Gracie Davidson

ENGH 401

Professor Malouf

6 May 2024

Fungal Fiction: The Development of Fungi in Literature from the Nineteenth to Twenty-First Centuries

Introduction

Fungi are liminal, boundary-defying organisms in the spheres of science, culture, and literature. Their presence is noted in all kinds of writing: ancient botanical categorizations, mycological investigations, chronicles of folklore, and fictional literature. Scholars conclude that fungi, with their scientific and cultural (mis)understandings, are employed in fiction as a method of exploring the Anthropocene, posthumanism, and alternative human-nonhuman relations. However, literary fungi are not a common topic of scholarship, and even less so is a mapping of their development across time. My project regards the portrayal of fungi in literature from the nineteenth century through the twenty-first century in relation to scientific and cultural understandings of fungi and what said portrayal reveals about human relations to fungi and the environment as a whole. By crafting a literary timeline across the centuries and performing close readings of three touchstone texts—"The Fall of the House of Usher" by Edgar Allan Poe, "The Shunned House" by H.P. Lovecraft, and *Sorrowland* by Rivers Solomon—as well as relating their portrayal to (ethno)mycological understandings, I demonstrate the continuities and disparities of fungi in literature.

Through such analysis, I demonstrate several key aspects of fungal fiction. First, I argue that due to its inherent strangeness and boundary-defiance, fungal fiction is a frequent and effective method through which to explore human identities like race, class, gender, and sexuality. Dodging scientific classification and blurring typical understandings of life, fungi are

intrinsically non-normative beings; authors utilize this non-normativity to engage with non-normative human identities, depicted negatively up until the twenty-first century. Second, fungal fiction, heavily preoccupied with scientific depictions of fungi and other aspects of the environment, represents the interconnections of ecological science and literature, and in broader terms, the entanglement of the sciences and humanities. Fields that are typically perceived as opposites, the sciences and humanities work together in fungal fiction, and their collaboration offers significant potential for facing contemporary issues. Third, my analysis reveals that fungal fiction acts as a method for humans to engage with complex aspects of the environment that queer the distinction between human and nonhuman. Until the mid-twentieth century, these human-environment entanglements were expressions of fear concerned with maintaining the human as separate from or above nature. Moving into the twenty-first century, however, there was a shift toward imagining a posthuman, multispecies identity through fungal engagements. I further argue that this timeline illuminates our changing perception and interaction with the Anthropocene and that fungal fiction itself acts as its own multispecies entanglement between humans and fungi.

Establishing Key Concepts

It is necessary to provide several definitions for the terms used throughout this essay. *Mycology* is "the scientific study of fungi," and the term *fungi* can refer to a variety of organisms within the taxonomic kingdom of fungi, including "mushrooms, toadstools, mildews, molds, rusts, smuts, [and] yeasts" ("Mycology, n."; Dugan 24). *Ethnomycology* is "the traditional knowledge and customs of a people concerning fungi" or "the scientific study or description of this" ("Ethnomycology, n."). Additionally, several terms have been coined to describe cultural perceptions of fungi and the environment. Two dichotomic terms, coined by Gordon and

Valentina Wasson, are used to describe cultural attitudes towards fungi: *mycophobic* for negative, "fungus-fearing" attitudes, and *mycophilic* for positive, "fungus-loving" attitudes (Sheldrake 207). Similarly, *ecophobia* and *ecophilia* is another binary to denote feelings of either fear or love toward the environment. However, these binaries of *-phobia* and *-philia* are often not so much opposites as they are a spectrum that allows the terms to blur together.

In addition to these ecological terms, this essay employs concepts of human identities: *Man* and *Human*. Sylvia Wynter formulates *Man* as "peoples of the West," which relegates racial minorities like Black and Indigenous peoples as Others (Wynter 266). Comparatively, Zakiyyah Iman Jackson defines *Man* as "[l]iberal humanism's basic unit of analysis" that "produces an untenable dichotomy—'the human' versus 'the animal'" (Jackson 12). I contend that "animal" can expand to include other nonhuman beings in the environment. In the same vein as liberal humanism's *Man*, I use the term *Human* to refer to the Western perception of humans as inherently separate from, and often superior to, the environment. The *Human* is a social construct, one that can be destabilized by post-anthropocentrism and posthumanism—and fungi. To be non-Man or non-Human is to be non-normative.

The History of (Ethno)Mycology

Though fungi have a longstanding place in human culture, mycology is a newly established field, substantially developing in the mid-nineteenth century[1]. G. C. Ainsworth composed a timeline of mycology's history, apparently the only scholarly source to do so in English (Woods 113). According to Ainsworth, mycology is such a recent field, especially in

[1] Despite the fact that the scientific studies of mycology and ethnomycology are modern developments, several sources contend that much of the information discovered in these fields is longstanding knowledge in Indigenous communities (Woods 93, Yamin-Pasternak 214).

comparison to other sciences, because it relies heavily on the inventions of the microscope, developed in the seventeenth century and unrefined until the late nineteenth century, and pure culture techniques, developed in the nineteenth century (4). Fungi were vastly misunderstood for much of history, as scholars were misguided by their estimation of fungi as plants, the plasticity of fungi's forms, and fungi's complex sexualities (5-7). However, written references to fungi date back millennia, a number of which involve speculation on their origin and categorization among other life forms (4-5). Another emblem of mycology's recent development, much of the field's knowledge before the mid-twentieth century was composed of the work of self-motivated independent amateurs (7).

Mycology experienced its most prominent surge of knowledge in Victorian-era Europe, and its discoveries shifted perceptions of fungal life and the environment. Emily Alder and Ella Mershon provide detailed analyses of nineteenth-century mycology, which began with unclear ideas about the taxonomic classification of fungi, problematizing the boundaries between animals and plants and, on a larger scale, knowledge of what constituted life. Some of the most impactful discoveries were germ theory and the disproval of spontaneous generation, both of which fall under the larger designation of the scientific period as the microbial turn. This period "transformed Victorian conceptions of the environment, extending its influence beyond the mundane realm of the sensible and visible into the occult realm of the hidden and invisible" (Mershon 277). Suddenly, the air and soil, the facets of daily life, were permeated with invisible, mysterious creatures capable of both harm and help. By the end of the century, it was understood that fungi engage in both parasitic and mutualistic symbiotic relationships (Ainsworth 89, Mershon 267). Along with other major biological discoveries, such as Darwin's theory of

evolution, Victorian-era science not only transformed perceptions of the environment, but it challenged anthropocentric worldviews and understandings of human life as well.

Derek Woods points out that fungi were not officially given their own taxonomic kingdom until 1969, a testament to the organism's liminality and ambiguity in the human mind. Fungi, as an emergent third category, deconstruct the binary of plants and animals to "yield a multiplicity" of life ontologies (Woods 114). However, Mershon details how several biologists of the Victorian era proposed their own formulations of separate kingdoms to explain fungi's "elusive place in the natural order" (273). Yet numerous scientists still perceived and grouped fungi alongside plants, exemplifying the instability of fungi in Victorian imaginations. Alder even asserts that "until the middle of the twentieth century the consensus was to classify fungi with plants, albeit as a distinct group" (178). On a similar note, Woods observes that "the premodern idea that fungi are lesser versions of something else" has remained prominent in mycology's timeline (113). Undoubtedly, even though fungal taxonomic speculation has a substantial history, a lack of consensus elucidates fungi's unusual, strange ontology.

With the advancements of technology and the establishment of more mycological institutions, mycologists of the twentieth century explored the more complex facets of fungi, such as the organisms' various sexualities and microfungi (Ainsworth 64, 121, 186). Medical and veterinary mycology flourished after World War II, particularly with the 1928 discovery of penicillin, which derives from a fungus (6, 218). Towards the middle of the century, psilocybin, a component of "magic" mushrooms, and other hallucinogenic fungi were given increased attention, anticipating further research on psychedelics (Ainsworth 193-6, Sheldrake 110-1).

