SIBERIAN DAYS

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Some of the most important human knowledge cannot be researched. It must be encountered.

Before they were two of Denmark's foremost scientists, Rane and Eske Willerslev spent their youths living voluntarily in the cold expanses of Siberia as hunters and trappers. They bared themselves to a harsh and beautiful life for reasons once known only to themselves--and to each other. The identical twins were brought to the edges of survival, by choice and by vision.

The challenges of the tundra opened the secret doors in their minds to the incredible discoveries each have made of who we are as a species. More than books, more than data, it was hunting, trapping, survival and friendships in the wildlands of the farthest East that brought revelation to the Willerslev twins. But there are mysteries, still, to be uncovered. We sat down with them last summer to find out how the brightest insights are borne of wonder, risk and immersion.

RANE

I meet Rane Willerslev outside the National Museum of Denmark, a 17th-century mansion among the canals of Copenhagen. He greets me excitedly, and we head up a maze of stone staircases. By the time we reach a palatial dining hall, his office, the stories have already begun.

"So we are hiding in the grass, and the translator just looks at me all crazy-eyed and points and says, 'Poachers—run!' And it's like I've never run faster in my life!"

He's recounting a recent work trip to Uganda.

Before becoming the Director of the National Museum, Rane was an anthropologist, a professor and, before all that, a fur trapper in Siberia. Though born in Denmark, he's spent years of his life living with indigenous hunter-gatherer societies, drawn almost helplessly to the raw tundra's world of revelations. Immersions in Siberia that began when he was eighteen have laden him with questions: How do these remote societies thrive in the most desperate physical conditions? How does their belief in animism, in the realm of spirits, keep them so purposefully alive? When they talk to moose in their dreams, and hunt them with success the next morning, what are they really seeing?

At the height of our conversation, he leans in, telling me this story:

"I was out in Kamchatka, Russia, with this Chukchi reindeer herder, and we are walking along the shore when he suddenly stops. And he picks a small stone up off the ground, and he's completely stunned. His mouth is open. He is completely made a child by this stone. And I watch him, but then we go on walking. The next day, we wake up and I see that he's sewn it into his belt like an amulet. So I ask him: 'What is this?' And he says: 'This is my second heart. And I know that because when I saw this stone, my heart started beating so wild, so fast. If my first heart stops beating, my second heart will go on.'"

We stare at each other, wide-eyed.

"I mean, how to understand that?" Rane shouts. "How do you begin to comprehend something so different as that?"

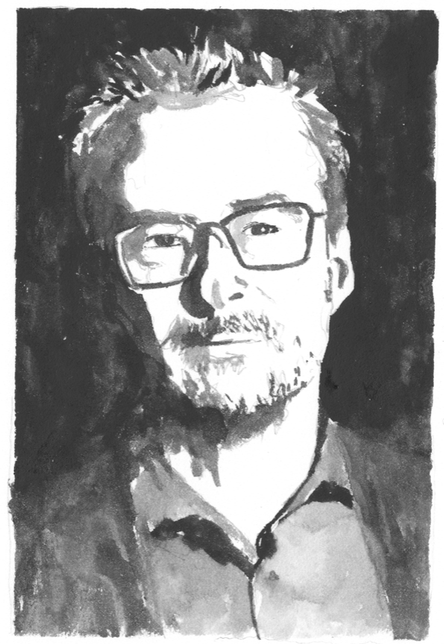
What the Chukchi man himself sees is one of the great mysteries for Western society. Rane, in his lifelong efforts to relate to hunter-gatherers, has provided modern anthropology with its most intimate illumination of this animist worldview and revolutionized the study of human-animal relationships along the way. It's not because he's the sharpest or most articulate. It's because he began to dream of moose after years of surviving on the tundra; because he nearly died when he ignored the advice of shamans. It's because he immersed in the lifeways of others, lost relationships, fought depression, trusted his visions and straddled two worlds. The raw, demanding, inexplicable life of a subsistence hunter does not balance with the rational, socialized home life of Denmark. Rane's contribution has been as a translator between them.

