

# MYCELIUM MATTER(S) – FICTIONALIZING HUMAN–MUSHROOM RELATIONS

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This experimental project explores a simple yet complex question: how do we decentralize the human presence in conversations about climate-change? Drawing inspiration from Donna Haraway’s conceptualization of ‘companion species’<sup>1</sup> as a way to decentralize anthropocentric conversations about climate-change that attend to human and beyond-human entanglements, along with Anna Tsing’s contextualization of fungi as companion species that explores the ways material and discursive-semiotic entanglements of human and beyond-human relationships<sup>2</sup>, I centralize the consciousness, intelligence, and intentions of mushrooms by exploring mushroom materialities to conceive a speculative fiction that captures the vital, agentic potential of mushrooms. The speculative fiction provides a space for re-thinking our ontological and epistemological strategies and categorizations of nature–culture divide, as well as how we understand nature in relation to humans. As a literary genre, speculative climate-fiction proposes a reconsideration of *human* in relation to nature/climate, through mushrooms. It further explores how sensory, bodily and multimodal methodologies may work in interaction to produce new possibilities to explore the corporealities of human–nature relationships and how a non-anthropocentric understanding of climate-change can allow for an emerging engagement with a vast mesh of human and beyond-human agencies.

I have used speculative fiction as a space to ideate a future based on the problems and solutions grasped in the present. As such, proposing a myco-ethnography as a case for “opening up what is yet-to-come in protean entangled times’ pasts, presents, and futures”<sup>3</sup>.

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<sup>1</sup> D. Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness*, Chicago, 2003.

<sup>2</sup> A. Tsing, *Unruly Edges: Mushrooms as Companion Species*, “Environmental Humanities”, 1, 1 (2012), pp. 141–154.

<sup>3</sup> Haraway D., *SF: Science Fiction, Speculative Fabulation, String Figures, So Far*, “Ada: A Journal of Gender, New Media, and Technology”, 3 (2013), <https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/26308/>

A speculative myco-ethnography then is an ethnography that is done with and through mushrooms, not an ethnography of mushrooms, as a way of material knowing that allows a collaboration with things without anthropomorphizing them. To move forward, the project makes the following assumptions:

- 1) Mushrooms have intelligence and consciousness that is beyond the grasp of human understanding, therefore, it is often neglected.
- 2) Drawings of mushrooms, artistic and scientific, often flatten the sporish, vital nature of mushrooms, neglecting the depiction of the vital importance of fungal consciousness in sustaining life, both human and beyond human.
- 3) A focus on fungal materiality and methods that explore materiality can help generate new ways of ethnographic documentation that are more dynamic and can depict the consciousness, intelligence and intentions of mushrooms.

Mushrooms are everywhere. These mycelial masses grow where there is dampness and moisture, and they make life happen, they make and decompose soil, induce hallucinations and visions, they make and become medicine, they kill, and sustain life. They thrive by creating spaces within human and beyond human bodies, and yet they are mostly associated with decay and decomposition. They are feared, loved, despised. They take over but are often neglected. Hence, like fungi, the aim of this project is also to take over *something* that is yet to be defined and synthesized. To take over the very processes of fungal intelligence and consciousness that allow them to be sporadic and omnipresent. This project is concerned with fungi that develop into mushrooms and wishes to explore their materiality and consciousness without anthropomorphizing them. I further wish to explore the subjectivities of mushrooms as beyond human agents through performative and art-based methodologies. Mediated by forms of non-linguistic forms of sense-based awareness, the project focuses on the affective dimensions of mushrooms by treating them as co-creators, collaborators, and even co-synthesizers. To do so, the project approaches fungi as intelligent and conscious beings, and that these intelligences and consciousnesses can be explored through a focus on their materiality and interaction with other materials. But, why a turn to mushrooms?

Most classical scientific studies and representations of mushrooms portray them as individual entities, whose vitality as an agent that creates and sustains life is often neglected. Even in the social sciences, mushrooms are mostly studied, drawn, and represented through an anthropocentric lens whereby fungal intelligence is measured against and by human intelligence<sup>4</sup>. There is no doubt that mushrooms form an integral part of human cultures through folklore, fairy tales, their relation to mythology due to their neurological abilities, as well in scientific studies of biology, ecology and plant medicine/naturopathy<sup>5</sup>. Mushrooms also have had major influences on human cultures, and many studies have been conducted on the various cultural intersections mushrooms and their mycelial masses form. These studies expand from mycology to history, sociology, and science and technology studies, but often anthropomorphize mushrooms and consider them as insulated identities<sup>6</sup>, and reinforce the broad categories of nature versus culture, whereby, mushrooms as part of the category of

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[ada03-sfsci-har-2013.pdf?sequence=1&isAllowed=y](#) [access: 15.05.2023], p. 10.

