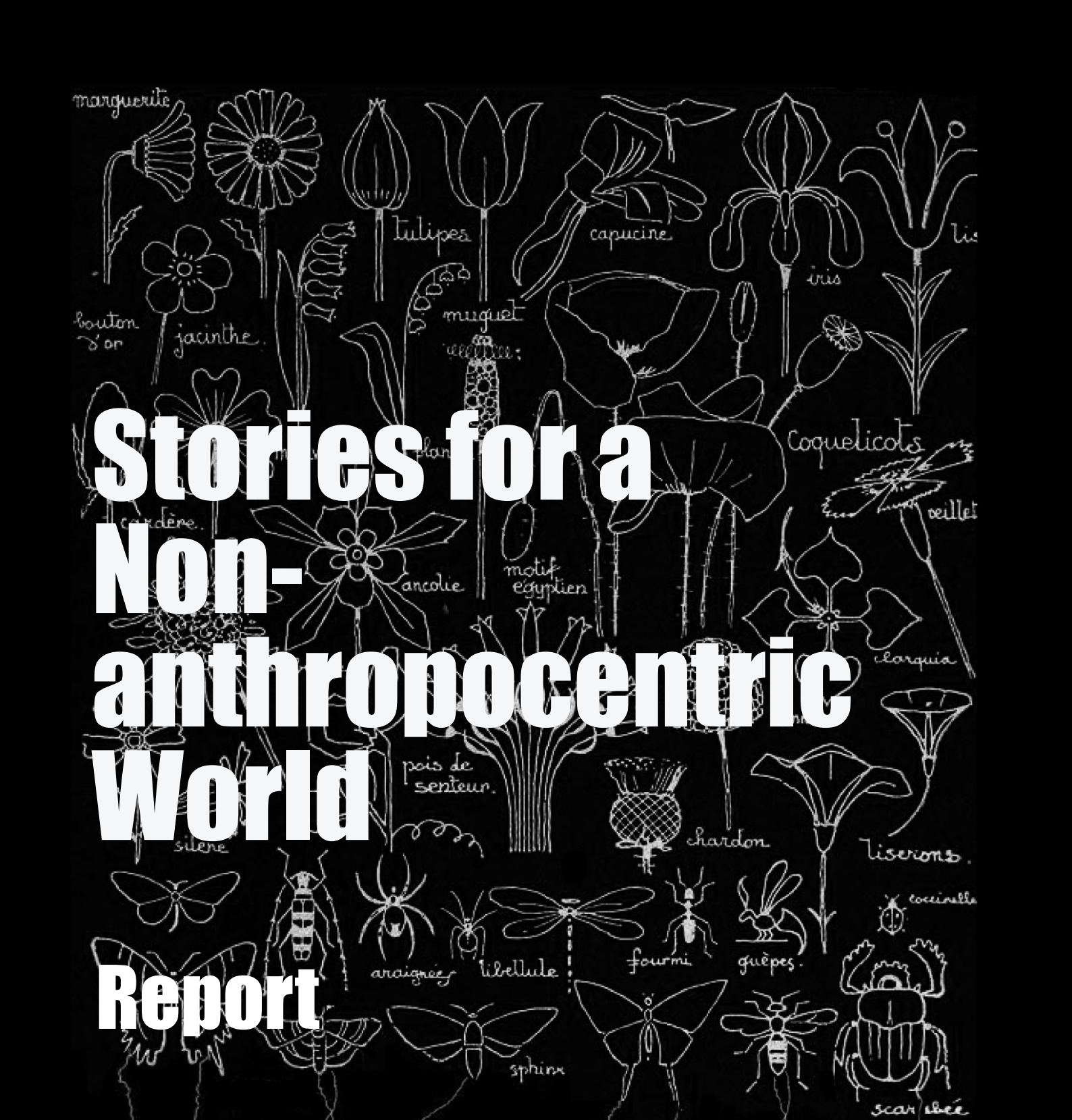

Stories for a Non-anthropocentric World

Report

Reconnecting with a More Than Human World

IADT - Institute of Art Design + Technology

MA Design for Change

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POSITIONING

It is suggested that we have entered a new geological epoch, one that describes the unprecedented scale of crises we now face from the effects of human impact and dominance over the earth and its resources. The Anthropocene, first termed in 2000 by chemist Paul Crutzen and biologist Eugene Stoermer is described by a set of complex, interrelated crises. We are confronted with an environmental crisis. Where we see climate change, species extinction, deforestation, biodiversity loss, habitation loss, over-exploitation of resources, waste, air, soil, and water pollution, with human activity as its single major cause. The effects of such are not only causing irreversible damage to our ecosystems but are shifting entire ecological systems (Malhi et al). The complexity of these 'wicked problems' are systemically embedded within the politics of capitalist society. With top-down issues around industry, production and power and societal issues around consumption, value, and ethics (Cielemęcka and Daigle).

These crises also evoke ontological questions of ourselves (Cielemęcka and Daigle). Of how we understand our position in the world as humans and the nature of our current relationships with our more than human worlds. We are currently failing to move beyond our human centric views and much of our thinking remains centered in human exceptionalism. In these times, thinking beyond the human has never been more important.

There is wonderment and enchantment to be found everywhere in nature. There is also an urgent need to persevere, protect and respect our more than human worlds, as each one of us, both human and non-human, is reliant on many other bodies for survival (Tsing; Haraway 2008; 2010). And here, to affect one part of our web may very well cause a ripple effect on another (Bennet 24).

The realities of our bound-up nature appear to be under acknowledged. There is much great work being done in environmental and ecological preservation to tackle these issues and maintain a balance within our ecological worlds (Wolfgang; IPCC) but as individuals, we will need to find ways of moving beyond our human centric views, as we all have a role to play in the urgent changes that are required. Here we set out to reconnect with the agencies of nature. To become more aware of the interdependent nature of the life world around us, as a reminder of our entanglements, and of a world we need to respect and preserve. We aim to find alternate ways of knowing and understanding that can challenge our overall view and bring us beyond our current ways of knowing.

DETACHMENT

Woven into our histories are human belief systems that once promoted the symbiotic relationship between humans and nature. In a pre-Christian Ireland, the Brehon Laws, emphasised the interdependence among human and non-human beings (Fields). Nature was entwined within culture and protected because of its known value to communities. Our native trees such as the Oak, Ash and Hazel were believed to have magical and medicinal properties. And much like Organicist beliefs that stretch back to the time of Plato, a sacred and ritualised relationship with nature was embodied (Pierre). It was a world of magic and vitality, where humans and nature were understood as bound and interdependent.

The increased colonisation of land and colonial urge to subjugate nature and people resulted in the erosion of these ways of knowing (Higgins). Alongside this, the Scientific Revolution and Enlightenment era of the 16th and 17th century led to a mechanised and rationalised understanding of our world (Pierre). Society's ability to see intrinsic vitality in the natural world, was replaced by the idea of man as dominant and superior, and the rational thinking mind of man was considered the highest value (Pierre).

We continue to view ourselves (humans) as separate from the natural world. We fail to recognise the realities of our bound-up nature and we remain largely disconnected from the agencies that exist in and around us. The importance of our more than human worlds and our entanglements with them is something we have grown apart from, something forgotten along the way. We will set out to rethink these ideas find ways of reconnecting.

RETHINKING

Situated at the tipping point of the collapse of ecological and climatic stability, we need to radically re-evaluate our current relationships with nature. There is a need to abandon our anthropocentric thinking and instead we must find pathways towards reconnection and alternate ways of viewing that challenge our current perspectives. For this reason, we will need to develop new methods and frameworks to deal with these complexities (Forlano). Here we can draw from other fields of knowledge to form new points of connection.

We will look at existing theoretical frameworks that can guide us and provide us with an alternate lens of how we might view ourselves (humans) and how we might begin to view our relationships with other than human worlds differently. Drawing from theories that purposely decentering the human (Forlano) can radically shift our perspectives and experience of our world. This shift will be crucial in our re-evaluation of our relationships with our more than human worlds.

REPOSITIONING

Design has the capacity to change how we view and experience the world, as it makes and reshapes the world around us. Our behaviours, habits, perceptions and mindsets have all been shaped and influenced by our experiences and the world we inhabit. Fundamentally, we are very adaptable. If we are introduced to alternate ways of seeing, imagining, understanding, this has the capacity to shape our views for moving forward.

Here we intend to bring an awareness back to the more than human agencies and provide a space to rediscover our curiosity with our more than human worlds. Through exploratory research and engaging in experimental ways of thinking we seek to move beyond our human centric views. Setting out to expand and challenge our current understandings and perceptions, that may open potential new ways of knowing.

The project is developed by engaging with ideas of interconnectedness, entanglement and agency that exists in and between our natural worlds. The analysis is grounded in new material feminist thinkers such as Jane Bennett and Donna Haraway. Our thinking will be woven together by anthropologist, Tim Ingold, where we will explore the meshworked nature of our world. These theoretical tools will guide our thinking and they will act as pathways towards alternate ways of understanding and knowing. They will also guide us towards designing tools for engaging others in these perspectives.

RECONNECTING

The project will aim to facilitate these perspectives through a series of designed experiments. These experiments will be tested through participant engagements alongside different identified more than human actors. We will explore ways of reconnecting through a process of grounding, exploration, mapping, naming and storytelling. These tools will allow us to gather knowledge, help us to reconnect with our more than human agencies and make sense of a world we are just a part of. The engagements attempt to make visible the agencies that exist beyond the human, and those that may exist beyond our usual awareness.

We aim to develop stories that weave together the knowledge and connections we find. These stories will act as a way of forming new relationships and bonds with our more than human actors. To engage with these practices, we will remain open and experimental throughout. Allowing ourselves the space and time to reconnect, leaving behind what we know, to move beyond our usual understandings. We seek to find only new connections and understandings. We will look now to draw from ideas and theories that can guide us along the way. These ideas will become our tools for thinking with (Haraway 2016).

TOOLS FOR THINKING WITH

Ideas and theories to
guide our thinking.

“It matters what matters we use to think other
matters with; it matters what
stories we tell to tell other
stories with; it matters what knots
knot knots, what thoughts think
thoughts, what
descriptions describe
descriptions, what ties tie ties. It
matters what
stories make worlds, what worlds
make stories.”

Haraway 2016 12.

WAYS OF BECOMING

In the age of the Anthropocene we find our world storied with mass extinctions and environmental destruction, and although these stories do depict a reality, they leave little possibility for 'ongoingness' (Haraway 44, Westerlaken 81). In these times of crisis, we will instead need to make space for new belief practices, find new ways of knowing and ways of *becoming* (Haraway 2008; 2010).

We will draw from Haraway here and bring along the concept of '*becoming with*' (2008; 2010). In *becoming with* we understand that in being human, one is always tied to the more than human and that "to be one is always to become with many" (2008 4). It captures knowledge of the entangled, interdependent relations of both the human and non-human. It recognises the shared agency that exists amongst all beings, each with its own capacity to impact upon another. It is, as Haraway suggests, a practice of 'becoming worldly' (3) and is used as a way to reconsider our humanness and acknowledge an interspecies' dependence. We will take this concept with us along the way as a reminder of our bound nature and of the types of stories we wish to tell.

> **"These are the times we must think; these are the times of urgencies that need stories"**
>
> Haraway 2016 37.

To follow Haraway's words - it matters what stories we choose to tell. Stories have the capacity to open us up to new knowledge and guide us in alternate ways of seeing. They may aid in refocusing our awareness and provide a space to reconnect with importance's beyond the human. Here we set out to tell stories that challenge us. Stories that bind us and reposition our understanding of a world we are just a part of.

