

CONFIRMATIVE PRACTICE REPORT

Exploring the effects of the Nixon mine

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MA Contemporary Dialogues

Table of Contents

<i>Introduction.....</i>	<i>3</i>
History of the mine.....	4
<i>Landscape</i>	<i>6</i>
<i>Elf Cup Mushrooms / Sarcoscypha austriaca</i>	<i>7</i>
<i>Site-Specific</i>	<i>9</i>
<i>Hauntology and Time</i>	<i>10</i>
<i>Artists.....</i>	<i>12</i>
Federico Pestilli	12
Mika Rottenberg.....	14
Yayoi Kusama.....	16
<i>Experimenting leading to 3D Printing.....</i>	<i>17</i>
<i>Ghost Polaroids</i>	<i>22</i>
<i>Layers and Cycles.....</i>	<i>23</i>
<i>Exhibition</i>	<i>25</i>
<i>Conclusion</i>	<i>27</i>
<i>Reference list</i>	<i>29</i>

FIGURE 1: PHOTOGRAPH OF A COAL AUTHORITY SIGN AT ONE OF THE ENTRANCES AT THE NIXON MINE. [PHOTOGRAPH]	5
FIGURE 2: ELF CUP MUSHROOMS SWAMPING THE LANDSCAPE OF THE NIXON MINE. [PHOTOGRAPH] ..	7
FIGURE 3: 3D SCAN OF AN ELF CUP MUSHROOM. [3D SCAN / PHOTOGRAPH]	9
FIGURE 4: FEDERICO PESTILLI (2019) CRUSHED ROSE 1. [PHOTOGRAPH] AVAILABLE AT: HTTPS://WWW.CARRIE-SCOTT.COM/SHOP/FEDERICO-PESTILLI-CRUSHED-ROSE-I-MFW3P	13
FIGURE 5: MIKA ROTTENBERG (2024) PHOTOGRAPH OF MUSHROOM SCULPTURE [PHOTOGRAPH AND SCULPTURE] AVAILABLE AT: HTTPS://WWW.HAUSERWIRTH.COM/URSULA/MIKA-ROTTENBERG- PLASTIC/	15
FIGURE 6: YAYOI KUSAMA (2021-2024) PHOTOGRAPH OF INFINITY MIRROR ROOM [PHOTOGRAPH OF INSTALLATION] AVAILABLE AT: HTTPS://WWW.TATE.ORG.UK/WHATS-ON/TATE-MODERN/YAYOI- KUSAMA-INFINITY-MIRROR-ROOMS	16
FIGURE 7: CYANOTYPE OF LOCAL PLANT LIFE FROM CWM CLYDACH. [CYANOTYPE / PHOTOGRAPH] ...	17
FIGURE 8: SCREENSHOT OF THE 3D PRINTER SLICER SOFTWARE. [SCREENSHOT]	19
FIGURE 9: FLATBED SCAN OF THREE 3D PRINTED ELF CUP MUSHROOMS. [PHOTOGRAPH]	20
FIGURE 10: SHORT VIDEO OF THE 3D PRINTING PROCESS. [VIDEO]	22
FIGURE 11: 3D PRINTED MUSHROOM HANGING FROM A TREE IN THE LANDSCAPE OF THE MINE ON POLAROID SPECTRA FILM. [POLAROID]	23
FIGURE 12: A COLLECTION OF 3D PRINTS CREATED BY LAYERS AND CYCLES. [PHOTOGRAPH]	24
FIGURE 13: FIRST EXHIBITION EXPERIMENT. [INSTALLATION / PHOTOGRAPH]	26
FIGURE 14: FIRST DRAFT OF THE BOOK. [SCREENSHOT]	26

Introduction

The landscape of South Wales has been manufactured and shaped by the interference of the coal mining industry. Many communities both small and large began to disband with the closures of the mines, also destroying the natural landscape. Communities began to diverse and evolve alongside the physical and cultural landscape. This project explores the effects of the interference on the landscape of Craig Cefn Parc caused by the Nixon mine.

Individuals have been interacting and interfering with the landscape in South Wales for generations, including through coal mining and water reservoirs, which have permanently altered the Welsh landscape (Llewellyn et al., 2017), not only physically but also culturally and metaphorically and will continue to do so. This body of work is an exploration of the cultural and physical interference of industrial mining on the landscape and how the community has developed.