<sup>4</sup> M. Sheldrake, *Entangled Life: How Fungi Make our Worlds, Change our Minds and Shape our Futures*, New York, 2020, p. 20.

<sup>5</sup> P. McCoy, *Radical Mycology: A Treatise on Seeing and Working with Fungi*, Portland, 2016; Sheldrake, *Entangled Life*...

<sup>6</sup> G.A. Fine, *Morel Tales: The Culture of Mushrooming*, Cambridge, 1998.

nature must be defined by the category of human-centric culture. Of the most interest and relevance here are scientific and social-scientific engagements with analyses and drawings of mushrooms. Even with the use of micro- and macroscopic depictions a lot of the representations of mushrooms in naturalist, scientific drawing is flattened, and the act/ivity of drawing does not represent the life-sustaining, expansive abilities of mushrooms. On the other hand, in the last few decades, mushrooms have also started receiving more artistic attention by art domains known as *Hybrid Arts*, which involve arts-based research of fungi and mushrooms, making them central agents in arts installations, experiments as well as artistic interventions on climate change<sup>7</sup>. I am interested in focusing on the post-human intersections of mushrooms and their materiality to reconfigure the politics of representations of consciousnesses that are beyond human understanding. Therefore, the project calls for a mycological awareness to problematize our human centric notions of consciousness and being. Some previous works I have drawn from in creating the methodology for the project are mostly from the domain of *hybrid/bio art* that uses “performative, multidisciplinary and research-based strategies to produce artwork through fungal material as such”<sup>8</sup>. Bio-artists Saša Spačal, Tarsh Bates and Theresa Schubert utilize fungi/mushrooms both as the subject and medium of their art installations. Saša Spačal’s *Myconnect* creates a feedback loop as a point of encounter between human participants and mushroom mycelia mediated by sonic, metabolic and electronic exchanges. “My artistic practice in some respects takes form of myco-human relationship, which is based on the entanglement of mycorrhizal extensions that transgress both fungi and humans as species, thus forming an extensive rhizomatic network so vast that it encompasses several planes of existence: material, immaterial, organic, technological, social and planetary”<sup>9</sup>. Engaging with post-human approaches, artist Saša Spačal creates the symbiotic relationships fungi forms with other life forms between humans and mushrooms. Tarsh Bates’ work *CandidaHomo Ecologies* explores the relations between humans and yeasts from historical and metabolic perspectives by mixing her blood with yeast growing on a surface of agar. This installation allows human blood to be seen as alterable, and yeasts as vital agents that alter the state of human blood. Theresa Schubert’s *Growing Geometries* uses tattoo as a process to generate images by fungi. This site-specific and performative project explores the affective growth gestures of fungi through tattoo aesthetics. Schubert draws shapes on living mushrooms with a tattoo machine and documents the growing process of the mushroom, and therefore, the change of shapes in real time.

Another artist that engages art to explore mushroom consciousness is Amber Stucke. One of her participatory sculptures involves 3000 sheets of paper dusted with spores of locally foraged mushrooms, which human participants are asked to take. The interaction of spores and paper is one way of depicting the sporadic and symbiotic nature of the mushroom<sup>10</sup>.

Several other artists have used multidisciplinary, hybrid forms of art to depict the growth potential as well as the problem-solving abilities of mushroom mycelia by exploring their decomposing and synthesizing properties as well as states of symbiosis. This project has taken

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<sup>7</sup> R. Rapp, *On Mycobuman Performances: Fungi in Current Artistic Research*, “Fungal Biol Biotechnol”, 6, 22 (2019), <https://doi.org/10.1186/s40694-019-0085-6> [access: 15.05.2023].

<sup>8</sup> *Ibidem*.

<sup>9</sup> *Ibidem*.

<sup>10</sup> See [http://www.amberstucke.com/symbiosis\\_paper%20with%20mushroom%20spores.html](http://www.amberstucke.com/symbiosis_paper%20with%20mushroom%20spores.html) [access: 15.05.2023].

inspiration from such arts-based research methods to explore the consciousness of mushrooms through their materiality and their ability to interact with bodily affects, intensities, and movements.

