

21cm  
1985



19cm  
1990



16cm  
2000

FISHES  
MAY

MORE-THAN-HUMAN LEGAL ECOLOGIES AND COSMOLOGIES  
AT THE ARCHIPELAGO RESEARCH INSTITUTE



On May 24<sup>th</sup> 2022, a group of artists, biologists, a legal scholar and a fisherperson congregated at the Archipelago Research Institute on the island of Seili/Själö to participate in a witness seminar chaired by the more-than-human 'Fields of May'. The latter is an infrastructure converging practices and historical-material specificity which create the conditions of possibility to conjure worlds attuned to non-extractive rhythms. Situated within the island's layered ecologies and the research undertaken by the institute, we discussed potential more-than-human legal ecologies and cosmologies.

The following comprises documentation of the event. The context of the island and its specificity is introduced, followed by the expanded transcript of the event, accompanied by photographs, a guide to tree breathing by Mari Keski-Korsu, a reading-embodiment of ice/water by Anastasia (A) Khodyreva, and a nettle rap by Lotta Petronella. The document is concluded by a glossary of relevant terms, concepts and genealogies.

## FORMAT

The event was structured following a format close to that of a witness seminar<sup>1</sup>. The latter is a punctual moment during which people with a specialised interest around a topic, issue of concern, or an event, gather and verbally exchange, discuss, and debate with the aim of advancing critical dialogue on the matter of address. During a seminar, participants are invited to speak from their position of situated knowledge and experience, as a means to initiate and stimulate discussion. These conversations are often chaired and recorded. The seminar transcript becomes an archival source for future use that emphasises the capacities of interdisciplinary collaboration and embodied practice. Though witness seminars have often situated themselves in contradistinction to oral history, FRAUD proposes a re-interpretation that welcomes constituencies outside academia as specialists in their own right, and integrates oral history as an affirmative grounding force, while manoeuvring the legitimacy conferred through the archival form. In this case, the witness seminar was chaired by the former masts which comprise Fields of May (pictured above). Its history and material specificity guide the discussion, together with the herring wind sock. Each participant prepared a small introduction to their practice, which was followed by a discussion.

## A WITNESS SEMINAR IN CONTEXT

Fields of May takes as point of departure a salvaged 19th century barque called the Sigyn. Its former masts act as an infrastructure to chair witness seminars and events to discuss the convergence of critical materials in the archipelago, specifically in relation to Seili.

Islands have been considered as microcosms, worlds in themselves, yet the perceived boundary between land and sea is a porous one. Archipelagos close to the earth's poles are joined in the winter by the icy cover of the water's surface, frozen highways running across oceans and seas.

Seili is also positioned next to a well-travelled route, where trade ships once passed (including the Sigyn), now mostly populated by cruise ships which double up as cargo transport.

These gargantuan ships trace the global entanglements of extraction. The ships carrying containers of phosphate rich industrial fertiliser glide along the Baltic. Once it is delivered, the phosphate

run-off from agricultural land in turn contributes to the sea's eutrophication. Water bodies are choking. Plankton and fish are adapting to this stifling environment. For several decades the Archipelago Research Institute in Seili has been measuring the shrinking herring and tracing its relationship to the morphing plankton, namely due to changes in salinity and eutrophication. Fisheries worldwide are in danger, more than 70% are fished at their limit or over fished according to the Food and Agriculture Organization of the United Nations.<sup>2</sup> Fish are counted and traded like stock, commodities like phosphate and carbon. Fisheries are becoming a critical raw material. This new material propels the blue economy, together with deep-sea carbon capture. Despite the forestry ministry of Finland affirming that its industry constitutes a positive carbon sink, the country's primary industry contributes to the Baltic's eutrophication. Carbon too has become a material, abstracted from its material condition of production as well as its paramount social and environmental relations, to be traded and offset.

All the while, as the ferries and cargo ships navigate through the archipelago, they carefully circumvent armament zones, designated by the colour purple on the seaman's map. No-go zones where the cold war's weapons were dumped. The eutrophic strata bear witness to Soviet disarmament. As such, phosphate, carbon, and fisheries coalesce in Seili and gesture towards the inter-relationships of wider ecologies of extraction.

With that said, as much as they look outwards, islands also look inwards, and as such have been misunderstood as ideal sites for penal colonies and others to be marginalised. The Swedish monarchy chose Seili (Själö) to first isolate lepers, and later became a sanatorium for 'unruly' women, many of whom died on the island. Once those institutions were closed, the Archipelago Research Institute repurposed the buildings, namely used to dissect the herring. The forestry ministry also used the island for its own experiments. These histories imbued in the island are leaking through the Baltic's stratified seabed, rich with phosphate, carbon and fossilised fish. [Can we attune to these layers to formulate post-extractive futures?](#)

<sup>1</sup> Witness seminars were developed by the Institute of Contemporary British History in the early 1990s and subsequently adopted by the History of Modern Biomedicine Group in its Wellcome Witnesses to Contemporary Medicine volume series, inaugurated by a seminar on HIV/AIDS research and activism.

<sup>2</sup> Food and Agriculture Organisation of the United Nation, 2022. The state of world fisheries and aquaculture 2022. [Towards blue transformation](#). Rome: FAO, p.48.

## WITNESS SEMINAR EXPANDED TRANSCRIPT



**TARU:** These masts have a long history of travels - for decades, even a century - but they have also already journeyed with us for some years now. It's really quite incredible to be here today, at their final resting place. On behalf of CAA Contemporary Art Archipelago, I am happy to welcome you all to the inauguration of Fields of May, the first site-specific semi-permanent artwork of our project Spectres in Change here on the island of Seili in collaboration with the Archipelago Research Institute. On the occasion of this witness seminar, we are also celebrating this five-year process of working together here with artists and scientists.

Since 2017, CAA has invited artists to develop long term research projects in dialogue with the work of the Institute and with the island itself. Seili has offered a rich context for artistic enquiries and interventions as a microcosm that reflects the acute planetary challenges of the present against complex historical and future trajectories. The project has so far consisted of slow artist

residencies unfolding over a number of years, annual collective research retreats for artists and scientists on the island, and small-scale events and fieldnotes reflecting on the processes of our ongoing work. We are now working on the productions of new commissioned art works, while planning publications and a series of public events. The Fields of May witness seminar is part of the programme *How do you know what you know? Exercises in Attentiveness*, which sets out to share methods and thinking emerging out of this collaboration between artists visiting the island and scientists with decades-long embedded practice in Turku Archipelago.

**AUDREY:** Thank you, before our short introduction, Lotta will open the space for us and afterwards we will raise the flag.

**LOTTA:** I'm going to open up the space and I ask you to first, just be present. If your feet touch the ground, feel your feet touching the ground, feel your back or behind touching the mast, or with your hands, feel the breeze of the wind on your skin, on your hair, feel the sun warming you, and if you want to you can close your eyes or you can keep them open. And with the rattling sound that I am making, I will invite the seals to join us. The seals were the first mammals to enter this island and also the name of the island, Själö, comes from the sea. Now I will invite each direction, if you want to you can do it with me or you can also stay as you are. *Terve itä*, I welcome the East, the wind where the sun rises and with the wind to bring us messages and to hear the shares and the witnessing that will happen today. *Terve etelä*, let's bring in the South, the fire, the initiation, and I hope that today also will be passionate in our sharing, and creative, and allow the fire to keep the speeches alive. *Terve länsi*, I welcome the West and with the West, we welcome the water, the water inside us and feel the movement of the water inside you, correlating with the movement of the sea. And also, think of yourself as moss, moss is a transmitter of water, so it transmits the source, makes water flow. *Terve pohjoinen*, let's invite the North, the soil, the Earth, the ancestors, the elders, the underneath, the underground. *Terve aurinko*, let's invite this sun, the sun will shed light and make us see what we need to see. But also, let's stay protected, because it's good to protect ourselves from the sun. *Terve kuu*, let's invite the moon. The moon is also making visible what is hidden, it's also a transmitter of waters and it brings in the cyclical understanding into this witnessing. At the end, let's invite all the spirits of the island, both those sentient beings that

are alive, the trees, the flowers, the moss, the earth, the animals and let's also bring ourselves into this space. Be present, attentive; receive, listen and share. I will try to see if I can light a really small fire. With the smoke of the pine, I will also invite the masts, and the connection to the liminal space so let's remember that we are standing or sitting between earth and sky, and that these masts have travelled through water, so be like water, be like the trees, be like the wind, be like the earth. This space is now open.

**AUDREY:** Thank you, lovely. Now we are ready to raise the flag.

[Jari raises the herring wind sock]

[Clapping]

**AUDREY:** And for those who are not so familiar with the herring fish, the windsock is modelled from the shape and scale pattern of the Baltic Herring. We hope that in this way, *we can also follow the herring*, the herring is giving us the direction now.

**LOTTA:** The Oracle.

**AUDREY:** Yes. Now, I wanted to give an introduction, then also a little bit of the history of this structure that we are sitting with. This structure is also the chair of the witness seminar today. To introduce the chair, the wood that we're sitting on is from the museum ship Sigyn in Turku. When the museum had to remast the barque because it was starting to rot, which we learned somewhat fortuitously, we were, of course immediately interested to work with the wood. One the hand because they were just going to let it rot, but we were specifically interested because they told us that when they were looking for trees to make the new masts, that there were less than 10 in all of Finland that would be suitable (that is tall, thick and of sufficient quality). This was for us quite shocking as Finland was one of the main providers of wood and tar for all the Empires' fleets not so long ago. So it really speaks volumes about how the forest in Finland has changed, from servicing the boat-building industry, to producing pulp for the Amazon cardboard box industry. For us, it was really an opportunity for this material to mobilise a discussion around climate change that is much richer than, for example, talking about abstractions



like carbon accounting, emission trading systems or carbon sinks. This is what brought us to critical raw materials, which we would like to also introduce, in the framework of recontextualizing certain materials.

**FRANCISCO:** You may have heard of lithium or phosphate, these kinds of raw materials that are necessary for the functioning of an economy. Many countries, including the EU as a whole, have a policy that is directed towards sourcing these raw materials, to secure the subsistence of the economy. In 2008, the EU put forth the Critical Raw Materials Initiative, which effectively defines a strategy for the continued obtention of these kinds of resources.

**AUDREY:** Which are, of course, normally mined outside of the EU.

**FRANCISCO:** But also within Europe, with rare earth metals such as lithium in the Fennoscandian region, crucial to the so-called green economy. This region has therefore also become an area of critical interest. These materials are often presented elegantly, and also very problematically, in a graph with XY axis. One axis designates supply risk, and the other axis, economic importance. Thus each of these materials are plotted in a graph according to these two variables. So, we have been working for the last

three years just trying to counter these kinds of narratives, these new tools for the management of extraction of materials, to examine what are the impacts on ecosystems and communities, and species or environments. We have been exploring some of these materials, but also, we have been proposing new ones just to understand how a new material arises such a graph, and how they become critical, or how they started to become such prominent figures.

**AUDREY:** Such as fish, for example, because of Fishery Partnership Agreements, they're traded very much like minerals. This brings us to more-than-human Critical Raw Materials, which in a way is how we arrived at the format of this witness seminar, thinking about a format that could bring into discussion and re-contextualize these resources from the decontextualised graph. In this case of today, it'll be thinking about the interrelationship between water, herring, salt, and trees, and thinking

through these protagonists to imagine more than human legal ecologies. So, we wanted to briefly introduce the witness seminar format, because it has a very specific provenance, rooted in medical history.

**FRANCISCO:** It started in the 80s around medical historians coming together to enquire about the history of AIDS research. How certain developments, how certain scientific communities, but also nurses or carers, went about the daunting task of caring for certain bodies, that were not cared for by most parts of society. And they then realised that there was no source or reference about how the scientific communities have collaborated. So, they started to organise seminars with medical doctors, bio scientists, nurses and certain gatekeepers for affected communities, to be able to put that puzzle together, that history together. Also, to give it official weight, because oftentimes, that kind of history doesn't have academic standing, and is considered anecdotal. However, it was crucial to developing certain alliances and building certain collaborations. We found that kind of genealogy, or this kind of oral history format, is really interesting to think with, and to repurpose, for the particular task of today.

**AUDREY:** And we have adapted it a little bit because normally, witness seminars happen between experts, but it has a very specific definition of experts, which are scientists. We thought it would be nice to revise this definition of experts to include people with traditional knowledge or artists or other people with knowledge that may not be scientific per se. And so today, that's what brings us to consider more-than-human legal ecologies.

Now, a final note about why we ended up being so drawn to thinking about legal ecologies is because of the last two years. In 2020 and 2021, we repurposed this wood that we are sitting on, originally masts, in the form of a *Juhannussalko*, a midsummer pole.

