Duncan of Jordanstone
College of Art & Design
University of Dundee

ZHANA FRITSCH

Hidden Threads: A Contemporary Exploration of Fungi and Mycelial Thinking

May 2026

Fine Art

DOI 10.15132/30000125

Zhana Fritsch **2025**

Hidden Threads: a contemporary exploration of fungi and mycelial thinking

Exhibition Proposal

A dissertation submitted in partial fulfilment of the requirements for Fine Art BA (Hons)

Duncan of Jordanstone College of Art and Design

Word count of main body: 7486

Abstract

Hidden Threads: a contemporary exploration of fungi and mycelial thinking presents an engaging, ecologically informed exhibition featuring nine unique contemporary artworks spanning installation, sculpture, sound art, science, photography, painting and animation. The title draws on research around fungi and mycelium networks, aiming to bring this lesser-known area of ecology into the Dundee Botanic Gardens through the eyes of interdisciplinary artists. The exhibition will not only be a site to view art, but also to educate, encourage discussions around fungi and their relation to wider ecology issues, and to bring to the community of Dundee a new way to connect with the non-human world through artistic expression. In the first chapter of this paper, I discuss my curatorial thesis around ideas of mycelial connections and fungi's potentials for the future. In chapter two, I provide critical analysis of the artworks with reference to the thesis. In chapter three, I explore the curatorial decisions made for the exhibition, such as my choice of venue and environmental art. Lastly, chapter four examines additional ideas from a range of sources that influenced the exhibition.

Acknowledgements

Special thanks to all the people that listened and helped me navigate writing this paper - my family, friends and lecturers.

Contents page **Page Number**

List of figures:

Figure 10: Balci, S. (2025) *Faces*. Available at: https://selinbalci.com/faces/1/0 Image courtesy of the artist.

Figure 11: Fritsch, Z. (2025) *Proposed map of exhibition.*

Figure 12: Fritsch, Z. (2025) Xiaojing Yan's *Lingzhi Baby,* 2022, in the rainforest glasshouse waterlily pond.

Figure 13: Fritsch, Z. (2025) Sion Parkinson's *Stinkhorn* animation, 2020, in the temperate glasshouse

Figure 14: Fritsch, Z. (2025) Rae Yen Song's, ○ *squigoda song cycle* ● *water~land~air* ○, 2024, in the Living Lab.

Figure 15: Fritsch, Z. (2025) Isabel Fredeus's *Fungal Logistic's*, 2022, in the circle of maple trees.

Figure 16: Fritsch, Z. (2025) Tosca Teran's *Forest Undersound*, 2021, in the pagoda hut.

Figure 17: Fritsch, Z. (2025) Wes Nijssen and Bram van Wichelen*, Mushlooms*, 2017, in the copper beech trees.

Figure 18: Fritsch, Z. (2025) FIBRA collective's *Desbosque: desenterrando señales,* 2015, in the Green Gallery.

Figure 19: Fritsch, Z. (2025) Chris Dury's *Spore Print at The End of Land,* 2023, in the American area.

Figure 20: Fritsch, Z. (2025) Selin Balci's *Faces,*on log stack in the Australian area.

Figure 21: Goldsworthy, A. (2025) *Oak Passage*. Image courtesy of Zhana Fritsch.

Figure 22: Parkinson, S. (2024) *Comon stinkhorn Phallus impudicus*. Image from *Stinkhorn: How Nature's Most Foul-Smelling Mushroom Can Change the Way We Listen*, 2024

Figure 23: Fritsch, Z. (20250) FIBRA collective's *Desbosque: desenterrando señales,* in the Green Gallery. Image courtesy of the artist and Zhana Fritsch

Figure 24: Fritsch, Z. (2025) Isabel Fredeus's *Fungal Logistic's*, 2022, in the circle of maple trees. Image courtesy of the artist and Zhana Fritsch

Figure 25: Dundee Botanic Gardens Map featuring the original ten artworks. Image courtesy of Dundee Botanic Gardens and Zhana Fritsch.

Figure 26: Yiyi, W. (2021), *Petriceps - Pleurotus Citrinopileatus*, Available at: https://www.shanghartgallery.com/galleryarchive/artist.htm?artistId=1014
Image courtesy of the artist.

Glossary of terms

Hyphae – the tiny branching filaments that form mycelium (Bahadur, 2019, p. 198)

Mushrooms – the fruiting body of fungi which allows for reproduction (Bahadur, et al., 2015, p. 198)

Mycelium – the root structures of fungi which form vast networks (Bahadur, et al., 2015, p. 198)

Mycology – the scientific study of fungi (Brakhage, Kniemeyer, Zipfel, 2024)

Mycorrhizal – describing a beneficial, symbiotic relationship between fungi and plant roots (Brundrett, 2022)

Mycophilia – the love or enthusiasm for fungi, particularly for edible mushrooms (Peintner, 2013)

Mycophobia – the fear and avoidance of fungi and mushrooms (Peintner, 2013)

Saprophytic – organisms that gain nutrition by feeding on dead and decaying matter (Bahadur, et al.,2015, p. 214)

Symbiosis – a close, long-term relationship between two different species (Bahadur, et al., 2015, p. 281)

Introduction

To the untrained eye fungi can be elusive. A fruiting body will appear in the wet autumn season for a moment, only for it to wilt back into the earth. Yet underground, a whole kingdom exists in invisible threads, silently supporting the forests and the land beneath our feet.

> "If you could make the soil liquid and transparent and walk into the ground, you would find yourself surrounded by nets of fungal hyphae. Follow fungi into that underground city, and you will find the strange and varies pleasure of interspecies life." (Tsing, 2015, p. 134)

This exhibition proposal entitled *Hidden Threads: a contemporary exploration of fungi and mycelial thinking* questions and explores the world of fungi and the groundbreaking approaches contemporary artists are developing. As an overlooked area of ecology in contemporary art, but nonetheless one deeply rooted in human culture and creativity, this exhibition will explore themes of interdisciplinary practice between the fields of art and science, the potential for future sustainability that interdisciplinary collaborations create, the value of bringing non-human intelligence into the human conscience, and concepts of fungi as connectors, collaborators and messengers.

The exhibition will be curated at the Dundee Botanic Gardens, utilising both indoor and outdoor spaces. By occupying a rich, natural, sensory environment, I aim to evoke curiosity and interest for those who visit, and to break out of the traditional white cube gallery format. The nine selected artworks span across a range of mediums from artists who work in diverse manners, including video, sculpture, installation, painting and sound. I have purposefully chosen artists working at the forefront of fungi bio-art, particularly those who are pushing the boundaries of this field, merging the crossovers of art, science and sustainability in unconventional ways.

In the first chapter, I will discuss the key texts that have grounded my curatorial thesis. These include Yasmine Ostendorf-Rodgriguez's *'Let's Become Fungal!: Mycelium Teaching and the Arts'* (Ostendorf-Rodgriguez, 2023), Melvin Sheldrake's *Entangled*

Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures (Sheldrake, 2020), and Vera Meyer's *Operate with Fungi* (Meyer and Schäffner, 2024). These texts highlight the ideas integral to the dissertation: the importance of fungi in discussions surrounding sustainability, and fungi as a pathway to understand our complex relationships with the natural world. In chapter two, I critically analyse the curated artworks in response to the thesis. Chapter three provides ideas around my curatorial decisions including the venue choice and environmental art contexts, and chapter four examines further influences such as Siôn Parkinson's *Stinkhorn* text.

From an artistic perspective, fungi can provide important metaphors. For instance, mycelium perpetuate a sense of connectivity, which can be transposed to imagine how humans can form networks and relationships that could be developed in more exchangeable and sustainable ways. To back up the themes discussed in the paper, I have used a wide selection of sources including peer-reviewed journals and articles, academic texts, artists books, and gallery and exhibition sources.

Chapter 1 – Curatorial Thesis

1.1: Collaborating with fungi

It is estimated that there are between two to five million species of fungi globally (Brakhage, Kniemeyer, Zipfel, 2024). Fungi exist as their own kingdom of *Funga* with their own distinct characteristics from plants and animals, but they are deeply connected to other living systems through symbiotic, parasitic or saprophytic relationships (Bahadur, 2015, p. 197). The book *Let's Become Fungal!: Mycelium Teaching and the Arts* (Ostendorf-Rodgriguez, 2023) has underpinned my research into the relationship between humans and fungi. It explores the many lessons which fungi, and particularly its mycelium, can offer us about the world and our complex systems.