## ANALYTICAL FRAMEWORK

Two streams of inquiry within the larger field of materialism, and material focus in anthropology, have helped me conceive the conceptual frameworks to guide my exploration of fungal, specifically mushroom consciousness and intelligence, and materialize these through a method of drawing that allows us to view the transformative potential of mushrooms, and through that the growth potential of material interactions and encounters. On the one hand, the analytical framework draws from the post-humanist vein to focus on the production of human beings through relationships<sup>11</sup>, networks<sup>12</sup>, or performed intra-actions<sup>13</sup>, along with beyond human beings, whereby mushrooms can be considered vital beings with both interiorized forms of intelligence and transformative potential. In that sense, this project goes beyond anthropocentric theorizations of matter, materials, and nature at large, but also goes within the everyday transformations of material encounters by embodying mushroom consciousness. On the other hand, the framework draws from Annemarie Mol's 'praxiographic' (2012) approach, in that the methods employed here are practical enactments in the form of everyday practice of drawing through which the object (mushroom) is materialized and actualized in relationships with other materials, thus situating the mushroom ontology as multiple. Both these approaches navigate the surprises of human absences in identifying the thingness and vibrancy of materials. They point us toward an 'ontological polymorphism'<sup>14</sup> to invite a re-thinking of human absence as vital in beyond human consciousnesses to expand and become visible.

## METHODOLOGY

The methodology for this project is grounded in performative, arts-based, and embodied approaches to research, often utilized by hybrid/bio artists to engage with mushroom encounters with humans and beyond humans alike. This project only explores mushroom consciousness through an exploration of, and engagement with the material subjectivities of mushrooms. It is only right that a study about the materialities of fungi uses rhizomatic approaches to foreground the transformations that mushrooms go through during their growth processes in drawings that depict their vitality as agentic co-synthesizers. The methods used here are therefore multi-modal and mixed, that "explore seams between living organisms (real/physical) and their scientifically, [socially, and materially] mediated augmentation (virtual/digital)"<sup>15</sup>. The experimental art approaches taken up here as methods to explore such connections as anthropological research situate human absences as productive by rendering an

<sup>11</sup> Haraway, *The Companion Species Manifesto*...

<sup>12</sup> B. Latour, *Science in Action: How to Follow Scientists and Engineers through Society*, Cambridge, 1987.

<sup>13</sup> K. Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham, 2007.

<sup>14</sup> L. Faier, M. Hathaway M., *Matsutake Worlds*, New York and Oxford, 2021, p. 7.

<sup>15</sup> Cinti, 2014.

alternative way to do qualitative research that draws from *a/r/tography*, and shifts approaches of studying materiality “toward an understanding of interdisciplinarity not as a patchwork of different disciplines and methodologies but as a loss, a shift, or a rupture where in absence, new courses of action unfold”<sup>16</sup>. The experimental methods that I suggest here individually and symbiotically, in that they draw from each other, explore the transformations of mushrooms/fungi and other materials they interact with. These methods attempt to make apparent the intentions and consciousness of mushrooms by mediating interactions that transform materials. In that process, my hope is to make visible the otherwise invisible intelligence of biological processes of fungi/mushrooms, and the ways in which their morphology changes through multiple interactions with a variety of materials.

Drawing and journaling as a method is central to this research. It is the practice and instrument through which the project moves forward, and restates the politics of representation of mushroom intention, intelligence and consciousness in non-anthropomorphized forms. The drawing practice itself is framed by mushrooms’ interaction with place, the spaces in which they grow, and how their transformative potential illuminates the growth potential of other materials.

The following methods will be used to explore the materiality and transformations of mushrooms, therefore, their consciousness, by following their interactions with other materials:

1) Large part of the project involved re-drawing current renderings of mushrooms in both artistic and scientific drawings, by tracing the depictions with a hybrid material that I made by mixing foraged fall mushrooms from parks, woodlands, and grassy patches across GTA with drawing grade carbon graphite/charcoal. I call them *live drawings*, as the paper, water, and paste will become media through which the transformations can be seen in real-time, which are otherwise left invisible in flattened drawings of mushrooms. The aim of the re-drawing of mushrooms is to depict their consciousness, intelligence and intention through these transformations. These live drawings show the growth potential of mushrooms, to depict the “affective, rhythmic, and temporal dimensions [of mushroom growth]”<sup>17</sup>, even on 2D surfaces. The concomitant video presented with the paper also showcases collages with photos of mushrooms I have taken while on walks along with the re-drawings to highlight the contrast between two methods of depicting objects, photography and drawing. In this project, drawing has become a dynamic performance of consciousness of materials rather than simply capturing an image.