WE ARE *VIBRANT* MATERIALS

Captured in Bennet's, Vibrant Matter is a vibrant world of entanglements. In thinking with Bennet, we may view of everything, both human and non-human, subject or object, as being composed of the same 'vibrant materials'. These vibrant and vital materials she suggests, contain a *Thing Power*, a force or agency that is vibrant and active in everything (Bennet 10). This vibrant matter is "as much force as entity, as much energy as matter, as much intensity as extension" (20). Bennet calls for a sensory attentiveness to all matter and suggests we will need to become perceptually open to the idea of a vibrant force contained within all matter. For the complex vibrant materials in both inanimate matter (things) and animated life (us) are in constant action and interaction with one another, each with the ability to affect and be effected (108). If we are all composed of the same vibrant materials, in this sense all things can be seen to exist on a level of 'shared materiality' (13).

To become attentive to this shared vibrancy within everything, we may begin to understand the life of ourselves and the lifeworld around us not as separate but "inextricably enmeshed in a dense network of relations" (13). To understand our world this way not only repositions our understanding of ourselves as humans but binds us deeply within the world around us.

This attentiveness to our shared materiality, Bennet suggests, is the very idea upon which our survival depends (xiv). For nothing of this world exists in and of itself. We are all bound up, enmeshed, made up of the same vibrant stuff. We might view ourselves instead as;

"walking, talking minerals"

And it is in the complex assembling and interaction of many vibrant bodies and forces that our world becomes what it is (118). Taking on these ideas we may begin to reposition our understandings of our humaness and our non-human relations. Each of us containing our own intrinsic value, agency and capacity for action. Each in a constant state of emergence and becoming.

PROCESS ONE

EXPLORING POSSIBILITIES

The ideas explored up until this point grounded the first stage of this project and aided the development of a process that was tested during a charrette, which will be outlined next.

This section will outline the process, insights and outcomes of the charrette titled 'Stories for a Non-anthropocentric World' that was facilitated as part of this project in September 2021. The charrette was developed under the research question of "how might we form alternate experiences with and perceptions of our more than human environments and actors?" The charrette was designed as an experimental testbed for engaging participants with these more than human perspectives through a process of grounding (Doyle), exploration, research, mapping, storytelling and discussion, with the aim of deepening participants awareness and connection to the agencies of the more than human worlds that exist in and around them. Each step aims to further build upon a deeper understanding of these actors and allows them to creatively engage with and communicate the information they gather. The multidisciplinary team of seven IADT students were guided through the series of experimental exercises which will be detailed next in the report synopsis.

- The full report is available in the appendix.

PROCESS

GROUNDING

The charrette began with a presentation given by the team's facilitator that introduced the project concepts, ideas and the terminologies surrounding the research. We looked at the problems we face in the Anthropocene such as the ecological and climate crisis and identified problems with our human-centric view of the world, where aspects of this thinking are currently and historically found and the importance of moving beyond it. They were introduced to the theoretical concepts researched, such as Bennet and Haraway, to aid in generating an alternative way of thinking and to challenge our current anthropocentric views. We also looked at examples of the capabilities and agencies that exist within our more than human worlds such as the self-organising behaviour observed in ants and complex problem-solving abilities of mycelium and slime mold. They were then introduced to the project research question and briefed on the design tools that will be used, such as concept mapping and storytelling. The purpose of the presentation was to provide a grounding in the conceptual ideas of the project and to cover the research that has been gathered up until this point. It was important for setting the viewpoint we aim to look through and to get thoughts and ideas going for the research.

EXPLORATION

For their first exercise the participants were asked to explore their local, more than human environments. They were encouraged to go out, reconnect with and observe their local surroundings and the agencies that exist around them. They had just over one hour for this exercise and within this timeframe they were asked to choose one more than human actor or environment to focus on for further research. It was noted that if they had an interest in researching a particular actor or environment that they couldn't gain access to, they could choose that. This kept the choice of options open, so not to limit the participants in any way but still encouraged exploration. This exercise provided them with space and time to reconnect with the world around them.

RESEARCH

During their exploration exercise the participants were asked to carry out primary research in the form of observation and documentation through photographs, notes and recordings, where possible. After the exploration phase we brought our primary research together onto our collective boards. We had a collection of more than human actors and environments gathered at this point that included; algae on Sandymount Strand, a local jackdaw, the migratory geese of Father Collins Park, a sand dwelling lugworm, the oak and pine trees in Saint Annes Park and a seagull.

The participants moved onto the next exercise where they had time to carry out secondary online research to further investigate their more than human worlds. Here they were able to research deeper into the lives, agencies and impacting factors surrounding their more than human actors. They were provided with a list of questions to consider when researching, which included;

What are the interconnections that exist?

What other species does it impact?

What surrounding factors impact upon it?

What sort of value/role does it have?

This exercise allowed them to gather new knowledge and insights about their more than human world. We then took the time to discuss everyone's findings. These findings are included in the full report.

MAPPING

For the next exercise the participants looked at creating a concept map based on their gathered research. We looked at examples of concept maps to aid them in developing their own. Creating a concept map aimed to give the participants a deeper understanding of the research they had gathered, to help them visualise and analyse the relationships between different pieces of information. It also aimed to aid the types of stories we tell in the next exercise. After the participants had their maps complete, we decided to bring each map together into a collective concept map to see if we could make any further connections between the different actors and environments. Here we had two types of ecologies emerging, which included; the marine ecology; with the algae, lugworm and seagull and the park ecology, with the jackdaw, migratory geese and oak and pine trees.

Within their own ecologies they found interconnecting relationships and interdependencies, which also included identifying relationships with other species within the web. We also found relationships between the two separate ecologies of the park and marine. In their reflections, some participants noted that they found mapping exercise to be the most successful in connected them with the alternate viewpoints. Allowing them to trace the many interconnections and relationships between different actors that would be otherwise invisible to us or may exist across spatial-temporal differences. It acted as visual aid to understand the scale of interdependencies and impacting factors that exist within the web.

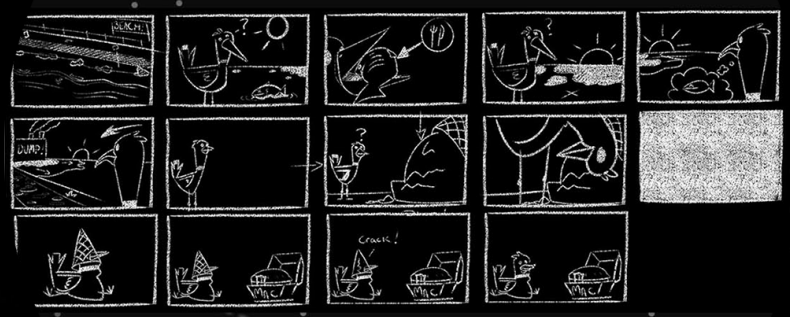
STORYTELLING

As a tool, storytelling can act as a way of connecting us with more than human perspectives, allowing us to look beyond our human centric mindsets and navigate alternate ways of viewing. For this exercise the participants were each tasked with creating a story based on their gathered research and concept maps. For their story development they were asked to analyse the information they had gathered and consider what story they would like to tell about their more than human actor. They each had the freedom to develop the story whichever way they felt they connected with the information best, as each individual has their own unique ways of working. This could take the form of a text or a visual narrative. And the perspective they chose to take was up to them.

One participant chose to create a comic strip visual narrative, where others chose to write their story. A variety of writing styles emerged, with some taking a more factual approach, some choosing to embody the more than human experience and one looking from the human perspective.

The stories allowed for the critical information of the research to be communicated. It was a useful tool in engaging both the participants and the reader in the more than human journey. Freedom to choose their story style was important and encouraged participants to find fun and enjoyment in the process which helped engagement in the exercise. It also allowed for a variety of perspectives to be put forward, which is valuable for the research.

Landgulls



Sea Birds

A Day in a Life- Lugg

Lugg's day started like any other, spending most of the morning in the safety of his burrow. Lugg's burrow serves a specific function and is the reason behind much of his success. In the burrow, Lugg feeds on micro-organisms and organic matter in the water and sandy sediment collected in the front end of his burrow. Indigestible material then passes through Lugg and is ejected from the back of his burrow via his tail. Lugg isn't doing this for no reason, his burrowing and feeding helps to aerate the sand and release nutrients back into the ground, playing a pivotal role in maintaining sediment quality. Lugg is very proud of his role and is extremely pleased about the knock-on effect his life has on the ecosystem.

As Lugg knows, sediment quality is vital for allowing sea plants to grow. Sea plants have many benefits to the well being of the marine ecosystem. Firstly, sea plants act as a vital food source and shelter for many fish and other marine life. Sea plants also oxygenate the water through photosynthesis which is vital for all marine life. Lugg and other like him also serve as an important part of the food web, which he isn't too happy about. Birds, crabs, and other fish depend on Lugg and his mates as a crucial food source.

Other than the threat of being eaten, Lugg and his mates are happy out doing their thing, until humans came along. Lugg does not like humans, because of them micro plastic particles have been accumulating in the oceans since the 1960s. Micro plastics can transfer pollutants and additives to Lugg and his mates, reducing their health and biodiversity. In fact, many other organisms that have a similar feeding behaviour, such as starfish, sea cucumbers and fiddler crabs, may be similarly affected. The micro plastics can be made from polyethylene, polyethylene terephthalate, and polystyrene. They are too small to be captured through existing wastewater treatment process and wash straight into the ocean. Unknown to Lugg and his mates hundreds of thousands of tonnes of micro plastics are added to soils.

Algae and the Dichotomy

A green foul smelling sludge washes onto an oily shore, to most it's an unpleasant sight which brings with it grimaces and morning walkers to promptly turn on their heals and acquire an alternative route. As the day's sun rises the heat will only exacerbate the problem.

This disdain for the collective of toxic looking green goo is only half earned. Where to the immediate impression it is just that, an awful putrid nuisance. Then behind this barrier, further out to sea, this goo is providing one of the most important functions for survival on the planet. This collective called Algae, unknown to most provides the world with around half of the Earth's atmosphere. Much like the great forests such as the Amazon, this hidden lung sequesters carbon dioxide and through photosynthesis pumps oxygen back into the atmosphere. The place of algae in the environment is integral for the survival of many different species as food, oxygen supply and can extend further the immediate needs and be used for such things as bio fuel.

However, it is double edged sword in a modern world. With humans having the ability to bring the harmful elements out of this organism. As algae has little agency itself in its environment and is quite frequently a victim of circumstance, for better or for worse. Given the right resources algae can thrive and become the dominant species within a specific habitat. It blooms into vast numbers and covers the ocean surface. This in turn blocks lower living aquatic plants who cannot compete for the sunlight. The eventual death of the algae then sucks the oxygen from out of the surrounding water with the process of decomposition. Any fish, for instance in Dublin the bass or flounder is suffocated or migrates. Then leading on further to seabirds having a shorter supply of food and they too having to migrate. Moving into large densely populated clusters with their excrement supplying the coast with extremely harmful bacteria such as E.coli. To decimate the local ecosystem further, seabird predators such as foxes lose another natural food source and must scavenge elsewhere.

This organism is purely living as a reaction to its surrounding area. With no conscious mind to disperse itself or to limit its population. It is in reality being consistently provided the nutrients and resources to catalyse this harmful blooming reaction. In Dublin, waste is constantly being pumped into the bay by misconnections to surface water drains and other run-offs from nearby environments, mixed together with sewage discharges. Supplying the vital ingredient to algae growth, nitrogen and phosphorus. Algae is a symptom of an overall issue as apposed to it being its own stand alone problem.

Through action by the council to improve the Irish Water's downfalls in infrastructure and localised education in the quality of the surrounding water along with the effects of harmful algae blooms, these issues can be minimised. Currently there already stands in place specific bathing seasons for swimmers to avoid any illness whilst swimming in the water. People are being conditioned to tolerate the issue instead of fixing the cause to help prevent it in the first place.