In the shared history between fungi and the arts, there exist several theories suggesting that the genesis of imagination, culture, art, and creativity and language is rooted from fungi (Ostendorf-Rodriguez, 2023, p. 213). It is believed that *Homo erectus* found psychedelic mushrooms during their migration and changing diets, which instigated new parts of the brain and possibly created new neural connections. Although evidence for this theory has been contested, there is no doubt that fungi can open the human mind to new creative perspectives, whether through *Psilocybin* use (McCoy, 2026, p. 413) or imaginative thinking.

The acceptance and integration of fungi into human lives differ greatly across the globe; in many mycophobic cultures such as the UK (Peintner, 2013), the population's majority are "only aware of consumable mushrooms" (Ostendorf-Rodgriguez, 2023, p.19). Fungi have existed for millions of years and have survived throughout some of the earth's greatest extinction periods, and yet their incredible biodiversity and resilience is far less acknowledged than plants and animals. Experts in the field of mycology are looking to non-human intelligence as something we should all value far greater (Meyer and Schäffner, 2024, p. 36). Tosca Terán's work (see p. 20) enhances this view by decentralising the human perspective and allowing a potential voice or sentience to communicate through digital technology (Terán, 2025).

Fungi are capable of reconstructing life through methods humans often consider abject or disgusting, such as the rotting of organic matter hence the prevalence of mycophobic cultures with a deep-seated fear of fungi (Ostendorf-Rodriguez, 2023, p.20). However, these are necessary processes for regeneration to happen, as all decaying life is transformed and recycled. Rodriguez explores the idea that nature is built on interdependence, and unfortunately human society has become intensely disconnected from this (Ostendorf-Rodgriguez, 2023 p. 239). Artists such as Xiaojing Yan (see p. 16) present ways to connect more deeply with the natural environment, and to consider more closely the repetition and patterns existing across species, reflecting the intertwining of fungi and human life.

The way fungi function is a perfect embodiment of this interdependence. Mycelium is built up from network-like structures consisting of *hyphae (*Bahadur, 2015, p. 199*)*. By many it is considered a 'messenger' of forests and natural landscapes, connecting with trees and plants in symbiotic relationships through their root systems. Rather than being built from many isolated individuals, mycelium exists as an interconnected organism. In the underground realm, it takes the role of a sensor that can hold knowledge about the health of the ecological system it lives in and communicate this to different parts of the mycelial network and to other species. This concept is easily transferred into visual representations, for example Isabel Fredeus (see p. 19) who enlarges the mycelial threads in sculptural forms.

The fact that mycelium has no unique centre or core can inspire societal models to help unravel power hierarchies that no longer maintain sustainability. Rodriguez examines fungal models as metaphors for adapting human societal models that improve human infrastructure and help systems become more interconnected and balanced (Ostendorf-Rodgriguez, 2023, p. 141). For example, mycorrhizal relationships can be formed on many levels, mutually benefitting in exchanges and restoring balance, or imagining value-based networks where different aspects of knowledge are exchanged instead of purely monetised capitalist systems.

Looking at environmental art more broadly, the movement of land art that arose in the 1960s is debated as no longer a 'true collaboration' with nature (Ostendorf-Rodgriguez, 2023, p. 162). It is vital to question whether nature benefits from being

manipulated and disturbed for the purpose of art and beauty. What if we decide to view the non-human world from different perspective, as a collaborator instead of simply a resource? Furthermore, how can artwork visualise the invisible aspects of nature? By working with or 'mutually collaborating' with fungi, artists can "assume roles of fungal ambassadors" (Ostendorf-Rodgriguez, 2023, p. 26). This involves taking on the responsibility of stimulating interest and visibility and enforcing knowledge and respect for fungi, which can make scientific concepts more tangible and intellectually accessible.

1.2: Fungal relationships, sustainability and complex ecosystems

In addition to the more abstract significances of fungi, their practical uses in sustainable industries have advanced significantly in recent decades. The mycologist Melvin Sheldrake gives fascinating insights into innovative possibilities for a sustainable future, in his book *Entangled Life, How Fungi Make Our Worlds, Change Our Minds and Shape Our Futures* (Sheldrake, 2020).

Some of the most promising sustainable developments in fungal biotechnologies are known as "myco-remediation", "myco-filtration", and "myco-fabrication" (Sheldrake, 2020, p. 11). These respectively involve the processes of training fungi species to break down pollutants, filtering heavy metals and breaking down toxins, and using mycelium in other design formats such as bioplastic, bio-leather and biodegradable packaging materials (Sheldrake, 2020, p. 11). The potentials for how we live in the future are being tested in various directions, from what we live in, for example architectural designs by companies like *The Living* using mycelium bricks (Architizer, 2014), to wearing biodegradable fungal clothes. Several design companies such as MYCOTEX (Neffa, 2025) are producing functional fungal textiles, and even fungal leathers have been introduced into the luxury fashion industry, such as bags made in collaboration with MycoWorks and Hermès (MycoWorks, 2021). The project *Mushlooms* (see p. 21) also speaks in this kind of contemporary design language, showing how fungal inspired objects could become more integrated in the near future. This rising interest in bio-art and design has grown from the concept of 'biomimicry' which was made popular by writer Janine Benyus's book *Biomimicry: innovation inspired by nature* (Benyus, 1998). Based on a continuation of indigenous cultural practices, biomimicry grounds

the idea that the natural world should not be extracted from, rather learned from and evolved in combination with human technologies (Ichioka and Pawlin, 2021).

Fungi have inherently been collaborators from the beginning. For 50 million years, while plant species were evolving their own roots systems, they borrowed fungi's mycelium networks to assist their nutrient uptake. They still depend on mycorrhizal fungi for vital nutrients like nitrogen (Brundrett, 2022). This exemplifies how plants and fungi constantly form and reform their relationships (Sheldrake, 2020, p. 158). Albert Howard, a founding figure in modern organic farming movement, stated that "On the efficiency of this mycorrhizal association the health and well-being of mankind must depend" (Sheldrake, 2020, p. 159). Howard expresses the importance of how these relationships sustain the environment and must be protected for the survival of all species living on earth.

Sheldrake also addresses the shifting boundaries on what a species is. He explores Gregory Bateson's theory of the blindman's stick, where a tool becomes an extension of sensory and cognitive abilities. This metaphor can be used to question the parameters of the self, and from an ecological standpoint we can question the construct of plants as autonomous individuals with rigid boundaries (Sheldrake, 2020, p. 164). Some mycorrhizal fungi work by penetrating their hyphae into the plant's root cells, meaning that the boundary where one organism begins and end is blurred (Brundrett, 2022). Selin Balci (see p. 24) demonstrates this interconnectedness and mutual exchange, highlighting how fungi permeate the human territory.

Ecosystems are complex, meaning that there is no single solution to resolve all environmental issues, and no "single fungal solution" to fix everything (Sheldrake, 2020, p.207). In addition, many existing systems work too efficiently to be replaced, despite their huge damage and disruption to the environment (Sheldrake, 2020, p. 207). Despite this, it is vital to continue exploring creative solutions to the earth's damage. Donna Haraway, a feminist scholar who also focuses on ecological interdependence, expertly analyses the two leading responses to the state of the planet: the pessimistic standpoint of surrendering to our own planetary blunderings, or putting all faith in technology to 'fix' the problems at hand (Haraway, 2016, p.2). *Staying with the trouble: Making Kin in the Chthulucene* (Haraway, 2016) explores the complexities of the current ecological crises, whilst also presenting solutions which

involve directly addressing the issues through strengthening collective thinking. “Based on the idea of becoming-with other humans, but more importantly with non-human others, Haraway traces a possible reconfiguring of the way we exist on this planet in the present, leading to an imaginable future that narrowly avoids our currently impending ruin” (Proctor, 2017). In the face of such unimaginable destruction of ecosystems and human livelihoods, there comes a sense of hopefulness from a deeper understanding of ecological structures, including fungi, which fuels creative and groundbreaking attempts to design a new future.

