



Fungal Datascape: A Sporous Commons of Mushrooms and Climate

Finn Arschavir (Scotland), Jens Evaldsson (Sweden), Rut Karin Zettergren (Sweden)

What does weather feel like underground? How would you experience it if you were fungi? What are the connections between our world and theirs? We don't often think about the connection that fungi have with our climate. Fungal systems of life, compost and decay, however, are interwoven with the emergence of weather and climate change.

The novelty of this art work does not lie in its use of virtual reality, but in its artistic and mental perspective. *Fungal Datascape: A Sporous Commons of Mushrooms and Climate* invites us to leave our anthropocentric viewpoint and enter a world normally beyond our scope of understanding. It does so by immersing the participant in a 360 degree video experience of multi-species speculation, easily moving in scale from the microscopic to the global through the lifecycle of fungal spores.

'Fungal Datascape' is part of the Goethe Institute's project 'Weather Glass or Crystal Ball? Mapping the Weather in Arts and Science.' The VR film was presented for the first time as part of an installation during COP26 in Glasgow 2021.

The work draws upon interviews with researchers in the field of mycology (the study of fungi) and related areas as well as datasets from weather stations, lab and field research. Visual landscapes were extrapolated from tables surveying the digestive chemical processes of various species across different environments and the soundtrack for the film was generated using recordings of biofeedback variations from the fungi in the forests outside Stockholm. These investigations, although different in discipline and duration, take inspiration from the networks of citizen scientists and "amateur" enthusiasts that undergird so much mycological knowledge.

The impact of fungal processes is immense, as decomposition releases carbon dioxide into the air, while returning nutrients to the soil. The amount of carbon coming out of soil is roughly 10 times larger annually than the amount of carbon coming out of human

processes on land. Fungi can also create specific weather conditions. They release spores that make it rain. What future worlds and weathers do they make around us, through us, beyond us?

The artists, Finn Arschavir, Jens Evaldsson and Rut Karin Zettergren, have used 360° video as a tool to delve into the world of fungi and their reaction to climate change and the climate's reaction to fungi. This immersive art installation and 360° video seeks out the connections between the macro and the micro or what goes on beyond our heads and beneath our feet.

Both weather, climate change and fungi exist on scales that are much larger than ourselves, and much smaller, making it impossible for us to fully comprehend them. "We can only access certain aspects of them at a time," says Finn Arschavir.

Since humans are unable to directly grasp phenomena on a global or microscopic scale, it doesn't impact our behavior. We need new ways to experience and visualize these phenomena. The artwork 'Fungal Datascape: A Sporous Commons of Mushrooms and Climate' lets you listen to the mycelium choir, and navigate their world, which is also our world. Only invisible, up until now.

Mycelium are the fungal networks in the ground, structured much like our brains or like the internet. They are the roots, stems and branches, whereas mushrooms are like fruits or berries on a tree. The mushroom is a window into that invisible, subterranean landscape of mycelium networks beneath our feet. The interaction between micro and macro is complex and uncertain.

Fungi, mycelium and mushrooms, form a self-learning and network-based organism that can share and store knowledge, at least in the sense that they react to their environments and develop strategies to solve 'problems'. They vaccinate themselves against pathogens in the ecosystem. They gave us penicillin. Could they help us find ways to tackle climate change?

Text by Jan Ryden

Finn Arschavir (Scotland)
Jens Evaldsson (Sweden)
Rut Karin Zettergren (Sweden)

Year: 2021
Media: 360 video
Duration: 9 minutes

Narrator: NC Grey
Data chanting: Jamal Deen, EvaH-Voice, Yuri Hoyoyon, Rob Sharp
Research consultants: Mary Catherine Aime, Daniel Henk, Håvard Kauserud, Andy Lecher.
Script consultant: Maria Sledmere
Curation: Goethe-Institute and LABLAB