Aquatic Plants

Lugworm

Crabs

Starfish

COLLECTIVE MAPPING

For the next exercise we looked at bringing our stories and research together into a collective map to further visualise and communicate the information gathered. We looked at different examples of how we might visualise our collective map and chose to take an aerial view of Dublin where we could build up our place-based stories with images. We collectively began pinning in our different locations with illustrations and collage to illustrate each actor in our ecosystem. We then brought in our stories and linked these up with the images.

Many aspects of the stories drew from the research we had gathered, and much like our concept map we could find links and connections between them. For this reason, we chose to add linking lines in between the stories to build upon the map further. We highlighted the linking words to make the connections clear and to communicate the connections to the reader. This exercise was successful in bringing together the participants' individual research and stories into a single collective communication. The use of collage and illustration also helped to communicate their stories and connections further for both the team and the reader.

OUTCOMES & REFLECTIONS

After the charrette we took time to discuss the experience and the participants spent time writing up any insights, thoughts and reflections they had. Further thoughts and insights were collected in the days to follow through a survey.

Summary of the teams reflections included;

An awareness of our lack of knowledge we (as a group) have of our more than human worlds.

They found they had gained a deeper awareness of their more than human worlds during their experience.

There was a realisation of the importance and fragility of the many actors within our ecosystems and of the many invisible interconnections, relationships and impacting factors that exist between them.

Some commented on their enthusiasm and curiosity for their subject.

Some noted that a keyway to gain empathy towards these more than human worlds is through highlighting effects of the Anthropocene and anthropomorphising the actors in our environment.

It was also mentioned that we, as humans, tend to project our beliefs onto others and this also extends to these more than human actors.

CONCLUSION

Each exercise allowed the participants to build further on their knowledge and deepen their understanding of the interconnections that exist. It is important to consider how engaging the exercises are for participants, including aspects that can be fun and creative can help encourage connection with the subject. This is also true in the delivery of the information and for the reader. These engagements were successful when geared towards this group demographic. If designing for another demographic, the types of engagements may need to be rethought.

As humans we are prone to default to view our world solely from a human centric perspective and struggle to move outside of this. Elements of this became evident in comments around our tendency towards projecting certain human beliefs upon our more than human actors and that anthropomorphising was a keyway of gaining empathy. This will need to be challenged more during the process. Guiding participants through a specific lens of thinking might be helpful. Here we can draw from the theories and pull in prompt questions throughout that may challenge this thinking. Next steps included tailoring and refining the process and trialing it with other available groups.


Migratory Geese
The Jackdaws Funeral
It's a grey foggy morning in the Irish countryside. Balls of silage wrapped in plastic film are scattered sporadically throughout a field. A farmer sits at his kitchen table drinking his coffee while his rashers cook on the grill. The splutter of the fat sparks little fires as it hits the grill grate. Staring out the window across his fields, he notices two jackdaws perched on the yard fence. It's November and the sky is a deep blue-grey, mist resting above the grass. A loud chrrilling squawk pierces through the silence of the morning as three more birds arrive and land close to the fence. Loud melancholy calls signal for more to join and slowly a procession begins to form: the birds closing in around a fallen comrade lying lifeless on the earth. Cautiously they make their way close to the body, calling out as they say their final goodbyes and one by one they take flight, circling above. The farmer watches on sympathetically and muses that the dark black feathers of the birds are akin to the blackness of a mourners clothes. They wear the same stern expression he thinks. He gluges his breakfast and opens his phone to check the day's weather forecast and news headlines. At the back door, the farmer puts on his wellies and in the dewy morning air, he walks across the gravel yard to the fence. There, in the muddy ground lies the bird. Lifeless and with a shocked expression. He notices something shiny and purple around their foot and leans closer to discover something plastic; a wrapper from a chocolate bar. No doubt from the kids who pass by on their way to the local school a mile up the road. His mood is lowered as he pushes through the gate and walks on into the field. He will call the school principle to complain later he thinks to himself disgruntled. His mind is occupied with the litter as he walks and so he almost doesn't notice the loose silage floating in clumps around the field. A small utensil blowing into his face takes him out of his thoughts and he stares up at the silage bod, the plastic film hacked apart and a black jackdaw sitting on top of it stares down at him. His jaw drops and he turns slowly to discover the full extent of the damage done. The loud cries of the jackdaws heckle him. All sympathy for the animal dissipates. He takes out his phone to google "how to get rid of jackdaws".
The Oak
An oak tree stands tall in an old park. It is proud and strong, connected by the roots to its friends and family, the shrubs, and the plants. Its influence reaches all over the park, providing shade to the grass and nutrients to the ground, cleanliness to the air. It supports all life, and the little critters and insects can depend on it for protection.
The tree looks to neighbouring patches of green and ponders. They don't do so well - they are overwhelmed by carbon, and grow tinly, withering strands of grass and clovers. Dusty and crusty. Even more yonder, past the motor fumes, the people coughs and sigh and walk with heavy lungs. The oak welcomes them all to breathe in the fresh air, to observe as squirrels and magpies dance on its branches, and to just take a moment to rest in the midst of it all. They deserve better.
The tree relaxes in its newfound sense of responsibility. It is there to provide, protect and care - as long as it is given the space to do so. It is there to take away the burdens of cars and factories, to love and nurture the baby critters, and to give fresh air and nutrients back to the Earth. If only there were a couple more of us, the tree thinks, maybe we wouldn't all have to work so hard. It seems like its importance might be forgotten about.
Waste Wate
Sew
M

On the Move: Migratory Geese

We are a family. With our grey bellies and black heads, our little legs and long necks, we feel when the chill gets a bit too cold, and our tail feathers tell us it's time to go. To better times - away from the gust and the nip in the air, from the polar bear. To Ireland! All of us rise together, in a moment, and fly, wings pushing forward, further.

We coast and glide on the clear skies, and on the stormy ones we give it our all. We know we can do it, we have to - our future depends on it. Stop telling yourself, it's better than freezing to death on a rock. Muscles trembling and throats hoarse, we go on. It will all be over soon, as each stroke of a sore wing makes the journey shorter.

After what felt like years and eons, over concrete boxes and asphalt strips, our feet set down on grass, and we rest together in a slump. Finally. We gather our bearings and hop down to their estuaries - but with one and a few more glances, our home seems to be gone. The sandy beaches and rivers are dull and grey, and the noise of large dusty chimneys fill our senses. Trash and smog everywhere - food nowhere in sight. Devoid of life. But last year, we were filling our guts by this point! With a sigh, we gather ourselves and carry on. No giving up.

Scanning the land, there seems to be no place to rest. We see empty patches of green and some more boxes - a few th gave e honking at each other uh the asphalt- Oh, there! Together, we all notice it and swoop down - a forest! Except, this one is separated into neat rows and - excuse me sir, I didn't see that you already took that branch. Animals milling about - even the ants and ladybirds trying not to step on uch other's toes. But there is water, and plants, and this could work. Just have to find some recluse from the jackdaw, but we can carry on here. for now.

Jackdaws

Oak Trees

Sea Birds

Landgulls

Sea Swimmers

Algae

Fish

Aquatic Plants

Lugworms

Crabs

Starfish

Algae and the Dichotomy

A green foul smelling sludge washes onto an oily shore, to most it's an unpleasant sight which brings with it grimaces and morning walkers to promptly turn on their heals and acquire an alternative route. As the day's sun rises the heat will only exacerbate the problem.

This disdain for the collective of toxic looking green goo is only half earned. Where to the immediate impression it is just that, an awful putrid nuisance. Then behind this barrier, further out to sea, this goo is providing one of the most important functions for survival on this planet. This collective called Algae, unknown to most provides the world with around half of the Earth's atmosphere. Much like the great forests such as the Amazon, this hidden lung sequesters carbon dioxide and through photosynthesis pumps oxygen back into the atmosphere. The place of algae in the environment is integral for the survival of many different species as food, oxygen supply and can extend further the immediate needs and be used for such things as bio fuel.

However, it is double edged sword in a modern world. With humans having the ability to bring the harmful elements out of this organism. As algae has little agency itself in its environment and is quite frequently a victim of circumstance, for better or for worse. Given the right resources algae can thrive and become the dominant species within a specific habitat., it blooms into vast numbers and covers the ocean surface. This in turn blocks lower living aquatic plants who cannot compete for the sunlight. The eventual death of the algae then sucks the oxygen from out of the surrounding water with the process of decomposition. Any fish, for instance in Dublin the bass or flounder is suffocated or migrates. Then leading on turtles to seabirds having a shorter supply of food and they too having to migrate. Mowing into large densely populated clusters with their excrement supplying the coast with extremely harmful bacteria such as C.coli. To decimate the local ecosystem further, seabird predators such as foxes lose another natural food source and must scavenge elsewhere.

* * *

This organism is simply living as a reaction to its surrounding area. With no conscious mind to disperse itself or to limit its population. It is in reality being consistently provided the nutrients and resources to catalyse this harmful blooming reaction. In Dublin, waste is constantly being pumped into the bay by misconnections to surface water drains and other run-offs from nearby environments, mixed together with sewage discharges. Supplying the vital ingredient to algae growth, nitrogen and phosphorus. Algae is a symptom of an overall issue as apposed to it being its own stand alone problem.

Through action by the council to improve the Irish Water's downfalls in infrastructure and localised education in the quality of the surrounding water along with the effects of harmful algae blooms, theses issues can be minimised. Currently there already stands in place specific bathing seasons for swimmers to avoid any illness whilst swimming in the water. People are being conditioned to tolerate the issue instead of fixing the cause to help prevent it in the first place.

A Day in a Life- Lugg

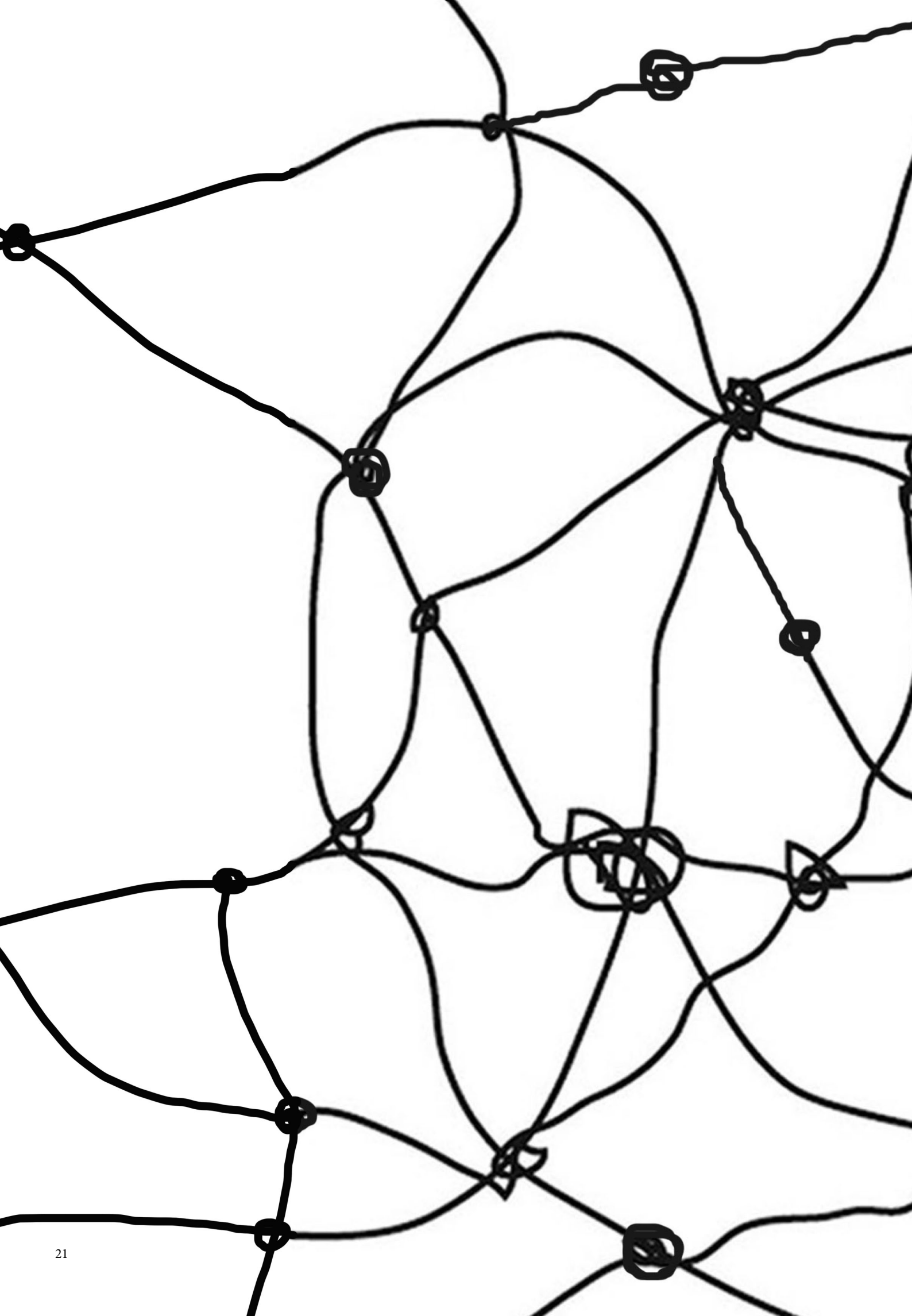
Lugg's day started like any other, spending most of the morning in the safety of his burrow. Lugg's burrow serves a specific function and is the reason behind much of his success. In the burrow, Lugg feeds on micro-organisms and organic matter in the water and sandy sediment collected in the front end of his burrow. Indigestible material then passes through Lugg and is ejected from the back of his burrow via his tail. Lugg isn't doing this for no reason, his burrowing and feeding helps to aerate the sand and release nutrients back into the ground, playing a pivotal role in maintaining sediment quality. Lugg is very proud of his role and is extremely pleased about the impact an effect his life has on the ecosystem.

