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Mushroom Shed

Mushroom Shed, is a ten year community based durational project space for cultivating edible and medicinal mushrooms. *Mushroom Shed* is an experimental laboratory for educational workshops, a place to meet up for discussions about nutrition and self care, and a lab where visitors can explore art and the environment.

To me as a researcher, *Mushroom Shed* is a collaborative community artwork. In this essay, I will examine the mushroom life cycle as a metaphorical model for this type of work. Conditions, substrate, spores, hyphae, mycelium, and fruit body will be the component parts for understanding this practical framework.

Conditions

The right temperature, nutrient concentration, and moisture can determine whether or not a mushroom is going to thrive. Environmental factors are everything. Understanding these conditions are vital for foragers and mushroom cultivators. The same could be said for the building of a collaborative community project. In order for a community project to flourish, the conditions have to be felt out and researched. It is essential to identify civic needs, understand the specific social climate and governmental structure.

For this project, it is important to understand the town of New Paltz. In general, New Paltz is liberal and committed to sustainability. New Paltz is a college town with a dense population of students. New Paltz has a strong commitment to its deep history and a small town image with a strong altruistic grass-roots identity. It is surrounded by local farms and orchards, community gardens, farm to table restaurants, and community supported agriculture programs. New Paltz is a bucolic tourist destination that borders the Mohonk Nature Preserve. The town government is committed to green initiatives.

Within this framework, and these specific conditions, it was no surprise to find local businesses who were concerned about the food waste they were producing. I made contact with Village Grind coffee house and Bacchus Brewery and began collecting their spent coffee grounds and brewery grains in an effort to experiment with repurposing them. This was the the initial impetus for this project. New Paltz and its progressive climate was the incubator for this emerging collaborative effort that would focus on sustainability, social cooperation, food, self care, and community engagement.

Substrate

The substrate is the grow medium for the mushroom and each type of mushroom requires a very specific cocktail of nutrients. For example, Morel mushrooms prefer to grow near old dying apple orchards. Oysters mushrooms, on the other hand, can grow on a wide variety of

substrates such as grain or coffee. For a collaborative, community project, public spaces like libraries, schools, churches, community gardens, historical societies, and local businesses might represent the ideal substrate.

The substrate for the *Mushroom Shed* project was the community garden at The Reformed Church and its education center. The community garden supports the food pantry for a social service organization called Family of New Paltz. The community garden lies within historical district of Huguenot Street and is adjacent to Deyo Hall (a community gathering center) and the Walkkill Valley Rail Trail. All of these sustaining components marked the community garden as the ideal location to cultivate a community project.

It is important to note that specific substrates influence the shape of the emerging organism. Due to Huguenot Street's designation as a historical district, very specific zoning guidelines had to be followed. A proposal was developed for the Historic Preservation Committee that followed the aesthetic and functional form of a 200 year old community smokehouse. A second plan had to be developed to meet the very modern codes enforced by the building inspector.

Spore

Mushroom spores are very tiny reproductive cells that allow a fungi to replicate and grow. A mushroom disperses spores in large quantities because successful germination by a spore only happens in very unique circumstances defined by the *conditions* and *substrate*. For this community project the spores are the individuals (the individual collaborators) who recognize the potential in the project and help to carry it to fruition. Each of these individuals bring their own potential connections and specializations.

The *Mushroom Shed* project evolved, morphed, and changed due to the interest of specific individuals with distinct skills, interests, and capacity for connection. For this project to establish itself, a staggering number of contributors had to manifest around the substrate and the core concept. Each of the spores carried a particular facility for making this project possible:

- Paul, the owner of New Paltz Bagels, who supplied leftover bagels for experimenting with mushroom cultivation
- Peter Pitzele, important meetings in the very beginning stages of the project that examined the mycelial web and the possibilities of creating an educational space focused on sustainability, transformation, relaxation, ecology, art, and materials
- Erich Spies, the owner of the Village Grind coffee shop, was significant in the beginning stages of the project with regular meetings over the span of a year which evolved into conversations about expanding this model into community. His cafe continues to provide spent coffee grounds for mushroom cultivation
- Ivan Echenique, the director of the local food bank Family of New Paltz who helped with connecting deeper into community by referring the project to The Reformed Church

