Northern Lights Episode 6
The Inuit Windsled

Produced, edited and narrated by: Thomas Viguier, University of Akureyri, Iceland

Interviewee: Ramón Hernando de Larramendi, Polar Explorer

Introduced by: Sarah Mackie

Sarah Mackie
Hello everyone and welcome to Northern Lights, the Harvard Arctic Initiative Student Podcast. In the last episode by Thomas Viguier, we heard about Spanish Arctic explorer Ramón Hernando de Larramendi. In his second episode, Thomas investigates one of Ramon’s most innovative inventions – and one which combines inuit traditional knowledge and western engineering skills.

Thomas Viguier is a masters student at the University of Akureyri in Iceland, studying Polar Law and West Nordic Studies.

This is Thomas Viguier with: The Inuit Windsled

Thomas Viguier
Welcome again to the Arctic Initiative Podcast Series! I’m Thomas Viguier and today we are with Ramón Larramendi for the second part of his Arctic explorer story in which he will present its unique, iconic and innovative Arctic expedition invention: the Inuit Windsled. Where several successful and heroic explorers such as Nansen and Amundsen failed, he succeeded. Ramón found the way to sail vast Arctic ice caps, reaching undiscovered and unchartered places, breaking records and bringing to the scientific world a zero-carbon emission transportation tool.

Thomas Viguier
Welcome to the Arctic Initiative Podcast Series Ramón, how are you today?

Ramón Hernando de Larramendi
I'm very fine Thomas nice to be with you.

**Thomas Viguier**

Thank you, Ramón. In the previous episode, you concluded with the Inuit hunter mind and its motto: adapt, adapt and adapt. Then, talking about the Inuit Windsled, just to get a glimpse, is it the result of the adaptation process you mentioned for faster progress and better living conditions during your expeditions? How did this idea come to mix traditional knowledge and innovation? How does it work?

**Ramón Hernando de Larramendi**

Yeah, well, the Inuit Windsled is actually the first wind power zero emission vehicle capable of moving efficiently across the polar regions. It is really a sort of sailboat for traveling with the wind across the polar ice caps in Antarctica and of course also in the in the Arctic. This has never been done before I mean when I started to work in into this idea of sailing over the ice, not with a sailing boat, but through the solid ice, I was surprised that it has not been done before by anyone, it has not been solved technically how to do it. I decided to take an approach different to the previous explorers that have tried to solve that based on my extend experience with the Inuit hunters in all the Arctic but very special ingredient. I have traveled thousands of miles across the Arctic through very hard conditions with sleds and with dog sleds and with Inuit people and got a very very extensive. Yeah, really experience and information and then I decide to solve that to create a concept that was a mixture of the traditional world. I mean that was integrating all the technological knowledge and to make a something put together and I like to say that the the Inuit Windsled is exactly how an Inuit Hunter would have thought of sorting out the problem of sailing over the ice. I mean, I have used the logic of the hunter, therefore from the construction to this sled, many as more details that are into the construction that there are very very simple small details, they are done with the Inuit from the hunter mindset and perspective and in the hunter mindset and perspective. That's the difference why I have been able to solve that while previous explorers really fail because they use only the good side the technological mind know and I mix both things mixed technology with a traditional wisdom. And I think that was the most important and the full concept is very very special system because actually is to... just to define briefly for for the people who are listening to us is very big sled, kind of as long as 14 meters long by 4 meters wide. I mean, it's something absolutely huge that is capable of transporting up to 3 tons of weight and that is propelled by a giant kite that go up to 500 meters distance and that
can have up to 250 square meters. And then you say, it's a huge concept, this very efficient and you can do thousands of kilometers and I have process many times as you say the Greenland ice cap, and I have developed and of course in all direction in several of these position with my friends.

**Thomas Viguier**

In this sense, as you have scored many expeditions, and we may open a little the question to integrate Antarctica, what is the toughest experience you ever had during the running process of the Inuit Windsled in the polar regions this time? Maybe you have a more Arctic-focused challenging condition, or maybe an Antarctic one, but which is the toughest experience you ever had?

**Ramón Hernando de Larramendi**

Actually as I was mentioning, this is the first zero emission vehicle for the polar plateaus. And of course the toughest expedition was the first and crossing of Antarctica sailing with the windsled, because the conditions in Antarctica are much harder than in the Greenland ice cap because it's much colder and it's much more difficult. Therefore of course I have already crossed four times the Greenland ice cap from South to north and East to West. When I decide to undertake the first crossing of the of Antarctica 4,500 kilometers only sailing with the Windsled and that was really an extremist position with temperature. It's down to minus 50 and very very rough terrain very rough conditions. And actually I was able to succeed because of this Inuit mentality because that was the key, without this Inuit mentality I would never have been able to achieve this first crossing of Antarctica in zero emission vehicle.

**Thomas Viguier**

Going a little bit further, you could reach, thanks to the Windsled, the south pole of inaccessibility, meaning that you could, virtually, reach places that no one reached before, right?

**Ramón Hernando de Larramendi**

Absolutely with the Inuit Windsled, they have already crossed in Antarctica three times or major Expeditions of several thousands of kilometers each one of them, actually three of these expeditions with the Windsled that are into the top longest and motorized polar journeys of all times under the top 20, 3 of the Windsled expeditions and we can reach almost
any corner of Antarctica, it has a huge mobility. You have to imagine we can cover four or 5,000 kilometers with no air drops. We can carry all the equipment we can carry everything and the one I’m working now is to use this platform, to make it into a scientific platform that can help to make their research, to take scientific research into the remotest corners of the world. And that's the moment, the actual moment in which we are building the Windsled into a scientific platform able to reach every corner of Antarctica.