1.3: The potency of science and art

“By using the arts as a medium and a bridge, you can reach people differently. Make knowledge perceptible and the senses will open a portal into the sciences” (Meyer and Schäffner, 2024, p.59). In her recent publications *Mind the Fungi* (Meyer and Rapp, 2020), *Engage with Fungi (*Meyer and Pfeiffer, 2022), and *Operate with Fungi* (Meyer and Schäffner, 2024), Meyer strongly advocates that art should not be considered distant from scientific research. In the past, art and science was a merged study, exemplified by Leonardo da Vinci’s work (Brotton, 2009, p. 109), but the two areas have since diverged heavily into separate fields (Nai and Meyer, 2016). Nevertheless, if the ambition of both fields is to investigate and question nature, then creating a symbiotic relationship involving communication and sustainment is necessary. Without collaboration between fields, there is a lack of diverse perspectives. Art can be the perfect tool to express scientific ideas and concepts to a wide audience on an accessible level (Meyer, 2019).

Meyer also conducts interdisciplinary projects to inspire change, such as the citizen science project ‘Mind the Fungi’ (Meyer and Rapp, 2020), created as a research and exhibition platform which integrates art, technology and natural science. Projects like this are ongoing, research based and community informed and lead the way into practical outcomes for using biomaterials in our everyday lives (Meyer, 2019). These actions are steps to solving environmental destruction and climate change, which are inextricably linked with the societal and capitalist pressures of our time.

Meyer also suggests that rather than always looking to the human subject and artificial intelligence to lead progress in science and art, it is important to value non-human intelligence from active and living materials such as fungi (Meyer and Schäffner, 2024, p.122). This links to the philosophy of eco-centrism or 'moderate anthropocentrism', aiming to limit the impact of humans as the dominant species to restore balance of ecosystems (Fios, 2019). This idea assumes that we would impose measures of self-restraint to prioritise the stability of the system above our own benefit. By understanding and collaborating with the intelligence of fungi, we are valuing it at an equal level to our own intelligence and thus creating sustainability and respect. Rae Yen Song's work (see p.18) extends this idea into reality by using live micro-organisms as artistic partakers.

Chapter 2 – Curatorial Choices

Hidden Threads: a contemporary exploration of fungi and mycelial thinking will be held at the Dundee Botanic Gardens, spreading across various buildings and garden areas. I have selected the location as a fluid and open environment that has flexibility for artworks that require darkness or shelter from weather conditions, as well as green natural space filled with a variety trees and plants in which to place the external artworks in. I have curated the pieces to be situated in a trail formation, and viewers will use a map to locate each one (see Fig. 11). The curation focuses on interdisciplinary practice, with artists working in sculpture, interactive installation, painting, soundscape and video. On site there will also be reading library containing related books and texts that viewers can explore after spending time with the artworks (see appendix). The opening of this exhibition will commence in the autumn, to align with the abundance of fruiting mushrooms in this season. The exhibition model features the map (see Fig. 11) and each artwork in their proposed locations (see Fig. 12 – 20).

2.1: Selected artworks

Figure 1: Xiaojing Yan, *Lingzhi Baby*, 2022 (Mycelium, cultivated lingzhi mushrooms, woodchips)

Yan (b. 1978) explores the connections that humans share with the natural world in her practice. Migration also plays an important theme, and by working with mycelium and fungi she uses this as a metaphor for the movement of diaspora that flow around the world (CBC Arts, 2022). Yan creates sculptures using plaster moulds, filling them with mycelium grown on woodchips which is left to expand and occupy the space inside. The mushrooms then begin fruiting and continuing the life cycle until spores are released. Yan commonly uses *Lingzhi* mushroom, also known as *Reishi*. They have a deep significance in Chinese culture, rooted in the longevity of life and healing practices (CBC Arts, 2022). *Lingzhi Baby* is presented as the spores are releasing from the fruiting mushrooms, combining Yan's knowledge of fungi, science and sculpture to celebrate the intricate, cyclical nature of life and the constant potential for rebirth and transformation. This sculptural piece will be in the tropical glasshouse building, a space holding plant species such as water lilies and citrus fruits (University of Dundee, 2025), complementing the living element of the work.

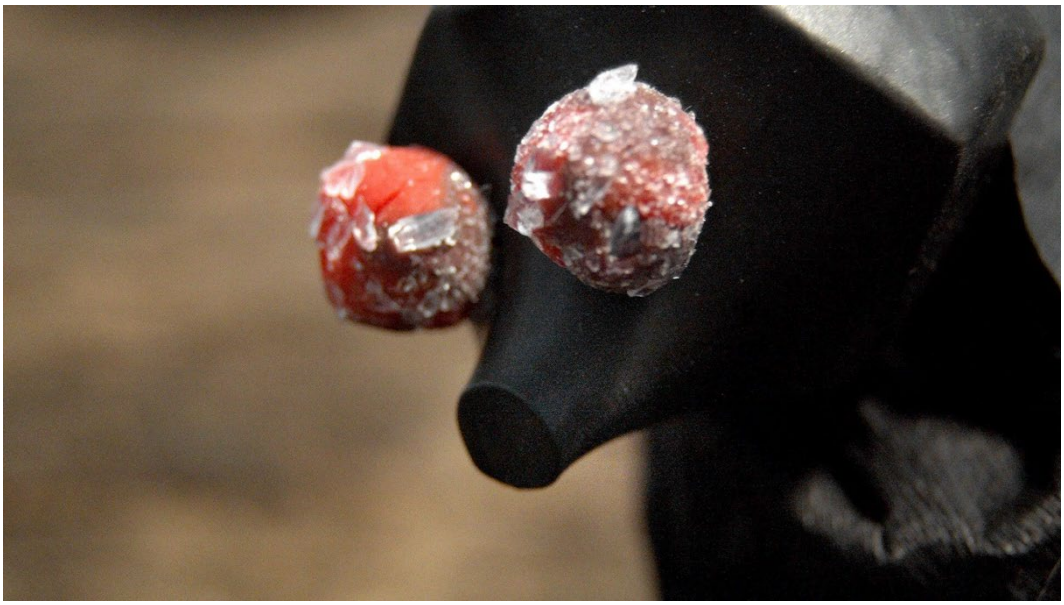

Figure 2: Siôn Parkinson, *Stinkhorn,* 2020 (Video, duration 3.30 mins)

Stinkhorn (2020) is a short animation featuring the life cycle of the stinkhorn mushroom. It will be featured on a screen in the desert area of the glasshouse. The film was made using puppetry, stop-motion animation and time-lapse sequences. The soundtrack is a synth and vocal track, reflecting the hums of flies that are attracted to the scent of this mushroom (Parkinson, 2020). Siôn Parkinson (b. 1978) is a multidisciplinary artist, musician and author from Dundee. He experiments with the human voice, electronic and acoustic instruments to create visceral music in his performances. His *Stinkhorn* project flows from the stinkhorn mushroom and his passion for the whole fungal world. His research in scent and sound has heavily informed his work, leading into the animation and sound works. Through his visceral language, the stench and buzzing sound of the stinkhorn is presented which draws the viewer in to a slimy, disgusting yet humorous and curious world. Parkinson's practice invites the human ear to listen and imagine through sound, the sensorial world of an incredible stenchful figure.

Figure 3: Rae Yen Song, ○ *squigoda song cycle* ● *water~land~air* ○, 2024
(Glazed ceramics, motorised turntables, cob, basalt, fermenting tea fungus, microphones and other sensors, live evolving soundscapes, 190cm x 172cm x 250cm)

The environments that Song (b. 1993) constructs are often complex, incorporating many elements and mediums. In *squigoda song cycle*, the collection of ceramic vessels, living organisms and earthen surface creates a moving, shifting and multi-level being. It will be shown in the Living Lab, a library and centre for studying the living collections in the gardens (University of Dundee, 2025). Song is interested in multi-species collaboration, this piece being a key example. The pool on the lowest level contains kombucha, otherwise known as 'tea fungus', which is formed symbiotically by bacteria and yeast. As it ferments, it generates changing signals and audio inputs through contact mics, hydrophone and other sensors. These emit throughout the gallery space as live soundscapes, constantly evolving and flowing as the fungus grows (Song, 2024). As Song expresses, this collaboration exists between the environment, the kombucha and with sound artist Tommy Perman who also worked on the project (Bandcamp, 2024). Song poses the question of what we consider the boundary of artistic relationships; evidently non-human life forms also hold the power to participate in experimental ways.