Emerging mycology of the twenty-first century, while continuing to yield new information about fungi, largely resembles the interests of Victorians. In the nineteenth century,

“scientific popularizers” utilized discoveries about mycelium and fungi’s multispecies assemblages to create analogies for political and social ideologies, especially reimaginations of “the Darwinian struggle for existence” (Mershon 267). Mershon emphasizes the parallel between this movement and that seen at the dawn of the twenty-first century. Woods and Mershon articulate a twenty-first century revival of societal interest in fungi, especially due to the conception of the Wood Wide Web (Mershon 267), as well as "a wave of popular science writing and visual culture” that centers around fungi (Woods 95). Woods posits that a shift in science is occurring, transitioning “from ‘bio’ to ‘eco’” due to the heightened perception of fungi, specifically mycelium, as representative of “ecological connectedness” (107). As mycology continues to unravel fungi’s mysteries, popular culture is heavily invested with its findings and the new possibilities for understanding life.

Similar to mycology, ethnomycology is a recently emergent field, too: its foundation is credited to the Wassons in the mid-twentieth century (Yamin-Pasternak 215). Different cultures—those of nations, local communities, and languages—have different attitudes towards fungi. Ainsworth, Morris, and Woods discuss long-standing negative associations and perceptions of fungi in English culture, especially in writing that regards fungi as inferior organisms when placed alongside plants. An abundance of ethnomycologists have found that the British, especially leading up to the Victorian era, were strongly mycophobic in culture, viewing fungi with suspicion and aversion; the same can often be said of British settler colonies, Western cultures, and English-speaking communities (Dugan 29; Hathaway 56-7; Morris 8). However, there was a cultural shift toward the end of the Victorian era in which some mushrooms, along with fairies and other folk beliefs, were recrafted to hold positive, more delicate connotations. These Victorian perceptions and folkways were highly influential for decades after (Dugan

38). Moving into the twentieth century, British and American folkways consisted of remnant views from both the Victorian and pre-Victorian eras, blurring distinctions between mycophobia and mycophilia (41).

Fungal Fiction: A Literature Review

The sources of my literature review include chronicles of fungi's scientific and cultural developments and analyses of fictional texts that incorporate fungal or vegetal representation. A synthesis of these texts reveals continuities and disparities of literary portrayals of fungi, and thus of understandings and interrelations with the environment, across the centuries. The consensus supports the idea that fungi, with their scientific and cultural (mis)understandings, particularly as liminal and boundary-defying organisms, are employed in fiction as a method of proposing alternative human-nonhuman relations through literary methods that are inherently unsettling or divergent themselves. Additionally, portrayals of fungi often arise in texts of the Weird genre in response to the Anthropocene.

There are few sources that endeavor to trace the timeline of fungi's portrayal in literature, but small syntheses can be found in the works of Dugan and the Rolfes, although they both focus on older texts. Both sources agree that literature often demonstrates a culture's mythology and folklore, and thus fungal representations parallel the scientific and cultural associations of fungi (Dugan 24, Rolfe and Rolfe 18). They each list several examples of sources that feature fungi and identify the qualities apparent in the texts, common categories including decay and psychedelics. Dugan concludes that American and British authors in the Victorian era "have used mushrooms to connote decay, rottenness or death," while more recent writers "have celebrated them as a source of wonder" (51). Cultural perceptions and folkloric accounts seep into literary depictions of fungi.

More commonly in scholarship, although still deficient in numbers, scholars investigate the portrayal of fungi in specific texts or in the works of a specific author. A significant amount fixate on fungi in the Weird genre (Alder, Blanc, Sperling 2016 and 2020, Woods) and in relation to the Anthropocene (Alder, Gruss, Sperling 2020, Woods). In her essay on Jeff VanderMeer, Alison Sperling directly connects the Weird to fungi, dictating that Weird fiction is a fruitful method to explore fungal ontology and possibilities; moreover, according to Sperling, the Weird can be equipped to address problems of the Anthropocene, as the epoch itself is intrinsically weird ("Queer Ingestions" 198). Woods corroborates that fungi's inherent weirdness can partially be explained by the confusion and newness surrounding its taxonomic status, yet he also proposes that it is explained by the weirdness of modern climate change and the era of the Anthropocene. Scholarship seems to triangulate the Weird, the Anthropocene, and fungi.

Similarly, Susanne Gruss speaks on why contemporary literature has become fascinated with fungi: the trend responds to "an increased interest in ecocritical, ecogothic readings of the Anthropocene and the end of the world as we know it" (86). Gruss contends that literary fungi are "uncanny threats" that represent nonhuman otherness, the porous boundaries between human and nonhuman, and "possibilities of a posthuman future" (86-7). Furthermore, fungi decenter humans with their strangeness, boundary defiance, and refusal of classification (90). As Gruss, Woods, and Sperling illustrate, fungal fiction is a response to and solution for the age of the Anthropocene and its worsening climate change.

Focusing on the *fin de siècle*, scholars Anthony Camara and Ella Mershon perform fungal readings of Arthur Machen's *The Hill of Dreams*. The work of these scholars can provide a general framework through which to read fungi in literature. Both writers rely on Victorian science and philosophies, although Mershon's essay features a significant chronicle of Victorian

mycology and strongly ties it to the portrayal of fungi in Machen's novel. Mershon argues for the queerness (strangeness and non-normativity) that was inherent in fungi's status and in Victorian attempts of taxonomic classification, which parallels queer literary interpretations of fungi at the time. She elucidates how fungi are "quasi" life forms due to their longstanding lack of proper and agreed-upon classification and the confusion surrounding the "animatedness" of their matter (277-8). The theses of both scholars are considerably similar. Camara postulates that Machen employs scientifically contradictory fungi to expose the tensions and deconstruct binaries of life and death, of vitalism and materialism. Mershon assumes similar ideas, yet she moves a step further: examinations of Machen's novel are merely a transition point to assert her main thesis that "fungi represent imaginative possibilities for rethinking the relationship between language-making, self-making, and world-making" (Mershon 267). Between these two scholars, fungi are a method of engaging with scientific and philosophical ideas, dissolving and reimagining typical boundaries of life in a multitude of ways.

In conclusion, the reviewed scholarship on fungal literature yields various results indicative of human understandings of fungi and nature. Fungi, in relation to their scientific timeline, are inherently w/Weird in their morphology and ontology, which is reflected in their literary portrayals. Fungi, when paired with ecological themes, lend themselves to examining the environment and human relations to it. The liminality and non-normativity of fungi—scientific, cultural, and figurative—is often utilized to touch on larger systems of anthropocentrism, biological life, and the environment. Much of the fiction discussed pairs their fungal portrayals with science to complicate the boundaries between humans and nature, if at all existent in the first place. There are several parallels between time periods in terms of scientific and literary interests, reflecting an ongoing concern with large-scale ideas of biology, ecology, and humanity,

and small-scale preoccupations with fungi and their strangeness. However, there is a significant gap in scholarship seeking to compare the timelines of scientific, cultural, and literary perceptions of fungi spanning multiple centuries, the creation of which would reveal much about humans' relationship to the environment and the Anthropocene.

"The Fall of the House of Usher" and the Eco-Gothic

The earliest of my fictional texts is a short story by Edgar Allan Poe published in 1839: "The Fall of the House of Usher." Many other scholars label this as one of the earliest fungal texts, especially of the Weird genre (Dugan 51; Keetley 43, 56; Moore; Woods 101). These statements are brief, however, as scholarship on fungi within "Usher" is lacking. Tangentially relevant scholarship includes a reading of radical botany (Meeker and Szabari) and investigations of genre and ecophobia (Crosby, Hillard, Taylor). Clearly, while it is well-established among scholars that Poe's "Usher" is a significant marker in Weird and fungal fiction, few have conducted a thorough analysis of fungi within the text.

At first glance, it may seem that fungi play a minor role in the story, acting as complements to the setting's gloomy, decaying atmosphere. However, as fungi are the driving force of decay, they are the means by which the Usher mansion, and the white aristocrats within it, meet its end; in this way, the fungi engender explorations of race and class. Moreover, there are larger themes of ecology and fungal science within the narrative, established through the depiction of multispecies assemblages and the deconstruction of biological hierarchies, demonstrating not only fungi's significance in literature, but the interconnections of the sciences and humanities as well. As one of the influential, driving texts of fungal fiction, the establishment of these themes—decay, disruption of race and class, science, ecological relationships—sets the precedent for the texts that are to come in the following centuries.

