sense that both the Finns and the Sami
[00:12:41.640 → 00:12:44.680] and the Greenlanders and the other northern communities
[00:12:44.680 → 00:12:48.000] that exist in these parts of the world, all of us
[00:12:48.000 → 00:12:53.920] went through a massive and very fast modernization of society
[00:12:53.920 → 00:12:57.320] from 1960s into 1990s.
[00:12:57.320 → 00:13:00.560] And when I was growing up in 1970s,
[00:13:00.560 → 00:13:04.080] I was partly raised by my uncle, Heike,
[00:13:04.080 → 00:13:07.200] who was, when he was still young,
[00:13:07.200 → 00:13:11.320] he was subsisting or hunting moose, for example,
[00:13:11.320 → 00:13:13.480] for food security.
[00:13:13.480 → 00:13:19.320] He feasted for living in remote boreal village of Ilomansi.
[00:13:19.320 → 00:13:22.760] And it's only in one generation that, of course,
[00:13:22.760 → 00:13:26.680] caused tremendous amount of trauma, alcoholism, loss
[00:13:26.680 → 00:13:30.800] of purpose, loss of self-esteem, and many other factors,
[00:13:30.800 → 00:13:33.520] especially to our men.
[00:13:33.520 → 00:13:36.120] Somehow the women perhaps coped better.
[00:13:36.120 → 00:13:40.480] But it's important to realize that the modernization process
[00:13:40.480 → 00:13:43.520] was associated with large ecological devastation
[00:13:43.520 → 00:13:48.080] of the land and also these traditional communities,
[00:13:48.080 → 00:13:52.080] if you want to call it that, lost their capacity
[00:13:52.080 → 00:13:56.400] to do things both in Lapland and here in Karelia
[00:13:56.400 → 00:14:00.520] during this period of 1960s to '80s, '90s.
[00:14:00.520 → 00:14:05.440] And of course, that is what's known as a cascading trauma,
[00:14:05.440 → 00:14:08.720] that in one generation it was told
[00:14:08.720 → 00:14:10.560] that traditional knowledge and practices
[00:14:10.560 → 00:14:12.640] don't mean anything anymore.
[00:14:12.640 → 00:14:15.720] Everybody has to go to Helsinki or Stockholm
[00:14:15.720 → 00:14:20.040] for out-migration from the villages and so on and so on.
[00:14:20.040 → 00:14:23.800] So what we are really looking at here in my own village,
[00:14:23.800 → 00:14:27.080] Selkje, and all the other villages in the region
[00:14:27.080 → 00:14:30.720] is that we used to have this gigantic practice
[00:14:30.720 → 00:14:33.920] and coexistence with the boreal forest,
[00:14:33.920 → 00:14:38.080] where the oral poetry meant a lot of things.
[00:14:38.080 → 00:14:42.720] And then just in a time span of one or two generations,
[00:14:42.720 → 00:14:48.080] now we are living in this post-industrial logging landscape.
[00:14:48.080 → 00:14:51.560] I guess just to finish off, in a sense,
[00:14:51.560 → 00:14:55.760] I think a lot of the same happened to the Sami.
[00:14:55.760 → 00:14:59.480] So despite the fact that they have and they, of course,
[00:14:59.480 → 00:15:03.600] deserve and are the indigenous peoples by the Constitution,
[00:15:03.600 → 00:15:07.200] they faced exactly the same kind of modernity, impact,
[00:15:07.200 → 00:15:10.160] and suffer from the same troubles.
[00:15:10.160 → 00:15:13.400] And that's why a lot of the work that we're doing
[00:15:13.400 → 00:15:16.920] is no change, whether it's our research unit
[00:15:16.920 → 00:15:20.800] or our rewinding and ecological restoration work
[00:15:20.800 → 00:15:23.800] or revitalization of these fisheries, for example,

[00:15:23.800 → 00:15:26.960] is really to navigate this new century
[00:15:26.960 → 00:15:29.200] where all of these things happened
[00:15:29.200 → 00:15:32.160] to the previous generation, as well as the ecosystems,
[00:15:32.160 → 00:15:36.440] and now I sometimes call it the great rebuilding.
[00:15:36.440 → 00:15:40.440] So we are rebuilding, rising from the ashes of the past,
[00:15:40.440 → 00:15:42.640] and it's very exciting.
[00:15:42.640 → 00:15:44.360] It's, of course, volatile times,
[00:15:44.360 → 00:15:48.000] but it's extremely exciting, the villages.
[00:15:48.000 → 00:15:50.280] - That's really interesting.
[00:15:50.280 → 00:15:53.480] It's history that I didn't even know about,
[00:15:53.480 → 00:15:56.080] which I thank you for sharing.
[00:15:56.080 → 00:16:00.760] And I noticed that you brought in a bit about snow change
[00:16:00.760 → 00:16:03.520] and how it brought back, I guess,
[00:16:03.520 → 00:16:07.320] the community-driven winter seining activity.
[00:16:07.320 → 00:16:10.200] And I guess that can lead to the next question,
[00:16:10.200 → 00:16:14.000] could you describe what snow change does
[00:16:14.000 → 00:16:16.720] and the main aims of the organization?
[00:16:16.720 → 00:16:19.960] - Snow change is a cooperative,
[00:16:19.960 → 00:16:23.240] so we are quite unique in Finland
[00:16:23.240 → 00:16:26.080] to be registered as a nonprofit fishing
[00:16:26.080 → 00:16:28.880] and cultural organization, research organization.
[00:16:28.880 → 00:16:32.640] We have been existing for about 23 years,
[00:16:32.640 → 00:16:37.640] so the first iteration of snow change was founded in 2000,
[00:16:37.640 → 00:16:43.120] and it was initiated by a Sami radio herder
[00:16:43.120 → 00:16:46.320] called Stefan Mikkelsen from Sweden.
[00:16:46.320 → 00:16:49.960] He was the vice president of the Sami Council at the time,
[00:16:49.960 → 00:16:52.280] Finnish fishermen and researchers,
[00:16:52.280 → 00:16:56.120] and then an Inuit lady called Jackie Price.
[00:16:56.120 → 00:16:58.080] And Jackie was from Nunavut, Canada.
[00:16:58.920 → 00:17:03.000] And why did we come to, and then a few young people
[00:17:03.000 → 00:17:04.640] and so on and so on.
[00:17:04.640 → 00:17:07.520] The idea of why we came into existence
[00:17:07.520 → 00:17:11.440] was that all of these people felt that first of all,
[00:17:11.440 → 00:17:14.120] the villages don't have a great voice
[00:17:14.120 → 00:17:15.800] in the international level.
[00:17:15.800 → 00:17:17.120] We have the Arctic Council,
[00:17:17.120 → 00:17:20.240] we have all sorts of scientific processes,
[00:17:20.240 → 00:17:21.400] and so on and so on,
[00:17:21.400 → 00:17:25.000] but the actual villages where people are living
[00:17:25.000 → 00:17:27.280] are facing these, all of these,
[00:17:27.280 → 00:17:30.720] or I guess we felt in 2000 that things are so bad.
[00:17:30.720 → 00:17:33.800] It's so bad with climate change, we have to do something.
[00:17:33.800 → 00:17:37.360] And then we thought, okay, what's uniting us
[00:17:37.360 → 00:17:39.600] despite our cultural differences?
[00:17:39.600 → 00:17:42.640] The Sami are distinct in their place,
[00:17:42.640 → 00:17:44.440] Finns are not indigenous peoples,

[00:17:44.440 → 00:17:46.200] but they have certain practices
[00:17:46.200 → 00:17:49.360] that are similar in the villages.
[00:17:49.360 → 00:17:53.160] The Inuit are, of course, powerful indigenous people
[00:17:53.160 → 00:17:55.520] from Canada, Alaska, Greenland,
[00:17:55.520 → 00:17:58.040] and North Eastern Siberia.
[00:17:58.040 → 00:18:01.160] And we realized that it's snow,
[00:18:01.160 → 00:18:03.400] snow belt.
[00:18:03.400 → 00:18:08.320] We are connected by the fact that we are the peoples
[00:18:08.320 → 00:18:11.440] where snow defines our existence.
[00:18:11.440 → 00:18:12.600] In all of our languages,
[00:18:12.600 → 00:18:16.160] we have all sorts of dozens of ways of communicating
[00:18:16.160 → 00:18:18.400] what kind of snow exists.
[00:18:18.400 → 00:18:23.400] And snow and ice are threatened by this massive warming
[00:18:24.120 → 00:18:27.480] and changes that were underway in 2000.
[00:18:27.480 → 00:18:30.880] And we felt as kind of a young punks at the time
[00:18:30.880 → 00:18:35.000] that we can change it, we can go to big places
[00:18:35.000 → 00:18:38.040] and tell people how bad things are.
[00:18:38.040 → 00:18:40.560] And of course, by now you have realized
[00:18:40.560 → 00:18:44.680] that we didn't have a great success with that big task,
[00:18:44.680 → 00:18:48.720] but what grew out of that young people's attempt
[00:18:48.720 → 00:18:51.360] to do something completely new,
[00:18:51.360 → 00:18:55.360] I would like to think is a rather unique organization
[00:18:55.360 → 00:18:58.960] that still represents and works for the villages
[00:18:58.960 → 00:19:01.360] that way it started.
[00:19:01.360 → 00:19:05.160] We are having some reindeer herders, hunters, elders
[00:19:05.160 → 00:19:07.920] that were part of this work in 2000,
[00:19:07.920 → 00:19:10.320] and they are still part of the work.
[00:19:10.320 → 00:19:13.960] So one of the kind of benchmarks
[00:19:13.960 → 00:19:17.960] of what we have tried to do is to stay on.
[00:19:18.880 → 00:19:21.560] So many Arctic projects and research initiatives
[00:19:21.560 → 00:19:24.200] are for four years, two years, five years,
[00:19:24.200 → 00:19:25.200] and then it's over.
[00:19:25.200 → 00:19:28.480] Well, we decided to heck with that.
[00:19:28.480 → 00:19:29.960] Why don't we stay?
[00:19:29.960 → 00:19:33.600] Why don't we be the ones that stay on and mean something
[00:19:33.600 → 00:19:38.240] and contribute to long-term community-based observations
[00:19:38.240 → 00:19:41.080] or data and so on and so on.
[00:19:41.080 → 00:19:46.000] So to summarize what and who we are,
[00:19:46.000 → 00:19:47.920] there's a big research component.
[00:19:47.920 → 00:19:52.240] We tried to be mechanism by which indigenous observations,
[00:19:52.240 → 00:19:55.680] local observations will meet with the best science
[00:19:55.680 → 00:19:59.080] to communicate what's going on actually in the North.
[00:19:59.080 → 00:20:02.360] And in order to understand the present,
[00:20:02.360 → 00:20:04.800] you have to understand the past.
[00:20:04.800 → 00:20:06.520] We don't know about the future,
[00:20:06.520 → 00:20:10.000] but we did realize that most of the Northern oral history,

[00:20:10.000 → 00:20:13.640] for example, is completely missing in the understanding [00:20:13.640 → 00:20:17.840] of what Alaska actually is as a place [00:20:17.840 → 00:20:20.040] or Canada or Finland.

