

ABSTRACTS

YHYS Colloquium 2018

Naturecultures

November 21-23, 2018

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NATURECULTURES

Finnish Society for Environmental Social Sciences YHYS Colloquium

November 21–23, 2018

VENUE: University of Lapland, Rovaniemi, Lapland, Sápmi, Finland

THEME: Naturecultures

The 23th annual colloquium of the Finnish Society for Environmental Social Sciences (YHYS) will be held at the University of Lapland, Rovaniemi. The theme of the colloquium is Naturecultures.

The programme includes keynote speeches, panel discussions, workshops and a pre-conference early career researcher meeting.

Ecological compensation, biodiversity offsetting, no net loss of biodiversity, ecosystem services, low-carbon economy, ecoinnovation, circular economy, zero waste, active energy citizenship, resilience and bioeconomy. These are examples of concepts that have in the past few years steered the conversations of the management of natural resources, environmental protection and environmental politics and greatly influenced political agendas. A growing awareness of the climate change, of the sixth wave of extinction and of other irreversible changes in our environment has influenced the emergence of re-conceptualizations of the eco-sociality of societies. It has sensitized subjects to identify the most critical question for the future policies and research: How to comprehend the co-existence of nature and society.

Environmental social sciences have indicated long ago how the problems of the society's relation with nature originate from the profoundly—and problematically—established divide between culture and nature, located in the western thought. The persistent modernist bifurcations form an obstacle to perceiving that human communities do not only live from the land, but live and breathe with the land—and with non-human others.

In the past few years, the emerging multidisciplinary discussion on naturecultures has unsettled the established fields of politics of nature and natural resources, political ecology, and environmental ethics by providing alternative, supplementary, reciprocal and ethically sustainable forms of knowing. The naturecultural theorizing has offered new conceptualizations for thinking about being-in-the-world and for re-establishing the relationship with the land by drawing open-mindedly from the traditions of natural sciences, social sciences, philosophy, and arts.

The colloquium seeks to foster multidisciplinary discussion on the issues of naturecultures, both as a research concept and as a mode of being-in-the-world.

Call for papers

YHYS Colloquium invites contributions to the fields of natural resources and environmental politics as well as explorations on naturecultural issues covering a variety of issues such as energy and climate, or sharing our lives with non-human others.

To submit your paper proposal, please send your abstract (approx. 200 words by e-mail) to the session convener by September 3, 2018.

In addition to the colloquium sessions, an early career researcher meeting will be arranged on 21 November, 2018. For further information, please follow the webpages of the colloquium.

Contacts and information

Organizing team: yhys@ulapland.fi, Colloquium homepage: <https://www.ulapland.fi/yhys2018>

YHYS homepage: <http://www.yhys.net/>

SESSIONS

1 Biodiversity offsetting: ideologies, modalities and production of naturecultures

(Venue: SS5)

The European goal of no net loss of biodiversity and ecosystems increasingly requires humans to offset their impacts on ecosystems. Biodiversity offsetting designates an ensemble of actions to maintain or restore the good conservation status of species and ecosystems impacted by a project. From no net loss perspective, the biodiversity lost in one place is compensated by creating equivalent gains elsewhere.

Biodiversity offsetting interrelates nature and culture in two ways. On the one hand, biodiversity offsetting promises to reconcile development and conservation. Humans move species and intervene on the trajectories of ecosystems to preserve them, restore them, or replace them with novel ecosystems. But species and ecosystems may also react in unexpected ways in response to offsetting actions. The resulting natureculture has been severely criticised by opponents to biodiversity offsetting who underlined its market-based rationality and the impossibility to recreate nature.

In this session, we invite researchers to reflect on biodiversity offsetting practices and theory. What are the ideas and ideologies behind biodiversity offsetting? What kind of biodiversity offsetting policy and legislation could best achieve the ambitious goals? How biodiversity offsetting works in practice? Which actors get involved in offsetting projects and how? What kind of naturecultures does offsetting produce?

Session conveners: Lucas Brunet (lucas.brunet@irstea.fr) and Nina V. Nygren, University of Tampere.

Thursday (15-16.30 p.m.)

- 1 Leila Suvantola: Modelling Offsetting
- 2 Jukka Similä: How European biodiversity offsetting model limits and enable ecological compensation in Finland
- 3 Lucas Brunet: An experimental operation: the making of the first French biodiversity offsetting bank
- 4 Veera Salokannel: Planetary boundaries and biodiversity banking
- 5 Nina V. Nygren: Game on: Biodiversity offsetting!

Friday (10-12 a.m.) Game play

Collective biodiversity offsetting game play

ABSTRACTS

Leila Suvantola, Docent of Environmental Law

Modelling Offsetting

Ecological offsetting is increasingly adopted in legislation around the world to combat loss of biodiversity. Regulation of ecological compensation has proved to be a learning process and legislation has been or is proposed to be amended in most countries as experiences accrue of the effectiveness, efficiency and fairness of the offsetting systems. These – often mishap – experiences are utilised in drafting policy instruments in countries where offsetting is a novelty. Finland is among the countries where only first steps have been taken to adopt ecological offsetting.

This paper examines on the basis of literature and comparative research of legislation in i.a. Germany, Sweden and New South Wales in Australia what components offsetting comprises of and what choices construct offsetting as an environmental policy instrument. Each choice has an impact on the effectiveness, efficiency and fairness of the adopted system. The paper does not argue that there were a “one-fit-all” offsetting formula, rather it is proposed that each choice leads to certain alternative choices from which the regulator has to choose the most suitable one for its regulation environment.

Jukka Similä, University of Lapland

How European biodiversity offsetting model limits and enable ecological compensation in Finland

Biodiversity offsetting has recently drawn a lot of attention in Europe and this clearly is partly because of ecological compensation regulation adopted at European level. The Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) contains an explicit mechanism for ecological compensation in its Article 6(4). This mechanism aims to protect integrity of the Natura 2000 protected areas network. Further, Art. 12 of the directive forbids deterioration or destruction of breeding sites or resting place of strictly protected animal species unless a derogation is granted. Compensatory measures may be taken into account, when derogation is granted.

Recent cases from the European Court of Justice has significantly affected the way how biodiversity offsetting is to be understood in the context of Natura 2000. Particularly relevant cases are T. C. Briels etc. vs. Minister van Infrastructuur en Milieu (C-521/12) and combined cases Hilde Orleans, Rudi Van Buel and Marina Apers (C-387/15) as well as Denis Malcorps, Myriam Rijssens ja Guido Van De Walle (C-388/15) vs. Vlaams Gewest, Gemeentelijk Havenbedrijf Antwerpen. While it is well known that the Habitats Directive contains a compensation mechanism the relevance of these cases and their logic is less discussed.

The biodiversity offsetting model adopted in the Directive, is relevant beyond its legal scope of application. It could become a model to new ecological compensation mechanisms in Europe. One can assume that European model of ecological compensation will develop to different direction than similar mechanisms in other countries and continents, because of the model adopted in the Directive and particularly in legal practice.

In this presentation, I will draw a general picture of the model adopted in the Directive as modified in legal practice. Then I will discuss about implications of this model for the future development in Finland. What would it mean, would this model be followed beyond its legal boundaries and what would be alternatives for this model.

Lucas Brunet, University of Tampere

An experimental operation: the making of the first French biodiversity offsetting bank

In 2009, the French public company CDC biodiversité started to restore a former orchard of 357 hectares in the last French Mediterranean steppe. The company generated biodiversity offsetting units, enabling development projects to offset their impacts in the area. This paper retraces the history of the creation of the first biodiversity offsetting bank in France. Designated as an experimental operation, the creation of the bank provided an opportunity to fund restoration ecology experiments on a large scale and to examine the institutionalisation of offsetting banks in France. In this article, I present

the experimentation as an affective experience accompanied with surprises, hopes and fears. I document how biodiversity offsetting co-produces ecology and economy by intensifying a variety of mutual affections between humans and ecosystems. The construction of the biodiversity offsetting unit also brings into reality different practices to manage ecosystems. To intervene on the trajectory of the Mediterranean steppe, the project managers restored the habitat of specific species, mobilised sheeps and ants to assist them, but the ecosystem also reacted in unexpected ways.

Veera Salokannel

Planetary boundaries and biodiversity banking

Planetary boundaries is an inherent part of the sustainable use of natural resources: we ought to limit the current consumption of goods and natural resources in order to respect the natural boundaries of the planet. Research on planetary boundaries shows that we have already crossed a critical threshold with regard to biodiversity loss. There are several means to protect legally biodiversity: conservation areas, species protection, and sustainable use of natural resources such as forests. Market based mechanisms to protect biodiversity have become more popular in many countries during the last decades. There are, for instance, certifications systems (e.g. forests, sea food, palm oil), and biodiversity banking. Biodiversity banking base on biodiversity offsetting. Biodiversity banking has been considered a cost-effective and flexible means to protect biodiversity. It has also been criticized as ineffective for not bringing enough biodiversity benefits and for commercializing nature. Could biodiversity banking meet the requirements of planetary boundaries and the mitigation hierarchy, which is a part of the no net loss of biodiversity principle?

Nina V. Nygren, University of Tampere.

Game on: Biodiversity offsetting!

Biodiversity offsetting is a complex practice and involves ecological, legal and social uncertainties. It has also generated contrasted reactions. Hopes of reconciliation and efficiency surround offsetting practices, but also fears and risks of failure and triviality have emerged.

Biodiversity offsetting game project aims to explore these complexities, uncertainties, emotions and interactions with a social card game. The game is developed in various collaborative stages together with the multidisciplinary research team, other researchers and later with stakeholders.

Already now, with the 1st prototype of the game, we have found several positive effects of game design and game play as tools of research, research communication, social learning and interaction. First of all game design as a new tool connects us researchers in new ways to different actors. Game design also pushes us to convert complex dynamics to relatively simple game rules. First demogaming sessions have proved promising in providing engagement, emotions and enthusiasm.

In YHYS 2018 I will present the project and tell how we translated certain offsetting principles to the game and how the game development process is looking so far.

2 Climate services – a new way to translate climate science to decision-making (Venue: LS18)

Climate services are a recently introduced option in the science-policy interface. According to the 2015 roadmap by the European Commission, climate services involve “the transformation of climate-related data — together with other relevant information — into customised products such as projections, forecasts, information, trends, economic analysis, assessments (including technology assessment), counselling on best practices, development and evaluation of solutions and any other service in relation to climate that may be of use for the society at large.” (European Commission 2015). The roadmap notes the importance of climate services not only for climate change adaptation actions, but also for mitigation and disaster risk management.

As the core purpose of climate services is to provide user-friendly and relevant climate information to assist decision-making (Buontempo & Hewitt 2017), the importance of end-user involvement in the development process is highlighted.

This session welcomes presentations on case studies on climate services and their co-design processes, data related questions, and the usability of climate services from end-user viewpoints, to name a few.

Session convener: Ilona Mettiäinen (ilona.mettiainen@ulapland.fi), Arctic Centre, University of Lapland.

Thursday (15-18 p.m.)

- 1 Ilona Mettiäinen, Martin Coath, Roxana Contreras, Jusu Toivonen: Co-designing a climate service for winter tourism business in Northern Finland for reducing uncertainty in decision-making
- 2 Øivin Aarnes: Blue Action – Harnessing extreme weather risks to maritime and oil & gas operations
- 3 Atte Harjanne, Andrea Damm & Adriaan Perrels: Assessing and facilitating climate service markets – Lessons from two European projects
- 4 Atte Harjanne: Services to save the world? Analyzing the logics of climate services

ABSTRACTS

Ilona Mettiäinen, Martin Coath, Roxana Contreras and Jusu Toivonen

Co-designing a climate service for winter tourism business in Northern Finland for reducing uncertainty in decision-making

Skiing is an important branch of winter tourism also in Northern Finland. As winter tourism industry relies heavily on climatic conditions for economically successful operation, Haanpää et al. (2015) consider downhill skiing as a “canary in the coalmine” type indicator on the impacts of climate change. Climate change is expected to decrease snow cover days in Northern Scandinavia by 20 – 30 % particularly in the beginning of the potential skiing season. Hence, relevant and usable information on future climate and specific local weather conditions is fundamental for ski centres for preparing and adapting to the future climatic change in their operational and investment decisions.

For this purpose, we are in the process of co-designing a climate service for the end-user Rukakeskus Ltd. The co-design process will result in a climate service for reducing uncertainty particularly on conditions for snowmaking for enabling an early season start.

The presentation is based on work conducted within the Blue-Action: Arctic Impact on Weather and Climate project (2016-2021), the case study on co-designing a climate service for winter tourism in Northern Finland.

The Blue-Action project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 727852.

Øivin Aarnes, Principal Specialist at DNV GL

Blue Action – Harnessing extreme weather risks to maritime and oil & gas operations

One of the case studies in Blue Action is to co-develop a climate service to harness weather risks to offshore operations in the Arctic region. With dramatic on-going changes in the Arctic, partly triggered by the melting of the Greenland ice sheet, and shifts in North Atlantic Ocean currents, there is an urgent need to understand how Arctic processes interact and evolve. Blue Action aims to demonstrate how climate services in co-design with end-users can serve its' purpose of mitigating risks, and create greater awareness towards the causal mode of extreme weather events.

This presentation will showcase polar lows, the drivers behind this weather phenomenon, their predictability, and discuss the risks these events pose on maritime activities. With the backdrop of this years' YHYS theme of Naturecultures, the talk will emphasize a multidisciplinary and risk-based approach to cross-cutting societal, environmental, and business needs in delivering decision support for safe and sustainable practice.

*Atte Harjanne, Finnish Meteorological Institute / Aalto University School of Business,
Andrea Damm, Joanneum Research & Adriaan Perrels, Finnish Meteorological Institute*

Assessing and facilitating climate service markets – Lessons from two European projects

In 2015 European Union published its research and innovation roadmap for climate services (EU, 2015) which aims to facilitate the creation and growth of climate services markets. Funding related research and innovation projects is part of the effort, and in 2016 two sister projects, EU-MACS1 and MARCO2, were launched. Together these two projects have assessed the market situation and potential and means to match demand and supply of climate services. The work has been conducted in close collaboration with industry stakeholders and has covered various selected sectors of the economy. In this presentation we focus on tourism and mining as prospective users of climate services.

This presentation summarizes the results and lessons learned within the two projects. The results cover updated conceptual structuring of climate services markets, assessed market potential and identified drivers and barriers as well as policy suggestions to overcome the barriers. In addition, the benefits and challenges of the applied interactive and interdisciplinary research methods are discussed.

Services to save the world? Analyzing the logics of climate services

Climate services have in recent years become a favored means to improve use of climate information in decision-making, with the aim of improving climate change adaptation and mitigation and disaster risk management throughout the society. Among the most prominent promoters of climate services are the World Meteorological Organization (WMO) and the European Union (EU), who actively fund and facilitate the development of these services.

From institutional point of view, climate services can be considered as an emerging organizational field (DiMaggio & Powell, 1983) where institutional logics (Thornton & Ocasio, 1999) are now solidifying. By studying how and what different actors inside and outside the field of climate services talk about these services, I have analyzed i) the logics underlying the promotion and development of climate services and ii) potential risks and pitfalls of these logics. Reaching the stated aims of improving climate adaptation and mitigation by servitizing (Vandermerwe & Rada, 1988) climate information is far from simple process. In addition, the European aim to create commercial climate service markets brings about fundamental questions about the role of research and researchers in society.

The analysis is based on analysis of WMO and EU documents and 89 research interviews of European climate service experts and potential users. Some results have been previously published in Harjanne (2017) but I also present results from a yet unpublished manuscript.

3 Collective reflection on experiments, experimentation and interventions in environmental social science (Venue: LS12)

Experiments and interventions are being increasingly called upon to test and invent solutions to sustainability problems. They are encouraged as dynamic means to develop new technologies, practices, institutional designs or governance arrangements, but also to invite new actors to their invention. Experimental designs have a long tradition in laboratory sciences. In social sciences action research has applied interventions as a means to address wicked social problems. Lately, in transition studies experiments have been highlighted as an engine for sustainability transitions. Science and Technology Studies remind that experimentation should keep as attentive for new imaginaries. All these various methodological approaches evoke rather different imaginaries for experiments, interventions and their outcomes.

In this working group we want to encourage discussion on the varying uses, motives and outcomes of experiments and interventions in environmental social science. We invite reflections on 1) varying experimental settings, tools, methods and concepts; 2) their different societal outcomes; 3) experiments and interventions as means to mobilize and create new imaginaries and collectives; 4) the changing role of research/ers in experimental settings and in interventions; 5) ethics of experimentation and intervention research.