This project challenges what photography could be by relating photography and 3D printing which has impacted my journey as an artist. Combining mediums motivated me to refine my own distinctive practice and style. I have created a body work that has followed a distinctive path by extensively exploring my interest in combining 3D printing and photography to produce my own immersive art. This report combines all the evidence from my research. In this review I will discuss all the components that construct my practice, including artists who inspire specific aspects of my practice,

theories of hauntology and landscape, and how I utilised my unique skill palette to create this body of work.

The key theories that are explored include hauntology, site-specific, landscape, layers and time. Each theory performs a different function within this project, intertwining on many occasions. This project utilises these theories to physically and metaphorically explore the landscape of a local abandoned mine which is now a protected Royal Society for the Protection of Birds (RSPB) nature reserve. The project explores the physical changes and traces of the landscape, and the effect of changes within the community that occurred because of the mine. Both the physical and metaphorical landscape are important to this project. The multiple layers explored in this project allows the audience to view the work in multiple ways. The theme of layers continues to be important and is represented by the layers that create a 3D Printing artifact. It is important for me as an autistic artist that the medium used and the work created is accessible for all to experience. I believe everyone should have the opportunity to explore and enjoy my practice whether they understand art theories or simply enjoy the aesthetics of the work, including it being tactile as well as visual.

History of the mine

To understand my exploration of the landscape, it is imperative to understand the history of the mine and the community it provided substance to. Welshcoalmines.co.uk (n.d) offers a brief overview of the history of the mine. The Clydach Merthyr mine, known as the 'Nixon' mine, was a small drift mine in the small Welsh village of Craig Cefn Parc, located in the Swansea Valley.



Figure 1: *Photograph of a Coal Authority sign at one of the entrances at the Nixon mine.* [Photograph]

The mine was opened in 1863 and in its early years by 1896, it had 406 workers. At its peak it had just under 600 workers and was the main source of employment for the men and sometimes children in the village. The mine stopped operating in 1961 but remained open until 1978 for ventilation for other mines in the Swansea Valley. The closure resulted in unemployment with many people having to find work outside the village (BBC, 2014). Some of the workers and others who have explored the mine still live in the village are a vital part of the community and continue to share stories and their experiences about how the community and landscape has changed.

The landscape of the mine is now a RSPB nature reserve (RSPB, 2025) with many of the structures such as old carts, rails and brick ruins still visible in the landscape. There is a wide variety fauna and flora that thrive in the landscape; tall trees produce shade over the river and small waterfalls now flow over abandoned wall and buildings. This is a physical representation of nature recovering growth through an industrial landscape.

Landscape

The small Welsh village and abandoned mine hidden in the Swansea Valley is where I grew up and discovered my love for photography and the landscape. As a child I would walk and play in the river that supplied the mine with water, searching for artefacts from the mine, and exploring the abandoned structures. I was fascinated by the tracks in the paths and the abandoned minecarts. I explored the landscape of the mine and photographed what was left attempting to capture the exceptional qualities of the landscape, which led me to research how the mine itself interacts with the landscape.

Wells (2011, p.19) discusses how we as humans shape our own landscape and states “traces of previous human tenancy mark the lands we inhabit”. Wells implies that that our landscape is a combination of nature and nurture. The landscape of the mine that is investigated in this project has been physical and metaphorically explored, being shaped by the non-organic interference of the mining industry and industrialism in Wales. Wells (2011, p. 19) states “human action contours the landscape, and stories told give meaning to it”. Applying this to my practice indicates that the mine formed the current landscape. The landscape tells the story of the mine and continues to narrate the landscape. In this project I searched for traces of the mine that were left by previous generations and were reclaimed by nature, such as wildlife emerging through the old brickwork ruins. Whilst exploring the landscape, many man-made and organic traces were discovered and the intertwining of the two became evident. This mirrored the developments and intertwining of old with the new community. The new natural organic environment would not have been created in this way if not for the specific past industrialism and the landscape would have been developed completely differently.

After completing research into the landscape, I then discovered one of the most unique aspects of the landscape, which appears in form of a mushroom.

Whilst exploring, Elf Cup mushrooms (*Sarcoscypha austriaca*) were discovered in the landscape that only had the ability exist because of the interference of the colliery. After discovering this I decided to do further research into the mushrooms and the connection between landscape and hauntology.



