

Journey to an invisible kingdom

Ylva Hillström

Fungi are everywhere and all life depends on them. Consider that for a moment. It is almost impossible to grasp, since we cannot see the countless spores that cover every square millimetre of the earth's surface. It is equally difficult for the human mind to grasp that which happens on a global scale, such as climate change. Perhaps art can help? *Fungal Datascape: A Sporous Commons of Mushrooms and Climate* is a 360 degree film by Rut Karin Zettergren, Finn Arschavir and Jens Evaldsson, which invites us to leave our anthropocentric viewpoint and experience what is normally beyond our scope of understanding.

I put on VR glasses and enter a world of vaguely dystopian computer game aesthetic. When I tilt my head and look up I see the sky and when I look down I can explore the ground. Completely immersed in this universe I move sideways and then forwards and have no clue where I will end up. High-pitched sounds and murmuring voices follow me on this private adventure. I am all alone. Words appear before my eyes. *Climate PC 3. Fungal Community Composition. (Bray-Curtis dissimilarity). Total soil moisture (%)*. The data is incomprehensible. Could it be some kind of coded instruction? I feel quite lost. All of a sudden, a landscape opens up. There are other people here. Avatars. They too wear VR glasses. The ochre-coloured soil on which they stand seems full of dry cracks. The landscape is reminiscent of Georgia O'Keeffe's magnificent paintings of the New Mexico desert. But on closer inspection they are not cracks at all, but nerves, blood vessels or networks of mycelium, the vegetative root system of fungi, covering the land. As the narrator's soothing voice lets me know that fungi can be lethal, my fellow travellers fall dead to the ground. They decompose before my eyes and fungi sprout from their remains. It is eerie to behold.

In both computer games and in ancient myths, there is often a hero who sets out to solve a problem, slay a beast and return with newfound knowledge. Just think of Dante's explorations of Hell, Purgatory and Heaven or the Arthurian knights on their quest for the holy grail. Every crisis asks us to venture into the unknown and do what we have never done before in order to survive. In the VR adventure I am now part of, it is starting to rain. A rift opens and plunges me into an underworld where mycelium and spores reign. During the eight minutes the film lasts, I get to follow cycles of life and death. I encounter a single spherical fungal spore and

accompany it on its journey out in the world and back underground to the far-reaching mycelium that grows continually. The spore shifts shape, turns into planet Earth and then goes back to being a spore or dust grain again. An oscillation between microcosm and macrocosm.

Mushrooms can generate specific weather conditions. They release spores that make it rain, which in turn create perfect conditions for new fungi to grow. A self-reinforcing system. What if we could grow weather? But geoengineering strategies are controversial and meddling with entangled systems always comes at a cost. The balance is delicate. Fungi seem to develop strategies to solve problems. They vaccinate themselves against pathogens in the ecosystem. They find ways to tackle climate change. I am in awe. But the amount of carbon coming out of the soil is roughly ten times larger than the amount of carbon coming from human processes. Surely, that can't be good? And they cause diseases. I feel increasingly uncertain.

Even though the imagery and voiceover are familiar from nature and science television programmes, this is something quite different. *Fungal datascape*s is based on scientific data and interviews with researchers. The beeping sounds were generated using recordings of biofeedback variations from the fungi in the forests outside Stockholm. But instead of telling a singular story, the artists have merged different theories, decomposed them and ultimately asked a poet to transform the words into a tale. Through many meandering iterations of the scientific texts, a too literal interpretation of them is avoided. Fungi are neither friend nor foe. They refuse the typical dichotomies of modernity. Fungi don't differentiate between good and bad. They exist and adapt. They are nature.

The relationship between art and science is a complicated one and much debated in recent years. Philosopher Jonna Bornemark refers to her 15th century colleague Nicolaus Cusanus and his thoughts on reason when she addresses this issue. *Ratio* is the rational part of reason which strives to solve every problem, while *intellectus* accommodates emotions and ambiguity. Intellectus can decide what is important whereas ratio doesn't take such things into account. If art is assigned a specific task, a problem to solve, it merely operates as an instrument within ratio. Art belongs in intellectus, where it can calibrate our internal compass so we can find out which direction to go. On my journey to the invisible mycological kingdom, the rational has been made irrational and nature has become re-enchanted.

What knowledge have I gained? It might be too soon to tell, but I do know that *Fungal Datascape*s took me on a deep dive into only one of a myriad different worlds and the lessons that can be learned from this particular one seem to be endless. Others may have equally much to teach us. This realisation leaves me with a sense of both vertigo and hope.

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