Figure 4: Isabel Fredeus, *Fungal logistics #1,* 2022 (Installation – glass, wood, plaster, silicone)

In this piece Fredeus (b.1991) works with mycelium as a sculptural point of research, in collaboration with Belgian biologist Elise Elsacker (Fredeus, 2022). This installation is built from found branches, glass, plaster and silicone objects. By scaling up the filamentous cells of fungus (the hyphae), she brings the invisible life forms to a more conceivable level. This work explores the relationship between micro and macro, and the symbiotic connections formed between mycelium and other organisms (Fredeus, 2022). The essence of the forms presents a flowing, natural state, and invite a unique spatial presence in how she suspends the fragments. Fredeus describes her practice as one that is co-informed: "Being in its (mycelium's) natural habitat full in sync with its environment is a reminder between the difference of working with an organism simply as living material or making work as co-worker sharing authorship as maker and creator" (Fredeus, 2025). This work will be situated inside a circle of maple trees in the native area of the garden.

Figure 5: Tosca Terán, *Forest Undersound,* 2021 (Installation and soundscape: Lingzhi and oyster mushrooms, mycelium, electrodes, synthesizers)

Forest Undersound is created by bio-sonification, a technique used to sonically 'voice' plants and fungi (Terán, 2021). The work will be placed inside a wooden pagoda hut, where the viewer can take time to sit and listen to the sound. As a temporal work, I will commission this piece to be recreated for the exhibition. Over seven months, mycelium was grown from the species *Ganoderma lucidum* (Reishi/Lingzhi) and *Pleurotus ostreatus* (oyster mushrooms). Electrodes connect to the mycelium, sending biodata into circuits and detecting tiny fluctuations in the fungi's electrical signals. The data is converted in real time into music using synthesizers, changing when reacting to human proximity, touch and other environmental impacts such as seasonal differences (Terán, 2021). Through this technological process, Terán considers the sentience of fungi. "Animals and fungi share a common ancestor and branched away from plants at some point approximately 1.1 billion years ago" (Teran, 2021). Considering human's genetic proximity to fungi, she aims bring an emotional and empathetic response towards these organisms, questioning the strength of their sentience. Tosca Terán is an interdisciplinary environmental artist who calls naming herself as a 'human holobiont', - a complex interconnected system consisting of a host organism and all its connected micro-organisms that live in or around it (Terán, 2025).

Figure 6: Wes Nijssen and Bram van Wichelen*, Mushlooms*, 2017 (Interactive installation: LED and hardware mapping, semi-transparent material)

MUSHLOOMS is an installation piece created by Belgian designer Wes Nijssen and digital technician Bram van Wichelen (Nijssen, 2017). It is formed of a modular LED system using a web of wires, mimicking a real mycelial network. This installation will be in the copse of copper beech trees, complimenting their rich ambient colours. The fungi sculptures are inspired by both the form and light of bioluminescent fungi, and controlled by interactive programming- meaning it can be altered from a distance and react to environmental sounds or movements (Nijssen, 2017). They are designed to be used outside in a natural environment on trees, or alternatively on industrial structures to create a play between man-made and natural structures. Each mushroom element is modelled from clay into a semi-transparent material which allows for the diffuse lighting effects (Nijssen, 2017). They evoke the raw and remarkable features of luminescent fungi, playfully exaggerating their light and scale to attract the viewer to engage with fungi as connectors and important performers in ecological systems.

Figure 7 and 8: FIBRA Collective, *Desbosque: desenterrando señales,* 2015
(Mycelium sculpture, light and sound installation)

This installation piece links to the deforestation of the *Ucayali* region of the Amazon rainforest. Using mycelium biomaterials formed from oyster mushrooms into human communication tools, the work becomes a fungal broadcast of the forest's destruction. Sound and light weave into the work by translating data from the Global Forest Watch and GEOBOSQUES platform (FIBRA, 2025). The data is heard through audio to express the voice of the forest through the mycelial network. The purpose of this is to invite urban audiences to encounter information on deforestation in an impactful and visceral way (FIBRA, 2025). The playful use of hanging elements and spotlights creates an otherworldly atmosphere, highlighting the intricacies of symbiotic relationships between fungi and trees and playing into the idea of the 'Wood Wide Web' that allows for the sharing and exchange of nutrients and information (Rodriguez, Chapter 3). The FIBRA collective (consisting of Lucia Monge, Gianine Tabja and Gabriela Flores del Pozo) address environmental issues, particularly the extractive industries on Peruvian territory. They create using a 'biolab', using locally sourced ingredients and processes to make non-toxic and biodegradable materials (FIBRA, 2015). This installation will be in the Green Gallery, an enclosed space for the viewer to experience the audio and lighting in an intense and immersive setting.

Figure 9: Chris Drury, *Spore Print at The End of Land,* 2023 (Barn, lime wash)

Drury (b. 1948) has an ongoing fascination with mushrooms which led him to create this piece, using lime wash and projecting the shape original spore print to trace it. The lime is the same material as the chalk barn it is painted on, allowing for it to slowly disappear over time (Drury, 2023). This reflects the impermanence of life, exploring the cycle of life, death and regeneration. Drury uses the mushroom print as a 'visual meditation' of this cycle, referencing fungi's ability to decompose organic material, support our gut systems, connect species through the 'wood-wide-web' (Drury, 2023). The circular pattern is considered by Drury as a mandala, a symbol which combines all these ideas in one form (Drury, 2023). Curating this work brings a contrast to the other experimental works in the exhibition, although still linked it brings perhaps a more spiritual, humanist perspective to the fungal world. As a site-specific piece, I will commission the gable end of the barn to be replicated and situated in one of the open lawn spaces.

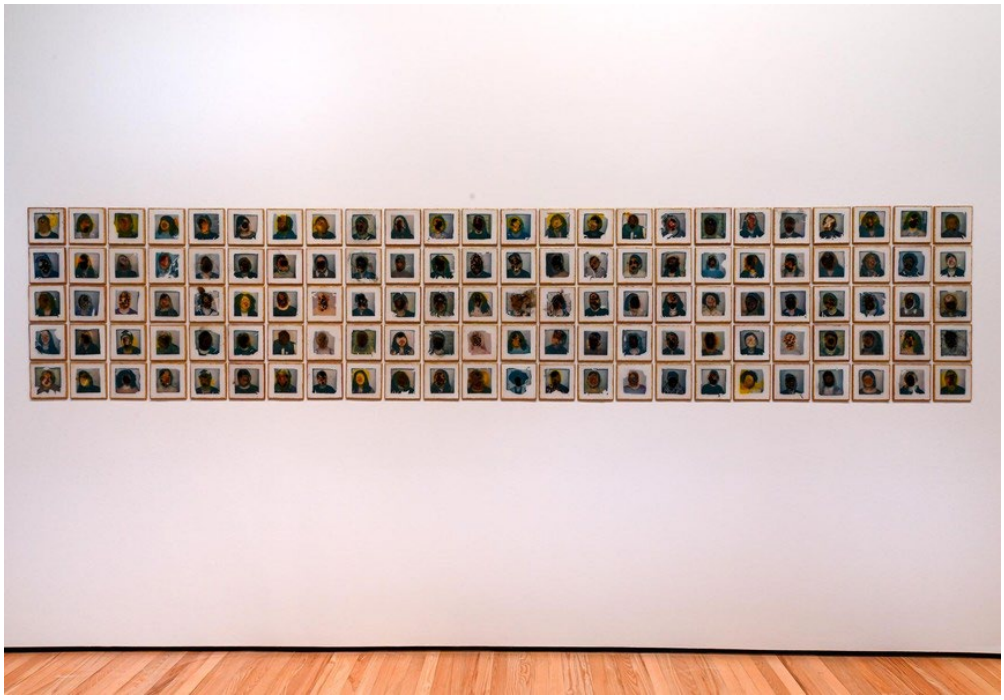

Figure 10: Selin Balci, *Faces,* 2025 (Mold spores taken from participants, Polaroid image transfer, boards, epoxy resin, 6x6" each)

In *Faces*, portraiture is reimagined and extended into the complex ecosystems that surround humans beyond the immediately visible. Microorganisms were collected from the people photographed, then applied to each polaroid correspondingly (Balci, 2025). During their growth, mould spores act as a 'living paint agent', imprinting colour, texture and shapes onto the panels, creating both a tangible and abstract image (Balci, 2025). The portrait collection responds to the interconnectedness of human life with the microbial world. Balci is an interdisciplinary artist who mixes traditional art with biological materials such as mould spores (Balci, 2025). She explores the invisible world of micro-organisms, transforming them into biological landscapes observable to the human eye (Balci, 2025). We are in a shared existence with invisible organisms that shape and sustain our environment, and Balci's work represents this complex idea in a simplified way, reminding us to be aware of the ecosystems of we exist in. This work will be in another open grass space for the viewer to move around freely.