The working group is organized around reflective talks followed by a collective discussion. Each participant is welcomed to give a reflection on their uses and outcomes of experiments, experimental research or interventions. The reflections can be based upon practical experience or theoretical elaborations. Creative ways to give the talk are welcome. We devote most of the time in the working group to joint discussions. Please send short synopsis of your argument (max 250 words) to the conveners by 3.9.2018. We aim to compile a commentary on the joint discussion to the versuslehti.fi.

Session Conveners: Maija Faehnle (maija.faehnle@ymparisto.fi), University of Tampere, Finnish Environment Institute, Juha Hiedanpää (juha.hiedanpaa@luke.fi), Natural Resource Institute, Minna Kaljonen (minna.kaljonen@ymparisto.fi), Finnish Environment Institute, Helena Leino (helena.leino@uta.fi), University of Tampere and Taru Peltola (taru.peltola@ymparisto.fi), Finnish Environment Institute.

Session 1 / Thursday (15-18 p.m.)

1 Philip Hector: Places for cultural and technical experimentation in Helsinki

2 Elif Erdogan Oztekin: Towards habitats of naturecultures: Community-led experimentations in the urban and rural

3 Eva Heiskanen, Kaisa Matschoss, Senja Laakso & Eeva-Lotta Apajalahti: A practice-based living lab as an intervention for the redesign of the socio-technical systems toward sustainability

Session 2/ Thursday (15-18 p.m.)

1 Noora Vikman

2 Sophia E. Hagolani-Albov : "Slow Science" as an entry to Understanding Place-making Processes and Creating Respectful Research Projects

3 Sanna Hast: Balancing a diamond on a blade of grass: Experiential intervention of researcher/adviser

Session 3/ Friday (9.15-12 a.m.)

1 Guy Julier and Kaisa Savola: Broken Nature: Representing Everyday Design Experiments

2 Sari Pynnönen, Teppo Hujala: Rethinking the practice – Forest practitioners as experimenting change agents

3 Savitri Jetoo: HUMANS of the BALTIC SEA (HOBS)

4 Aino Rekola, Riikka Paloniemi: Researcher-planner dialogue on environmental justice and social learning in an action research setting

Session 4 / Friday (9.15-12 a.m.)

Discussion on the output/Versus

ABSTRACTS

Philip Hector

Places for cultural and technical experimentation in Helsinki

This study explores the forming of places for cultural and technical experimentation in Helsinki from the initial and variegated expectations of actors to an established practice.

With an increasing number of places for experimentation and open laboratories in place, questions arise regarding how and with what effects they come about, what they symbolize to those who partake and how they organize themselves in order to satisfy those involved. Therefore we ask (1) how personal utopias connect and relate to the place and its practices, (2) how the laboratories (re)design their infrastructure and organisational model in order to enable participation and endured existence of the initiative, and finally (3) what is the institutional context of the initiative, how does the initiative differentiate from its surroundings and how is usefulness negotiated?

The two case studies involved are "Kuusi Palaa", the successor model of a one-year experiment for decentralized, cultural production and "Test Site", a campus based outdoor test site for low-tech sustainability experimenting and design-with-nature. Data was gathered through the methods of participatory observation, interviews with initiators and participants as well as those providing external resources.

At best these cases turn personal frustrations and dreams into productivity and exploration of different forms of production and support, but the intense nature of organizing a collective in a non-hierarchical way compromises this. Furthermore, the hybrid form of the two cases helps to create interest among external stakeholders but at the same time further challenges its steering due to unclarity about its purpose. Finally, it appears that even small examples of how visions have materialized show a strong influence on the enrolment and commitment of people.

Towards habitats of naturecultures: Community-led experimentations in the urban and rural

Real-life experimentations deliver multiple opportunities for scientific inquiry. A particular focus on community-led experimentations for innovative habitats might facilitate learnings on the dynamics and interrelatedness of environmental, technical, institutional, cultural and social dimensions of transitions. This presentation will provide reflections from two community-led and long-term habitat experimentation cases: the urban settlement of Understenshöjden in Stockholm and rural settlement of Tamera in Portugal. These cases share the commonalities of being well-established (more than 100 households in the habitation phase) and being under continuous learning processes to improve the technical, environmental, institutional, cultural and social configurations of the habitat system. On the other hand, these cases hold multiple divergences in their transition processes due to their contrasting urban or rural settings.

The presenter will analyse urban and rural habitat experimentations under multiple topics in comparison, whilst system innovations and transitions theories will provide the framework of analysis. First, four phases common to community-led habitat experimentations will be demarcated as (1) initiation of the idea, (2) planning, (3) implementation, and (4) habitation. Subsequently, key aspects and dynamics of bottom-up transitions will be addressed while common and differing geographical settings, group character and approach, political context, and organizational models are illustrated by cases.

Eva Heiskanen, Kaisa Matschoss, Senja Laakso & Eeva-Lotta Apajalahti

A practice-based living lab as an intervention for the redesign of the socio-technical systems toward sustainability

Living Labs have gained traction as a form of experimentation to support sustainability transitions (Bulkeley et al. 2016). This type of experimentation refers to inclusive, real-life initiatives designed to promote system innovation through social learning, as a variety of actors commit to the processes of adopting and adapting alternative technologies, services, processes and practices (Bulkeley et al. 2016). Recent years have seen the emergence of several variants of living labs, with a focus on transdisciplinary sustainability knowledge creation and real-time application of the knowledge created (Schäpke et al. 2018).

Practice-based Living Labs can be seen as special case within sustainability-oriented Living Labs: they are not only interested in developing new technologies, but in placing product and service development in the context of everyday practices and attempts to reshape them. They thus draw on notions from social practice theory (Shove 2003; Shove et al. 2012) to challenge escalating expectations of cleanliness, comfort and convenience by introducing, for example, adaptive sustainable practices of heating and hot water use. The aim is to develop alternative practices-as-performances and eventually reshape practices-as-entities, i.e., culturally shared ways of conducting daily life.

We draw from practical evidence from an on-going real-life intervention taking place in 8 countries with 320 households during autumn 2018. We discuss the experimental setting, tools, methods and concepts chosen for this intervention in a co-creation process with different actors and stakeholders. Our research also presents a way of an intervention to act as a mean to create new collectives.

Noora Vikman

The starting point of humanist research has been to grasp unsolvable mysteries rather than seeing solvable problems. The interpretation of culture is about to make sense of the flow of continuously changing meanings.

The cumulating information about environmental problems in everyday day life may cause anxiety as well as facing indifference and denial of rational and practical sustainable solutions. In popular understanding it is less and less easy to deny the urgency of the change of life style.

What kind of tools could the study of environmental wellbeing offer to encourage also the of sustainable practices and hope in addition to understand them? Meaning making for example can turn the negative into positive and vice versa. Could cultural soundscape studies may have tools to offer tools and alternative ways to deal with environmental problems? How to introduce sustainable ideas and practices in places and situations where they still seem odd?

“Silence” linked to a moderate lifestyle may represent alternative ways of life more in balance with rest of the ecosphere and introduce ways to survive with less. Listening to silences represents one way to try to find a common ground for constructive communication.

Applying the knowledge of different soundscape projects led me to plan a project where silence was understood an asset in travel business. As a metaphor it worked as a tool to develop more sustainable travel services and suggest more sustainable reasons to travel and at the same time to productize it.

In this session I will reflect my experiences and tell examples what happened during this participatory project dealing with and creating more paradoxes. It is also a story about being in a wrong place but at the right time – quite on purpose.

Sophia E. Hagolani-Albov

"Slow Science" as an entry to Understanding Place-making Processes and Creating Respectful Research Projects

This paper explores the use of slow science methods. It is intended as a methodological contribution to the emergent conversation regarding the role of place-making processes in sustainability transitions. The proposed methods have been field-tested in a bounded geographical region which actively implemented sustainable agriculture practice and energy production. The slow science approach is suggested as a strategy to potentially avoid the problem of intellectual extractivism from the inhabitants who live within a study area or system. Slow science is a deliberate approach by the researcher to build social capital within the study area prior to asking the participants to share any information. It also keeps a focus on producing research outcomes which are beneficial not only for the researcher, but also the participants. As research into place-making processes, and by extension place-based landscape development, reaches so deeply into the lived experience of participants, it is of paramount importance that researchers approach their chosen methods in a way which does not leave participants feeling exploited. This paper has been developed based on three years of research practice in the countryside in Uusimaa, Finland. These propositions are appropriate for any research which approaches understanding the cultural aspects of context driven development.

Sanna Hast

Balancing a diamond on a blade of grass: Experiential intervention of researcher/adviser

How can we recognise and integrate into planning, in an unbiased and balanced way, the various and sometimes fundamentally different knowledges involved in natural resource use? How do we achieve sustainably reconciliation of multiple interests in natural resource governance?

The object of my doctoral research has been to question the terms or conditions (and concept) of reconciliation and to analyse the planning and decision-making processes – the roots of natural resource governance. The underlying idea is to enhance the integration of different knowledges in planning and decision-making and in so doing, perhaps work towards sustainable natural resource politics.

Working at the Reindeer Herders' Association as an adviser in land use management gives one perspective. Researching, via case studies, the processes, structures and institutions of land use planning and reconciliation in natural resource governance in the reindeer herding area, gives another. My gliding role of observing sociologist to participating adviser demands an understanding of rather different worlds of social practices, knowledges and language-games.

This is the topic I wish to address and reflect on with this working group. The bipolar role of researcher and adviser in land use planning is an (auto)ethnographic intervention that gives insight to both the research (its concepts, methods and ethics) itself and the "object" of research, the phenomenon under inspection.

Guy Julier and Kaisu Savola

Broken Nature: Representing Everyday Design Experiments

Design is often shown as unproblematically shiny and successful. However, the past decade has seen a deepening of design practices to find their use in such areas as social innovation, environmental politics, policymaking and governance. Apart from their engagement with a wider range of actors, a new vocabulary of design practice has emerged that foregrounds processes and immaterial outcomes over finished products. Further, these new practices are more typically to be found in experimental spaces, ranging from highly technocratic situations of neoliberalisation to activist, prefigurative settings.

This presentation reviews our research in curating the 2019 Finnish Pavilion of the Triennale di Milano whose overall theme is 'Broken Nature: Design Takes in Human Survival'. It reflects on our curatorial processes thus far, exploring the challenges of representing multilayered and polyvocal politics, conceptions of nature/culture and fields of design. Further, our interests are in the historical trajectories and contexts of experiments and their situating in real, everyday life. How do we open up their historicity while also recognizing their ephemeral qualities? How do we shift the discourse towards design as a problem-making activity?

RETHINKING THE PRACTICE – FOREST PRACTITIONERS AS EXPERIMENTING CHANGE AGENTS

Finnish forest management claims to be ecologically sustainable but it has been unable to halt the loss of forest biodiversity that is mostly due to extensive timber production. Earlier research shows that forest professionals doing the practical planning and supervision of forest work are in a central position securing the ecological sustainability and considering the biodiversity.

Lot of research and development projects have contributed to creating a solid knowledge base for biodiversity protection practices. Forest professionals have been trained extensively. However, they have seldom been encouraged to identify the bottlenecks of biodiversity conservation and to develop their work themselves.

We conducted a participatory action research project with three one-day workshops for altogether 30 forest advisors and forest management planners. In the workshops, forest professionals discussed in small peer groups about biodiversity protection practices as part of their daily work, emphasis being on experience-driven and solution-oriented identification of problems and possible solutions. As part of the research, we asked the participants to plan and conduct a small experiment in their current work.

In our presentation, we reflect on the process of workshops and experiments i) from the participants' perspective based on discussions and feedback, and ii) from the researchers' perspective based on change management and agency theories. Focal question is the support from the organization for the development work and effective interventions. The observations suggest better linkages between experiments and practices. As researchers, we will need to balance the scientific objectives and the practical orientation to facilitate the rethinking of prevailing practices.

Key words: participatory action research; experiment; forest professionals; sustainable forest management

Savitri Jetoo

HUMANS of the BALTIC SEA (HOBS)

How do humans perceive the environment? Public opinion surveys that have attempted to statistically capture the relation of humans to the Baltic Sea environment. This is an attempt to understand this symbiotic relationship between humans and the Baltic Sea environment, in a bid to stem the tide of pollution that threatens the survival of the sea ecosystem. This reflection looks at the use of stories to capture the relationship of humans to the Baltic Sea. The listener or reader of stories can immerse herself in another world, transplanting themselves for a moment into the life of another, walking in their shoes. Narrative is a familial concept to stories, revealing the unique views, motivations and perspective of one person in a way that can engage and interest another. This becomes networked narratives with the use of technology; digital stories such as those captured on Facebook walls, embedded with technological features such as shares, comments and likes. Network implies the connection between people who read the narratives and those who write these stories. This reflection is story of the Humans of the Baltic Sea, a Facebook page created to capture the stories of the relationship of persons to the Baltic Sea.

Researcher-planner dialogue on environmental justice and social learning in an action research setting

Sustainability challenge has expedited development and analyses of effective science-policy interaction strategies. In the field of environmental policy, knowledge co-production, brokerage and mediating activities are all well-known forms of scientific intervention. Although an accumulating number of studies focusing on theory development of the above-mentioned science-policy interaction activities, on empirical research on their applications as well as on policy recommendations have been published in recent decades, analytic close-ups of the actual communication processes between the researchers and the practitioners are still rather rarely seen in the academic literature.

In our study we explored empirically the capacity of the action research approach to simultaneously foster an active dialogue between researchers and planners, produce development in integrating environmental justice perspective in the planning process, and, thus, support the work of the planners in their navigation across epistemological dilemmas related to conflicting interests and pressures from the stakeholders' side.

We found out that our dialogue generated a non-linear social learning process between the researchers and the planners, including incremental and more transformative type of learning. We also found out that researcher-planner dialogue developed during cooperation: dialogue became more focused, communicative and reflective as an outcome of mutual frames and shared trust.

Based on the results, we conclude, that in order to support sustainability transformation in the future, it is essential to create opportunities for incremental and transformative social learning by embedding dialogue into the research design. Various innovative modes of interaction, such as action research, may encourage communicative and reflective dialogue and accordingly facilitate recognizing intricate power relations in the process. (Rekola & Paloniemi 2018.)

4 Environmental and ecological justice

(Venue: LS13)

Human-caused environmental changes have turned environmental matters a central concern for justice. Various social movements and academic disciplines have employed the notion of environmental justice and its further developments like food, climate and energy justice and justice in human-animal relations. New notions of justice have been coined.

This session explores and examines environmental justice in ways that improve our understanding about its different meanings and applications. We welcome both theoretical and empirical presentations that concern environmental justice or ecological justice (justice in human-nonhuman relations), broadly understood.

Session conveners: Teea Kortetmäki, University of Tampere (teea.kortetmaki@uta.fi) and Markku Oksanen, University of Eastern Finland (markku.oksanen@uef.fi).

Thursday (15-18 p.m.)

- 1 Sanna Kopra: Responsibility for Climate Justice: the role of great powers
- 2 Mikko Puumala: Inertia of Rights
- 3 Teea Kortetmäki: Climate change as structural injustice
- 4 Silviya Serafimova: The Role of Environmental Justice in Weak and Strong Sustainability Models

Friday (9.15-12 a.m.)

- 1 Álvaro Fernández-Llamazares & Victoria Reyes-García: A political ecology of the TIPNIS road conflict in Bolivian Amazonia
- 2 Corinna Casi: Indigenous Ethics and Ethics of Care: Intertwined Connections of Human and Nonhuman Communities
- 3 Markku Oksanen: Climate refugees: an overview of philosophical debate
- 4 Eeva Berglund: The nature of urban growth and the meaning of environmental justice

Each presenter will have ca. 40 minutes (25 minutes for the presentation + 15 for the discussion). There will be a 10-minute break in the middle of both sessions if allowed by the schedule.

ABSTRACTS

Sanna Kopra, The Arctic Centre, University of Lapland

Responsibility for Climate Justice: the role of great powers

This paper discusses environmental justice from the normative standpoints offered by the English School theory of International Relations. The English School theory assumes that great powers have special responsibilities in international society. Although climate change has become a more and more alarming risk to international security and the well-being of human beings, the English School has not paid much attention to climate ethics. This paper aims to fill this gap in literature by studying the practices of great power climate responsibility empirically and theoretically. It asks: To what extent do practices of great power responsibility continue to provide an adequate basis for international order and justice in the era of climate change? Can we assume that great powers have to shoulder more responsibility regarding climate change mitigation than smaller states? For the English School, the answer seems to be positive: pluralists justify this responsibility for great powers' managerial role in international society whereas solidarists emphasise great powers' leadership responsibility to advance

human values and international justice, including environmental justice. In addition to an analysis of UN climate negotiations, the paper investigates how the UN Security Council, the United States and China define great power climate responsibilities in practice.