[00:20:20.040 → 00:20:24.280] And secondly, we have a large cultural heritage unit. [00:20:24.280 → 00:20:28.520] So we are archiving, storing, and revitalizing [00:20:28.520 → 00:20:31.480] the Northern cultures, some of them indigenous peoples, [00:20:31.480 → 00:20:35.060] others, local communities like my own, [00:20:35.060 → 00:20:37.880] where we have focused on supporting the children. [00:20:37.880 → 00:20:42.280] We have financed nomadic schools for nomadic communities [00:20:42.280 → 00:20:44.680] in Northeast Siberia with the Chukchi [00:20:44.680 → 00:20:49.320] and the Yuka gear installed solar panels in remote camps [00:20:49.320 → 00:20:51.840] so that they can switch from diesel [00:20:51.840 → 00:20:56.840] into more safe and clean ways of energy production [00:20:56.840 → 00:20:58.520] and participated in a couple [00:20:58.520 → 00:21:00.520] of UNESCO World Heritage processes [00:21:00.520 → 00:21:05.520] where now that the land is being again looked at [00:21:05.520 → 00:21:10.960] by different actors in the North, [00:21:10.960 → 00:21:15.080] mining companies, wind power, hydropower, so on, [00:21:15.080 → 00:21:18.360] we need to be able to demonstrate to all parties [00:21:18.360 → 00:21:22.560] of what's actually going on, place names, lived history, [00:21:22.560 → 00:21:24.800] the landscapes, and so on and so on. [00:21:24.800 → 00:21:28.080] And finally, and the most exciting part is, of course, [00:21:28.080 → 00:21:31.640] our landscape rewinding program. [00:21:31.640 → 00:21:34.280] So this is a mechanism by which, [00:21:34.280 → 00:21:37.000] and I'll be very short here, but I'll just say [00:21:37.000 → 00:21:42.000] that people outside the North are often in a place [00:21:42.000 → 00:21:45.280] where they think it's all pristine. [00:21:45.280 → 00:21:48.640] It's all polar bears and Rudolph the reindeer [00:21:48.640 → 00:21:51.680] and the Santa Claus and some Inuits on the ice flow [00:21:51.680 → 00:21:53.600] and something like that. [00:21:53.600 → 00:21:57.080] In fact, the European North has been heavily utilized [00:21:57.080 → 00:22:00.600] by a range of industries for hundreds of years, [00:22:00.600 → 00:22:04.560] timber companies, mining companies, infrastructure, [00:22:04.560 → 00:22:06.520] energy, and so on and so on. [00:22:06.520 → 00:22:09.280] And the same story is in Siberia, in Canada, [00:22:09.280 → 00:22:11.800] and Alaska, as well as Greenland. [00:22:11.800 → 00:22:16.320] That's why after 15 years of trying to communicate [00:22:16.320 → 00:22:21.320] our messages to the US Senate, to the Arctic Council, [00:22:21.320 → 00:22:25.620] we participated in the IPCC and many other activities. [00:22:25.620 → 00:22:30.200] The realization in the organization is that actually, [00:22:30.200 → 00:22:34.240] we are not getting the kind of support [00:22:34.240 → 00:22:38.680] that we would hope to navigate this tremendous new century. [00:22:38.680 → 00:22:42.580] Why don't we rebuild our landscapes? [00:22:42.580 → 00:22:46.560] And that became the foundation of the over 70 sites, [00:22:46.560 → 00:22:51.560] 52,000 hectares of community conserved and rewilded areas, [00:22:51.560 → 00:22:55.360] both for the Sami and Finns.

[00:22:55.360 → 00:22:58.120] This is mostly operating in Finland.

[00:22:58.120 → 00:23:02.680] So in a historic, I hesitant to use that word otherwise,

[00:23:02.680 → 00:23:05.880] but here I can, because for the first time

[00:23:05.880 → 00:23:09.120] in a historic turn of events, our villages

[00:23:09.120 → 00:23:12.640] and the organization actually started to buy lands

[00:23:12.640 → 00:23:14.360] back to communal use.

[00:23:14.360 → 00:23:18.920] We started to revitalize rivers, landscapes, lakes, forests,

[00:23:18.920 → 00:23:23.080] using traditional knowledge and science back into health.

[00:23:23.080 → 00:23:25.160] And now they have a fighting chance.

[00:23:25.160 → 00:23:30.160] They will not be under timber company logging.

[00:23:30.160 → 00:23:32.380] They will not become a mine.

[00:23:32.380 → 00:23:34.580] They actually are on the recovery.

[00:23:34.580 → 00:23:36.920] And on some of our sites, we have seen a comeback

[00:23:36.920 → 00:23:40.640] of over 205 bird species.

[00:23:40.640 → 00:23:43.520] And the last point to mention here is,

[00:23:43.520 → 00:23:46.600] 'cause everybody talks nowadays about the carbon.

[00:23:46.600 → 00:23:49.840] So a big emphasis on our rewilding program

[00:23:49.840 → 00:23:51.760] has been the peat lands.

[00:23:51.760 → 00:23:54.880] And these are the one third of world soil-based carbon

[00:23:54.880 → 00:23:56.900] is in the Northern peat lands.

[00:23:56.900 → 00:24:00.000] So by saving them, restoring them and maintaining them

[00:24:00.000 → 00:24:04.960] for all, we are chipping in on the big climate task

[00:24:04.960 → 00:24:07.360] and of course try to do what we can.

[00:24:07.360 → 00:24:10.840] But these peat lands in the North are in a way

[00:24:10.840 → 00:24:13.920] the diamonds of our program because they are so massive

[00:24:13.920 → 00:24:17.400] in keeping carbon on the ground, biodiversity hotspots

[00:24:17.400 → 00:24:19.240] and so on and so on.

[00:24:19.240 → 00:24:21.000] Plus they are of course significant sites

[00:24:21.000 → 00:24:22.320] for the communities.

[00:24:22.320 → 00:24:25.480] - That's such a diversity of programs.

[00:24:25.480 → 00:24:29.200] And I'm really quickly interested in just

[00:24:29.200 → 00:24:31.920] over the 23 years of snow changes experience,

[00:24:31.920 → 00:24:35.380] like how, what is the network that you all have

[00:24:35.380 → 00:24:38.440] to coordinate these very different kinds of efforts

[00:24:38.440 → 00:24:42.880] from like building nomadic schools to conservation

[00:24:42.880 → 00:24:46.740] and bringing kind of lands back into your traditional use.

[00:24:46.740 → 00:24:48.320] Like these sound like a very,

[00:24:48.320 → 00:24:50.720] they require a lot of different expertise,

[00:24:50.720 → 00:24:54.560] local expertise and scientific and practitioner expertise.

[00:24:54.560 → 00:24:57.480] So I'm curious just what does the network look like

[00:24:57.480 → 00:25:01.000] and how do you all structure your projects?

[00:25:01.000 → 00:25:05.200] - So the skeleton or the background of how things work

[00:25:05.200 → 00:25:09.440] is that we have a range of regional coordinators,

[00:25:09.440 → 00:25:13.800] dedicated indigenous leaders or local community leaders.

[00:25:13.800 → 00:25:17.440] As I said, this side of the North comes in many forms.

[00:25:17.440 → 00:25:22.360] You have in Russia, for example, people like the Komi

[00:25:22.360 → 00:25:24.980] who are linguistically related again to us,
[00:25:24.980 → 00:25:28.640] but they don't have the status of indigenous peoples.
[00:25:28.640 → 00:25:33.000] Or if I think of Karelia, for example, our region,
[00:25:33.000 → 00:25:35.980] on this side of the border, we are considered to be,
[00:25:35.980 → 00:25:37.920] of course, and we are Finns
[00:25:37.920 → 00:25:39.960] or part of the mainstream society,
[00:25:39.960 → 00:25:42.920] but Russia considers one of the Karelian groups,
[00:25:42.920 → 00:25:45.600] the VEPS indigenous peoples.
[00:25:45.600 → 00:25:50.400] And the work is organized through these regional coordinators
[00:25:50.400 → 00:25:52.760] that are then working with the villages.
[00:25:53.800 → 00:25:55.680] They are also living in the villages.
[00:25:55.680 → 00:26:00.160] So that's the whole point, that they are not in a cityscape
[00:26:00.160 → 00:26:02.560] and phone up to the village every once in a while.
[00:26:02.560 → 00:26:04.280] They are actually in the villages.
[00:26:04.280 → 00:26:07.800] And for example, in Alaska, the native village
[00:26:07.800 → 00:26:11.680] of Unala Klet and the tribal council is informing
[00:26:11.680 → 00:26:14.600] what they want to happen out of snow change.
[00:26:14.600 → 00:26:16.480] So we never expand.
[00:26:16.480 → 00:26:18.780] We are not a university.
[00:26:18.780 → 00:26:21.200] We don't go out and have needs.
[00:26:22.060 → 00:26:25.640] Instead, we respond to the needs that are put forwards
[00:26:25.640 → 00:26:28.080] by the villages that are part of the network
[00:26:28.080 → 00:26:29.840] and the coordinators.
[00:26:29.840 → 00:26:32.200] Secondly, we have a steering committee
[00:26:32.200 → 00:26:35.920] of indigenous leaders to make sure that due diligence
[00:26:35.920 → 00:26:40.320] and the values of snow change are kept.
[00:26:40.320 → 00:26:43.440] For example, after the rewarding program started,
[00:26:43.440 → 00:26:48.240] we were approached by massively big oil companies.
[00:26:48.240 → 00:26:52.320] And they said, can we work with you for offsetting?
[00:26:52.320 → 00:26:55.360] Can we generate carbon credits through your program?
[00:26:55.360 → 00:27:00.360] We'll give you so much money that I don't know the zeros for.
[00:27:00.360 → 00:27:04.840] It was very big amount or something in that fashion.
[00:27:04.840 → 00:27:07.460] And the final answer to your question, Nicholas,
[00:27:07.460 → 00:27:12.320] is that we have very clear set of values.
[00:27:12.320 → 00:27:15.880] And those values are essentially saying that snow change
[00:27:15.880 → 00:27:19.360] tries to advance a certain worldview,
[00:27:19.360 → 00:27:24.360] which is distinct to every single community where we are.
[00:27:24.360 → 00:27:27.960] So the Finns can't say that, oh, well,
[00:27:27.960 → 00:27:30.540] we are actually using Xami knowledge.
[00:27:30.540 → 00:27:32.260] That's only for the Xami.
[00:27:32.260 → 00:27:35.560] But it doesn't take away from our understanding
[00:27:35.560 → 00:27:38.560] of traditional understanding of the boreal forest
[00:27:38.560 → 00:27:41.280] or the things we see on the lakes and the ice.
[00:27:41.280 → 00:27:44.860] And through the decades of work that we have done,
[00:27:44.860 → 00:27:47.620] we have, of course, through multiple exchanges
[00:27:47.620 → 00:27:50.040] and conferences and visits,