As Lugg knows, sediment quality is vital for allowing sea plants to grow. Sea plants have many benefits to the well being of the marine ecosystem. Firstly, sea plants act as a vital food source and shelter for many fish and other marine life. Sea plants also oxygenate the water through photosynthesis which is vital for all marine life. Lugg and other like him also serve as an important part of the food web, which he isn't too happy about. Birds, crabs, and other fish depend on Lugg and his mates as a crucial food source.

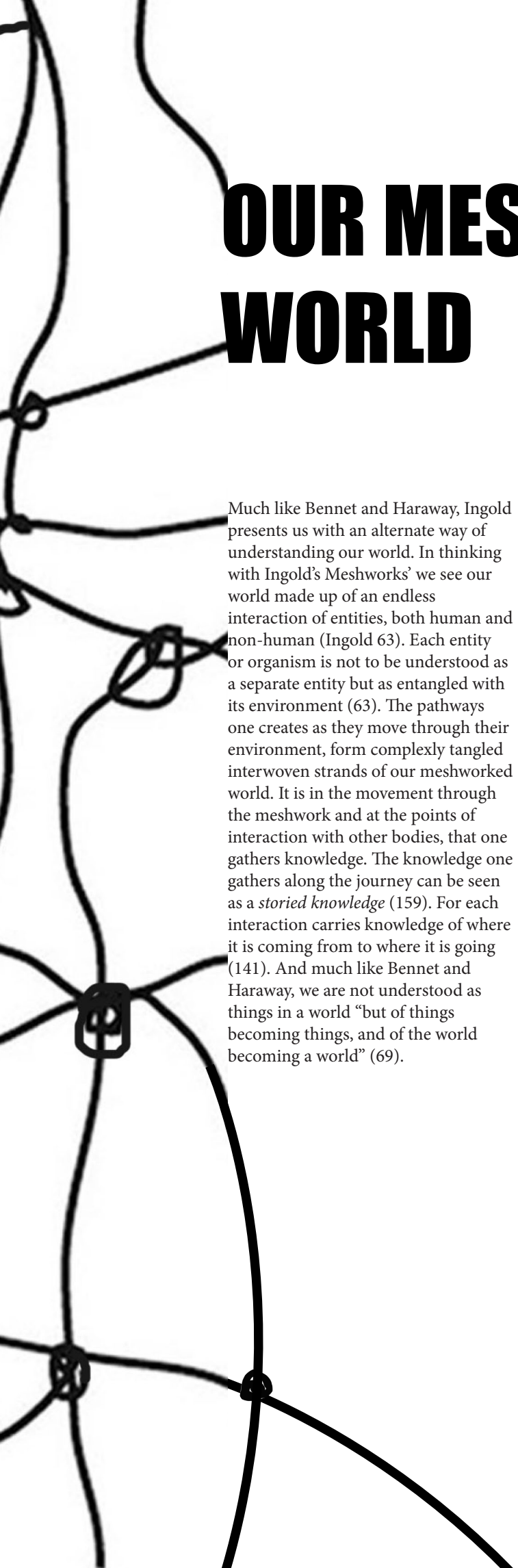
Other than the threat of being eaten, Lugg and his mates are happy out doing their thing, until humans came along. Lugg does not like humans, because of them micro plastic particles have been accumulating in the oceans since the 1960s. Micro plastics can transfer pollutants and additives to Lugg and his mates, reducing their health and biodiversity. In fact, many other organisms that have a similar feeding behaviour, such as starfish, sea cucumbers and fiddler crabs, may be similarly affected. The micro plastics can be made from polyethylene, polyethylene terephthalate, and polystyrene. They are too small to be captured through existing wastewater treatment process and wash straight into the ocean. Unknown to Lugg and his mates hundreds of thousands of tonnes of micro plastics are added to soils.

TOOLS FOR THINKING ABOUT

For this section we will continue exploring ways of moving beyond our perspectives and challenging our understanding of the world. To move forward we look to other tools for thinking that will aid in the development of new tools for engagement. We will take forward Haraway's concept of *becoming with* (2008; 2010) along our journey as we seek to find new ways of understanding how we might become. Alongside this we bring with us Bennet's concept of 'vibrant materials' as we aim to recognise the shared materiality and agency of all beings and our entangled, bound up nature with our more than human worlds. We look now to Ingold to guide our thinking further here.



OUR MESHWORKED WORLD



Much like Bennet and Haraway, Ingold presents us with an alternate way of understanding our world. In thinking with Ingold's Meshworks' we see our world made up of an endless interaction of entities, both human and non-human (Ingold 63). Each entity or organism is not to be understood as a separate entity but as entangled with its environment (63). The pathways one creates as they move through their environment, form complexly tangled interwoven strands of our meshworked world. It is in the movement through the meshwork and at the points of interaction with other bodies, that one gathers knowledge. The knowledge one gathers along the journey can be seen as a *storied knowledge* (159). For each interaction carries knowledge of where it is coming from to where it is going (141). And much like Bennet and Haraway, we are not understood as things in a world "but of things becoming things, and of the world becoming a world" (69).

It is a world suspended in movement, action and change. In a constant state of emergence and becoming (Bennet, Haraway, Ingold). Each entity a part of an interwoven storied world. Each seen to be bound with a story of another (141). Ingold presents a world "... teeming with multiple forms of life whose entanglements comprise an everravelling and unravelling relational meshwork" (142). And much like the ideas of Haraway and Bennet, understanding the lives of ourselves and of our more than human others as meshworked, we may begin to understand ourselves (humans) as deeply entwined and interdependent with all other modes of life. It is our lives and our stories that bind us and interweave us within the fabric of the meshwork.

Continuing with Ingold's thinking here, we will look to challenge the very ideas of how we shape, order and fundamentally understand our world.

SHAPING OUR WORLD

How we understand our world has been shaped by the thoughts and ideas that surround us. Through our western scientific models of classifications, things of this world are classified, ordered and named based on the presumed relationships amongst organisms (Ross). These classification models known as taxonomies aim to objectively classify every species by their evolutionary relationships. In the first half of the 18th century, Carolus Linnaeus, established a hierarchical system of classification known as Systema Natura (121). This system was used to identify every species type from plant to animal, species to kingdom through his method of binomial nomenclature. The binomial system of naming has two parts, the genus and the species. Within this hierarchical system, each species is expected to belong to a group. With each taxon nested within a higher taxon and catagorised by their common morphological characteristic, based on the belief that species were immutable (122).

The Linnaean system remains the foundation model on how we order our world today (122). This hierarchical system of ordering classifies things "on the basis of intrinsic characteristics that are given quite independently of the context in which it is encountered, and of its relations with the things that presently surround it" (Ingold 160). In the process, things are divided from their relations and removed from the context in which they are found (168). And whilst it remains a useful tool, "it is a system of order imposed by man and is not an objective reflection of nature. Its categories are actively applied and contain the assumptions, values and associations of human society" (quoted in Blazwick). Ingold challenges this and suggests that things of this world should not be "identified not by fixed attributes but by their paths of movement in an unfolding field of relations" (Ingold 160). It is the stories of things that inevitably draw things together, he suggests, while the application of classifications draws things apart (160).

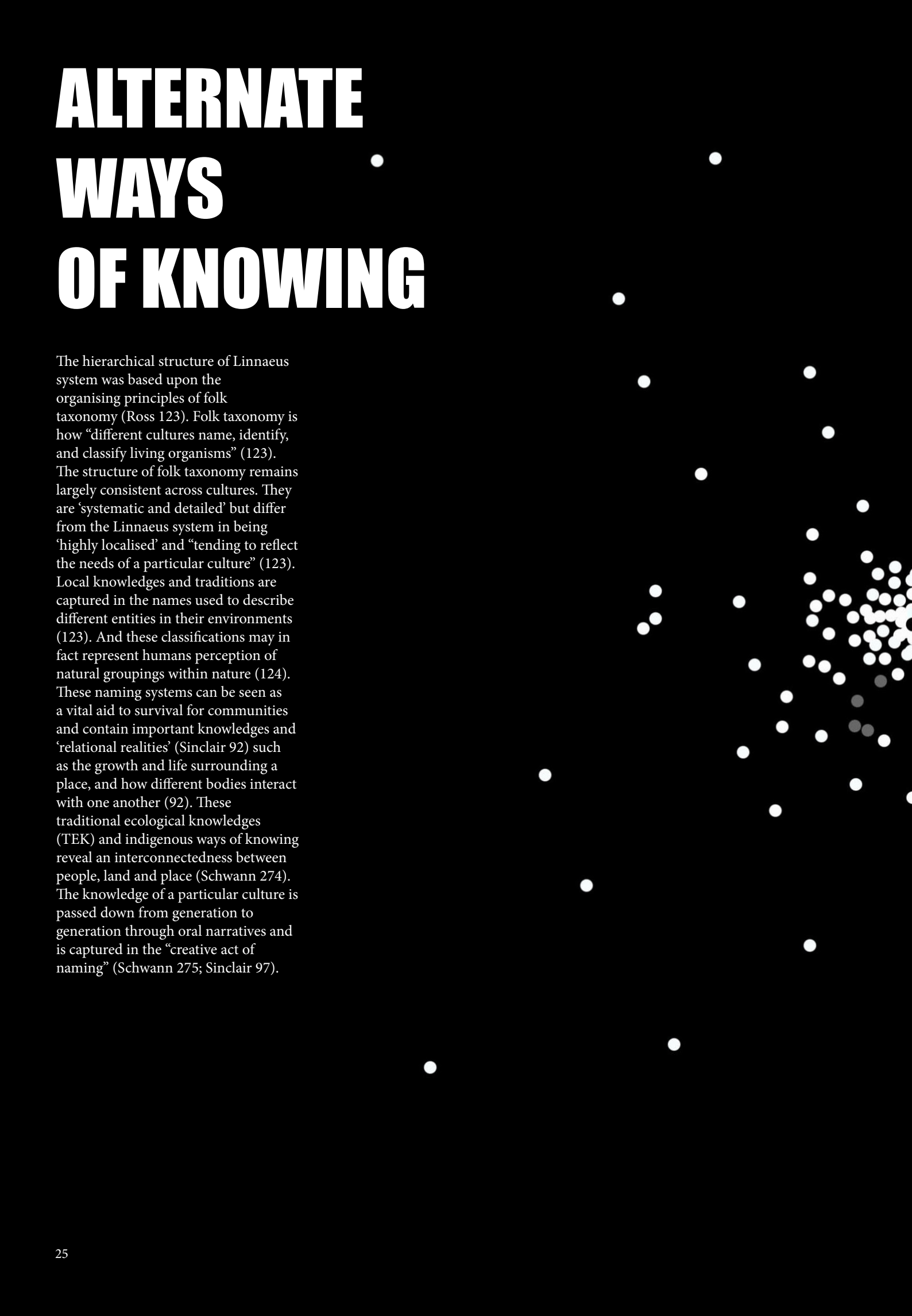
LOST

The 2016 intervention 'LOST', designed for the launch of the book '*Wild New Territories: Portraits of the Urban and the Wild*' (Den Dass et al) at the Linnaean Society in London, set out to highlight the loss of biodiversity in the UK through the incorporation of name cards. One hundred species cards were designed for visitors to wear during the launch. The cards held both the Latin name of the species, drawing from the Linnean system, and the English name. Each card was stamped according to its status of either critically endangered or extinct and included under the name were the details of the places that the species live, the other species it connects with and the reason for its decline or extinction (90% habitation loss).