Mikko Puumala

Inertia of Rights

Typically, rights are seen as something positive. We should have more rights rather than less. In this paper, I challenge this widely held positive view on rights. I argue that any serious action required to stop climate change is interfered by what I call the *Inertia of Rights*. Referring to individual's rights causes inertia, slowing any real progress against climate change. How are rights justified? Often, they are justified by claiming that rights protect the good of the individual. For example, the negative right of physical inviolability protects the individual from outside harassment, pain and injury. Similarly, the right to private property protects the individual's possession over the goods she has legitimately acquired, among other things. However, different solutions to climate change have been objected referring to individual rights. It is the right of the property owner to, say, keep farming on the property, although it pollutes the nearby environment. Now, the world is full of these individuals with a remarkable variety of rights that they hold. At the same time, the actions these individuals take, protected by these rights, is the prime cause to the anthropogenic climate change, the sixth mass extinction and many other existence-threatening problems. *Have the rights failed* those whom they are set to protect, if it prevents humanity from fighting climate change efficiently enough? Is this inertia of rights dooming us all?

Teea Kortetmäki, University of Tampere

Climate change as structural injustice

In this paper, I discuss how climate change poses new problems for theorizing environmental justice and ask whether climate change should be considered as a matter of *structural* (environmental) *injustice*. Structural injustice is a term coined by Iris Marion Young (2006; 2011). It denotes systemic inequalities that are not traceable to the particular instigators of harm or to single policies of institutional actors but, rather, involve multiple actors and complex relations shaped by the existing structures. In addition, structural injustices emerge as an aggregate result of actions that are in themselves not particularly blameworthy: it is hard to say where, when, or by whom the injustice has emerged.

Climate change appears to be an epitome of structural injustice. GHG emissions are produced through (mostly uncoordinated) practices that are a part of a "normal" life (Eckersley 2016, 346–47). Emissions are a by-product of everyday human activities that are not intended to cause harms like climate change. No single agent or a group of agents can be held solely liable for emissions. Inequalities caused by climate change are complex and hard to remedy. I evaluate whether climate change should be labeled as a case of structural injustice for the reasons stated above. Classifying it as structural in Young's sense, however, raises further problems. If no particular agent or group is to blame, how should we distribute related responsibilities to do something? Can we blame (and on what grounds) those who 'do nothing'? I address these problems and suggest some directions for the future studies of environmental justice.

Silviya Serafimova, Department of Ethical Studies (BAS)

The Role of Environmental Justice in Weak and Strong Sustainability Models

Rethinking the problem of environmental justice is of paramount importance in the era of the Anthropocene, since humans face an increasing challenge to guarantee a just treatment of other species which can never become moral agents or moral discussants. Specifying why environmental justice is not a homogenous concept, I would argue that we should analyze the complex relations between intra- and intergenerational justice not only in respect to humankind, but also in terms of human-nonhuman relations. That is why I would try to clarify how the issues of intra- and intergenerational justice concerning humans are closely tied with intra- and intergenerational justice to other species.

In this context, one of my primary objectives is to demonstrate why Holland's conclusion that weak sustainability model (which assumes that human capital is substitutable with a natural one) and strong sustainability model (which assumes that human and natural capitals are complementary but not interchangeable) do not differ in principle applies similarly to their ethical implications regarding intra- and intergenerational justice.

Álvaro Fernández-Llamazares¹ & Victoria Reyes-García^{2,3}

1 Helsinki Institute of Sustainability Science (HELSUS), University of Helsinki, Finland 2 Institute of Environmental Science and Technology (ICTA), Autonomous University of Barcelona, Spain 3 Catalan Institution for Research and Advanced Studies (ICREA), Spain

A political ecology of the TIPNIS road conflict in Bolivian Amazonia

Due to an unprecedented expansion of road development, extensive areas of the planet are being opened to new environmental pressures, not without resistance and contestation from different stakeholders. Areas targeted for road development constitute indeed a prominent breeding ground for social-environmental conflicts. We focus on one of the highest-profile social-environmental conflicts in the history of Latin America: the planned construction of a deeply-contested road crossing the Isiboro-Sécure National Park and Indigenous Territory (TIPNIS) in Bolivian Amazonia, one of the country's main biodiversity hotspots and the ancestral homeland of three Indigenous groups. The road project is aimed to economically integrate the Andean and Amazonian regions of the country, but it has been planned without the Free, Prior and Informed Consent of the Indigenous communities in the area. As a result, the road has faced significant levels of opposition from lowland Indigenous Peoples and environmental advocacy groups.

Drawing on the empirical analysis of three unique datasets, we provide a political ecology of the TIPNIS conflict. First, we use geospatial analysis of remote sensing images to present correlational evidence that illegal roads have already played a key role in enabling rampant levels of deforestation within the area. Second, we use results of a Social Network Analysis based on information gathered from 4,059 press articles appeared in the local media to disentangle the complex network of stakeholders involved in the conflict. And third, we use a dataset of 857 interviews with local stakeholders to examine attitudes towards the road and trace the main factors explaining their heterogeneity. Based on our findings, we discuss the contradictions of Bolivian politics of Indigeneity in the light of Environmental Justice theory, highlighting social tensions between neoliberal development and Indigenous rights, and contributing to ground in socio-political realities the struggles of Indigenous communities against road expansion in Amazonia.

Corinna Casi, University of Helsinki

Indigenous Ethics and Ethics of Care: Intertwined Connections of Human and Nonhuman Communities

“Indigenous peoples are among the leading environmentalists of the twentieth and twenty-first centuries” focusing on the interconnections between humans and the nonhuman sphere. Topics of responsibility, reciprocity, and moral repair are fundamental in indigenous environmental movements and political discourses.

In my presentation I explore the view, according to recent trends, that indigenous ethics and care ethics have a common respectful attitude not only for the way they look at nature but also for the way they address and interact with the natural world, showing better outcomes in terms of environmental justice and long term resource management considering a more respectful interrelation human-non human world.

Care ethics focuses on the connections and interconnections among human beings of the past, the present and the future generations. It also highlights the significance of caretaking, empathy and building healthy relations as the fundamental basis of the human well-being. Ethics of care goes beyond classical notions of nature as passive and inanimate but rather it addresses questions about developing meaningful connections concerning any type of environmental matter. It also stresses the importance of building environmental policies which include care and empathy for other non-human entities. In this matter Indigenous ethics represents a model to look at considering the attentive care and the effort for the intertwined needs of human and nonhuman communities.

Markku Oksanen, University of Eastern Finland

Climate refugees: an overview of philosophical debate

Global warming put people on the move – even the climate sceptic or denialist politicians and governments tend to take that possibility seriously. There is a lot of discussion on the drivers and mechanisms of human migration, on the number issue (how many displaced people there are and will be), on the national and social security risks caused by mass migration, on the legal aspects of expanding the category of refugee to cover climate-driven displacement and so on. In sum, the topic of climate refugees is full of controversies over understanding the phenomena and finding responses to it. The purpose of my presentation is to provide an overview of this discussion in recent philosophical literature, in particular environmental philosophy literature. The attitude to migration from the global south to the global north has been divisive among environmentalists since the 1960's: there are the followers of Garrett Hardin and his lifeboat ethic and there are those who are deeply concerned about displaced people. Does this gap still exist and what other alternative or middle-of-the-road approaches have been presented?

Eeva Berglund, Aalto

The nature of urban growth and the meaning of environmental justice

This presentation revisits nature as a foundational concept. To illustrate a conceptual argument, I use struggles around urban change in Helsinki as an example. Here as elsewhere, a deepening sense of injustice fuels contestations over the future in general and urban growth in particular. The resulting mobilizations include elements familiar from classic environmental justice concerns that expand the

realm of "environment" beyond the ecological to human health, environmental amenity and social reproduction. But the sense of injustice extends increasingly to concerns with shared cultural heritage and even to the foundations of a growth-based political economy.

To capture such a diffuse sense of crisis, new, sometimes complicated vocabularies have been developed, for example in science and technology studies and in the environmental humanities, that explicitly critique Western concepts of nature and/or argue for the need to "decolonise" environmentalist discourses. Yet empirically nature is often highly salient to activism, not only in Helsinki. Thus I draw on social movement scholarship that suggests viewing recent styles of mobilization as a materialist environmentalism of everyday life (Schlosberg and Coles 2016), but I also build on Arturo Escobar's design anthropology and on Philip Mirowski's analysis of the on-going financial crisis. They both argue that contemporary society is characterised above all by a deep crisis of meaning. I suggest that struggles over urban landscapes are responses to this epistemological predicament that implicitly or explicitly endorse nature as a necessary co-ordinate for achieving just outcomes. Nature is here treated as an important way to stabilise meaning.

5 Investigating togetherness in a more-than-human society: More-than-human methodologies

(Venue: LS17)

The relational approach of actor network theory (ANT) and feminist research, especially Haraway's contributions (2003; 2008), have had an immense influence on the methodological development of human-animal studies. Following this, an increasing amount of scholars has started to discover ways to recognize and make visible the agency of non-humans in research and beyond (see Buller, 2015). In the past few years, there have been valuable openings in more-than-human methodologies in the fields of anthropology (e.g. Candea, 2010), geography (e.g. Brown & Banks, 2015) and sociology (e.g. Malone, Selby & Longo, 2014). In addition to this, recent multidisciplinary book contributions have taken the task to explore more-than-human methodologies (Hamilton & Taylor, 2017; Bastian, Jones, Moore & Roe, 2017).

To be able to study togetherness in a more-than-human society, there is yet a further need for developing new methodological approaches. Recognizing this, the session invites innovative, provocative and experimental openings to the discussion of more-than-human methodologies. We hope these openings to bring together different disciplinary backgrounds, all the way from social sciences to natural sciences, and beyond. Topics of the session are not restricted to particular animate or inanimate more-than-human entities.

Session conveners: Mikko Äijälä (mikko.aijala@ulapland.fi) and Tarja Salmela, (tarja.salmela@ulapland.fi), University of Lapland.

Thursday (15-18 p.m.) Chair: Mikko Äijälä

- 1 Tiina Prittinen: On Plant and Human Time
- 2 Anu Valtonen, Outi Rantala, Tarja Salmela: The Trouble with Mosquitoes?
- 3 Mia Mäkelä: Shifting perspectives on honey bee
- 4 Minna Santaoja & Atte Komonen: Of wasps and men – methodologies for peaceful co-habitation?

Friday (9.15-12 a.m.) Chair Tarja Salmela

- 1 Vesa Matteo Piludu: More-than-Human Personhood, Agency and Mimesis in Contemporary Cultural Anthropology's Theories and Indigenous Ontologies: Epistemological Alternatives to Cartesian Dichotomies
- 2 Emily Höckert: Scientific Fabulation
- 3 Sara Grenni, Angela Moriggi: Arts-Based Methods for Transformative Engagement of human and more-than-human worlds: Reflections on a year of practice
- 4 Mikko Jalas: Regenerative design: conceptual clarifications of human agency

Time for presentations: 20 minutes for presentation + 10 minutes for discussion.

ABSTRACTS

Tiina Prittinen, University of Lapland

On Plant and Human Time

Turning towards the different time frames of plants; plants have short-term rhythmic patterns but also the capacity for sustaining life for very long periods of time. Seeds and roots may wait for ages for their chance to grow. The oldest living trees have been argued to be thousands of years old. Recent research has been interested in plant thinking, communication, adaptivity and memory. Roots and soil are proven layers of the past and networks of important transmission between individual plants. Tree roots are even described as plant brains. The symbiosis between trees and fungi and the mycorrhizas can be disturbed through various human-made effects.

The stories of polluted areas' plants tell of the story of humans. In human activity, the time span is often short. Humanity changes natural materials into dead materials that do not decompose, polluted areas without stems of life, and nuclear waste that will pulse radiation effects in nature, towards eternity. This situation can also be a chance to learn from plant life, which in time sense shows more intelligence.

Anu Valtonen, Outi Rantala, & Tarja Salmela, University of Lapland.

The Trouble with Mosquitoes?

Mosquitoes are troublesome in many ways – also theoretically. Precisely therefore, we suggest, they exhibit intriguing potential to unsettle the current discourse on human-animal encounters in tourism studies. This study therefore takes the mosquito, the hitherto silenced 'animal other', as a starting point for an investigation, instead of the flagship species explored previously. In particular, given the very intimate and specific nature of the way mosquitoes contact the human body, they provide a fruitful case for further theorizing the embodied and sensorial nature of the human-animal encounter – treated as an affective encounter in our study. Our preliminary ethnographic insights render visible how this tiny yet plentiful animal has the power to affect in multitude ways. Our study also invites tourism scholars to critically scrutinize the very narrative on animals that is being told.

Keywords: animals, affects, tourism, body, ethnography

Mia Mäkelä, Researcher-Artist, Turku

Shifting perspectives on honey bee

Humans have shared co-existence with honey bees (*Apis Mellifera mellifica*) for thousands of years. Some researchers assert that we can thank the honey bee for the brain development of our species, which has been connected to honey eating. Nevertheless, honey bee is often left in the shadows, when we discuss shared history with other species. I will present the results of my research on the relationship Finns share with honey bee, from cultural historical perspective. I will focus on the discussion that went on in Finnish newspapers in the middle of the 19th century, when honey bee, then alien species, was marketed to Finns. The writings had national romantic tone, as the folk poetry in Kalevala gave the assumption that honey bee belonged to us since times immemorial.

Minna Santaoja, University of Turku & Atte Komonen, University of Jyväskylä

Of wasps and men – methodologies for peaceful co-habitation?

In a fable "The bee and the wasp" from 1851 a wasp deceitfully leaves a good bee to his death and takes what was his, killing the bee's wife and having his young for supper, along with the honey he'd gathered. In social media memes, in distinction to pollinating bees, wasps are usually portrayed as useless and evil "assholes". During the hot summer of 2018 wasps featured often in print media as a nuisance, and people showed their resourcefulness in getting rid of them.

Wasps do pollinate some plants and are important predators of pest insects – is it on their misunderstood usefulness that we are to build an understanding and tolerant co-habitation on? In this project, in collaboration between natural and social scientific approaches, we aim to explore the potentials and dynamics of co-habitation between people and wasps. A lot remains to be studied on the ecology of wasps. Could new discoveries and increased understanding help us tolerate a "useless, harmful" nonhuman other? The wasp sting is not only irritating, and often unexpected, but it can be seriously harmful to people with an allergy. Thus there are good reasons for caution with wasps, and this raises interesting ethical questions for human-wasp togetherness: of whom can and should we ask tolerance? Wasps adapting to climate change, we will need to adapt to living with wasps in new ways. Among amateur entomologists there already seem to be practices of caring, tolerant human-wasp relations.

In this talk we would like to present a research project in-the-planning and talk through together how to fruitfully ask questions, collect shared research material and develop understanding in natural-social science collaboration. How to live with an irritating nonhuman other?

Vesa Matteo Piludu, University of Helsinki

More-than-Human Personhood, Agency and Mimesis in Contemporary Cultural Anthropology's Theories and Indigenous Ontologies: Epistemological Alternatives to Cartesian Dichotomies

This presentation deals with concepts of more-than-human personhoods in contemporary cultural and environmental anthropology. Many classic anthropologic writings covered indigenous peoples' concepts about non-human agency, but with a heavy colonialist, ethnocentric and evolutionist approach. In the last decades, the anthropologic discourse on more-than-human personhood reached a deeper level of philosophic reflection and post-colonial criticism, putting in discussion Cartesian dichotomies and proposing new epistemological and ethnographic methods to deal with cultures strongly focused on building complex and multidimensional relationships between human and more-than-human persons that animate what David Anderson defined a sentient environment, constantly reacting to human activities. The new concept of more-than-human persons fit surprising well with several Indigenous ontologies, in which the animals, plants and landscapes not only have peculiar personhoods (with own perspectives and ways to see and feel the surrounding world), but their perception is often considered more accurate and complete than the human one. Pedersen and Willerslev empathized that indigenous ontologies are extremely dynamic; animistic cultures conceptualizes a set of changeable analogic or mimetic continuities, and very fluid distinctions between human and more-than-human persons: "There are no radical discontinuities here, only continuous substitution of Same becoming Other" (Pedersen 2001:416, cfr. in Willerslev 2007: 24).