[00:27:50.040 → 00:27:52.560] we have realized that despite our differences,
[00:27:52.560 → 00:27:57.560] we are united in certain respect for land,
[00:27:57.560 → 00:27:59.960] need to revitalize our culture.
[00:27:59.960 → 00:28:05.480] We are living in a world where TikTok and Beyonce
[00:28:05.480 → 00:28:06.960] or the power to her, of course,
[00:28:06.960 → 00:28:09.920] but all these megastars and globalization
[00:28:09.920 → 00:28:14.540] has caused massive shifts in young people's capacity
[00:28:14.540 → 00:28:19.540] to adapt and adopt also the essential connections
[00:28:19.540 → 00:28:25.720] with the land as this would be called in North America.
[00:28:25.720 → 00:28:30.720] So at the heart of, so the one sentence takeaway is that,
[00:28:30.720 → 00:28:34.520] yes, snow change programs are diverse.
[00:28:34.520 → 00:28:37.120] We operate both on the highest UN level
[00:28:37.120 → 00:28:39.820] and in the village level through the North
[00:28:39.820 → 00:28:42.860] and actually in New Zealand and Australia as well.
[00:28:42.860 → 00:28:47.860] But the uniting factor is that we are in solidarity
[00:28:47.860 → 00:28:52.520] for a certain priority of how we navigate
[00:28:52.520 → 00:28:56.000] as villages and communities this new century.
[00:28:56.000 → 00:28:58.600] And at the heart of that realization
[00:28:58.600 → 00:29:02.040] is the core understanding that all of us have culture
[00:29:02.040 → 00:29:04.680] and traditions worth fighting for.
[00:29:04.680 → 00:29:07.760] And of course, the old people in every single place
[00:29:07.760 → 00:29:11.760] and every different culture have then informed us
[00:29:11.760 → 00:29:13.720] of the priorities of what to do.
[00:29:13.720 → 00:29:19.640] In Finland, it is the landscape rewilding and restoration.
[00:29:19.640 → 00:29:21.420] The landscape has been devastated.
[00:29:21.420 → 00:29:23.200] There's no more forest left
[00:29:23.200 → 00:29:26.440] and big lands have been greatly affected.
[00:29:26.440 → 00:29:29.080] Fine, that's then what we are doing.
[00:29:29.080 → 00:29:33.080] In Australia, to give you a final example,
[00:29:33.080 → 00:29:35.800] our regional coordinator Victor Steffensen,
[00:29:35.800 → 00:29:38.240] who is an indigenous Australian,
[00:29:38.240 → 00:29:42.640] was raised up by two very old indigenous Australian elders,
[00:29:42.640 → 00:29:47.040] Tommy George and Dr. Musgrave.
[00:29:47.040 → 00:29:51.560] And these ancient knowledge holders raised Victor
[00:29:51.560 → 00:29:55.200] to revitalize traditional burning on the country.
[00:29:55.200 → 00:30:00.200] And now Victor has been able to revitalize this
[00:30:00.200 → 00:30:03.360] across Australia, traditional land management
[00:30:03.360 → 00:30:06.360] and burning to take care of the country.
[00:30:06.360 → 00:30:09.560] So those are some of the examples
[00:30:09.560 → 00:30:12.360] of how in every distinct place,
[00:30:12.360 → 00:30:15.120] people are doing the work in their way,
[00:30:15.120 → 00:30:20.020] but we are united by the priority of what we need to do
[00:30:20.020 → 00:30:21.480] as a network as well.
[00:30:21.480 → 00:30:22.620] - This is awesome.
[00:30:22.620 → 00:30:25.800] And this is already tapping into the kind of information
[00:30:25.800 → 00:30:28.680] that we wanna share with early career scholars

[00:30:28.680 → 00:30:32.960] who are more grounded in Western scientific disciplines
[00:30:32.960 → 00:30:35.400] and in the academy in terms of thinking
[00:30:35.400 → 00:30:38.560] about their accountabilities and their solidarities
[00:30:38.560 → 00:30:42.200] in these processes of working in remote communities,
[00:30:42.200 → 00:30:45.080] working on issues of climate change
[00:30:45.080 → 00:30:47.920] and making sure that all of this ultimately does,
[00:30:47.920 → 00:30:49.840] that it's done in an ethical way
[00:30:49.840 → 00:30:53.080] and that it's done with the purposes of contributing
[00:30:53.080 → 00:30:55.600] valuable and practical knowledge
[00:30:55.600 → 00:30:58.680] to the broad base of adaptation,
[00:30:58.680 → 00:31:00.320] the needs to build resilience
[00:31:00.320 → 00:31:02.800] in these small remote communities that, yeah,
[00:31:02.800 → 00:31:07.160] have done the least to impact or to cause climate change
[00:31:07.160 → 00:31:10.100] and are unfortunately the frontline communities
[00:31:10.100 → 00:31:12.640] when it comes to seeing their life ways
[00:31:12.640 → 00:31:15.000] and their environments challenged.
[00:31:15.000 → 00:31:19.200] So this draws into the next question, which in you,
[00:31:19.200 → 00:31:21.660] feel free to kind of reiterate some of the points
[00:31:21.660 → 00:31:24.240] that you just made, but this phrase,
[00:31:24.240 → 00:31:27.560] co-production of knowledge has come into parlance
[00:31:27.560 → 00:31:28.760] in a lot of spaces.
[00:31:28.760 → 00:31:32.480] And I was curious kind of how that term
[00:31:32.480 → 00:31:35.800] or terms that bear a similarity to it.
[00:31:35.800 → 00:31:37.840] I don't know if you're familiar with two-eyed seeing
[00:31:37.840 → 00:31:41.120] or the two canoes lashed together,
[00:31:41.120 → 00:31:44.220] but like where science and indigenous knowledge meet,
[00:31:44.220 → 00:31:49.220] how do you all, yeah, how does that exchange happen
[00:31:49.220 → 00:31:52.520] in any of the work that Snow Change does,
[00:31:52.520 → 00:31:55.100] especially both with you having
[00:31:55.100 → 00:31:57.280] a more anthropological background
[00:31:57.280 → 00:32:00.120] and as well as natural scientists
[00:32:00.120 → 00:32:02.840] working with traditional knowledge holders?
[00:32:02.840 → 00:32:04.240] - A minor question.
[00:32:04.240 → 00:32:09.240] Well, today, of course, it is very clearly articulated
[00:32:09.240 → 00:32:13.320] that there's indigenous knowledge and local knowledge.
[00:32:13.320 → 00:32:15.320] For example, the Inuit Circumpolar Council
[00:32:15.320 → 00:32:20.320] has been very clear and vocal in saying that
[00:32:20.320 → 00:32:25.720] only indigenous peoples have this form of knowledge.
[00:32:25.720 → 00:32:28.600] Things are a little bit different on this side of the Arctic
[00:32:28.600 → 00:32:31.320] in the sense that I would add into the mix,
[00:32:31.320 → 00:32:35.400] even though this is not the favorite concept in North America,
[00:32:35.400 → 00:32:37.480] that there are still communities
[00:32:37.480 → 00:32:40.340] that are having traditional knowledge
[00:32:40.340 → 00:32:43.940] that are not indigenous by legal status, for example.
[00:32:43.940 → 00:32:46.200] Earlier, I was talking about the Komi
[00:32:46.200 → 00:32:49.760] who are a distinct Northern ethnic group,

[00:32:49.760 → 00:32:52.220] but they are not indigenous peoples,
[00:32:52.220 → 00:32:56.480] yet they maintain nomadic reindeer herders culture.
[00:32:56.480 → 00:32:59.880] They live off the land, they are hunters, fishers,
[00:32:59.880 → 00:33:03.600] and so they have maintained a distinct culture
[00:33:03.600 → 00:33:07.720] in the Russian boreal forest for thousands of years.
[00:33:07.720 → 00:33:12.720] So we have to be mindful of not getting too easy pass
[00:33:12.720 → 00:33:19.320] on this concept of suddenly in 1990s or 2000s,
[00:33:19.320 → 00:33:21.800] we wake up in a world where indigenous knowledge
[00:33:21.800 → 00:33:25.240] is somehow available and then there's science
[00:33:25.240 → 00:33:27.840] and science has been really naughty
[00:33:27.840 → 00:33:30.280] and now everything will be much better
[00:33:30.280 → 00:33:34.260] when we do, do I'd see.
[00:33:34.260 → 00:33:38.120] So in order to answer this in a concise but precise way
[00:33:38.120 → 00:33:40.680] of how we are looking at this actual thing,
[00:33:40.680 → 00:33:44.880] I would say the following that traditional knowledge
[00:33:44.880 → 00:33:48.220] or indigenous knowledge, depending on the context,
[00:33:48.220 → 00:33:51.360] has been under attack for centuries in the Arctic.
[00:33:51.360 → 00:33:55.080] There was a sustained campaign, for example, in Finland,
[00:33:55.080 → 00:33:59.280] to eliminate holders of traditional knowledge,
[00:33:59.280 → 00:34:03.200] both in the Sami and Finnish villages by the church
[00:34:03.200 → 00:34:05.480] and the state in the past centuries.
[00:34:05.480 → 00:34:10.900] Equally so, tremendously horrible events unfolded
[00:34:10.900 → 00:34:15.200] in North America, in Greenland, and other parts of the world
[00:34:15.200 → 00:34:18.740] where traditional or indigenous knowledge was seen
[00:34:18.740 → 00:34:23.740] as pagan or lower or primitive way of barbarians
[00:34:25.000 → 00:34:26.800] for the lack of better term.
[00:34:26.800 → 00:34:30.280] In fact, 100 years ago in Australia,
[00:34:30.280 → 00:34:32.520] indigenous Australians were hunted.
[00:34:32.520 → 00:34:35.080] There was a bounty on people's head
[00:34:35.080 → 00:34:36.720] as well as some parts of Africa.
[00:34:36.720 → 00:34:39.240] There has been some horrible events
[00:34:39.240 → 00:34:42.520] and that's why societies that possessed
[00:34:42.520 → 00:34:47.520] or possess indigenous knowledge survived these centuries.
[00:34:47.520 → 00:34:53.160] They are survivors of tremendously unique ways of knowing
[00:34:53.160 → 00:34:54.640] that are still here.
[00:34:54.640 → 00:34:56.200] So one of the things is no change.
[00:34:56.200 → 00:34:58.320] What we try to do is to, of course,
[00:34:58.320 → 00:35:03.320] be in full awareness of history, what actually happened.
[00:35:03.320 → 00:35:06.400] And then if the work requires, for example,
[00:35:06.400 → 00:35:09.640] an engagement with indigenous peoples,
[00:35:09.640 → 00:35:13.540] why don't they define what's appropriate
[00:35:13.540 → 00:35:18.380] using free prior informed consent and based on their need?
[00:35:18.380 → 00:35:22.360] Who are we or any other outside party
[00:35:22.360 → 00:35:25.680] should the village of Unala Klet, for example, in Alaska,
[00:35:25.680 → 00:35:29.440] who is one of our long-term partners over 20 years,
[00:35:29.440 → 00:35:32.880] come in and say, this is what's going on.