We were interested in this kind of Midsummer tradition, which is somewhat I think de-politicised at the moment, but there are some interesting histories in this tradition. In the archipelago, specifically, we learned that midsummer poles were set up as a way to show boat-building prowess, or how good ship builders were in the archipelago. And it was also to show how well people could collaborate to put these together. There was a strong connection to collaboration, which we thought was really important. And we also learned, for example, in England, though it's very hard to find archival evidence about it because it was a working class tradition, but

there is a mention of it, used as popular tribunals. One time in the year, and in England this would occur in May, because of the Celtic calendar change from dark to light days around May 1st, and they would put it up in what was called the Fields of May, or the ey commons. On this day, barons and other powerful people could be put to trial, a reversal of the order so to speak. This is some contextual history of the structure that is chairing the witness seminar today and its relationship to discussing potential legal frameworks. (00:19:15) Today, the idea is to think through the eutrophic Baltic as a stratified body, and how each one of us could imagine speaking from the perspective of specific strata. The strata of the herrings, then we would have the strata of the salt, the strata of the trees and then water as body. And then afterwards, to think about how these different layers could inform thinking about legal ecology.

The order of this fantastic programme is the following. We will start directly with Katja who will speak a bit about the important research on herring that's been happening here at the Archipelago Research Institute. After that, Johannes will guide us to the fishing nets, and we can have an understanding of how these works. After this, Ilppo will guide us through the importance of salinity and how that relates to and influences the different elements, after which Mari will lead us through an exercise to attune with the trees. So, we will slowly start to shift into attuning with the elements, after which Anastasia will lead us through an exercise to attune with the water, and Elina will then explain a little bit about how this legal framework might work and lead us through also to the discussion part when we start to think from the perspective of these different elements, how this might inform legal frameworks.

**KATJA:** I can start with the fish itself. It's a small pelagic fish that is found throughout the Baltic Sea. Its Latin name is *Clupea harengus membras*, and it's considered a sub-species of Atlantic herring, *Clupea harengus*. It varies quite a lot in its characteristics, it reproduces throughout the Baltic Sea, and it's an important fish species for the ecosystem, as well as for the fisheries, so it's heavily fished upon. The Baltic herring research project is a long-term project of ours, it has been active since the 1980s, roughly around 40 years, depending on what year you consider to be the first one, and it focuses on the reproductive biology of the Baltic herring, mainly because reproduction is key in determining if a species can survive in its habitat. The Baltic herring travels from the Bothnian Sea to the inner regions of the

archipelago where we are now, to reproduce. In the first years of the research, the main focus was to map out the reproductive areas because there wasn't that much information on where in the archipelago the herring reproduces, and through the years it has evolved, like all research projects do, and the questions evolve as more knowledge is gained. For example, nowadays, thanks to long-term datasets collected throughout the history of the project, our research focuses on how climate change has affected and will affect the species.

As said, in the beginning, our research began with a focus on mapping out the reproductive areas, but then the interest moved towards the fish itself, and mainly to the females that come here to reproduce. What are their traits, their bodies, their size, how much they weigh, what is their age, and how these aspects vary over the whole population. This long-term monitoring programme continues to this day, we collect fish every year, take all these different measurements and put it into our dataset, which comprises our long-term monitoring time series that we can work with. As the project has been going on for so long, we can start to find associations or patterns in the fish data itself. We see, for example, a change in size.<sup>3</sup> The herring has become smaller during these 40 years. We can also, with this data, start to find associations with environmental factors such as salinity and temperature,<sup>4</sup> or with zooplankton abundance<sup>5</sup> as the herring feeds on zooplankton. That's the idea of the project, and in addition to those basic traits that we measure every year, we've also measured biochemical traits such as muscle fat content. We've looked at the energy reserves of the fish, because that can give us information on how the fish is doing and how it divides its energy in terms of growth and reproduction.

Lately, we've also added hormones to this dataset, so we know a bit more about the herring's physiology. We've seen quite a lot of changes, the size being one of the most noticeable traits, but we see also a change in fat content. As the fish become smaller, they've also decreased in fat content, they're thinner in that sense. Importantly, we have found associations between the size and weight and salinity decrease, and to the temperature increase in the water, as well as to the change in the plankton content

that is also connected to that water quality parameters. If you have questions, I can elaborate more, because there's also different side projects going on simultaneously.

**AUDREY:** Maybe you could say a bit more about how the plankton has changed and what patterns you have detected through the time series.

**KATJA:** In addition to herring, in Seili we monitor the water quality. Ilppo will probably tell you a bit more about that, but we know that salinity has decreased in the past 40-50 years. We know that from our measurements, and that is connected to climate change, so connected to the increase in rainfall and decrease in saltwater pulses.<sup>6</sup> Of course, when the quality of water changes, the animals respond to that too, they adapt to the environment and that is at the core of all this research, basically how the species adapt to these changes that are happening quite rapidly. As a result of these changes in the water quality, from our plankton samples, we know that the zooplankton composition has changed and it naturally also affects the species that eat plankton. For example, the herring favours certain species that are larger and have more energy, or more lipids, and the abundance of those has decreased. It is possible that the herring simply has less food to eat. However, the pattern seems to be quite complex, there are all these different processes happening at the same time, which makes it quite difficult to understand. I always say that we are building a huge puzzle, piece by piece, basically trying to figure out how the herring changes, and with that, gain more information about how the Baltic Sea is changing, because as a result of this monitoring, we can use herring as an indicator species. The Baltic herring is a good indicator species because its traits or characteristics vary quite a lot. Between individuals for example, the size varies significantly. By studying these variations, we can try to find associations between different variables and try to get the bigger picture of what is happening in the Baltic Sea. Basically, we are sort of doing detective work.

<sup>3</sup> Rajasilta, M., Mäkinen, K., Ruuskanen, S., Hänninen, J., Laine, P., 2021. Long-term data reveal the associations of the egg quality with abiotic factors and female traits in the Baltic herring under variable environmental conditions. *Frontiers in Marine Science* [Online], In Press. Available from: <https://doi.org/10.3389/fmars.2021.698480>.

<sup>4</sup> Rajasilta, M., Mäkinen, K., Ruuskanen, S., Hänninen, J., Laine, P., 2021. Long-term data reveal the associations of the egg quality with abiotic factors and female traits in the Baltic herring under variable environmental conditions. *Frontiers in Marine Science* [Online], In Press. Available from: <https://doi.org/10.3389/fmars.2021.698480>.

<sup>5</sup> Rajasilta, M., Hänninen, J., Laaksonen, L., Laine, P., Suomela, J. P., Vuorinen, I., & Mäkinen, K., 2018. Influence of environmental conditions, population density, and prey type on the lipid content in Baltic herring (*Clupea harengus membras*) from the northern Baltic Sea. *Canadian Journal of Fisheries and Aquatic Sciences*, 76 (4), 1-10; Mäkinen K, Vuorinen I, Hänninen J., 2017. Climate-induced hydrography change favors small-bodied zooplankton in a coastal ecosystem. *Hydrobiologia* 792, 83-96. Available from: <https://link.springer.com/article/10.1007/s10750-016-3046-6>.

<sup>6</sup> Salt water pulses, or Major Baltic Inflows (MBIs) as they are also known, are periodic (but irregular) events where large amounts of saline and oxygen-rich water are transported into the Baltic Sea from the North Sea via the Danish straits. Salt water pulses have significant impact on physics, biogeochemistry and marine life in the Baltic Sea. Climate-induced hydrography change favors small-bodied zooplankton in a coastal ecosystem. *Hydrobiologia* 792, 83-96. Available from: <https://link.springer.com/article/10.1007/s10750-016-3046-6>.

**AUDREY:** Ok, and could you expand upon the fat content? Marjut Rajasilta was saying something about how the fat content has increased and how that may be linked to the reproductive changes. Is it possible to say a bit more? Is it still at the beginning the research?

**KATJA:** No, we have been doing it for many years already. So basically, just to start with, we analyse the whole fat content, or lipid content, in the herring muscles as well as in the ovaries. We do this separately to gain a bit more information, because the fat content in the ovaries and the eggs that the herring females produce, tell us more about how they are, and how they are linked to its reproductive success. We've done it for several years, we can also do it retrospectively from the old samples because we have a lot of fish in the freezer from the monitoring. Through that, we've seen this change in the fat content as well, so the herring have become, smaller in size and length, but also their fat content has decreased.

Surprisingly, and interestingly though, we've also looked at the fatty acids, the quality of the lipids, and we've noticed that despite the fat content decrease, the quality of the lipids has improved.<sup>7</sup> This is quite interesting as the herring are thinner and they have less lipids, but they're of better quality. The lipids contain more omega three fatty acids that are also good for fish, as well as for humans. And we don't know exactly what it's caused by, but we think that it could be related to this one copepod species, *Limnocalanus macrurus*, that has become really abundant in the Bothnian sea area. It's a small crustaceana freshwater species, whose abundance has increased in recent years, probably because the salinity in the Bothnian Sea has decreased as well. Likely the conditions of the water are nowadays better for the *Limnocalanus*, allowing it to reproduce in abundance, that could be one thing that explains the change in

lipid quality in the herring. And this all connects to the characteristics of the Baltic Sea. The Baltic is a brackish sea water area that is young in geological terms, and its species are either of marine or of freshwater origin, and there are only a few truly brackish water species. Thus, climate change, which is changing the salinity and temperature, is affecting the species differently. The marine species might be the ones that suffer from the changes, whereas conditions might improve for the freshwater species. The conditions of the sea are changing, and the Baltic Sea itself has been in constant change throughout its history.

**MARI:** I was wondering if the rising of the land in the Archipelago has an effect?

**KATJA:** To the herring data? No, not really in the last 40 years at least.

**AUDREY:** This is a good point to switch from the herring research to the nets laid out here which are used to catch the herring for the research Katja was explicating.

**JOHANNES:** There are basically three main methods of catching herring, trawlers, gill nets and trap nets. Trap nets used to be really popular around the Archipelago Sea in the shallow parts of the water. A few decades ago, I think there were hundreds and even thousands of trap nets, but lately, in the last couple of years, there are maybe a few dozen in the water surrounding (Taivassalo and Kustavi) and none here around the Seili area. Until 2017 I think, the institute got all the herring samples from the commercial fishermen, but they stopped because it simply wasn't worth it anymore, and so we had to figure something out. Now we have our own smaller version of the traditional trap net. This year we haven't been very



<sup>7</sup> Rajasilta, M., Hänninen, J., Laaksonen, L., Laine, P., Suomela, J. P., Vuorinen, I., & Mäkinen, K., 2018. Influence of environmental conditions, population density, and prey type on the lipid content in Baltic herring (*Clupea harengus membras*) from the northern Baltic Sea. *Canadian Journal of Fisheries and Aquatic Sciences*, 76 (4), 1-10.



successfully in catching herring but let's hope we will catch some. Basically, the idea is not that fish get caught in the net, it works more like a fence. The part actually called the fence is attached to the shore, and when the herring come to the spawning grounds, they have to follow the fence, and they follow the fence ending up in a kind of triangle. When the net is in the water these parts forming the triangle are called the wings. The fish swim in the wings for some time and end up in a small door or a corridor where they can swim through and end up in what is called the nest. So they don't get caught, they can swim around and have a good time. Usually around twice a week we come to check if there's any fish. We only need around 100, 150, maybe 200 fish per week, during the spawning time. We can easily release the rest because the net is floating in the sea. We just open the other side of the net and they can swim away.

There is no longer any commercial trap net fishing happening here. Last year, we had a good herring catch, but this year I don't know, we have only five individuals so far. It's not a really good sign and I don't know what's the reason. We will soon pack up this net and go set it about a half an hour north from here, let's hope we can catch some herring there and start doing the experiments that Katja has just described.

The commercial trap nets are at least five or six times larger than this one, and they are usually kept in place. We use anchors and buoys to keep the net in place, but the commercial ones use these huge bowls, not as huge as the Sigyn mast, but quite big anyway, to keep it attached to the bottom. Ours is more portable and easier to handle because of the smaller size and anchors, and so on, and it needs less manpower to set it.

**AUDREY:** Could you explain why it's no longer financially viable for the commercial fisherman since 2017?

**JOHANNES:** There's simply not enough herring for it to be financially viable to fish. For example, herring is much smaller now, and it seems to spawn less frequently. There's simply less herring to be caught, and the cormorant and seals want their share of the herring as well. But I don't think that the seals are much of a problem for the herring fisheries, they are bigger problems to the traditional gill nets and so on. The cormorants on the other hand like to feed on the trap nets, it's very easy because the fish is trapped, and they can just dive in. All things considered, I think the main reason is that there just seems to be less herring around.