At 49, he is still irrepressible.

"Basically, in the beginning, my brother Eske and I were driven by adventure, which they laughed about at my department when I started anthropology. But I think that's the drive of science, it's the drive of curiosity, it's the drive of everything! It's like, man, there's this world out there that is unknown — Hell, *I would like to get to know it!*"

ESKE

Eske Willerslev and I meet in a crowded coffee shop outside Copenhagen. It's a summer weekend, so he's free from his work as the Director of the Centre for Geogenetics at the University. The cafe's a noisy, come-and-go type of place, but I notice a few customers linger around us—overhearing Eske's stories.



He speaks of recovering ancient Greenlandic ice mummies and sharing councils with Aboriginal Australians. In the course of the conversation we discuss the entire migration of early humans out of Africa like it's a film script. The stories fill the space, and one rolls into the next as Eske lays out vast maps of explanations and questions.

"I'm fascinated by how the differences between people created who we are. Both in terms of time and space — I mean, how did we get the distribution of humans we have today? How did we get the similarities between Siberians and Native Americans culturally? How did we get the similarities genetically? It's really a question of understanding '*Who are we?*' as modern humans, right?

As a geneticist, Eske is a pioneer in the study of ancient DNA. He was the first person to sequence an ancient human genome, and the first to obtain ancient DNA directly from ice cores of permafrost. His research on megafauna has changed the way we imagine their extinction. His work continually rewrites history, refining our understanding of the human past.

Eske shares the tone of urgent, excited curiosity with his twin brother Rane, as well as the fixation on great mysteries.

"We obviously have a lot of shared history, with the early expeditions, both of us living as trappers, and then genetically we are identical, right? For those reasons, a lot of our thinking is very similar to each other's. I mean, he chose a humanities angle. I chose a natural sciences angle. But the questions we've addressed are very similar."

The questions they've addressed have the same origin, too. Throughout their youth in suburban Copenhagen, they dreamed of becoming explorers. At the first opportunity, upon turning eighteen, they headed to Eastern Siberia. That was where the inspiration flooded in.

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Eske

Eske: As a child, I really just wanted to be a Native American. You get a bit older and realize you can't do that, but I still wanted to find some place where there was still *wilderness*. So Rane and I started making expeditions, first a trip to northern Scandinavia, to the Arctic, with some friends when we were thirteen. The others turned around but we kept going, and every year we went on these trips around Scandinavia with the whole idea, from my point of view, to prepare myself to become a trapper

Rane: The drive for all of this basically comes from these imaginations in childhood. It was built up by my brother and I in this bubble world — none of our friends nor our environment encouraged it in any way. We mutually created this fantasy about becoming explorers. The most wild place that you could imagine then was the Northwest Territories in Canada. The big trip was supposed to take place after we finished high school. We would take one year off and then go to Canada.

But at that point, Gorbachev was in power in Russia and the Soviet Union suddenly kind of ... opened. Suddenly there was this possibility, theoretically, that we could enter northeastern Siberia, which was completely unknown to the Western world.

There was very little literature in English, too, almost none. But there was this book that became very important for us, which is called *The Yukaghir and the Yukaghirized Tungus*, by a Russian guy named Waldemar Jochelson.

Jochelson was a Communist exile at the end of the 1800s, under the Czar. Because he had nothing to do there in exile, he started studying these indigenous peoples in Siberia. Then he became part of Franz Boas' big project called the Jesup North Pacific expedition, which had fieldworks going on both in Eastern Siberia and in Alaska. The idea was to try to find the connection between Asia and the Americas. This very small group, the Yukaghir, were interesting for Jochelson because they were living only as hunters when pretty much everyone else in Siberia had become pastoralists.

We found this book, and we knew we wanted to find the Yukaghir.