- Cheryl Alloway and Craig Shankles, caretakers of The Reformed Church of New Paltz community garden, engaged in over a year of weekly meetings at the project site and were detrimental in the process of getting approval for the shed in the community garden
- Liselle LaFrance, Kara Gaffken, Josephine Bloodgood, and Johanna Thompson, members of Huguenot Historical Society, the group of individuals who maintain the historical integrity of the area *Mushroom Shed* is located and contributed to the forward movement of approval for the shed
- Tom Olsen and Valerie McAlister, board members of Historic Preservation Committee They allowed for the approval of the project for a 10 year contract with option to renew.
- Michael Beck, Eileen and Stuart Glenn, Tom Olsen, and Craig Shankles, the committee of individuals who run the New Paltz Community Foundation, our fiscal sponsor, who funded the construction of the shed and allows the project to function as a non-profit without our own individual status.
- John Michelotti, president of Mid-Hudson Mycological Association and business owner of Catskill Fungi. An important individual in sharing cultivation knowledge, designing the indoor grow space, planning of the festival and creating formal partnerships between Mushroom Shed and the Mycological Association and Catskill Fungi programming
- Erwin Karl, board member of Mid-Hudson Mycological Association and head of the Mushroom Shed building committee. He has been instrumental in the construction, has donated many of the materials for the shed, and has provided crucial fungal knowledge
- Veronica Salvas, community member that has been a core member in meetings and brainstorming sessions for the festival and structure of the collaborative moving forward
- Hon Ho, a biologist professor at The State University of New York in New Paltz with a focus in mycology, who agreed to take me on as an apprentice. Over the course of one year, we cloned slices of oyster and reishi mushrooms to form large blocks of reishi and oyster spawn for the shed
- William Van Roden, the graphic designer who donated his time to develop a brilliant branding campaign around the *Mushroom Shed* project
- Judy Joffe, a curious community member interested in mushrooms and community engagement. Judy has been heavily involved with planning of the festival, building the shed, and has been a key collaborator in the project
- Luke Sarrantonio, a committed student of mycology and sharing mushroom education with the community, is involved with construction of the shed, design of the indoor grow space, and leads inoculation workshops for the shed's production of mushrooms
- Alisa Javits, owner of Sugar Shack Farm, which has its own mushroom lab, that will be shared research space for the *Mushroom Shed*. She has been heavily involved with construction of the shed and design of the indoor grow space.
- Sarah Workneh and Josh Towers, members of The People's Cauldron collective. These individuals were instrumental in the planning of the *Mushroom Shed* festival. They created a DIY mushroom scrub space, brewed mushroom coffee, mushroom tinctures, mushroom chocolates, mushroom teas, and creams.
- Conor Landenberger, developed the architectural drawings for the shed which got us approval for the building permit. He generated a materials list which helped us

communicate exactly what we needed to donors during the funding phase. He was instrumental in the getting the shed building started from the ground up.

- Kyle Netzeband, head brewer at Bacchus Brewery, has been supplying spent beer grains regularly for mushroom cultivation. Kyle brewed a mushroom beer for the festival. He continues to supply *Mushroom Shed* with grains for cultivation.
- Mara Lileas, owner of New Paltz Rock Yoga, donated funding for the building of the shed, and created mushroom yoga poses to share at the festival with visitors
- Jeremiah Burke, community member who has been instrumental in the construction of the shed and has donated the siding for the shed
- Billie Golan, head of the sustainable agriculture club at SUNY New Paltz, who has contributed to brainstorming sessions and forming partnerships between the club and shed

Each spore is the fingerprint for the type of mushroom from which it came, a useful fact for wild mushroom hunters who want to identify a species for safe consumption. This is important to note in recognizing the importance of each individual whose contribution creates their own mark. In a collaborative project that evolves with the community, the individuals taking part form the project and contribute to its growth and transformation. Each individual is important in the process of forming a community project and given the right conditions, can allow for the project to thrive in unexpected ways.

Hyphae

When conditions are right, the spore begins to grow thread-like filaments called hyphae. The hyphae absorb nutrients from the environment and transports them to other parts of the fungal body. The hyphae act as the connecting strands to other spores and increase capacity for nutrient exchange. Within a collaborative project, the hyphae are the partnerships that develop, the bonds that form between individuals.

The individual spores listed above began to form hyphae as our communication and bonds began to strengthen during our regularly scheduled group meetings, through texts, phone calls, and emails. As communication becomes more frequent, the project becomes more stable and the odds for a more successful outcome are improved. The spore extenders (the hyphae) begin to connect with one another and strengthen to help the organism (*Mushroom Shed*) grow.