The cards aimed pay respect to the story that lay behind each species and aided discussion amongst visitors. They act as tool of recognition to the other bodies that bring it in and out of being, as an opportunity to acknowledge the important knowledges that lie beyond each name - as a creative act of valuing.

ALTERNATE WAYS OF KNOWING

The hierarchical structure of Linnaeus system was based upon the organising principles of folk taxonomy (Ross 123). Folk taxonomy is how "different cultures name, identify, and classify living organisms" (123). The structure of folk taxonomy remains largely consistent across cultures. They are 'systematic and detailed' but differ from the Linnaeus system in being 'highly localised' and "tending to reflect the needs of a particular culture" (123). Local knowledges and traditions are captured in the names used to describe different entities in their environments (123). And these classifications may in fact represent humans perception of natural groupings within nature (124). These naming systems can be seen as a vital aid to survival for communities and contain important knowledges and 'relational realities' (Sinclair 92) such as the growth and life surrounding a place, and how different bodies interact with one another (92). These traditional ecological knowledges (TEK) and indigenous ways of knowing reveal an interconnectedness between people, land and place (Schwann 274). The knowledge of a particular culture is passed down from generation to generation through oral narratives and is captured in the "creative act of naming" (Schwann 275; Sinclair 97).



TO NAME IS TO MAKE VISIBLE

Drawing from these Indigenous knowledge's Ingold looks to the Koyukon's of Alaska as way of exploring possible alternate ways of seeing and relating to the world. The Indigenous language of the Koyukon's remains a predominantly verb-based language and holds most natural occurring objects including rocks and water, as animate, alive and containing a vibrant agency (Ingold 143). Humans along with all other species are viewed not as one species but a species among many (Sinclair 95). Things are not named and classified as any one thing but captured in a field of entanglements and connections. Things may be identified by their actions, interactions and relations with the world around them and may appear to name themselves through their own enactments, habits and individual stories (Ingold 170; Sinclair 97). "The animal might be considered as a going on, not as a living thing of a certain kind but as the manifestation of a process of becoming, of continuous creation, or simply of being alive" (Ingold 175).

The owl for instance is not seen a single object but is captured in the activity of 'owling' (170). The boreal owl's name, 'perches in the lower part of spruce trees' contains both knowledge of owling activity but also captures knowledge of other species it interacts with. These names become what Ingold refers to as 'miniature stories' (172). Here "to encounter a name is to encounter and experience a story about one way of being in the world" (Sinclair 97). The names capture a 'storied knowledge' (Ingold 163) and 'responsible knowledges' (Sinclair 95) of our world. There is an acknowledgment and respect given to the many bodies and forces who equally "participate in the continuing creation of reality" (quoted in Sinclair 95) and a recognition upon which one is dependent. There is attentiveness given as their stories are retold through narratives. These stories and names aid in preserving and binding human and non-human relations and serve as 'land-marks' that join people and place together (Schwann 276). They reveal a world that is intrinsically interlinked and presents us with an alternate way of understanding and our world beyond our western perceptions. They also aid in making visible the agencies and vibrancy of our more than humans worlds.

PROCESS TWO

CHALLENGING PERSPECTIVES

Here we will look to report on the insights and outcomes of a revised process that was developed and tested with family and friends in November 2021. We will bring forward with us the ideas explored, to aid in developing our tools for engagement. The revised process includes grounding (Doyle), wayfaring, mapping meshworks, naming and storytelling. The process draws from theories of Bennet, Haraway and Ingold. These are our tools for thinking with (Haraway 2016) and will guide us through the exercises. Ingold's thinking will also become the foundation for developing our new tools for engagement.

PROCESS

The process was tested as five individual engagements with five participants over three days. Each participant taking on average 3.5 hours to complete it. The process has been designed in the form of a workbook. A copy of the workbook was printed for each participant and the exercises were completed within it. Each exercise is guided by questions to aid their thinking along their journey. This allows more freedom as to where the exercises can take place. It also allows the process to be more self-guided than before as participants can read their way through the exercises. The exercises have become our own tools for thinking with as we seek to find alternate ways of understanding and connecting with our more than human agencies.

Participants filled out a questionnaire before their experience, and a reflections and feedback form after to gather insights. Feedback and reflections on each exercise have been included within each section.

QUESTIONNAIRE

Participants began by completing a questionnaire that aims to gather an understanding of their thoughts around their current connections and relationships to their more than human worlds. They were guided by the terminology page within the workbook which provides a description of any new words they can refer back to.

Questions include;

1. How aware are you of our more than human worlds?

Summary;
Answers ranged from semi-aware to very aware. Two participants felt somewhat aware. There was recognition that their knowledge and awareness is limited and that our fast paced city environments can distract attention. Three participants felt very aware. Daily observing nature's goings on. One noting that they felt more aware of their more than human world than human. This highlighted the diversity of perspectives of the participants.

2. How connected do you feel to our more than human environments and actors?

Summary;
Answers ranged from semi-connected to very connected. Three participants felt somewhat connected. Feelings of connection felt during certain moments or in certain places but generally not a lot of the time. Two felt very connected, one drawn to observing their more than human world first thing every morning. This gave a good indication of the general levels of connection felt by participants.

3. How do you view nature? Describe what it is to you.

Summary;
Answers included the personal benefits provided and their personal experience of nature. Comments include; a peaceful escape, calming, often humorous, exciting, beautiful. Another noting that it is s everything from smell, sight, sound and touch. This question aimed to find out how they personally experience their natural worlds and how they may interpret what nature is. All participants noted a personal benefit.

4. How do you view humans in relation to nature?

Summary;
Answers generally highlighted a separation felt between humans and nature in terms of humans currently working against nature. There were feelings that we have duty of care that we are not upholding, that nature would thrive without our interventions and that we need to coexist to survive. It was clear that participants had a strong awareness of the impacts we are having upon our more than human worlds.

5. Think of one more than human actor – describe what it is to you.

Summary;
Three participants chose the sea. Comments include; therapy, a place to think and not think, a happy place with friends, powerful, threatening, full of energy, life giving and beneficial for body and mind. One chose a ladybird for the love of its vibrant colouring and ability to fly. Another chose their house cat, and described it as comforting, loving, non-judgmental, temperamental, entertaining, a more than human child. This aimed to get participants thinking about a more than human actor that they may connect with and to also see how they would describe that connection.

GROUNDING

The process opens with a terminology page that provides the participants with definitions of words that will be used throughout the workbook. This page can be used as a reference point while moving through the exercises. Next is the introduction page which introduces the project concepts and ideas. Here we look to the Anthropocene, the challenges we face within it and the importance of moving beyond our human centric thinking. It also outlines what we will explore throughout the process and what we hope to achieve. Here we set out to reconnect with our more than human agencies and engage in alternate perspectives through the exercises.

The pages to follow include an introduction to Jane Bennets, Virbant Matter and Tim Ingold's, Meshworks. Reference to Haraway's concept of *becoming with* (Haraway 2008; 2010) is contained within the terminology page and will be referred to in the text. These are presented as our tools for thinking with (Haraway 2016) and will aid our thinking throughout the process. They are also important concepts for opening participants up to an alternate way of seeing, knowing and understanding. Here we look to lead the participants into the experience with some grounding knowledge to guide their thinking.

FEEDBACK

Generally participants found the language used to be accessible, once they had the terminology page to refer to. They found it an appropriate lead in before beginning the exercises. Three participants suggested aspects of the language could be simplified to make it more accessible to wider audiences

WAYFARING

For their first exercise participants explore ways of reconnecting by moving through their environments, following trails and gathering knowledge along the way. This exploration is what we will call 'wayfaring' (Ingold 143). Drawing from Ingold, a wayfarer is one who travels through their environment by foot. We will use wayfaring or walking as a method for engaging directly with our environments, allowing time for reconnection and collecting knowledge. Walking is considered one of the oldest methods for developing new knowledge (Fletcher et al 217). It is a process of both coordinating and connecting with one's environment (217) and is used as a "pedagogy, a research process, a philosophical and spiritual practice and a creative process for design" (217). Drawing from Zach Camozzi's method of 'earthbond prototyping' (Camozzi 220) we may understand wayfaring as a way of earth bonding. And much like Camozzi, our aim is to "cultivate a deeper sense of connection and obligation to nature" (quoted in Camozzi 221).

It is a process of paying attention, remaining open, and reawaking our awareness. Each journey that we embark on, we gather knowledge along the way and find new ways of becoming (Ingold, Haraway, Bennet). Knowledge is gathered by our ongoing engagement, perception and action with our environment (Ingold 143). It is integrated by the goings around and along the paths that we move through. It is a practice of being in the world (143).

For this exercise participants set out on a walk to explore their more than human environments. Within the workbook participants are guided by an introduction to the exercise and questions to consider along their journey. They are asked to first spend time reconnecting and observing. They will then choose a more than human actor to focus on. They may also choose to take one they couldn't gain access to, keeping the exercise open for participants that may have an interest in connecting with a particular actor.

Guiding questions include;

What knowledge can you gather about your actor?

Consider the place in which it is found, the species it, connects with, the visible and invisible processes that are happening in and around it.

The workbook provides them with instructions. They are able to write directly into the book and were encouraged to take observational notes and documentation with photographs. Three participants took part in this exercise. They each choose to pick an actor that was directly available to them in their environment.

Chosen actors and observations include;

Beech tree – Sundrive Park – fungi, lichen, spider webs, shelter for birds nests, ants, can be used as a building material.

Lichen - Sundrive Park – green, growing on the branches and tree trunks, possible food source.

Little Gull - Sundrive Park – feathers, black and white, looking for insects, connects with the seas and fish.

FEEDBACK

" Useful exercise in getting you to take notice of our more than human worlds and discover new information."

" Enjoyable spending time outside and bringing awareness to things you don't normally pay attention to."

" Enjoyed the opportunity to take time out and reconnect."

CONCLUSION

The workbook was a helpful aid in allowing participants to navigate the exercise freely outdoors, providing a guide and space to take notes. Participants found interest in the things they normally don't pay close attention to, observing details that often go overlooked. It was a successful engagement for providing space to reconnect and begin gathering information.

SECONDARY RESEARCH

Included in this exercise is the opportunity to do secondary research (online, books, journals etc.)

This allowed participants to gather new knowledge about their actor, knowledge that may not be directly available through observation. For those unable to do the wayfaring exercise, it provided an opportunity to begin gathering information.