The word “fungi” occurs twice throughout the tale, and both instances utilize fungi to evoke a sense of decay and establish an eco-gothic setting. Although this may appear to be smaller-scale and less important than contributions to larger concepts, fungi’s role in atmosphere and setting establishment reveals scientific and cultural perceptions of fungi in the nineteenth century. In the first mention of fungi, upon arriving at the mansion, the narrator describes it as such:

> Its principal feature seemed to be that of an excessive antiquity. The discoloration of ages had been great. Minute fungi overspread the whole exterior, hanging in a fine tangled web-work from the eaves. Yet all this was apart from any extraordinary dilapidation. No portion of the masonry had fallen; and there appeared to be a wild inconsistency between its still perfect adaptation of parts, and the crumbling condition of the individual stones. In this there was much that reminded me of the specious totality of old wood-work which has rotted for long years in some neglected vault, with no disturbance from the breath of the external air. Beyond this indication of extensive decay, however, the fabric gave little token of instability. (Poe 248)

Here, fungi are invoked in order to reinforce a larger expression of decay and a bleak atmosphere, especially alongside diction such as “antiquity,” “dilapidation,” and “crumbling” that evokes old age and corrosion. Derek Woods corroborates, explaining that “fungal imagery... appears in a key moment for establishing the ominous setting” (101), and scholars Natania Meeker and Antónia Szabari emphasize this idea as well (103). In this way, fungi act as contributors to Poe’s eco-gothic aesthetic.

Furthermore, this passage demonstrates the scientific and cultural perceptions of fungi in the early nineteenth century. As mycology did not substantially develop until the mid-nineteenth

century, “Usher” is a glimpse into pre-mycological times in which fungal understandings were dominated by culture rather than science. In Poe’s time and location, fungi were typically perceived in a highly negative manner (mycophobia) and were primarily associated with processes of decay, rot, and death (Dugan 26, Hathaway 57, Seifert 6). While Poe’s depiction fails to fully antagonize fungi[2], a strong association with decay and decomposition is apparent in Poe’s placement of fungi alongside or as a driver of decaying material.

The presence of fungi in this scene accomplishes more than aesthetics, though, as their role in the process of decay reveals the dynamics and ill fate of the Usher family. Fungi need not be directly mentioned in order to appear in a story: rotting woodwork, alluded to by the narrator, occurs due to fungal decomposition. In the early nineteenth century, it was understood that timber decay was associated with fungi (Ainsworth 90). Thus, the narrator conjures fungi without naming them. However, the narrator emphasizes that the decaying structure, tied to fungal imagery by the narrator’s woodwork metaphor, is in no way unstable or deteriorating as a whole; instead, only fractals within the larger structure are falling apart, reflecting the individual flaws of each member of the Usher family while their legacy remains stable, although still coming undone to some degree. In this way, fungi are an agent of decay through which the Ushers, both literally and figuratively, are coming to an end.

The downfall of the Ushers, a white aristocratic family, demonstrates the level to which fungal fiction is often intertwined with identities like race and class. Dawn Keetley, in her essay “Black Mold, White Extinction,” examines literary depictions of black mold as representative of white people’s fears of extinction when faced with racial minorities. She names “Usher” as a predecessor to contemporary black mold fiction, “at once the story of a house overspread by

[2] See Crosby, Hillard, and Taylor for detailed investigations into Poe’s display of ecophobia and ecophilia.

[fungi] and of a sick and dying white family," except "[c]ritics have located the story's anxiety about extinction… specifically within the context of southern slavery and the dreaded demise of a white slave-owning aristocracy in the face of slave revolts and a Black population growing in power" (Keetley 56-7). Keetley highlights the connection between the portrayal of fungi, the decay of the mansion, and the deterioration of a white family, as well as the way Poe's narrative anticipated the future of fungal fiction in relation to these themes.

Similarly, Sara L. Crosby focuses on the Ushers' class distinction. She argues that Poe's personal animosity toward the wealthy, countered with his appreciation of the environment, are transmitted into the story as a corruption of the upper class. To Poe, "rich aristocrats—much like Usher—blight the landscape and the tarns by inserting themselves into it and parceling it off into their own private domains. Thus, it isn't the tarn that infects and oppresses Roderick Usher and his House; rather, the lordly mansion and the lord infect and oppress the tarn" (519). Just as Keetley ties fungi to race and class, Crosby connects the environment as a whole to class. Her argument also substantiates that the Ushers colonize and capitalize on the environment, leading to a corruption of the land that will eventually, in turn, result in the family's own destruction. If fungi are tied to the decomposition of the structure, and if the crumbling house is a larger symbol of the downfall of a white aristocratic family, then it follows that fungi reveal the fearful disintegration of a white upper-class family, and their presence foreshadows the Ushers' impending demise. In other words, fungi's appearance in the story, both as a detail and an agent of decay, achieves more than merely enhancing an eco-gothic setting—the organisms are a mechanism for signaling and contributing to explorations of race and class. In a mycophobic culture, fungi's repulsive image and its liminal placement on the edges of scientific classification systems parallels the perception of minority identities, groups that reside outside of normative

social boundaries. Fungi's capacity to dissolve biological hierarchies and threaten the Human provides a literary tool to explore social hierarchies and threaten Man.

As previously mentioned, Poe's portrayal of fungi is heavily tied to the scientific and ecological understandings of the author's time, but the second instance of fungi in the story better demonstrates the solid ties between the sciences and humanities. The second inclusion of fungi occurs in a conversation between the narrator and Roderick Usher about "vegetable sentience" and organicism[3]:

> This opinion, in its general form, was that of the sentience of all vegetable things. But, in his disordered fancy, the idea had assumed a more daring character… The belief, however, was connected (as I have previously hinted) with the gray stones of the home of his forefathers. The conditions of the sentience had been here, he imagined, fulfilled in the method of collocation of these stones—in the order of their arrangement, as well as in that of the many *fungi* which overspread them, and of the decayed trees which stood around—above all, in the long undisturbed endurance of this arrangement, and in its reduplication in the still waters of the tarn. Its evidence—the evidence of the sentience—was to be seen, he said, (and I here started as he spoke,) in the gradual yet certain condensation of an atmosphere of their own about the waters and the walls. (Poe 257-8)

[3] Herbert F. Smith explains the meaning of organicism in the context of "Usher": "Roderick, to summarize, believed not merely in the capacity of plants to feel, but also in their capacity to organize themselves in the non-organic materials around them—in particular the stones of the Usher mansion, the decayed trees around it, and the tarn—into a new organic unity which was able to create 'an atmosphere of their own about the waters and the walls.' Furthermore, Usher believed that this larger organism somehow included him." Smith further describes this as an "insane notion" and "pseudo-scientific" (380).

Here, fungi are perceived as plants, as they are grouped alongside trees and mentioned in a discussion regarding vegetation. In the early nineteenth century, fungi were both scientifically and culturally recognized as plants[4]; since fungi were perceived as vegetation, the idea of vegetable sentience is at least somewhat composed of fungal ontologies. This discussion of botany and organicism displays Poe's preoccupation with the sciences and his integration of such ideas into his fiction.

As scholars have shown, Poe was relatively informed on the scope of scientific discoveries. In 1848 he even published a quasi-scientific treatise titled *Eureka* regarding the nature of the universe (Meeker 96; Smith). In fact, "Usher" directly ties itself to science via the footnote that directs readers to the work of Richard Watson and several other scientists (Poe 257)[5]. This footnote appears during the discussion of organicism, displaying Poe's dedication to accurately investing in science within his literature. Meeker and Szabari confirm this, stating "Poe's interest in scientific theories of vitalism and in the vitality of inanimate things points to a contentious engagement with nineteenth-century vitalist science" (108). Herbert Smith maintains that science is represented in Poe's work by more than just "Usher": "[t]hroughout his life, Poe received more of his inspiration, his metaphors, the language for his writings from science than from philosophy or metaphysic" (386). Thus, it is safe to say that Poe was, to relatively high

[4] As I mentioned earlier, this is a generalization of a more complex issue—in both the realms of culture and amateur science leading up to the early nineteenth century, it was understood that fungi did not easily fit into the categories of plants or animals. Most people designated them as members of the plant kingdom with the understanding that they were strange deviations (Ainsworth 5, Mershon 272, Moore, Morris 9).