One particularly potent example of this within the *Mushroom Shed* project was the connection I formed with the mycologist Hon Ho. I reached out to Hon as my interest in mycology was taking root. More specifically, I wanted to understand the lifecycle of the mushroom. Initially, when I met with Hon, he seemed aloof and cold, only slightly interested in what I was doing. Regardless he remained open to helping me. Initially, it was hard to get a meeting with him, and

although he had given me access to the school's lab, I had to figure a lot of things out on my own. I spent six months attempting to clone mushrooms (taking a sliver of a mushroom and replicating its characteristics) and training the strains to grow on spent beer grains and coffee grounds, but I kept running into problems with contamination. All of the glass jars in the incubator were filled with green and black molds. I think eventually Hon recognized my commitment and suggested that we start over. A bond had formed and we started to meet every week, sometimes two to three times. Our meetings together extended for longer periods. He became more deeply invested, more thorough in his explanation of the process, and expressed growing enthusiasm for our research. In essence, as our metaphorical hyphae grew stronger, our experiments in producing healthy reishi and oyster mushroom spawn also improved.

Public presentations became a particularly useful way to encourage and strengthen these developing community hyphae. One of the most effective came when I was invited by John and Erwin to make a presentation to the Mid-Hudson Mycological Association for their Monthly Mushroom Speaker Series. In past presentations, the narrative of the project via images and spoken word, cast a wide net that allowed hyphae to form and strengthen rapidly in one room.

For this particular presentation at the Mid-Hudson Mycological Association, I developed a format with John, Erwin, and Veronica that gave a general overview of the project up to the present point in time, and then broke the audience up into three brainstorming groups. The three groups were building committee, indoor grow space committee, and festival planning committee. The breaking out into these groups was when the heart of the partnerships started to form the project. Individuals began to immerse themselves in these three specific aspects of the project and rapidly formed their own network of hyphae to nurture each component of the larger organism. In this particular moment, the project became less about the intentions of the project initiator and into a process of expanding into the necessary need for one another to create a self-sustaining network.

Mycelium

Mycelium is a network of hyphae that extend over an area where a fungus can find nutrients. These networks can be huge and define some of the largest living organisms on the planet. The mycelium constantly extends itself outwards following conditions if they are favorable and retracting from areas where nutrients have been depleted. The materials which help to sustain the individual fungus, can also be shared and communicated with trees and plants in mutually beneficial ways. This symbiotic relationship is the Earth's natural internet.

The mycelium is the transcendent expression of a community network. Individuals and their systems of connection coalesce to strengthen a specific project, but also the community at large. The strength and longevity of a community project is entirely dependent on the vitality of the connection between the project stakeholders. For a project to thrive, the interconnection has to be strong and the organism can't rely too heavily on one contributor or resource. The

continuing and expanding conversations, meetings, texts, and phone calls happening between individuals, become the mycelium underground, the connective tissue.

In reading, *The Mushroom at the End of the World*, written by Anna Lowenhaupt Tsing, I discovered that this mycelial metaphor for healthy, collaborative community projects could cycle back again to the literal. Tsing writes about enabling entanglements. She states that if we open ourselves to fungal attractions, mushrooms can catapult us into curiosity, the first requirement of collaborative survival in precarious times. Her research reminds us of the lively activities of all beings, human and non-human. She says, “*interspecies entanglements that once seemed the stuff of fables are now materials for serious discussion among biologists and ecologists, who show how life requires the interplay of many kinds of beings. Humans cannot survive by stomping on all others.*”

I think this introduces a holistic component of respect and necessary harmony that is vital for effective collaboration. This is deep entanglement, recognizing an important collaborative model in mushrooms and the importance of actually collaborating with mushrooms.

Throughout my research I continued to revert back to the text, *What We Made*, written by Tom Finkelpearl. In particular, his interview with Grant Kester, an art critic well known for his writing on dialogical art. Kester describes dialogical art, as an approach to art making that isn't focused on a physical object and instead embraces a socially engaged, process-based approach that unfolds over time.

In the interview, Kester refers to dialogical art as “*typically involving extended interactions that unfold in ways that lie, quite deliberately, outside the artist's original control or intention and that evolve in concert with the particular intelligence of participants or collaborators.*”

I see *Mushroom Shed* as a form of dialogical art. The project was only able to form and evolve in tandem with those involved. I would like to suggest taking this statement a step further, to relinquish authorship of the project. Based on the principles of dialogical art, it seems important to let go.