2.2: Exhibition model and layout

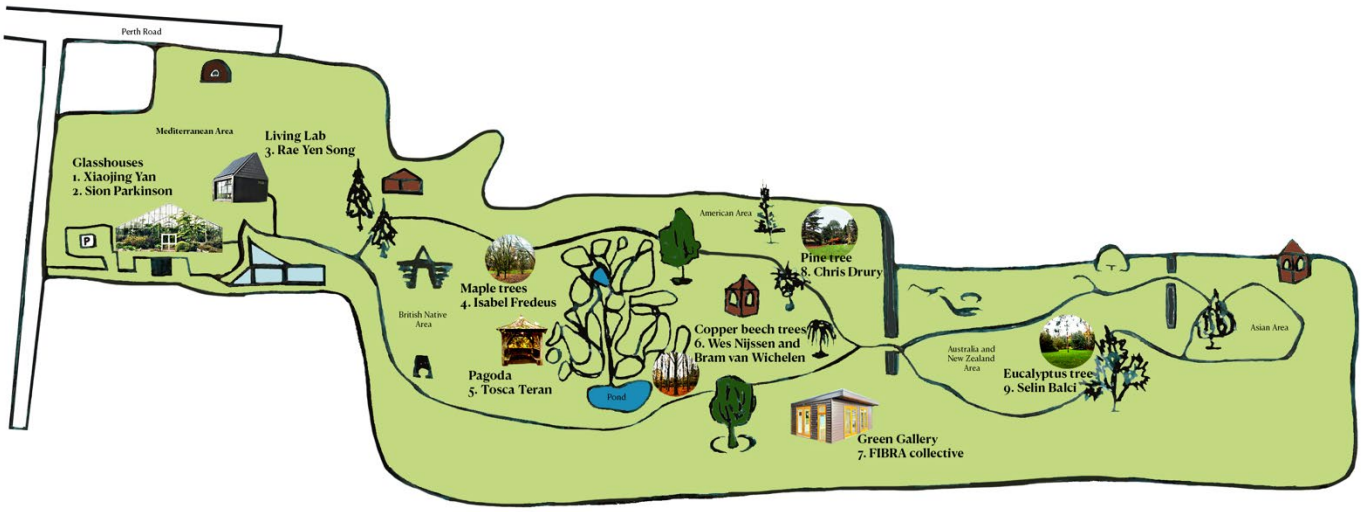

Figure 11: Map guide featuring location of each artwork

Figure 12: Xiaojing Yan's *Lingzhi Baby, 2022,* in the rainforest glasshouse waterlily pond

Figure 13: Sion Parkinson's *Stinkhorn* animation, 2020, in the temperate glasshouse

Figure 14: Rae Yen Song's, ○ *squigoda song cycle* ● *water~land~air* ○, 2024, in the Living Lab

Figure 15: Isabel Fredeus's *Fungal Logistic's*, 2022, in the circle of maple trees

Figure 16: Tosca Teran's *Forest Undersound*, 2021, in the pagoda hut

Figure 17: Wes Nijssen and Bram van Wichelen*, Mushlooms*, 2017, in the copper beech trees.

Figure 18: FIBRA collective's *Desbosque: desenterrando señales,* 2015, in the Green Gallery.

Figure 19: Chris Dury's *Spore Print at The End of Land,* 2023, in the American area

Figure 20: Selin Balci's *Faces,* 2025, on log stack in the Australian area

Chapter 3 – Curatorial Aims and Influences

3.1: Choice of venue

Dundee Botanic Gardens hold 9.5 hectares of land, housing a large collection of both indigenous British and important plant life from across several continents. These gardens exist for the purpose of "science, conservation and education" (University of Dundee, 2025). The Green Gallery is an existing exhibition space where many artists across the globe exhibit work often celebrating the natural environment. Holding the artworks in a green and plant-filled space will respond well to the theme of the exhibition. The work can be understood in a visceral and direct way, with the artworks reflecting the real fungi that the viewer may see amongst the trees. This approach has been influenced by other exhibition spaces and sculpture parks such as Yorkshire Sculpture Park and Jupiter Artland. I have visited Jupiter Artland several times and always marvelled at how natural the artworks seemed to blend into the landscape, the line blurring between forest, garden and artistic expression. Charles Jenk's *Cells of Life* (Jupiter Artland, 2003-2010) always stood out to me as an immersive sculptural adaptation of land that could intensely connect visitors to something larger than themselves. As Jupiter Artland's website describes: "At the heart of this developing landscape is the inexplicable force that connects the unconscious speech of the landscape with the literate vision of artists" (Jupiter Artland, 2025). There is a uniqueness in this 'force' that stands out from traditional gallery spaces, it has a timeless quality reflecting the natural world and humans' place within it. With *Hidden Threads,* I aim to perpetuate a similar feeling of this deep connection, affording dialogue between the artworks and the landscape.

In terms of curatorial practice context, the artworks and curation are presented in an engaging format, but the interpretation is open and allows for discourse in many directions. This is seen in the artwork interpretations that present a range of ideas, and the diverse visual and experiential elements across the works that allow for alternative perspectives. This argument has been influenced by the text *Curatorial Challenges: Interdisciplinary perspectives on contemporary curating*, (Hansen, Henningsen, Gregersen (eds), 2019) with the statement that "A curator does not lay down a law: indeed, his or her decisions and authority can always be questioned, by

colleagues and artists, as well as by the public. The public can refuse, directly or indirectly, to engage, to be persuaded, or to be involved" (Hansen, Henningsen, Gregersen (eds), 2019). I intend for this exhibition to be a space of curiosity and awareness in an inclusive space, and to educate and bring discourse surrounding fungi and art to the Dundee community.

The botanic gardens have previously held exhibitions linked to the environment which also exemplify this idea of open interpretation. Examples include '*Branching Out*', 2024, held as an extension of the degree show for those showing site-specific work (Instagram, 2024). Additionally, '*Rhizoma'* held in the Green Gallery in 2024, was an interesting crossover between technology and art, showcasing video game technology, sound engineering and AI to explore human connectivity, devices, and the natural environment (Abertay University, 2024).

3.2: Abandoning the white cube

Another key reason for curating in a public garden space is to distance from the white cube gallery model which dominates much of contemporary art today. A traditional gallery would not reflect the exhibition thesis to the same extent, given the deep exploration of ecological ideas. The topic of the white cube is a recurring one in recent curation discourse, particularly in an age of political and ecological turmoil which the white cube tends to strip away, containing art in ways that often feel too restrictive. In Brian O'Doherty's critique, *Inside the White Cube: The Ideology of the Gallery Space (1976)*, the use of these traditional spaces became so dominant during the 20th and 21st centuries that it became the default method of signalling to the viewer that they are in an artistic environment (Myers and Szupinska, 2017). Although written decades ago, his point that this 'hygenic' way of viewing is not the only method for showing art still rings true today. There are many more innovative, experimental and engaging curation styles that do not eliminate and segregate awareness of outside world.

> "The white cube was a transitional device that attempted to bleach out the past and at the same time control the future by appealing to supposedly transcendental modes of presence and power… like Plato's vision of a higher metaphysical realm where form,

> shiningly attenuated and abstract like mathematics, is utterly disconnected from the life of human experience here below" (O'Doherty, 1999).

Museums and dominant art institutions are being drawn into the debate about whether they still present in line with the modern ideologies, or are becoming outdated, whereas previously they were considered "major pillars" and "producers of narratives" (Hansen, Henningsen, Gregersen (eds), 2019). With this shift to new strategies for curation, the use of a non-traditional exhibition space aligns with the context of pushing boundaries, interdisciplinary research and the practices featured within *Hidden Threads*.

3.3: Environmental art curation

In the broader context of environmental art and the challenges that come with curation, it has come to light that museums and galleries are responsible for perpetuating ideologies and disconnection from the non-human world through their curatorial practices (Reddick, 2025). *Museum practices and the post humanities: curating for planetary habitability* by Fiona Cameron explains that new models and practices are necessary for sustainable growth and artistic development (Cameron, 2023). "Cameron posits the need for museums to think with 'new museological methods' that signal an enmeshed and more-than-human approach to the make up and composition of the world" (Reddick, 2025). A holistic reconnection is needed, for example placing exhibitions directly in natural settings like *Hidden Threads,* or alternatively creating grassroots projects, fostering smaller community-based events and organisations which all help to construct new narratives that discontinue the institutional restraining of contemporary art in capitalist and colonial outlooks.