[5] Although these sources were outdated by the time of "Usher," Herbert Smith contends that they were included as a demonstration of Usher's madness in believing antiquated pseudo-science.

degree, invested in and influenced by the science of his time, endorsing the idea that the sciences and humanities are intertwined.

Poe's tale also engages with relevant aspects of fungi-related ecology: multispecies assemblages and life-death binaries. In their book *Radical Botany*, Natania Meeker and Antónia Szabari similarly examine the role of vegetation in Poe's "Usher" and substantiate the portrayal of ecological assemblages[6]. Reflecting on the passage in which the narrator describes the mansion, the authors conclude that the arrangement of the stones and various organisms "evokes the attributes of an assemblage, complete with an agency that is both living and not organic" (99). Similar to the organicist ideology, aspects of the environment form an agential collective, despite several of the actors being either dead organic matter (the trees) or nonliving inorganic matter (the stones). In addition to these non-normative actors, fungi hold a unique position in the realm of biological life: "[t]he chemical, subterranean mode of reproduction (in need of no sunlight) of the [fungi] thus works as an extension of the vegetal sentience" (Meeker and Szabari 103). I argue that fungi are inherently necessary for Poe's unique ecological assemblage, as their connections to the realms of both life and death, displayed through their role as decomposers, bridge gaps between the alive and the dead, the organic and inorganic. Their elusiveness and (lack of) scientific understandings in Poe's time evoke a modicum of agency and sentience in themselves that facilitates the creation of a unique, boundary-defying agential assemblage of nature. The "'quasi' animatedness" (Mershon 273) of fungi transfers onto the other constituents of the assemblage and stimulates a sense of quasi-sentience.

[6] Meeker and Szabari acknowledge that "Poe's plants" can include fungi due to their original classification (103); thus, their discussion of vegetation and plants in a more general sense can be understood in relation to fungi as well.

Aided by Usher's focus on vegetable sentience and organicism, the story depicts a dark, forceful act of the vegetal against humans that is more of a consumption-by-nature than return-to-nature. As the story concludes, the narrator observes "the deep and dank tarn at my feed closed sullenly and silently over the fragments of the 'HOUSE OF USHER'" (Poe 268). As the house comes to symbolizes its inhabitants, and as the (dead) inhabitants are still inside the house, the tarn completely overtakes and absorbs the remains of the Usher family. Meeker and Szabari posit that the vegetable sentience "infect[s] Usher himself even as it retains its independence from human forms of cognition," culminating in "a partial disintegration of the human in the face of vegetal indifference" that "opens up new, posthuman perspectives in which an altered consciousness might be imagined to live on as a speculative possibility." The scholars declare that "Poe's story produces continuities among modes of being rather than breaks between them, so that the world, the thought, and the life of Usher and his sister hover between the inorganic and the organic realms. In this way, too, their sentience is vegetalized" (104-6). I concur with the former of these ideas, but I hesitate to fully agree with the latter. Though there is not a direct fungal or vegetal invasion of the human body as seen in later fungal fiction, these scholars support the idea that Poe's story involves an agential nature-led consumption of the human. However, there remains a stark distinction between humans and nature, such that even when the tarn absorbs the Ushers and their legacy, there is still domination of one over the other rather than a blending of being. Poe complicates but does not fully dissolve biological hierarchies of the Human, instead merely repositioning its components.

Despite residing within the eco-gothic horror genre, Poe's story conforms to neither ecophobic nor ecophilic ideologies, and an exploration of the author's attitude can act as a parallel for mycophobia and mycophilia, especially given that fungi are a significant agent in the

story. Scholarship produces conflicting arguments as to whether the tale is directly mycophobic or ecophobic. Frank M. Dugan contests that "Usher" situates Poe as the "heir to the British tradition of mycophobia" (51). As Crosby illustrates, Poe believed "the natural world was far bigger, inhuman, and indifferent"; further, Poe's "mocking of American egotism in relation to the environment implies a condemnation of the ecophilia that loves nature as mirror, but Poe does not replace it with old-fashioned ecophobia... Rather, his 'othering' of the environment is a gesture of respect and an indictment of the human ego" (518). The depiction in "Usher" of a forceful, quasi-animated natural assemblage as equal to, and occasionally even more powerful than, humans is a "gesture of respect." However, based on Keetley's analysis of the story as a white extinction narrative, it would seem that the narrative represents a more ecophobic attitude that perceives nature as a threat to white society. I would insist that "Usher," in fungi's fashion of boundary defiance, possesses a hybrid ecophobic-ecophilic attitude, neither conforming to nor completely departing from Romantic perceptions of the environment. To a white, aristocratic audience, the horrifying aspects of the tale reside in the extermination of humans at the hands of nature; for an audience composed of non-Man identities, however, horror is evoked not by the destruction of humans, but rather by the corruption of the land created by (white aristocratic) humans that culminates in said extermination. Thus, the same can be said for the story's mycophobic-mycophilic hybridity: fungi can either be the means of Man's destruction, or a target of Man's destruction.

"Usher" is a story about race and class, about natural assemblages, and about fungi. The story is heavily preoccupied with fungi as agents of decay and decomposition, and consequentially as creators of quasi-sentient assemblages. Fungi and its natural assemblage hold agency and power against its human opponents, reconfiguring biological and social hierarchies

in their destruction of a white aristocratic family. Poe's inclusion of fungi is hybrid in attitude: mycophobic-mycophilic or ecophobic-ecophilic, varying based on audience. An integration of scientific knowledge into the narrative supplements and uplifts the portrayal of ecological relationships and reveals the intimate relationship between environmental literature and environmental science. Yet, "Usher" reflects the Anthropocene and Western belief that humans and nature are inherently separate, even if the human-dominating biological hierarchy is flipped to favor the environment. Establishing the frameworks and traditions of the fungal Weird, "Usher" sets the precedent for future fungal fiction to engage with environmental assemblages, social and natural hierarchies, and scientific and cultural attitudes about fungi and the environment as a whole.

"The Shunned House" and Fungal Contamination

Moving into the twentieth century, "The Shunned House" by H.P. Lovecraft, written in 1924 and published in 1937, depicts a fungus that dwells in the cellar of an abandoned house that contaminates the narrator's uncle and is eventually destroyed by the narrator. Like Poe's story, "Shunned" is invested in scientific and cultural investigations of fungi and the environment; unlike Poe's story, intense mycophobia permeates the narrative. The story hovers in a transitional stage, bordering on post-anthropocentrism and posthumanism while still maintaining Man and the Human. With the fungal contamination comes a multispecies assemblage, as the fungus enters and transforms a human character, but the relationship is parasitic and deadly. Lovecraft's fungus represents human-environment entanglements that have the potential to move beyond the Anthropocene, yet "Shunned" is also concerned with the horror of permeable human corporeality and the desire to secure the superiority of humans over the natural environment. Though twentieth-century fungal fiction begins to imagine posthuman multispecies assemblages

and the porous boundaries of the human, it is still fixated on the horror of such occurrences and preserving the distinction between humans and nature, exacerbated by industrialization.

Lovecraft's portrayal of fungi involves contamination, agency, and multispecies assemblages. The cellar's fungus possesses the narrator's uncle and forms a parasitic relationship with its host. The fungal contamination, though fearful, represents a symbiotic multispecies entanglement that depicts the human body as porous and open to its environment[7]:

> Out of the fungous-ridden earth steamed up a vaporous corpse-light, yellow and diseased, which bubbled and lapped to a gigantic height in vague outlines half human and half monstrous, through which I could see the chimney and fireplace beyond. It was all eyes—wolfish and mocking—and the rugose insect-like head dissolved… At the time it was to me only a seething dimly phosphorescent cloud of fungous loathsomeness, enveloping and dissolving to an abhorrent plasticity the one object to which all my attention was focused. That object was my uncle—the venerable Elihu Whipple—who with blackening and decaying features leered and gibbered at me, and reached out drip ping claws to rend me in the fury which this horror had brought. (Lovecraft 310)

Lovecraft's fungus-human assemblage leans into the sentience and "animatedness" ascribed to fungi, yet it subscribes to an intense mycophobic attitude. The fungus is "wolfish" and "insect-like" with dangerous "claws," departing from typical associations with plants and instead aligning the fungus with animals. The animality of this fungus extends a higher level of agency to the organism, but the chosen animal associations also prescribe a level of predation. Like

[7] Scientifically, symbiosis describes "the situation in which dissimilar organisms live together in close association. As originally defined, the term embraces all types of mutualistic and parasitic relationships" ("Symbiosis"). Contrary to some popular misconceptions, symbiosis does not always involve a positive relationship.