2) Re-enacting mushroom consciousness: another method I have employed for this project is ‘embodied drawing’<sup>18</sup>. For the span of 3 weeks, I embodied mushroom consciousness by ingesting mushroom extract (not psychedelic mushrooms), and exploring how mushrooms co-exist with my body, cells, and transform my drawing and journaling (largely documentation and field-note taking) processes. Through re-enactment of mushroom consciousness, I hope to embody their intention and intelligence in the drawings of mushrooms. The mushroom extract powder used here comprises Chaga, Reishi, Lion’s Mane, Tremella, and

<sup>16</sup> S. Springgay, R.L. Irwin, S.W. Kind, *A/r/tography as Living Inquiry through Art and Text*, “Qualitative Inquiry”, 11, 6 (2005), p. 898.

<sup>17</sup> S. Springgay, S.E. Truman S.E., *A Transmaterial Approach to Walking Methodologies: Embodiment, Affect, and a Sonic Art Performance*, “Body & Society”, 23, 4 (2017), <https://doi.org/10.1177/1357034X17732626> [access: 15.05.2023], p. 2).

<sup>18</sup> A. Stucke, *Embodying Symbiosis: A Philosophy of Mind in Drawing*, Berkeley, 2011.



Cordyceps mushrooms, from The Gut Lab. The exploration of embodied mushroom consciousness has been documented as drawings and journal entries which have been presented in the next section as a speculative myco-ethnography/fiction.

These drawings and journal entries further open the conversation of using arts-based, visual methodologies for successful collaborative ethnographic writing about materiality and objects. Through the drawing and journaling practice, materiality emerges as a complex assemblage of affects, intensities, and experience, with and through mushrooms. My body becomes a space for temporal-spatial interactions with mushrooms, and the everydayness of the practice of ingesting mushroom extract and lending my body to mushrooms. As such, myco-ethnography, an ethnography done with and through mushrooms, becomes both an analytical and methodological intervention in the field of material anthropology and how we do ethnographies of materials. Myco-ethnography as an intervention, as Christian Vium argues, “afford[s] a dialogical space that invites [mushroom materiality and intention] to perform and narrate its experiences, [through my body], thus making sense of, and fixating, an otherwise fluid context”<sup>19</sup>. It emerges from the space between the relational situatedness of materials and humans. Epistemologically then, this project is an attempt at elaborating how a speculative myco-ethnography is not only a form of ethnographic documentation, but also provides insights into the relationships between humans, nature, and things/materials from an anthropological point of view.

In what follows, I first present a myco-ethnography curated through some of the journal entries done as part of the process of collaborating with mushrooms in order to decentralize the human when thinking of climate change. Then, using the myco-ethnography as a starting point, I present a speculative fiction, that uses parts of the journal entries to ideate an onto-epistemic unbecoming of human that challenges our anthropocentric notions of climate.

## THE PROCESS

Each day, for a span of 3 weeks, I ingested 1.5–3.4 grams of mushroom extract, and reflected upon, paid attention to, and attuned with the presence of mushrooms in my body. The entries that follow were created as part of that reflection-attunement process and they reveal, not only the embodiment, but also an emplacement suggesting a “sensuous interrelationship of body–mind–environment”<sup>20</sup>. Here, I extend Howes’ invocation of emplacement to also include the experience of realization/actualization of the materiality and sensoriality of the Husserlian lived body through the presence of a material in collaboration – here, the mushroom.

The material presence of the mushrooms in my body is quite heavily felt. It fills my body with palpitations, heavy sounds of a presence of something in my blood, it is experienced as an emanation expressive of an anxiety or a panic attack. Such a focus on the materiality of mushroom interaction with my body, creates a sense of highly individualized sense of being with and presencing with the mushrooms. In one instance, through an experience

<sup>19</sup> C. Vium, *Fixating a Fluid Field: Photography as Anthropology in Migration Research*, in: *Methodologies of Mobility Ethnography and Experiment*, eds. A. Elliot, R. Norum, N.B. Salazar, New York and Oxford, 2017, p. 172.