Eske: For all kinds of reasons, Jochelson speculated a possible relationship to Native Americans, so I already started thinking about this. We went to the Russian embassy and they said no, forget about it. Then we went to this Russian-Danish friendship union, some kind of Communist thing in Denmark connected to Russia, and they said no, forget about it. And then, in this kind of suspect bar in Copenhagen, I met this guy who was buying seeds from people around Lake Baikal, in Irkutsk. I talked to him about our idea and he said, 'I think I have the contacts who can do this.' So we paid him some money; our childhood savings were basically being transferred to Russia, and it turned out later on it was some pretty dodgy stuff. It was some kind of mafia operation. My brother and I didn't have much more money, so we got a couple of other guys to join us.

Rane: We put an ad in the Danish newspaper and ended up picking two guys who were really wackos. One was a forester whom we later found out was a member of a very radical right-wing party, of course, and the other was a former lieutenant in the army. Then we got two Russians to join. One was a trapper from Irkutsk, a very charming guy actually with this huge beard. He was a professional hunter so he had a rifle and kind of became the leader of the expedition. And the other one was a professor of religion from Irkutsk University who just wanted to go to the wilderness and die because his wife had left him. We would take the Trans-Siberian Railroad to Irkutsk, and then would be flown to the Omolon River, where we'd be put out in the mountains to canoe to the Lena River and get picked up there.

Eske: I can see now that already when we did the first expeditions, I had this scientific mind. We both did — I mean, we were never interested in being the first to go to a mountaintop or something. It wasn't a sport expedition. We were interested in collecting woolly mammoth bones, you know, megafauna bones. It was an amazing experience. I mean, we didn't meet any Yukaghir on this trip, but we were picking up ethnographic materials, fossils, incredible stuff.

Rane: The maps were completely unreliable; there were supposed to be villages, and there was nothing out there. We meet one group of reindeer herders near the Arctic Ocean, and on the second river we don't meet anybody whatsoever. When we are picked up after these three-and-a-half months, the pilot says the Soviet Union has collapsed! At that point, they don't know if there will be a civil war. The two Russians were completely in shock, because for Russians it was unimaginable that the Soviet Union would disappear. But that was the beginning.

The brothers were entranced. Over the next four years, they kept returning to Siberia to meet the people and gather the bones of ancient megafauna. Rane had plans to study anthropology, in Denmark, to more deeply investigate and publish what they'd witnessed in the tundra peoples. Eske, meanwhile, took up biology.

Eske: The questions that rose in my head were about how you get this diversity of people in northeastern Siberia with all these different languages, these different lifestyles. What is the relationship to Native Americans? Why did the megafauna, the mammoth, the bison, the wild horses die out? I mean, today, you have very few big-bodied mammals in these parts of the world. During the Ice Age it was like the African Savannah. So these questions are exactly what I've been working with afterward, right? It really defined my line of research.

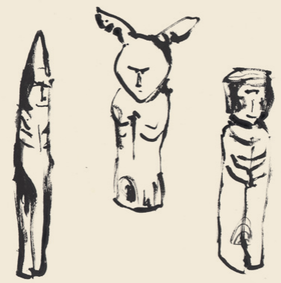
Rane: During canoe journeys I got really interested in the native people. When we met them — and that was rarely — I always sat down and tried to talk to them. Eske, though, was more interested in all the mammoth bones that we collected on the shore banks, so the differences in approach were already established at that point.

A year after the expedition I dropped out of university — completely disillusioned. Anthropology was in this postmodern crisis where everyone's saying that indigenous knowledge is just a Western invention, and the teachers think I'm ridiculous with this Yukaghir and hunter-gatherer obsession.

The next expedition we made was to Kamchatka, in '92. Then in the winter of '92, I wanted to return to Kamchatka to marry a Chukchi girl I'd fallen in love with, but I don't have the money to fly there. So I took the Trans-Siberian Railroad to the northern Altai Mountains, where I lived as a hunter — first with a group called the Shors and then with some Russian poachers. I lived for six months with them, and I actually learned quite a lot about hunting! But then Eske gets a telegram out to me ...

He said, "You have to come back, we are going on a big expedition to the Kolyma River. We've got the permissions, and a film crew will be coming along."

And this time, we find the Yukaghir.