**KATJA:** It may be related to the changes in the population that are going on, we don't know the exact reasons, but it seems that it may be connected to the lipids. When the herring come here to reproduce in May, some come and they reproduce until middle of July, and then they return back to their overwintering areas in the open sea. Most of the population returns back to the Bothnian Sea, where they stay during the winter. A hypothesis that we have is that the change could be due to the fact that they aren't migrating to their reproductive areas as much as they used to, or that they could be staying on the outskirts of the archipelago. This change could be connected to the decrease in their lipid reserves, so they could have less energy to arrive here, or there could be other reasons. But what we have observed is that the patterns that used to play out which were quite predictable, are no longer predictable. That is probably related to the internal changes in the individual fish and to the fish population as well.

**ILPPO:** Then there is the environmental change generally. This is the spawning time of the herring, and they are migrating to their traditional spawning grounds, which are usually close to freshwater outlets, like a river mouth, and this environment has been changing for decades now. In the 40s and 50s the spawning grounds used to be closer to the mainland. And one special change that I remember, when I was a student and they started to culture the rainbow trout here for commercial reasons in cages, and then the fishermen said that their herring catch decreased because of the smell of the rainbow trout. The smell had somehow affected the herring, deterring it from spawning grounds close to the rainbow trout cages. And they started a research project on that, and what they found out was that the spawning grounds which used to be close to the mainland had been moving outwards away from the mainland.

That was the time, in the early 80s, when they started the study to make the herring time series. At that time, the most important spawning ground was in the northern part of Airisto, where this trap net was. I would like to guess that that kind of environmental change due to general eutrophication of the spawning crops has had an effect. One of the results of the research project was that all the spawning grounds have been deteriorating and spawning has been moving outwards, not only those areas where the rainbow trout culture is, so it's the general eutrophication. For example, if the bottom vegetation like the Bladderwrack is disappearing, the eggs don't have any substrate to attach to.

Thus, I would say that environmental change is one of the key problems.

**AUDREY:** It's interesting that the spawning grounds move in response to environmental change, like many things have changed. Johannes, you have fishermen within your family, and you have some kind of knowledge about this?

**JOHANNES:** Yes, my father and uncle both are commercial fishermen, or were commercial fishermen.

**AUDREY:** From the perspective of the fisherman, how have the practices changed?

**JOHANNES:** Well, like I said, they stopped using trap nets and started trawling instead, because then you can catch herring in their feeding grounds in the open sea, and then they have to figure out different ways of making a living, like using more gill nets, or trying to catch different fish species, like sander and perch and so on, but it's quite hard. All the fishermen are pretty old, it's not the career that young people want to choose, because it's so hard nowadays. And yes, you have to change fishing practices and try new things if you want to make a living out of fishing anymore, or at least like herring fisheries. Trawling is, I think nowadays, the main way of catching herring. There are huge trawlers that trawl the open sea and smaller ones in the outer parts of the archipelago.

**AUDREY:** Does the trawling present a collateral damage, from bottom scraping for example?

**JOHANNES:** Not in Finland as bottom trawling is forbidden, so it shouldn't scrape the bottom. At least not that much.

**AUDREY:** Okay, and so with this type of trawling then, might it eventually render the fish extinct because of the catch volumes?

**JOHANNES:** Well, they have quite strict fishing quotas, so it should be a quite sustainable but, you never know. But it's not like a wild west where you can do whatever you want. It's not like these huge, quasi factories in the oceans, where they scrape everything. I think it's quite sustainable in Finland, but of course, I'm a bit biased.

**AUDREY:** So, from your perspective, it's mostly environmental threats?

**JOHANNES:** Yes, I would say so.

**AUDREY:** Thanks for laying out the net in this beautiful way.

**JOHANNES:** It's almost like an art installation.

**AUDREY:** We love it. Does anyone have any questions for Johannes?

**ILPPO:** I have. I've been thinking that it's the spawning time for herring. Have you seen spawning in the net itself?

**JOHANNES:** I don't remember them spawning in our nets but in the commercial ones, yes, they've done it. Sometimes there's a huge amount of eggs in there.

**ILPPO:** Could you ask the fisherman if they have seen any change in that behaviour?

**JOHANNES:** I could ask the ones that are still using crab nets in Taivassalo.

**JARI:** And those spawning areas are traditional spawning areas for the herring, therefore fishermen know where they will spawn. That's the reason why they put the traps over there, it is some sort of local information on how the herring behaves.

**JOHANNES:** And we tried to use the exact same spots, but it seems that something has happened.

**JARI:** One thing, the only difference from this traditional trapping is the roof in our net over there. We noticed with Johannes that it's not only the cormorants, but it's also the seagulls which fish from the trap net. That's the reason why they're covered. When we started, we first got only half fish or fish heads. When Johannes brought in the cover, we began getting much better catches.

**JOHANNES:** Yeah (with irony), we have to protect our tiny catch of 5 herrings now in every way possible.

**JARI:** I think our record is about 500 kg or something like that, but if we think about the 5 individual fish that we caught this year, and the price of the fish, when you compare it with the effort of catching it, it's very expensive. Especially with the fuel prices. (*jokingly*) Salmon is cheap compared to that!

**AUDREY:** It's interesting that you're still in dialogue with the fishermen to see where the spawning spots are moving.

**JARI:** It is something that will vanish, because they are quickly quitting the fisherman profession, like Johannes who comes from a fishing background but has become a herring researcher.

**JOHANNES:** Someone else will pay me for the fishing!

**TARU:** Yeah, you wouldn't get that price for fishing herring as a fisherman any more compared to your income as a researcher.

**JOHANNES:** No definitely not.

**TARU:** Johannes, do you know anybody of your generation who has continued fishing?

**JOHANNES:** Not personally but I know there are a few sons of older fisherman that have continued, but they usually do salmon farming or something else as well. I don't know if anyone is only fishing for wild fish. And then of course, they smoke their fish or do some kind of processing.

**JARI:** I think it was also the traditional way to live in the archipelago area, it's not only fishing, people sustained many other types of work at the same time.

**JOHANNES:** Yes, for example some farming as well.

**AUDREY:** And is it so that with commercial fishing, you must have quite a significant amount of capital to initiate the profession.

**JOHANNES:** Yes, of course the trawlers and boats are not cheap, and the net costs are substantial as well. So yes, it's hard to start from nothing.

**AUDREY:** So you need commercial capital backing.

**JOHANNES:** That's probably one of the reasons why it used to be a profession passed on through family generations, that if your father was a fisherman, then you'd become a fisherman, because then you had everything that you needed.

**AUDREY:** Thank you, Johannes.

**JOHANNES:** Thank you for listening.

**AUDREY:** Now we have Ilppo, who will guide us through the important role of salinity in this discussion.

**ILPPO:** Wonderful to be here again, thank you for the invitation, it's one of my many returns, this is one of the most wonderful ones. Summer is again here, Corona is somewhat away so; we can meet people now. Salt has been somehow central in studies at Seili for some decades now. They started to collect a time series on seawater salinity in 1966, two years after the institute was started here. And together with that, they collected a time series on seawater temperature and then they collected zooplankton samples. That sample collection was organised by the Finnish Institute of Marine Research, so it was a cooperation between the University of Turku and the Marine Research Institute that was in Helsinki at the time.

Occasionally, I started to work at the Marine Research Institute in '85, and after doing my thesis in '86, I got the opportunity to start to work with those time series. In that time, the main environmental problem, not only in Finland, but also over the whole Baltic Sea, was considered to be eutrophication, so an overabundance of nutrients in the seawater, which we also mentioned earlier. The coastal areas were eutrophic, but also the whole open sea. And the first idea with those time series was to find out a connection between eutrophication and zooplankton. Zooplankton was my specialty, and I was hoping to find out some facts about eutrophication, and consequent changes in zooplankton. The time series was 18 years long, so it was considered quite a long time series at that time, but it turned out that there was no clear sign of eutrophication.<sup>8</sup> Instead, there was a very clear signal of salinity, between salinity changes and zooplankton. The salinity levels created two kinds of changes.

First, there was a seasonal change: in wintertime, the salinity measurements get higher results (here in Seili for example, sampled at a depth of 50 metres), and in summertime it was a lower salinity level. Therefore, there was a question of seasonal change. In addition to that, for the first nine years when we began analysing the salinity level, it was generally increasing slowly over the years, together with those seasonal changes. And then, as we continued the studies, during the next eight years

<sup>8</sup> Vuorinen, I. and Ranta, E. 1987. Dynamics of marine mesozooplankton at Seili, northern Baltic Sea, in 1967-1975. *Ophelia* 28, 31-48.

Vuorinen, I. and Ranta, E. 1988. Can signs of eutrophication be found in the mesozooplankton of Seili, Archipelago Sea?. *Kieler Meeresforschungen, Sonderheft* 6, 126-139.

Ranta, E. Vuorinen, I., 1991. Changes in species abundance relations in marine meso-zooplankton at Seili, Northern Baltic Sea, in 1967 - 1975. *Aqua Fennica* 20, 171-120.

the salinity was slowly decreasing. So, there was a peak in '77, and what I was able to find with the zooplankton was that the marine species that came from the south were increasing with increasing salinity. And it also makes a connection to the previous talks because those large zooplankton species, are the favourite food of herring, so whenever they have a choice they pick those marine species that are larger as they are better food.<sup>9</sup> And then in the next part of the time series, the salinity was going down, and the marine species started to decrease. And then freshwater species were increasing, so an obvious question followed: what is controlling the salinity, if salinity is so clearly controlling the zooplankton? It also has a clear effect in herring, however we did not know at that time, we found out only later that the herring had been decreasing in size over the early 80s, towards the 90s. Thus the first interesting question became *what is controlling the salinity?*

And then there was another time series, a collection of data connected to international research programmes around the Baltic Sea. They had been measuring Baltic Sea salinity since the late 1800s. In that time series, the salinity gradually increased up to the 50s, with a peak in 1951, after which it was slowly going down, with a steeper decrease after the 70s. So there was a clear pattern, but nobody was able to say what caused it. There were suggestions at the time that it may be related to the westerly storms in the North Sea area.<sup>10</sup>

The general idea was that westerly storms push the surface water of the Baltic Sea northwards, and that creates a possibility for saltwater from the North Sea to push in through the Danish straits.<sup>11</sup> It was just a conceptual model though at the time, and there was some evidence to support that. However the general idea was that actually, the saltwater intrusions were unpredictable, thus making it impossible to build a mathematical model

The westerly storms increased our attention to the winds. I went through the reports of the Finnish Meteorological Office together with Jari, who came in as a student. We started our cooperation by analysing the reports, to find a change in the westerly storms over the Atlantic, and hopefully to find the controlling factors behind salinity. But that didn't work out. It

was a good idea but there was no real scientific outcome until a new material came, and that was when the World Wide Web (WWW) started. Jari was working with his thesis, and through the WWW he obtained a time series of North Atlantic oscillation.

North Atlantic oscillation is a time series measuring difference in air pressure between the Equator and Iceland. There is more or less constant sunshine and high pressure at the Equator, while off Iceland there is, in the North Atlantic, more or less continuous low pressure, and that creates the wind; that creates the westerly winds that are the prevailing wind direction over the Baltic Sea water. They are the winds that bring in the cyclones and the winds that bring in the rainwater, the freshwater. With Jari, we got the first key. Jari built the first mathematical model able to show a step-by-step connection from the North Atlantic oscillation to the westerly winds over the British Isles, and then the next step was the rainfall over Scandinavia, and the last step was the salinity in the Baltic Sea.<sup>12</sup> So, the westerly winds had a role, but not in the way it was thought previously. **Thus, what's been changing is the frequency of westerly winds, and another thing has been our wintertime temperature.<sup>13</sup> Both these factors have created the present-day situation where we have decreasing salinity and increasing eutrophication over the Baltic Sea.<sup>14</sup>**

So, the story is quite long, but it's logical, and Jari together with the people here at the Institute have been working with that general idea ever since. And now we know that all these things are very closely connected together, as we heard from Katja about the Baltic herring. The salinity has an effect in its growth, and its reproduction, and for some years now, they have been studying the role of iodine, which is actually very rich in seawater. And as we know, it's also crucial to the health of humans, and that was known already in the medieval times when salt was very valuable. It was not salt itself, but it appears to be the iodine, like a vitamin, that is important. And that is I think one of the finest findings the Institute has their hands on now. I'm very happy that the first steps back in the 80s have led us here. Now we know something about the Baltic Sea and the central role of salinity.<sup>15</sup>

<sup>9</sup> Vuorinen, I., Rajasilta, M. & Salo, J., 1983. Selective predation and habitat shift in a copepod species - support for the predation hypothesis. *Oecologia* 59, 65-68. Flinkman, J., Vuorinen, I. and Aro, E. 1992 Planktivorous Baltic herring prey selectively on reproducing copepods and cladocerans. *Canadian journal of fisheries and aquatic sciences* 49 (1), 73-77.

<sup>10</sup> Vuorinen, I., Hänninen, J., Viitasalo, M., Helminen, U. and Kuosa, H., 1998. Proportion of copepod biomass declines with decreasing salinity in the Baltic Sea. *ICES Journal of Marine Science* 55 (4), 767-77.