Mushroom

A mushroom is the fruiting body of the mycelium which forms above ground. The mushroom is the spore bearing fruiting body of the fungus. A typical mushroom has a stem, cap, and gills on the cap's underside. The gills of the mushroom hold the spores, which are the dispersal system and agent of the mushrooms lifecycle. Some forms of the mushroom have more specific names to group them into types, such as boletes, puffballs, and agarics. The fruiting body is the stage during the lifecycle of a mushroom that disperses spores and starts the cycle over again.

As described throughout this essay, and in relation to community, the mushroom can only grow (or fruit) if the underlying web of connections, conditions, and substrate are right. It requires the underground network of hyphae to maintain a vibrant state of health for the larger organism (the mycelium) to thrive.

The strength of partnerships which formed the mycelial network for *Mushroom Shed*, was the foundation that allowed for the fruiting of the shed and the fruiting of the festival. The fruiting of the shed and festival were the fruit that dispersed more spores, casting a net to the larger community to foster involvement in the project. It grew our email list, helped us raise money, and developed new partnerships. The conditions wouldn't have been right for fruiting without the right conditions (warmth created between the group of individuals involved), substrate (the rich nutrients in the community), the nurturing of hyphae (communication between partnerships), to form a healthy mycelial mat (the network).

The festival became a visual example of the mycelial network. Bacchus Brewery contributed to the festival as a vendor serving a mushroom beer, Village Grind Cafe contributed a mushroom syrup additive for coffee and mini mushroom scones. Mid-Hudson Mycological Association was enthusiastically leading inoculation demos, running a mushroom identification table and answering visitors questions about fungi. Veronica, Cheryl, and other volunteers were serving up sauteed mushrooms, dips, mushroom soup donated from a local cafe Amazin Melts, and mushroom pizza donated by Village Pizza. Our *Mushroom Shed* branding campaign and *Mushroom Shed* swag allowed for hyphae to spread far and wide throughout the community.

I have come to realize that the festival was a fruiting in the life cycle of this projects mycelium. The fruiting of the grand opening festival dispersed spores that has now allowed for the cycle to take new form.

I will conclude this essay with an evaluation of the mushroom as a model for collaboration. I conclude that the model isn't perfect. It has raised many interesting questions and prompts to move forward with. However, two questions in particular are of pertinent examination.

How does the mycelial collaborative art project move beyond its primary instigator?

The *Mushroom Shed* grand opening festival was recorded via Facebook Live-stream. Watching the footage post-festival was fascinating to me as I noted that each core collaborator interviewed by the videographer referred to the *Mushroom Shed* as *my* project. In addition, leading up to the grand opening, several local newspaper articles were written and developed around the *Mushroom Shed*. One journalist had referred to the project as my "brainchild" while another cited that if I were to have my way, New Paltz would become known as the host of a yearly mushroom festival. Each article, despite the consistent effort on my part to explain the project as collaborative, was written and perceived as my project.

This undermines the mycelial community component. I am just one of the spores. In order for a project of this nature to function, surrendering the ego is required. This project was not an idea of mine that was carried out. It started as a conversation and organically grew and became *Mushroom Shed* through the particular individuals involved. The emphasis on the project initiator and not on the collaborative network in these newspaper articles and interviews, is a problematic description of the projects research and efforts. *Mushroom Shed* was never intended to be held solely by one person. The project was developed with and for the individuals involved and for the community.

What does letting go look like?

As I evaluate the health of the mycelial mat that is *Mushroom Shed* in its present state, I recognize that there are certainly problematic aspects to the functioning organism at this point in time. At this moment, I am the locus that connects each strand of hyphae to each individual spore involved in the project. This makes it difficult for the project to truly sustain itself and thrive as it moves forward. If the project were to maintain stability in its current state, it would collapse if and when I no longer reside in the surrounding areas of New Paltz. A well functioning, multi-faceted organism shouldn't absorb all of its nutrients from one source.

I further conclude with the following additional question that prompts evaluation and further investigation:

What is the difference between a collaborator and a contributor?

Cited Sources

Tsing, Anna Lowenhaupt. *The Mushroom at the End of the World: on the Possibility of Life in Capitalist Ruins*. Princeton University, 2017

Finkelpearl, Tom. *What We Made Conversations on Art and Social Cooperation*. Duke University Press, 2013