The guiding question for this exercise was;

What new information can you gather?

Five participants took part in this exercise. They used online sources to gather their information. Those who had not engaged with the wayfaring exercise choose an actor they would like to research at this point.

Chosen actors and information gathered included;

Beech Tree – Lives up to 350 years, during its life span provides food and shelter for a variety of species. Homes lichen, mosses, fungi, nesting birds and wood burrowing insects, seeds provide a food source for many species. It is a temperature and moisture controller, pollutant absorber and an oxygen provider.

Lichen - Foliose lichen. Life span 30-60 years, symbiotic relationship between algae and fungi, can grow in diverse climates, maintains air health, co2 absorber and oxygen provider, air pollution indicators, provides food source for deer, birds and insects. Used in certain antibiotics.

Little Gull - Smallest of the gull species. Adult Little Gulls have a black head in summer and their head changes to white in winter months. Remains relatively silent when here in Ireland. They eat small fish, insects and crabs. They do not breed here, they migrate in from Scandinavia and eastern Europe. Black headed Gull in Irish is Sléibhín.

Dandelion - Known as the Ginny Joe. Part of the sunflower family. They are hermaphroditic. Helps stabilise and aerate the soil. Food sources for animals and insects including birds, bees, moths. Uses the wind to disperse seeds. Barometer, remining open in good weather, will close if rain is due. Transforms from a yellow flower head to white seed ball. Many health benefits.

Ladybird - Living up to one year, concealed wings, dominant colour in Ireland - red and black spots. The red colouring wards of predators, suggesting it may be toxic. Assists farmers and gardeners to controls pests such as aphids, eating 5,000 in a life span. Feeds on nectar and pollen, assisting in pollination. .

FEEDBACK

" Super interesting getting to know and understand more about your chosen actor. Quirky facts were really great to get an insight on, as this isn't an exercise you would do everyday, it was great to understand more about a different subject."

" Reminds us of the things we normally take for granted, helping us appreciate the natural world around us."

" There are so many different routes this could lead you on, it's almost like a mindful task of connecting you closer to nature."

CONCLUSION

An important part in developing a connection with the subject, discovering interesting facts and collecting new knowledge. They were surprised by what they found and developed enthusiasm and interest in the subject matter. Some participants were focused mainly on the human benefits their actor provides until navigated otherwise. One participant found it the most successful in challenging their perspective.

MAPPING MESHWORKS

Drawing from Ingold's meshwork's (63) for this exercise participants will work to create a map of the meshworked world of their more than human. We will use mapping as a way of understanding the meshworked nature of our more than human worlds. We will aim to map out the relationships, connections and points of interaction that make up our complex interwoven environments. We may see our world as made up of endless interactions. With each entity, entangled with its environment and the lives and stories of others (87). The exercise aims to highlight and aid in forming a deeper understanding of the connections and relationships that may not always be visible to us. It also allows us to analyse and visualise the connections and relations that exist.

Within the workbook participants are first guided by an introduction to the exercise. Followed by instructions and a template map that they can build upon. Here participants will build up their meshworked map by detailing in the information they have gathered about their actor. Each branching line will connect to a piece of knowledge they have gathered. Each line represents a path that tells a story (148).

Guiding questions include;

What other species does it interact with?

What are the relationships between them?

What places is it found?

What does it impact, what impacts upon it?

What is it's role and value in the ecosystem?

How does it behave, change, move?

Example of descriptive words for their paths include; **impacts, interacts, connects, effects, causes.**

After completing their map they were guided to analyse the information to see if they could identify any further connections and relationships. They were asked to draw in linking lines to build upon their map further.

They each used the information they had gathered in the wayfaring and research exercise to start building their map. Some went back to researching more online to build on this. They each created the map in their own way. Any most were able to identify further connecting relationships.

FEEDBACK

“ Highlights how interdependent the different species are on one another and how the demise of one would affect the other.”

“ Provides opportunity to reflect back on the information you have gathered and begin making connections that are not necessarily visible to us.”

“ Thought provoking and encouraging you to think outside the box on how elements are connected, not just with the actor but in how it shapes and impacts the environment around it.”

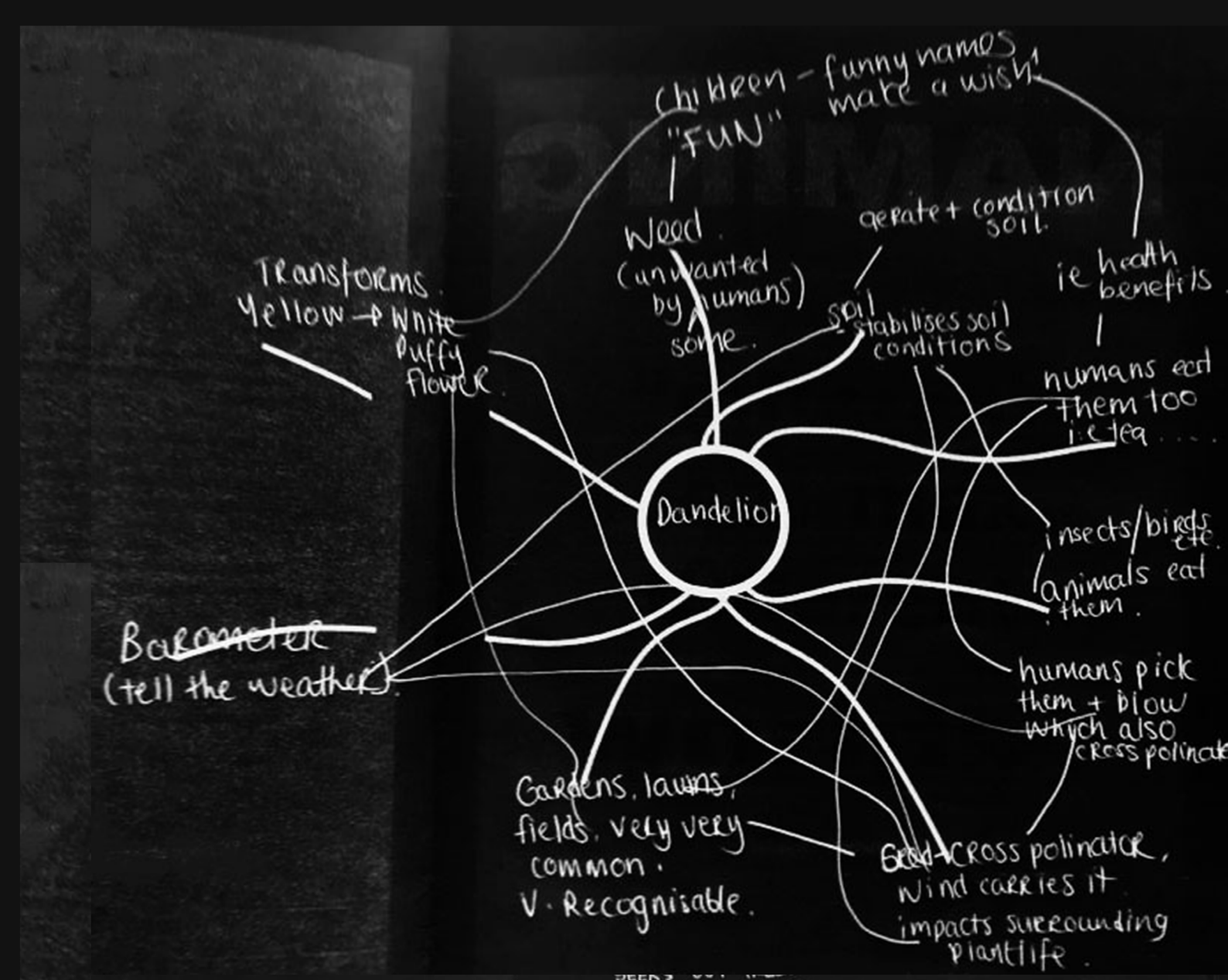
“ Enjoyed finding connections and links between the research. Suited to those methodically minded. Enjoyed talking through why things were connected. The maps could go on forever, this map was just a small extent of what the research could become.”

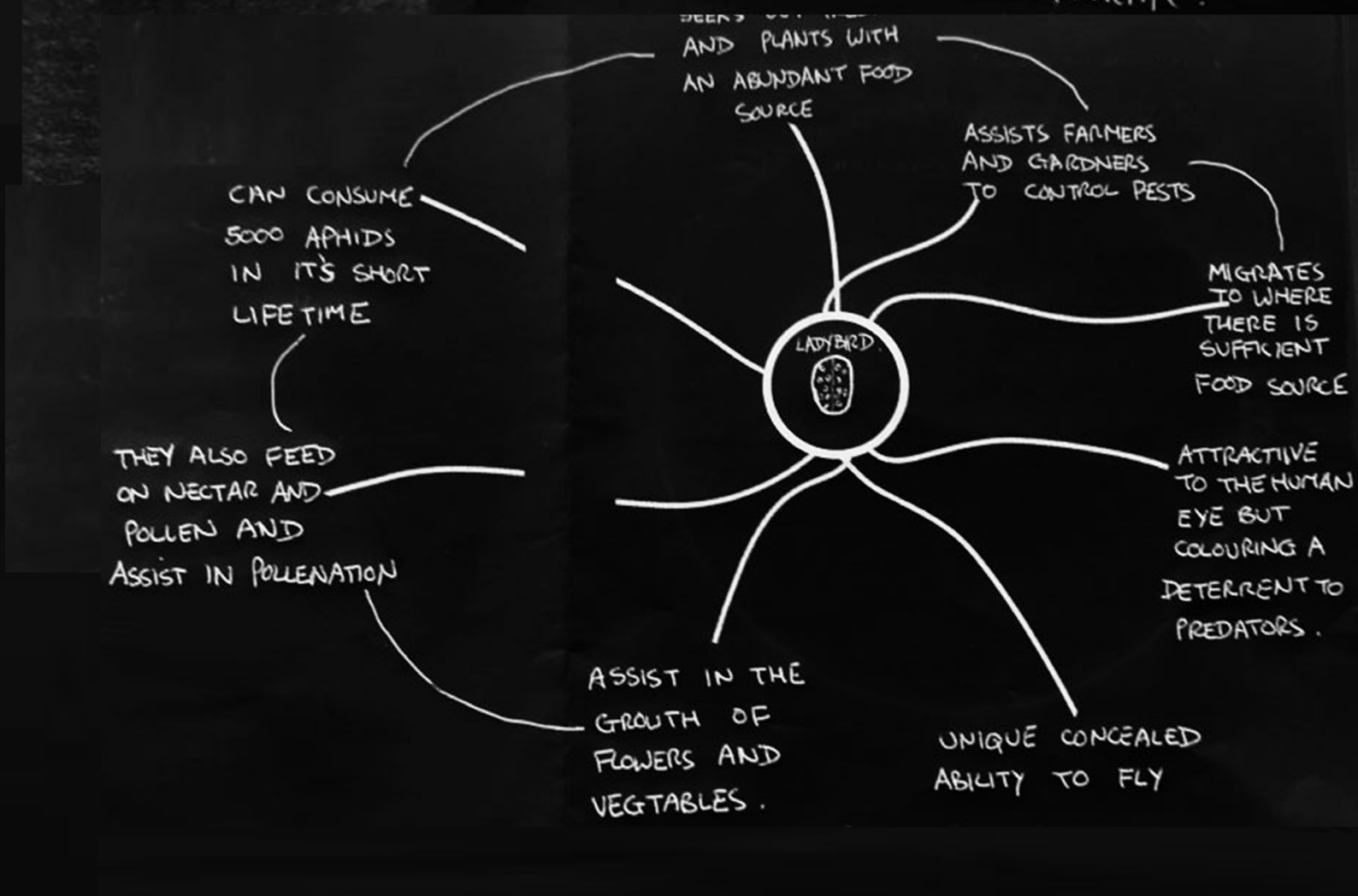
“ Challenging you to think of how each element is effected/ affects upon.”