[00:35:32.880 → 00:35:37.880] So the humble understanding of the past
[00:35:37.880 → 00:35:41.540] is number one in our work.
[00:35:41.540 → 00:35:44.680] The second, where things get a little bit more complex,
[00:35:44.680 → 00:35:49.680] Nicholas, is that the context for the second realization
[00:35:49.680 → 00:35:53.800] is that a large portion of today's conversations
[00:35:53.800 → 00:35:57.200] on indigenous knowledge builds on Canadian
[00:35:57.200 → 00:36:01.960] and partly Alaskan, and in some ways New Zealand, Australia,
[00:36:01.960 → 00:36:05.840] common law countries where indigenous peoples have a treaty
[00:36:05.840 → 00:36:09.120] or land claim or co-management arrangements
[00:36:09.120 → 00:36:14.120] that are legally binding to include indigenous knowledge.
[00:36:14.120 → 00:36:18.160] For example, Inuvialo with final agreement from 1984,
[00:36:18.160 → 00:36:21.160] the longest running co-management regime in the world,
[00:36:21.160 → 00:36:24.240] that codified the use of indigenous knowledge
[00:36:24.240 → 00:36:29.120] alongside with science in a shared management of resources,
[00:36:29.120 → 00:36:33.720] fish, marine mammal hunting, and all sorts of other caribou
[00:36:33.720 → 00:36:37.280] and other mechanisms that we're trying to ratify
[00:36:37.280 → 00:36:40.180] and guarantee the rights of indigenous peoples.
[00:36:40.180 → 00:36:46.240] And through that mechanism, also the respect and
understanding
[00:36:46.680 → 00:36:50.200] that indigenous knowledge is vitally important
[00:36:50.200 → 00:36:55.120] and will be authored by the people alongside with scientists
[00:36:55.120 → 00:36:57.680] to come to a place of solutions.
[00:36:57.680 → 00:37:00.760] We don't have that in European North.
[00:37:00.760 → 00:37:04.640] There are no land claims, there are no treaties,
[00:37:04.640 → 00:37:07.680] there are no legally binding mechanisms
[00:37:07.680 → 00:37:10.560] that respect traditional knowledge
[00:37:10.560 → 00:37:15.160] or indigenous knowledge when decisions are made.
[00:37:16.680 → 00:37:20.560] Therefore, a lot of the practices from North America
[00:37:20.560 → 00:37:25.560] have in a way been exported to the European North
[00:37:25.560 → 00:37:30.080] and Siberia and been trying to be implemented here.
[00:37:30.080 → 00:37:32.320] And sometimes, funnily enough,
[00:37:32.320 → 00:37:34.460] it has even become an imposition.
[00:37:34.460 → 00:37:38.600] And what I mean by that is that these North American
practices
[00:37:38.600 → 00:37:43.320] from the Inuit or the Dene or Kwicheng or others
[00:37:43.320 → 00:37:47.080] are then unfit for the realities
[00:37:47.080 → 00:37:49.520] of the socio-historic context here.
[00:37:49.520 → 00:37:54.080] This is a continental law space and the SAMI, for example,
[00:37:54.080 → 00:37:59.080] have certain limited advances, CBD article HA,
[00:37:59.080 → 00:38:03.480] and some recognitions of SAMI knowledge,
[00:38:03.480 → 00:38:05.620] but these are weak defense mechanisms,
[00:38:05.620 → 00:38:07.560] for example, against mining,
[00:38:07.560 → 00:38:10.360] or how do we decide about boreal forest?
[00:38:10.360 → 00:38:13.360] How do we decide on reindeer herding in Finland?
[00:38:13.360 → 00:38:17.640] And that's why the task of the organization
[00:38:17.640 → 00:38:23.520] to come to an end has been to try to be brutally honest

[00:38:23.520 → 00:38:27.920] about what indigenous knowledge then means in Finland,
[00:38:27.920 → 00:38:31.880] in Sweden, in Greenland, and in Russia,
[00:38:31.880 → 00:38:35.320] using the best practices from where success
[00:38:35.320 → 00:38:38.880] has been able to happen, like in Canada,
[00:38:38.880 → 00:38:40.760] also learning from the critics
[00:38:40.760 → 00:38:43.640] of indigenous knowledge formalization
[00:38:43.640 → 00:38:46.880] with the likes of events of Paul Nadasdi,
[00:38:46.880 → 00:38:49.740] who wrote about Kuan'i First Nation
[00:38:49.740 → 00:38:52.200] and how indigenous knowledge,
[00:38:52.200 → 00:38:56.440] once it became codified in a legal context,
[00:38:56.440 → 00:38:59.180] eliminated the actual land use,
[00:38:59.180 → 00:39:02.800] because people started to get money for their life
[00:39:02.800 → 00:39:04.400] and the hunting stopped.
[00:39:04.400 → 00:39:07.080] And this had, according to him,
[00:39:07.080 → 00:39:10.080] adverse impacts on the living knowledge.
[00:39:10.080 → 00:39:12.440] I'm not here speaking on behalf of the Kuan'i
[00:39:12.440 → 00:39:15.240] or offer any criticism of their choices.
[00:39:15.240 → 00:39:17.960] I'm just quoting Nadasdi's deduction
[00:39:17.960 → 00:39:20.920] that formalization of indigenous knowledge
[00:39:20.920 → 00:39:22.880] may not always go well.
[00:39:22.880 → 00:39:27.140] This has been very important to conclude.
[00:39:27.140 → 00:39:29.840] I think we are known around the Arctic
[00:39:29.840 → 00:39:33.200] and especially these parts as an organization,
[00:39:33.200 → 00:39:36.880] that that's a stout defender of using indigenous knowledge
[00:39:36.880 → 00:39:39.640] and science in ecological restoration,
[00:39:39.640 → 00:39:41.040] community-based observations,
[00:39:41.040 → 00:39:43.440] or detection of species on the move
[00:39:43.440 → 00:39:45.320] or whatever the context.
[00:39:45.320 → 00:39:48.160] However, it has to be from here.
[00:39:48.160 → 00:39:50.800] It has to look, finish, if it's traditional knowledge
[00:39:50.800 → 00:39:52.880] from my village, for example,
[00:39:52.880 → 00:39:57.880] or if it's work by Asla Komburg in Oeoka in the Sami area,
[00:39:57.880 → 00:40:00.440] it's Sami knowledge.
[00:40:00.440 → 00:40:04.800] I don't have any rights or way of defining
[00:40:04.800 → 00:40:08.560] what they may think is a priority or how to use this.
[00:40:08.560 → 00:40:10.520] They will choose and tell us,
[00:40:10.520 → 00:40:11.920] and then we'll try to figure out
[00:40:11.920 → 00:40:14.240] if they want to work with snow change.
[00:40:14.240 → 00:40:17.920] So that's kind of pros and cons
[00:40:17.920 → 00:40:22.920] of massive impact of Canadian and partly Alaskan practices.
[00:40:22.920 → 00:40:27.920] And I'm also nowadays a bit sad.
[00:40:27.920 → 00:40:33.000] Maybe I can add it here because we so rarely get
[00:40:33.000 → 00:40:35.560] to discuss this particular question.
[00:40:35.560 → 00:40:39.400] So I'll just say a sentence that personally,
[00:40:39.400 → 00:40:42.000] being at it now for 25 years,
[00:40:42.000 → 00:40:46.280] I think it's a bit sad that the indigenous knowledge

[00:40:46.280 → 00:40:51.280] has evolved into an industry in the academia in North America.

[00:40:51.280 → 00:40:54.600] People have research licenses, they tick the box,

[00:40:54.600 → 00:40:56.440] and off you go.

[00:40:56.440 → 00:41:02.960] So the need and the focus comes from a university student

[00:41:02.960 → 00:41:07.960] or a research project or from the outside.

[00:41:07.960 → 00:41:13.360] And that's partly to blame given the recognition

[00:41:13.360 → 00:41:17.480] which has had tremendously important benefits,

[00:41:17.480 → 00:41:19.860] but it has also created an industry

[00:41:19.860 → 00:41:24.100] that we should talk about on how it's very exciting

[00:41:24.100 → 00:41:26.140] to study indigenous knowledge.

[00:41:26.140 → 00:41:27.960] Now it's very exciting to learn about

[00:41:27.960 → 00:41:29.800] how the Inuit understand the sea ice

[00:41:29.800 → 00:41:32.900] or is there something sacred in that knowledge

[00:41:32.900 → 00:41:34.880] or whatever the case.

[00:41:34.880 → 00:41:36.880] None of that is our business.

[00:41:36.880 → 00:41:41.560] I think it should be still defined by the knowledge holders,

[00:41:41.560 → 00:41:44.680] still in the language that the knowledge operates

[00:41:44.680 → 00:41:46.640] in that landscape.

[00:41:46.640 → 00:41:51.240] And that's in a way the raw and dynamic nature

[00:41:51.240 → 00:41:54.640] of how we are looking at that in the villages probably,

[00:41:54.640 → 00:41:57.200] while of course upholding and respecting all the rights

[00:41:57.200 → 00:41:59.800] and good practices and protocols.