Emily Höckert, Linnaeus University

Scientific Fabulation

Fables are stories of the more-than-human-world, starred by animals, plants, and objects with human characters. Fables and fabulation have traditionally been directed to children and have served a purpose of teaching moral lessons with a melancholic tone. While the method of ‘dumping data’ about environmental change and mass extinction have proved to be less effective ways of rising humans’ awareness and empathy towards the non-human-members of the Earth (Morton 2010; 2018), there exists an urgent need to alternative ways of understanding, discussing and being in the Anthropocene.

Acknowledging the importance of storytelling and storylistening in the Anthropocene, the paper at hand draws inspiration from empirical philosopher Vinciane Despret’s genre of ‘scientific fables’. The beauty and purpose of her way of scientific fabulation is to complicate, specify, slow down and hesitate so that multiple voices can be heard. The purpose of the paper is to discuss the ways in which scientific fables allows us to visit and gather around matters of care in more-than-human-worlds. The importance of moral lessons in fables is here connected to the ideas of ecological and minimal ethics that call for openness and wonder towards radical otherness. More specifically, the paper is driven by curiosity about the ways in which scientific fables might open new, welcoming spaces between ourselves.

Keywords: Scientific fables, minimal ethics, more-than-human-worlds, melancholy, care

Angela Moriggi, & Sara Grenni, Natural Resources Institute Finland (Luke)

Arts-Based Methods for Transformative Engagement of human and more-than-human worlds: Reflections on a year of practice

Over the past year, a group of six researchers collaborating through the **Marie Skłodowska-Curie ITN SUSPLACE** has been conducting a series of workshops as part of a collective experimentation engaging groups with arts-based methods. The work stemmed from a desire to explore innovative approaches to “sustainable place-shaping,” focusing on the cultural and psychological dimensions of sustainability.

The cornerstone of our approach was a quest to stimulate specific mindset shifts supporting the design of regenerative futures in specific places. Methods were created to allow participants to disrupt default anthropocentric worldviews and draw more deeply from their own values, intentions, and an expanded sense of **ecological self**. Exercises called for including more-than-human perspectives, adapting storytelling, role-play, and other popular techniques to the need of “playing string figures with companion species” (Haraway 2016).

The workshops were organised structurally through the framework of **Theory U**, with additional inspiration from a variety of theoretical approaches, including: **Metaphorical Thinking, Aesthetic Practices, Arts Based Environmental Education, Care for Place**, and **Appreciative Inquiry**.

This presentation aims at introducing the work done, the lesson learned and future directions emerging from this process. The workshop has been successfully tested in several occasions, leading to the

publication of a Toolkit (Pearson et al., 2018, available at: <https://www.sustainableplaceshaping.net/arts-based-toolkit/>). Attention will be also given to the feedback received by participants - researchers, artists, practitioners, and decision-makers, active as change makers all around the world.

Mikko Jalas, Aalto University School of Arts

Regenerative design: conceptual clarifications of human agency

The notion of regenerative design is increasingly used to point out to particular human-nature interactions. Accordingly, human impact on ecosystems should contribute to vitality and resilience of ecosystems instead of eroding them. Beyond this principle, actors such as cities, companies and individuals are enrolled to turn towards nature and seek opportunities to make positive contributions. Designed artifacts range from buildings that sequester carbon and filter water to bee houses and fish ladders contribute to the co-existence of humans and other species, to landscapes and biotopes that allow for more self-governed sustenance and development of ecosystems.

Whilst regeneration presents intriguing design challenges, it also requires conceptual clarification of particular human-nature relations. Designers may find themselves working on the repair of nature through mitigating the environmental consequences of previous human activity. However, 'repair' is not the only relation designers find themselves. Thinkers around regenerative design have also emphasized the health of ecosystems and ethics of care. Finally, insofar as design is a paradigm of making artifacts and bringing about changes in the environment, regenerative design relates to questions of agency and inter-species relations. What is regenerative design if not human-centered design of ecosystem to maximize benefits for human generations to come? What difference does it make if humans 'invest in ecosystems', 'care for nature' or 'co-design' and 'co-evolve' with it?

This paper provides a preliminary analysis of the conceptualizations of human agency in the popular discussion around regenerative design. It uses selected texts aimed at practitioners of design including 'Regenerative Development and Design: A Framework for Evolving Sustainability' by Regenes Group and practice-oriented texts in the journal *Building Research & Information* that has served as one of the main academic venues of the developing the notion of regenerative design. The results are intended to help designers to develop professional orientations based on the broad momentum of regenerative design.

6 Living with waste: exploring how waste shapes/is shaped by contemporary societies

(Venue: LS21)

Contemporary societies are characterized by constant circulation of waste from one place to another. Significant amount of resources is directed to manage this flow, to make it safe, invisible and to transform it back to valuable inputs and goods again. Societies are thus in many ways shaped by waste flows. However, the very concept of waste is a slippery one. On one hand, waste management practices of today do not consider any matter as pure waste, only by-products waiting to be economically utilized. The boundaries between waste and resource are drawn and contested by public regulation, market actions and techno-social development. On the other hand, in everyday life, waste is something which disrupts the smooth running of things. Thus, waste is not a singular, well-defined, or stable entity but it is heterogeneous and multiple. In addition, waste is not a passive object waiting to be endowed with meanings or transformed by human activities. It amounts to materials which are active in themselves: they do something.

In this working group we welcome discussion about the relationship of society with waste. The topics may include but are not limited to the transformation of matter into waste, waste regulation, waste management infrastructures, the role of waste in economic development, different manifestations and contestations of throwaway society, waste management conflicts and struggles to turn waste into economic resources. We welcome both theoretical and empirical contributions.

Session conveners: Heikki Huilaja (heikki.huilaja@ulapland.fi) and Johanna Saariniemi (johanna.saariniemi@ulapland.fi), University of Lapland.

Thursday (15-18 p.m.)

- 1 Heikki Huilaja: Opening words and introduction to The Waste Society: Living with Material Overflows project
- 2 Lise Benoist: Local waste prevention initiatives as a gateway towards a post-consumerist society
- 3 Erkki-Jussi Nylén: Nutrient Recycling as a Conceptual Innovation in Finland
- 4 Petteri Repo: Consumer preferences in circular economy
- 5 Johanna Saariniemi: Zero waste life style as a contribution to circular economy

Time for presentations: 20 minutes for presentation + 10 minutes for discussion.

ABSTRACTS

Heikki Huilaja, University of Lapland

Opening words and introduction to The Waste Society: Living with Material Overflows project.

The main objective of the Waste Society project is to produce novel theoretical and empirical insights into waste and its role in society, consumption and the contemporary way of life. The analytical framework of the project is built on three theoretical assumptions. First, we start from the idea that waste is not just something that needs to be managed, controlled and governed. It also brings people together and creates divisions, disturbs the social order while also participates in producing it. Second, we commence from the idea that waste is not a singular entity but it is heterogeneous and multiple.

We approach waste as something relationally and situationally produced in and by various concrete practices from discarding, sorting out, reducing, recycling, transporting, processing and managing to selling, taxing and scavenging. Third, we counter the idea of waste as dead matter. For us, waste is not a passive object just waiting to be endowed with meanings, but it amounts to materials, which are active in themselves: they do something.

From the aforementioned starting points the project explores the following broad research question: How is waste enmeshed in everyday lives, economies, policies and the sociocultural order? We will address this question with three empirical case studies that seek to capture the scalar complexity of waste. We examine, firstly, the private sphere in which surplus materials are dealt and worked with. This means taking part in households' everyday practices and routines of acquiring, consuming, living with and divesting things (Cases 1-2). Secondly, we study the institutional waste management practices, which define, organise and govern waste. This means taking part in the waste management labour and following waste as it turns into work, business and value (Case 3). The empirical cases are located in Finnish Lapland. Finnish waste management is organized regionally. Lapland is the vastest of these waste management regimes

Lise Benoist, Lund University

Local waste prevention initiatives as a gateway towards a post-consumerist society

The humanity has overstepped the earth ecological limits and the consequences on the ecosystems will highly affect the fulfillment of basic human needs and the general living conditions of people around the world. Business as usual cannot be carried on as unsustainable human activities, and especially the extremely resource depleting global North lifestyles induced by a dominant culture of consumption, have been identified as the main causes. Waste embodies both a great symbol and symptom of this (over-)consumer society, as well as the threefold crisis that the world is facing today: a social, economic and environmental one.

In addition, despite increasing information and knowledge on the consequences of the current rhythm of resources extraction and pollution of the soil, air and water (i.e material bases of human life), little action is taken to counteract and reverse the tendency. Such a situation reveals a disruption between humans and their environmental impacts, and by extension, the natural environment.

As a response, both on the national and international stage, “sustainable consumption” and “circular economy” have become key terms on policy agendas at all levels. However, none of these goals are to be achieved without structural changes of the current prevailing socio-cultural narrative, namely the capitalist/growth paradigm. Indeed, present policies focus on efficiency rather than promoting sufficiency, whereas it is the overall resource throughput needs to be downsized in the first place.

Facing that state of art, putting theory into practice remains quite of a challenge. I am therefore investigating the potential of waste prevention at the local level as gateway to enhancing a wider questioning, to bridge the gap between humans and their environmental footprint (sufficiency), as well as between humans altogether (conviviality), the two pillars of a degrowth society.

Erkki-Jussi Nylén, University of Tampere

Nutrient Recycling as a Conceptual Innovation in Finland

Nutrient Recycling has been a buzzword in Finnish environmental policy during the 2010s. In addition to endorsement speeches, resources have been channeled to the development of technologies and practices of nutrient recycling. Nutrient recycling got in the policy agenda, when Finnish government promised to make Finland an exemplary region practicing nutrient recycling in Baltic Sea Action Summit at 2010. Before that nutrient recycling was hardly discussed. Instead, raw materials for nutrient recycling were mostly seen as a waste problem, now more as resources.

Concepts help us to comprehend and constitute the world around us. If concept acts as conceptual innovation, it aims to solve an issue at hand or to be an instrument for pursuing specific change. Whether, conceptual innovation is successful it needs spread among actors in society and get institutionally embedded in policy documents and legislation etc. Concept of nutrient recycling has spread efficiently. At 2015, it was made one of the top projects Sipilä's government. My aim in this case study is to track down career path of nutrient recycling during that time line and analyse how different key actors conceptualize and react to it, and what kind ideational evolution has gone through that period.

Petteri Repo, University of Helsinki

Consumer preferences in circular economy

Policies targeting circular economy as well as pursued technical solutions consider consumers but typically emphasize sustainability targets or systemic change rather than consumer preferences. Yet consumers play a role in how circular solutions are adopted and need to be further developed to meet their liking. This paper looks at consumer preferences in circular economy through a representative survey which was conducted in Finland in May 2018 (n=1555). In general, survey respondents prioritise the development of circularity through prolonging product lifespans and by recycling materials over shared and joint use of products and services.

Consumer responses on which stakeholders should take the responsibility for the organisation of re-use and recycling varies greatly across the markets for consumer electronics, home appliances, food-stuffs, apartments and transport, which together constitute the major share of consumption expenses and environmental impacts. Consumers themselves appear inclined to resell their own apartments (53%) and recycle food waste (44%). In contrast, merchants and specialised companies are expected to recycle consumer electronics and information technology as well as home appliances (82% and 82%, respectively). Shared use and recycling in transport, in turn, should belong to specialised companies and the public sector (40% and 34%). Closer consideration of consumer preferences in policy formulation and in development of accompanying technical and business solutions is apt to mainstream the concept and practices of circular economy amongst the public at large.

Zero waste life style as a contribution to circular economy

Finland is striving to be a global forerunner in the circular economy in which production and consumption generate as little waste as possible. Ambitious targets are set to reduce waste generation and promote recycling and re-use of materials. These goals also affect peoples' everyday lives significantly.

In circular economy, consumer behaviour plays an important role, as the responsibility of waste reduction is highly trusted on markets. Consumer demand creates a supply of more sustainable products and services. However, consumer households' role in circular economy is being discussed mainly in terms of recycling. Sufficient recycling in households is a foundation for efficient waste management but it only focuses on the end of the material streams. For households, circular economy also means adopting new consumption models and reshaping their relationship with waste.

To outline households' possibilities to contribute to circular economy I make an overview on Zero Waste lifestyle which aims to produce as little waste as possible. The philosophy is becoming increasingly popular in online communities and social media. In this paper, I address some of the challenges and possibilities that households might face in contributing to circular economy objectives. I'm interested in what zero waste lifestyle is about and how it shapes households' understanding of consumption and waste.

7 Naturecultures in literature and arts

(Venue: LS8)

Until recent times, humanistic scholarship on environmental issues has been stuck in what Bruno Latour calls the “the pitfall of ‘social representations’ of nature” (Politics of Nature, 2004). As long as research material consists of human-made texts (writing, sound, image, moving image), research on human-nonhuman relations and environmental change is understood to concern culture, not nature. This intellectual and ideological divide between culture and nature disregards the role of literature and arts in imagining, negotiating and forming human-nonhuman relations, and it also disregards the physical consequences that these imaginations, negotiations and formations have. Moreover, it neglects human-nonhuman entanglements and nonhuman agency in art works and artistic practices. The emerging discipline of Environmental Humanities highlights the importance of cultural knowledge and understanding in addressing environmental questions, and it seeks novel conceptualizations and methodologies reaching beyond the nature-culture divide that still stiffens the academia.

With Environmental Humanities as our common ground, in the “Naturecultures in literature and arts”-workshop we discuss textual naturecultures and naturalcultural texts in diverse theoretical and methodological frameworks, including ecocriticism, new-materialism, posthumanism, human-animal studies and environmental philosophy. We welcome analyses of specific texts and theoretical and methodological reflections on naturecultures in literature and arts.

Session conveners: Juha Raipola (juha.raipola@uta.fi), University of Tampere and Karoliina Lummaa (sakalu@utu.fi), University of Turku.

Thursday (15-16.30 p.m.) Chair: Karoliina Lummaa

- 1 Henna-Riikka Rumbin: Gianni Vattimon Heikko ajattelu ja luontokulttuurit
- 2 Nina Janasik: The Nature of Liberation? On technology as repression and the liberating possibilities offered by literature
- 3 Juha Raipola: Jokapäiväinen ekokatastrofimme. Ilmastonmuutos suomalaisissa arkirealistisissa romaaneissa

Friday (10.30–12 a.m.) Chair: Juha Raipola

- 1 Kirsi Saarikangas: Suburban naturecultures. Inhabited and built suburban environments
- 2 Kristiina Koskinen: Ecosystem as a stage – representing forests in nature documentaries
- 3 Karoliina Lummaa: Kaunokirjallisuus kulttuurisena ekosysteemipalveluna

Time for presentations: 20 minutes for presentation + 10 minutes for discussion

Työkieli: Suomi

ABSTRACTS

Henna-Riikka Rumbin, University of Turku

Gianni Vattimon Heikko ajattelu ja luontokulttuurit

Humanistisissa tieteissä ja kirjallisuudentutkimuksessa antroposentrinen tulkinnan teoria eli hermeneutiikka on osaltaan muovannut niitä keinoja, joilla lähestymme maailmaa tai tutkimme ei-inhimillisyksiä ja luontoa. Esitelmässäni keskityn modernin hermeneutiikan suuntauksista erityisesti italialaisen hermeneutikko Gianni Vattimon teoreettisia rakenteita vastustavaan heikkoon ajatteluun ja pohdin miten se vaikuttaa luontokulttuurien tutkimukseen. Heikkoa ajattelua on eksplisiittisesti hyödyntänyt esimerkiksi kasvien tietoisuutta tutkinut filosofi Michael Marder, jonka tutkimus *Plant-Thinking. A Philosophy of Vegetal Life* puolestaan toimii eri aloilla kasveihin keskittyvän tutkimuksen aineistona.

Esitelmäni keskeinen kysymys on pohtia, miten heikko ajattelu suhteutuu luontokulttuureita varsinaisesti tutkimuksen keskiöön nostaneen Bruno Latourin ajatteluun ja miten näiden lähtökohdiltaan toisistaan poikkeavien aineistojen rinnakkainen käyttö vaikuttaa kirjallisuudentutkimukseen – mitä implisiittisiä ongelmia tästä seuraa.