"Usher," fungi remain strongly connected to processes of decay, but for Lovecraft such decay is directly antagonistic and "monstrous." Lovecraft's fungal assemblage is threatening, invasive, and contaminating of the Human.

Scholars emphasize nature's infiltration into the human body and its repercussions for human porosity. Natasha Rebry Coulthard argues that "[w]hile Whipple's loss of individuality and corporeality is horrific, the assemblage he becomes demonstrates the inherent interconnections and mutability of matter underpinning the post-anthropocentric decentring of Man" (149). Said in broader terms, "[a]lthough horrific for Man, Lovecraft's infectious networks incorporate the individual human into an assemblage of self-other-environment in ways that challenge the self/other dynamic of humanist subjectivity" (Coulthard 148). Similarly, Alison Sperling's main argument counters typical analyses of Lovecraft's work, contending "the horror of Lovecraft's corpus is… the unfamiliarity with and estrangement from the human body. It is a horror of recognition of the body as an agential force: porous and vulnerable, unpredictable, out of control, even fatalistic" ("Weird Body" 98). Both scholars, Coulthard and Sperling, center the permeable, "porous" corporeality of Lovecraft's humans illustrated through processes of contamination, which is specifically enacted via fungi in "Shunned." Thus, while Lovecraft begins to imagine post-anthropocentric human-environment entanglements—a step beyond Poe's fungal assemblages—these relationships are portrayed as horrifying and detrimental to the Human.

This passage additionally illustrates Lovecraft's preoccupation with race. Dawn Keetley again demonstrates how "Shunned" uses black mold "as the sign of white dread about encroaching dark masses" (57). Whipple's features are "blackening" as he becomes infected with the fungus-spirit, losing his humanity and becoming a monstrosity. I would argue that, due to the

mycophobic attitude of the story, Blackness is deemed as sub-human, even non-human, as the black fungus contaminating the white character is antagonized and deemed inferior to humans. Blackness, then, is aligned with the inhuman and monstrous, overtaking a previously heroic, "venerable" white character and transforming him into an antagonist.[8] In a parallel to Poe, mycophobia and scientific understandings of fungi bridge a connection between non-normative human identities with non-normative organisms, both of which, in the eyes of Lovecraft, threaten the maintenance of Man and the Human.

I argue that this representation of white extinction from Black contamination is supplemented by Lovecraft's contemporary scientific knowledge. Lovecraft composed "Shunned" in a post-germ-theory society immediately following the Great Influenza epidemic of 1918-1920, likely resulting in his stark preoccupation with contamination. Fredrik Blanc explains that in Lovecraft's story, "[t]he fungal and the vegetal, infected by the spiritual, become revolting, a nauseating blight that requires cleansing" (168). Coupled with his racist ideologies, fungi becomes a vehicle through which he can explore (and defeat) contamination from both race and nature, and fungal science is the method through which he carries out this exploration.

Just as Poe integrated science as a narrative supplement, so too does Lovecraft. The characters in "Shunned" are exceedingly concerned with determining a scientific explanation for the horrors of the house, through which Lovecraft weaves in contemporary scientific theories. Yet the truth ultimately remains unresolved and seems to transcend typical understandings of the world. One of the characters' theories involves the persistence of the previous tenants' energies in multi-dimensional space:

---

[8] See Alexander Weheliye's *Habeas Viscus* for discussion of racialization and the relegation of racial minorities, especially Black people, into "not-quite-human" and "nonhuman" hierarchical positions.

> Such a thing was surely not a physical or biochemical impossibility in the light of a newer science which includes the theories of relativity and intra-atomic action. One might easily imagine an alien nucleus of substance or energy, formless or otherwise, kept alive by imperceptible or immaterial subtractions from the life-force or bodily tissue and fluids of other and more palpably living things into which it penetrates and with whose fabric it sometimes completely merges itself… It might be pure energy—a form ethereal and outside the realm of substance—or it might be partly material; some unknown and equivocal mass of plasticity, capable of changing at will to nebulous approximations of the solid, liquid, gaseous, or tenuously unparticled states. (Lovecraft 306)

Later in the story, when faced with the parasitic possession of his uncle, the narrator considers that "the bubbling evil" was "no substance reachable by matter or material chemistry" (Lovecraft 310). He further reflects "[m]atter it seemed not to be, nor ether, nor anything else conceivable by mortal mind" (Lovecraft 311). The extensive integration of science within the narrative and the characters' persistent determination for an explanation by scientific theory is contrasted by, after facing the horrifying creature itself, a partial acceptance of knowledge beyond the physical realm understood by humans. Lovecraft grounds his fungal narrative in contemporary science, offering potential evidence but never a decided interpretation, just as Poe presents the outdated concept of organicism that grounds "Usher." In a way, this mirrors scientific understandings of fungi in the early twentieth century: elusive organisms that defy boundaries and are not entirely understood. Persistent throughout both the nineteenth and twentieth centuries, fungal fiction is inherently wrapped up in fungi's strangeness and liminal scientific understandings, an indication of the inherent ties between the humanities and sciences.

The devotion to science in "Shunned" is coupled with a fixation on culture and superstition that suggests the two are greatly entwined and equally valuable. While the narrator diligently searches for a scientific meaning behind the abnormalities of the house, he details the superstitious "gossip" circulated by local servants. For instance, drawing on New England folklore, there is frequent discussion of vampire legends, and one servant believes "there must lie buried beneath the house one of those vampires—the dead who retain their bodily form and live on the blood or breath of the living" (Lovecraft 300). The narrator's language, too, is often inflected with vampiric diction, such as "vampirish vapour" and "life-sucking" to describe the underground organism (Lovecraft 311, 312). This affinity for vampiric analogy reflects the mycophobic perception of fungi—one could say fungi, as agents of decomposition and decay, are "life-sucking" and thrive on death in a vampiric fashion.

The servants' superstition also takes a more holistic natural approach, as the narrator remarks that "at least three well-defined legends" described by the servants "bore upon the queer quasi-human or diabolic outlines assumed by tree-roots and patches of mould in that region." Similarly, "the servant gossip was practically unanimous in attributing to the fungous and malodorous cellar of the house a vast supremacy in evil influence" (Lovecraft 300). Interestingly, the superstitions all involve personified or sentient figures; it seems that superstitious beliefs regarding the fungi-infested house all include a "quasi-human" or agential figure, reflecting perceptions of fungi as quasi-animated. Moreover, all of these superstitious beliefs center around a negative perception of fungi, whether that manifests as an unspecified "evil influence," a "life-sucking" vampire, or a general aversion to ominous aspects of nature. The fearful cultural perceptions depicted in "Shunned" all engage with a form of personification

or the assignment of sentience onto fungi, an organism already perceived with suspicion, to create a powerful, culturally significant figure to haunt the mouldy house.

Despite the fact that the superstitious "gossip" (a misogynistically disregarded practice) comes from the lower class (typically deemed unintelligent), the beliefs are given validity based on their accuracy. The lower class is generally more connected to folk beliefs, providing a window into the cultural perceptions surrounding the house. Indeed, it is a mix of these cultural perceptions combined with the scientific ideas of the narrator that best describes the fungus-creature residing in the cellar and prompts the narrator to discover the underground organism. Giving credibility to both scientific and cultural ideas surrounding the house's weirdness, Lovecraft suggests not just that these spheres are intertwined, but also that they both hold significance.