<sup>11</sup> The Baltic Sea and the North Sea are connected by the Danish straits: Kattegat and Skagerrak.

<sup>12</sup> Hänninen, J., Vuorinen, I. and Hjelt, P., 2000. Climatic factors in the Atlantic control the oceanographic and ecological changes in the Baltic Sea. *Limnology and Oceanography* 45, 703-710. Vuorinen, I., Hänninen, J., Kornilovs, G., 2004. Transfer-function Modelling between Environmental Variation and Mesozooplankton in the Baltic Sea. *Progress in Oceanography* 59, 339-356.

<sup>13</sup> Warming wintertime temperatures create increased rainfall over the Baltic Sea watershed area. This increases the ratio of freshwater, thus reducing salinity.

<sup>14</sup> Hänninen, J. and Vuorinen, I., 2015. Riverine tot-P loading and seawater concentrations in the Baltic Sea during the 1970s to 2000 - Transfer function modeling based on the total runoff. *Environmental Monitoring and Assessment* [Online], 187 (342). Available from <https://link.springer.com/article/10.1007/s10661-015-4538-y>.

<sup>15</sup> Vuorinen, I. and Flinkman, J., 2008. Zooplankton. In: *Assessment of Climate Change for the Baltic Sea Basin* 2008. Berlin: Springer Verlag.

**AUDREY:** Thank you. I can't help to ask because you've retired from your role at the Institute, so you have a perspective that nobody here has. Maybe you can say a bit about how your relationship to the Baltic or maybe to salinity, to salt, or to the herring, has maybe changed over this time? For example, I remember you mentioning once that in the beginning when you used to take water samples, you simply disposed of them, and later you began to return the water samples to the Sea because you considered the living creatures in the sample. I'm wondering if you have this kind of perspective, if you have developed a relationship with these entities that you're used to observe, maybe start to think of it differently.

**ILPPO:** Sure, I've been collecting zooplankton and when you take a sample, there are thousands of living entities in it. And I started to think in an ethical way about how many lives I had been taking. Then I began doing things differently, like when I was photographing a zooplankton individual, I would later return the animal to the sea. That's one thing that's been changing with me, of course, the older I get, the more sensitive I get. And there was another change. When I started, nobody was talking about the climate change, or the climate catastrophe, like we call it today, and that's certainly one thing that has been changing over the years, and it's been changing me, I've grown more bitter. I ask myself: "Don't they understand what they are doing? They are still discussing, shouldn't we do something? Our whole world is changing. Do people simply not know what they are doing?", those kind of things. Of course, I've been changing, who wouldn't? But it's been happening several ways. Many things are also better now. For example we have better tools to understand, and the general opinion has been changing, that's been a huge and important change. Back in the 70s, they were just starting to talk about environmental protection in the university, so I was taking part in the first courses on environmental protection at the University of Turku. And now, they speak about environmental protection every day in the media, so that's been a huge change. And that gives hope really, somebody has clearly been listening. Does that answer your question?

**AUDREY:** Yes, for me, the zooplankton relationship was the most striking because the object of study appears to become a kind of life that commands your respect in a different way, which guides you to returning it to its habitat rather than killing it.

**ILPPO:** That's very untypical for a biologist, I would say. *(laughter)*

**AUDREY:** But do you think that that relationship enabled you to see things that you wouldn't have seen otherwise?

**ILPPO:** Well, I don't know about the things I haven't seen. *(laughter)*

**JARI:** A couple of ideas from my everyday knowledge. I have been here now about thirty years, and for example, when I started in the late 80s, we usually made the trip every winter from Seili to Nauvo<sup>16</sup> on the ice, and that was no longer possible after 2005 or something like that. The winter months are milder, and the growing season is longer and starts earlier. This is based on everyday observation about the system change. Regarding the zooplankton changes that Ilppo mentioned, we have different species nowadays, we have more from freshwater origin. The marine species that are very important food for the herring have mostly vanished. I should add that our sampling system has remained very similar to when it started. Therefore, the risk cannot be from a variation in the sampling system, method or device, it has to be a system change.

**AUDREY:** Thank you, as we consider how these practices can change us as persons, not simply the environment, this maybe a good moment to shift towards the perspective of the trees together with Mari.

**MARI:** Yes, I would like to invite you to breathe with the trees here, the tree communities that are here now with us, and maybe they could also start, or are starting to form a relationship with this new structure here.<sup>17</sup> And I was planning that we could do this with the trees that are here, but to do this, I would like to first show you, and then we can spread around and try it. I learned this tree breathing technique from Mirja Nylander. She taught it to me, actually quite many years ago when we met in Kuusamo. She has also written a book<sup>18</sup> about it, and taught the technique to many other people as well.

<sup>16</sup> Seili and Nauvo are two neighbouring islands in the Finnish archipelago.

<sup>17</sup> "Structure here" refers to the Fields of May structure which participants are sitting on, chair of the witness seminar, built from old masts from the *Sigyn* barque.

<sup>18</sup> Nylander, M., 2018. *Metsäkellintä–Terveyttä luonnosta*. Helsinki: readme.fi.

There are, of course, other tree breathing techniques as well, but this one I like, because of her personal story that is related to it. Mirja Nylander was originally a forestry scientist, and this tree breathing was taught to her by an old pine tree. Her perspective to trees as a scientist was from the viewpoint of “how much wood can I get out of that tree”, these were the types of questions going on in her mind. And at the time, she was not doing very well with herself, and then she was kind of called by this old pine tree, who basically told her to please take this energy from the tree and pass it on. So, there is a nice story behind the technique, and I can relate to it very well. And maybe it relates to what we are experiencing here as well.

Another thing that I'm proposing is tree breathing as knowledge exchange, because I'm very interested in the sensory reality of our bodies, and how the knowledge here can manifest through our sensory reality as well. So, I'm proposing that tree breathing could be one way to try that out, as well as obviously to experience an attempt, to experience the agency with the trees through breathing with them, and what we can learn from them through this practice. That's the short introduction.

## A STEP-BY-STEP GUIDE TO TREE BREATHING, BASED ON MIRJA NYLANDER'S TECHNIQUE AS INTERPRETED BY MARI KESKI-KORSU.

The tree breathing developed by Mirja Nylander is a great and simple exercise to connect with the tree communities in a sensorial and comprehensive way. According to Nylander, one can connect with the electromagnetic waves of the tree. The tree breathing instructions are as follows:

Rub your hands together to raise your intention to what you want to do, for example to breathe with a tree to get energized.

Find a tree that you feel is inviting.

Position yourself next to the tree, your shoulders and the back of your head leaning on the trunk.

Only these parts of your body touch the tree.

Place your feet sturdily on the ground without locking your knees.

Close your eyes and start breathing. As you inhale, imagine your breath coming from the deep ground, through your feet and body together with the tree trunk, all the way until to your heart.

There, pause for a moment.

As you exhale, imagine your breath going through your body, through the top of your head, through the tree trunk, all the way through the top of the tree to the sky.

Inhale again from the sky, through your upper torso, through the tree until your heart and pause.

Exhale through your feet, through the tree, all the way to the ground.

And start again from the beginning, creating a circular, continuous breath with the tree.

Continue doing this for 5-15 minutes.

When you're ready, thank the tree and open your eyes.

In 2017, Mirja Nylander taught tree breathing to Mari Keski-Korsu and gave her a permission to use and guide tree breathing in her art practice.

[The group performs the tree breathing exercise, which is followed by a reading-embodiement of ice/water by Anastasia (A) Khodyreva. Ice was collected from the Baltic, on the shores of Seili, and frozen into the ice cubes. These are distributed to participants (one each to hold in their hand during A's reading). The reader is also invited to hold an ice cube of a relevant provenance whilst reading the following section.]

## A READING-EMBODIMENT OF ICE/WATER BY ANASTASIA (A) KHODYREVA

I will read an a mixture of thoughts, notes, and sensorial invitations to get in touch with ice (or other bodies of water, or their absence), our momentary companion that could help us notice - perhaps, notice anew - the Baltic sea, its agency, and, by extension, agencies of other bodies of water, too.

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Ice, an embodiment of water often found in outer space, an alien body.

A queer body, too.

As my friend Hannah Rowan keeps reminding me, freezing at zero degrees Celsius the molecules of water begin to expand, creating pressure, but becoming lighter than liquid water, becoming a queer solid body, which cracks the bones but floats over the oceans.

It is vulnerable, but it is no weak thing. It may crack the pipes when freezes, it knows how to escape, it shapeshifts.

As a body of water, when does ice actually exist?

When does it become another body of water?

Is ice always a potentiality? Are bodies of water always a potentiality?

And how to build a relationship with them then?

The only right answer would be - I do not know.

/

And if someone gives an immediate instrumental packable boxable answer to questions about potentialities and relationships, well, this someone is a dangerous being as I believe, such questions are not meant to be answered. The answer to them should be a practice, ever evolving. Nevertheless, what we *can* do in our critical un-knowingness (as Trinh T. Minh-ha could have it) is to attempt an exercise of being in an explicit relationship with ice as a body of water. We can attempt an exercise of hyphenation that is meant to start with a body and from there - to make us pronounce - with our muscles, bones, and limbs, but also questions and wondering what should melt in order for a “better” relationship with bodies of water to emerge, legal relationship included.

16

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Now, let's move our bodies of frozen water closer and, yes, perform an exercise of noticing, of noticing politics happening not only during the street protests and not only in parliament chambers, but under the tips of our fingers and, hopefully, the politics that will invite us on slippery grounds from where we could speculate on how to ethically hyphenate with waters, to acknowledge and *ally* with all they might be - a sea, a glacier, a swamp.

/

We are performing an exercise in noticing politics of touch, because I believe that in order to think about water rights, one should be *in touch* with water.

/

An ice cube. Place it in front of you. Do not embrace it just yet.

Listen to the sound it made touching the surface.

Does it remind you anything? Does it tingle any associations?

Touch your ice cube with your finger, do not stay in touch for long.

But keep touching. Did the ice touch you back?

/

I would like to invite into our conversation cultural theorist and philosopher Erin Manning, and her take on bodies that I find moving and meaningful for our with-ness:

Bodies - all bodies, including those we live and those aqueous ones that are with us - escape our grasp. They are not graspable partly because they exceed our expectations of them. Bodies are never quite there. They are not there because movement is characterised by its engagement with space-times that have not yet been charted, alphabetic space-times as yet undisclosed, undiscovered. Bodies are strange machines, machines because they produce extensions of themselves, because they generate systems both in and far from equilibrium, systems that resist strict organisation” (Manning 2006:xx).



Your fingers are wet.  
Likely, your fingers are cold.

/

*Challenge an idea of a body as an isolated solid entity.*

Frozen Baltic bodies of water start to melt, slipping away, from under your fingers.

*Challenge an idea of the Baltic world as a passive isolated body awaiting to be appropriated, to be anthropomorphised in order to be protected, awaiting to take be taken care of.*

What is it that starts to melt?

suspended temporalities of the Baltic Sea?

accelerated temporalities of the Baltic Sea?

Its future? or futurities? or its pasts?

/

A process of melting is often associated with death. Glaciers melt.

Glaciers' funerals.

*One glacier was here. The land is still bouncing, glacial time - still rippling.*

*As a hydrofeminist artist and my dear co-thinker would have it, archives of ancient climates and "hard-drives of planetary deep time" (with Hannah Rowan, and Esther Leslie here) are melting.*

What does it mean?

White anxiety.

Ice melting.

/

*Now, take the ice cube and harbour it in one of your palms*

*Squeeze it, gently*

*Think of it as a small body of melting glass*

*Are you touching it?*

*Or are you being touched?*

*Are you touching each other?*

*On whose terms?*

*Are you now an active human? Is this little rock a passive object?*

*Does this passive object hurt you?*

*Are you holding too tight?*

*I reckon these little bits of suspended or accelerated temporalities (we could discuss what these temporalities actually are), but yes, these little bits of the Baltic time and a particle of the Baltic sea hurt you.*

*Reside in this difficulty for a moment.*

/

*What should be melting, leaving its wet touch upon your palm?*

*Toxic sovereignty (in Elizabeth Povinelli's wording)*

*Drastic histories and currents of extractivism*

*Tears, urine, breast milk, perspiration of un/fit bodies remembered by the Baltic waters Unattended Finnish colonialisms, melting, evaporating, freezing, drifting to kitchen taps, frozen in freezers ... of those who can afford them.*

Dominant Western structures evaporate.

Which ones?

And some always remain.

May melting ice become a site where hope and liveable futurities reside and harmful imaginaries of water lose their agency?