[00:41:59.800 → 00:42:03.960] - That's really interesting.

[00:42:03.960 → 00:42:08.240] And it also sort of leads into the next question that I had

[00:42:08.240 → 00:42:11.320] because we were going to ask a bit about,

[00:42:11.320 → 00:42:14.400] because in our previous podcasts,

[00:42:14.400 → 00:42:19.400] we've spoken to people from Alaska and the Canadian North

[00:42:19.400 → 00:42:23.800] and a big emphasis is that thing of

[00:42:23.800 → 00:42:28.800] it's not community-based research that's important.

[00:42:28.800 → 00:42:31.640] It's the community-driven research,

[00:42:31.640 → 00:42:33.640] that change of mindset,

[00:42:33.640 → 00:42:37.600] it's the research that comes from the community itself

[00:42:37.600 → 00:42:40.640] and not just, as you said, a tick box

[00:42:40.640 → 00:42:45.640] on a student or a researcher's application form or proposal.

[00:42:45.640 → 00:42:51.600] I guess, how has Snow Change tried to bring in

[00:42:51.600 → 00:42:56.600] this community-driven research into your local communities

[00:42:56.600 → 00:43:02.080] that you work with and not just the Canadian

[00:43:02.080 → 00:43:05.560] and Alaskan communities and Greenland communities?

[00:43:05.560 → 00:43:09.400] - Well, the starting point, which is a bit of the same

[00:43:09.400 → 00:43:13.280] as I said earlier, but the it's so important fact

[00:43:13.280 → 00:43:15.800] that it needs to be clearly stated

[00:43:15.800 → 00:43:19.560] is that the big society, Asian states,

[00:43:19.560 → 00:43:22.800] and their agencies like the churches

[00:43:22.800 → 00:43:25.840] had a concentrated attack on indigenous

[00:43:25.840 → 00:43:29.360] and traditional knowledge systems for centuries.

[00:43:29.360 → 00:43:34.400] And science was clearly linked as we have heard

[00:43:34.400 → 00:43:38.120] from Maoris Gollaris, Linda Tuhiwi-Smith and many others.
[00:43:38.120 → 00:43:41.200] Her husband, Crayhem, who is a good friend,
[00:43:41.200 → 00:43:46.200] that the research and scientific exploration
[00:43:46.760 → 00:43:50.920] was associated for centuries with the European expression
[00:43:50.920 → 00:43:51.880] of power.
[00:43:51.880 → 00:43:56.800] So a lot of the expeditions that were carried out
[00:43:56.800 → 00:43:59.920] between 1400s and of course in the Arctic,
[00:43:59.920 → 00:44:04.800] then the North was the last place to be the target
[00:44:04.800 → 00:44:09.160] of both natural resources, extraction like whaling
[00:44:09.160 → 00:44:12.200] and also the scientific expeditions.
[00:44:12.200 → 00:44:16.080] Research was a mechanism by which things were ruled over.
[00:44:17.040 → 00:44:22.040] If we name it these species or this land or rename these,
[00:44:22.040 → 00:44:27.360] it becomes in a way a detachment from the realization
[00:44:27.360 → 00:44:30.640] that all of, or let me put it this way.
[00:44:30.640 → 00:44:33.160] In some ways, there is no Arctic at all.
[00:44:33.160 → 00:44:38.760] And I warn sometimes people to try to be very open-minded
[00:44:38.760 → 00:44:41.480] when I say that, but what I mean by that
[00:44:41.480 → 00:44:46.480] is that the Arctic is a concept that these researchers
[00:44:46.480 → 00:44:51.120] and explorers made or the European civilizations
[00:44:51.120 → 00:44:54.000] that look to the North conjured up.
[00:44:54.000 → 00:44:57.360] Instead, the physical and geographical space
[00:44:57.360 → 00:45:01.520] of what we call the Arctic was for thousands of years
[00:45:01.520 → 00:45:05.560] in most cases, said or amalgamation
[00:45:05.560 → 00:45:09.240] of many distinct indigenous homelands,
[00:45:09.240 → 00:45:12.800] all of which had their own justice systems,
[00:45:12.800 → 00:45:15.320] orally based, often orally based,
[00:45:15.320 → 00:45:20.320] high society, poetry, music, they had customary law,
[00:45:20.320 → 00:45:25.040] they had resource mechanisms, natural resource management
[00:45:25.040 → 00:45:27.640] regimes like the Sami Sida
[00:45:27.640 → 00:45:31.160] that were just functioning rather well.
[00:45:31.160 → 00:45:33.640] Actually, they were so well-functioning
[00:45:33.640 → 00:45:36.400] that when the European explorers arrived
[00:45:36.400 → 00:45:39.880] in many Arctic locations,
[00:45:39.880 → 00:45:43.200] people thought they are arriving in pristine wilderness.
[00:45:43.200 → 00:45:47.720] They, what they thought looks like untouched wilderness
[00:45:47.720 → 00:45:51.600] of no man's land and we can claim it under the King,
[00:45:51.600 → 00:45:56.600] this and that, or Queen was carefully coexisting,
[00:45:56.600 → 00:45:59.720] for example, with the Inuits or the Dene
[00:45:59.720 → 00:46:03.400] or the Quichen or Haida or others further south.
[00:46:03.400 → 00:46:07.600] And it was just that most of these indigenous peoples
[00:46:07.600 → 00:46:11.320] managed and owned their lands so well
[00:46:11.320 → 00:46:13.560] that there was no collapse.
[00:46:13.560 → 00:46:16.600] And the Europeans could come to a land of abundance
[00:46:16.600 → 00:46:20.040] and in their blindness, they didn't realize
[00:46:20.040 → 00:46:23.400] that it's having enormous resources
[00:46:23.400 → 00:46:26.100] that are what they thought available.

[00:46:26.100 → 00:46:29.960] So what I'm trying to say is that there's a historic context
[00:46:29.960 → 00:46:34.040] of why this kind of indigenous knowledge
[00:46:34.040 → 00:46:37.880] has been looked down on, tried to be destroyed
[00:46:37.880 → 00:46:41.320] at its worst and discontinued.
[00:46:41.320 → 00:46:47.680] One of the worst damages for how Europe is responsible
[00:46:47.680 → 00:46:51.800] and Finland, the state of Finland in its own part
[00:46:51.800 → 00:46:54.240] on the destruction of these knowledge systems
[00:46:54.240 → 00:46:56.800] was of course the boarding schools
[00:46:56.800 → 00:47:00.560] and the horrible idea that we must weed out
[00:47:00.560 → 00:47:04.240] the indigenous person from a child
[00:47:04.240 → 00:47:07.980] and have a proper member of society,
[00:47:07.980 → 00:47:11.840] which meant mental elimination or banning
[00:47:11.840 → 00:47:15.280] of speaking of indigenous languages around the North
[00:47:15.280 → 00:47:20.120] in the Soviet North and also in North America and in Finland.
[00:47:20.120 → 00:47:24.840] So we were trying to destroy as European civilizations,
[00:47:24.840 → 00:47:28.640] if I call it that, the living engagement
[00:47:28.640 → 00:47:32.600] that's best expressed in the indigenous languages.
[00:47:32.600 → 00:47:35.720] And of course the language contains the knowledge.
[00:47:35.720 → 00:47:38.360] So that's in a way the context of where we come from.
[00:47:38.360 → 00:47:43.360] And when you are then living in 2000s onwards to now or
2023,
[00:47:43.360 → 00:47:48.000] it's really continuing on the understanding
[00:47:48.000 → 00:47:52.040] that it can only be the community today
[00:47:52.040 → 00:47:54.840] or the family or the individual that informs
[00:47:54.840 → 00:47:57.480] how they want to be engaging with science
[00:47:57.480 → 00:48:00.520] and what's meaningful to them.
[00:48:00.520 → 00:48:04.120] Especially now that we are entering in conclusion
[00:48:04.120 → 00:48:09.120] to a new era of massive extractives in the Arctic,
[00:48:09.120 → 00:48:12.920] world has to switch to electric vehicles.
[00:48:12.920 → 00:48:17.120] It needs the rare earth minerals and oh well,
[00:48:17.120 → 00:48:21.480] well, this will imply another wave of large mining operations,
[00:48:21.480 → 00:48:26.480] for example, in the Sami home area or in the Boreal.
[00:48:26.480 → 00:48:29.600] My own house has been claimed
[00:48:29.600 → 00:48:33.040] by nine different international mining companies
[00:48:33.040 → 00:48:38.040] because we are on a very rich area of metals and uranium.
[00:48:38.040 → 00:48:42.320] And we have to fight these processes and entities
[00:48:42.320 → 00:48:46.360] as a part of striving to maintain just the existence
[00:48:46.360 → 00:48:48.760] of non-traditional community.
[00:48:48.760 → 00:48:52.880] So in many ways, the research needs are driven
[00:48:52.880 → 00:48:56.040] by the factors of every day.
[00:48:56.040 → 00:48:58.440] Certainly climate change is one of them.
[00:48:58.440 → 00:49:00.400] It is very concerning.
[00:49:00.400 → 00:49:02.400] It's now plus six in our village
[00:49:02.400 → 00:49:07.400] when it's supposed to be minus 30, 25 in Celsius.
[00:49:07.400 → 00:49:09.720] It's plus six.
[00:49:09.720 → 00:49:12.600] Last week I was in Greenland and we heard