Delving deeper into the story's mycophobic and ecophobic attitudes, fungi are heavily antagonized through a positive depiction of industrialization and a negative demeanor toward the earth. Specifically, the story's ending—the destruction of the fungus—reveals Lovecraft's preoccupation with anthropocentrism. As he unconvers the fungus beneath the house, the narrator asserts that "[s]ome secrets of inner earth are not good for mankind, and this seemed to me one of them" (Lovecraft 312). Not only does this remark display mycophobia, but it is anthropocentric in its belief that an organism or object holds value based on its benefits to humans. It further draws a separation between humans and fungi (and nature in general), distancing man from other parts of the earth.

The subsequent methods and outcomes of eradicating the fungus embody the pro-industrialization and anthropocentrism of the narrative. The narrator deposits several "great carboys of acid" onto the fungus, successfully eliminating the organism (Lovecraft 312). Blanc,

who executes an ecophobic reading of Lovecraft's works, proposes that "[i]t is ironically and tellingly through the use of an industrial acid, a man-made compound, that the hold of the spirit on the natural world is finally broken… The narrative thus once more pits 'civilization' against the primordial forces of 'nature,' the acid ironically standing as a purifying element" (168). The figure of Man and his industrial tool expunge the house of the contaminant organism, reclaiming the fungus-infested property as his own, as a non-natural human-dominated space. Industrialization is the sole reason for the defeat of the fungus; as Blanc elucidates, "[t]he Shunned House is thus, in part, the locus of struggle between the natural and the human and is only salvageable, to an extent, because it lies now so centrally within human confines" (169). I would expand "human confines" to also refer to "industrialized confines," for the fungus's eradication is completely reliant upon the use on an industrial tool. In fact, in the age of modernization, h/Humanity and industrialization essentially become synonymous, modulating Man to incorporate his industrial advancements. The acid, then, becomes less of a tool and more of an extension of Man.

More than just a single product, though, industrialization is apparent in the story's setting and the narrator's comfort residing among "civilization": "tall buildings seemed to guard me as modern material things guard the world from ancient and unwholesome wonder" (Lovecraft 311). Industrialization, an exacerbation of human-nature separation, is perceived as protection. The narrator relegates nature to the past, while industrialized society and the Human reside in the present and future. Blanc avers that "Lovecraft's weird fiction articulates the natural environment and its agencies as monstrous and unnerving in their wild fecundity" (159). For "Shunned," this antagonization of and distancing from nature is accomplished with the inclusion

of fungi and the inherent mycophobic attitude displayed in both Lovecraft's fiction and American culture in general.

Lovecraft's mycophobic, ecophobic, racist tale "The Shunned House" explores the benefits of an industrialized society separated from nature and the defeat of a parasitic fungus stand-in for racial and natural contamination. Despite the profound negative associations given to the fungus, its possession of a human character evokes the image of a multispecies assemblage and the porous boundaries of the Human, as discussed by Natasha Coulthard. However, informed by contemporary science and current events, the narrative displays an intense fear of the assemblage and its ramifications for the Human. The story begins to imagine post-anthropocentric human-environment entanglements, an advancement from Poe's assemblages, yet industrialization is equipped by the narrator to maintain the separation of the Human from nature and its "unwholesome" features. In this phase of fungal fiction, human identities, multispecies assemblages, and entanglement of the sciences and humanities are inherent features of the genre, but narratives are still preoccupied with the horrors of agential, invasive forms of nature.

Sorrowland and Symbiotic Fungus-Human Relations

Compared to its predecessors, fungal fiction of the twenty-first century moves beyond previous ideas of maintaining the distinction between human and nature and embraces the decentering of the human. Among a surge of other fungal novels, *Sorrowland* by Rivers Solomon, published in 2021, stands out for its depiction of a fungal infection that fosters a mutualistic symbiotic relationship with its human host. Hardly any scholarship on the novel exists yet due to its recent publication, and there is no discussion on its unique fungal assemblage. The novel chronicles the adolescence of Vern, a new mother who has escaped a

socially isolated religious cult, the Blessed Acres of Cain. This cult, comprised of Black members who antagonize white people and exhibit intense homophobia, secretly participates in an experiment that infects its members with a symbiotic fungus with mild effects for most, but extreme effects for a few rare hosts. Vern is a rare case, as her fungus fully forms an exoskeleton around her body, depicted as physically agential and sentient. Despite not fully forming in the majority of cult members, the fungus forms a mycelial network that connects all living members with the deceased ones, the ghosts of which are deemed "hauntings."

The novel diverges from previous fungal fiction in a multitude of ways. While still invested in fungal science and culture, the narrative depicts a mutualistic fungus-human relationship with an overall myco-neutral attitude, neither mycophobic nor mycophilic. Yet another piece of fungal fiction concerned with race, this novel also explores gender and sexuality in relation to the fungus. However, while previous stories focused on white extinction and displayed racist ideologies, Solomon's novel explores Black queer potentialities and capabilities. In another shift from previous fungal literature, the fungus-human entanglement represents a posthumanist and post-anthropocentric mode of being. No longer concerned with human separation from or domination over the environment, *Sorrowland* embraces a new, positive view of multispecies entanglements and their possibilities.

The novel explores multispecies entanglements through the portrayal of a symbiotic mutualistic relationship between Vern and a fungus. The fungal "infection" is characterized as "'a conk mushroom forming an exoskeleton around [Vern's body]'" (Solomon 176). Throughout the narrative, Vern applies various positive labels to the fungus—"symbiont" (193), "sibling" (193), "family" (239), "passenger" (252)—representing the intimate relationship formed from

their coexistence. These terms imply a partnership, and full agency and sentience are bestowed upon the fungus through these labels.

In a stark departure from previous fungal fiction, the fungus-human partnership transcends typical associations of fungi with rot and of humans with a vulnerability to nature, which ultimately creates a posthuman multispecies assemblage. Vern believes, "[t]here was a haggard beauty to all of this. Fungi consumed and consumed, but Vern's body had refused to be devoured. She was being fed on but not rotting. Together, her body and the fungus had fused into a sickly monstrosity" (Solomon 177). Though the fungus "consumes" parts of Vern's body, she does not "rot," but rather consensually "fuse[s]" into a mutualistic relationship. Her body's refusal to fully collapse under the infection, instead fostering a multispecies partnership, directly contrasts Poe's biological hierarchies and Lovecraft's porous human body. There remains permeable boundaries to the human, but there exists resistance, too. Rather than domination of either nature or human, they meet in the middle for consensual coexistence. Together, they are more-than-human and more-than-fungus: a posthuman multispecies assemblage.

Furthermore, fungal fiction, as seen with Poe and Lovecraft, is consistently invested in non-normative, or non-Man, human identities. Vern's use of "monstrosity" does not signify a harmful, invasive entity, but rather the "haggard beauty" of the non-normative corporeality that arises from her symbiotic relationship. To some, the visible fungal infection on her body may seem horrifying, just as Vern's other non-normative features residing outside Man's identity—Black, albino, intersex, queer, visually disabled—may be unsettling to those who fit within the norm. Reviewers, such as Christina Orlando, recognize the historical alignment of queerness and monstrosity by "cisheterosexual society" and the recent reclamation of such associations by the queer community. Orlando asserts that "otherness can become power," and "bodies and desire

can transcend the bounds society attempts to put on us." In this way, the fungus-human assemblage reimagines ideas of non-normativity, or "monstrosity," as marks of queer beauty and potentiality.

Additional instances of non-normative human identities permeate the novel, especially due to the plasticity of fungi as an organism. Similar to ascriptions of sentience onto the fungus, Vern imparts race, as well: "Vern wondered if it was possible that the fungus was Black. Born in Africa. A watchful spirit looking after her people" (Solomon 246). Some would argue that this idea demonstrates humans imposing their man-made concepts onto nature, a realm that knows nothing of race. I argue, instead, that Vern's proposal furthers the connections between humans and the environment and speaks to the larger preoccupation of fungal fiction with human identities. The non-normative and morphological features of fungi mirror the non-normative and morphological features of human identities. Vern's placement of Blackness onto the fungus is to see humanity as a part of nature.