Nina Janasik, University of Helsinki

The Nature of Liberation? On technology as repression and the liberating possibilities offered by literature

Recently, the claim has been made that technology as a socio-ecological phenomenon is “repressive”. Within economical economics, Farrell (2011) has suggested that humanity can be liberated from it by means of “post-normal” science including narrative scenarios; within STS, Szerszynski (2004) has questioned the one-sided rule of the technology-based “modern sacred”; and within psychology, Romanynshyn (2008) has suggested that we immerse ourselves in fiction (e.g. Shelley’s *Frankenstein*) to effect a synthesis between the scientific “Spectator Mind” and the material darkness that it expels from consciousness. However, recent narratology has claimed that in relation to climate change specifically, these calls to “also” take into consideration narrative structures are problematic. As humans, our cognitive structures are such that the vastness of nature by far overwhelms human narrative capacities (Raipola, 2018). The question then becomes: So which is it? Can narratives (especially climate fiction) help liberate us from (repressive, fossil-based) technology, or can’t they? In this paper, I inquire into this question from the point of view of the Bayesian literary scholarship of Kukkonen (e.g. 2014). I suggest that from this perspective, hope lies not only in quality but also – a bit paradoxically – in quantity: since narratives “extend the learning process about the real world by presenting mind with as many alternative scenarios as possible to recalibrate and specify our probabilistic understanding of the real world” (2014: 379), they are pivotal for fostering adaptation to climate change.

Farrell, Katharine N. (2011). “The Politics of Science: has Marcuse’s New Science finally come of age?” In: Biro, A. (Ed.). *Critical Ecologies: The Frankfurt School and Environmental Politics in the 21st Century*. 73-107.

Kukkonen, K. (2014a). “Presence and Prediction: The Embodied Reader’s Cascades of Cognition”. *Style*. 48(3), 367- 384.

Szerszynski, B. 2004. *Nature, Technology and the Sacred*. Malden, USA: Blackwell Publishing.

Raipola, J. 2018. "Ilmastokertomuksen vaarat". *niin & näin* 1/18.

Juha Raipola, University of Tampere

Jokapäiväinen ekokatastrofimme. Ilmastomuutos suomalaisissa arkirealistisissa romaaneissa

Ilmastomuutos on luontokulttuurinen ilmiö, jonka kuvaaminen kertovan proosan keinoin on osoittautunut poikkeuksellisen hankalaksi. Syitä etsitty muun muassa realistisen romaanikirjallisuuden puutteellisesta keinovalikoimasta. Esimerkiksi Amitav Ghosh (2016) on esittänyt "porvarillisen" realistisen kirjallisuuden perustuvan lähtökohtaisesti modernille maailmankatsomukselle, jossa luonto näyttäytyy ihmiselämästä erillisenä ja muuttumattomana todellisuuden osa-alueena. Realistisen kerroksen arkinen mittakaava vaikuttaa näin muodostavan esteen ilmastomuutoksen kaltaisten planeetanlaajuisten luontokulttuuristen ongelmien onnistuneelle kuvaamiselle.

Ongelmista huolimatta kotimaisen kirjallisuuden kenttään on ilmestynyt viime vuosien aikana yhä useampia realistisia romaaniteoksia, joissa globaali ekologinen kriisi näyttäytyy merkittävänä kysymyksenä. Esitykseni pohtii arjen ja ilmastomuutoksen yhteyksiä ja kysyy, millaisin keinoin ja missä tarkoituksessa muuttuvaa planeettaa kuvataan nykypäivän arkirealistisessa romaanikerronnassa. Tarkoitukseni on nostaa esiin erityisesti teoksia, joita on vaikea luokitella varsinaiseksi ilmastofiktioksi, mutta joissa ilmastomuutos näyttäytyy silti merkittävänä arjen ilmiönä.

Ghosh, Amitav 2016: *The Great Derangement: Climate Change and the Unthinkable*. Chicago: University of Chicago Press.

Kirsi Saarikangas, University of Helsinki

Suburban naturecultures. Inhabited and built suburban environments

"It's hard to say whether the best features of Tapiola are in fact designed by people" stated architect Arne Ervi – one of the designers of Tapiola garden suburb in the 1950s near Helsinki – about the planning of Tapiola in a later interview in 1970. While Ervi was discussing the role of planners in the outcome of specific features of Tapiola, the passage also brings forth the unplanned features of housing environments and the interplay of natural and artificial in the formation of built environments, or sububurban naturecultures, that are the focus of my paper.

I discuss the reciprocity of inhabitants, built and natural environments in the formation of lived urban spaces in the context of the Finnish post-war suburban environments. Its particular focus is on the multisensory and material dimensions of these interrelationships.

On the one hand, I analyze the ideals of planning and the aesthetics of built suburban landscapes. How nature was conceptualized in the planning and how the environments around buildings were treated in the construction of suburbs. How the interplay of artificial and natural, human and non-human elements together formed suburban environments. Instead of homogeneous pristine natural settings that suburban environments were often thought to be, suburbs comprise variety of spaces with topographical differences. Suburban landscapes have been shaped by long-term human activities and in the construction their environment was treated in multiple ways from the active human design of

'natural-like' landscape to leaving nature outside the scope of all-encompassing planning as a backdrop of habitation.

On the other hand, I analyze through the oral history material, how suburbanites lived their environments. Narratives point out the importance of forest, wastelands, 'small' nature and other unplanned elements that exist outside the official urban development for the formation of rich and stratified urban environment and urbanites' nature. For inhabitants, they do not necessarily signify waste land at all, but adjustable available spaces. Apart from the diversity of nature, nearby nature adds aesthetic and experiential variation to the suburban space.

My approach blurs dichotomies of planners as active designers of suburban space and inhabitants as its passive users and points out the interplay of planned and unplanned, artificial and natural in built environments. The built environment, inhabitants, processed and unrefined nature all act together and shape stratified suburban space and its, emotive, multisensory meanings.

Kristiina Koskinen, University of Lapland

Ecosystem as a stage – representing forests in nature documentaries

In his book *Animals on Television: The Cultural Making of the Non-Human*, Brett Mills describes the process of an animal converting to a resource in wildlife documentary (2017, 95-98). Responding to the need of entertainment and education only a fraction of the behavior and characteristics of an animal is valuable enough for this cultural product. The representation replaces its subject and the animal is condensed into a narrow, but credible and trustworthy object.

Although nature documentaries mainly focus on animal activity, a similar phenomenon can also be perceived at the ecosystem level. Looking at forest ecosystems in nature documentaries, it is possible to distinguish what parts and characteristics of an ecosystem are interesting, usable and therefore valuable for this human-built representation.

In the nature documentaries of my analysis, the forest ecosystems are described as scenes for the visually curious and value-laden animals and their behaviour. An ecosystem converted to a stage does not change or develop, nor does it consist of processes or streams of nutrients, water or carbon. Typically for nature documentaries, this scenery is constructed to be distant and remote, far from human beings.

Unspoken concepts of nature become concrete and evolve via representations, and this makes nature documentaries a demonstrative material for research. If the idea of an ecosystem is compressed to a disconnected and permanent stage, it is possible to imagine a socially constructed nature without human beings, facilitating also the idea of exploitation of natural resources without consequences for ourselves.

Mills, Brett 2017: *Animals on Television: The Cultural Making of the Non-Human*. Palgrave Macmillan, London, UK.

Kaunokirjallisuus kulttuurisena ekosysteemipalveluna

Kaunokirjallisuuden luontokuvaukset rakentuvat kulttuuristen luontokäsitysten ja luontoa koskevien diskurssien pohjalta, mutta myös moninaisissa materiaalis-semioottisissa vuorovaikutussuhteissa fyysiseen ympäristöön ja olioihin. Taiteen ja kulttuurin tutkimuksessa kehitetään parhaillaan useita erilaisista teoriapohjista nousevia luontokuvausten materiaalisuuksien tutkimusmenetelmiä. Luontokirjallisuutta ja sen materiaalisia sidoksia voi kuitenkin tarkastella myös luonnontieteelle tai ainakin ympäristötutkimukselle tutummasta perspektiivistä, kulttuurisena ekosysteemipalveluna. Esitelmässäni kokeilen tällaista lähestymistapaa suomalaiseen luontorunouteen.

Avaan aluksi lyhyesti kulttuuristen ekosysteemipalveluiden käsitettä ja pohdin sitten kulttuurin käsitteen yleisyyteen, kulttuuristen ekosysteemipalveluiden yksilöimiseen sekä kirjallisuudentutkimuksen lähilukukeskeisyyteen liittyviä ongelmia. Suhteutan ekosysteemipalvelun käsitettä myös ei-inhimillisen poeettisen toimijuuden käsitteeseen.

Kysymys luonnon ja kulttuurin suhteesta liittyy esityksessäni paitsi kaunokirjallisuuden ja maailman suhteeseen myös luontoa ja kulttuuria tutkiviin tieteenaloihin, joiden keskinäinen lähentyminen saa yhä uusia menetelmällisiä, käsitteellisiä ja käytännöllisiä muotoja.

8 Politics of materiality in the Arctic

(Venue: LS20)

The plastic waste found recently in the Arctic Ocean is yet another example of numerous connectivities between Arctic and global environmental concerns and politics. Environmental issues, especially natural resources, their exploitation and preservation in the context of global resource demands and warming climate is a highly political question for the region and its governance. Global imaginaries of resources and economic significance of the region attract new actors and advance industrial activities, and extend politics and governance beyond the region. Current political and scientific discourses and practices, which often celebrate Arctic exceptionalism, do not well capture the changing nature of materiality and its political dimensions in the Arctic. This session welcomes presentations that discuss different material politics in the Arctic, including contributions that critically reflect on scientific and political discourses and practices about the Arctic in the global context as well as to find alternative ways, beyond binary divides, to investigate interactive complexities of human-culture-nature relationships.

Session convener: Monica Tennberg (monica.tennberg@ulapland.fi), University of Lapland.

Thursday (15-18 p.m.)

- 1 Joonas Vola: Untied resource as a threa/-t/-d for social fabric(ation)
- 2 Francis Joy: Selling the Sacredness of Sámi Culture
- 3 Susanna Pirnes: History as a resource in Russian identity politics – The case of the “Arctic”
- 4 Hannah Strauss-Mazzullo: Promise and threat: Finnish nuclear power, uranium mines and the future of living in the Arctic
- 5 Monica Tennberg: Berry business in Finnish Lapland

Friday (9.15-12 a.m.)

- 1 Marjo Lindroth: Imaginary resources: envisioning potential and lack in Greenland
- 2 Tanja Joona: Arctic tragedy of the commons – reconciliation between different livelihoods
- 3 Noor Jahan Punam: Significance of indigenous traditional knowledge in the process of ecological restoration
- 4 Adrian Braun: The relevance of Socially Responsible Investments (SRI's) to raise capital to accomplish environmental and societal initiatives and goals.
- 5 Heidi Sinevaara-Niskanen: When Gender Matters. Politics of Human Resources in the Arctic

ABSTRACTS

Joonas Vola, Arctic Centre, University of Lapland

Untied resource as a threa/-t/-d for social fabric(ation)

This presentation studies social order and political economy via the concept of resource. In political economy, resources count as “a country's wealth”. Linguistics cuts the word down to ‘head of a river’, which will ‘raise again’. In the political and economic entanglement around the arctic river ‘Kemijoki’ in northernmost Finland, the description is accurate in terms of ever sinking and rising discourses, tied around risk, profitability and resistance. A major hydro-energy project plans starting from 1950s have

continued and reshaped to the current moment, dressed either as a major regional development project or as a final act on flood risk management, resisted mainly by actors of environmental protection and neighboring municipalities. This creates a continuous tension, leading to a belief that the argument will eventually stop when the water reservoir is finally built, even if the odds would be against it. It is argued here that untied potentiality of a resource is a risk for a societal order. Furthermore the state of affairs is stripped down to the metaphor, the bow of Heraclitus, where the contrasting opposites are simultaneously present, materialized in actions, giving identity while risking the existence of a being, and leading to a practice of biopolitical power.

Francis Joy, Arctic Centre, University of Lapland

Selling the Sacredness of Sámi Culture

Because of approximately 800 years of colonialism in Sápmi, the homeland areas of the Indigenous Sámi people of Fennoscandia, a lucrative Finnish tourist industry exists. This industry continues to cash in through the exploitation of Sámi cultural heritage as a direct consequence of cultural oppression, to the extent, the most sacred aspects of culture, such as animals and spirits are reduced to fake tourism art for the purposes of creating a commodity for sale and profit. This subject matter of appropriation has been extensively underrepresented in academic discourse because the Sámi have not had the resources or powers to protect their heritage. One of the main areas noted concerning the appropriation of Sámi spiritual culture is the sacred drum used by the Noaidi, the religious specialist in Sámi culture, often referred to as the shaman, who was responsible for communicating with the spirits of the culture. Overall, Sacred Noaidi drums are decorated with symbolism and figures portraying Sámi cosmology, which consists of sacred and holy places, sacrificial-offering sites, spirits located in different levels of reality, animals, boats and human figures as well as Noaidi, who are in some cases flying in out-of-body travel. Therefore, Sámi religion, to which shamanism as a practice figures prominently, has been adapted in order to meet the needs of the tourist industry, because of how replica drums and other various fake symbols have been colourfully illuminated to become attractive. Proposed legislation, which is supposed to protect Sámi cultural heritage since 2003 has not worked. Therefore, the purpose of the research is to outline the nature of the issues at hand regarding appropriation of cultural heritage, what the legislation is that is not working and to examine some of the reasons why.

Susanna Pirnes, Arctic Centre, University of Lapland

History as a resource in Russian identity politics – The case of the “Arctic”

Use of history is a common phenomenon to Arctic states in the construction of a coherent narrative about the past and present, in the legitimization of their plans and actions in the Arctic. Stories about heroic explorations and conquest of the wild nature are general topics in these narratives. Russia has been developing the Arctic since the year 2000 into today's “megaproject”, which requires big economic resources, political will and the awareness of Russians to perceive Arctic as an organic part of the country. Russia have had a strong tradition of the use of history and patriotic education with the aim to gain political goals. This tradition is still viable, and the past of the Arctic is being made more visible through historical culture. Historical culture is a resource for people to meet and negotiate their relationship with the past, but it also has a dimension of future, and then the Russian Arctic serves as a space, to which many hopes and desires are reflected. In my paper, I am studying the objects of Russian historical culture that represent the Arctic. I am asking, how the historical legacy is visible in the present-day construction of the Arctic identity of Russia?

Hannah Strauss-Mazzullo, Arctic Centre, University of Lapland

Promise and threat: Finnish nuclear power, uranium mines and the future of living in the Arctic

Will Pyhäjoki in Northern Finland become another proud “electric” community, just like Eurajoki in the South of Finland? While progress in the preparation of the next nuclear facility site is slow, things are going forward. The community of Pyhäjoki is keeping low profile, generally supporting the mega-project. Protest is scattered and met with local opposition, as the construction of Finland’s sixth nuclear power plant means economic activity, employment, and revenues for the municipality. The decision to build in Pyhäjoki is so far unprecedented in Western societies. It comes after Fukushima, after other European countries’ wish to phase-out nuclear power, and after Finland has started building a final repository for spent nuclear fuel. It also stands in the context of national discussions around the mining of uranium, a possibility not rejected by all as it would mean to assume responsibility from the beginning to the end of the fuel cycle. Generally, nuclear power production is considered a means (-> “happy object”) to become independent of electricity imports (esp. from Russia) and at the same time not emitting greenhouse gases. The safe and efficient handling of the high-risk technology since the 1970s has become a national pride (-> “Arctic continuities”), and thus, catastrophes are considered unlikely – although this belief is frequently challenged when small scandals surface from the ongoing construction of the fifth nuclear power plant further south. In response to the question whether he fears a nuclear power plant in his neighbourhood, a Pyhäjoki resident expressed a locally common attitude by saying, “if there was a nuclear fallout in our country, we would be affected anyway,” claiming that the price would be paid by those living both near and far.

Monica Tennberg, Arctic Centre, University of Lapland

Berry business in Finnish Lapland

The aim of this contribution is to apply the approach developed by Petrov (2008, 2014) to study creative capital in Lapland and to complement the picture about creative talent in the Arctic, and discuss the case of berries as an example of Arctic innovation and development. Studies by Petrov (2008, 2014) focus on statistical analysis of creative capital in the Arctic as a stock of economically valuable capacities by highly educated, innovative individuals and groups. Creativity here refers to scientific, artistic, entrepreneurial or technological activities. Such creative capital is not evenly distributed, developed nor used in the Arctic, and there are number of reasons for it, that is, various historical, economic and administrative explanations for the lack of creative capital and its development. These recent studies do not include Lapland, which is not only a major flaw in the regional coverage of these studies but also in terms of documenting the potential for creative capital in the Arctic. Finnish Lapland has well-established university and applied sciences based educational system, and broad regional cooperation to support innovation and research between different actors in the county, including entrepreneurs, companies, educators and administration. Improvement of the creative capital is one of the main points in the EU-based Arctic smartness and Lapland’s smart specialization programs.