<sup>20</sup> B. Howes, *Empire of the Senses: The Sensual Culture Reader*, New York, 2005, p. 74.

of musical sound after ingesting the mushroom extract, the material presence of sound was felt through the material presence of the mushroom. The earthy texture of the mushrooms became sensing pillars for the smooth, sitar-like<sup>21</sup> tones. In another instance, the overpowering, almost claustrophobic presence of chronic migraine pain is met with a calming silence through the nuanced yet simple smell of the mushroom extract. These moments are used as starting points through which a fictional interaction with mushrooms to create an unbecoming is plotted.

Although the myco-ethnography does not directly tackle climate change, it offers up the experiences that can be speculated towards a fiction that attends to human and beyond-human relationships. The collaborative state of experience of the myco-human becomes the protagonist in the speculative fiction. Such specificity in the experience of materiality as assemblage can only be tapped into, if ethnographically, we are open to collaborations that attune us to the subtle, sensual qualities of material objects, rather than, fetishize the material form. The following is an example of a myco-ethnography that is written in collaboration with mushrooms as companion species and collaborators in knowledge production and research-creation that emphasizes what my body does and experiences with mushroom as a material being.

## A MYCO-ETHNOGRAPHY

### **Entry 1: Lending My Body**

As this is one of the first few days of the start of the practice, the feltness of the presence of mushrooms, their smell, their texture, their intention to overtake, to synthesize, to expand is heavy. The embodiedness of mushrooms feels viscerally overpowering. There is a temporal dissonance between my sense of being a lived body and its temporality, as well as the temporal awareness-of-having a body. I cannot express, but I can envision a sense of me that has fully expanded with mushroom intentions. What will the temporal dissonance reveal, if anything? What will the temporality of everydayness reveal, if anything? What does it mean to arrive at knowledge through experience?

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<sup>21</sup> Sitar – a string instrument used in Indian classical music.



A myco-human relationship that expands to a myco-human collaborative knowing and ontological polymorphism.



**Entry 2: Myco-Human Growth**

My body feels grown into. It feels like it has been taken over by something, by the mushrooms, by the taste, the smell, the textures of mushrooms. By the knotted entanglements of its growth somewhere in British Columbia, and its cultivation in a mushroom farm on Danforth, in Toronto. By desire the mushroom has to emplace, displace, takeover. In that action of taking over, the mushroom also teaches – to unlearn my notions of its materiality, of its relationship with humans, to relearn how I relate to the experience of my lived body, and the temporal dissonance between my lived and corporeal body through the experience of chronic migraines. Through a multidimensional immersion in mushroom intention, my body learns to intra-actively relate to material, non-human beings like the mushroom itself. I, as a human being, am becoming mycorrhizal network, I am becoming the environment that supports growth, synthesis, desynthesis, and resynthesis. I am no longer human alone, I am mycohuman through a material plane.

**Entry 3: Mutations**

The lines and arrangements are reflections of the entangled, knotted nature of mushrooms, of their almost colonial ability to grow in places least expected, to take over, and turn something around. The patches of the mushroom mixture created with mushrooms, paint, and water instigate their sporish materiality that for me, through the everyday practice of lending my body to mushroom intention, has expanded knowledge and experience of self. The precise imprecision of the lines intersecting and cutting through the presence of mushroom spores on paper portrays the incomplete gestures that muddy the taxonomies of experience, knowledge, and materiality. The gestures that resist teleological completion, but move sporadically through the paper, represent the possibility of envisioning the potential of mushroom's materiality led mutations that expand experience and knowledge of the dialectical relationship between humans and things in anthropological contexts.



## MYCO-HUMAN UNBECOMINGS – A SPECULATIVE FICTION

### Scene I

The year is 2028. It is 8 AM on June 8th. A very very hot Friday morning in Toronto. Hotter than it has been in the last 30 years. It is the hottest day of the year so far. It is unusual for Toronto to be so hot in June. It is not yet summer. Summer officially begins on June 22nd, after the summer solstice. Days get hotter after, but never have they reached 45 degrees. It rained a few days ago. Temperatures dipped to 12 degrees. The leaves that were growing back on trees after a long, frosty winter have died again. The heat is unbearable. On this record high temperature day, I wake up with intense, migraine related nausea. Migraine related nausea is not unusual. I am diagnosed with chronic migraines, and they often get triggered by light, sound, or change in temperature. The record high temperature of June 8th, 2028 is on the news, on the radio, on social media. Everyone is talking about it. Along with my nausea, I feel a sense of deep anxiety. I cannot get out of bed. I request a remote workday, working from home. I mutter to myself, “we are doomed, we are all going to die.” I manage to slowly get up. I am scared, I am worried. “What have we done? How have we come to this point?”

