**My world is melting – To live with climate change in Svalbard – Line Nagell Ylvisåker**

I was supposed to stay in Svalbard for eight weeks, as an intern during my journalist studies in 2004. I was 22 years old and fell in love with the place. The dramatic nature and learning how to deal with it, the light, midnight sun, polar bears, and the feeling of being an explorer in a light version.

In 2006 I went back and started working as a journalist in Svalbardposten. From time to time I wrote articles about climate change. Scientists warned that temperatures would rise and the glaciers retreat. I was not able to take in the abstract information and convert it in to what this would mean to us. I talked to the old guys who said that this is perfectly normal. The ice has always come and gone; the climate has always been changing.

During my first winters I drove around on my snowmobile exploring as much of the island as possible. I was singing in my helmet, in pure joy over this magnificent nature, with freckles on my nose, sleeping in small, old hunters’ cabins. I was young, immortal and in love. Now also with Trond, my husband to be.

In December 2015 a snow avalanche came thundering down from Mount Sukkertoppen and smashed into eleven homes in the outskirts of the town centre. A two-year-old girl and a father died in their own houses. Eight others fought for their lives. I knew these people. The little girl was the same age and had gone to the same nursery as my daughter.

The following years were filled with storms and strange weather. The autumn of 2016 was the wettest recorded, and landslides came swooping down the mountain sides. During Christmas, a new winter storm came swirling towards us, and parts of Longyearbyen was evacuated. In February 2017 snow once again came thundering down from Mount Sukkertoppen and blew a hole in a terrace building. Later the same month it was soaking wet and black, when it should have been icy blue and pink. I got worried. What on earth is happening to the weather? Is this what climate change feels like?

Svalbard and the Bartents area is the fastest warming place on earth. From 1961 the temperature has risen six times faster here than the global average. I have two small kids. Me and my husband have built a house and invested all our money here. We call this home. But I don’t like stormy weather the way I used to. I am not sure it is safe to climb my mountains anymore. Should I stay here with my children? I need to get a grip. I feel the need to understand how the seas and the atmosphere and the rest of the nature is connected.

My friend Eli Anne Ersdal was buried in the avalanche in 2015. She is a meteorologist, has been working with avalanche danger and is now doing a PHD in oceanography. The summer of 2018 we walk to the top of Mount Sukkertoppen, inspect the new avalanche fences on our way. In the old days the city centre moved around in the Longyear valley with the coal mines. Now it is moving because of climate change. 140 homes will be demolished because they lie in the danger zones of nature hazards and cannot be secured. New houses are built in safe areas. 60 of them in the street behind ours.

Eli Anne takes me out to sea with the professor emeritus who was the first to find evidence of the warming of the deep seas. I learn how the oceans regulate the temperatures world over, how the cold, deep water produced in the Arctic and Antarctic run the ocean currents. And I understand why the ice doesn’t cover the local Isfjorden anymore.

I talk to the old hunter who has the record of winterings in Svalbard, 40 in a row. What changes has he seen? We talk about ice, snow, rain, geese, mosquitoes, the pope and the queen.

There are no trees in Svalbard. The environment is to cold and harsh. But I go hunting for fossils from the 50 million old Svalbard woods. Why were there large woods in the archipelago at that time? Why is the climate change we face today different from what happened then? Over millions of years the woods became coal, and until now Longyearbyen has been a coal mining town. Still we get our electricity from a coal burning power plant. Food, drink, mail and all we need is transported to our island by plane or boat. We are situated in the area most effected of climate change, Svalbard warms six times faster than the global average, and at the same time each inhabitant has one of the largest carbon footprints in the world. While the Norwegian government phases out coal mining, the tourist industry is growing. We are making money on the growing number of people who are coming here to see us melt. We are a large paradox.

I join a climate scientist and a reindeer scientist when they install new instruments to monitor what happens with the Arctic ecosystem. How will the plants, arctic foxes, reindeer and grouse adapt? I learn that a heat wave is on its way down into the frozen ground. When the permafrost thaws, it will emit large amounts of CO2 and methane. Bacteria and microorganisms living in the frozen ground will wake up. They will have a large impact on the emitting of gasses from the ground. None of these effects are well recorded in the UN climate models. And I start worrying if viruses of the Spanish disease or dangerous bacteria can wake up from the permafrost.

On one of our family trips to an old cabin, we meet three polar bears while standing on the tip of a headland. The symbol of climate change. Why are there getting more of them in the Isfjorden-area?

My grandmother comes to visit when a new snowstorm blows in and several houses are evacuated. Her return flight gets cancelled due to the weather. At the same day I talk to a meteorologist about how the low pressure systems are changing, and how the warming of the Arctic affects the weather in the rest of Europe.

In December 2018 it starts raining. The city turns black and I follow Eli Anne and the family she was buried with in 2015 to the place where the avalanche hit their house. We light candles and listen to the wind blowing through the snow fences while the rain is smashing on our hoods. It is evident that times are changing.

This is a story about a rising unrest and about living in the midst of the hot spot of climate change, reflections on how we live our lives and how the future will be.