As the world melts and, in fact, has always been liquid, rippling, fluid - "we must dwell in the dissolve, too" as feminist environmental scholar Stacey Alaimo, but also Glasgow-based artist, researcher and seed librarian Rowan Lear would have it. And as we have been thinking with Rowan, if dissolving and melting are the world's loudest mode of present existence, should not we seek the potential in liquidity, in melts, in slippery grounds?

/

*I nurture the companionship with ice - somewhat counter-intuitively - exactly as it melts, and it is slippery, as it keeps me in a condition of sharp - sometimes - painful alert, as it, indeed, hurts, tingles, but shimmers with multiple alterities; it disrespects entities, binaries of subject/object, disallows one to think futures in neoliberal possibilistic terms. I hope for the same categories to melt in my wider community. Ice is a body of water that, for me, offers the best slippery grounds to keep questioning.*

/

Let a crumble of the frozen Baltic body of water go if there is still something left in your palm.

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Bodies of water are multispecies.

We cannot catch up with them.

And yet, we are bodies of water, too.

/

A small ice cube.

Wetness.

Pain, numbness.

A puddle.

Everything is a sediment of being in touch.

Wet, slippery, tingling, grainy - a resource to understanding bodies of water as a metastable system (Grosz 2017, 173) that always evolves "containing contrary potentials, potentials that are incompatible and require resolution through the creation of a structure, a form or level to express them."

A body as a meta-stable system.

A meta-stable body.

A sea, a glacier, a swamp.

A meta-stable agency.

A Potentiality.

/

The meta-stable requires a meta-stable structure of care.

What care would be adequate for a potentiality?

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—

[The residues of melted cubes are then brought back to the Baltic, we all walk to return the melted water to the main water body. We then return to Fields of May to discuss more-than-human legal ecologies.]

**AUDREY:** Lovely. Now, after all this speaking of research and then sort of shifting to more embodied forms of listening, I hope this creates the conditions of possibility to think about more-than-human legal ecologies, and Elina will lead us into this.

**ELINA:** We find ourselves at a geological, scientific and political juncture, respectively characterised by the Anthropocene. Furthermore, the anthropocentric worldview has widely been identified as the root cause of the unfolding ecological crises. This worldview has arguably shaped legal modernity, operating as the fundamental way in which modern law organises, categorises, and orders reality - and particularly nature. At a time of environmental crisis it is however also clear that law - and especially environmental law - is ethically obliged to assume a much more active role in what is currently happening on the planet. Indeed, it is claimed that environmental law remains stranded in a modernist, humanist tradition, consistently failing to engage with the merger of interdisciplinary and post-humanist knowledge structures that have emerged in the past few decades.<sup>19</sup> Therefore, many scholars also perceive environmental law scholarship as immature.<sup>20</sup> This is arguably due to certain issues characteristic to environmental law, namely the speed and scope of regulatory change, interdisciplinary, diverse governance regimes and multi-jurisdictional nature of its subject. Also, when public authorities had to deal urgently with more concrete environmental problems, including some catastrophes, in the late 1960s and earlier years of the 1970s, they had no other choice but to refer to the laws already in force, including some well-known rules and concepts of legal modernity.

Indeed, the rationalist, mechanistic jurisprudence - and accordant legal architecture on which these laws were built upon was developed by seventeenth-century jurists like Hugo Grotius and Jean Domat. This jurisprudence views reality as an aggregate of discrete definable components, owners whose individual rights are protected by the state. Indeed, ownership and state sovereignty, respectively championed by John Locke and Thomas Hobbes, are the two organising principles of legal modernity.

During the past three decades, a radically new paradigm has emerged at the forefront of science. At the heart of this change of paradigms from a

mechanistic to a holistic and ecological worldview is - metaphorically speaking - a change from seeing the world as a machine to understanding it as a network. A corresponding paradigm shift has not yet really happened either in jurisprudence or in the public understanding of law. The foundations of legal modernity still strains the legal sphere. Also: it privileges the freedom of individuals over their responsibility for the externalities of their action - and safeguards their achieved interests. Since this ontology is clearly an ill fit with the demands of Anthropocene, law needs to reorient itself from facilitating extractive free action by individuals to a responsible world-making. So a paradigm shift in law is arguably urgently needed, since the major problems of our time are systemic problems—all interconnected and interdependent—and our global crisis is an ecological crisis in the broadest sense of the term. However, **the complexity and uncertainty inherent in socio-ecological systems challenge the very nature of a liberal environmental statehood, where the state's interest in the regulation of the environment within its jurisdiction is predicated upon command-and-control approaches designed to ensure maximum yield from natural resources.**

The orientation of law, through its reception of ecological and eco-philosophical innovations, can be seen to change. This evolution of the relationship between law and ecology has led to the current model of “ecosystem regimes” or “ecosystem approaches” to environmental protection. These topical, ecological narratives are distinctively embodied in e.g. the ecosystem approach (EA) - the notion of which is repeatedly referred to in legal and political international documents and its components are supported by an increasing number of legal scholars, and which I therefore have adopted as a thematic framework of my study. As “a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way” EA further suggests that the conservation of ecosystem structure and functioning - also described as the maintenance of resilience - should be a priority target of natural resources governance.<sup>21</sup> EA also proposes that human beings are to be considered as an integral part of all the world's ecosystems. Thereby, it can be seen to underpin the understanding that the resilience of social systems and the resilience of

<sup>19</sup> Philippopoulos-Mihalopoulos, A., 2011. Towards a critical environmental law. In: Philippopoulos-Mihalopoulos (ed), *Law and ecology: New environmental foundations*. Abingdon and New York: Routledge. 18-38.

<sup>20</sup> Fisher E., Lange, B. Scotford, E., Carlarne, C., 2009. Maturity and methodology: Starting a debate about environmental law scholarship. *Journal of Environmental Law* 21 (2), 213-250.

<sup>21</sup> CBD-COP-5 Decision V/6.

ecological systems are interconnected in complex, dynamic, nonlinear relationships and that the resilience of human communities and social institutions and the resilience of natural communities and ecosystems depend on each other. EA could hence possibly mediate the seemingly opposing interests.

EA, however, entails attributes that are still significantly ill-suited with the existing governance structures. Indeed, whereas the idea of EA involves focusing on ecosystems, modern environmental law has often been charged with disregarding the cumulative environmental impact created by all human activity. Instead, it consists of different regulatory regimes at different levels of government that apply to different kinds of environmental hazards or natural resources containing fact-specific standards that are applied to one situation at a time. As opposed to this specific, detailed knowledge of a single system component, the management for resilience requires improved understanding of an entire system. A proactive approach entails characterization of system aspects that contribute to the system's resilience through multiple, adaptive methods. This is in stark contrast to reactive approaches and therefore presents problems from the legal perspective where upfront certainty is sought.

In order to change the existing legal paradigm - we need to go further into the conceptual doctrinal level of law. As mentioned earlier EA (as a topical ecological framework) embodies the understanding that human beings are to be considered as an integral part of all the world's ecosystems and that the resilience of human communities and institutions is deeply entwined with the resilience of natural communities. This kind of postmodern alternative ontology of understanding social and ecological systems as interrelated expressions of one unified, vulnerable living order - offers an understanding of vulnerability as intrinsic to the interconnected structure of being and therefore also maintains the hope for legal theory to juridically grasp these implications rather than rendering us external to an objectified 'nature'. This premise inescapably destabilises conceptions of 'the human' and thereby law's dominant ways of ordering the world.

"This also challenges our most basic assumptions that have underpinned the modern world, including its normative sense of the human and its beliefs about human agency, [and] ... its material practices such as the ways we exploit and interact with nature."<sup>22</sup>

The rights (the yardstick/paradigm case of which has been the white European male property owner) must now actively and consciously contribute to the emergence of a sustainable world. Also, the Anthropocene challenges justice because it challenges freedom as a principle of organising the human community. When modern Western law appears as a regime that creates spaces of freedom in which the individual can be sovereign, the fundamental nature of the Anthropocene challenges the foundation of the entire legality. Because we are truly interconnected with the rest of nature, future crises necessitate us to be able to limit the space of freedom of individuals.

But we are still victims of the anthropocentric ontology of the Enlightenment. Man is free and free to choose. Nature (in the institutional sense) is not free nor free to make choices. Freedom is a subjective right as far as that subjective right is not restricted by an objective law or by a subjective right of another individual within her private autonomy. Duties remain subordinate: they are determined through freedom. The freedom to choose what to do, not to care about other beings, is a fundamental axiom of our entire legal formulations. We can only really think of duties and responsibilities as treating duty and responsibility as a limited and well-defined absence of choice. Obligation exists only where a norm created within the framework of objective law or private autonomy compels us to give up our freedom.

In the Anthropocene, this mindset seems devastating. It produces a system where freedom always takes precedence. It would therefore appear that, in order for us to survive in the Anthropocene, we would need to unravel the priority of rights. We should also bear in mind that we - humans - are the dependent ones - from the rest of nature. Not the other way around. Perhaps care and renewal must be brought to the heart of the conceptual system of justice, rather than free will. But now I would like to encourage every one of us to ponder our human liability based on this dependence on the rest of nature, based on our situation in the middle of everything else, our vulnerability, and how that should encourage us to increase or change our perspective towards a more responsible worldview, also a legal worldview. What do you think is the role of law in this kind of development? Should we perhaps continue granting rights to nature as has already been done in many countries in their constitutions, such as in India, Spain, Bolivia, Ecuador, and Colombia? Or should we

<sup>22</sup> Grear, A., 2017. Foregrounding vulnerability: materiality's porous affectability as a methodological platform. In: Philippopoulos-Mihalopoulos, A., Brooks, V. eds. 2017. *Research methods in environmental law - A handbook*. Cheltenham: Edward Elgar Publishing, 3.

perhaps bring responsibility, care and stewardship to the heart of the conceptualization of law after modernity rather than ownership, sovereignty and free will?

**AUDREY:** Thank you. I was thinking about how that really echoes a conversation we had yesterday in the kitchen, thinking about the individual freedoms. Of course, in the beginning, I thought one of the reasons why we wanted to discuss this so much is namely because of the conception of law as protecting or managing discrete components really echoed the kind of limitations of the critical raw materials initiative. Or for example carbon accounting, viewing elements as isolated and not considering their relationships. However, coming back to the kitchen conversation about individual freedoms, this is a discourse of which the potential toxicity has been exacerbated by COVID, painfully evident in for example, the notion of protecting individual freedoms to not wear a mask.

**ELINA:** [disapproving laugh]

**AUDREY:** These discussions and the kind of limitations they present have become so clear. I mean the environmental implications were always clear, but it's become also socially clear how toxic that's become. So I think it's really interesting now to think about how to de-prioritize free will, in exchange for care and renewal.

Now, based on the different discussions that we have had, I would like us to think from the perspective of trees, herring, salt or water, and consider what kind of insights we could take from these different elements to think about what Elina was saying about these priorities of care and renewal. How that may figure for example in the life and behaviour of the herring, or salt, or water, or trees?

**KATJA:** That is a good question.

[group laughter]

**AUDREY:** I was also thinking about something I discussed with Johannes, about the behaviour of the herring, which he said had become very unpredictable. Then I was thinking about what Elina was saying in terms of law requiring such a certainty.

**ELINA:** Umm hmm.

**AUDREY:** Could this kind of uncertainty and unpredictability of the herring be something that may inform a kind of ecosystems approach to law?

**ELINA:** Uh-hmm. Exactly. We already have developed more adaptive laws so that they are changing, and our decisions are changing, because the data behind those decisions is constantly changing. But it's still not truly adaptive in a sense that ecology is really embedded in the legal thinking and in the conceptualization of rights. Also, law still creates stability - first and foremost - to secure the achieved benefits/interests of individuals, and thereby legitimates exceptions. But I don't know how *utopistic* that kind of stability ends up being if we don't really embrace our understanding of this, of our being, of our body and the rest of the bodies within this legal space that we embody. How long can we continue safeguarding false premises that don't truly create stability and future? Definitely some changes need to be made, but how fast will that happen? One of the huge problems is the sovereign states. Of course, we have the EU and other spaces that have tried to coordinate legislation, but still jurisdiction artificially divides the world, as well as our rights. **It is a great challenge, and in order to accept more adaptive capacity in laws, we would need to give up our freedom and embrace the premise that we are actually the caretakers or stewards - first and foremost.**

[sound of general group agreement]

**MARI:** I was just thinking what does freedom actually mean? Because I understand that it's a big question to ask "How do we care for the herring?" But on the other hand, whatever the freedom that we are having or experiencing now, I don't see it making people very happy. So why is it so important then? Should we maybe define freedom differently?

**ELINA:** Uh-hmm.

**MARI:** I mean, I don't know how. Maybe to care. But...

**ELINA:** Yeah.

**MARI:** At least I think that you can't separate wellbeing or living, or herring from humans. If the herring's not well, the human is not well. I also think that we have so much knowledge, that we actually know how to take care, but it's just a matter of how do you *fight the system!*

[group laughter]

**ELINA:** And I don't know whether law as such is the problem because there is the free will of every human being behind it.

