

## Deep time

We care about trees. A few years ago there was some controversy about the decision to cut down a 600-year old oak in central Stockholm. Vigils were held, demonstrations organized and the tree became quite the news item. It helped, of course, that it was located just outside the headquarters of Swedish Broadcasting. Protests were to little avail however and the oak was cut down and hauled off an early November morning. In the local newspaper today there is another tree that has stirred up emotions- a black poplar wedged between a public school and a 19<sup>th</sup> century army building converted into daycare and high end design studio. I go and have a look at the tree and run into two officials from the real-estate company that owns the lot the tree sits on. Curious 4<sup>th</sup> graders peer out their classroom window, and presently we are joined by a small entourage of children, whose first words to us adults are: Don't cut down our tree!

Trees evoke an emotional response in us city-dwellers, particularly when they are being threatened. A lot of this has to do with a perception of time and permanence. Most trees in the domesticated context of a city tend to outlive the human inhabitants; thus providing a physical point of reference which not only bears witness of changing seasons, but also, at the same time stands for something fixed and stable in a dynamic environment. But there is something else at work here, something that goes beyond notions of sentiment and nostalgia, a more deeply rooted yearning which feels violated when a certain familiar tree is cut down. The reaction of the 4<sup>th</sup>-graders suggests as much when they perceived a threat to "their" tree.

I got interested in the longevity of certain trees, and decided to embark on a project with the aim to find out what made them and their contexts so special. The perspective on time and change provided by the 600-year old oak made me look at extremely long lived trees; some of them several thousands of years old and still counting. Few living things, or, for that matter artifacts, have survived that long. How have these trees endured throughout the ages, and how could they inform a discussion about sustainability and resilience?

My first stop is Old Tjikko, held to be the oldest living individual clonal tree in the world. There is plenty of information on the internet about the specimen. It was discovered in 2004 by Leif Kullman and Lisa Öberg. They were conducting a study of the effects of climate change on alpine and subalpine areas in northern Sweden when they identified Old Tjikko and Old Rasmus, two spruces well above the visible tree line on the Fulufjället mountain in Dalarna. The trunks of these trees have emerged from a shrub-like existence sometime during the 20<sup>th</sup> century as a response to warmer conditions, but the roots of the specimens have been found to be some 9500 years old, using radiocarbon dating. On a geological time scale, this means that Old Tjikko has been around since the end of the last ice age, setting up shop as soon as the ice sheet disappeared.

When I start calling around to make practical arrangements I am not exactly stonewalled, but certainly given a lot of vague answers with regards to the exact location of Old Tjikko. An official at the local County Administrative Board tells me that, yes, I can go and see the tree, but I should not take any photos that would reveal the exact location and not disclose how to get there. I explain that I am an artist, that I am doing this as an art project with an environmental slant, and that I have no intention to harm the tree, but that I need to find out more specifics about the route in order to plan my excursion. She concedes, and gives me a contact at the Fulufjället National Park. All trees are protected in a National Park but it seems that this particular specimen is something extra. An image search on the web yields numerous pictures of Old Tjikko, and it does not look like much. A scrawny spruce in an otherwise treeless landscape. But, it is extremely old, and a friend I run into a few days after starting to make my research, tells me the location is kept more or less secret to avoid massive hordes of tourists, particularly those that would be wont to take parts of the tree and boil them into extracts that would give...potency? Longevity? Something like that.

A few days later I get a hold of Eduardo Zuniga who manages the National Park's of the guides at Naturum, the visitors center at the foot of the mountain. Eduardo says, sure, he can take me there. Before I have a chance to ask him if it would be possible to stay at the site for a while (I need time to set up my cameras and equipment), he tells me that now is perhaps not a good time. The tree might not even be visible- there has been a lot of snow this year, and chances are that only a few twigs would be sticking up. He then says that he'll be going up the mountain the following day, and will scout the area to see what it looks like. Will I need skies? I ask. Most definitely, he replies. Or snow shoes. No other way to get up there. And he is not even sure that the shorter route is passable on account of all the snow. But he promises he'll get back to me tomorrow, and we hang up.