[00:49:12.600 → 00:49:16.360] that it's the warmest in thousand years in Greenland.
[00:49:16.360 → 00:49:18.200] So clearly climate change is part of this
[00:49:18.200 → 00:49:19.960] and we need to study it.
[00:49:19.960 → 00:49:23.720] But often I think that it's actually the land-crabbing
[00:49:23.720 → 00:49:27.960] and the land use driven changes that are far more urgent
[00:49:27.960 → 00:49:29.560] as well as the loss of knowledge
[00:49:29.560 → 00:49:34.480] with many young people moving on to big cities,
[00:49:34.480 → 00:49:38.280] not finding self-esteem, hope or interest
[00:49:38.280 → 00:49:41.720] in the life of a reindeer herder or a fisher.
[00:49:41.720 → 00:49:44.320] And we were kind of trying to manage that
[00:49:44.320 → 00:49:47.320] with our master apprentice program for our fisheries.
[00:49:47.320 → 00:49:51.600] But those are some of the levels
[00:49:51.600 → 00:49:55.680] or stratification of urgency is where research needs
[00:49:55.680 → 00:49:59.120] to happen to tackle timber logging, for example,
[00:49:59.120 → 00:50:03.480] or staving off a mine and creating a land use
[00:50:03.480 → 00:50:05.360] and occupancy mapping.
[00:50:05.360 → 00:50:08.480] And then thirdly, somewhere on the list nowadays is climate.
[00:50:08.480 → 00:50:10.360] But those are some of the examples
[00:50:10.360 → 00:50:12.880] of trying to answer your question.
[00:50:12.880 → 00:50:14.080] - Thanks so much, Tero.
[00:50:14.080 → 00:50:17.520] And yeah, thinking this is definitely a topic
[00:50:17.520 → 00:50:19.000] that I've been focused on a lot,
[00:50:19.000 → 00:50:21.160] which is we're here conversing in English
[00:50:21.160 → 00:50:24.200] and English being the international language of science
[00:50:24.200 → 00:50:28.080] really since the 1990s,
[00:50:28.080 → 00:50:29.680] since the collapse of the Soviet Union,
[00:50:29.680 → 00:50:32.160] it really achieving that level of dominance.
[00:50:32.160 → 00:50:35.320] And that English has a very particular way
[00:50:35.320 → 00:50:38.200] of approaching categorizations,
[00:50:38.200 → 00:50:41.320] distinct lines between different things.
[00:50:41.320 → 00:50:43.880] And so as you're pointing out, the Arctic being this
[00:50:43.880 → 00:50:48.640] purely geoclimatically defined area that kind of supersedes
[00:50:48.640 → 00:50:53.280] or is imposed upon what happened historical homelands
[00:50:53.280 → 00:50:55.880] that have been ensconced in nation states,
[00:50:55.880 → 00:50:59.360] just a need as you've pointed out to historicize,
[00:50:59.360 → 00:51:03.200] contextualize all these things, contextualize the development
[00:51:03.200 → 00:51:05.120] of these knowledges and the development
[00:51:05.120 → 00:51:07.400] of different categories that we're thinking in.
[00:51:07.400 → 00:51:10.680] And to your point about the academic industry
[00:51:10.680 → 00:51:12.680] of traditional knowledge,
[00:51:12.680 → 00:51:15.360] I even think that just the reduction of these things
[00:51:15.360 → 00:51:18.080] of that knowledge that is so specific
[00:51:18.080 → 00:51:20.720] to every single community and so specific
[00:51:20.720 → 00:51:23.760] to every indigenous nation's history,
[00:51:23.760 → 00:51:27.480] to reduce that to several abbreviations,
[00:51:27.480 → 00:51:31.200] TEK, IK, that does exactly what you're saying.

[00:51:31.200 → 00:51:33.800] It makes them easily consumed,
[00:51:33.800 → 00:51:38.800] easily kind of integrated into a lot of existing structures.
[00:51:40.000 → 00:51:43.680] So I wholeheartedly agree with those observations.
[00:51:43.680 → 00:51:46.280] And I wanted to go to transition
[00:51:46.280 → 00:51:48.280] into one of our last questions.
[00:51:48.280 → 00:51:50.680] We're slightly changing tack here,
[00:51:50.680 → 00:51:53.440] but you're pointing out how climate change
[00:51:53.440 → 00:51:55.520] is this very fetishized issue.
[00:51:55.520 → 00:51:59.040] And it takes center stage in global discussions
[00:51:59.040 → 00:52:00.360] of environmentalism.
[00:52:00.360 → 00:52:02.760] And in fact, it's probably displaced
[00:52:02.760 → 00:52:05.920] a lot of these other issues that are simultaneous
[00:52:05.920 → 00:52:09.720] and ongoing in terms of land degradation,
[00:52:09.720 → 00:52:12.840] detoxification of resources.
[00:52:12.840 → 00:52:17.120] Everything of that nature kind of seems to take second tier
[00:52:17.120 → 00:52:21.480] to this broader existential question of carbon emissions.
[00:52:21.480 → 00:52:23.960] And that's probably partly because carbon is something
[00:52:23.960 → 00:52:27.200] that seems like you can turn it into a market.
[00:52:27.200 → 00:52:29.040] You can create these carbon markets
[00:52:29.040 → 00:52:30.560] like you all were presented with.
[00:52:30.560 → 00:52:34.800] And also it's quantifiable and doesn't,
[00:52:34.800 → 00:52:37.960] isn't the most disruptive to the kind of existing
[00:52:37.960 → 00:52:42.000] status quo order of the way that land is distributed
[00:52:42.000 → 00:52:46.480] and used, it still allows us to extract
[00:52:46.480 → 00:52:50.160] and keep our goodies and keep the civilization,
[00:52:50.160 → 00:52:54.160] this global modern civilization kind of turning,
[00:52:54.160 → 00:52:57.480] turning its cranks, maybe with a different energy source,
[00:52:57.480 → 00:52:59.800] but at the exact same scale and scope.
[00:52:59.800 → 00:53:04.160] So with this carbon focus, you've been part of the IPCC work
[00:53:04.160 → 00:53:08.960] and we're curious if, I know a piece was just released,
[00:53:08.960 → 00:53:11.240] I can't remember the authors, but kind of assessing
[00:53:11.240 → 00:53:14.360] the degree to which traditional indigenous knowledge
[00:53:14.360 → 00:53:18.360] has made its way into IPCC final reports
[00:53:18.360 → 00:53:21.280] and considerations and calculations.
[00:53:21.280 → 00:53:24.480] And we wanna know what your experience of that has been
[00:53:24.480 → 00:53:27.360] in terms of any kind of cultural shift
[00:53:27.360 → 00:53:32.360] within the work of the IPCC in terms of better understanding
[00:53:32.680 → 00:53:35.040] what indigenous knowledge brings to the table
[00:53:35.040 → 00:53:38.840] and how that works towards biodiversity goals
[00:53:38.840 → 00:53:41.160] or climate change research.
[00:53:41.160 → 00:53:43.960] - So do you have like 12 hours left on the show or?
[00:53:43.960 → 00:53:46.280] - No, I know.
[00:53:46.280 → 00:53:47.120] - Oh boy.
[00:53:47.120 → 00:53:50.520] - You approved, Tero, you approved these questions.
[00:53:50.520 → 00:53:56.280] I know, they're all big.
[00:53:56.280 → 00:54:00.760] So the IPCC just, the climate panel just released

[00:54:01.760 → 00:54:05.760] a bit less than a year ago, the sixth assessment report,
[00:54:05.760 → 00:54:08.320] which is every five to seven years,
[00:54:08.320 → 00:54:12.280] how the UN Climate Science Party names
[00:54:12.280 → 00:54:16.480] and confirms the scientific understanding of where we are.
[00:54:16.480 → 00:54:19.880] Now, before I say anything else,
[00:54:19.880 → 00:54:22.600] the panel is subject to number of criticisms.
[00:54:22.600 → 00:54:27.600] Why seven years, why takes so long and so on and so on.
[00:54:29.160 → 00:54:32.840] Now that I was, so I served in the panel
[00:54:32.840 → 00:54:36.520] as the lead author for Europe and also lead author
[00:54:36.520 → 00:54:39.920] for the Polar Regions chapter.
[00:54:39.920 → 00:54:43.280] And in the five years that I was part of the panel,
[00:54:43.280 → 00:54:47.160] I was then assigned as well kind of the coordinating role
[00:54:47.160 → 00:54:50.240] for indigenous knowledge and local knowledge
[00:54:50.240 → 00:54:54.240] as the panel calls these points or ways of knowing.
[00:54:54.240 → 00:54:56.120] And I was then also part of the summary
[00:54:56.120 → 00:54:59.920] for the policymakers, which is the most influential part
[00:54:59.920 → 00:55:02.480] out of the huge report.
[00:55:02.480 → 00:55:05.320] It's then summarized into the SBM
[00:55:05.320 → 00:55:06.880] that's read by the governments
[00:55:06.880 → 00:55:09.960] and they will spend the three minutes of their time
[00:55:09.960 → 00:55:11.280] on those points.
[00:55:11.280 → 00:55:15.880] So when the sixth assessment cycle started,
[00:55:15.880 → 00:55:20.880] 2017, 2018, we were informed that coming out
[00:55:20.880 → 00:55:25.640] of the fifth cycle, 2014, and the special report
[00:55:25.640 → 00:55:29.440] on 1.5, which was very influential around the world,
[00:55:29.440 → 00:55:32.800] as well as ASROC, which was the special report
[00:55:32.800 → 00:55:34.800] on oceans and cryosphere,
[00:55:34.800 → 00:55:39.280] the panel had been hearing from the Inuit Circumpolar Council
[00:55:39.280 → 00:55:41.760] and many other indigenous groups
[00:55:41.760 → 00:55:46.120] that it has to do much better on indigenous knowledge.
[00:55:46.120 → 00:55:52.040] So the sixth assessment cycle started with the awareness
[00:55:52.120 → 00:55:56.680] that the panel has to perform so much better.
[00:55:56.680 → 00:56:00.800] The difficulty is that unlike all people know,
[00:56:00.800 → 00:56:05.120] the panel can only accept evidence or review things
[00:56:05.120 → 00:56:08.560] which are peer-reviewed science in journals
[00:56:08.560 → 00:56:11.960] or very high-end technical reports
[00:56:11.960 → 00:56:13.720] that's known as gray literature.
[00:56:13.720 → 00:56:19.200] It can't accept evidence or testimony from, for example,
[00:56:19.200 → 00:56:20.600] indigenous knowledge holders,
[00:56:20.600 → 00:56:24.600] which is often personified, its oral history,
[00:56:24.600 → 00:56:28.760] its statements given by elders or a community,
[00:56:28.760 → 00:56:30.040] and it won't fly.
[00:56:30.040 → 00:56:34.680] And we were not told by the chairs or the chief scientists
[00:56:34.680 → 00:56:38.000] how we are supposed to be then integrating
[00:56:38.000 → 00:56:41.160] or including integration, of course,
[00:56:41.160 → 00:56:44.600] connotes also problematic views.

[00:56:44.600 → 00:56:47.200] How did we solve it?

[00:56:47.200 → 00:56:52.000] In short, we found a group of,

[00:56:52.000 → 00:56:55.040] founded a group of eight voluntary lead authors

[00:56:55.040 → 00:56:59.240] around the world, Latin America, North America, Asia,

[00:56:59.240 → 00:57:02.880] Africa, the Arctic, Europe, and so on

[00:57:02.880 → 00:57:07.320] that dedicated their time on trying to do better.

[00:57:07.320 → 00:57:12.120] And we were, of course, hit by COVID and so on.

[00:57:12.120 → 00:57:16.480] So that was partly affecting the sixth assessment cycle.