**MARI:** A simple example is that common panic about the shortage of fossil fuels because of the war in Ukraine and the situation with Russia regarding gas and all this. It seems everyone wonders where to get the energy, all the while a simple law is not passed to enforce slower driving (which has been shown would save tremendous amounts of energy). Such a simple solution, just put it in the law that you can't drive over 70kph for example.

**ELINA:** I don't know. We can of course, we as human beings change the legal system. It remains however an abstract system until it embodies true practices. It's a good question.

**AUDREY:** I think it is also interesting to consider how we define freedom in legal terms. In certain countries, that definition is related to the right to happiness. And ironically enough the right to happiness is very much defined in terms of property actually.<sup>23</sup> And the right to happiness has a lot to do with the right to defend your property. It is a very specific notion of freedom that I feel has been really embodied in the recent COVID "freedom rallies" of sorts. In that sense, the right to happiness defined in terms of property is quite crucial, and I think so completely incompatible if we think about the interrelationship of species. As Mari noted, if the herring doesn't do well, we don't do well. This exemplifies where the legal property protection completely falters. I'm thinking of course because humans are the only species that are allowed to own

property, therefore that very fact excludes any other species from being happy in legal terms.

**MARI:** To me, that is reminiscent of individuals who prepare for catastrophe with bunkers and private armies. When things go wrong, the bunker is ready, they have everything ready there. One thinks "What a happy life."

[group laughter]

**ELINA:** Indeed, and in many indigenous cultures there are no property rights so to say. They may instead have responsibilities. This is an emerging notion in the legal scholarship, that these things are discussed.<sup>24</sup>

**LOTTA:** And it's not so long ago that in Finland, you wouldn't build a house unless you slept with the trees or you asked for permission. You know, it's part of the *Itämerensuomalainen maailmankuva*, it's not a philosophy, it's not a mythology, it's a way of viewing the world. And that's also I think related to this, that you would not trespass that. I guess in doing this, you would also find out the different directions, where the sun rises and sets. But you would also respect that if got a "no", you would actually not build anything.

**ELINA:** Exactly.

**MARI:** But what do you think Elina, looking from the legal perspective that now in some places there are rights for a river, or specific entities.

**ELINA:** Personhood, yes. Well it's an interesting legal imaginary as such and I think it shows that we can organise our legal rights and systems quite flexibly but I don't know whether in my personal opinion that would be the solution because someone would have to speak for all these entities and other bodies, and they still wouldn't have a way to express themselves in the sense that we understand within the legal sphere. And as I see it, we are the dependent ones. Nature doesn't need us. It can be a solution and it has sometimes actually affected things, but

<sup>23</sup> According to historians, the unalienable rights listed by Thomas Jefferson: "life, liberty, and the pursuit of happiness" were based on John Locke's 'The Second Treatise', in which he lists the natural rights of "life, liberty, and estate". As the chief difference is that "estate" (or property) is replaced by "the right to happiness", it has been argued that the "pursuit of happiness" invokes a synonymous right to property, the happiness of material comfort, or, in the acquisition of property. According to Carli N. Conklin, Jefferson's substitution is inspired by William Blackstone. The intermingling of jurisprudence and happiness refers to the belief in "natural law". The laws of nature, defined by (a Christian) God, which are discoverable by 'Man'. And, the pursuit of a life that follows this order will lead to happiness. This anthropocentric notion of law, order and happiness is still embedded in numerous constitutions (e.g. US, Japan, Korea, France, Bhutan). See: Locke, J., 1698. *Two treatises of government: In the former the false principles and foundation of Sir Robert Filmer and his followers, are detected and overthrown. The latter is an essay concerning the true original extent and end of civil government*. 3rd edition. London: Awnsham and John Churchill; Scott, W. B., 201. *In pursuit of happiness: American conceptions of property from the seventeenth to the twentieth century*. Bloomington: Indiana University Press; Conklin, C. N., 2015. The origins of the pursuit of happiness. *Washington University Jurisprudence Review* [Online] 7(2), 195-262. Available from: [http://openscholarship.wustl.edu/law\\_jurisprudence/vol7/iss2/6](http://openscholarship.wustl.edu/law_jurisprudence/vol7/iss2/6).

<sup>24</sup> See, generally, Thom, B., 2005. *Coast Salish senses of place: dwelling, meaning, power, property and territory in the Coast Salish world*. Thesis (PhD). McGill University; Bauer, J. 2007. Protecting indigenous spiritual values, *Peace Review* 19 (3), 343; Blakeney, M., 2013. Protecting the Spiritual Beliefs of Indigenous Peoples – Australian Case Studies, *Pacific Rim Law and Policy Journal* 22 (2), 391.

I don't know whether that would be the solution because then we would have to grant those rights endlessly (to all entities) – and I am afraid that that might lead to even further fragmentation.

**MARI:** I was just thinking that previously I was working with something else, and I was really inspired by the way this one community had organised in a way that all the families, or different families, would represent, or be responsible for certain entities, and have the responsibility to speak on their behalf. And this would go like from generation to generation.

**ELINA:** Uh-hmm.

**MARI:** So they had the obligation also, for example, to know how the herring is, and then to bring this knowledge and voice to the human domain somehow. I was wondering how this might work outside a hyper local context.

**ELINA:** I think giving rights to participate to people who have traditional knowledge locally, for example when making environmental decisions, is one way to bring that kind of expertise if you will into that decision making. However, that's just within the existing structures.

**AUDREY:** As some have to leave, we can obviously pursue these conversations, but we can think of closing the discussion with tea, and continue more organically. Thank you Elina.

**LOTTA:** Let me tell you a little bit about the tea. The tea is actually related to when the mast was a maypole in Turku last year, around this time. Audrey and Francisco asked me to think about what we could decorate the pole with, and we were of course looking at whatever is growing at that time but also I wanted to be a bit subversive and think about things on the mast that wouldn't normally be there. Nettle was the first one I thought of [chuckles] you know, because nettle is such a great herb. And I was also thinking that it relates back to here, and why we are here, because the nettle is a perennial herb or plant, which means that it could grow from the same roots. You know there could possibly be nettle growing here that has been growing since the beginning, we talk about hundreds of years. And it's also a rhizome, so it means that it's also connected to other roots.

Therefore nettle is the main ingredient, and we also had dandelion and sweet grass, which is an indigenous herb but it happens to grow where I live. I have a whole field of sweet grass. It grows naturally. But thinking about the nettle, also connecting back to the island. We've spoken about science, and we've gone to the aquatic, but we haven't really touched on the history of this island of Seili. Thus, I want to bring us back to the underground, to the soil that is also carrying the dead. Many of the graves here were not marked. We still don't know where, probably up to six hundred, maybe more, leapers are buried. We don't know. As well as a lot of the people from the hospital, we don't know where they were buried. So I'm thinking that there is a connection, that in some ways the nettle are bodies, this idea of bodies of nettles just growing out. And those bodies of nettles are somehow connected to the past but also of course to the work that the scientists are doing here, working closely with the ground. I'm thinking now about collecting the tics, that there's literally an interaction between bodies [laughs]. You know?

So I wanted to serve you this tea. It's a lunar infusion, so it's been bathing all night under the half moon. The idea is therefore that we are not just drinking the nettle and the other herbs, we are also drinking the moon. And as we are drinking the half moon, we are hopefully drinking the possibility of going towards rest. And this infusion which has been at the centre throughout our discussion, is also an essence. It's been here conserving every single word, every single thought, meaning also everything that's silent is in this tea because it's been lying here. It's like an archive. So the idea is now that we ingest this archive that we have created together with the archive of the bodies on the island. And to finish, I have a little, well maybe it's more a rap than a poem, that I'm going to read to you which has to do with nettle.

[We drink the nettle infusion as Lotta recites the Nettle rap]





**URTICA DIOICA NETTLE NOKKONEN NÄSSLÄ**  
**FOR A FIRST AID KIT TO RESIST PATRIARCHY, OPPRESSION & APOCALYPTIC THINKING**

NETTLE

drink it

eat it

grow it

burn it

make a tea

for vitality

independence

interdependence

creativity

to be free

make medicine

make a talisman

use as a mantra

wash your hair with it

make yarns and clothes

season your food with it

make a soup, steam it, fry it

respect it, write poems to it, love it

use as a preventative for pregnancies

as a protection for yourself and your home

full of iron, calcium, magnesium, nitrogen, c-vitamin

helps move body fluids & strengthens the blood streams

an aid for heavy periods, nosebleeds and when giving birth

an antidote for snakebites, poisonous plants and allergies

butterflies lay eggs on it & feed on it unaffected by its sting

ferment in rainwater and use on a compost heap to feed the soil

drink as a tisane or a tincture for clear vision, focus and strength

enhances memory, helps with anxiety, boosts immunity and digestion strengthens

kidneys, adrenals, lowers blood pressure and cholesterol

see it, respect it, sit with it, smell it, use in spells and rituals

pick a handful of nettles & add fresh water to make a full moon infusion let it bathe overnight to connect to planetary powers. imagine the roots of nettle grow out from your soles & sense it pull you towards the earth let the nettle grow inside you: your feet, your calves, your tights, your lower back, your stomach, your heart, your chest. feel it grow out of your hands, the top of your head. stay in its cleansing protection

as you say out loud:

I AM A WITCH. I AM A WITCH. I AM A WITCH.

[The witness seminar finishes with Jari sabring a bottle of sparkling wine to inaugurate Fields of May.]



## A GLOSSARY OF RELEVANT TERMS, CONCEPTS AND GENEALOGIES

### Blue economy tribunal

The 2022 EU Directive on Maritime Spatial Planning is the most recent blueprint towards the full exploitation of marine & forest resources in the Baltic Sea; the response to the deep economic crisis ushered by the COVID pandemic. And yet, as shown by the People's Tribunals on the 'Blue Economy' across the Indian Ocean region, this model is based on fundamentally erroneous premises such as the notion that accelerated growth can bring reductions of greenhouse emissions, that oceans are natural capital and environmental services provider, or that Blue growth is beneficial for both the environment and economic 'development'. Such assumptions are devastating seas and forests worldwide. Fields of May aims to instigate an enquiry into such economic paradigms, and create an architecture of engagement that fosters kinship rituals, more-than-traditional knowledge exchanges and critical legal ecologies that help to produce apprehensions of forest/marine environments beyond predatory regimes of value.

### Commoning

Ilppo Vuorinen, former director of the Archipelago Research Institute, explicates the mostly forgotten places of common use in the archipelago, the commons as sites of silent knowledge, and how that knowledge is disappearing with the privatisation of these spaces. To discuss these practices and places is also a means of commoning. Other effaced histories include women's crucial role in boat building and navigation in the archipelago. Their importance is mostly undocumented. How can we address gendered and knowledge exchange gaps in the Archive?



### Commoning knowledge

Another aspect of this project is a collaboration of building knowledges. The Sagalund museum director John Bjorman has discussed how in the Finnish Archipelago in the 19th Century, the Midsummer Pole tradition is a demonstration of the community's shipbuilding capacity, as well as a social display of collective organisation, depending on how well the village members could build and hoist this large structure together. The Midsummer Pole tradition in the archipelago was thus an important demonstration of a village's ability to collaborate. To foster an exchange between traditional and contemporary practices, the Midsummer Mast and Fields of May were conceptualised and built in collaboration with shipwrights, carpenters, garlands makers, weavers and a plant whisperer.

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### Convergence of practices

"From ancient times through the present, it has been the weavers and astrologer-poets of the communities and villages who have revealed to us this alternative and subversive thread of knowledges and practices capable of restoring the world and setting it on its rightful course."

Silvia Rivera Cusicanqui

Fields of may brings together boat building, weaving, critical feminist herbaria, marine science, tree breathing and carpentry. Its material specificity invites human and non-humans from all fields to converge around its masts to formulate post-extractive futures.

## Future tradition

“The question then becomes: what languages and visions will be appropriate to today's problem- space of capitalist hegemony and counter-hegemonic struggles? What might be the role, if any, of what used to be called 'traditions' in this regard? Can new forms of utopianism be invented? What should be the contribution of Western modernity to this endeavour? Conversely, at what point should we attempt to move beyond it?”

Arturo Escobar



Key to this project is putting notions of tradition and salvaging into discussion. Following Mignolo & Walsh, we denounce how modernity was posited in contradistinction with tradition, enabling modernity to mobilise a fiction that defined socio-economic order and particular modes of subjectivities. In this fiction that became reality, tradition is posited as the predecessor of a civilised modernity, obfuscating the operating logic of coloniality. It is in this sense that we must deconstruct “tradition”, and valorise a diversity of historical processes. With Fields of May, we propose salvaging as a way to question and reclaim the meaning of traditions. Katriina Siivonen has put forward the concept of ‘heritage futures’ - as a departure from cultural heritage - in which the main concern is about preserving. Heritage futures is about developing rituals for ecological survival, and according to Siivonen, art is instrumental in this process.