Figure 2: *Elf Cup mushrooms swamping the landscape of the Nixon mine.* [Photograph]

Elf Cup Mushrooms / *Sarcoscypha austriaca*

To understand what the mushroom represents to the element of this project it is important to understand the composition of the Elf Cup mushroom. The Woodland Trust (2025) has a brief overview and information about the Elf Cup mushroom. The Elf Cup mushroom is a distinctive fungus that is relatively rare in the UK but engulfs the valley where the mine is situated. According to European folklore the mushrooms are

used as cups by elves to drink the morning dew which relates to the Welsh landscape as the Welsh landscape is full of folklore and history. The Elf Cup grows on debris in damp locations. They appear in the winters months and are often hidden in the dead winter leaves. They emerge in their bright beautiful red colouring, contrasting against the bleak bare winter landscape. The interference of the mine and the industrialism in the landscape moulded it to be the perfect setting for the mushrooms to thrive.

As well as being the ideal habitat for the mushrooms to grow, they are also seamless as a metaphor for the local community. Unlike many mining communities in South Wales, the local village where the mine is situated continued to break through and flourish after the closure of the mine, comparable to the mushrooms continuing to grow and bloom through the industrial man-made landscape of the mine. Throughout this project I have experimented with the mushrooms and using the growth of the mushrooms as a metaphor for the growth of the community. Due to their significance in the landscape the mushrooms grew to be the main representation in my practice. The mushrooms became a constant throughout my practice and led my research to the use of new mediums such the detail of 3D scanning/imaging and 3D printing.

Today's landscape is a ghost of the mines which will be fully explored under the section on hauntology. The natural Elf Cup and creation of the 3D printed mushrooms is a representation of this ghost. The concept of traces also connects to hauntology suggesting that this project cannot exclude one, it must include both theories of landscapes and hauntology.

Site-Specific

This project is not only important to me as a native of the village, but also for the wider history of the mining legacy in South Wales. As this body of work developed it became about challenging the concept of site-specific photography and art and about removing the traces of the environment and recreating them in a different environment.

Essentially, this project transposes the physical and metaphorical landscape of the mushrooms to a new location without losing its foundations, which are the metaphorical connections between the landscape and the community.



Figure 3: *3D scan of an Elf Cup mushroom.* [3D scan / Photograph]

I believe the metaphorical use of these specific mushrooms can only be applicable to this landscape. “Indeed, a definition of site-specificity might begin quite simply by describing the basis of such an exchange. If one accepts the proposition that the

meanings of utterances, actions and events are affected by their 'local position', by the *situation* of which they are a part, then a work of art, too, will be defined in relation to its place and position." (Kaye, 2000, p.13). This indicates that site-specific is not only about the place that the work is situated in, but about the connection between the work and the landscape. This is further discussed by Kwon (2002, p.11) who agrees that site-specific work connects elements of landscape to unique artworks. This project could not exist without the original landscape; it is intertwined with the landscape and cannot be untwined. I am transporting elements of the mushrooms from the landscape into a new creation of the landscape.

Hauntology and Time

"Ghosts arrive from the past and appear in the present. However, the ghost cannot be properly said to belong to the past" (Fisher, 2006). Fisher's quote relates to Wells's (2011) discussion about traces in the landscape. It is possible to identify this with the Elf Cup mushrooms when considered as a ghost created by past actions of industrialism. The real Elf Cup mushrooms explored in this project are a representation of the change in the natural landscape caused by the mine.

Hauntology is one of the main defining themes developed throughout my practice.

Hauntology is very evident in this specific body of work. The mushrooms are a physical representation of hauntology. They demonstrate how the past and future are united. The past can affect the outcome of the future, and the future can change the way we view the past (Fisher, 2006). The Elf Cup mushrooms grow on dead trees and other vegetation. The plants that the mushrooms grow on have the ability to generate two

distinctive futures. One is where the plants continue to grow. If there is no dead vegetation the mushroom cannot grow, resulting in a different landscape we cannot see today. The other possibility, which is present today, is that we see where the flora died which has permitted the mushrooms to flourish and take control, growing and consuming the Valley in bright red colours. The mushrooms also represent hauntology in a metaphorical sense as they are a representation of the Valley's community. Similar to the mushrooms, the community pushed through the closure of the mine and now thrive.

“What defined this “hauntological” confluence more than anything else was its confrontation with a cultural impasse: the failure of the future” (Fisher, 2012, p.16). Hauntology is more than a physical ghost but a metaphorical ghost (Fisher, 2006). The ‘failure of the future’ implies that the past cannot be separated from the present and the future. This is seen within my practice, because the history of the mine cannot be separated from the current metaphorical and physical landscape, homes, and community. These aspects only exist in their current form because of the creation of the mine.

