

Maantieteen päivät 2017: WELCOME TO FINLAND?

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HUMANS IN THE ECOSYSTEM

Session chair Nora Fagerholm

Session on Thursday 26. October 2017 at 16:15 – 17:45

Sonja Kivinen: **Local perspectives on post-mining landscapes and future mining activities in northern Finland**

Katri Karkinen: **Three Working Histories of Rural Women**

Risto Kalliola: **Ancient civilizations and present-day vegetation in the Amazon**

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Nora Fagerholm: **European cross-site analysis of place-based ecosystem services in multifunctional rural landscapes**

Local perspectives on post-mining landscapes and future mining activities in northern Finland

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Mining is temporary land use that can have substantial impacts on local environments both during the production phase and after the mine closure. Local communities have often faced challenges related to degraded landscapes, lowered environmental quality and socio-economic problems in post-mining areas. We studied local residents' and visitors' opinions and experiences on two closed iron mining sites, Hannukainen and Rautuvaara, located in northern Finland. Public participatory GIS data were gathered using an interactive map-based survey tool Harava which allows conducting both map surveys and conventional surveys. We collected information on pleasant and unpleasant places in the post-mining landscapes, observed environmental impacts, information needs on the state of the environment, and the attitudes towards potential new mining activities in the region. A total of 145 persons replied to the survey. According to the respondents' opinion, more attention should be paid on the reclamation of the closed mining sites. The impacts of the former mining activities on local land use were not limited only on the mine sites, but could also be observed in the wider landscape context.

The results showed that locals and visitors would like to have more information on the current state of the environment regarding surface and ground water, soil, vegetation and natural products. Respondents' opinions on the potential reopening of the mines were strongly divided.

Three Working Histories of Rural Women

Katri Karkinen

For about a decade I have looked for information about the working histories of female rural persons. Old days, Finland used to be the Grand Duchy under the Russian Empire. The Senate reported about rural industrialization and dairy schools for girls. More than 2000 girls were recruited. That time the girls' civil rights were poor. The unmarried and even married women were under the custody of their father or husband.

The stand-in person or agricultural substitute workers became a career of rural women in the 1970s. It was the time of the welfare state. The welfare schemes of farmers took place and the program to enable farmers' holidays as a part of the social security. In the beginning, the holidays lasted for six days. While the farmer was on holiday, animals were looked after by a person stand-in. At the moment, there are thousands of stand-in persons, but they are not women only, because men also employ themselves, and many of them are immigrants.

In rural Russia today, a cow with a calf are kept by old retired couples. The subsistence farming with cow is a common practice to procure foodstuffs. The public interpretation about the position of cattle owners is a pensioner supporting her or his lifestyle with agriculture and domestic animal. A traditional, gender divided labour maintains cattle with simple technology: a woman is running daily core, while a male is supplying with feeding. A rural woman in Russia is not part of the salary-paid working life.

The work with animal is dirty, physically hard and with poor income. The cases above are representing cultural life of the northern women earlier and today. Their working conditions depend on the agricultural policy as well as the labour relations in the society.

Ancient civilizations and present-day vegetation in the Amazon

Risto Kalliola, University of Turku

The idea of pristine forests in the Amazonian lowlands have increasingly been challenged by archaeologists who have discovered marks of ancient organized cultures that have lived in the region for millennia, i.e. thousands of years before the European conquest. These cultures, even the numbers of their peoples or their sources of livelihood, are still poorly known. At places archaeologists have found traits that indicate long-term agricultural production or signs of highly developed ceremonial settings, or even marks of early urbanism. These findings have made some to suggest that a major part of the Amazonian forests should bring a legacy of human disturbance and should be seen as anthropogenic landscape. This view is not supported by most natural scientists, though, yet they do not deny the possibility Pre-Colombian influence at some places, either. The current debate between

researchers with different perceptions of the natural state of the Amazonian forests is still unsettled, which makes this research field highly stimulating for a holistic minded scientist.

Supporting development of healthy socioecological systems through participatory spatial planning in Tanzania

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Citizens' rights to participate and make decisions on their environment have been embedded in the legislation of several countries of the Global South with the global ideals and hopes for more sustainable landscape and natural resource management. Countries of the Global South however, have different prerequisites to actualize inclusive and sustainable landscape management as their counterparts in the North. While at the same time rapidly growing economies and population coupled with the uncertainties brought by climate change put more pressure on these management systems. In this paper we will reflect on our observations and practical interventions into local level planning processes in two separate landscapes in Tanzania. Tanzania has embarked on decentralization reforms and community resource management arrangements since early 1990's and the participatory spatial planning practices include regulation on land uses but often lack link to guiding landscape management strategies. Furthermore, in many areas landscape management faces poor enforcement of regulations, unsecure and hybrid land tenure regimes, lack of resources and investments into sustainable strategies and unequal power structures within and between local and higher level landscape actors. In this context we have developed participatory planning tools which answer to some of these challenges by increasing stakeholder participation and ownership as well as spatial accuracy of the plans through the use of Participatory Geographic Information Systems (PGIS). We will present the evidence of what spatially sensitive participation can achieve but also the limitations.

European cross-site analysis of place-based ecosystem services in multifunctional rural landscapes

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Landscape multifunctionality has developed into a key management strategy to generate a diverse set of ecosystem services (ES) that are accessible to a broad range of beneficiaries. However, knowledge of how rural inhabitants perceive and value multifunctional landscapes across Europe is currently lacking. In order to fill this gap, we present the first rigorous assessment of place-based ES as perceived by residents across 13 rural landscapes in ten countries. We identified the most intensively valued ES, their spatial patterns, and the respondent and landscape characteristics that determine ES perception. We found that provisioning services were emphasized more in regions with low gross domestic product/capita (GDP) and population density and a high proportion of inhabitants working in agriculture (Mediterranean and Eastern Europe), while cultural services were more appreciated in regions with high GDP and population density (Central and Northern Europe). Some ES (e.g. culture and heritage values) were heavily clustered but many others (e.g. aesthetic values) spatially dispersed highlighting individual preferences and experiences. ES perception was linked specifically to people's relationship with and accessibility of a landscape. The settlement areas are the hotspots of perceived ES but many ES are also related to forests, waters and mosaic landscapes. Our study indicates that mapping multiple ES (including specific cultural ES) through participatory approaches offers valuable and complementary tools to prevailing biophysical and economic valuation approaches. We see such approach operational to plan for and implement sustainable and viable stewardship of multifunctional rural landscapes reinforcing the weak link from ES assessment to decision-making.

Keywords: cultural ecosystem services, landscape management, landscape values, landscape characteristics, PPGIS