## Clandestine seed bank

The masts which comprise Fields of May also host an eventual garden of discarded botanical species. The garden is a collaboration with Lotta Petronella, who salvaged some of the species from Seili's Biodiversity Research Institute, along with herbarium specimens discarded by Turku University (initiated by women interned in the former Island's 'mental' asylum) for no longer having 'pedagogic value'. Salvaged seeds from Henbane, Plantain, St. John's Wort, Yarrow and Nettle (*Hyoscyamus niger*, *Plantago major*, *Hypericum perforatum*, *Achillea millefolium*, *Urtica dioica*) were embedded in the wooden structure, covered with earth and with a wooden peg which was sealed shut with a flame. Over time the seeds will remain and perhaps grow in the soil bed created by the rotting wood.



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## Legal ecologies

Could we re-imagine law to advocate and nurture multispecies legal ecologies? According to Elina Raitinen, an ecosystems approach to law is crucial because the legal mindset thus far, which is based on the freedom of man, has been devastating. She explains that ownership and state sovereignty are the two organising principles of legal modernity. In this system, jurisprudence privileges the freedom of individuals and safeguards their achieved interests, which is incompatible with the current climate crisis. Raitinen advocates for law needs to reorient itself from facilitating extractive free action by individuals to a responsible world-making. And in this re-orientation, interdependency is central. In other words, an alternative ontology of understanding social and ecological systems as interrelated expressions of one unified, vulnerable living order. In order for us to survive in the Anthropocene, we would need to unravel the priority of rights, therefore, radical care and renewal must be brought to the heart of the conceptual system of justice, rather than free will.

## Material specificity

This installation consists of salvaged discarded masts, spars and other maritime wares donated from the museum-ship Sigyn, a wooden barque built in 1887 that crossed the oceans and seas for trade. As Seili is situated next to the old Baltic maritime trade route, where passenger ferries pass today, Sigyn would have routinely sailed past this island. In 2018, the ship needed new masts. Unlike last century, when Finland provided most European Empires with the timber and tar to build their fleets, when scouting for the mast material in 2018, only a handful of trees in all of Finland were found to be of suitable size. The masts which compose the seating area bear witness to the transatlantic slave and timber trade as much as to the changing nature of Finnish forests, now largely servicing pulp production.



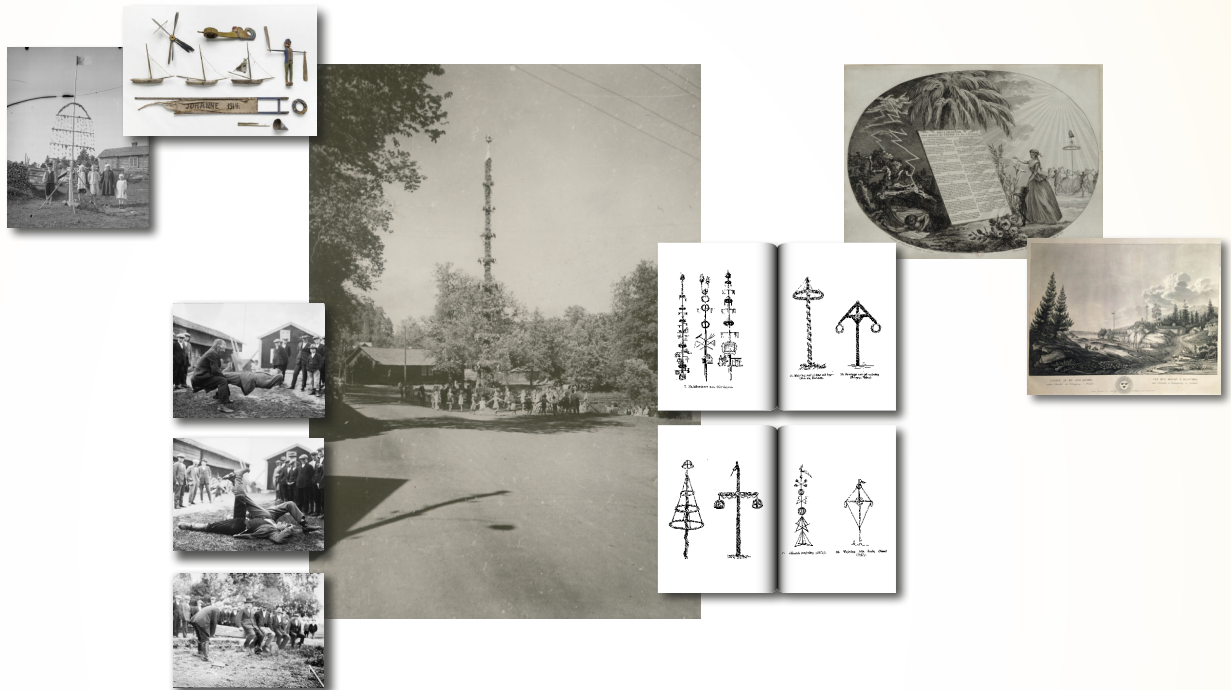
## On rhythm

Silvia Rivera Cusicanqui, an Andean philosopher who is known for her contribution to postcolonial and subaltern studies, writes about a “rhythm with the cosmos”. This rhythm is namely generated through the repetition of bodily political practices. Practice and rhythm become concomitant, and essential to the production of “counter-knowledge” and “counter-power” to de-centre the ocular-centric colonial gaze. We propose here to consider the human as well as the non-human bodies to re-configure the otherwise Cartesian apparatus and anthropocentric legal system. Calling upon the bodily, the multiple-more-than-human bodily gestures to inhabit space-time. Listen to the rhythm of woven nets which recall the invisible woman’s work, to the mast and its archive of travels through wonder and unspeakable pain, and to the stinging nettle, the subaltern queer, queen of the healers. Rhythm calls attention to bodies’ centrality in attuning to the non-human environment, a more-than-critical-raw-materiality that is predicated upon non-transactional relationships of mutual respect.



## Popular court history

The Sigyn's masts were previously erected in an installation named Midsummer Mast in 2020 (Fiskars) and 2021 (Turku). Following the pre-modern summer-solstice related tradition where birch and pine garlands decorated poles which were erected in offering of good harvests, celebration of the beginning of the 'light days' (Celtic calendar). Here in the Archipelago, maypoles were bound to the liberalisation of maritime trade, and in the 19th Century the appearance of the ritual in the area demonstrated the prowess of the village's shipbuilding capacity, and ability to collaborate. Earlier in England, these structures also acted as popular tribunals where governors, barons and kings were deposed and punished if ruled guilty. 'May Poles' were hoisted in fields and meadows known as the 'Ey-commons' or 'Fields of May'. Fields of May operated as the highest court in popular law - now known for example as 'commons law'. Juridical and environmental maypole traditions thus inform Fields of May as an infrastructure which aims to foster an inquiry into the reach of the so-called Blue Economy in the Baltic Sea, and to imagine a legal system rooted in a more-than-human ecological paradigms through witness seminars.



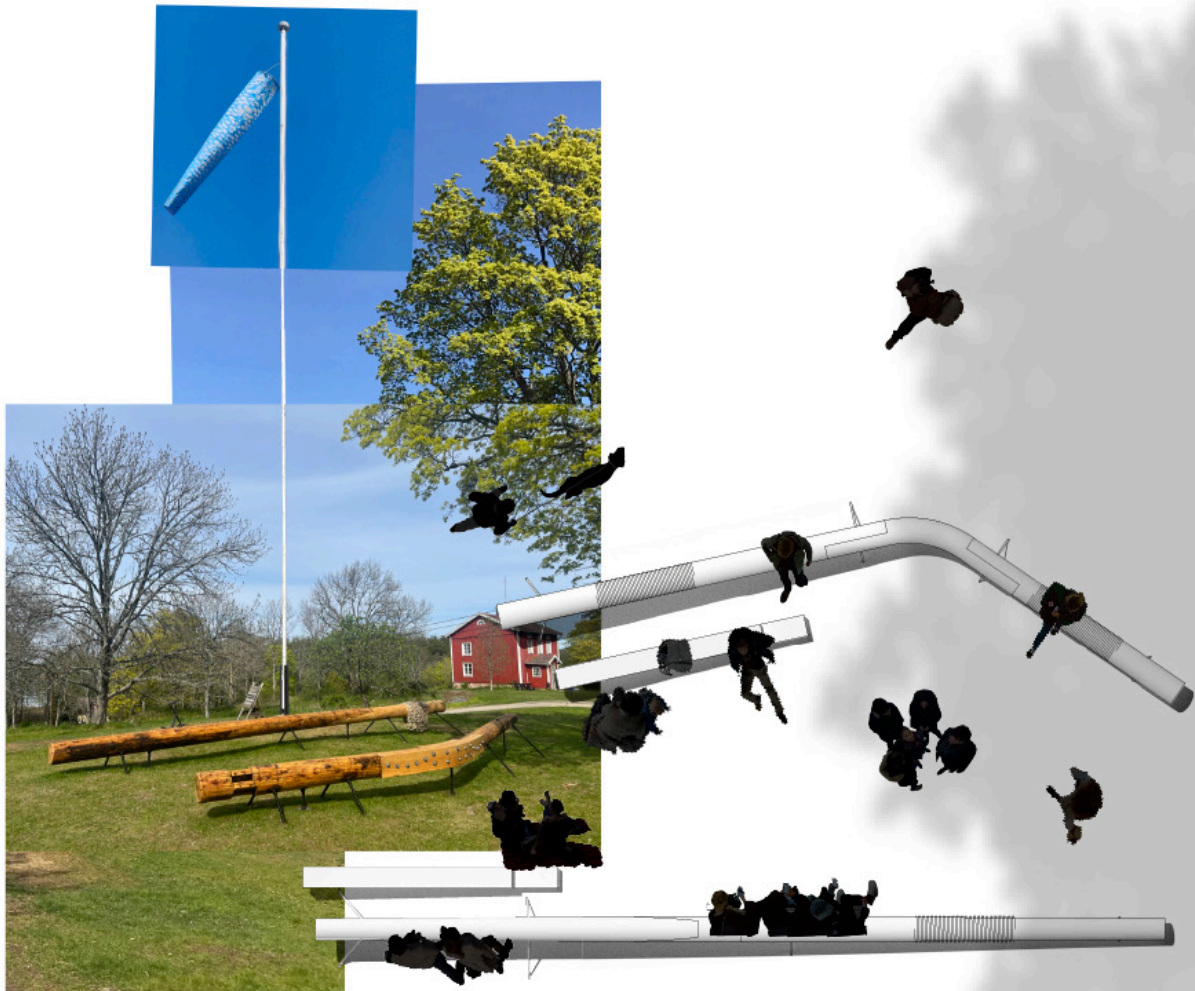
## Windsock

Usually in the shape of a conical tube, a windsock is an indicator of wind speed and direction, usually placed near runways. In honour of one of the Archipelago Research Institute's important protagonists and research foci, a herring indicator of wind speed and direction was made and placed next to the space of gathering, reminding us to follow and attune to our oceanic friends.



## Witness seminar

A witness seminar is a format in which people with a specialised interest around a topic, issue of concern, or an event, gather and verbally exchange, discuss, and debate with the aim of advancing critical dialogue on the matter of address. During a seminar, participants are invited to speak from their position of situated knowledge and experience as a means to initiate and stimulate discussion. These conversations are often chaired and recorded. The seminar transcript becomes an archival source for future use that emphasises the capacities of interdisciplinary collaboration and embodied practice, much like the midsummer poles used to function in the archipelago. Though witness seminars have often situated themselves in contradistinction to oral history, FRAUD proposes a re-interpretation that welcomes constituencies outside academia as specialists in their own right, and integrates oral history as an affirmative grounding force, while manoeuvring the legitimacy conferred through the archival form. Fields of May instigates a series of witness seminars exploring the complex materialities of the Baltic. These events discussing the potentiality of more-than-human legal ecologies are chaired by the former masts of the Sigyn ship.



## PARTICIPANT BIOGRAPHIES

**TARU ELFVING** is a Helsinki-based curator and writer focused on nurturing undisciplinary and site-sensitive enquiries at the intersections of ecological, feminist and decolonial practices. As artistic director of CAA Contemporary Art Archipelago, Elfving is currently leading the research programme *Spectres in Change* on the island of Seili in the Baltic Sea in collaboration with Archipelago Research Institute of Turku University. CAA is a curatorial collective that has been initiating and coordinating long-term multidisciplinary collaborations in the Turku Archipelago region, off the South-West coast of Finland in the Baltic Sea since 2009.