Fisher (2012, p.16) discusses hauntology with its connection to a future that may never come. This applies to the landscape that is explored in this project. “Haunting can be seen as intrinsically resistant to the contraction and homogenization of time and space. It happens when a place is stained by time, or when a particular place becomes the site for an encounter with broken time” (Fisher, 2012, p. 19). Fisher explores how time is intertwined with hauntology and is prevalent throughout my practice. Throughout my development as a visual artist time has been a recurring theme, and this project is no

exception. Relating back to hauntology this project utilises time to demonstrate the changes in the landscape. Hauntology and time are combined theories (McPherson, 2024). Time is an essential aspect within this project as the mushroom only grow for a few months every year, and there is no guarantee they will grow again. This project preserves their existence and frames them in a timeless motion.

Artists

This chapter discusses artists and practitioners that have influenced my development during this project.

Federico Pestilli

Federico Pestilli's practice inspired me to explore the landscape as a metaphor and representation of the community, and the interference of the mining industry in the landscape. Pestilli utilises materials such as plastic as a metaphorical representation for how human interference is destroying the earth (Carrie Scott, 2025). I was inspired by Pestilli's practices to utilise organic and non-organic materials as a metaphor for the consequences of the mine, including what many saw as environmental destruction.

Figure 4: Federico Pestilli (2019) *Crushed Rose 1*. [Photograph] Available at: <https://www.carrie-scott.com/shop/federico-pestilli-crushed-rose-i-mfw3p>

YU Rui-rui (2022, p. 811) stated that “Plants are closely related with human life. Plant metaphor is a tool for us to understand and recognize the world by using plants on the basis of our experience of the objective world.” Pestilli emphasises this by utilising flowers in their practice to explore how we as humans are destroying the world (Theunissen, 2022). In my practice I use this concept with Elf Cup mushrooms. They are a plant for my audience to experience and understand the effects created by the mine on the landscape.

Mika Rottenberg

Mika Rottenberg, an artist recommended to me by a fellow peer, created their own version of plastic mushrooms using recycled plastic (Tsonopoulos, 2024). The technique they use is completely different to my own as I utilise 3D printing and they use a hand moulding technique. They also recycled plastic, and I do not. However, the visual imagery is also inspiring to me due to the similarity to my practice. They discuss how plastic is essential to manufacturing and daily life, including artworks (Tsonopoulos, 2024).

I used Polylactic Acid filament (PLA), which is a plastic filament, as the main source of material in my recreations of the Elf Cup mushroom. The mushrooms that I have created have an organic shape and are bodily but are still obviously plastic and fake, which generates a sensation of sadness because they are no longer a living thing. Rottenberg said “there’s something both like tragic, toxic, and seductive and so bodily” (Tsonopoulos, 2024). This is evident within my practice.

Figure 5: Mika Rottenberg (2024) *Photograph of mushroom Sculpture* [photograph and Sculpture] Available at: <https://www.hauserwirth.com/ursula/mika-rottenberg-plastic/>

It is important to clarify that plastic is detrimental to our environment, which when identified changes the way the mushrooms are viewed. Rottenberg mentioned that “there is something of sad in plastic” (Tsonopoulos, 2024). When the audience recognise this aspect, it alters the perception of the mushrooms representing a natural state and they are a manufactured industrial artifact that merely represents a bodily form.

Rottenberg states “we can no longer move away from plastic” (Tsonopoulos, 2024). This sentiment is true; plastic is the next step in industrialism. In previous generations the industrial revolution was led by other materials such as coal and iron. Therefore, by utilising plastic in this project, the use of the PLA represents the infiltration of plastic of the environmental changes within South Wales and beyond.

Yayoi Kusama

Figure 6: Yayoi Kusama (2021-2024) *Photograph of Infinity Mirror Room* [Photograph of installation] Available at: <https://www.tate.org.uk/whats-on/tate-modern/yayoi-kusama-infinity-mirror-rooms>

Another artist that has had a huge influence throughout my practice, continuing within this project, is Yayoi Kusama. The bright colours, patterns, and repetition that is present throughout her projects are some of the main themes from her practice that motivate and inspire the techniques in my practice. This is evident within the contrasting bright colours utilised within the creation of the mushrooms. The viewer becomes part of her practice and is able to immerse themselves in the work. I was able to visit Kusama's *Infinity Mirror Rooms* (2021-2024) and the ability to walk into each room and be fully immersed in the experience, is what I aim to create with my project. Interactive immersion is something I want my audience to experience. Accessibility and enjoyment for all is essential to my practice and I feel this is one technique to encourage this.

