

Towards using mushrooms as a method in environmental social sciences and humanities research: discussion summary of the Mushroom Methods workshop.

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The Mushroom Methods workshop, held at the University of Oulu 14-16th August 2023, included a facilitated discussion on the specific questions related to employing fungi as a research method. The text below summarises the group discussions, which were split into three separate themes. We thank the contributors for sharing their insights.

What does it mean to use mushrooms as a method?

Two strands emerged during the discussion regarding this question - one relating to the idea of “mushroom” and the other relating to the definition of “method”.

Regarding the idea of “mushroom” there was a great deal of discussion around the metaphor of a mushroom and using mushroom for broader inspiration of what research can or should be. The metaphor of a mushroom invites contemplation of how one can do research - be it on the nuances of disturbance and contamination, leaving room for surprise and the unexpected, focusing on interconnections beyond predefined relations, and staying humble while working with our research. Working with mushrooms is often about working with something living that we do not understand. Using mushroom as a metaphor thus points to thinking of what “mushroom methods” would look like beyond mushrooms and the general principles mushroom thinking could inspire.

Dealing with mushroom as a method challenges us to confront the materiality of a massive kingdom - afterall, we are lumping a broad topic (think how ridiculous it would be to use “animals as a method” or “plants as a method”). A lot of mushroom as methods has been built on wrong premises like in the case of the myriad of narratives regarding “mycosalvation” where fungi are the promise to fix crises with plastics, pollution, mental health, etc. These promises have not been realised often due to the difficulties of scaling up. However, here there is a difference between mushrooms as a tool (for example in mycosalvation) vs. application. With the latter, mushrooms can be seen as participants in research be it in cultivation, multi-species ethnography, ethnomycology, interspecies ethics, citizen science, biodiversity monitoring, and conservation. Taking mushrooms seriously calls for other senses beyond sight.

Ultimately, mushrooms offer a depth of material and meaning for creative and imaginative work. They force us to think and work differently and make it impossible for us to return to the old ways of thinking and doing. We could therefore premise that it is the mushrooms that method us.

What does it mean to see a forest from a mushroom perspective?

'See'? Phaw! We need to get away from this ocular obsession! Think with tentacular moist and creeping capacities of the mycelium - a mushroom does not 'see' a forest, it is the forest. And speaking about 'mushroom' and 'forest' in generic terms reproduces the ocular bias in a different way - here comes the God's eye view again, the view from Nowhere onto Everywhere. It matters what stories we use to tell stories, remember? If there is anything that we can learn from following mushrooms is that there is no such place as 'everywhere': that every forest and every organism not only deserve but require a particular engagement from us, a specific and situated attention. Thinking with fungi forces us to embrace relationality, to speak clearly from a particular point. Pay attention, yes, this is a lesson of the forest/mushroom: see the fungi for the trees!

This cutting up of the forest space into species and their habitats repeats a story familiar from conservation. If we may be able to pretend that it makes sense to speak of conserving a flying squirrel or a monarch butterfly, speaking about fungi in these species-specific terms quickly collapses. Take morels, for example. They seem to have an excellent time, for a time, in forest clearings. Should we therefore increase the number of clearings to provide them with habitat? But what of all the other species whose needs compete and connect within the forest? How would we cut the forest into bits that enhance their ecological well-being, and what would that even mean? This trail peters out quickly... We are blinded by a desire to find an answer, blinded again by the myth of controllability which the fungus so expertly and deftly unsettles.

We can never know what a mushroom wants - but we can reflect on how we are building relations with the mushroom, and how we represent and reproduce these relations. We can consciously reflect on our choices, our inclusions and exclusions - something that is missing often from natural science inquiry. Because so much about the relations with fungi is about protection (a violent care, focused on caring only for specific species which specific humans see as constituting 'a forest'), what is often excluded is vulnerability: but infection, blight, these can be seen as communicative acts rather than as acts of damage. How could we use vulnerability in a positive way to enhance this communicative interaction, so that we can get closer to a fungal perspective on forest relations?

From answering the question: what does it mean to see a forest from a mushroom perspective?, we move towards reflecting on how we would ask questions about forest regeneration and improvement if we included fungi. This is a fruitful approach, and one which keeps us in place, in a specificity of relations of those who make up a particular forest as a particular place, historically, now, and into the future. Because the forest realities which fungi are part of are also relational with other species, and not trees only - being in the North of course we must remember the reindeer mushroom appetites, and the consequent dis-appetites amongst their herders. Looking at who interacts with fungi and how allows us to paint a rich and multi-species picture of forest realities. This takes us out of the cutting-reality-into-pieces approach, and towards a systemic and generous perspective from which to ask questions about forest futures. It is exciting to explore what new questions we may be able to ask about forests from within this mesh of mycorrhizal relations.

What is or what should be the future of fungal knowledge?

There were several points of discussion that were addressed in the workshop which complement each other. At the same time these can be viewed as separate points of departure while thinking about the current and future fungal knowledge on the local and more general levels.

The most prominent theme that was addressed was the motivations and actual practical solutions related to the education system(s). Such systems can be mainstream school systems starting from early education up to university programs. On a wider societal level those can be continuous knowledge creation and transfer practices that are shared among small communities and are accessible to wider stakeholder groups if necessary ('unearthed' and embodied communal knowledge such as in Finland, Baltics, Eastern Europe). That leads to other topic that was discussed, a re-configuration and enriching of existing knowledge creation and circulation practices opposed to one that are still very passive, invisible, and fragmented. The key aspects that could help to facilitate the re-start of the existing knowledge practices are adaptation of more horizontal, holistic, mycorrhizal knowledge practices that are not static but rather adaptable and easy to configure. If possibly most of these practices should be low-cost, easily accessible, and translatable. Third theme, an ethical awareness and responsibility must be prioritized – regarding the communities with rare fungal knowledge, ecosystems and fungi as a multispecies actor. Finally, as these all points are considered, it is important to stay alert and not fall into the 'cosy slumber' of fascination with fungi that can lead to lots of philosophy and less action. The conceptualisation and practical interventions must be mutual and hold an equal importance in the current and future fungal knowledge.

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