In the UK there are several larger institutions that are not afraid to take leaps with experimental decisions. The Eden Project in Cornwall, iconically shaped in domes housing thousands of plants, primarily runs as a cultural centre for education to "connect people of all ages with the natural world" (Eden Project, 2025) They run annual exhibitions, commission pieces in collaboration with the environment and scientific research, all offering new perspectives in engaging ways. For example, *Super*

Natural (2022-2023) featured *First Came the Lands* by Ingela Ihrman, a giant wooden skeleton commissioned to be in the outer state, which will remain on site until it breaks down into the earth, forming into the natural life cycle of the natural world (Eden Project, 2023).

On the other hand, environmental art curation sometimes falls short of its intended purpose. An important point noted by Fiona Glen is that the entirety of ecological themes, climatic action, and the future of our planet cannot be grouped into one singular theme because the complexities branch out in so many directions (Glen, 2019). *Eco-Visionaries: Confronting a Planet in a State of Emergency,* was curated at the Royal Academy of Arts in London (Royal Academy of Arts, 2020). This exhibition, attempting to reflect the contemporary issues of eco-activism during the Extinction Rebellion protests and to provoke potential actions forward, instead fell somewhat into "reinforcing a perception of 'eco-art' in which all work engaged with environmental change or 'sustainability' can be grouped together" (Glen, 2019), without enough depth into individual artist's questioning. This demonstrates a lack of "strong curatorial structure" (Glen, 2019) without cohesive linking of theories and influence that go beyond the physicality of artworks.

To continue this line of unengaging curation, I visited the Andy Goldsworthy's *Fifty Years* retrospective show to explore the physical construction of large exhibitions that centre around ecological ideas. In the Royal Scottish Academy in Edinburgh, a very grandiose building, Goldsworthy had filled two floors with beautifully crafted works, built from simple materials but altered to reflect natural intricacies and interesting dialogues. Moreover, the gallery space was appropriate in terms of Goldsworthy's status in the arts, for accessibility and central location, and the size of his collection on show. Despite this, inside a white cube gallery it was distorting seeing so many natural forms. Perhaps there is a point to this contrast, to take the natural out of its normal home for the viewer to see and appreciate. The central work *Oak Passage* reflected humans' attachment to nature even in a built-up environment, complementing the gallery floor which previously existed as a tree, as Goldsworthy explained in the catalogue (National Galleries of Scotland, 2025). However, I did not experience the same awe or wonder, compared to viewing works in a sculpture park where one can feel the presence of the works in a profound way. The pieces were impressive yet static,

especially the framed photographs of his older site-specific work. This demonstrated some of the challenges involved in curating temporal work made outdoors, and the difference between inviting the viewer to be present in the process of the work compared to presenting post-documentation of it. In this sense, *Hidden Threads* attempts to show the in-progress and process-based work where the viewer can experience clear and direct links to the environment.

Figure 21: Andy Goldsworthy, *Oak Passage,* 2025

Chapter 4 - Other influential sources

4.1: Siôn Parkinson – The sensorial

In addition to exploring the more abstract concepts of the connective and collaborative nature of fungi, the exhibition also holds space for the raw, visceral aspects with which the viewer can immediately resonate. Mushrooms are plentiful in the autumnal garden and their spectacular forms, like the majestic inkcap with its feathery cap and black dripping fronds, arise from the earth to capture the attention. Moving closer, a rich fungal smell arises. Upon touching, there is a softness, or slimy surface, or even a rough texture. Once getting into a flow of observation, it is easy to tap into the world of fungi in a sensorial way.

Much of Siôn Parkinson's work revolves around sound and scent. In his book *Stinkhorn: How Nature's Most Foul-Smelling Mushroom Can Change the Way We Listen* (2024), his in-depth research highlights and expands on what it is to listen and smell fungi, using the stinkhorn mushroom as a central figure to draw upon (Parkinson, 2024). One of his crucial points is that scent or 'stink' transports through the air, which the human nose detects as elements in space. The scent is experienced as a general entanglement of different qualities and moods, not as distinct parts (Parkinson, 2024, p. 21). The brain cognitively receives these as feelings, which could be either discomforting or pleasant. Parkinson explains that this nasal detection of scent links with imagination, which links to the auditory, which in turn cannot be described with the same directness or power using language (Parkinson, 2024, p.21).

He conjures many vivid descriptions of the stinkhorn in relation to music, philosophy, the imagination, linguistics and historical illustrations. M.C. Cooke once named the scent of mushrooms as a "fungoid odour", or "the faint smell of a long-closed damp cellar, an odour of mouldiness and decay" (Parkinson, 2024, p. 89). Of course, the only way to truly know what fungi smell like is to go to its spawning ground and inhale the scent. Richard Mabey, the author of *The Perfumier and the Stinkhorn* (2011) explains: "Smells, unlike sights, are hard to describe. They inhabit an evocative, ephemeral space in our imaginations … they can only be described by comparison to other smells … they need to be attached to other memories…" (Mabey, 2011, p.21). These memories

latch onto smells, which Parkinson also believes leads to imagined sounds, in a "trans-sensory conceptualisation of Stink" (Parkinson, 2024, p.110).

These ideas inspired the inclusion of Parkinson's work in the exhibition, and the consideration of the sensorial aspects of fungi that occur across the other artworks. Human perception is so rich, full of contradictions, feelings, imagery, sounds and aromas, which have collectively informed our history and connection to fungi. The stinkhorn's sticky, rotting flesh smell attracts humming flies, which means the fungus can spread spores via the fly's body (Parkinson, 2024, p. 101). It is not always the visual that speaks to us most, but instead our network of instincts and senses which connect to our deep and intrinsic involvements with non-human entities.

Figure 22: *Comon stinkhorn Phallus impudicus* image from *Stinkhorn: How Nature's Most Foul-Smelling Mushroom Can Change the Way We Listen*, 2024

4.2: Anna Tsing – *The Mushroom at the End of the World*

Returning to a more global, politically charged view of fungi and its meanings for the future of the planet, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* by Anna Lowenhaupt Tsing (2015) highlights the Matsutake mushroom and its links to fungal ecologies, and illuminates the relationship between capitalist activities and the Anthropocene epoch (Tsing, 2015).

This text has informed my understanding of the social-political context of fungi, not explicit in the curatorial thesis but nonetheless running in the background. The exhibition provides discourse about alternative practices to destructive industries which intrinsically links to the rise of capitalism and imbalance in today's systems. Tsing acknowledges that across the globe there exists "a spread of techniques of alienation that turns humans and other beings into purely resources and thus preventing collaborative survival" (Tsing, 2015, p. 19). Put simply, without interlinked species collaboration we cannot ensure continued survival.

Tsing poses the matsutake, a rare and expensive mushroom, as a central figure to talk about destruction to the environment and sustainable management. In Japanese pine forests, the fungus requires the removal of invasive trees to grow in a symbiotic relationship with the pines, in turn increasing diversity in the delicate ecosystem (Tsing, 2015, p. 142). This is evidence of humans and nature working together, supporting the argument for ecocentrism and a balanced coexistence of human and non-human activities. Thinking on a global scale, the landscapes inhabited by humans have developed into "unintentional design" (Tsing, 2015, p.143), where the interconnection in hard to untangle, the land constantly evolving. Tsing reminds us of our dependence on natural processes, from which we have overstepped into an over-consumption of resources. However, we must listen to the non-human voice, for we cannot fix our problems alone. Woodland revitalisation groups like those working with matsutake manage to achieve "mutualistic transformation" (Tsing, 2015, p. 230) for both the people that work in them and the forests themselves.

Flowing from this text into the exhibition is the fact that we, as humans, do not exist as a separate group. We must work to refamiliarize ourselves with the non-human, for we greatly depend on it. Across the artworks this is reflected in the interconnection, the fungal networks and symbiosis.

4.4: Fantastic Fungi by Louie Schwartzberg

This documentary film was influential in my background research into the context of fungi within humanity and art. Brilliantly capturing visual depictions of fungi with timelapses of their growth, the film explores fungi's resilience to destructive natures of industries and capital growth, as well as their incredible physical diversity and complex communication systems (Fantastic Fungi, 2019). Paul Stamets, a popular mycologist and advocate for the uses of fungi in medicine and mental illness treatments, discusses the benefits of using psychoactive mushrooms to explore the mind's expansive potentials. Instead taking a strong scientific stance, the documentary explores representations of fungi in a spiritual sense, concluding that to protect nature we must live in harmony with it (Fantastic Fungi, 2019). Despite this worldview perhaps becoming too glorified at times (MacInnes, 2019), it was important for me to view fungi from a mycological and existential perspective, as this helped inform a common thread of hope between the exhibition artworks, at a time of global ecological and social instability.