I go back to look at the pictures posted of the tree. It looks scrawny and not that impressive, but I thought it would be a bit taller than the 2-3 meters Eduardo claims it to be. Even so, 2-3 meters of snow sounds implausible. Maybe he does not really want me there. Perhaps he has more pressing matters at hand than escorting an artist up the mountain. Maybe I have been a bit too enthusiastic about the prospect of visiting the world's oldest tree. I recall a passage from Leif Kullman's webpage: "*With no exceptions, the exact position of these trees are not revealed to the public, since extensive trampling around the spruces would certainly risk their continued existence.*"

The extreme conditions on top of the mountain have contributed to the tree's longevity, and it would make sense to get a winter view of the site, to be counterposed with a future summer shot. Dilemma. I see myself hiking up there with several cameras and tripods, only to arrive at a scrawny twig sticking up out of the snow. Not much of an image, be it an ancient twig or not.

Next day I call Eduardo again. I suggest a date a few weeks ahead, having realized that maybe it's too short a notice for a guided tour. He hesitates, and says there has been some complaints, that the guided tours provided by Naturum were cancelled last year due to damage on the site. He suggests I get in touch with some entrepreneurs in a nearby village, a Dutch couple who might be able to help me out. He adds that he will have to get in touch with his supervisor, and promises to get back to me when a heads up for my modest expedition.

At this point I am thinking that why not just go up there, rent a cabin or check in to a hotel, rent some skies and just extrapolate the position of the tree from the many photos posted online- or talk to the locals and get someone to show me. It can't be that hard. Then I look at the topographical map again. The park spans some 38000 hectares, and landmarks are most likely under a deep cover of snow. Maybe I will find the tree. Maybe not.

On my way up to Dalarna, I make a mental arrival form: "The purpose of the trip is: Business- Pleasure- Other" and make a check at "Other". Reluctant to call myself a tourist and almost certain that the trip is a not-for-profit undertaking, I opt for the alternative of "other" which seldom, if ever, is available on official immigration forms. However, I am fully aware that I am about to do a good deal of sightseeing which would qualify me as a tourist. The multitude of cameras I'm carrying for one thing. The artist as a tourist; a sightseer- or in the words of Robert Smithson- "*a great artist can make art simply by casting a glance.*" And since my profession is that of image making I could conceivably also claim the "Business" option. I am hoping that I am entering a slightly more reciprocal relationship to the vistas and trees than the ordinary tourist, although I suspect I'll be doing a bit more than casting a glance while on site.

"This, my guide says, is how long it takes--"

I'm looking at a smooth grey tree; a dead pine worn silvery by the seasons. My guide, Dick is the entrepreneur that Eduardo recommended to me, and all of a sudden I am grateful not only to have a guide to show me the tree, but also to learn something along the way. Dick is a passionate guide, outspokenly dedicated about keeping the tourist footprint in the park to a

minimum. He shows me black enclaves of charred wood on the trunk, remnants from a wildfire some 150 years ago. The coal is soft to the touch and leaves a faint smudge on my fingertips. Nestled in a fold of burnt wood, a small tuft of yellowish-green lichen the size of a golfball. This is wolf lichen, an endangered and protected species that will take hold on dead wood, provided that the circumstances are just right. Lichens are particularly fuzzy when it comes to air quality, temperature ranges and precipitation, and this particular specimen bided its time for over a hundred years before making a home here. Extremely poisonous, the lichen has been used for killing off wolves by grinding up the plant with crushed glass, a method devised to make sure that the active agent in the lichen enters the bloodstream rapidly.