My practice has been inspired by these artists, and they have shaped the direction of my experiments.

Experimenting leading to 3D Printing



Figure 7: Cyanotype of local plant life from Cwm Clydach. [Cyanotype / Photograph]

Utilising the research about hauntology and how I connected it with the landscape, the project became about experimenting. I did this by removing traces from the landscape to create echoes of the mine and landscape. I collected man-made objects including old bolts and machine parts that have been abandoned in the landscape, physically removing traces created by humans from the land. I then collected plants and produced cyanotypes to create physical traces of the plants that grow in the landscape (see Figure 7). I developed the cyanotypes on location and washed them using water from the river creating site-specific bodies of work. This experiment forms metaphorical ghosts by bringing plants from the past to the present, exploring Fishers (2006) concepts of hauntological ghosts. The experiment process struggled to progress further because it was limited by the availability of resources that could be removed without disrupting the natural landscape. This experience provided the foundations for the next experiment undertaken, along with further investigation of the landscape using more

contemporary techniques. Reflecting on Rottenberg's (Tsonopoulos, 2024) mushrooms encouraged me to undertake the next stage of experimental work. This led my decision to use 3D printing. I experimented with non-organic materials, such as PLA filament, as a representation for the industrialism in the landscape.

By utilising 3D scanning and printing I can preserve aspects of the landscape that are normally temporary such as the Elf Cups that only grow for a few months during the year. 3D printing is a relatively new technology that is constantly evolving (Braun, 2024). Polylactic Acid filament (PLA) is the main filament used in 3D printing. This project utilises PLA as the main material because it represents the bond of the non-organic industrialism in the organic and natural landscape. PLA is considered a filament that is more environmentally friendly than previously used plastics (Colwell, 2024). PLA is "biodegradable, bio-absorbable and renewable thermoplastic polyester" (Liu et al., 2017). This itself is a fascinating interaction between the organic and non-organic. The question arises however, is any plastic truly environmentally friendly? This includes PLA as it has been shown to be detrimental to the environment and our health (Karidis, 2024). The main filament / materials used in this project relates back to Pestilli and their practice of using organic and non-organic material. 3D scanning and printing is not often associated with photography. However, as a result of discussions with my peers, I identified that I am creating a form of 3D photographs. 3D printing and photography are closely connected.

Walter Benjamin famously argued that the mass reproduction of works of art, enabled by modern technologies like photography, makes it possible to conceive of an auratic object even if it contributes to its destruction. For Benjamin, aura is linked to a work's 'unique existence' in time and place (Elias, 2019, p. 696)

This indicates that 3D printing is a new development of photography. This is present in my practice; I utilise 3D printing to drive my photography forward. 3D printing the mushrooms does alter the aura of the mushrooms but not enough to completely change it, allowing the audience to experience much of their original aura.

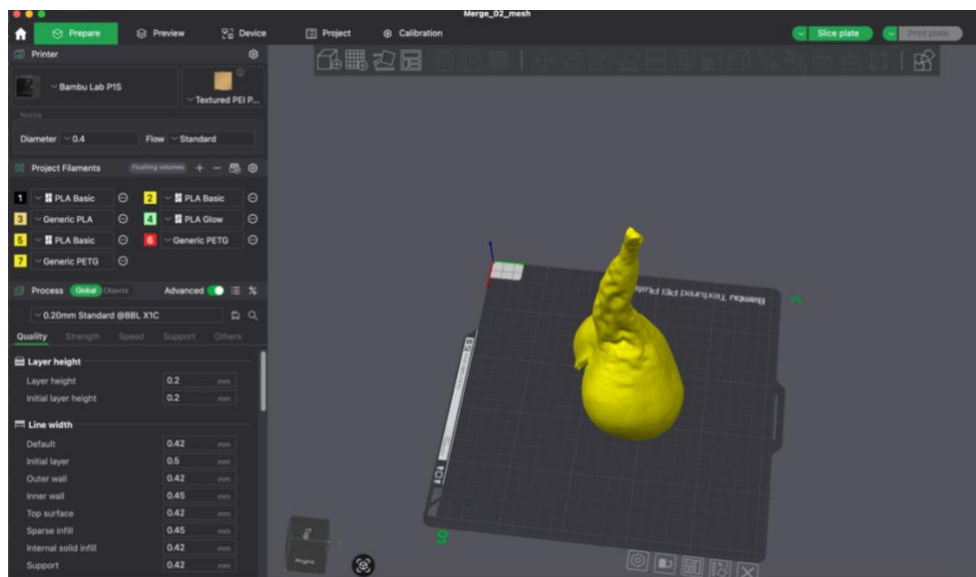


Figure 8: Screenshot of the 3D printer slicer software. [Screenshot]