Similarly, queerness and sexuality, as other non-normative identities, are a primary focus of *Sorrowland*. Vern is intersex and enters into several queer relationships with women; as she separates herself from the homophobic cult in which she was raised, Vern learns to embrace her desires and sexuality. In the most empowering scenes, the fungus is inherently tied to sexuality. Vern frequently engages in masturbation, and during a particular scene, she cries out to God in pleasure, yet "[s]he was not invoking any known deity. She was calling unto herself, this new being emerging inside of her" (Solomon 193). Defying the traditional "call unto God" of the Bible, and thus of the Blessed Acres, Vern redirects agency to herself and the fungus. She embraces this "new being emerging inside her," representative of both the burgeoning fungus and the growing acceptance of her sexual desires.

Even more enlightening is a scene in which Vern, her lover Gogo, and two gay men revived through the mycelial network engage in group sex, an interaction made possible by the fungus. Vern talks on the phone with Gogo while she experimentally interacts with two hauntings, "alive in the fungus still" (295). The encounter is a mix of sex and self-pleasure between the four characters (294-9). The persistent touch between the men and Vern maintains the mycelial revival and enhances their sexual connection, directly associating the fungus with queer sexuality while also destabilizing life-death binaries. Ella Mershon describes the inherent queerness of fungi:

> [S]tudies of fungal life have modeled fugitive, cryptic, and queer forms of belonging that open the body and the body politic to modes of collectivity… Deploying "queer" in a double sense, I use the term to mark the epistemic power of interspecies relationships to disrupt the normative sociopolitical order (queer as a practice of resistance) and to acknowledge forms of intimacy that do not conform to heterosexual definitions of coupling (queer as lived sexual experience). Queer, in this dual sense, describes the way ideas and experiences of fungal life have disrupted assumptions about the self-enclosure of bodies and systems. (Mershon 268)

As Mershon claims, fungi's queerness is multifaceted: they resist boundaries and order, and they defy normative sexualities[9]. In *Sorrowland*, fungi's queerness combines both senses of the word: Vern's sexual desires and her non-normative sexual interactions are not only paralleled by fungi's queer nature, but they are enhanced by the fungal presence within her body. This partnership between fungus and human represents the divergence from prior fungal fiction and

[9] As Gruss explains, fungi "cannot be classified according to asexual or sexual reproduction as they can reproduce in either form" (88).

its employment of non-normative identities. When narratives uphold human-environment separation, as seen with Poe and Lovecraft, non-normativity is dangerous and threatening; when narratives such as Solomon's eclipse Man and the Human, non-normativity gains power and eliminates oppressive hierarchies (biological and social).

Engaging in a continuity of fungal fiction, Solomon's fungus-human relationship builds on the unique scientific and cultural understandings of fungi. The novel is founded on the concept of mycelial networks, a subject of great fascination in the twenty-first century and a clear motivator for recent fungal fiction. The fungus residing within Vern frequently gains sustenance by connecting to mycelium:

> Spanning the underground for thousands of miles pulsed silken rivers of filament. They spoke to Vern in the hauntings, and she wanted to speak to them, too… Tendrils of invisible mycelial thread prickled her. She could see the whole shape of its body—her body. She was as big as the continent. The earth. Vern ate with her skin. Mycelia from the dirt traversed the mycelia of her body and fed her the ground. She absorbed broken-down trees, logs, and animal remains into her cells. (Solomon 193)

A scientific understanding of the global mycelial network clearly informs the narrative and details of the fungal assemblage. The "mycelial thread[s]," or hyphae, provide nutrients to the host of symbiotic fungi, and the general mycelial network connects through all of Earth's soil (Sheldrake 6, 46). Vern's absorption of nutrients is also tied to fungi's energy acquisition through decomposition of dead organic matter. The network can even facilitate communication between plants through hyphae (Mershon 267), which is transmuted into the novel with Vern's ability to interact with deceased members of the cult. The fungus-human symbiotic relationship, while fantastical in its bonding to humans and resurrection of the dead, is grounded in mycology.

Solomon indulges in the recently developed mycophilic interests of Western culture by centering the narrative around a mutualistic symbiotic fungal relationship that thrives through a mycelial network, yet the novel itself displays neither mycophilic nor mycophobic attitudes. While the fungus-human partnership has numerous potentialities, the fungus remains a creature with needs, causing severe sickness in Vern's body before she is able to control and embrace the organism. Similar complexity is depicted in the environment as a whole. Solomon also demonstrates an appreciation for American nature while simultaneously acknowledging the colonization of the land. The effects of Vern's adolescence spent surviving in the woods ripples throughout the rest of the novel, expressing both the beauty and complexity of the environment. Unlike Poe, the novel does not center its attitudes around its audience to create a hybrid depiction of nature; unlike Lovecraft, the story does not express a pro-industrialization attitude, but it also doesn't outright dismiss the benefits of modern society. In fact, the novel takes a strong anticolonial, anticapitalist stance. Vern muses, "[n]o one lied in the woods. No one charged you money for a decent meal in the woods. No one charged you rent. No one balked at the way you looked or smiled when what they really wanted was to devour you" (Solomon 41). The environment is portrayed as directly oppositional to capitalism and oppressive societal norms—and therefore, to Man. Vern often acts as a bridge between the human and nonhuman worlds to elucidate that there is no inherent separation of humans from nature, but merely the one Man created and socially upholds.

Sorrowland is not ecophilic, either, as it doesn't romanticize nature. Rather, it depicts the multifaceted spheres of life and death in the woods. Vern experiences a variety of natural disasters and instances of violence. Upon killing a deer, Vern reflects, "[s]he was no sorrier than the endless rain was that had washed away her food stores, than wild boars who rooted for mice"

(Solomon 98). The natural world is not a site of romantic musings or Human threats, but a realm with its own agency and multiplicity. In this way, the novel is eco-neutral, allowing the environment to reside within the narrative with all its complexities on display. It does, however, offer potential—though temporary—refuge from an oppressive capitalist colonial society.

Sorrowland represents the many divergences of modern fungal fiction from its predecessors. Turning away from the anthropocentric maintenance of the Human, the novel offers a mutualistic multispecies entanglement that dissolves the boundaries and biological hierarchies between human and nature. As another digression from nineteenth- and twentieth-century fungal literature, the story's explorations of non-normative human identities involve a variety of modes of being—race, sexuality, disability—but from the perspective of the oppressed rather than the oppressor, enhanced by the parallel to fungi's own queerness. Informed by mycology, this myco-neutral, eco-neutral narrative presents a post-Anthropocene site in which a posthuman fungal multispecies assemblage can thrive.

This radical deviation in fungal fiction arises from drastic changes in science, culture, and humanity. New developments in mycology are certainly motivators for twenty-first-century fungal literature, but so too are changes in culture—growing social movements for equality spark new opportunities for non-normative voices to be amplified, and new attention is being given to environmental justice in the face of exacerbating climate change. Including excluded voices in literature presents new ideas for dismantling oppressive institutions and engaging with nature. Twenty-first-century fungal fiction is grappling onto these ideas and imagining new modes of being for humanity and the environment.

Conclusion: Moving Beyond the Anthropocene

Humans—in literature, science, and other realms—are seeking a path beyond the Anthropocene. In an age of drastic climate change, solutions are necessary to combat damage to both humanity and the environment (which are ultimately one and the same). Contemporary fungal fiction presents many novel ideas. Across the centuries, fungal fiction engages with queer, non-normative aspects of the environment not fully understood by science or culture, as fungi themselves are inherently queer and non-normative. When fungal literature depicts fear and alarm in the face of these aspects, shown in nineteenth-century and twentieth-century texts, there is concern with maintaining the separation of the human from the environment and upholding the age of the Anthropocene; when embracing these aspects, shown in twenty-first-century literature, we are offered potential methods for moving beyond the Anthropocene and welcoming new multispecies modes of living. More than other organisms, multispecies fungal assemblages can dissolve perceived human-nature separation and expand into the realm of coexistence between humans and our environment.