I tear up. I move to the kitchen and take my mushroom extract. I take it every day. It has helped with my migraines. A notification pops up – “The End of World is Near – Rats, Robins, and *Rondeletia* (Bedstraw Plant) in the Rubiaceae Family near Extinction.” Hurriedly, with shaky fingers, teary eyes, and heavy breaths, I scroll through the article. I am anxious, I am worried, I want to scream, I want to cry. The throbbing pain from the migraine, the overpowering anxiety of the day, and the uncertainty of the future make me convulse. I fight for air. I see my black oyster mushrooms wilt. I rush to pour some cold water into the clay pot. As I am pouring the water, I start seeing an aura. I sense a dizzying fading away of consciousness. I faint.

### Scene II

My consciousness is slipping away. I feel a centrifugal force drowning me into a very muddy hole. In my peri-conscious state, I hear some instructions in a very earthy, deep, tone.

“Keep walking upward. You will soon find a woodland that is covered by the shade and coolness of tall trees. You will smell the earth. Don't stop until you find that place.”

I keep walking, for what seemed a very long time. Finally, I arrive at the woodlot. It feels a lot cooler, definitely not 45 degrees. I am greeted by a rat and a robin. They hand me a bunch of Bedstraw flowers. All of this feels oddly familiar. In my peri-conscious state, I am now oscillating between what was the real world in which I fainted and this speculative, new world, in which I am alive, relieved, happy even.

I take a very deep breath. Slowly, breathing in the cool, fresh, air.

“Hello, human!” I hear something mumble. “Hello, who are you?,” I skeptically ask!

“I am a mushroom, I was inside your body a few minutes ago. I am now taking over.”

“Why are you taking over my body,” I ask.

“To show you what a myco-human body can do. A collaboratively modified body, that has the power of enmeshed human and beyond-human entanglements.”

“What can it do?”

“Let me show you,” says the mushroom.

“Follow my lead, do as I say, and you will learn through unbecoming!”

*I invite you to close your eyes and take a moment to acknowledge all or some of the knots, networks, connections, you have come across so far. Now, as you start imagining yourself moving towards something, feel the knottedness of the networks, the connections. What do they hold? What do they reveal?*

“Now, take a deep breath, hold it in for 10 seconds, and then exhale. At the end of the exhale, imagine yourself on the 8th day of June. Imagine yourself in the middle of a huge woodlot, experiencing the crisp fall breeze. Imagine yourself breathing the freshness of June 8th, as you begin to walk around in the woodlot. You can decide where the woodlot is situated, it can be in the GTA or elsewhere,” the mushroom said.

*As you are walking, feel the muddiness of the ground, the grassiness, twiginess, and the rocky-ness of the grass, twigs, and the stones lying on the ground. Feel the leafiness as you walk on the fallen leaves. Feel the sound of the rustling leaves, and the smell of the woodlot.*

As you are walking around, admiring the thingness of things around you, you stumble upon a mushroom, it is one of those you have in your extract each day. You experience an immediate sense of joy and intrigue, or fear. Once past the joy or fear. You bend down. You feel the mushroom, you inhale the rich, complex smell drifting upward from the mushroom. You try to pick up the mushroom, you wiggle it, pull it-gently, and, ah, finally, you pull it out! You have now picked up the mushroom. You see a network of rhizomatic roots. Sharp smelling, complex roots.

*The roots remind you of the knots, networks, connections. You think, ah! The knottedness you were imagining, has a smell, has a sense of touch to it, it feels knotty, it looks knotty, it smells knotty. Suddenly, you experience sound, a sound that is unknown, yet familiar. You are drowning into the sound as you move to pick up a mushroom. You lose yourself to the familiarity and the newness of the sound. You have never heard this before, but you have experienced it.*

“What is this sound I am experiencing?,” you ask the mushroom. “Why is it so familiar?”

“Oh!” “That’s the sound of unbecoming. You are letting go of what you know, who you are, where you are from.” “You are making space for a new becoming.” “You are making space for multispecies entanglement through companionship.”

“That is the sound of unbecoming, follow it, and pick up some mushrooms!,” the mushroom responded.