“I argue that 3D printing unsettles the relationship between original and copy in ways that serve to recast long-standing debates regarding the so-called waning of aura in the age of digital reproduction” (Elias, 2019, p. 692). This quote suggests that changing the original object’s purpose gives it a new form of life. I have attempted to recreate this within my practice. By scanning and printing the mushrooms using filaments such as PLA, it changes them from being an organic mushroom to a representation for the interaction of the mining industry in this particular landscape, maintaining an element of their original aura.

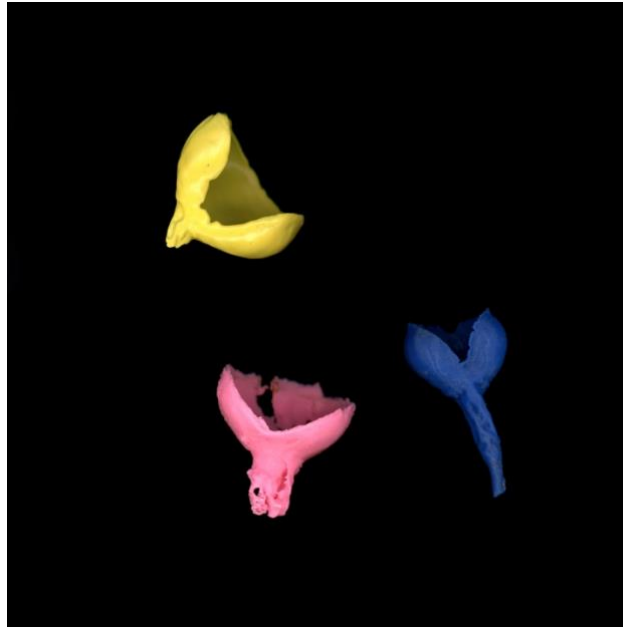


Figure 9: Flatbed scan of three 3D printed Elf Cup mushrooms. [Photograph]

Utilising 3D printing and 3D scanning is a technique often used by museum institutes to preserve artifacts that may disintegrate over time, enhancing availability to a wider audience as the object can stay in its original location and the 3D print can be shared all over the world (Elias, 2019). By having the artifacts 3D printed it becomes more accessible as those who may not be able to travel to the location to see original works. It also provides opportunity and to hold, feel the and experience objects through the sense of touch. (Elias, 2019).

3D scanners and printers offer a relatively inexpensive means of preserving threatened, destroyed, or lost cultural artefacts. At the same time, the digital reproduction of this heritage (which now increasingly results in physical replicas) resonates with a public that wants to experience historical monuments and objects at first hand. While this technology has been praised for its salvific and democratic potential, its adoption by museums and privately financed preservation institutions raises two pressing questions: who has the right to reconstruct destroyed heritage, and how do contemporary technologies serve to alter the ontological weight and symbolic value assigned to artefacts? (Elias, 2019, p. 690).

Elias (2019, p. 690) supports the concept that 3D printing allows the audience to physically experience the object from the landscape, as seen in this project. 3D printing

also preserves the Elf Cups. Because the mushrooms are rare and only grow specific times of the year and die, 3D scanning and printing the mushrooms has preserved a trace of the landscape and creates ghosts of the landscape.

After I collected the Elf Cup mushrooms from the old mine works, I continued to utilise the 3D scanner at the university to create 3D models of the mushrooms. These were then manipulated using 3D software to prepare the 3D models before uploading them to a slicer. This process prepared the model for printing. After inputting the correct settings and uploading the file to a 3D printer with the correct filament, the printing process started. Printing can take from 3 to 20 hours depending on the size and speed of the print. After the Elf Cups have finished printing, I removed the supports and excess filament. This was the end of the process for some of the prints. However, some prints were sanded and primed using a plastic primer. and very fine sandpaper to hide the layer lines and to create a smoother finish, maintaining the organic shape of the mushrooms. Some of the mushrooms were painted using bright colours to maintain the non-organic plastic like feel to the prints while maintaining the organic body of the mushrooms. After creating all the mushrooms, I used nylon thread to suspend the mushrooms in mid-air within the landscape of the mines. Having the mushrooms suspended as if they are floating instead of on the ground is a reminder that they are not organic, and rather a representation of aspects of the landscape. They remain disconnected from the true organic landscape. The grouping of the mushrooms is a metaphor for the growth of a new community flourishing because of the decline of the mine.