The Yukaghir are hunter-gatherers in the truest sense. They live in the coldest human settlement in the world. They eat from moose, and trap sable to buy hunting equipment. In their small society, every resource is shared evenly throughout the group. There is no hierarchy. Even the most successful hunters are wary of accumulating wealth — angering the animal spirits, as they describe it. Their complex and ever-evolving belief in spiritual relationships is the basis of their survival and knowledge. Both Rane and Eske began a lifelong education in the Yukaghirs' principles.

Eske: We went to where Jochelson had reported the Yukaghirs at the Kolyma River. The most exciting person we met there was a guy called Nikolai Nikolaivich, who was the last survivor of the Korgodon group of Yukaghirs. They had basically died out. Nikolai was moving to Nelemnoye, the only settlement of the other band of hunters, the forest Yukaghir.

Rane: It's the most intimate meeting I've had with native people. And it's weird because we have been waiting for this for so long, you know? But it's also as if they have been waiting for us. It's like they feel that their relationship to us might be of great importance. It's very ... sort of ... *full of love* between the Yukaghir and Eske and me.

We get these very close relationships to certain individuals, like the old woman Akulina, who becomes my grandmother and sews all my reindeer clothing when I go to live as a trapper there. We go on this expedition for three months and become very close with them, and Eske stays all winter to trap with them.

We can see that their economy has collapsed completely. During Soviet times, every industry that could generate foreign cash had special support. So the fur companies were subsidized by the state, and a fur trapper was making more than a medical doctor in Moscow. They were flown out by helicopter into the wilderness where they would trap for almost seven, eight months a year. They'd return their furs and have a plan to get groceries and supplies — everything was actually working quite well during Soviet times. All of that disappeared.

It's replaced by another monopoly, but now it's called the *Sakhabult*, and they're buying furs at these fixed low prices and never delivering supplies. They're corrupt all the way. So the idea comes to create this alternative for them; I want to create this nonprofit so the Yukaghir can sell their furs directly to the Danish fur auction house, which is the biggest in the world, actually.

I returned to do fieldwork as part of my PhD and lived for a year with the hunters. No Westerner had lived as a hunter like this. Of course, you can find descriptions of anthropologists living with some communities and going hunting now and then, but this was about living intensely *only as a hunter*, as the men there do. They had never experienced someone who came to live their way of life and actually help them. So I began trying to create this fur cooperative project.
It completely shaped everything that's happened since.

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Rane

Rane began travelling between two worlds — the anthropology studies he had returned to in Denmark and Britain, and the Yukaghir settlement of Nelemnoye 4,000 miles away. He would carry on for years, trying to establish the nonprofit fur trade between Yukaghir trappers and the Danish buyers. Meanwhile, Eske stayed behind for an immersion in the trappers' existence.

Eske: This is the first event where I almost lost my life.

Regular temperatures in the winter are minus 40, 50, 60 degrees Celsius, and we were flown out there in a helicopter and dumped with some guns, dogs, tea, and the rest we basically had to get for ourselves. And I tell you, I was in top shape because we had been on the expedition, and in the beginning I was so tired that I couldn't eat.

It was all so fucking brutal. I mean it was wonderful in the sense that it was a very simple way of life — sleep, kill, eat. That's it. All the normal worries you have disappear. But there, an individual life is valued very little. I was pushing my limits and we were taking risks every day, man. I mean, one day we came back to the cabin and one of our dogs was eaten by wolves. There was just a tail lying there in a pile of blood ...

At one point, we needed to get some meat, so I went out moose hunting. It was -30 C, early in the winter, but there's so little precipitation there that the snow was still patchy. I lost my track. I couldn't find the camp. It became dark and I realized I had to spend the night out there.

And you know, I've almost *tried* to lose my life on some occasions, but this was a situation where it was a very slow death I was facing, so I really had time to think about it... and it's exactly as you hear from old people who are dying. Suddenly, family relationships, relationships to your girlfriend—those kinds of things become important. Your career, all that, it doesn't matter. I came to the conclusion that I'd led my life completely wrongly. I thought I'd be really afraid because I'm not that brave, but I wasn't afraid. I was just very sad.