As you follow the sound, you stumble across a black oyster mushroom. The same as you were trying to water. You hold the mushroom and look for more. You start exploring the mushroom itself, does it have gills, does it have a smooth, velvety texture, or does it have stra-



tified rock like texture? You continue to feel the mushroom in front of you, in your hands, as you walk around and look for more!

You start thinking about the materiality of the mushroom, through its knots, through its gills, through its texture. You think of the mobility of the mushroom, its sporadic nature, how connected, mobile, and vital it is. You think about the worlds it builds. You grasp, or try to, how important the roots of the mushroom are, the mycelial networks, for preventing or reversing some effects of climate change. You recognize that something about the materiality and the action potential of the mushroom that all of a sudden makes you, forces you, encourages you to pay attention to it, to look at it more carefully. This forcible attention the mushroom demands, now makes you think of the co-entanglements of the mushroom with the world, with human worlds, with its social interactions. The “gaze” of attention has shifted from thinking about the woodlot, the day, your world, to the materiality of the mushroom. The mushroom has that power. It has that ability, to shift the gaze, like all things do. The mushroom allows us, or forces us to think about things as things, not as connected objects to human societal organizing, or human experience.

The mushroom lets you unbecome. It decentralizes your sense of self as human-only. You now sense yourself as an entanglement with companion species.”

“What can the entanglements, considering beyond-human as companion species, as kin, do to mitigate climate change, the extinction of other species, the unusual temperatures?” – I ask.

“Importance of mushrooms, of lending the body, to create space, to stop encroaching. These entanglements show you the importance of changing the onto-epistemological considerations of the anthropocene. These entanglements teach you how to adapt a polymorphic ontology, whereby, the contributions of multispecies ideation in the continuance of the function of earth is given importance as it is. As you decentralize the human, as you let go of your humanness, you unbecome. You can now become myco-human. A human that understands and respects the existence and contributions of all species simultaneously. A myco-human’s action potential is anarchic, it is sporadic, but it is not greedy.”

“A myco-human lets go of capitalist greed to create and maintain symbiotic relationships with multi-species.”

“What do I do with such action-potential?” I ask with great surprise, as I come to terms with letting go and unbecoming. As I make space for the myco-human to become.

### Scene III

The mushroom excitedly said, “your action potential is a super power.”

“You can now grow mushrooms on your hands and anything you touch.” “The vast fungal, mycelial networks of the fruiting body will help decompose carbon dioxide and some forms of monoxide carbon. These networks also have the ability to increase the nitrogen content in soil, making it more viable for growth of legumes, pulses, and other soil hugging plants.”



“Aah!” “A superpower!” “What if mushrooms takeover like humans are doing?” “We will have the same problem,” I suggested, although skeptically.

“Mushrooms takeover, but they don’t exploit!” “That is an ontological difference in mycelial lives and human lives.” “Mycelial colonies takeover to generate, decompose, and return back to the earth, as opposed to human colonization, that perforated exploitative measures in the name of science, profits, and technological advancements that benefit the few and exploit the majority,” the mushroom said with great pride.

“Your action potential will allow you to grow mushrooms and mycelial networks wherever you want. It will allow you to create more myco-humans.” “It will allow you to lead the unbecoming towards a new becoming.”

“Does that mean I can reverse a portion of the effects of climate change, clear out oil spills, manage the food shortages, with an endless supply of mushrooms?,” I asked.

“Yes! You can do all of that, if only, you diligently consider mushroom materiality, let it grasp you.” “Now go, follow the sound again to activate your action potential and get to work!,” the mushroom said sternly.

As I followed the sound back to consciousness, I heard a faint sound saying, “to become a multispecies entanglement with companion species, you have to unbecome. Keep unbecoming, myco-human.”

## CONCLUSION

Through this process of lending my body to mushrooms, to their intentions, and their materiality, a few insights have come to light. The myco-ethnographic process in its experience revealed connections between everydayness of a practice, of pain, of illness, as well of delving into an object as subject of analysis. My body became a holding space that mutated, changed, allowed the taking over of, to surpass notions of social identity as ethnographer-researcher, to let the object lead into research-creation with me. As such, the journal entries presented here focus our attention to two insights that have been prominent throughout the myco-ethnographic practice.