Conclusion

This exhibition proposal has investigated the complexities of fungi in a contemporary art context, highlighting their integral role in ecology, culture, and art and science research. The diversity of artworks and approaches curated in the exhibition can be viewed as a mirroring of the intricate and varied structures that fungi display.

Hidden Threads: a contemporary exploration of fungi and mycelial thinking may not provide clear and distinct solutions to the future of the planet, but what it does aim to do is provoke imaginative thinking in the viewer in order to promote sustainability and nurture ecological interdependence. Questions that might arise for the viewer, and which could be drawn out in related events and workshops, include: what makes the world of fungi such an important and relevant area to address through contemporary art? What kind philosophical, social and political thinking arises when experiencing fungal art? And should we value human and artificial intelligence more than non-human intelligence?

In an age of increasing political and social turmoil, alongside heightened awareness of the importance of protecting fragile ecosystems and environments, this exhibition will bring more representation of fungi to the arts as an essential area to explore in relation to future systems and ways of living sustainably. Through this process, it will also strengthen the collaborative relationships between the fields of art, science, technology and ecology fields.

Hidden Threads: a contemporary exploration of fungi and mycelial thinking seeks to uncover the intricacies of an underground realm and bring it to life, to open the doors to ecological curiosity and to reconnect people in profound ways to the natural environment. It may also encourage people to adopt a more mycophilic mindset.

In alignment with the ideas of interconnection and sustainability discussed in the paper, the exhibition could be extended into a series of events and workshops that continue the ideas make them even more tangible to the community of Dundee. This would include discussion groups, community art events, foraging trails and fungal material workshops. These events would all use creativity as a tool to bring fungi into a more visible and represented area.

Bibliography

Abertay University (2024), *New Dundee exhibition connects nature with AI, sound design and virtual reality*. Available at: https://www.abertay.ac.uk/news/2024/new-dundee-exhibition-connects-nature-with-ai-sound-design-and-virtual-reality/ (Accessed 09/12/25)

Architizer (2014), *Hy-Fi by The Living* (Available at: https://architizer.com/projects/hy-fi/ (Accessed: 23 October 2025).

Bahadur, B. *et al.* (2015) *Plant Biology and Biotechnology: Volume I: Plant Diversity, Organization, Function and Improvement*. 1st ed. 2015 edition. Edited by L. Sahijram et al. New Delhi: Springer (India) Private Limited. Available at: https://doi.org/10.1007/978-81-322-2286-6

Balci, S. (2025) *Faces*. (Polaroid images and mould spores)

Balci, S. (2025). *Selin Balci* Available at: https://selinbalci.com/info (Accessed: 20/11/2025)

Bandcamp (2024) ○ *squigoda song cycle ● water~land~air* ○ Available at: https://tommyperman.bandcamp.com/album/squigoda-song-cycle-water-land-air https://rae-yen-song.com/projects/%E2%97%8B-squigoda-song-cycle-%E2%97%8F-water-land-air-%E2%97%8B/ (Accessed: 02/11/2025)

Bennett, J. (2010) *Vibrant matter: a political ecology of things*. Durham, N.C: Duke University Press.

Benyus, J.M. (1998) *Biomimicry: innovation inspired by nature*. New York: Quill.

Boddy, L. and Herman-Oakley Mills, M.E. (2025) 'The visual art of mycology', *Current Biology*, 35(11), pp. R440–R447. Available at: https://doi.org/10.1016/j.cub.2025.05.005.

Brakhage, A.A., Kniemeyer, O., Zipfel, P.F. (2024) *Human and Animal Relationships*. 3rd ed. 2024. Berlin, Heidelberg: Springer Berlin Heidelberg. Available at: https://doi.org/10.1007/978-3-540-79307-6. (Accessed 04/12/25)

Brundrett, M. (2022) *The ancient, intimate relationship between trees and fungi*. Available at: https://www.uwa.edu.au/news/article/2022/february/the-ancient-intimate-relationship-between-trees-and-fungi (Accessed: 23 October 2025).

Brotton, J. (2006) *The Renaissance: A Very Short Introduction*. Oxford [England]: OUP Oxford. Available at: https://research.ebsco.com/linkprocessor/plink?id=4ff2f75d-c004-31ef-ba72-840210a7a4ed (Accessed: 25 October 2025).

Brown, M. (2019) *Everyone loves a mushroom: London show celebrates art of the fungi* Available at: https://www.theguardian.com/artanddesign/2019/dec/25/somerset-house-london-mushroom-art-fungi-exhibition (Accessed 05 October 2025)

Cameron, F. (2023*) Museum Practices and the Posthumanities: Curating for Planetary Habitability*. London, Routledge.

CBC Arts (2022) *This artist creates ethereal mushroom sculptures like something out of a fairy dream. Nov 4, 2022*. Available at: https://www.youtube.com/watch?v=XapPJWbs4rM (Accessed: 04/11/2025).

Drury, C. (2023) *Spore Print at The End of Land*. (Lime wash, barn)

Eden Project (2025). *Eden Project Scotland, UK* Available at: https://www.edenproject.com/new-edens/eden-project-scotland-uk (Accessed: 06/12/2025).

Eden Project (2023) *Super Natural*. Available at: https://www.edenproject.com/visit/whats-on/super-natural (Accessed: 07/12/2025)

Fantastic Fungi (2019) Directed by Louie Schwartzberg [Documentary film]. USA, Moving Art Studio.

FIBRA (2015) *Desbosque: desenterrando señales*. (Mycelium sculpture and sound installation)

Fios, F. (2019) '*Building awareness of eco-centrism to protect the environment', Journal of physics. Conference series*, 1402(2). Available at: https://doi.org/10.1088/1742-6596/1402/2/022095

Fredeus, I. (2022) *The Portfolio*. Available at: https://www.isabelfredeus.com/_files/ugd/3ead59_94b63cd861904a3390fa103067f325af.pdf (Accessed: 05/10/2025)

Fredeus, I. (2022) *Fungal Logistics*. (Sculptural installation)

Fredeus, I. (2025) '*Fungi*' (Instagram). 9 April 2025. Available at: https://www.instagram.com/p/DIOUxqfszhl/?img_index=1 (Accessed: 20/11/2025)

Glen, F. (2019) '*Eco-Visionaries: Confronting a Planet in a State of Emergency, Gonzalo Herrero Delicado and Rose Thompson, Royal Academy of Arts, London, 23 November 2019–23 February 2020*', Art & the Public Sphere, 8(2), pp. 267–272. Available at: https://doi.org/10.1386/aps_00026_5. (09/12/2025)

Grunwald, O., Harish, E. and Osherov, N. (2021) '*Development of Novel Forms of Fungal Art Using Aspergillus nidulans*', *Journal of fungi (Basel)*, 7(12), p. 1018.

Hansen, M.V., Henningsen, A.F. and Gregersen, A. (eds) (2019) *Curatorial challenges: interdisciplinary perspectives on contemporary curating*. 1st ed. Abingdon, Oxon; Routledge.

Haraway, D.J. (2016) *Staying with the trouble : making kin in the Chthulucene*. Durham: Duke University Press. Available at: http://www.vlebooks.com/vleweb/product/openreader?id=Dundee&isbn=9780822373780 (Accessed: 10/12/2025)

Ichioka, S. and Pawlyn, M. (2021) *Flourish*. Triarchy Press.

Jagodzinski, J. (2019) 'Against the Anthropocene: visual culture and environment today, by T.J. Demos, Berlin, Germany, Sternberg Press, 2017, *Environmental politics*, pp. 1309–1311. Available at: https://doi.org/10.1080/09644016.2019.1657646 (Accessed: 08/12/2025)

Jupiter Artland (2025) *Home* Available at: https://www.jupiterartland.org/ (Accessed: 6 December 2025)

Jupiter Artland (2003-2010) *Charles Jencks Cells of Life* Available at: https://www.jupiterartland.org/art/cells-of-life/ (Accessed: 13/12/2025)

Lawrence, S. (2022) *The Magic of Mushrooms: Fungi in Folklore, Superstition and Traditional Medicine*. Royal Botanic Gardens Kew, Welbeck.

