

# PHYSIO PUNK

VOL 1

## THE MELTING POLAR ICE

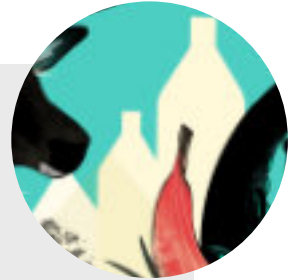
*Erika Jorunnsdatter Ingilæ*

OPENPHYSIO | JOURNAL

# THE MELTING POLAR ICE

Erika Jorunnsdatter Ingilæ, Bachelor program in physiotherapy, Institute for Health and Care Sciences, UiT The Arctic University of Norway.

*‘The melting polar ice’ throws the reader right in the middle of what feels like a great voyage and great adventure. Ongoing global environmental degradation has dramatically increased the melting of permafrost and polar ice caps with troublesome effects for life and health all around. There is a sense of anxiety that comes with recognising the responsibilities with becoming a healthcare professional today, but also a newfound courage in taking them on. In the midst of all these troubles, hope wells up as awareness leads to action and collaboration across any conceivable boundary. Innovative technologies, indigenous leadership and healthcare professionals come together to work towards fantastic solutions with benefits for people and planet alike. Quite powerfully, ‘The melting polar ice’ expresses the sense of purpose that comes with working toward long-term visions and care for the future, working not only for the present, but also the health of future generations that depend on a healthy environment. Enjoy the ride.*



The silence has finally subsided, both over the ship and the sea. After the thunderous roars of the night's storm, it is as if someone has turned down the volume to the lowest level. The rumble of running legs down the hallways, the clinking of glass in cupboards, and the clicking of locked doors, it feels so far away. I marvel every morning at how great the contrasts are from the storms of the nights to the quiet, immovable world of the days. In the mornings it is just as if the corridors have never seen or heard a human being, and if a tired soul stumbles through the corridors of

their cabin, the steps are absorbed by the walls. And if that exhausted soul looked out of the window before collapsing on the bed, the mirror-bright sea would sparkle back a glorious morning greeting that would make anyone believe that misery did not exist on earth. But we all know that is not true. For it is precisely the fact that being able to see the blue sea wherever you turn, as far north as we are now, that is one of the reasons for the misery of today's many societies. The storms that appear every night are, among other things, a consequence of the

endless blue. I often think about how it was in the past. Before the polar ice melted, before the land ice melted, when polar bears and bowhead whales could be observed in real life, and not just in books. Being a polar explorer now cannot be compared to being a polar explorer before.

When Fridtjof Nansen started his voyage from Oslo in 1893 in the hope of reaching the North Pole, the strategy was to let the ship, Fram, freeze in the ice north of Siberia. Based on his calculations, they would be carried along by the ice that was constantly moving, towards Greenland, where they would hopefully pass the North Pole on the road. Nansen and lieutenant Hjalmar Johansen left the ship at some point to continue skiing and dog sledding. I would give a lot to be able to ski today. Give a lot to have the same physical and mental conditions to make such an expedition. But those conditions disappeared along with the ice. For air pollution not only meant that the ocean had to absorb more CO<sub>2</sub> to compensate for the concentration differences to the atmosphere, but also led to poorer air quality for us to breathe. Over time with poor air quality, overall population health got worse and worse. The statistics are clear. More environmental changes as a result of global warming have a negative effect on people's health.

There is much that is different about exploring the Arctic then and now, both in terms of what it looks like, the procedure, and the purpose of it. Today the ice is completely gone. Not even a

small piece for an iced coffee. If I am to look at it from the positive side (if there should be one), it gives us the opportunity to sail all over the Arctic without having to worry about when we will freeze in the ice.

“

**WITH AWARENESS COMES NEW MOTIVATION AND ACTION. AND AWARENESS AND NEW MOTIVATION ARE THE REASON I DO WHAT I DO TODAY. NOT TO MENTION, IT FEELS SATISFYING TO WORK TO IMPROVE THE ENVIRONMENT AND KNOW THAT THIS WILL IMPROVE PUBLIC HEALTH, WHICH IN TURN AFFECTS INDIVIDUAL HEALTH POSITIVELY.**

Not that it is all wonderful without the polar ice, on the contrary. Because being a polar explorer today is about saving the world. Literally. Without exaggeration. Talk about putting pressure on yourself when choosing a profession. Although the importance and seriousness of my profession scares me, the consequences of no one taking the job are even more frightening. In addition, the curiosity to work with an

alternative polar ice has been burning ever since I talked to my great-grandmother for hours as a child. She would tell me about how the physiotherapy profession has changed from working on individual's health, to improving individual health by improving public health on the whole. What seems a matter of course today, that the economy, the education you take, and not least climate change, affect public health, was an innovative idea in great-grandmother's childhood. It is a small positive, that the awareness of, among other things, social inequality in health, has grown at the same time as climate change has become worse and worse. With awareness comes new motivation and action. And awareness and new motivation are the reason I do what I do today. Not to mention, it feels satisfying to work to improve the environment and know that this will improve public health, which in turn affects individual health positively.