Marjo Lindroth, Arctic Centre, University of Lapland

Imaginary resources: envisioning potential and lack in Greenland

The paper critically assesses the ways in which visions of Greenland’s resources (or lack thereof) work to build up the nation’s future. The aims of Greenland to ultimately reach independence from Denmark increases the internal pressure in the country to start using its natural resources as they are

deemed to have significant economic potential. Due to the global quest for resources, exacerbated by the (anticipated) effects of climate change, Greenland also faces external pressures to start using its resources. These large-scale resource extraction plans often clash with the traditional Greenlandic practices of resource use. Significantly, the actual extent of Greenland's natural resources remains at the level of estimations and visions – they are largely imaginative. At the same time, the human resources of the Greenlandic population, in terms of education levels and providing skilled labour force for extractive industries, are presented as types of assets that are lacking. In this crossfire of demands for resources, as well as accounts of potentials and lacks, it becomes pertinent to assess whose political aims does the imagining of natural resources mobilize, and which resources take precedence over others. The political aim of independence thus seems to hinge on what are presented as economic opportunities and challenges. These visions function to powerfully direct the future position of Greenland, not only in relation to its (former) colonizer Denmark, but also globally.

Tanja Joona, Arctic Centre, University of Lapland

Arctic tragedy of the commons – reconciliation between different livelihoods

As a theoretical starting point, this paper discusses the tragedy of the commons in the context of reindeer herding and indigenous peoples' rights by virtue of Article 27 of the Covenant on Civil and Political Rights (CCPR), which guarantees these people the right to enjoy one's culture together with the other members of the group. The tragedy of the commons is a term used in social science to describe a situation in a shared-resource system where individual users act independently according to their own self-interest behave contrary to the common good of all users by depleting or spoiling that resource through their collective action.

The situation of grazing politics is quite similar in Fennoscandia, where reindeer herding is practised. While officials stress the need for reducing the numbers of reindeer as the most important measure to conserve the reindeer pastures, herders emphasize encroachment by competing land-use interests such as mining companies and windmill parks as the largest threat to pastures and the sustainable development of reindeer husbandry. The situation can be described paradoxical in a number of ways: state's dual role as both a protector of traditional reindeer pastures from overgrazing (also indigenous peoples rights) and as a promoter of exploitation of natural resources in the same grazing land.

In regard to reindeer herding, large pasture areas are needed to enable the efficient grazing rotation in a sustainable way. It can be argued that the most important and most challenging task today is to find a way to integrate diverse interests regarding different land use means. The paper will look at the situation, where pasture areas are diminishing, also by overgrazing, and the continuity of the herding business is in danger; more and more bigger herds are needed to provide income for the whole family. Reindeer herders are forced to look for new ways to get income or perhaps combine different occupations. This is not always an easy task, since the new occupation might be related to competing land use forms. How should we then deal with the environmental limits and on the other hand indigenous rights to preserve their culture? This is a question for the whole Arctic, inhabited and used as "commons".

Noor Jahan Punam, Faculty of Law, University of Lapland

Significance of indigenous traditional knowledge in the process of ecological restoration

Traditional indigenous knowledge has been increasingly respected as a significant source which can be utilised in favour of the growing interest in ecological restoration. It has been recognised that ecological restoration should consider cultural practices beside ecological processes. Ecological restoration has been defined by the SER Primer as the 'process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed'. There is an emerging set of literatures advocating for the establishment of a separate head of ecological restoration law and the term ecological restoration has been under discussion in international environmental law and international biodiversity law. Recently the use of indigenous traditional knowledge along with science in adaptation plan has been emphasised by the Paris Agreement and importance of ecological restoration has been brought to the forefront by the Aichi Targets under the Convention on Biological Diversity. A recent international study conducted by Britta L. Timpane-Padgham and her team has given recognition to the crucial role of Arctic indigenous peoples in the efforts made to ecological restoration which assists in building resilience to major climate change driven changes in the distribution of land, marine and freshwater species. This study aims to consider whether indigenous traditional knowledge has a role to play in ecological restoration of the Arctic as understood in the literature of international biodiversity law or the emerging literature on ecological restoration law. In this study, a case where indigenous traditional knowledge have been used in the ecological restoration in the Arctic will be considered and consideration will be given to how accommodating indigenous traditional knowledge within ecological restoration plans can assist in upholding international obligations under the Conventional on Biological Diversity and Paris Agreement.

Adrian Braun, Arctic Centre, University of Lapland.

The relevance of Socially Responsible Investments (SRI's) to raise capital to accomplish environmental and societal initiatives and goals.

Socially responsible investments (SRI) are on the rise with pursuits in global finance to widen continually the portfolio of green financial products. The kick-off for this development goes back to the years around 2005, when large-scale finance institutes, put the Environmental, Social, Governance (ESG) concept on their agenda, due to rising pressure on institutional and other large-scale investors of what they actually support with their investment strategies. Climate bonds, for instance, are resourceful investment products that allow the issuer to get access to needed capital for a certain initiative to adapt or to mitigate towards the negative effects of a warming climate. This study aims to point out the incentives for the investment community to put their capital into "green projects", particularly in the Northern latitudes of the globe, and what role SRI's play nowadays to counteract negative ecological impacts and social performances in the society. By taking into account the large variety of global developments and trends, there is evidently a broad range of challenges, risks but at the same point numerous chances, which are on the agenda of enterprises. Investors have the choice to gain awareness and experience about these issues and benefit from it on large-scale. This study seeks to look deeper into current developments and the overall relevance of SRI's in the global economy. Learning about the various tools and mechanisms regarding green investments, climate-related financing and efforts to minimise industrial ecological footprints allow investors to underpin their understanding of modern demands related to the environment and society.

When Gender Matters. Politics of Human Resources in the Arctic

This paper sheds light on the dynamics and politics of gender operating in the Arctic. The Arctic, as many other developing regions, is facing multiple and overlapping social, political, economic and environmental changes - changes that bear significance in light of gender. Patterns of migration, reproduction and aging, questions of education, issues of cultural continuity, segregation of labour markets and, for example, the impacts of changing climate have already had and will continue to have vital importance to the human development of the region, not least due to the gendered nature of these developments. Considering that gender can constitute a vital enabling or constraining element within the development of the region, it is noteworthy that reflections on the implications of gender within the anticipated changes of the Arctic are almost non-existing.

The aim of this paper is to provide more knowledge on the ways in which development of the Arctic is tied to the question of gender. The approach of the paper is two-fold. First, the paper offers an overview of the gendered implications of Arctic developments by discussing the existing social scientific research and its findings. Second, the paper analyses the extent to which Arctic politics, as a site for voicing Arctic concerns, has considered these issues of gender to be of relevance. For this purposes, the paper draws on the material produced under the auspices of the Arctic Council. Jointly, through these two approaches, the paper offers an account of the ways in which gender matters and when it is, politically, considered to matter.

9 Probiotic living in compromised times

(Venue: SS22)

The last century has been marked by compulsions for hygiene, purity, and control. This obsession has saved human lives but, consequently, has resulted in eradication of species and introduction of new chronic diseases. It has also led to the emergence of new pathologies - the increase of antimicrobial resistance (AMR). These unexpected developments have sparked an interest in the “probiotic” introduction of formerly taboo entities, such as bacteria and other microbial life forms back to our bodies, homes, cities and the wider countryside (Lorimer 2017, 28). Lorimer suggests that the current “probiotic turn” is intellectually and politically significant for understanding late modern human-environment relations.

This session seeks to explore the probiotic turn as a theoretical as well as methodological and empirical challenge, and an opening for social sciences. We welcome papers that conceptualize new social forms of microbial living to include post-human assemblages and their more-than-human agency. We encourage participants to imagine and experiment novel ways to study the post-human assemblages of living with microbes. What would a more granular view of the practices and relation-making between humans, insects, microbes and other more-than-human life forms look like? How does the changing understanding of microbes affect the conceptualization of life, health, cleanliness, purity, society, bodies etc?

Topics could include, but are not limited to:

- Everyday practices of co-living and relating with microbes, such as fermentation or composting;
- Studies of novel biotechnologies to seek alternatives to antibiotics (fecal transplantation, vaccines, phage therapies etc);
- New moralities and ethics introduced by the probiotic turn
- Analysis of socio-political circumstances and infrastructures of microbial transmission
- How boundaries between bodies are made and maintained.

Session conveners: Veera Kinnunen (veera.kinnunen@ulapland.fi), University of Lapland and Salla Sariola (salla.sariola@helsinki.fi), University of Helsinki.

Friday (9.15-12 a.m.)

- 1 Jose A. Cañada: Viral assemblages: discursive and material boundaries in the governance of pandemic threats
- 2 Jenni Saarenketo: One might fall ill (t)here! Vaccine study participants in Benin discussing microbes, hygiene and health
- 3 Andrea Butcher: Understanding the pathobiome in political-ecological configurations
- 4 Salla Sariola: Bacterial vaccine development in Benin, West Africa: anticipating the post-antibiotic world
- 5 Veera Kinnunen: Bokashi – making probiotic waste management possible?

Time for presentations: 20 minutes for presentation + 10 minutes for discussion

ABSTRACTS

Jose A. Cañada, University of Helsinki

Viral assemblages: discursive and material boundaries in the governance of pandemic threats

Threats posed by pandemic viruses are often defined at the global policy level with the help of scientific produced in research laboratories. However, the situated threat posed by viruses with pandemic potential is enacted in specific localities characterised by an amalgam of human and nonhuman actors that, when looked at as an assemblage, help to identify pandemic threats.

In order to know and govern those threats, pandemic preparedness and response constantly carry out an exercise in boundary-making, categorization and identification around notions of threat and protection. More concretely, there is a need to identify more-than-human assemblages according to the role they play in the spread of those viral threats. Assemblages can be perceived as *threatening* if they help to spread the virus; as *vulnerable* if they can be affected by the virus (and become threatening as a result); and *expert* if they are able to produce knowledge and implement measures to stop the virus.

In identifying these assemblages, there is a constant renegotiation of discursive and material boundaries about what is threatening and what is not. Characteristics that are not initially part of the pandemic imaginary (e.g. nationality, gender or native language) become key in determining the status of the different assemblages as threatening, vulnerable or expert. As a result, pandemic and non-pandemic categories intersect during the more-than-human interactions that characterize pandemic outbreaks, leading to the establishment of boundaries designed for governing and controlling viruses with pandemic potential.

Jenni Saarenketo, University of Turku

One might fall ill (t)here! Vaccine study participants in Benin discussing microbes, hygiene and health.

As an attempt to find new ways to fight the rise of antimicrobial resistance, one-of-a-kind medical study sent hundreds of Finnish tourists to Benin on a trial testing an oral vaccine against bacterial diarrhea. This presentation describes the results of a dataset of 800 questionnaires regarding illness, travel and research experiences of the study participants. The surveys were conducted at two points in time, before and after the visit to Benin, and supplemented by interviews. During their stay, as required by the study protocol, participants had to report and sample their stools and gastro-intestinal disturbances with inconveniently detailed accuracy. This, all the while requiring them to rethink concepts of cleanliness, purity and sanitation, served as an unescapable reminder of the trip's exceptional agenda. This paper seeks to illuminate how the motivations and expectations of the study participants, often altruistic in their hopes to help alleviate problems associated with poverty, were contrasted by the corporeal realities, available infrastructure and the need to constantly negotiate one's privileges as Western visitors.

Andrea Butcher, University of Helsinki

Understanding the pathobiome in political-ecological configurations

Fisheries specialists Stentiford et al (2017) suggest a new approach to disease management in aquaculture that concentrates on avoiding disease outbreaks through microbial management of pond and animal microbiomes. They apply the term *pathobiome* to shift analysis from individual pathogens associated with disease states, indicating instead towards *communities* of microorganisms interacting with each other to produce the conditions for disease outbreaks (Stentiford et al 2017).

A social science perspective enhances this approach by examining socioeconomic and political interactions and influences in the pathobiome. For example, in a recent project examining opportunities for probiotic production management in Bangladesh's shrimp and prawn aquaculture we diagrammed how colonial histories, postcolonial development finance, access (or lack thereof) to credit, imported feed distributors, accreditation schemes, and externally funded farming improvement programmes interact in pond environments, influencing disease outbreaks, antibiotic, and probiotic treatment.

This paper describes the attempts of Bangladeshi shrimp and prawn farmers, their associated institutions, and supply chain actors to manage pond microbiomes within their particular political-ecological configurations (Hinchliffe et al 2016). It provides a framework for future research in the social science of microbes by examining how diverse environments (clinical, urban, food production, developmental) influence pathobiomes, offering openings for imagining alternative microbial futures.

Salla Sariola, University of Helsinki

Bacterial vaccine development in Benin, West Africa: anticipating the post-antibiotic world

Antibiotics have made it possible for people to live longer, healthier lives. Antimicrobial resistance (AMR), however, is an increasing problem, and the World Health Organization has described it as the next big global health disaster. This concern has generated a quest for alternatives to antibiotics in order to survive the world where antibiotics are no longer available to cure common infections and prevent contamination during everyday operations.

The ethnographic focus of this paper is a clinical trial of a bacterial vaccine conducted in Benin, West-Africa. The vaccine is presented as innovative technology that would circumvent the use of antibiotics in the treatment of diarrhea in the future. The case study demonstrates how the quest for alternatives to antibiotics not only pushes global health researchers towards new scientific discoveries, it also forces scientific communities to restructure their core practices regarding research tools, ideas of evidence, efficacy, and expertise.

Studying the vaccine as an emerging technology necessitates a post-human analysis that foregrounds the objects of the vaccine – the microbes. Therefore, for anthropologists, the changes urge us to conceptualize microbes despite their metaphorical and methodological invisibility. Such analysis shows how microbes are vital and malleable, rather than stable and contained and this liveliness captures the gist of the problem – given the magnitude of the changes ahead, a post-antibiotic world is nearly impossible to imagine.

Bokashi – making probiotic waste management possible?

Waste Management has been identified as one of the biggest global challenges which need to be tackled urgently. The “waste problem” has many origins and is as multiple and ontologically changing as waste itself. The contemporary “waste problem” is partly due to the sanitizing ideals of the modern era. Currently, there is an urgent need to find new ways of both treating waste and, even more importantly, to reduce the amount of produced waste. These challenges are tackled in various ways both globally and locally, for instance by promoting *Circular Economy* and *Zero Waste* initiatives.

These initiatives are, by nature, exclusive. Their underlying objective is to create a world without waste. In this paper, I will introduce an alternative, inclusive stance towards waste. Drawing from my multi-sited and multispecies fieldwork within *Bokashi collectives*, I explore the onto-ethico-political potential of Bokashi as a caring waste practice. Bokashi is a method of composting organic wastes by fermenting them with beneficial microbes. It has become popular in urban areas due to its simplicity, inexpensiveness and the possibility to be practiced indoors. I propose that *Bokashi as a practice* forms a naturecultural contact zone in which new forms of coexistence with matter emerge. Bokashi is a prefigurative, caring practice that holds a possibility of another world.

10 Suomen ympäristöhistoria 1700–2000

(Venue: LS21)

Suomen ympäristöhistoria on moneen muuhun eurooppalaiseen maahan verrattuna lyhyt ja intensiivinen. Ihmiset ovat muokanneet maata ja vaikuttaneet ympärillään olevaan eläimistöön ja kasvillisuuteen aina, mutta Suomessa karkeasti 1700-luvulta alkaen muutokset ovat olleet nopeampia, laajalaisempia ja kauaskantoisempia kuin aiemmin. Järvien laskeminen, koskien valjastaminen, metsien kaataminen, soiden kuivatus ja eläinkantoihin puuttuminen on vaikuttanut luonnonympäristöömme, jonka muutokset puolestaan ovat vaikuttaneet ihmisiin moniin tavoin. Vaikutuksille ja niiden arvioimiselle oli yhteistä lisääntyvä kompleksisuus: vaurautta ja kasvua tavoitteleva, luontoa resurssina käytävä toiminta heijastui lopulta myös ihmisten terveyteen ja yleiseen viihtyvyyteen. Globaalistikin vaikuttaneet trendit kuten kaupungistuminen, arjen teknistyminen ja kaupallistuminen, siirtyminen fossiiliin energiajärjestelmiin ja laaja poliittinen sitoutuminen talouskasvun tavoittelemiseen muovasivat suomalaisten elämää ja samalla ympäristöämme 1700-luvun lopulta lähtien. Tässä narratiivissa kietoutuivat yhteen unelma tieteen ja teknologian kautta saavutettavasta edistyksestä sekä kasvun materiaaliset jäljet ja rajat. Suomen ympäristöhistoria 1700–2000 -sessiossa eritellään ihmisten tavoittelemia ja aiheuttamia biofysisiä ja materiaalisia muutoksia suomalaisessa ympäristössä, sekä niihin liittyneitä arvoja, käsityksiä, käytäntöjä ja monipolvisia seurauksia. Sessiossa tarkastellaan myös keskeisiä ihmisten käsissä olevia muutosvoimia, joilla on voitu vaikuttaa niin elinympäristöemme heikkenemiseen kuin hyvinvointiinkin. Silloin keskeisiksi kysymyksiksi nousevat, miten ympäristö on tullut politiikkaan ja politiikka taasen ympäristöön? Minkälaisen kehityksen seurauksena huoli ympäristöstä on muuttunut paikallisesta laajemmaksi ja miten se alkoi käsitellä kokonaista elämän- ja ajattelutapaa?