[00:57:17.200 → 00:57:21.640] But following concentrated conversations,

[00:57:21.640 → 00:57:25.000] so what happens in the panel is that it meets twice a year

[00:57:25.000 → 00:57:28.880] around the world in different locations.

[00:57:28.880 → 00:57:33.560] And in between time is then supposed to be reviewed time

[00:57:33.560 → 00:57:37.800] when we assess, I think, 39,000 scientific articles

[00:57:37.800 → 00:57:40.120] to come to a place of consensus

[00:57:40.120 → 00:57:41.720] on what's going on in climate change.

[00:57:41.720 → 00:57:45.960] And it's the most influential scientific body

[00:57:45.960 → 00:57:47.160] in the world.

[00:57:47.160 → 00:57:50.440] It's also very arrogant in its position,

[00:57:50.440 → 00:57:52.480] but it's in some ways true

[00:57:52.480 → 00:57:57.480] because whatever IPCC states becomes often economic choices,

[00:57:57.480 → 00:58:01.760] policy options, funding, or lack of funding,

[00:58:01.760 → 00:58:02.680] and so on and so on.

[00:58:02.680 → 00:58:07.200] So to be concise on a very complex issue,

[00:58:07.200 → 00:58:10.880] there was a group of eight voluntary lead authors

[00:58:10.880 → 00:58:13.240] that decided that we'll,

[00:58:13.240 → 00:58:15.720] why don't we have something completely new?

[00:58:15.720 → 00:58:17.680] This is on our watch,

[00:58:17.680 → 00:58:20.360] and it has to be something that changes things,

[00:58:20.360 → 00:58:23.000] at least for the next assessment

[00:58:23.000 → 00:58:26.280] that's now starting in a few years.

[00:58:26.280 → 00:58:31.280] And we agreed that we'll have a high-end technical report

[00:58:31.280 → 00:58:36.200] called "Indigenous and Local Knowledge Yearbook."

[00:58:36.200 → 00:58:40.680] And what we did was that we issued a call of statements

[00:58:40.680 → 00:58:45.200] to global indigenous networks by saying,

[00:58:45.200 → 00:58:47.240] "Look, there's a window here.

[00:58:47.240 → 00:58:49.400] There's a certain period of time.

[00:58:49.400 → 00:58:53.360] It was from autumn, 2020 to spring, 2021.

[00:58:53.360 → 00:58:57.680] Whoever you are out there, wherever you are,

[00:58:57.680 → 00:59:00.280] if you are a local community or indigenous peoples

[00:59:00.280 → 00:59:03.520] or a community, tell us what's important.

[00:59:03.520 → 00:59:08.520] Send in any language available in the UN your statement,

[00:59:08.520 → 00:59:12.280] or record it, put it out there as a YouTube video,

[00:59:12.280 → 00:59:14.120] or whatever the case."

[00:59:14.120 → 00:59:17.080] And we'll include it in the yearbook.

[00:59:17.080 → 00:59:20.080] Now we have to understand all of this happened

[00:59:20.080 → 00:59:21.920] around the world at a time of COVID.
[00:59:21.920 → 00:59:23.920] So we were, of course,
[00:59:23.920 → 00:59:25.880] learning from the devastating impact
[00:59:25.880 → 00:59:28.480] of this pandemic on indigenous peoples,
[00:59:28.480 → 00:59:30.720] people didn't want to travel and so on.
[00:59:30.720 → 00:59:35.640] However, we did get enough of materials around the world
[00:59:35.640 → 00:59:36.840] to have a yearbook.
[00:59:36.840 → 00:59:41.280] And in that process, we also found a way
[00:59:41.280 → 00:59:44.520] that it's not an official IPCC document,
[00:59:44.520 → 00:59:49.200] but we can quote that document in the actual assessment.
[00:59:49.200 → 00:59:50.760] And that's what we did.
[00:59:50.760 → 00:59:53.280] So for the sixth assessment cycle,
[00:59:53.280 → 00:59:56.640] we had now a resource that the panel could access
[00:59:56.640 → 00:59:59.160] that had been consented and authored
[00:59:59.160 → 01:00:01.640] by knowledge holders around the world
[01:00:01.640 → 01:00:04.400] on key critically important points
[01:00:04.400 → 01:00:09.400] that we then distributed both into the regional chapters
[01:00:09.720 → 01:00:12.680] as well as sectoral chapters like water
[01:00:12.680 → 01:00:17.560] or desertification or the polar chapter.
[01:00:17.560 → 01:00:20.360] And the second one was much easier.
[01:00:20.360 → 01:00:22.800] We invited some chapter authors
[01:00:22.800 → 01:00:24.760] who are indigenous to contribute.
[01:00:24.760 → 01:00:27.880] And that was, of course, increasing some
[01:00:27.880 → 01:00:31.680] of the indigenous authorship in the panel's work.
[01:00:31.680 → 01:00:35.320] But for me, I think the most important step
[01:00:35.320 → 01:00:37.400] that we were able to take was to,
[01:00:38.360 → 01:00:40.560] for the first time in the panel's work,
[01:00:40.560 → 01:00:43.400] to be able to find a mechanism
[01:00:43.400 → 01:00:46.560] by which any indigenous or local community
[01:00:46.560 → 01:00:50.400] can offer evidence, testimony or a statement,
[01:00:50.400 → 01:00:53.680] and it will flow into the work of the panel.
[01:00:53.680 → 01:00:56.800] And the last point, the cherry on the cake,
[01:00:56.800 → 01:01:00.400] is that as we came out of the SPM,
[01:01:00.400 → 01:01:02.800] it takes two weeks, you fight the governments,
[01:01:02.800 → 01:01:07.440] you discuss word by word how naughty they have been
[01:01:07.440 → 01:01:09.680] or haven't been, and they have to approve it.
[01:01:09.680 → 01:01:12.040] So it's a big diplomatic effort,
[01:01:12.040 → 01:01:13.800] unlike rest of the report.
[01:01:13.800 → 01:01:17.080] That's clear, but the SPM is a big fight.
[01:01:17.080 → 01:01:19.560] And we were late in the game.
[01:01:19.560 → 01:01:22.160] We were late two days.
[01:01:22.160 → 01:01:27.160] The war in Ukraine had just started on the final day.
[01:01:27.160 → 01:01:31.400] And then we came to a section where the draft said,
[01:01:31.400 → 01:01:34.280] climate change is linked with colonialism,
[01:01:34.280 → 01:01:36.240] both past and present.
[01:01:37.120 → 01:01:40.120] And somehow we got it through.

[01:01:40.120 → 01:01:43.800] So it was the very first time ever in an IPCC document
[01:01:43.800 → 01:01:48.800] that a group of us in the final dying hours of the last day,
[01:01:48.800 → 01:01:51.800] I guess the governments were too tired,
[01:01:51.800 → 01:01:53.840] somehow squeezed it through.
[01:01:53.840 → 01:01:57.120] And for the little that it matters,
[01:01:57.120 → 01:02:01.080] it became a big statement on why
[01:02:01.080 → 01:02:03.240] the catastrophic events are here,
[01:02:03.240 → 01:02:06.960] as opposed to only talking about adaptation and mitigation.
[01:02:06.960 → 01:02:07.880] And so on.
[01:02:07.880 → 01:02:10.680] So those are the three points to summarize.
[01:02:10.680 → 01:02:12.800] There was a mechanism by which indigenous knowledge
[01:02:12.800 → 01:02:15.760] was finally included in part, not perfect,
[01:02:15.760 → 01:02:18.000] but at least a model.
[01:02:18.000 → 01:02:22.680] Secondly, we were able to increase the chapter authorship
[01:02:22.680 → 01:02:25.600] of indigenous peoples to participate.
[01:02:25.600 → 01:02:29.880] And finally, the SPM summary for the policymakers,
[01:02:29.880 → 01:02:33.640] it actually states that colonialism is the root cause
[01:02:33.640 → 01:02:37.800] of our problems, both in the past and today.
[01:02:37.800 → 01:02:40.840] - That is such a powerful statement.
[01:02:40.840 → 01:02:44.680] And I know that it's even here in South Africa,
[01:02:44.680 → 01:02:48.440] the local communities, it's a lot of the problems
[01:02:48.440 → 01:02:51.840] that stem from colonialization.
[01:02:51.840 → 01:02:55.840] And it's political, but it's also the ecological
[01:02:55.840 → 01:03:00.640] and it's the environmental issues that stem from it.
[01:03:00.640 → 01:03:04.440] So it's a very, very strong statement.
[01:03:04.440 → 01:03:08.520] Finally get approved, that stamp, it's wonderful.
[01:03:08.520 → 01:03:12.720] So for our last question, we usually ask
[01:03:12.720 → 01:03:17.000] at the end of every podcast that our guests
[01:03:17.000 → 01:03:20.960] to give some advice to our early career researchers
[01:03:20.960 → 01:03:25.600] that are listening to what can they do
[01:03:25.600 → 01:03:29.720] to establish a working partnership
[01:03:29.720 → 01:03:33.280] with indigenous communities or their local community
[01:03:33.280 → 01:03:35.960] during their graduate studies,
[01:03:35.960 → 01:03:39.240] during the research project.
[01:03:39.240 → 01:03:41.520] Would you mind giving a few tips?
[01:03:41.520 → 01:03:46.240] - So boys and girls out there in the university,
[01:03:46.240 → 01:03:48.840] this is Uncle Tero from Snow Change.
[01:03:48.840 → 01:03:52.200] I am a veteran of 25 years of Arctic studies
[01:03:52.200 → 01:03:54.280] with the indigenous and local communities.
[01:03:54.280 → 01:03:56.200] Here's a couple of points.
[01:03:56.200 → 01:03:59.360] When you wanna engage with the indigenous peoples,
[01:03:59.360 → 01:04:02.600] don't if you are not ready for it.
[01:04:02.600 → 01:04:06.840] So always ask yourself, why am I doing this?
[01:04:06.840 → 01:04:10.360] Am I doing this because it's exciting,
[01:04:10.360 → 01:04:13.240] I wanna go off to an Arctic adventure
[01:04:13.240 → 01:04:14.400] and so on and so on.

