

Your Journey into Lichen Layering

This *Journey into Lichen Layering* invites you to experience through your human body the different layers which make up lichens, and to learn about the special symbiotic and co-composing qualities of lichens. The invitation is part of the collaborative project *Lichen Encounters*, for the online exhibition *How to Become a Posthuman*, following from the symposium *Fabulation for Future* at the Film University Babelsberg in 2021.



Foliose Lichen and Tree © Doerte Weig

Thank you to the lichens which have co-created and inspired this layering experience. The text is co-composed by Doerte Weig and lichens in Spain, Germany and Portugal, and infused by Natasha Myers' Plant Kriya.

Invitation to Journey into Lichen Layering

This meditative experiment invites you to explore the special symbiotic qualities of lichens through your own body. Lichens are beings co-composed of members of three different kingdoms: of fungi, algae and bacteria. Experiments like this one can shift and augment our sensorial awareness and capacities for tensional responsiveness. Human imagination stimulates not just our minds, but all our bodily systems and tissues, our muscles, fascias, or organs. By imagining otherwise with lichens, and telling different stories about symbiotic communities, we can open up radically sensitive novel worlds.

Let's start by observing our human bodies. If possible, lie down, and close your eyes. Allow your awareness to travel through your entire body. Start from your feet, and move to your ankles, lower legs, knees, upper legs and into your pelvis. Allow your attention to travel from your hips through the front and the back of your body, into your belly, your spinal column, your chest, and into your lungs. Exhale, breathe out your carbon dioxide; inhale, breathe in fresh oxygen. Move your attention to your shoulders, neck and into your whole head. Feel the back of your head, and all the parts of your face. End by noticing the top of your head.

Shift your attention back to your feet, and to the other parts of your body touching the ground, if you are lying down. How is this connection with earth? How is the temperature, is it warm or cold? How is the intensity? How do you sense the outer layers of your skin touching the ground beneath you?

As a lichen, you live on different surfaces. Your favourite substrates are rocks, tree bark, or soils, but you also like stranger places like corroded metal. For this experiment, you as lichen live on a rock.

Imagine now a medium-sized rock. What colour is it? How is the surface texture?

Sense now how you as lichen are on this rock. Feel the texture of the rock beneath you. The layer directly connecting you with the rock is your fungal part. The fungal strands provide the structure for your lichen body. Experience how through your fungal strands, you as lichen root without having roots. Only tiny hairlike growths called hyphae or rhizines help you stay in place.



Lichen and Rock © Doerte Weig

The second layer, or your inner part, is the green algae. It provides food for you as lichen through photosynthesis. Sense how you as algae plant transform carbon into sugar to feed the symbiotic becoming, and how your fungi part uses the sugars to maintain your joint physiology, to grow, and to reproduce.

Your third lichen component are bacteria, cyanobacteria, which also provide food through photosynthesis. As cyanobacteria, your special job is to transform nitrogen gas from the atmosphere into the kind of nitrogen which your fellow lichen layers, the fungus and algae can use for growth. Sense into this ongoing biochemical bubbling.

In the scientific world, your composite lichen body is called a Thallus. Remember you're on your rock, and your thallus interweaves with the rock surface. Your algae part is very sensitive to sunlight and can dry out quickly, so your fungus part actually wraps itself around everything. It covers and interweaves all your lichen components, and prevents damage to you as lichen.

Sense deeply into this layered interweaving. It is what some people call lichenizing. It allows you to live in extremes of temperature, light, and humidity anywhere in the world. As lichen you are at home in temperate or tropical forests, in the desert or the Arctic.

Your composite lichen body takes on many forms. The three main ones are: crustose, fruticose, and foliose. Imagine that your lichen body forms a crustlike covering that is superthin and really tightly bound to the substrate, to your rock or the bark of a tree. This shape is called crustose, and many humans will recognize your colourful, rosette-forming crusts.



Crustose Lichen - © Doerte Weig



Fruticose Lichen © Doerte Weig

Or, are you attached to the substrate by only one single point at your centre? And you have a distinct top and bottom side, your shape is bumpy or leafy, and you can become really big? Then you are considered a foliose lichen. Or do you look like a small shrub, or you might even be hanging from a branch, waving in the wind like human hair? Then you must be a funky, fruticose lichen.

As this lichen, quietly sitting on your rock, you know you have somewhere between 18 to 25,000 cousins, and all of you together cover about 7% of the Earth. Your very first ancestors probably date back some 400 million years, to before the origin of land plants, when most of Earth's life was in the oceans. You are like a terrestrial cousin to coral reefs, as you share the special powers of symbiosis. With your ancestral ties lying that far back, you have learnt to take things slowly. Sense how you grow on average about 1mm per year. Millimetre by millimetre, you make the rock crumble beneath you, weathering away the top rock layers. Year by year, you and all your cousins contribute to mineral cycling on Earth. To reproduce, you send off your lichen spores with wind and rain, or you allow parts of yourself to break off, and begin new growth nearby.

Humans and other animals have long enjoyed eating you as food, and caribou and reindeer nibble away at you to survive winters near the Arctic circle. You give colour to human fabrics, and you are a source of medicines for humans across the world. Your symbiotic powers help treat skin disorders, digestive issues and many other conditions.

As you are sitting on your rock, you know that it took humans quite some time to discover how you are a symbiont, where fungus, algae, and bacteria self-support for mutual benefit. Living as a community of organisms where it would be impossible to live alone. And dealing together with the metabolic shutdown during dry spells. Sense into this shutdown, when your fungal part can no longer absorb water from the atmosphere, and has no means of keeping water within you as lichen. Rest for a moment in this metabolic inactivity.

After some time, the world changes, and once again there is enough, or maybe even abundance, of water and sunlight. Experience your deep biochemical arousal, as you become metabolically active again, an alive co-composing presence in the world.

You and all your lichen cousins are advocates of slow moving and sensing. Lichenizing for you is so much more than an ecological strategy, or a common nutritional mode. Lichenizing is this unique quality of layering, and intricately interweaving; where the different qualities of your components are distinct, each with its own task, and yet so tightly interwoven that they would not survive alone. Independence within interdependence. Co-composing with three different qualities of fungus, alga and cyanobacteria, you become at the perfect pace for all to keep enjoying.

Take a moment to bathe in this unique joy and aliveness, that comes with moving at the right pace; immerse yourself in this deep wisdom of acting only when action is called for, of becoming metabolically active or inactive in response-able relation to the co-composing qualities of the event or occasion. Drink this knowledge deeply deeply in to your cells, as you slowly begin recalling your human shape.

Bring your attention to just above your belly button. As you shift from being fungal-algal-bacterial symbiont, you once again exhale carbon dioxide and inhale oxygen. As you return to your human breathing, let your attention radiate outwards from your centre, and into your feet, hands and to the top of your head. As part of this expansion, embed the lichen layered, interwoven co-composing into each cellular movement. Activate this knowledge of moving and sensing as community, at the right pace, in your human everyday rhythms.

Gently open your eyes, and take in your surroundings. Softly touch your arms, legs and torso, and fully return to your human shape.

Thank you for going on this journey of becoming lichen for a while. Remember you can return to this experiment at any time, and invite others to share it with you.

If you would like to share anything about this journey, please write to *Lichen Encounters* or Doerte Weig (doerte.weig@gmail.com).