After a few hours of sleep, the ship begins to come to life again. We are a groggy bunch strolling towards the breakfast hall. A collective sense of exhaustion dominates the room. Still, it's amazing how motivation rises when it counts, even with little sleep. Maybe it is the hope that we will soon arrive that driving us, and maybe just the incredible raw breakfast we are served. Like much else on the ship, the food we eat is also produced in a sustainable way. It is produced locally, on the boat, with a focus on using plants that have previously been threatened with extinction due to climate change. The

idea is to replant them to the areas where they previously grew after the climate interventions have stabilised the environment on earth. This project has also helped to create much-needed jobs where there has previously been high unemployment around the world. And we all know how unemployment functions like poison to good health. The knowledge indigenous peoples have of how to be in tune with nature is precisely the knowledge that is essential in this and many other areas. People with indigenous backgrounds from all over the world therefore often lead such projects and work sessions. This has taught many to work more ecologically and in closer connection to the earth, and what a relaxing effect doing so has on body and mind. And I, with my physiotherapeutic perspective, cannot help but think about how we could bring such an atmosphere in any workplace.

Just after breakfast we finally get the message we have been waiting for: the platform around which the hope of the future centers can be seen on the horizon. The energy level is suddenly raised several notches, and excited conversations lead us back to each of our cabins where we start packing our belongings. It does not take long. Everything we need in terms of clothes and equipment will be given to us on the platform. No one would have believed this in great-grandmother's time, that a physiotherapist's job would be to produce an alternative, temporary polar ice in the future. Because that's what I do.

With the help of innovative technology, we have managed to solve several issues in one. After the measures taken to stop the melting of sea ice in the Arctic did not work, it was the creative dream of a child that led to where we are today. The child had dreamed of a machine that manages to catch all the microplastic that floated around in the sea and transforms this into snow so that the child could make a snowman in the garden in the middle of summer. This dream was then gradually followed up on. For the alternative ice we are producing is made precisely from all the microplastic that have moved around in

sunlight out back into space, while protecting the ocean from absorbing so much of the light and heat from the sun and insulating the sea from the air and the temperature differences between them. In addition, with the help of technology we can regulate the temperature in the "plastic" so that it can help cool down or heat the surroundings depending on what the need is. And when the environment has stabilised as a result of all the other environmental measures taken around the world, a new sea ice will be produced that will work in the same way as the original sea ice did.

“**TODAY WE KNOW THAT IT IS A COMPREHENSIVE TASK TO RESTORE THE NATURE, ECOSYSTEMS AND SYMBIOSIS THAT EXISTED BEFORE, AND WE KNOW IT WILL TAKE TIME. BUT IT IS THE THOUGHT, HOPE AND DREAM OF HOW IT WILL LOOK AND BE THAT INSPIRES AND MOTIVATES.**

the ocean. On the platform, these microplastics are treated to make it less susceptible to weather, wind and natural forces. Today we have managed to produce only a few square kilometre, but soon it will cover large parts of the Arctic. There it will lie and reflect the

While it's sad to think that I probably won't live long enough to see this last part of the plan, I'm still grateful to be a part of the process we are in now. Technology and our way of thinking about the future have never been so groundbreaking. In the past, it was difficult to break through with a climate plan that would only show results after several decades. Today we know that it is a comprehensive task to restore the nature, ecosystems and symbiosis that existed before, and we know it will take time. But it is the thought, hope and dream of how it will look and be that inspires and motivates.

I often think and dream about the future when all this work will show the results we hope for: There is less extreme weather, which causes less damage to cities and countryside, which will also give us the opportunity to leave the house without 10 different jackets in our backpack. Biodiversity is back and teeming with more life than

it has in the past. The polar bears and bowhead whales, as well as many other extinct species are back in the Arctic, thanks to the preservation of their egg and sperm cells. With better air quality and the opportunity to use nature in a sustainable way, it is easier to be physically active, and there is a decrease in mild mental disorders as a result. The ground, which was previously characterised by instability, has stabilised, so that it is possible to reach the remote villages in the districts.

And together with many other factors, including more accessible education, we see that social inequalities are levelled out. With environmental justice comes social justice, and vice versa. All in all, the goal is to achieve a well and healthy planet, where a rich diversity of species, including us humans, live in harmony with each other. I hope this is something my grandchildren will experience.

## SUGGESTED CITATION

Ingilæ, E.J. (2021). The melting polar ice. In: Maric, F., Nikolaisen, L.J., & Bårdsen, Å. (Eds.). Physiopunk Vol 1. OpenPhysio Journal. <https://doi.org/10.14426/opj/202111pp08>