[01:04:14.400 → 01:04:20.040] Think very carefully before you do any kind of outreach.
[01:04:20.040 → 01:04:23.280] If it's on your need, your needs,
[01:04:24.800 → 01:04:27.200] it may be very different than the needs
[01:04:27.200 → 01:04:30.160] of the actual people living in these villages
[01:04:30.160 → 01:04:34.360] that have undergone massive transformations
[01:04:34.360 → 01:04:36.080] not all of them create.
[01:04:36.080 → 01:04:40.240] They have been part of the colonial impact for centuries.
[01:04:40.240 → 01:04:44.000] And if they are now rebuilding their lives,
[01:04:44.000 → 01:04:46.680] they may be on a better place.
[01:04:46.680 → 01:04:51.680] You have to be in 120% awareness of the past
[01:04:51.680 → 01:04:54.240] what actually happened.
[01:04:54.880 → 01:04:57.840] If you don't know, find out.
[01:04:57.840 → 01:05:00.480] There are things called books, even today,
[01:05:00.480 → 01:05:02.240] they have a great interface,
[01:05:02.240 → 01:05:05.080] no need to recharge the battery.
[01:05:05.080 → 01:05:07.400] They are in the library.
[01:05:07.400 → 01:05:10.640] And by reading about the history of the Arctic
[01:05:10.640 → 01:05:14.040] and research about indigenous peoples,
[01:05:14.040 → 01:05:17.600] you will find out that this is a very complex field.
[01:05:17.600 → 01:05:21.360] It's also a very demanding field.
[01:05:21.360 → 01:05:24.000] So think twice before you go.
[01:05:24.960 → 01:05:29.400] And ask at every point, why am I reaching out
[01:05:29.400 → 01:05:32.360] or why am I being going out there?
[01:05:32.360 → 01:05:34.200] What's the motive?
[01:05:34.200 → 01:05:39.400] Maybe I'm better off studying my own community,
[01:05:39.400 → 01:05:41.520] our fishermen or the coast in Maine
[01:05:41.520 → 01:05:44.000] or Halifax or wherever.
[01:05:44.000 → 01:05:47.000] Think about this.
[01:05:47.000 → 01:05:50.480] Indigenous peoples are unique human beings,
[01:05:50.480 → 01:05:54.000] but they are human beings swamped with the things
[01:05:54.000 → 01:05:56.440] that they have to tackle in the Arctic.
[01:05:56.440 → 01:05:58.440] Climate change is only one of them.
[01:05:58.440 → 01:06:01.120] They are having to deal with things like mining,
[01:06:01.120 → 01:06:06.760] infrastructure buildup, oil and gas, tourism,
[01:06:06.760 → 01:06:11.480] loss of language, youth, suicide, alcoholism, abuse,
[01:06:11.480 → 01:06:13.920] or whatever the case might be.
[01:06:13.920 → 01:06:18.920] And think very carefully why you want to engage
[01:06:19.680 → 01:06:20.920] down this pathway.
[01:06:20.920 → 01:06:24.240] And who is in charge?
[01:06:24.240 → 01:06:27.040] Are you having needs and the feeling of excitement?
[01:06:27.040 → 01:06:29.880] I will go to Greenland to do something.
[01:06:29.880 → 01:06:31.040] Don't.
[01:06:31.040 → 01:06:34.440] It's far more exciting and far more courageous
[01:06:34.440 → 01:06:36.600] to build up your own community.
[01:06:36.600 → 01:06:41.600] Or if the context happens where the community in the Arctic
[01:06:41.600 → 01:06:45.920] reaches out and says, help us to work, for example,

[01:06:45.920 → 01:06:48.280] on our fish populations or currible,
[01:06:49.320 → 01:06:52.920] none of these points that I have told you will go away.
[01:06:52.920 → 01:06:56.400] They are the keepers of the land.
[01:06:56.400 → 01:06:58.880] They have been existing with that place
[01:06:58.880 → 01:07:01.200] for thousands of years in some cases.
[01:07:01.200 → 01:07:06.000] Respect and be humble in trying to understand
[01:07:06.000 → 01:07:08.000] that they are living a life
[01:07:08.000 → 01:07:10.640] and they are part of a civilization
[01:07:10.640 → 01:07:13.240] that's fundamentally different
[01:07:13.240 → 01:07:15.480] than where you most likely come from.
[01:07:15.480 → 01:07:19.160] And that's why the context and the reason
[01:07:19.160 → 01:07:23.920] to go into the Arctic is of paramount interest.
[01:07:23.920 → 01:07:26.480] You can learn about the Arctic nowadays
[01:07:26.480 → 01:07:30.600] in multiple media, all the things that have happened before.
[01:07:30.600 → 01:07:33.720] And for example, indigenous-led filmmaking.
[01:07:33.720 → 01:07:36.760] There are massively important cultural artifacts
[01:07:36.760 → 01:07:38.200] and films now out there.
[01:07:38.200 → 01:07:40.880] For example, "Fast Runner", "Acharnayuat",
[01:07:40.880 → 01:07:45.200] "Sammy Films", "Haida Film", "Edge of a Knife",
[01:07:45.200 → 01:07:47.760] just came out and so on and so on.
[01:07:47.760 → 01:07:51.200] You can enjoy the indigenous coexistence
[01:07:51.200 → 01:07:55.160] and be good allies with indigenous peoples without imposing.
[01:07:55.160 → 01:07:58.840] Because the final thing that me, Uncle Tero, will tell you
[01:07:58.840 → 01:08:03.840] is that research has been associated with colonial power
[01:08:03.840 → 01:08:06.120] and has been a dirty word
[01:08:06.120 → 01:08:08.800] for the indigenous peoples for a long time.
[01:08:08.800 → 01:08:13.120] Therefore, if you have made it past these checkpoints
[01:08:13.120 → 01:08:16.520] and you are doing Arctic research and continue to do it,
[01:08:16.520 → 01:08:18.080] here's a piece of advice.
[01:08:18.080 → 01:08:22.200] Always bring knowledge back home.
[01:08:22.200 → 01:08:27.200] Whenever you try to publish a PhD or an article or a study,
[01:08:27.200 → 01:08:31.200] don't parachute and disappear
[01:08:31.200 → 01:08:33.360] if you work with the local people.
[01:08:33.360 → 01:08:36.960] Always get enough funding that you do your work,
[01:08:36.960 → 01:08:39.560] you do it well in a humble position,
[01:08:39.560 → 01:08:43.560] respectfully and following the free and informed consent.
[01:08:43.560 → 01:08:46.840] And then when the laboratory days are over
[01:08:46.840 → 01:08:50.080] or your actual work is over, then you go back.
[01:08:50.080 → 01:08:55.200] And you present at the school, you present at elders lunch
[01:08:55.200 → 01:08:58.720] and you make sure that the people that worked with you
[01:08:58.720 → 01:09:01.360] approve what you did.
[01:09:01.360 → 01:09:04.120] I can't tell you who those people are.
[01:09:04.120 → 01:09:07.320] They might be the tribal council, the research committee,
[01:09:07.320 → 01:09:11.240] the family or the individual that you interacted with,
[01:09:11.240 → 01:09:13.080] but take knowledge back home.
[01:09:13.880 → 01:09:17.440] Be better than the centuries of worst research.

[01:09:17.440 → 01:09:23.080] Make a difference and do it now much better than ever before.

[01:09:23.080 → 01:09:26.600] You are the vanguard of Arctic research.

[01:09:26.600 → 01:09:30.560] We are living with all the history that happened

[01:09:30.560 → 01:09:32.200] and we can't be blind to that.

[01:09:32.200 → 01:09:34.320] And that's why the final word from here

[01:09:34.320 → 01:09:37.000] is that always bring knowledge back home.

[01:09:37.000 → 01:09:38.880] - Thank you, Tero.

[01:09:38.880 → 01:09:41.800] This has been a really incredible conversation.

[01:09:41.800 → 01:09:44.120] I'm going to be listening to this podcast

[01:09:44.120 → 01:09:47.800] and all of our other podcasts with our excellent guests.

[01:09:47.800 → 01:09:51.280] Yeah, we really appreciate all of the insight and context

[01:09:51.280 → 01:09:55.200] and authority that you have in this area,

[01:09:55.200 → 01:09:57.320] knowledge that you have in this area

[01:09:57.320 → 01:10:00.760] to share with our listeners and with exactly, as you said,

[01:10:00.760 → 01:10:04.080] this new generational vanguard of people

[01:10:04.080 → 01:10:07.480] who are changing science and hopefully can induct us

[01:10:07.480 → 01:10:12.480] into an age of truly collaborative, paradigm-shifting science

[01:10:12.480 → 01:10:16.640] because yeah, we're in desperate need of it.

[01:10:16.640 → 01:10:22.520] So we really appreciate all of your time and yeah, Inga,

[01:10:22.520 → 01:10:24.400] do you have anything else?

[01:10:24.400 → 01:10:26.640] - No, I think you said it all.

[01:10:26.640 → 01:10:31.640] Thank you so much, Tero, for all your wisdom and advice

[01:10:31.640 → 01:10:35.520] and the history that you've given.

[01:10:35.520 → 01:10:39.560] It's amazing and thank you very much.

[01:10:39.560 → 01:10:41.400] - Keep on rocking.

[01:10:41.400 → 01:10:50.360] - No, thanks a lot for listening to this podcast.

[01:10:50.360 → 01:10:53.640] And I want to say thanks a lot to Inge and Nicholas

[01:10:53.640 → 01:10:56.320] for organizing this mini-series

[01:10:56.320 → 01:11:00.280] and having this really insightful guest

[01:11:00.280 → 01:11:05.280] and wonderful conversations that we can listen to.

[01:11:06.720 → 01:11:10.600] If you want to suggest a guest or suggest yourself

[01:11:10.600 → 01:11:12.280] or if you have any questions,

[01:11:12.280 → 01:11:17.040] don't hesitate to write us at theseapolatimes@gmail.com ,

[01:11:17.040 → 01:11:20.480] theseapolatimes@gmail.com.

[01:11:20.480 → 01:11:24.320] And also don't hesitate to rate us and subscribe

[01:11:24.320 → 01:11:28.520] to the podcast on your favorite app, Spotify,

[01:11:28.520 → 01:11:30.800] Apple Podcasts, Google Podcasts.

[01:11:32.000 → 01:11:36.480] And yeah, thanks a lot again for being here,

[01:11:36.480 → 01:11:38.200] listening to our podcast

[01:11:38.200 → 01:11:41.800] and we have a lot of new episodes coming

[01:11:41.800 → 01:11:46.400] and we are looking forward to publishing them for you.

[01:11:46.400 → 01:11:47.240] Have a great day.

[01:11:47.240 → 01:11:56.520] - Please note that whilst this is an Apex production,

[01:11:56.520 → 01:11:58.400] the views and opinions expressed by the host

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[01:12:02.640 → 01:12:04.720] or any other host institution mentioned.

[01:12:04.720 → 01:12:07.140] (soft music)

[01:12:07.140 → 01:12:09.560] (soft music)