Organisoijat: Esa Ruuskanen, Oulun yliopisto (esa.ruuskanen@oulu.fi), Paula Schönach, Helsingin yliopisto ja Kari Väyrynen, Oulun yliopisto.

Friday (9.15-12 a.m.)

- 1 Matti Salo: Suomen kaivostoiminnan laajeneminen pitkällä aikavälillä sekä alan aiheuttamat näkyvimmmät ympäristövaikutukset ja -kriisit
- 2 Esa Ruuskanen: Soiden arvottamisen ja arvostuksen elinkaari Suomessa 1700–2000-luvuilla
- 3 Paula Schönach: Kolme vuosisataa (1700-2000) Suomen vesistöjen ympäristöhistoriaa
- 4 Kari Väyrynen: Suomalaisen ympäristöajattelun suuntaviivoja Topeliuksesta von Wrightiin
- 5 Tanja Riekkinen: Öljyinen maailma, öljyinen Suomi
- 6 Miina Kaarkoski: Suomi ja ylikansallinen ympäristöyhteistyö

ABSTRACTS

Matti Salo, Oulun yliopisto

Suomen kaivostoiminnan laajeneminen pitkällä aikavälillä sekä alan aiheuttamat näkyvimmmät ympäristövaikutukset ja -kriisit

Esitelmä liittyy Suomen ympäristöhistoria 1700 – 2000 kirjahankkeeseen ja sen kaivostoimintaa koskevaan osioon, jota kirjoittavat Esa Ruuskanen ja allekirjoittanut.

Esitelmässä taustoitetaan kaivostoiminnan, niin metalli- kuin teollisuusmineraalikaivosten, ympäristövaikutuksia tarkastelemalla ensin teollisuudenalan pääpiirteittäistä määrällistä kehitystä pitkällä

aikavälillä. Tarkastelunäkökulmia ovat toiminnan maantieteellinen sijoittuminen, kaivosten lukumäärä ja kokonaislouhintamäärät. Vaikka Suomessa oli lukumääräisesti paljon kaivoksia jo 1500-luvulta 1800-luvulle ulottuvalla ajanjaksolla, niin ensimmäisenä suurkaivoksena voidaan pitää 1900-luvun alkupuolella asteittain toimintaansa laajentanutta Outokummun kuparikaivosta. 1950-luvulta alkaen siirryttiin uuteen merkittävään laajentumisvaiheeseen, kun useat uudet Pohjois-Suomeen perustetut kaivokset aloittivat toimintansa. Kaivostoiminnan laajeneminen hidastui 1980-luvulle tultaessa, mutta 2000-luku on ollut jälleen laajenemisen aikaa ulkomaisten ja monikansallisten kaivosyri-tysten tultua keskeisiksi toimijoiksi.

Kaivostoiminnan laajeneminen on lisännyt alan ympäristövaikutuksia, vaikka toimintaa koskevat säännökset ovat 1900-luvulta lähtien asteittain tiukentuneet. Esitelmässä tarkastellaan Suomen laajamittaisimpia kaivoksia ja muutamien esimerkkien muodossa teollisuudenalan aiheuttamia merkittävimpiä ympäristökriisejä.

Keskeisiä lähteitä ovat Suomen Virallisen Tilaston sarjat, GTK:n tutkija Kauko Puustisen kokoama laaja Suomen kaivostoiminnan historiaa koskeva tietokanta-aineisto, viranomais selvitykset, yksittäisiä kaivoksia koskevat historiaesitykset sekä mahdollisuuksien mukaan sanomalehtiaineisto.

Esa Ruuskanen

Soiden arvottamisen ja arvostuksen elinkaari Suomessa 1700–2000-luvuilla

Suot edustavat kenties ristiriitaisimpia ja kaltoin kohdelluimpia ympäristöjä Suomessa. Yli puolet alkuperäisestä suoluonnosta on tuhoutunut tai pirstoutunut erilaisten taloudellisten visioiden ja toimien seurauksena. Tässä esitelmässä kuvataan soiden maankäyttöön ja suosuhteisiin liittyviä huomattavia muutoksia ja vaikutuksia 1700-luvulta tähän päivään. Varhaismodernin ajan suomalaiset hyödynsivät soita kekseliäästi luonnonniittyinä sekä marja- ja metsästyspaikkoina. Toisaalta soita pelättiin, koska niillä liikkuminen oli arvaamatonta ja pettevää. 1700-luvulla suot tulivat osaksi valtion tukemia luonnon hallinnointi- ja jalostamishanteita. Yleisessä kansallisessa narratiivissa suot alkoivat edustaa vastuksia ja joutomaita, jotka olisivat hyödyllisiä ja arvokkaita pelloiksi, metsämaiksi tai turpeentuotantokentiksi muutettuina. Yksinomaan nimeäminen kuvastaa viime vuosisatojen ristiriitaisista ja vähättelevää suosuhdetta: maassamme on lukuisia soita, jotka ovat saaneet nimekseen Pahasuon tai Paskosuon. 1900-luvun lopulla taloudellista hyötyä korostavien suokäsitysten rinnalle ja haastajiksi nousi soiden luontoarvoja painottava tiedetieto, joka korosti soiden arvoa elinkirjolle sekä ihmisten virkistykselle ja esteettisille elämyksille. Lisääntynyt tieto soiden hiilivarastoista lisäsi niiden arvottamista ilmastopoliittisista lähtökohdista. Vanhojen käytäntöjen sosiaalinen oikeutus alettiin kyseenalaistaa ja myös poliittisesti soihin haettiin uudenlaisia suhteita. 2010-luvun soilla kohtasivat siten hyvin ristiriitaiset tavoitteet, joiden kautta suo asettautui ikään kuin peiliksi erilaisille käsityksille alueellisesta, kansallisesta ja globaalista kasvusta, kehityksestä ja hyvinvoinnista.

Paula Schönach, Helsingin yliopisto

Kolme vuosisataa (1700-2000) Suomen vesistöjen ympäristöhistoriaa

Vesistöt ovat ihmisyyhteisöjen elinehtona ja monimuotoisen yhteiskunnallisen toimeliaisuuden perustana olleet keskeisessä roolissa Suomen ympäristöhistorian eri vaiheissa. Niiden moninaisella hyödyntämisellä on suuri merkitys suomalaisen yhteiskunnan kehityksessä vuosisatojen ajalta. Tässä esityksessä tarkastellaan ihmisten ja vesistöjen vuorovaikutteisen suhteen historiallisia kehityslinjoja Suomessa 1700-luvulta viime vuosituhannen vaihteeseen. Tarkastelun keskiössä ovat ne erilaiset tavat, joilla ihmiset ovat vesistöjään muokanneet ja toisaalta, miten näiden toimien seurauksena muuttuneet vesistöt ovat puolestaan muokanneet ihmisten käsityksiä ja suhdetta suomalaisiin vesis-

töihin. Esityksessä käsitellään erityisesti vesistöjen teollisen mittakaavan hyödyntämistä taloudellisten intressien edistämiseksi, vesistöjen saastumisen historiaa sekä yhteiskunnallisia pyrkimyksiä myös suojella vesistöjä haitallisiksi koetuilta muutoksilta.

Kari Väyrynen, Oulun yliopisto

Suomalaisen ympäristöajattelun suuntaviivoja Topeliuksesta von Wrightiin

Tarkoituksena on kirjoittaa katsaus suomalaisen ympäristöajattelun historiaan lähinnä humanististen tieteiden piirissä. Biologisen ja ekologisen ajattelun – tai laajemmin ympäristötieteiden – kehitys olisi laaja teema itsessään, joten rajaan sen artikkelistani pois joitain viittauksia lukuunottamatta. Keskeisiksi teemoiksi nousee eläinten oikeudet ja ihmiskeskeisen ajattelun kritiikki (Topelius, Westermarck) ja sivilisaatiokritiikki ympäristönäkökulmasta (Palmgren, von Wright). Ekologisista ajattelijoista tarkastelen myös Linkolaa perinteisen humanismin haastajana. Ajallinen rajausta päättyy 2000-luvun alkuun, jolloin von Wright kuoli ja Linkola aktiivisin luova kausi todennäköisesti päättyi. Rajauksen kannalta ongelmaksi jää, tulisiko pitkään vaikuttaneita ja edelleen aktiivisia ajattelijoita kuten Yrjö Hailaa ottaa huomioon? Ehkä nämä yhteiskuntatieteilijät ansaitisivat oman lukunsa mutta tässä lienee paras tyytyä hahmottamaan vain 1960-luvulta alkaneen aatekehityksen 'suuret linjat' (ympäristösosiologia, ympäristötaloustiede, uudemmat ympäristöfilosofit ja eläinoikeusajattelijat).

Tanja Riekkinen

Öljin maailma, öljyinen Suomi

Öljy liikuttaa, lämmittää, voitelee, vaatettaa, lääkitsee, säilyttää ja torjuu. Liikennekäyttönsä vuoksi se myös epäsuorasti ruokkii ja mahdollistaa energianlähteiden kuten puun, hiilen ja turpeen käytön. Musta kulta virtaa itsestäänselvän oloisesti myös arkista maailmaa heijastelevissa elokuvissa, peleissä, leikeissä ja kirjoissa.

Vääjäämätöntä öljyn ja muiden fossiilisten polttoaineiden varaan rakennetun maailman muotoutuminen ei kuitenkaan ollut vaan seurausta lukuisista sattumista, valinnoista ja sittemmin toden leiman saaneista tulevaisuudenvisionneista. Öljyn rauha oli lähes järkkymätön kunnes ihminen keksi aineelle itseään hyödyttävän käyttötarkoituksen – öljystä tislattu kerosiini valaisi halvemmalla koteja, katuja ja tehtaita kuin valaanrasva. Sähkövalaistuksen syrjäytettyä öljylamput aine valjastettiin liikennekäyttöön. Saatavilla olevien öljyresurssien ja keksintöjen kuten polttomoottorin lisäksi riippuvuuden syntyyn ja syvenemiseen vaikuttivat tehokkaat kuljetusmuodot, sinnikäs kysynnän luominen sekä ajan myötä muuttuneet kulutustottumukset. Riippuvuudesta rakentui itseään ruokkiva ja kasvattava kehä.

Öljylähteetön Suomen suuriruhtinaskunta sai ensimmäiset öljymaistiaiset muun maailman vanavedessä 1800-luvun puolivälissä. Huomattava harppaus öljyn kulutuksessa tapahtui 1960- ja 1970-luvuilla pulaajan päättymisen, kaupungistumisen, teollistumisen, koneistumisen, Neste Oy:n perustamisen ja öljylämmityksen suosion nousun myötä. Millaisin valinnoin ja vision sittemmin arkipäiväistynyt öljyyn nojaava elämäntapa rakentui globaalissa kontekstissa? Kenen visiot selvisivät voitokkain, entä kenen painuivat unohduksiin?

Suomi ja ylikansallinen ympäristöyhteistyö

Ylikansallinen yhteistyö on ollut keskeinen osa pyrkimyksissä suojella ympäristöä erilaisin säädöksin ja sopimuksin. Monet luonnon ja ympäristön kannalta haasteellisiksi havaitut ilmiöt kuten ilman, veden tai maaperän saastuminen, luonnonvarojen käyttö tai kasvillisuuden ja eläinlajien suojelu koskettavat laajoja maantieteellisiä alueita tai koko maapalloa, ja ratkaisuja on ollut tarpeen etsiä yhteistyössä useiden valtioiden voimin. Luonnonsuojeluryhmittymät ja tieteen parissa työskentelevät henkilöt alkoivat järjestää kansainvälisiä tapaamisia luonnon suojelemiseksi jo 1900-luvun alussa. 1960- ja 1970- lukujen laaja-alaisemman ympäristöherätyksen myötä ylikansallinen yhteistyö ympäristön- ja luonnonsuojelussa on moninkertaistunut. Myös Suomi on ollut osana tätä kehitystä.

Tässä paperissa tarkastellaan, millainen on ollut Suomen osallisuus kansainvälisessä ympäristöyhteistyössä. Tarkoituksena on eritellä keskeisimpiä ympäristöä käsitteleviä ylikansallisia tapaamisia, joissa Suomi on osallistunut keskusteluihin ympäristöaiheista ja niiden edellyttämistä toimista. Huomiota kiinnitetään erityisesti siihen, miten ja missä kysymyksissä Suomi on näiden tapaamisten yhteydessä nähnyt tarpeelliseksi sopia ylikansallisesta yhteistyöstä. Lisäksi paperissa tuodaan esiin Suomen osallisuus lukuisissa kansainvälisissä ympäristösopimuksissa. Lopuksi tarkastellaan, miten Suomen ympäristöpolitiikka on tullut osaksi EU:n ympäristöpolitiikkaa.

11 Struggle over Renewable Energy

(Venue: LS9)

Energy is the lifeblood of economic activity and social welfare, while simultaneously being at the core of many of the most significant environmental problems. Stronger policy actions have been demanded in order to move the world onto a more sustainable energy path. Without doubt, this will not happen without rigorous resistance of those in the most powerful positions of current energy-related structures. Concerning renewable energy, solar and wind power have gained the biggest investments globally, Denmark and Germany, for instance, being massive investors. In Finland, while in recent years the operational environment has altered and the energy sector have gone through some significant changes, such as implementation of feed-in tariff in 2011 and wind power production being at the verge of becoming market competitive without subsidies, the power wielding in the sector seems to have changed little. For instance, the supported industrial scale production has kept citizen and community energy in the margins. This workshop examines whether the ongoing changes have meant a redistribution of power in the energy sector or do the old power structures still persist. The session is structured as a workshop with no conventional presentations, but 5 minute pitch talk/presenter and a facilitated joint discussion. We invite researchers from multiple fields (academics from projects and incentives from Finland and around the world) to submit discussion papers as a preliminary material for attendees. We welcome papers dealing with various energy-related issues e.g. regulation, support policies, energy democracy and citizen energy, as well as papers operating with a more extensive perspective on the complex totality of energy politics.

Session conveners: Tapio Litmanen, (tapio.litmanen@jyu.fi), Miikka Salo, (miikka.o.salo@jyu.fi) and Riikka Aro (riikka.aro@jyu.fi), University of Jyväskylä.

Thursday (15-18 p.m.)

- 1 Pedro Nardelli: Energy Internet - Decommodification or ultra-liberalization?
- 2 Jukka Sivonen, Iida Kukkonen: Does Welfare Regime Influence the Support of Climate Policy Instruments?
- 3 Tuula Teräväinen: Expectations, politics and power in new energy transitions
- 4 Carl Johannes Muth : Renewable Energy and its implications for EU's energy security
- 5 Sarah Kilpeläinen: "Struggle over Renewable Energy"
- 6 Laura Kainiemi, Kamilla Karhunmaa, Sanni Eloneva: New roles, actors and strategies seeking to influence Finnish energy policy
- 7 Salvatore Ruggiero: Success factors of community energy initiatives in the Baltic Sea Region

ABSTRACTS

Pedro Nardelli, Lappeenranta University of Technology

Energy Internet - Decommodification or ultra-liberalization?