Mabey, R. (2011) *The perfumier and the stinkhorn*. London: Profile Books.

MacInnes, P. (2020) '*Spore's the pity: how Fantastic Fungi flags up man's abuse of nature'*, *The Guardian*, 4 November. Available at: https://www.theguardian.com/film/2020/nov/04/fantastic-fungi-flags-up-mans-abuse-of-nature (Accessed: 10 December 2025).

McCoy, P. (2016) *Radical mycology: a treatise on seeing & working with fungi*. Portland, Oregon: Chthaeus Press.

Meyer, V. (2019) 'Merging science and art through fungi', *Fungal Biology and Biotechnology*, 6(1), p. 5. Available at: https://doi.org/10.1186/s40694-019-0068-7.

Meyer, V. (2025*) V. meer*. Available at: https://www.v-meer.de (Accessed: 19 August 2025).

Meyer, V. and Pfeiffer, S. (2022) *Engage with Fungi,* TU Berlin University Press, Berlin

Meyer, V. and Rapp, R. (2020), *Mind the Fungi*. TU Berlin University Press, Berlin

Meyer, V. and Schäffner, W. (2024) *Operate with Fungi*, TU Berlin University Press, Berlin

MycoWorks (2021) *An Exclusive Collaboration by Hermès and MycoWorks*, *MycoWorks*, 7 March. Available at: https://www.mycoworks.com/introducing-sylvania-by-hermes (Accessed: 23 October 2025).

Myers, J. and Szupinska, J. (2017) *Inside the White Cube: The ideology of the Gallery Space,* Art journal (New York. 1960) Philadelphia: Taylor & Francis.

Nai, C. and Meyer, V. (2016) 'The beauty and the morbid: fungi as source of inspiration in contemporary art'*, Fungal Biology and Biotechnology*, 3(1), p. 10. Available at: https://doi.org/10.1186/s40694-016-0028-4.

National Galleries of Scotland (2025) *Andy Goldsworthy | Fifty Years* Available at: https://www.nationalgalleries.org/exhibition/andy-goldsworthy-fifty-years (Accessed: 15 December 2025)

Neffa (2025) *MYCOTEX by NEFFA | Materials* Available at: https://neffa.nl/materials (Accessed: 25 August 2025).

Nijssen, W. and Wichelen, B., (2017) *Mushlooms*. (Interactive light installation)

Nijssen, W. (2017) *Shrooms of Doom*. Available at: https://www.visualassault.be/SHROOMS-OF-DOOM (Accessed: 26 October 2025).

O'Doherty, B. (1999) *Inside the white cube : the ideology of the gallery space*. Rev. ed. Berkeley, Calif: University of California Press.

Ostendorf-Rodriguez, Y. (2023) *'Let's Become Fungal',* Valiz, Amsterdam

Parkinson, S. (2020) *Stinkhorn*. (Video animation)

Parkinson, S. (2024) *Stinkhorn : how nature's most foul-smelling mushroom can change the way we listen*. Translated by C. Spearing. London, UK: Sternberg Press.

Peintner, U. *et al.* (2013) 'Mycophilic or Mycophobic? Legislation and Guidelines on Wild Mushroom Commerce Reveal Different Consumption Behaviour in European Countries', *PloS one*, 8(5). Available at: https://doi.org/10.1371/journal.pone.0063926. (Accessed 04/12/2024)

Proctor, D. (2017) 'Staying with the Trouble: Making Kin in the Chthulucene by Donna J. Haraway (review)', *Anthropological quarterly*, 90(3), pp. 877–882. Available at: https://doi.org/10.1353/anq.2017.0054.

Rapp, R. (2019) 'On mycohuman performances: fungi in current artistic research', *Fungal biology and biotechnology*, 6(1). Available at: https://doi.org/10.1186/s40694-019-0085-6. (Accessed on 04/12/25)

Reddick, H. (2024) 'Museum practices and the posthumanities: curating for planetary habitability: by Fiona Cameron, Oxfordshire, Routledge, 2024,, *Museums & social issues*, pp. 123–124. Available at: https://doi.org/10.1080/15596893.2025.2463790. (Accessed: 15/10/2025)

Royal Academy of Arts (2020). *Eco-Visionaries* Available at: https://www.royalacademy.org.uk/exhibition/architecture-environment-eco-visionaries (Accessed: 8 December 2025).

Sheldrake, M. (2020) *'Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures'*. Penguin Random House

Song, R. (2024) ○ *squigoda song cycle* ● *water~land~air* ○. (Sculpture and sound installation)

Staunæs, A.B. and Thomsen, M.R. (2019) 'Rosi Braidotti and Maria Hlavajova: "Posthuman Glossary"', *Foucault studies*, 1(27), pp. 172–175.

Terán, T. (2021) *Forest Undersound*. (Installation and soundscape)

Terán, T. (2025) *The Big Ponder #34: Sounds of Nature*. Available at: https://www.goethe.de/prj/tbp/en/eps/son.html (Accessed: 5 August 2025).

Terán, T. (2025) *Tosca Terán*. Available at: https://www.toscateran.com (Accessed: 5 August 2025).

Tsing, A.L. (2015) *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. 1st edn. Princeton: Princeton University Press. Available at: https://doi.org/10.1515/9781400873548.

University of Dundee (2025) *Botanic Garden and Grounds*. Available at: https://www.dundee.ac.uk/botanic/areas (Accessed: 09/10/25)

Weinhold, M. (2024) 'Border crossings and connections', *Fungal biology and biotechnology*, 11(1). Available at: https://doi.org/10.1186/s40694-024-00182-5

Yan, X. (2022) *Lingzhi Baby (*Mycelium, cultivated lingzhi mushrooms, woodchips).

Appendix

Personal Statement

This dissertation supports and assists in underpinning my studio practice through research of mycelial network structures, the relationships between fungi and humans, and their inspiring potential for creating practical changes for a sustainable future on social and environmental levels. I aim to highlight the value of bringing fungi into the art world for sustainability, curiosity and building collaborations between science and art. In my practice I am exploring fungi's potential to create sustainable materials such as sculpture, natural dyes, pigments and prints. The vast range of forms and colours is fascinating, to me fungi represent a world of curiosity, resilience and hope for the future. I am attempting to increase my use of sustainable materials and experimenting with creating my own to limit waste and to align with the themes of my work. For my degree show, I plan to continue my use of mixed medias and push the boundaries of what I have previously created by making living sculptures that emit imagined sound of the mycelial network.

Unsuccessful processes of model making:

I attempted to create photo collages of the artwork in the space by hand, however it was difficult to achieve precision and a realistic representation. I realised that the FIBRA installation would need no natural daylight, so I decided to continue using photoshop to create window coverings.

Figure 23: FIBRA collective's *Desbosque: desenterrando señales,* in the Green Gallery, paper collage

Figure 24: Isabel Fredeus's *Fungal Logistic's*, 2022, in the circle of maple trees, paper collage

Isabel Fredeus's piece was also too complex to collage manually.

Figure 25: Dundee Botanic Gardens Map featuring the original ten artworks

I originally considered ten artworks for the exhibition, the final being Wang Yiyi's *Petriceps* sculpture which I would curate in the Australian Area of the gardens. However, I felt that the piece did not bring enough further interest to the overall curation when the existing nine already explored the range of ideas. It was also difficult to find enough sources on Yiyi's work, as she is not a commonly known artist, so I felt I wouldn't be able to provide sufficient critical analysis on her piece.

Figure 26: Wang Yiyi, *Petriceps - Pleurotus Citrinopileatus,* 2021, stoneware

Reading room

As an additional part of *Hidden Threads,* a reading room will be available for the viewer to explore. This will be located in the visitor's centre at the botanic gardens.
I have provided here the list of texts that will be included in the library:

Hidden Threads exhibition catalogue

Stinkhorn by Sion Parkinson

Let's become fungal! by Yasmine Ostendorf-Rodriguez

Operate with Fungi by Vera Meyer

Entangled Life by Merlin Sheldrake

Underland by Robert Macfarlane

The Mushroom at the End of the World by Anna Tsing

Decolonizing Nature by T.J. Demos

Vibrant matter: a political ecology of things by Jane Bennett

Radical Mycology by Peter Mccoy

Biomimicry: innovation inspired by nature by Janine Benyus

Staying with the Trouble: Making Kin in the Cthulucene by Donna Haraway