Figure 10: *Short video of the 3D printing process.* [Video]

Ghost Polaroids

A collection of artists have previously used polaroid spectra film to capture ghosts (Drkrm.com, n.d.). This inspired me to photograph the 3D mushrooms using spectra film as well as other polaroid film as an attempt to capture the ghost of the mine as seen in Figure 11. This relates to Fisher's (2006) hauntology, where physical ghosts of the past are visible in current time and the future. I used the 3D printed mushrooms as traces of the landscape and they are ghosts of the history of the mine in the current landscape.



Figure 11: *3D printed mushroom hanging from a tree in the landscape of the mine on polaroid spectra film.* [Polaroid]

The experiment was successful and facilitated the discovery that I had begun to create layers and cycles within my project.

Layers and Cycles

Layering is a traditional technique that has been used in art for centuries (Tate, 2025).

This project is an example of the use of layers in a contemporary context. As I scanned and printed, I was creating layers as a representation of the cycle of natural life and industrialism. Here the layers represent time, the life cycle and industrialism. I

continued to scan and print the mushrooms distorting the original purpose of being traces of the mine and its history, like a memory. Each cycle/layer I create is a new

fragment of the landscape and a new memory is created and recorded. An example of this can be seen in Figure 12.

The creation of layers also encourages the audience to visualise these different aspects of the landscape and my practice depending on which layer they focus upon. One layer represents the current community that has developed since the closure of the mine. Another layer is a representation the industrialism in the area and the effects it has had on the landscape. There is a further layer that represents the flora and fauna of the landscape. Each layer is a fragment of the whole story but can be viewed independently by themselves.

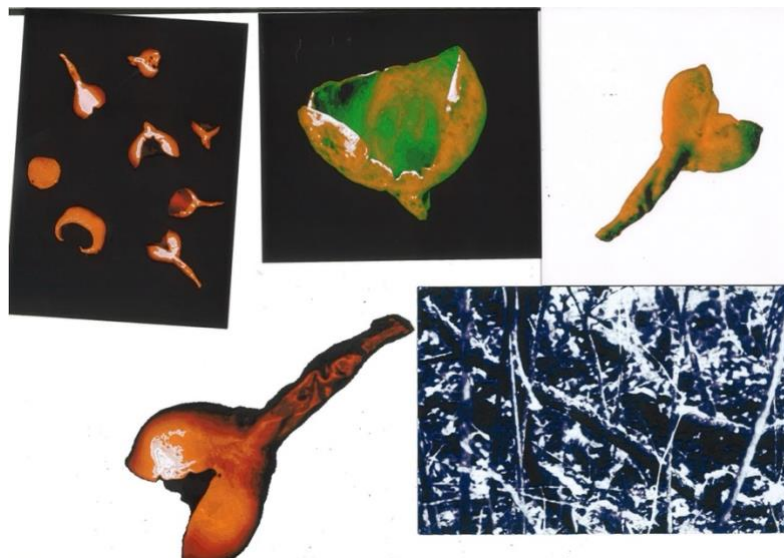


Figure 12: A collection of 3D prints created by layers and cycles. [photograph]

The importance of layers is further demonstrated within the use of 3D printing. 3D printing comprises of layers of melted plastic to create a 3D objects. The layers in my 3D prints are also a representation of the layers and cycles within my practice.

Exhibition

This project drew together theories discussed in this report to create a body of work. For the exhibition I displayed the 3D printed mushrooms hanging from the ceiling using nylon wire and project photographs of the landscape in front of the mushrooms, recreating the physical layers of the landscape. The walls, ceiling, and floors were painted black to feel as if you were walking into the entrance of the mine. This also represented the dark, gloomy environment in which the mushrooms originally grew in. The large number of different sized and coloured mushrooms metaphorically represents the flourishing growth of the changing and diverse new community. I particularly wanted this project to be accessible and interactive for as many people as possible, therefore I have created an experience that allows the viewers to explore the work through sight and touch, without fear of damaging anything. Many elements of the installation could be recreated, and any damage is a representation of the alterations caused by the mine that change the course of the landscape and community.