I didn't have much fire, not much wood, and it became so cold. What happens first is you're freezing, you're shaking, but then it becomes completely warm. You feel like you want to take off your clothes. And then you become tremendously tired, I mean to a level that is indescribable. I knew that if I fell asleep then I was probably gone, so I had to keep awake, thinking: *just ten seconds* of sleep, ten seconds ... But it's just so dangerous. Still, I managed, and the other guys were out looking for me. We found each other the next morning, firing shots in the air.

I should have been back by Christmas, but the guy who was supposed to send the helicopter went bankrupt, so he didn't even send one. I remember we had run out of petrol for our lamps, we hadn't had success with hunting for a while so there wasn't enough meat, we were running out of tea, and I was just sitting there Christmas Evening with a cup of boiled water, and I was just crying.

I'm glad I did it, but it was a *very rough experience.*

AND YOU KNOW, I'VE ALMOST TRIED TO LOSE MY LIFE ON SOME OCCASIONS, BUT THIS WAS A SITUATION WHERE IT WAS A VERY SLOW DEATH I WAS FACING...

Eske

A Chukchi hunter from the Anadyr region of Chukotka. Based on a photo by Casper Dalhoff, taken on expedition with Rane Willerslev in 2004.

Rane's efforts to establish the fur cooperative were effectively a well-intentioned attempt to work around the Russian State monopoly. In the middle of the project's development, the police confiscated a stockpile of sable furs and approached Nelemnoye to arrest Rane. The village came together to rush Rane into the wilderness. He hid there for nine months, facing the harshest reality of survival possible. He wrote a memoir of this time entitled On the Run in Siberia, and in it recalls his hungriest, most despairing moment, facing death, when he penned a letter to his brother. It reads:

Our dad impressed on us from an early age that the desire for knowledge is the most important thing. You sought it through biology, and I through anthropology. And we both sought it in the Siberian wilds. But the actual goal of our strenuous journeys has not been science but just each other. For your sake, I wanted to research the Yukaghirs. For my sake, you had to find the mammoth's DNA. Only people who do not understand what it means to be identical twins would call it mutual competition. Whether or not we ever see each other again, the two of us are really all there has ever been.

Rane survived that winter, learning that the Yukaghirs' every "superstition," ritual, animal communication and dream premonition, were indispensable to survival in the desolate landscape. This time of desperate flight became an immersion in the lifeworld of animism, where rivers, forests and moose all have humanlike "shadows," spirits that must be respected and spoken to. As a subsistence hunter, learning from his Yukaghir teachers over the months, Rane encountered the strangest, most surprising phenomena of their ways.

RANE: The ideal hunting technique among the Yukaghir is this one where you can hunt the moose by imitating it. First, you go to this sauna built of sticks and get all the human smell out of your body. Then you go to sleep and dream with this small figurine, the half-man-half-moose, which is a replication of your ... we would call it soul. They call it shadow, which is your spiritual doppelganger that travels to the moose spirit, who is a woman, and has sex with her. The next day you go outside and make the track and the moose comes close by. You start imitating it.

It's basically a technique where you move your body from side to side, you have skis that are covered underneath with leg skin from a moose, and you can imitate the sound. From our rational perspective, we would say: "Okay, he moves to imitate the moose so that it thinks he's another moose, and therefore, he can kill it." From their viewpoint, the animal is seeing itself as a human, you know, a person, choosing to come to the hunter. When I first saw it I was puzzled by it, because it worked. I mean, when I saw Old Spiridon — who is like the master of moose hunting — do it, he took control over the moose. It was almost as if it was hypnotized. I was told how he once got a moose to run around the camp and then collapse in front of the fire. I've seen him doing it in the tundra.

In the animist worldview, everything outside yourself has intentions, you know? Even with the mushrooms that the Chukchi pick to get high — they say, 'The mushroom chooses if I am going to pick it, it's not me choosing the mushroom.' It's amazing. Learning these things is not about knowing yourself. It's about knowing the world. It's not like yoga or meditation or something where you try to find meaning by going inside yourself. Here you find meaning by reading the landscape.