Fear of the wolf is a deeply entrenched cultural trait in Sweden. Yesterday, upon arriving in Särna, the small village at the foot of the mountain where I am staying, I see a group of teenagers by the gas station. They are hanging out on their snowmobiles; Thursday night in Särna and not a hell of a lot else going on. One of them wears a hoodie that reads "våga vägra varg i Sverige" on the back- just say no to wolves in Sweden. A few days later I'm told that wolves have been found mauled by snowmobiles; perhaps by accident, but just as likely a purposeful roadkill. The trick is to throw the dead wolf onto a passing log truck in for a long haul away from the scene of the crime.

The area surrounding the National Park is basically all pine and spruce forest. Most of it is planted, harvested and processed by big timber corporations. The two main economies in this part of Sweden (and indeed in large parts of the country) are forestry and tourism. As the two tend to overlap in the great outdoors, there is an inherent conflict of interest here- the scenery of any given landscape very much colored by the lenses of the beholder. Even the great naturalist Linnaeus saw the landscape in primarily economic terms and his notes from a journey through the area in 1734 reveal as much. His comments on agriculture, forest management, minerals and available game in the area read like an instructive manual for exploitation and many of his suggestions were put into practice, notably the use of rivers for transportation of timber.

If unsightly in the winter I can only imagine what the clearcut patches look like come spring and summer when the full extent of the wreckage is laid bare. I have always been fascinated by landscapes of this kind- rendered apocalyptically empty but for a few remaining deadwoods, and often, as is the practice in much of Sweden, thinly veiled behind a curtain of trees along the highways. The mire at the entrance to the National Park offers a different view- a veritable time field with spruce and pine in different stages of growth. Nutrition and minerals are scant in the mire and the rate of growth is slow and arduous, judging from the twisted, gnarled features of a 500-year old pine. Bent and twisted branches start pointing downward as centuries wear on as if they are drawn back into the soil from whence they sprang. The industrially cultivated forests nearby have none of this variety, which also means that they are poorer in terms of suitable habitats for other species- and infinitely more vulnerable to pests and natural disasters. The gnarly trees in the mire are perhaps less useful for our purposes, but they have mastered the art of resilience. The presence of wolf lichen is but one example of the benefits of allowing a forest to take its time.

Stewart Brand, of Whole Earth Review fame, has written an excellent book called "The Clock of the Long Now" where he puts forth arguments for a perspective on time that relates to an ongoing, long term *chronos* rather than the more immediate and short-lived *kairos*; an argument which feels particularly pertinent when looking at the trees in this mire. Trees like these manifest that which lasts, endures and somehow manages to cope with changes over time. My daily life is very much along the *kairos* time scale with time neatly divided into allotted segments for work, family and "other"; usually meaning eating and resting. That there is a lack of superstructural flow in some segments becomes painfully evident when we're running late for daycare in the mornings: My 5-year old and his little sister deep in their game give me blank stares when I say that we must go because it's getting late. They simply don't get it: the abstract concept of time as denoted by the

clock. Their time is the ongoing kind, same as it is for a tree.

The snow shoes on my feet feel awkward at first and only permit forward motion. Walking up the mountain is part of what I think my guide Dick means by sustainable tourism. In order to get to the tree, we have to climb up the side of the mountain, and there is no other viable way with snow that is at times soft and very deep and sometimes encrusted with an crispy sheet where of ice. Snow mobiles are off limits in the park with the exception for a designated route some kilometers away. In the silence that is the absence of anything motorized, I become more keenly aware of my breathing, and, as the ascent gets steeper, of my panting. After a while I get better at negotiating the tricky parts, and follow Dick's example of leaning onto the face of the mountain, carefully lifting one spiked snowshoe at a time with the other one firmly inserted into the icy snow. We stop to rest every 20-25 meters of altitude gained, catch our breath, and arrive at the crest with a sense of accomplishment- on my part mixed with a great deal of excitement about being here and not having lost any of my jerry-rigged equipment along the way.