1) The practice, and its everydayness, and the collaborative vulnerability with mushrooms has provided me a hermeneutic awareness of both temporality and affects in regard to climate change. The journal entries presented here have explored the simultaneous living with mushrooms for 3 weeks. Such an exploration was not my intention when the project began. The practice, in its everydayness and companionship, took my analysis and exploration to such a direction by allowing me to draw parallels between the relational, dialectic dependence of humans on things. The practice disrupts both the temporal dimensions and the everydayness of things as they are experienced, and simultaneously extends it.

2. The other insight that comes about is the relationality between the material, the corporeal, and the semiotic experience of climate change and the situatedness of the human within these ever-changing processes. Echoing Tsing and Haraway, the speculative fiction

argues that we need to pay attention to attune with not only what climate change *is*, but what climate change *does*. Climate change changes relations, not only human to human, but beyond human relations. It subverts access to resources. Within that paradigmatic shift, the mushroom as a point of creating multispecies entanglements is both an analytical toolkit as well as a fictional character that decanters normative power relations in ecological contexts. The speculative fiction has hoped to expose the anthropocentric narratives about climate change that center human lifeforms over others. It further allows to decentralize the human in climate discourses by speculating a takeover-mushrooms taking over the human body and consciousness. Such desynthesis and resynthesis is key to understanding and devising decolonial approaches to mitigating climate change.

When thinking about lending my body to the mushroom for an entangled, material collaboration, the notion of interpretive situatedness through a dialectic relationship between the dependence of humans and things comes to play. It is in these knotted spaces of situatedness that the myco-ethnography emerges as a knowing and becoming through the mushroom's intentions and presence. In the entries presented above, the relationship between the mushrooms and myself (things and humans), and the dependence between the corporeal and lived body to actualize experience create an in-between space of interpretiveness. It is in this space of interpretation that the material intentions of the mushrooms make themselves apparent and felt, and the materiality of the mushroom can be tapped into ethnographically.

This project has tried to interpret mushroom intelligence through a material framework by exploring how mushrooms intend to transform, synthesize, materialize, and sustain life through their interactions with other materials. In embodying the *liveness* of the mushrooms, this project also aims to make mushroom consciousness and their intentions visible through the medium of drawing. Interiority as a framework to articulate inner expressions, thoughts, intentions, that resist articulation<sup>22</sup> is extended here through the re-drawing as praxis beyond representational art, while extending the idea of inner expressions, thoughts, intelligence to beyond human beings. The focus on the materiality of mushroom interiority conceives the mushroom drawings as performative, engaged, and multi-modal, experimental art.

This project further hoped to re-enact mycological awareness through anthropological concept work that foregrounds the mushrooms' refusal to anthropocentric conceptual capture and illuminate the ways in which mushroom consciousness/intentions synthesizes and decomposes, sustains and kills simultaneously, breaking the binaries in anthropological thinking through their elusive, yet collaborative nature and becoming/being through relations. There are several more directions that the project can explore by way of a material approach to understanding mushroom intention. Through it all, myco-ethnography as a collaborative approach emerges and allows to approach questions of materiality, and why things matter.

## NOTES

- 1) I suggest watching the video first and then simultaneously listening and reading the paper.
- 2) There are a few font and colour liberties in the fiction to highlight the sporadic nature of mushroom growth.

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<sup>22</sup> A. Irving, *Art of Life and Death*, Hau Books, 2017.

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**SUMMARY:**

Through this paper, the author tries to explore a simple yet complex question: how do we decentralize the human presence in conversations about climate-change? To do so, this speculative climate fiction is presented through the non-human narrative perspective of mycelium (fungi). The speculative fiction provides a space for re-thinking our ontological and epistemological strategies and categorizations of nature/culture division, as well as how we understand nature in relation to human. The speculative climate-fiction proposes a reconsideration of human in relation to nature/climate, through fungi. It further explores how sensory, bodily, and multimodal methodologies may work in interaction to produce new possibilities to explore the corporealities of human-nature relationships and how a non-anthropocentric understanding of climate-change can allow for an emerging engagement with a vast mesh of human and beyond-human agencies. Drawing inspiration from Sylvia Plath, Ursula K. Le Guin, Margaret Atwood, and using Erin Manning's understanding of affect as having a feltness that we often experience as a becoming-with, in this case, a becoming-with nature, the speculative-fiction (SF) is written as a dialogue between fungi and human. The SF also uses artwork created with mushrooms, fungal roots, as well as mushroom extracts, to exaggerate the presence of beyond-human beings in a new onto-epistemic strategy that reconsiders climate change and human–nature relationships.

**KEYWORDS:**

Mushroom, Climate Change