When you're hunting this way, animals become persons or potential persons because ... it's weird, but even though everything is animated in principle, not everything that is animated chooses to interact with you. If you imagine going into a crowd of people, not everyone will look at you. Not everyone will relate to you at that moment. But the moment someone relates to you, there's a different type of relationship going on. So I think one has to understand the hunt as if a certain constellation creates an encounter between hunter and prey.

I actually ended up becoming really good at it, but it really changes your perception of the world. I mean, they said I would see dancing people in the forest and that kind of stuff, and I didn't. But this thing about the dreams where, you know, the spirits are coming ... this whole hunter's logic completely became a part of me.

"BY TRANSFORMING HIMSELF INTO THE IMAGE OF THE MOOSE, HE COMES TO SEE THE WORLD AS THE ANIMAL SEES IT. HOWEVER, THE DANGER OF UNDERGOING A COMPLETE TRANSFORMATION IS ALWAYS PRESENT, SO YOU HAVE TO BE VIGILANT WHEN YOU TRANSFORM YOURSELF INTO AN ANIMAL. THERE ARE SEVERAL ACCOUNTS OF HUNTERS WHO NEVER RETURN TO THEIR ORIGINAL HUMAN FORM BUT GO ON LIVING WITH THE ANIMALS."

Rane Wilerslev, ***On the Run in Siberia***

Rane was able to return to Denmark, over a year later, after a Yukaghir representative appealed to the Putin administration to clear his arrest warrant. He carried a heavy sense of failure from his naivety with the fur project. His girlfriend had left him for another man. “Not only am I exhausted and lonely,” he writes in *On the Run*, “but I go around with an agonizing sense of having neglected something vital: love.” He also carried incredible insights into the Yukaghirs’ animal relationships. Thus, like Eske, he embarked on the most difficult part of the journey — coming home. The brothers each had to reconcile two disparate existences. They had to speak their truth to a world of Western academia that shuns spiritual sensibility and demands hard proofs for all knowledge.

Rane: Writing my PhD became kind of necessary, because you have to turn your experiences into a narrative as a way to make sense of things. It’s a real struggle to connect it, though. I mean, I came back to Cambridge to just sit there, like a monk, and I was very depressed pretty much the whole time.

I remember when I was walking in the street and just saw a piece of string in the road, I would pick it up and put it in my pocket. I was just so accustomed to using everything, you know? Every tin can. And these spirit visions kept coming …

It was important that Eske and I had each other, because we kind of convinced each other to keep doing these things. The biggest challenge was that we were surrounded by a world that wanted to pull it apart. And it was difficult to keep up, because who was going to believe and support it?

If you are really committed to something — and we were really committed to that type of life — then you can get the greatest, most amazing wonders and experiences, but you also pay a price on the other side.

Eske: All this is a matter of challenging yourself in order to challenge your own worldview. I mean, in the end, I would say I became at least almost crazy out there. Sometimes you’re going along on your skis and it’s completely silent. Because the trees are a larix species, they lose their needles in the winter. It’s just a dead landscape, with these endless sticks in the snow. You’re alone and it completely does not sound right. And then, I mean, I could hear birds singing in the spring in Denmark. And I look around and I see glimpses of green Danish forest and I just think: shit, man. This is not good.

So when I came back from life as a trapper, I had real problems adapting. You go from this extreme where it’s all about survival, to here, where if you walk outside there’s a sign that warns you: “Sidewalk ends in five meters, please be careful.” Everything’s so secured. I remember sitting in a genetics exam thinking how pointless it all seemed. I thought about going back to Siberia. It was a life-defining moment, because I knew if I went, I would probably never really return to Denmark. Or I could stay here and adapt. I chose the latter, but … I was even facing suicide. I was just really far out. I mean, I completely lost purpose in life, for a year or so.

But I decided to finish my studies. During my masters, I completely kind of … fell in love with science.