“ Interesting and helpful way of visualising how many things are connected.”

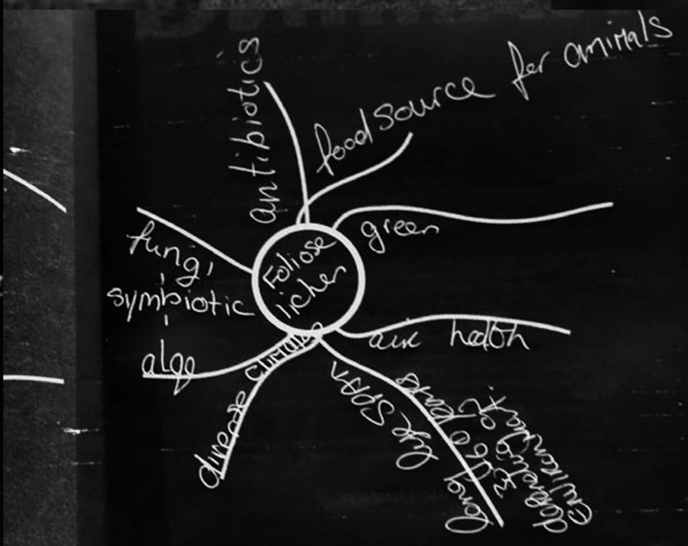
CONCLUSION

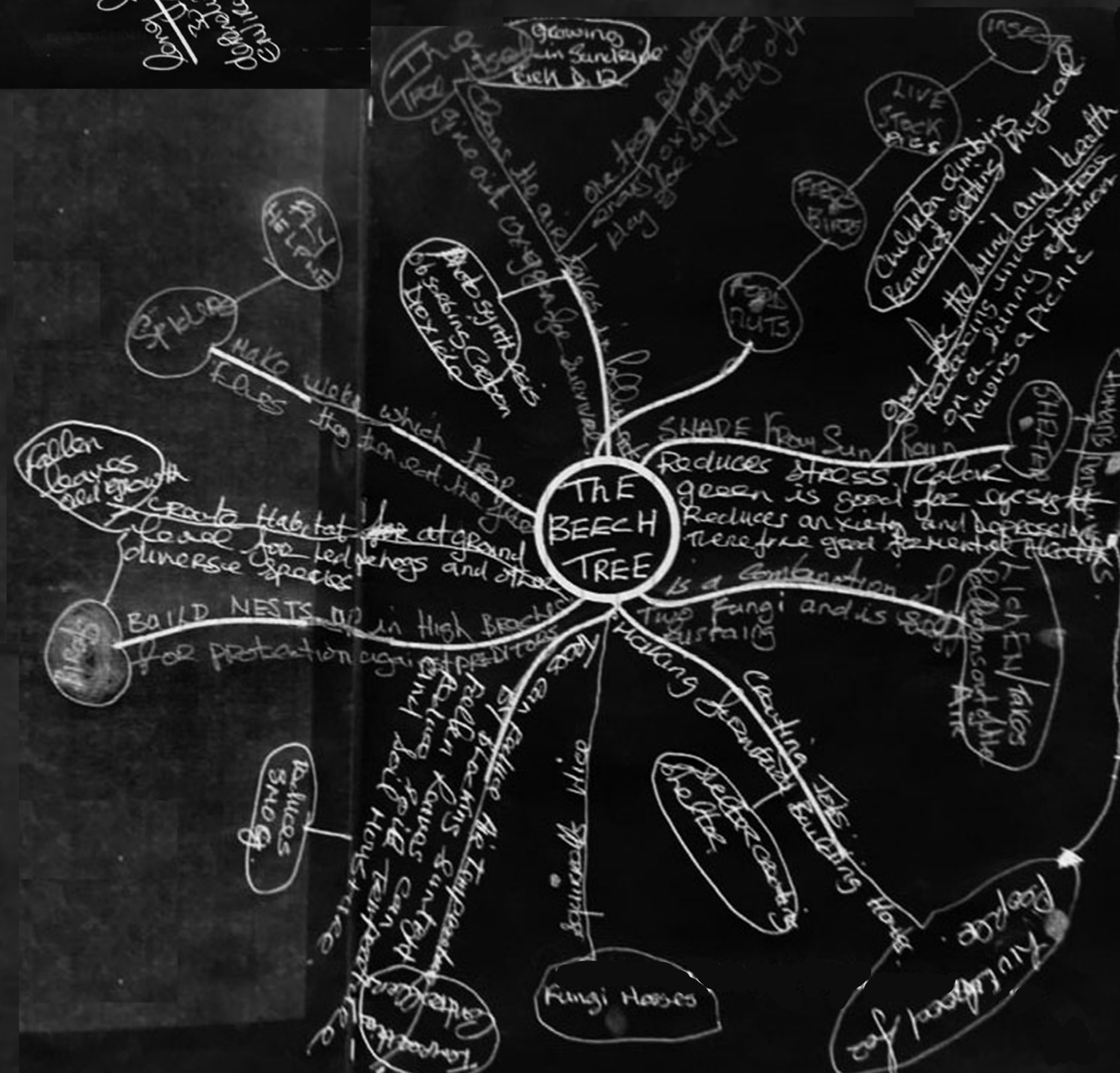
Successful in providing a visual aid for the interconnection and relationships that exist. It is clear that these webs could be built upon more. There is an opportunity to do collective mapping if facilitated with one or more participants as there were potential interlinking connections that could’ve been made between the different maps. Three participants found this the most successful in challenging their perspectives.


Children - funny names
"FUN"
make a wish!
Weed
(unwanted by humans)
some.
aerate + condition soil.
ie health benefits
Transforms.
Yellow → White
Puffy
Flower.
soil stabilises soil conditions
humans eat them too
i.e tea....
Dandelion
insects/birds etc.
animals eat them.
Barometer
(tell the weather)
humans pick them + blow
which also cross polinate
Gardens, lawns,
fields. very very
common.
V. Recognisable.
Seed - cross polinator,
wind carries it
impacts surrounding
plantlife.


AND PLANTS WITH
AN ABUNDANT FOOD
SOURCE
ASSISTS FARMERS
AND GARDNERS
TO CONTROL PESTS
CAN CONSUME
5000 APHIDS
IN IT'S SHORT
LIFETIME
MIGRATES
TO WHERE
THERE IS
SUFFICIENT
FOOD SOURCE
LADYBIRD
THEY ALSO FEED
ON NECTAR AND
POLLEN AND
ASSIST IN POLLENATION
ATTRACTIVE
TO THE HUMAN
EYE BUT
COLOURING A
DETERRENT TO
PREDATORS.
ASSIST IN THE
GROWTH OF
FLOWERS AND
VEGTABLES.
UNIQUE CONCEALED
ABILITY TO FLY


LITTLE GULL
SILENT
FOOD SOURCE for other large Birds
BEAK
MIGRATES TO SCANDANAVIA to mate
EATS INSECTS
PARKS
TREES
EATS FISH & CRABS
SEA
MULTI COLOURED FEATHERS / HEAD CHANGES COLOURS.


Foliose lichen
antibiotics
food source for animals
green
fungi
symbiotic
alge
air health


THE BEECH TREE
SHADE from Sun
Reduces stress / Colour green is good for eyesight
BUILD NESTS in High BRANCHES for protection against PREDATORS
Birds
Spiders
Fungi Homes
LIVE STOCK
Insects

NAMING

“Different words make different worlds.”

Norton-Smith

Drawing from Ingold’s thinking and indigenous ways of knowing such as the Koyukon of Alaska, for this exercise we set out to move beyond our current perspectives and challenge how we order and fundamentally understand our world. Here we aim to form new meanings and names for our more than human actors. And much like the Koyukons, we may look to naming as a way of bringing together many bodies and forces (Ingold 170).

These names may aid in making visible the interconnected relations that exist in and around us. We may see naming as an act of valuing (Lundebye 136). Aiming to bring attention and recognition back to our more than human agencies. Through the act of naming, we will tell their stories. The names we create, may be seen to capture a *storied knowledge* (Ingold 163) and can offer “real information about the ecological relations in the world” (Sinclair 97). The name may capture meaningful or local knowledge’s of the relations between our more than human worlds, people and places. These stories and names aim to aid in forming bonds and connections between them and aims to present us with an alternate way of knowing beyond our westernised understanding.

Here we set out to create a new name for our more than human actor. Participants are first guided by an introduction to the concepts surrounding the exercise, followed by guiding questions. They are tasked with creating a name that tells a **‘miniature story’** about their actor.

The questions guide them to consider how the name might contain particular knowledge of;

Its connections and relations with other species?

The place in which it is found?

Its role and value in the ecosystem?

Its activity, patterns, movements, changes?

Its unique characteristics, sounds, smells?

They are asked to write down ideas, analyse their words and begin forming the name. They can draw in information they have gathered from their previous exercises to do this.

They are also guided by examples of names using metaphors/relations from The Koyukon people of Alaska;

‘comes to life’ - maggot - referring to the moment when the larva is transformed into a fly.

‘flutters here and there’ or **‘eats clothing’** - moth

Five participants took part in this exercise. And spent 10 – 30 mintues forming their name.

Names chosen;

Beech Tree - 'Amber Haired Mother of the Forest' - reference to the colour of its leaves in the autumn, and the possible thousands of species it supports over its lifetime.

Lichen - 'Expanding Green Carpet' - reference to its radial growth and carpet like covering.

Little Gull - 'Silent Colour Changer' - reference to the bird's relatively mute nature when here in Ireland, and how its head changes from black in the summer months to white in winter.

Dandelion - 'Wish Blower' - reference to childhood. Where a child would blow on the seed ball to make a wish, or,

'Weather Parachute' - reference to its natural barometric nature, and its parachute-shaped seeds.

Ladybird - 'Hidden Wings', reference to the wings concealed underneath its outer shell.

FEEDBACK

"I enjoyed this exercise the most as you really had to think about the actor and all the connecting elements to come up with a nonstandard name. Really good fun."

"This was an exercise in thinking outside of the box, challenging our ideas and thinking process."

"So fun! I had a laugh trying to think of all the possibilities and narrow it down. This is a great part of it. It brings a childlike innocence that most adults will indulge in and enjoy."

"Good opportunity to provide an alternative descriptive name as if encountering the species for the very first time."

"Playful way to get you thinking differently and challenge the way we see things in the world."