Energy internet refers to the use of information and communication technologies to allow packetized management of energy (as the data internet). This is seen as a powerful approach to manage the users' flexibility in respect to their consumption, and possible generation (e.g. solar PVs) and storage (e.g. heat pump or electric batteries) capabilities. Managing this "energy inventory" – which is usually

analyzed as a purely technical problem – hides a strong political aspect: it can move towards a de-commodification or ultra-liberalization of the system, following a very similar discourse. An anti-exploitative political position shall treat the energy system as a commons to be managed by the respective community, deliberating about, for example, usage fairness, efficiency, load prioritization. This goes against the mainstream discourse of “empowering prosumers,” where energy shall be ultimately traded in a peer-to-peer fashion, opening new markets. In the first case, energy locally produced is shared and the usage rules are decided collectively. In the second case, the energy produced is a private property to be traded and its use depends on “legal rights”. My position is that Energy Internet is not to unlock value to create new markets; it is about unlock use to create new commons. In this way, the empowerment of the commoners must come from the disempowerment of the commodity-form, which brings at the first place the duality producer-consumer and its synthesis prosumer.

Jukka Sivonen & Iida Kukkonen, University of Turku

Does Welfare Regime Influence the Support of Climate Policy Instruments?

The “synergy hypothesis” suggests that societal and environmental development mutually reinforce each other; that stronger welfare states offer better platform for environmental objectives than countries with less comprehensive welfare policies. Social democratic welfare states, in particular, are thought to be better equipped to develop environmentally sustainable policies than other welfare regimes. Evidence supporting the synergy hypothesis is, however, inconclusive. We contribute to the discussion by investigating how citizens’ attitudes towards different climate change curbing policy instruments depend on the kind of welfare state they live in. Using multilevel regression modelling and European Social Survey Round 8 data, we explore how structural and individual factors of social and economic welfare are linked to attitudes towards three policy instruments: higher tax on fossil energy, subsidizing renewable energy, and banning least energy efficient household appliances. We find that attitudes towards the policy instruments in question are related to welfare structures, however distinctly less so when it comes to subvention and regulation; measures which are generally quite accepted. In contrast, we find attitudes towards taxation of fossil fuels – the policy measure most contested by publics and most advocated by experts – are connected with welfare state regime.

Tuula Teräväinen, University of Eastern Finland

Expectations, politics and power in new energy transitions

This paper addresses expectations, political confrontations and changing power relations in transitions towards more sustainable energy futures based on renewable energy sources. Drawing from a case study concerning the Hidrotambo hydroelectric project in the Ecuadorian Amazon, it discusses struggles over energy security and democracy, confronting knowledge regimes, the making of active energy citizenship and the dynamics of power. While efforts to shift towards more sustainable energy paths have often been seen to involve resistance especially from powerful actors operating within the existing energy structures, recent experiences illustrate that the phenomena is much more complex especially from the perspective of the global South. This calls for contextual knowledge and historically, culturally, spatially and socially embedded understanding concerning the potential and viability of new renewable energy solutions and systemic transitions. In the Ecuadorian energy transformation for instance, renewable energy in general and hydropower in particular play a significant role and they are strongly supported by the government, international organisations, local authorities and national energy elites. Yet the new projects are highly confrontational, which raises a question concerning the

forums and modes of resistance as well as the potential of rooted democratic innovations. The paper discusses struggles over power, energy security, democracy and citizenship in renewable energy transitions by scrutinizing political conflicts, competing expectations and knowledge regimes that have emerged and been continuously (re)shaped during over a decade of resistance and negotiation of the Hidrotambo project.

Carl Johannes Muth, University of Tampere

Renewable Energy and its implications for EU's energy security

Nowadays renewable energy sources (RES) have become the fastest growing energy source worldwide but its use requires large investments, technology, knowledge and mineral resource, which supply is currently dominated by a few producer countries. If this is the case, the question arises if new interdependencies and security related problems are likely to occur and may become a matter of future international relations. This paper aims to examine if RES can improve energy independence and contribute to mitigate energy security related problems. These questions are addressed in relation to the EU and the potential and challenges of an increased share of RES on the EU's energy system. Therefore, the paper argues that RES do have the potential to improve EU's energy security but certainly will not lead to an end of security related problems. More specific, the introduction of RES into the EU's energy system will lead to new uncertainties and risks, while those arising from fossil fuels will remain existing.

Sarah Kilpeläinen, University of Tampere

"Struggle over Renewable Energy"

Renewable energy policies are a vital part of sustainable energy transitions. Meeting proposed strategic targets requires continuous and fast-paced policy development keeping up with economic, technical, environmental and social challenges while at the same time changes to deeply entrenched power structures can be difficult to achieve given a plethora of diverging interest and actors with differing political influence. Developing renewable energy policies and support for sustainable energy transitions require political action that is willing and able to challenge these established interests and systems. This paper will focus on the politics surrounding the development of renewable energy policies and the ways in which actors contribute to their wider development. Utilising a thematic approach proposed by Roberts et al (2018) composed of *coalitions*, *feedback* and *context* the paper will explore the ways in which these themes are appropriate lenses for analysing both the development of renewable energy policies within the Nordics and the possibilities of the Nordic region to influence EU-level action on achieving sustainable energy transitions.

Laura Kainiemi, Aalto University, Kamilla Karhunmaa University of Helsinki and Sanni Eloneva, Aalto University

New roles, actors and strategies seeking to influence Finnish energy policy

Energy policy in Finland has historically been negotiated in a consensus-seeking fashion, with industrial interests playing a significant role in the development of nuclear energy and bioenergy. The 2010s, however, have seen a heightened interest from environmental organizations, academics and citizen campaigns to open up energy policy processes. This article focuses on the strategies actors'

employ to influence energy policy and transitions in Finland. We are particularly interested in assessing how actors attempt to develop legitimacy for specific concerns; mobilize resources to forward their own goals; and how they evaluate their own success in such processes. The analysis is based on documents (n=39) and interviews (n=24) gathered in Finland during 2016-2017 with environmental NGOs, energy industry groups, ministry representatives, politicians and academics. Preliminary results indicate a broad-ranging consensus on an ideal energy system as emissions-free. However, there are significant differences regarding how this should be achieved and what actually constitutes “emissions-free”. Attempts to open up policy processes are criticized as insufficient, with traditionally powerful industrial interests continuing to play a significant role. New actors employ a number of strategies aimed at modifying or radically changing the existing energy system and tend to focus on symbolic successes in policy struggles.

Salvatore Ruggiero, Aalto University, School of Business

Success factors of community energy initiatives in the Baltic Sea Region

The term community energy refers broadly to the active participation of grassroots organizations in energy production and conservation. Community energy is a growing phenomenon across Europe that is attracting the attention of both policy makers and researchers for the role it may play in accelerating the energy transition. However, the extant literature dealing with the participation of citizens and local communities in renewable energy production has two important limitations. First, it consists of studies that have their focus on a limited number of countries and, in particular, in a western European context. Second, little attention has been devoted to the place-based conditions that make citizens' initiatives successful and to the question of if and how such conditions can be recreated in other places. Therefore, this paper aims at exploring through the lens of neo-institutional theory the wider societal forces, cultural rules and regulative elements that determine the success and diffusion of citizen-driven renewable energy initiatives. The study relies on eight case studies from the Baltic Sea Region where in-depth interviews are being conducted with project leaders, politicians and representatives of local authorities. The preliminary findings show that, although key success factors are project leadership and state incentives, without an active civil society community energy projects cannot easily diffuse. The study contributes both to the ongoing discussion on how to increase the participation of citizens in the transformation of the current energy system and our understanding of the related challenges and opportunities.

Keywords: community energy; Baltic Sea region; renewable energy, success factors

12 Theoretical approaches and conceptual openings for research on extractive industries

(Venue: SS23)

Within extractive industries (mining, forestry and energy sector) nature is understood as a resource for the human societies. In the heart of the extractive industries is still a modern way of rationalizing: the use of natural resources is the indispensable engine for societies' development.

As the research of the use and management of natural resources is often funded by e.g. European Union projects, the research approaches are guided by politically pre-set practical goals. Hence, there is often a limited space for theoretical discussions or conceptual criticism in the applied studies funded for limited time. For example, the concept of *social license to operate* (SLO), referring to local acceptance of certain industrial project is moderated by mining business and European Union for exploiting the ore deposits while the academics are trying to answer to the call for the theoretical base of the concept.

We welcome presentations discussing the theoretical approaches and conceptual openings for studying for example mining, forestry and energy sector. Also the themes that are not often the core of explicit project research, such as feelings, sense of place, identity and (in)justice, are welcomed as well case-studies reflecting theoretical discussions.

Session conveners: Leena Suopajarvi, University of Lapland (leena.suopajarvi@ulapland.fi) and Tuija Mononen, University of Eastern Finland (tuija.mononen@uef.fi).

Thursday (15-18 p.m.)

- 1 Annukka Näyhä: Desired future states of Finnish forest-based sector firms in 2030: Forerunners of versatile and sustainable circular bioeconomy?
- 2 Peeter Vihma: Local issue, national protest. How a local movement was able to mobilize national protest.
- 3 Olga Sidorenko, Rauno Sairinen: Social sustainability agenda for small-scale mining: Case Olovo mine in Bosnia and Herzegovina
- 4 Juha M. Kotilainen: Community Development Agreement and its applicability to Finnish mining context: case Sodankylä

Friday (9.15-12 a.m.)

- 1 Jukka Sihvonen, Rauno Sairinen: Collaborative governance of coal mining and coal seam gas expansions in the Hunter Valley region of Australia
- 2 Adrian Braun: The relevance of Corporate Social Responsibility (CSR) in Barents Region Mining
- 3 Seija Tuulentie: Time scales of mining, time scales of communities: expectations and experiences in British Columbia, Canada and Lapland, Finland

ABSTRACTS

Annukka Näyhä, Jyväskylä University School of Business and Economics

Desired future states of Finnish forest-based sector firms in 2030: Forerunners of versatile and sustainable circular bioeconomy?

Numerous public and private strategies emphasize the importance of sustainability, bioeconomy and circular economy, and these concepts are widely discussed in our current society. New forest-based businesses are believed to play an important role in the transition to circular bioeconomy in Finland.

This study explores the transformation of the Finnish forest-based sector firms towards new business models when endeavoring more sustainable, circular bioeconomy businesses. More precisely, the research aims to shed light on how forest-based sector firms define their ideal future roles, as well as the pathways, factors and forces, which they see as important for transition. Linked with this, the research also reveals companies' understandings on various important and emerging concepts and discourses related to sustainability transition in forest-based sector.

The approach of the study loosely followed the basic idea of backcasting, because the interviewed company representatives were asked to define desired future state(s) for their own businesses and for the whole Finnish forest-based sector in 2030. The respondents were also asked to describe needed actions to attain these ideal image(s). The data for the study consist of semi-structured thematic interviews with 18 company executives and managers from various forest-based sector firms and companies from interfacing sectors, all of which have operations in Finland. The data was analyzed by using the thematic analysis method.

Due to ongoing writing process and unfinished detailed descriptions/naming of the desired future images, the final outcome and the theoretical framework applied for the reflections of the results are not included in this abstract. The results will be reflected and discussed, e.g. in the context of transition management approaches.

Peeter Vihma, Helsinki University

Local issue, national protest. How a local movement was able to mobilize national protest.

When local issues are decided by national governments NIMBY groups can struggle with influencing decisions. In this case what is more effective for a NIMBY movement to change policy: to mobilize people online or to build social networks offline? This paper contributes to understanding the dynamics between the two modes of participating building on the analysis of Estonian environmental protest movement that was able to influence politicians to terminate a special planning bill of a pulp factory. I am comparing two types of mobilization efforts using network methods and frame analysis. Preliminary results show that two modes of participation feed upon each other: offline mobilization allows access to politicians while online mobilization builds a networks of supporters that creates national public pressure.

Olga Sidorenko & Rauno Sairinen, University of Eastern Finland

Social sustainability agenda for small-scale mining: Case Olovo mine in Bosnia and Herzegovina

During last decade, the secured access to primary minerals including strategic metals has become critical issue for future of mining in Europe. This has stimulated development of small-scale mining concept and also actual operations in some European countries. If the number of small-scale mining activities would grow, we need more consideration for the special questions of social and environmental sustainability in these cases. We can ask, can small-scale mining methods offer its own technological solutions for sustainability concerns? From social development perspective, shorter life of mine, smaller employment and limited regional benefits may establish additional concerns for local communities and municipalities.

By analysing perceptions of the local community representatives from the Olovo village in Bosnia-Herzegovina we shall observe what kind of opportunities as well as challenges small-scale mining would bring to local development and how local people perceive the risks and benefits of mining operations nearby. The paper is based on the preliminary findings from the EU-funded Horizon 2020 IMPACT project.

Juha M. Kotilainen, University of Eastern Finland

Community Development Agreement and its applicability to Finnish mining context: case Sodankylä

Mining has always social and environmental impacts. The main share of the impacts is usually carried by the local communities while most of the benefits flow into national or international city centres. The traditional instruments attempting to balance this unequal distribution have been state regulation and voluntary based CSR approaches. However, another mechanism, often called Community Development Agreement, has become more popular around the globe and especially in indigenous regions. Its main benefits over the traditional methods are its ability to take the local characteristics better into account compared to regulation and removing the uncertainty related to the voluntary based approaches in the long-term. Well-designed agreement process can also include several other benefits.

Recently, the municipality of Sodankylä in the Finnish Lapland has expressed interest in trying agreement based collaborative model in their region. If the agreement on the collaboration will materialize, this would be the first time this mechanism is applied in the Finnish context, which differs significantly from the cases where it has been used globally. This paper studies the collaboration and negotiation process through action research. The process is then assessed in the framework of collaborative governance, utilizing reflective research diary as well as data received from the interviews of the key actors in the process. The results provide a pilot case for the Finnish and European sustainability and acceptability studies about mining, providing knowledge that has not been previously available.

Jukka Sihvonen & Rauno Sairinen, University of Eastern Finland

Collaborative governance of coal mining and coal seam gas expansions in the Hunter Valley region of Australia

The paper discusses the effects, controversies and patterns of collaborative governance of coal mining and coal seam gas expansions in the Hunter Valley region of Australia. The Hunter Valley area in New

South Wales is an example of a conflict between coal mining and other rural industries. Local livelihoods (vineyards, equine farming, livestock farming) and residents have actively opposed the scale of expansion of the mines and require the rights of their own livelihoods. Our research assessed the procedures introduced the experiences for collaborative governance between these various industries. The analysis is based on field study from the year 2015. The analysed new governance models were: the experts' Gateway Assessment, Planning Assessment Commission, Municipal Advisory Committee and Upper Hunter Mining Dialogue developed at the regional level. The main result of our research is that despite many new collaborative governance models, it has been difficult to find balanced solutions to conflicts. The main reasons for the problems seem to be: the expanding of one industry at the expense of others, politically biased attitude of the coordinating body (State authority) and weak trust to new procedures in local level.

Adrian Braun, University of Lapland

The relevance of Corporate Social Responsibility (CSR) in Barents Region Mining

The different territories of the Barents region have plenty of natural resources, attracting a wide range of extractive industries. The Barents region ecosystems are comparably vulnerable and the long-term survival of many species is nowadays dependent on sustainable practices of operating business organisations in the European Arctic. Additionally, around five million indigenous and non-indigenous peoples live in the Barents Region and this result into a vast amount of social challenges for business operations. One widespread solution to disclose Corporate Social Responsibility (CSR) efforts and creating transparency of corporate sustainable practices is the frequent publication of CSR reports and outlining environmental and social impacts of corporations. This research outlines to what extent CSR reporting may be beneficial regarding improvements of individual social, environmental and economic corporate performances in the Barents Region. Considering the Barents region mining industry, it is of interest how mining decision-makers handle the issues of stakeholder management, stakeholder dialogue and how much they are aware of the Social License to Operate concept. The perception of the passions and fears of local communities and the stakeholder universe at large are as much of significance as the correct assessment of benefit creation and negative impacts that mining causes.

Seija Tuulentie, Natural Research Institute

Time scales of mining, time scales of communities: expectations and experiences in British Columbia, Canada and Lapland, Finland

Mining processes are easily described as a linear diagram starting from mineral exploration and ending to the mine closure and rehabilitation with the possibility of reclamation. However, from the community development point of view the situation looks different. Establishing a mine takes tens of years and insecurities related to operating company, mineral prices and other factors are extensive. Mines often situate in rural places, and mainly beside existing communities. Although it is nowadays more common not to build specific mining towns but operate on fly in, fly out mode, it is rare that no community exists nearby. The rotational nature of mining causes big challenges to the communities in regard to demography, employment and social issues.

Here various situations of the northern communities in Finnish Lapland and northern British Columbia, Canada, are being analyzed based on the interviews of local actors and documentary data. In some cases the time scales are related to the expectations of the coming mine and its time scale, and in

other cases the mine has been closed and reopening is hoped for. What is common to these different situations is that the community futures are in question, and the issues of sustainable community and economic development are at least implicitly present.