**Thomas Viguier**

It is important to highlight how relevant is the Inuit traditional knowledge for expeditions not only in the Arctic but as well in Antarctica, meaning that, basically, such traditional knowledge is a real asset for expeditions in harsh weather and ice environments. And this is the link with the next question actually, which is divided into two parts. The first, which future do you see for the Inuit Windsled, and the second is if you see the Inuit Windsled as a key driver for clean scientific polar expeditions?

**Ramón Hernando de Larramendi**

Well, I think that the Windsled is another tool of course, because it has a lot of potential. Of course at the same time, it has limitations, there are areas where you cannot go. I mean, but I think it is another tool, very useful tool for surface data collection into the Greenland ice cap and very specifically to Antarctica, because the costs of deploying an expedition to Antarctica are huge, and the ecological impact is also huge and the Windsled is very simple, it’s very cheap, and it's totally zero emission and we can reach enormous area were there are no data, in Antarctica and also in North Greenland areas, areas very remote. And I think that has absolutely a paper into the data collection, meteorological maintenance, information, glacier data collection, and actually we are trying to put into order at the national level, unofficial level with the Spanish government a project into Antarctica. We want that the Inuit Windsled would be incorporated into the scientific platforms of the Spanish Antarctic program, and we are trying to do that with some foundations at the more private level to put into North Greenland, to make what we call the the actually the project the SOS Arctic project to make a series of regular expeditions collecting meteorological and glaciological data into North Greenland. Therefore, I think that really has a role into the future exploration of the polar regions

**Thomas Viguier**
Therefore, the connection between the Arctic and Antarctica becomes more and more evident and the Inuit Windsled is the living proof of it. But do you think there is still more potential for the Arctic traditional knowledge to continue influencing innovation?

**Ramón Hernando de Larramendi**

Well, I do believe of course, we live in an ultra high technology world that really, from the technical point of view, of course, the Inuit technologies are even pre-technological, I mean, it's of course, it's a low-tech technology, but into the philosophy, I think it has more, to put the philosophy of looking the world and how to do things, of course, with a lot of small scale, common sense, very reusable things very linked to the terrain and small-scale operations, and I think that from the philosophical point of view has a lot of to apport, but from the technical point of view I think that likely the Windsled will be somehow even the culmination of the usefulness of the technology, integrated with high technology, low technology integrated with high technology. I think that will be the culmination but philosophically I do believe.

**Thomas Viguier**

The distinction you make of the two crucial aspects in Traditional knowledge, technique and philosophy, is extremely relevant, as not only technique or technology is important within the innovation process, but it is crucial to define the philosophy and therefore purpose and connection with the natural environment that such innovation is meant to be developed in. But now I would like to ask you a very personal question Ramón. It is not every day we can be in touch with polar explorers, and even less with Spanish Polar explorers, so, in this sense, which part of the Arctic would you like to explore if you would have to go now, or maybe you are going soon, maybe if there is one left!

**Ramón Hernando de Larramendi**

Of course, there is always, there are many things to be known into the polar regions, is still there and very unexploded, that's absolutely. For me the area where I want to put my focus, you know, I have already traveled extensively into the interior of Antarctica and it interests me, but the area that interests me the most actually is North Greenland. It’s where I'm deploying this SOS Arctic project actually to try to improve the data collection and exploration of the full North Greenland. Actually, in this SOS Arctic project I want to make a patrol, every year, and one year doing with the Inuit Windsled covering this, exploring this
North Greenland ice cap and the other year I want to do with traditional dogsleds with the inuit Hunters really covering thousands of kilometers along the Sea Coast of the North Greenland and the Northeast Greenland the same collecting scientific data. That's my focus of exploration and helping to get much better in fill in the information about what is really happening in to the Arctic, because Northern Greenland is the area where climate change is the most impacting in all the Arctic world. And therefore it's also the area were the melting of the north Greenland ice cap will have a bigger impact into the rest of the world. And then that's what I really want to put my focus and actually is one of the less known areas of the world this North Greenland and then that's my fascination and actually last year before this COVID crisis I was going to go to an expedition to North Greenland that I had to cancel at the last minute and I hope to go this next year or so to Northland to continue my exploration and be every year doing this tradition of exploration combining traditional Inuit knowledge with the dog sleds and with the Windsled for data collecting, scientific data collecting.

**Thomas Viguier**

Unfortunately, I would like to ask you so many more questions, but we are at the end of this interview. However, I will ask you a final question Ramón: If you would have a message to deliver to the world regarding the Arctic, which would it be?

**Ramón Hernando de Larramendi**

Well, I mean this is big thing. I think that the Arctic is just the lost or the forgotten corner of the world, but the only message possible in the times we are living in this 21st century is that we all belong to the same planet and we really have to take care of this planet, and of course take care of our planet is take care of the Arctic, take care of the Arctic is to take care of our planet.

**Thomas Viguier**

Thank you very much for this final message and these two interviews you kindly gave, Ramón. I really hope that the Inuit Windsled will continue paving the way for more clean, zero emissions scientific expeditions and bridging Traditional Knowledge and innovation, and I really hope that your SOS Arctic project and patrols in North Greenland will be successful and that you will be able to continue contributing the way you have been doing so far to science, data collection and exploration. Thank you very much!

**Ramón Hernando de Larramendi**
Thank you very much. My pleasure.

Sarah Mackie
Today’s episode was written and produced by Thomas Viguier.

We would like to thank polar explorer Ramón Hernando de Larramendi for his contribution.

This podcast was created as part of the Harvard Kennedy School’s Arctic Initiative Podcast Project, led by Dr Sarah Mackie.