Due to the large volume of experimental work, I created a book to display my work concisely. This book was placed next to the installation to provide a wider understanding of my practice for viewers.



Figure 13: *First exhibition experiment.* [Installation / Photograph]

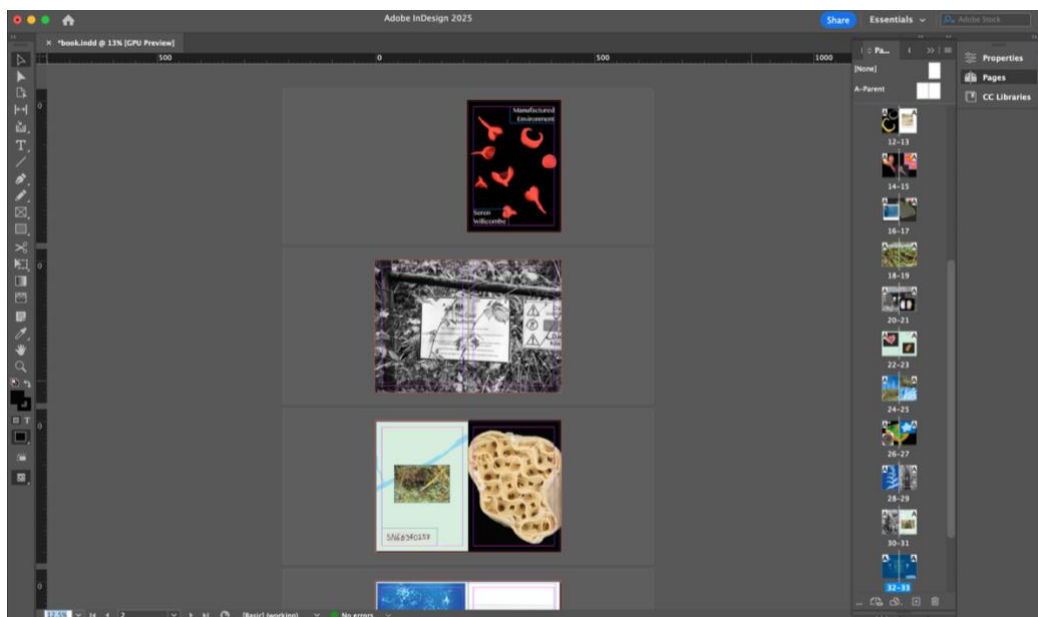


Figure 14: *First draft of the book.* [Screenshot]

Conclusion

To conclude, the purpose of this project was to explore the impact of the Nixon mine on the environment and community of the Welsh Valley village of Craig Cefn Parc, through the medium of photography and 3D printing. I utilised theories of hauntology, time, site-specific, layers and landscape to explore the physical and metaphorical landscape that led to the discovery of a new environment and community that may not have existed if it were not for the mine. I have challenged how these theories and mediums are used to explore this site-specific landscape.

Hauntology and time are intertwined with landscape and cannot be separated. This project demonstrates this bond, and it would be impossible for me to create this body of work without exploring these theories. The current landscape is the ghost of the interference of the mine, and the community would not exist in its current form if not for the mine. Hauntology, time, and site-specific theories have supported my documentation of the growth and changes in the landscape physically and metaphorically. Defining layers within the work encouraged me to explore the different cycles the landscape and community experience. This project also led me to embrace my local community and to discover aspects of the landscape that I have never seen before such as the Elf Cup mushrooms.

I overcame some difficulties throughout the process of the project. For example, I could only remove a certain amount of elements from the landscape without permanently altering the existing physical landscape. This was resolved by the use of 3D printing as I

was able to reproduce a selection of mushrooms from the landscape without altering the environment.

Undertaking this project encouraged me to become more decisive about how to work with the landscape as a metaphor for the community. This project facilitated my desire and ability to explore new technology such as 3D scanning, something I had never considered previously. It encouraged me to examine what could be considered photography, for example using a camera that takes a collection of 2D photographs and videos to create a 3D object and how to combine mediums to produce a body of work that is unique to me as an artist. Through a combination of successful and failed experimentation, I discovered the most productive structure for my practice. I ensured that accessibility remained a priority by including the use of senses such as sight and touch without fear of causing damage.

I will continue to explore this particular landscape and experiment, discovering new aspects of the landscape that will expand and enhance my practice. This project will continue to grow and change as the landscape also continues to evolve. I hope to create further immersive and accessible experiences as my practice continues.

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