**FRAUD** (Audrey Samson & Francisco Gallardo) is an artist duo whose work has been exhibited internationally. Their spatial practice is concerned with modes of thinking materially about decolonization as a geosocial process, thinking with the ways in which we might encourage relations of solidarity which promote the inseparability of land, water and body. FRAUD's current investigations can be explored through the EURO—VISION platform.

**JARI HÄNNINEN** is an Associate professor (2nd phase) at the University of Turku, and Director of the Archipelago Research Institute. His fields of research and special fields of expertise are: Marine Biology & Aquatic Ecology, Biological Oceanography; Ecology of the Baltic Sea environment, especially the Archipelago Sea; Long-term climatic changes, especially climatic seawater salinity decrease and eutrophication processes in the Baltic Sea and their effects on marine/aquatic biodiversity; and redictive statistical time series modelling (e.g. ARIMA, Transfer Functions), Generalized Linear Mixed Models (GLIMMIX) and Statistical Downscaling using environmental monitoring data series.

**MARI KESKI-KORSU** is a post-disciplinary artist who explores micro-level manifestations of the Anthropocene. Her practice is focused on inter-species communication and complexities of care to possibly enable empathy towards whole ecosystems. She is a doctoral candidate to study for a Doctor of Arts degree in the research field of Contemporary Art in Aalto University. Her research focuses on emphatic, interspecies rituals in change.

**ANASTASIA (A) KHODYREVA** is an antidisciplinary researcher & writer. Anastasia swings between academic and artistic research through haptic encounters, sound walks, note-taking and multisensorial writing. Their dissertation wrote-sensed liveability for marginalised bodies (forthcoming as a speculative monograph, Errant Bodies Press). They co-facilitate *Aquatic Encounters: Arts and Hydrofeminisms*, an artistic research & communal reading space that dream of just aqueous futures. A is a founding member of an international artistic Squishy Collective. They contributed to *The Unlikely Journal for Creative Arts*, niin & näin, The CSPA Quarterly, Errant Bodies Press & Queer Death Studies, dwelled at Listening, Attuning, the FEELed Lab, Contemporary Art Archipelago, Tuo Tuo Arts.



**KATJA MÄKINEN** is a post-doctoral researcher at the University of Turku. Currently, her research focuses on the effects of climate change in the pelagic ecosystem of the Baltic Sea, for example how changes in water quality traits like salinity and temperature are affecting the zooplankton community composition and Baltic herring reproductive resilience.  
<https://www.utu.fi/en/people/katja-makinen>

**LOTTA PETRONELLA** is a filmmaker, artist and curator based on the island of Ruissalo in Turku. She has worked with and on islands for nearly two decades, focusing for the last seven years on the island of Seili. The work on Seili consists of a feature film and radio essey Själö island of Souls and Själö Poesis a critical herbarium that consists of an artist book, an apothecary, lecture performances, a tarot herbarium and a choir work. In addition to her filmmaking practice, Petronella is a devoted medicine and flower essence maker and tarot scholar. She also writes poetry, makes soundscapes, and loves walking. Petronella is the founder of CAA together with Taru Elfving in 2011.

**ELINA RAITANEN** is a University Teacher and a Doctoral Researcher at the Faculty of Law, University of Turku. Her research interests are focused on different aspects of law's capacity to protect social-ecological resilience, legal human-nature relationship and critical environmental law.

**JOHANNES SAHLSTÉN** is a researcher in the Herring Project at the Archipelago Research Institute. His areas of expertise include *Corynosoma parasites* in herring and trap nets.

**ILPPO VUORINEN** is a retired professor in environmental marine research. His studies are mainly on zooplankton, and have been done in e.g. the Arctic Ocean, lake Tanganyika and the Baltic Sea. He was working at the University of Turku, Finland as a director for the Archipelago research Institute. Other than zooplankton his interests are in cross disciplinary environmental research and environmental care.





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Copepod as seen under a microscope, by Emmi Hänninen, Metsähallitus.



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Jari Hänninen, director of the Archipelago Research Institute, raises the herring windsock to inaugurate the event. May 24th, 2022, Seili/Själö, Finland.

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Fields of May (pictured before sunset), FRAUD, 2022. Commissioned by Contemporary Art Archipelago (CAA). Photograph by FRAUD.



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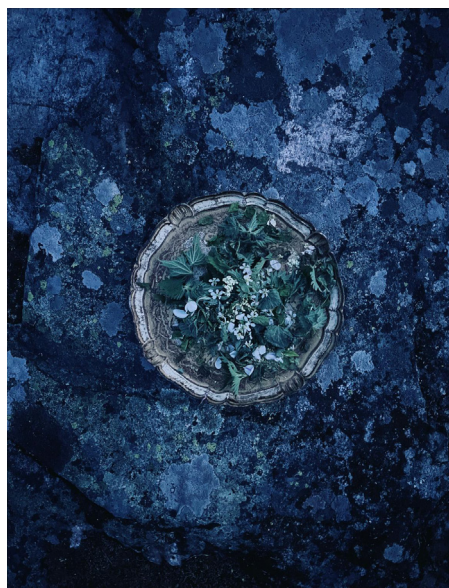
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The Archipelago Research Institute's herring trap net, a smaller version of the traditional trap net, laid out on the grass.



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Witness seminar, 2022. Curated by Contemporary Art Archipelago (CAA). Photographs by Taru Elfving and Ilppo Vuorinen. Montage by FRAUD.



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Lunar infusion by Lotta Petronella (herbs are infused by bathing all night under the half moon). The tea is placed in the center of Fields of May during the witness seminar, archiving the event, which we drink, together with the moon to close the event. Herbs include: Nettle Dandelion and Sweet Grass. Photograph by Lotta Petronella.



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Jari Hänninen, director of the Archipelago Research Institute, sabering the bottle to inaugurate Fields of May. May 24th, 2022, Seili/Själö, Finland.



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A rare documentation of women's role in shipbuilding, pictured here a scene from the archipelago. Src: TRÄBITEN (1983) På Tjårad Köl - exhibition catalogue of the Maritime History Museum's exhibition of folk boats.



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Building and bending Fields of May in Bjarne's boatyard, 2022. Woodwork by Joel Simberg and Bjarne Dahle, building on the work of Tuomo Rinne for Midsummermast.



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Katriina Siivonen discussing 'heritage futures' as rituals for ecological survival in which art is instrumental. Katriina is sitting on Midsummer Mast, an installation by FRAUD hoisted in Turku, 2021. Commissioned by Contemporary Art Archipelago (CAA). Photograph by Jussi Virkkumaa.



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Planting seeds in Fields of May. The seeds were salvaged by Lotta Petronella from Seili's Biodiversity Research Institute, along with herbarium specimens discarded by Turku University (a practice initiated by women interned in the former Island's 'mental' asylum). Species in the Swedbank: Henbane, Plantain, St. John's Wort, Yarrow and Nettle (*Hyoscyamus niger*, *Plantago major*, *Hypericum perforatum*, *Achillea millefolium*, *Urtica dioica*). Photograph by FRAUD.



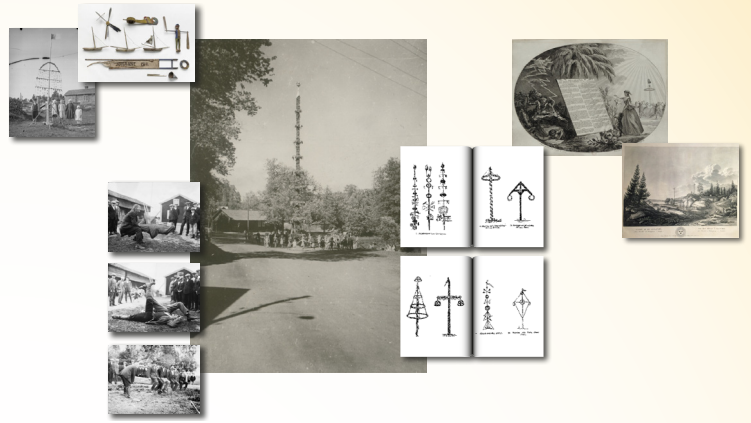
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From left to right: 1) Salvaged upper mast and main yard. Örjans (2007). Sigyn, a lucky ship. Turku: Museum Ship Sigyn Foundation. 2) Navarro de Viana y Búfalo JJ (c. 1756 [1995]) *Arquitectura naval, antigua y moderna*. Madrid: Museo Naval & Lunwerd Ed. 3) Guillet, P (1823) *The Timber Merchant's Guide*. London: Clock & Rose Press. 4) Scouting for wood for the Midsummermast installation, shipwrights and carpenters discussing wood provenance in the Turku shipyard, 2019, photograph by FRAUD. 5) Romme NC (1778) *Description de l'art de la mâture*. Paris: Bibliothèque nationale de France. 6) Remainder of one of the trees used for the Sigyn's new masts pictured during the search for the 3 stumps through Fiskars forest, 2019. Photograph by Taru Elfving. 7) German priest felling sacred tree in Estonia and Finland. Maydell, FL (1842) *Misjonärid Raiuvad Maha Eestlaste Hiiepuid*. AD 1220. 8) The disappearance of natural forests in Finland between 1000 and 2010. Keto-Tokoi P & Kuuluvainen T (2014) *Primeval Forests of Finland*. Helsinki: Maahenki. 9) Productive vs unproductive forest. Cramer JA (1798) *Anleitung zum Forst-Wesen*. Braunschweig: JH Campe.



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Hemp woven on the ropewalks on the Chatham Shipyards in England. These were in turn woven by Maija Toukolehto into carpets. The rugs point to the presence of an absence of presence of other genders in marine and naval architecture archives - actually not just building nets but the boats themselves. Photograph by FRAUD.



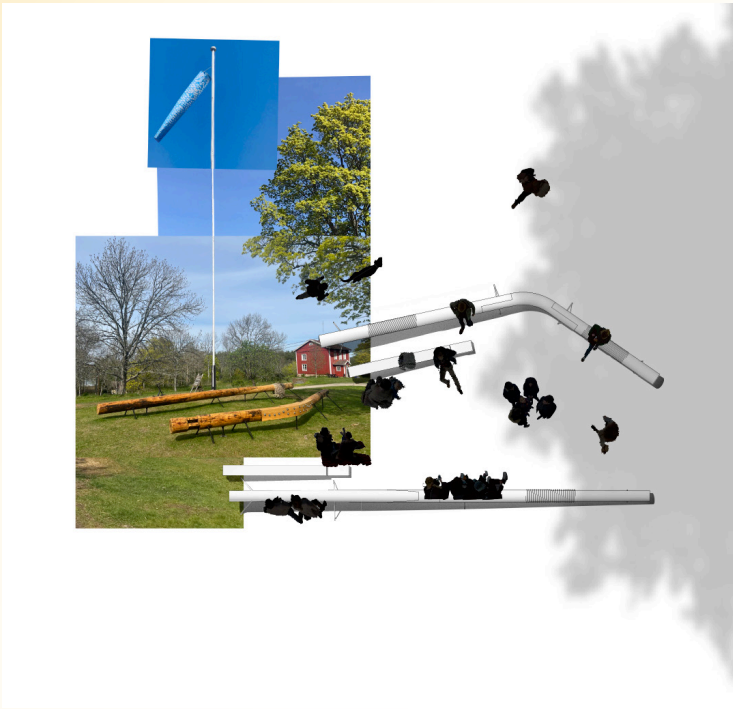
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From left to right: 1) Appelgren A (1923) Children's maypole at Åkerback. The Society of Swedish Literature in Finland. 2) FINNA (1914) Åland Midsummer mast adornments. Helsinki: The National Museum of Finland. 3) Paulaharju S (1928) Midsummer games. Helsinki: Finnish Heritage Agency. 4) Maypole in Fiskars. Holmström L (1940) *Min-nen och hågkomster*. Ekenäs: Ekenäs Tryckeri Ab. 5) Various maypole models by region (SE/FI). Fossenius M (1951) *Majgren, majträäd, majstang*. Ein etnologisk-kulturhistorisk studie. Stockholm: Gleerup. 6) Niquet AG (1789) *The Declaration of the Rights of Man*. Paris: Bibliothèque Nationale. 7) Belanger L. & Cordier (1802) *View of a sawmill, between Allerdlet and Helsingkorpe in Finland*. A maypole in the background. Vantaanjoki.



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Baltic herring skin patterned flag, pointing to herring led legal ecologies. Design by Francisca Roseiro. The flag is part of Fields of May, FRAUD, 2022. Photograph by FRAUD.



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Fields of May, 2022, collage of images and sketches of the installation. Commissioned by Contemporary Art Archipelago (CAA).  
Photography by Jussi Virkkumaa.



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Fields of May, 2022, collage of drone photography and video.  
Drone operator: fisheries research, Finnish Environmental Agency.

# FIELDS OF MAY

MORE-THAN-HUMAN LEGAL ECOLOGIES AND COSMOLOGIES  
AT THE ARCHIPELAGO RESEARCH INSTITUTE

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