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Rane

Surviving the return home, Rane completed his PhD, a totally original integration of Yukaghir animist vision into the rigid theoretical doctrines of anthropology. His work was the first to study these beliefs in an entirely respectful way — treating the perspective of the animist hunters as unquestionably legitimate knowledge. He couldn’t have done so without living it. The work, collected in his book Soul Hunters, is an essential text in the emergent field of human-animal anthropology.

Meanwhile, Eske made a series of discoveries that helped explain the extinction of the great Eurasian mammals, then some that allowed for the testing of ancient human genomes. He, too, began to answer his earliest questions, and in the following decades traveled from Siberia to Montana to Australia, testing genetic samples from ancient and living human bodies alike, assembling the map of how humans moved and changed over the millennia.

Eske: I’ve been back to Siberia on multiple occasions, taking sediment DNA. One of the first things I did was discover that you can take sediments, permafrost, and ice cores, and you can actually retrieve the DNA and find out what animals and plants were living there right back in time. So I’ve been back taking sediment cores all over. I’ve also been working with Native Americans in different places in the United States to understand that side of the human relationship — you also need the American part of it. But we were also in Australia, in Southeast Asia, in Africa, assembling that big picture from my methodology.

We did the first ancient human genome back in 2010. That was from the oldest human remains from Greenland, which were 4,000 years old. This is kind of that approach that we have then used all over the world, anywhere we can.

It’s been super interesting with the Native Americans, the Aboriginal Australians, because there’s a lot of ethics that connect to this. There is still massive resistance to genetic research among indigenous groups. It’s understandable. I mean, science has treated them like shit, completely. Many scientists have tried to engage with these groups because genetically they’re super unique and important, and they carry this deep knowledge that is also indispensable. But there’s rightfully a tremendous skepticism of Western scientists coming into their groups to perform research.

There, it has been a major benefit for me to have been living as a trapper. In meeting these indigenous peoples, we have very easily found common ground. Having this hunting experience and bush background means that we can talk about things that we both have in common, that we’re both passionate about. That makes a huge difference.

I’ve come to the conclusion that this line of work has to happen with the endorsement of the indigenous groups. I mean, ethics is about taking into account the people today that might be affected by your result. There, I think I have used a lot of my experience from Siberia.

And from this research, we can see now that the story, genetically, of the inhabitation of Siberia is very different from what we thought.

The Yukaghir, as it turns out, are genetically far removed from Native Americans. There were actually several waves of human migration across Russia toward the Americas. Eske not only pioneered the technical means for obtaining the DNA that rewrote this history, but also excelled in bridging the gaps in trust between cultures, bringing a deferential respect to societies with entirely different perspectives, values and knowledge. He tells the story of an ancient human body found in Spirit Cave, Nevada that he sampled after obtaining personal permission from the Paiute-Shoshone tribe. His research proved that the man was, as the tribe expected, their ancestor.

Eske: I went to the reburial ceremony for the Spirit Cave Man, and a lot of scientists say that these reburials are just a way for Native Americans to get political attention. That's totally wrong; it's like burying your mother. It's the same intensely emotional feelings that you might not be able to understand because you're burying remains that are 10,000 years old, but you have to acknowledge them and respect them. That's exactly where your mind expands, when you are part of this. It's what the fieldwork does. If you just get the samples shipped to your lab, you will never understand how these people feel.

Rane: There is a difference between *knowing* and *understanding*. I can know that there are 5.5 million people in Denmark, it's a fact, but that doesn't mean I can understand them, too. To understand them implies that you invest something of yourself into that relationship with them.

I'm still trying to understand: What is rebirth in these societies? What beings are living; what are dead; what are animals; what are humans? It's kind of a never-ending exploration, and there's no way that my method can absolutely prove what they think or believe in. But I can certainly experience, as close as I can, an indigenous hunter's perspective by living with him and doing what he's doing, month after month, year after year. That might not be looked upon as *scientific* knowledge by a hardcore scientist, but it's certainly knowledge. And it's important knowledge.