The big white plateau of Fulufjället stretches out before me. It is overcast, and the light reflected in the snow erases the line where earth and sky meet. This is an indeterminate landscape, a place that seems to be expanding in all directions at once. The wind has free reign in the flat topography of the mountaintop, but despite the gusts that rip at my clothes and take my breath away, I sense a great tranquility here. I am reminded of the deserts I have seen in SW Texas- an reduction of stimuli that seems to free up space for a more face-value experience of the elements and landscape I am in. The pull of an absent horizon. I have an impulse to start walking and get lost, adrift and vanish into the threshold of land and sky; this is the scene where I walk off into the far and simultaneously see myself getting smaller and smaller... I am momentarily lost in reveries. A delicious derailing of the train of thought, attractive, perhaps, primarily for its manifest lack of utility. Timelessness. There's the tree says Dick and points at a tiny black speck across the frozen mountaintop. Halfway there, I see another spruce, its top half broken off in the wind. Judging from the direction of the break and the way all the remaining branches seem to point one way, I guess the prevailing wind comes from the Norwegian side. The broken tree is a good landmark, and I will use it as a means of orientation on my next trip up the mountain.

I set up my cameras. Old Tjikko stands all by itself on the frozen tundra and looks every bit the ancient being it is. Dick has made sure that the coordinates match with his preprogrammed GPS so that I get the right tree: A few other spruces are scattered over this end of the plateau, each one keeping a respectful distance to its relatives. Chances are that they are just as old as Old Tjikko, perhaps even older, but the radiocarbon dating has yet to prove that. I pry rocks loose from the ice a bit further up and carry them back to the tripods for weights. One of my cameras is a home-made pinhole camera the size of a large shoe box, and I need it to stay immobile for the 24-hour exposure. A small wide angle digital camera of the kind used in action sports sits atop the other tripod. I have programmed it to take a frame every minute, hoping the battery will last long enough to give me an overnight sequence. After making sure that everything is up and running, I take a few more pictures, gather my stuff and head on back down the mountain again with considerably less gear to carry.

The hike up the mountain feels shorter the next day. There has been a shift in the weather from yesterday's mildness, and as I make it over the ridge onto the plateau, I see rapidly approaching clouds with an ominous look. The weather can change in an instant here, and I just hope I won't have to navigate through a snowstorm on the exposed tundra. By the time I get to the tree, it clears up again, and I find all my equipment where I left it. It is such a small fraction of this tree's life I have come to witness. A few hours altogether. My cameras have hopefully seen it through the night and early morning. My impulse is to stay, to linger, to become a human bonsai next to the tree, to slow up and take root in a field of lichen and moss slowly revealed, to start casting glances that span the millenia; but it is snowing now and getting colder by the minute so I head back across the

plateau. Halfway down, circling above the Njupeskar waterfall which has Sweden's highest fall, I make out a Gyr Falcon. I turn back and take a last look- casting a glance as it were- in the direction of Old Tjikko, but the tree has been lost in a flurry of swirling crystals of snow blowing in from the west.

#### Post scriptum

After visiting Old Tjikko in late March, I spent the following month testing different constructions for extremely large-format pinhole cameras. A tree that old deserved a longer look, and I started experimenting with cameras that would yield an image in scale 1:1, and yet somehow be portable. I kept on building models for this in my studio, using a dead oak in a field nearby as a model, writing this text and getting further into the general idea of organic life with long life spans. In preparation for a trip to NYC, I googled New York's oldest tree and came across another artist who had been working with old trees and plants for a good while. I got curious and looked her up: Rachel Sussman, artist and author of the beautiful and tremendously well researched book *The Oldest Living Things in The World* (University of Chicago Press) released on April 2<sup>nd</sup> 2014, a few days after I got back from the mountain... A summer view of Old Tjikko is on the cover. So here was someone who had been working with the theme of resilience, longevity and continuity as exemplified by extremely old trees and other living things for over a decade- just when I had gotten started... I still feel that old trees have a lot to teach, but I will take this as a cue to reformulate my project and find another approach. In the meantime, I warmly recommend Sussman's book on the subject- a good read with images that evoke a sense of deep time in all its resilient glory!