Because fungi defy scientific binaries and boundaries, they are thus effective tools to collapse human binaries and boundaries. Fungi exemplify non-normativity, and even monstrosity, that are often allocated to minorities and those diverging from societal norms. Older fungal fiction of the nineteenth and twentieth centuries were preoccupied with these negative associations, but contemporary fungal fiction of the twenty-first century begins to use these ideas to its advantage, deconstructing non-normativity while also displaying its potentialities. To dissolve the biological hierarchies of the Human is an inherently deconstructive act against the social hierarchies of Man.

Recognizing the interconnections between the sciences and humanities holds great potential. Literature achieves more than merely conveying scientific and cultural ideas—it acts a

site for the exploration and new applications of such concepts. Much like multispecies fungal assemblages foster new modes of being, a multifield approach to the Anthropocene and climate change may beget novel, unique solutions.

Fictional engagements with fungi, along with eco-fiction in general, model a variant mode of multispecies entanglement. Fiction becomes a medium through which humans craft complex interactions with fungal nature and explore new potentialities for human-nonhuman assemblages. Fungal fiction, especially of the twenty-first century, is a space to imagine and galvanize new post-anthropocentric human-environment relations. As the end of the Anthropocene looms closer, perhaps fungal fiction will lead us into a new era.

Works Cited

Ainsworth, G. C. *Introduction to the History of Mycology*. Cambridge University Press, 1976.

Alder, Emily. "Meat and Mould: The Weird Creatures of William Hope Hodgson and H. G. Wells." *Weird Fiction and Science at the Fin de Siècle*, edited by Emily Alder, Springer International Publishing, 2020, pp. 159–94. *Springer Link*, https://doi.org/10.1007/978-3-030-32652-4_5.

Camara, Anthony. "Abominable Transformations: Becoming-Fungus in Arthur Machen's The Hill of Dreams." *Gothic Studies*, vol. 16, no. 1, May 2014, pp. 9–23. *EBSCOhost*, https://doi.org/10.7227/GS.16.1.2.

Coulthard, Natasha Rebry. "Lovecraft's Viral Networks: A Contaminated Ethics for the Chthulucene." *Lovecraft in the 21st Century*, Routledge, 2021, pp. 143–57.

Crosby, Sara L. "Beyond Ecophilia: Edgar Allan Poe and the American Tradition of Ecohorror." *ISLE: Interdisciplinary Studies in Literature and Environment*, vol. 21, no. 3, Dec. 2014, pp. 513–25. *Silverchair*, https://doi.org/10.1093/isle/isu080.

Dugan, Frank M. "Fungi, Folkways and Fairy Tales: Mushrooms & Mildews in Stories, Remedies & Rituals, from Oberon to the Internet." *North American Fungi*, vol. 3, no. 7, 2008, pp. 23–72, https://doi.org/doi: 10.2509/naf2008.003.0074.

"Ethnomycology, n." *Oxford English Dictionary Online*, July 2023, https://doi.org/10.1093/OED/7266837408.

Gruss, Susanne. "Monstrous Growths? Mushrooms, Fungi, Spores and the Borders of the (Post)Human in Contemporary British Culture." *Journal for the Study of British Cultures*, vol. 29, no. 1, 2022, pp. 85–100.

Hathaway, Michael J. *What a Mushroom Lives For: Matsutake and the Worlds They Make.* Princeton University Press, 2022.

Hillard, Tom J. "'Deep into That Darkness Peering': An Essay on Gothic Nature." *ISLE: Interdisciplinary Studies in Literature and Environment*, vol. 16, no. 4, 2009, pp. 685–95. *EBSCOhost*, https://doi.org/10.1093/isle/isp090.

Jackson, Zakiyyah Iman. "On Becoming Human: An Introduction." *Becoming Human: Matter and Meaning in an Antiblack World*, NYU Press, 2020, pp. 1-44. *Silverchair*, https://doi.org/10.18574/nyu/9781479890040.003.0001.

Keetley, Dawn. "Black Mold, White Extinction: *I Am the Pretty Thing That Lives in the House*, *The Haunting of Hill House*, 'Gray Matter,' and H. P. Lovecraft's 'The Shunned House.'" *Haunted Nature: Entanglements of the Human and the Nonhuman*, 2021, pp. 43–66.

Lovecraft, H.P. "The Shunned House." *H.P. Lovecraft: The Fiction.* Barnes & Noble, 2008, pp. 292-313.

Meeker, Natania, and Antónia Szabari. "The Inorganic Plant in the Romantic Garden." *Radical Botany: Plants and Speculative Fiction*. Fordham University Press, 2020, pp. 86-113.

Mershon, Ella. "Pulpy Fiction." *Victorian Literature and Culture*, vol. 48, no. 1, Apr. 2020, pp. 267–98. *Cambridge University Press*, https://doi.org/10.1017/S1060150319000548.

Moore, Robbiea. "The Animal in the Walls: On the Rise of the Fungal Gothic." *Griffith Review*, no. 82, Nov. 2023, https://doi.org/10.3316/informit.382914838573452.

Morris, Brian. "The Folk Classification of Fungi." *Mycologist*, vol. 2, no. 1, 1988, pp. 8–10.

"Mycology, n." *Oxford English Dictionary Online*, December 2023, https://doi.org/10.1093/OED/3430650070.

Orlando, Christina. "Feral Monstrosity: On Rivers Solomon's 'Sorrowland.'" *Los Angeles Review of Books*, 24 July 2021, https://lareviewofbooks.org/article/feral-monstrosity-on-rivers-solomons-sorrowland.

Poe, Edgar Allan. "The Fall of the House of Usher." *The Portable Poe*, edited by Philip Van Doren Stern, Penguin Books, 1945, pp. 244-68.

Rolfe, R. T., and F. W. Rolfe. "The Fungi in Fiction." *The Romance of the Fungus World: An Account of Fungus Life in Its Numerous Guises, Both Real and Legendary*. Chapman and Hall Limited, 1925, pp. 18-38.

Sheldrake, Merlin. *Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures*. Random House, 2021.

Smith, Herbert F. "Usher's Madness and Poe's Organicism: A Source." *American Literature*, vol. 39, no. 3, 1967, pp. 379–89. *JSTOR*, https://www.jstor.org/stable/2923302.

Solomon, Rivers. *Sorrowland*. MCD, 2021.

Sperling, Alison. "H. P. Lovecraft's Weird Body." *Lovecraft Annual*, no. 10, 2016, pp. 75–100. *JSTOR*, https://www.jstor.org/stable/26868514.

Sperling, Alison. "Queer Ingestions: Weird and Sporous Bodies in Jeff VanderMeer's Fiction." *Plants in Science Fiction: Speculative Vegetation*, 2020, pp. 194–213.

Seifert, Keith. "Introduction." *The Hidden Kingdom of Fungi: Exploring the Microscopic World in Our Forests, Homes, and Bodies*. Greystone Books, 2022, pp. 1-10.

"Symbiosis." *A Dictionary of Plant Sciences*, edited by Michael Allaby, Oxford University Press, 2019. *Oxford Reference*, https://www-oxfordreference-com.mutex.gmu.edu/view/10.1093/acref/9780198833338.001.0001/acref-9780198833338-e-6669.

Taylor, Matthew A. "The Nature of Fear: Edgar Allan Poe and Posthuman Ecology." *American Literature: A Journal of Literary History, Criticism, and Bibliography*, vol. 84, no. 2, 2012, pp. 353–79. *EBSCOhost*, https://doi.org/10.1215/00029831-1587377.

Woods, Derek. "Mycoaesthetics: Weird Fungi and Jeff VanderMeer's *Annihilation*." *Life, Re-Scaled: The Biological Imagination in Twenty-First-Century Literature and Performance*, edited by Liliane Campos and Pierre-Louis Patoine, Open Book, 2022, pp. 93-120.

Wynter, Sylvia. "Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument." *CR: The New Centennial Review*, vol. 3, no. 3, 2003, pp. 257–337, https://doi.org/10.1353/ncr.2004.0015.

Yamin-Pasternak, Sveta. "Ethnomycology: Fungi and Mushrooms in Cultural Entanglements." *Ethnobiology*, edited by E. N. Anderson, E. Hunn, D. Pearsall, and N. Turner, John Wiley & Sons, 2011, pp. 213–30. *Wiley Online Library*, https://doi.org/10.1002/9781118015872.ch13.