This is the gap in which culture evolves and life is lived, and you can *only* get into that gap by investing yourself in the relationship with people, not studying them through questionnaires or statistics. The greatest advantage of anthropology is its intersubjective foundation, where you go out and live with people and you *take it in*. We use concepts that the natives have developed to destabilize *our* worldview.

What drives me is a real potential for our society to learn from these people. We cannot adopt their ways in a one-to-one relationship, but I think the fascinating thing is the radical *otherness* that we can use to rethink our own relationships with nature and in our societies. We need this radical otherness to reinvent ourselves.

OFTEN, HUNTERS THEMSELVES CANNOT DESCRIBE THE LOGIC OR CAUSALITY OF THESE THINGS. BUT I HAVE LEARNED THAT THE INTIMACY BETWEEN HUNTER AND PREY CREATES A TYPE OF KNOWLEDGE. IT'S NOT FACTUAL KNOWLEDGE, BUT IT'S A TYPE OF INSIGHT YOU COULDN'T GET WITHOUT THAT RELATIONSHIP.

Rane

Rane and Eske's lives have been a near-constant pursuit of self-reinvention and the risking of their comfortable perspectives, as well as their safety and sanity. What they've brought back to the West's understanding, though, is incomparable.

Eske: What is so beautiful about going out there is that you are challenged and you are changed. It means you become much wiser, not only for your science but for your story. Who you are as an individual is so important for the research you're doing.

Rane: I've still had difficulties communicating all of this. Because I've tried to explain shamanism and animism and the belief that the world is full of spirits, journalists will often ask me if I believe in the supernatural. That question is kind of absurd to me, because for hunters it's not a question of belief, you know? It's like a technique to make things happen.

I have a tree at my summer house in Sweden with the skull of a bear I killed on it. I give presents to it when I go hunting up there — little hanging vodka bottles and colored bands and that kind of thing. If someone passed by they'd probably think there was a witch living there, but for me I use it as a technique, just like the Yukaghir hunters do.

I'm not trying to test if it's right or not. Often, hunters themselves cannot describe the logic or causality of these things. But I have learned that the intimacy between hunter and prey creates a type of knowledge. It's not *factual* knowledge, but it's a type of insight you couldn't get without that relationship.

For the Yukaghir, only what you have realized yourself, what you have actually practiced, tried out, counts as knowledge as such. So survival is about getting these experiences that create a kind of backbone on which you can trust your personal judgment.

There was a very interesting case where I was out hunting with this old Yukaghir man, and at that point I had become really skilled at reading moose tracks. We pass this track in the snow, and he says: "Can we, should we, try to run this moose down?"

I look at the track and I see that this is a completely agile, fresh moose, and I say, "No, we can't do that."

And he says, "Wrong."

I look again and I say, "No, this is fresh."

And he says, "Wrong." And so this goes on until the conversation becomes completely absurd.

I finally say, "Well, okay, you are older than me, maybe you see something I don't."

And then he laughs and says, "Don't be sad, I was just testing you. Remember that only you know, only you know what is right."

Perhaps this is the meaning of the beach pebble that the Chukchi herder picked up — his second heart.

As Westerners, we seek out and adopt the beliefs of others. We learn grand theories of how the world works, and we rely on facts, though we may not have witnessed them in action.

The Chukchi man called the stone his heart simply because he felt a link between them. Without the need for proof or the confirmation of others, he believes only and totally in what he senses. Rather than speculating on causes and effects, reasons, he takes meaning from the world as it comes to him. His heart can relate to a stone with no further explanation beyond its beating. It's not the scientific method, but it is belief, and it kept the Willerslevs alive in the wilderness. It is absolutely a part of the answer to the great question of who we are, and what we're capable of experiencing.

Curiosity took Rane and Eske to frontiers of the human experience, where the wilderness and the wild others educated them. Commitment kept them seeking, trusting, and needing their own knowledge. Sacrifice made it all real, made it felt, and made each of their discoveries deeply certain — personal. Like a right and left brain, with a shared, courageous heart, Rane and Eske have ventured into the wilderness with a ready embrace of whatever comes. They still let themselves be surprised. Can true discovery come any other way?