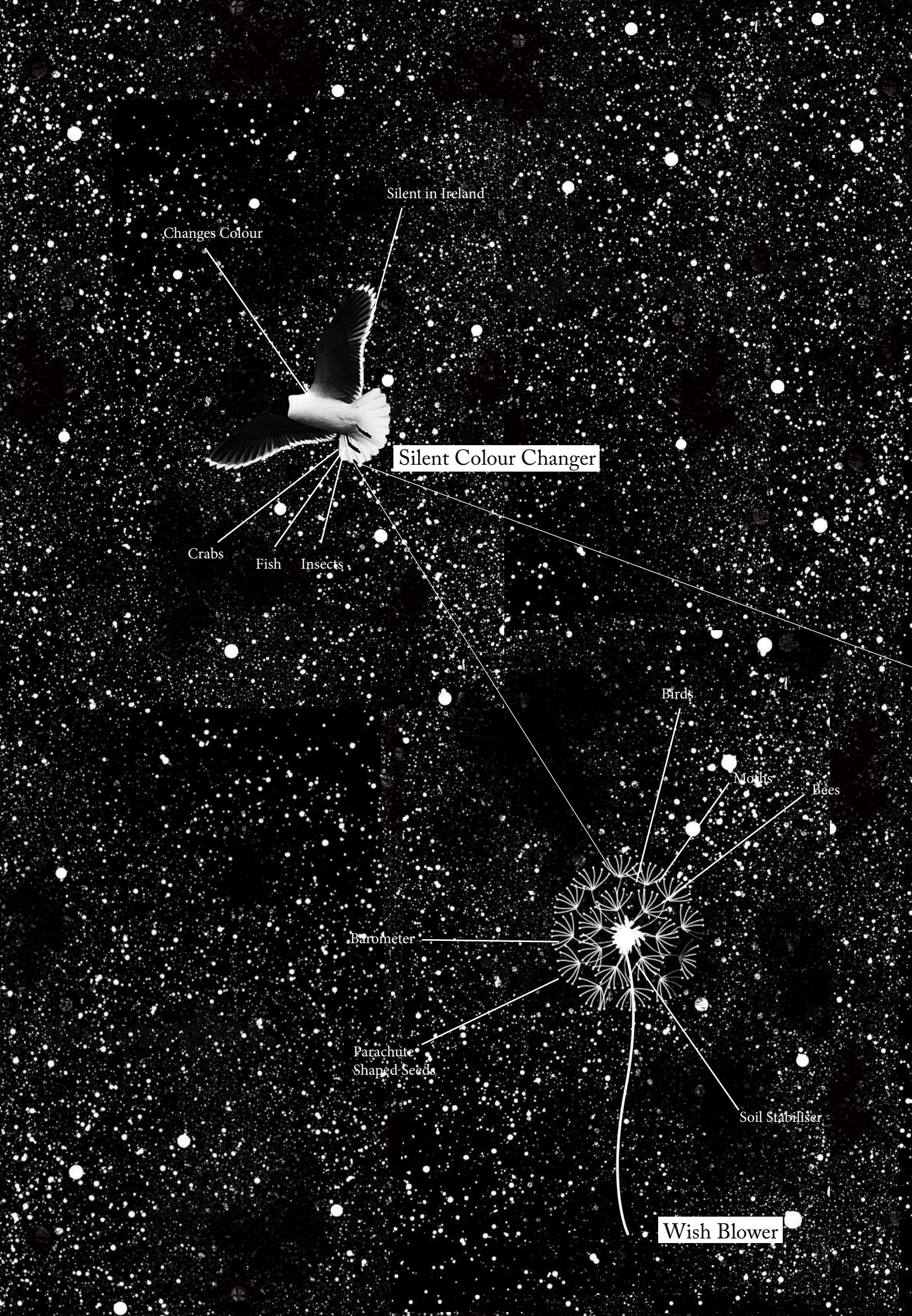
CONCLUSION

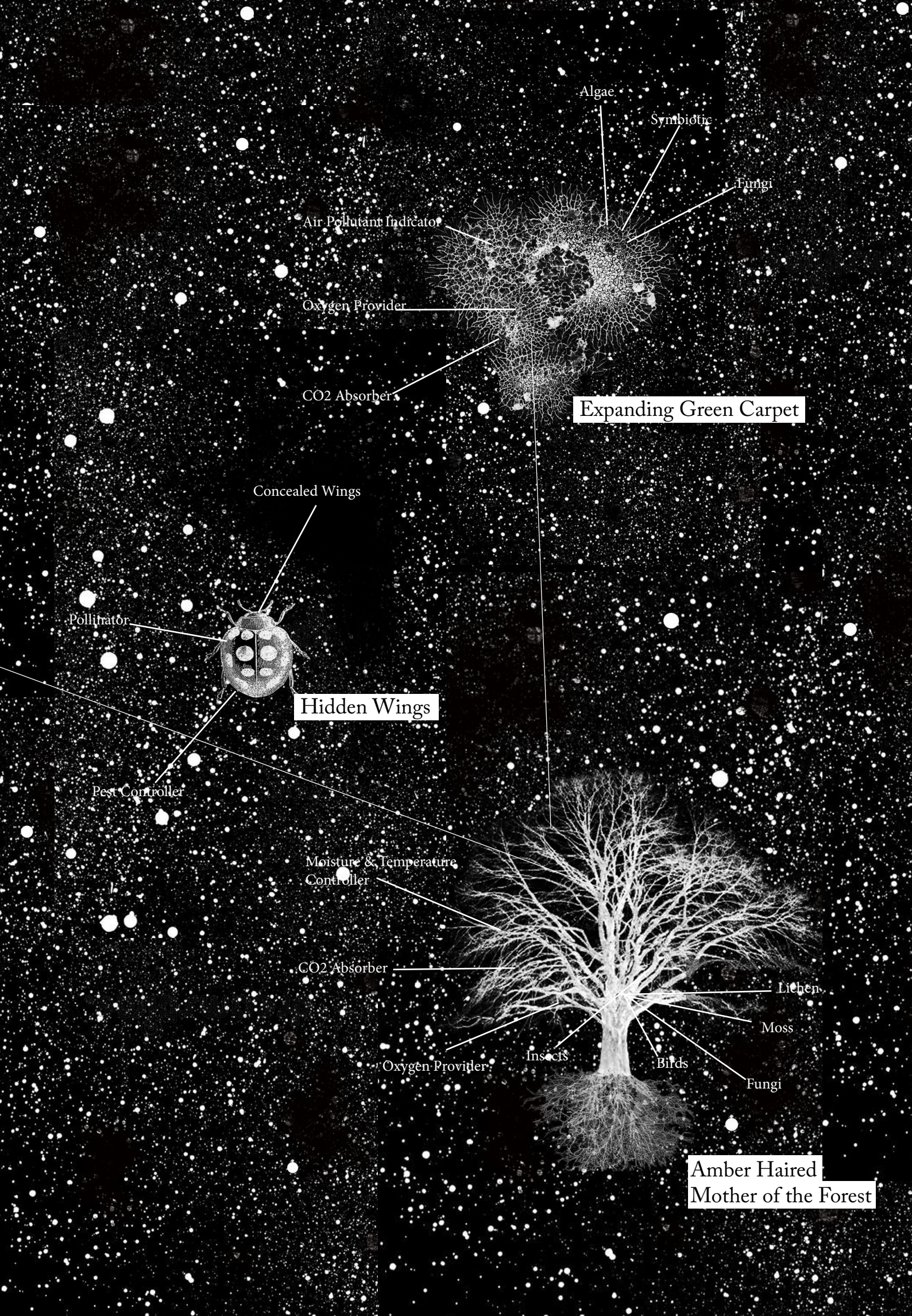
This exercise was successful in challenging participants to expand their perspectives beyond a world presumed to be fixed and presents a world that can be flexible and relatable. The new name has the potential to capture real knowledge, whether it be local or ecological. The act of naming has potential to form bonds and open up new ways of knowing.

Three participants spent as little as ten minutes forming their name. I felt their thinking could be challenged more and encouraged them to spend more time analysing their information, and to consider the knowledge the name might contain. Although some felt content with the name they had chosen and the exercise still allowed for personal connections to be made, even if it didn't quite capture knowledge beyond that.

There is an opportunity for collaboration here. Working together as a group would allow many different perspectives and participants could challenge each other as to what knowledge they felt should be captured. It could also be used as a community engagement tool, allowing different groups to form their own local taxonomies.

Generally the participants had the most fun with this exercise and found novelty in coming up with their new name. Keeping participants between a balance of fun and criticality was important for this exercise.


Silent in Ireland
Changes Colour
Silent Colour Changer
Crabs
Fish
Insects
Birds
Moths
Bees
Barometer
Parachute
Shaped Seeds
Soil Stabiliser
Wish Blower


Algae
Symbiotic
Fungi
Air Pollutant Indicator
Oxygen Provider
CO2 Absorber
Expanding Green Carpet
Concealed Wings
Pollinator
Hidden Wings
Pest Controller
Moisture & Temperature Controller
CO2 Absorber
Lichen
Moss
Insects
Birds
Oxygen Provider
Fungi
Amber Haired Mother of the Forest

STORYTELLING

“ It is a world of movement and becoming, in which any thing, caught at a particular place and moment, enfolds within its constitution the history of relations that have brought it there. In such a world, we can understand the nature of things only by attending to their relations, or in other words, by telling their stories.”

Ingold 160.

For this exercise we will continue drawing from Ingold’s thinking and will aim to create a meshworked story of our more than human world. Drawing from all the knowledge we have gathered along our journey, and much like our naming exercise, we look to capture knowledge of the relations and connections we have found. We may tell a story as a way of transmitting knowledge of our meshworked world. These stories may engage us in new perspectives and they have the power to open us up to new ways of knowing. We will use storytelling as a tool for reconnection, as a container and communicator of knowledge and of recognition of our more than human agencies. In telling these stories we aim to create pathways along which we and others can follow (Ingold 162).

Here participants set out to create a story about their actor. They are encouraged to bring together all the knowledge they have gathered along their way. They are guided by an introduction to the exercise and questions to consider.

They have the freedom to take on a perspective of choice. Keeping options open for those who may want to connect with the information in their own way.

Guiding questions for the story include;

What story should be told to others?

What knowledge can your story contain?

What are its connections and relations with other species?

What place is it found?

What is its role and value in the ecosystem?

How does it behave, change, move?

They are first tasked to sketch out a story idea and look to include all the information gathered up to this point. Five participants took part in this exercise, spending 20 minutes plus to complete theit story.

Stories include;

Amber Haired Mother of the Forest

A poem that takes on the inner experience of the beech tree over changing seasons.

Silent Colour Changer

Third person approach that details aspects of the life and characteristics of the Little Gull.

Revised:

Three participants who had not yet created their story were asked to create one at a later date. They were tasked with writing about their actor from either a third person point of view, or in the first person. Here they could include their own thoughts and reflections but were asked to maintain focus on writing about their actor. The purpose of this approach was to move away from any anthropomorphising tendencies, to also to test out another potential direction.

Stories include;

The Ginny Joe

First person story. Contains factual and reflective elements.

Ladybird

Third person story. Contains factual and reflective elements.

I Like Lichen

Third person story. Contains factual, reflective elements.

FEEDBACK

"This was a great way to round off the exercises and to bring all the ideas together. Enjoyable way of connecting with the information."

"It's so open so anything can come from it, I guess that's what I liked about it. The possibilities."

"Trees to me are like poetry. This exercise allowed me to express what I feel and was a good way to combine everything I've learned."

"I found it a challenge as I haven't written a story in over 40 years. It was satisfying to complete it. I found it an interesting and enjoyable exercise."

CONCLUSION

Storytelling is a creative way of engaging participants in the communication of the knowledge they have gathered. It acts as a point of reflection for participants to consider what story should be told of their actor, and allows the information gathered to become accessible to a wider audience. Keeping the writing perspective open to the participants choice aims to not restrict the participants in anyway, and although it may be useful for participants to connect in their own way, there was still a tendency to connect through anthropomorphising elements of their actors. This seems to be common in the stories from both this process and the charrette.

The revised instructions for the final stories aimed to move away from this tendency and setting a third or first person perspective to write from was useful in navigating other ways of thinking. It provided the opportunity to bring together the information they had gathered and to also include personal reflective elements. This has the potential to provide an added element of connection for both the participant and the reader, and a direction that is closer to what we are hoping to achieve here.

STORIES

Mother of the Forest

Here I stand tall and strong,
my amber hair is almost gone.
My bare arms sway to and fro,
I bend and shake
as the wild winds blow.
My trunk it wears a coat of green,
with spiders webs, silky sheen.
To trap a fly and to digest,
and then to take a well earned rest.
The children come but pass me by,
my leaves aflutter around them fly.
The birds stop, take a rest from flight.
To settle down before the night.
My sisters they stand close by me,
I'm proud of what we've grown to be.
Tall and strong, yet flexible.
We seem as tree(3) dimensional.

Little Gull

The little gull is the smallest gull in the gull family. They are born in Scandinavia and parts of eastern Europe during the spring months and are born with a black head. They navigate to Ireland in between October and March and when they do so, their head changes to white in colour. They navigate in small flocks for the purpose of fishing for crabs and other small mollusks. Other than fishing the little gull eats small insects and can be found in parks such as our local park in Sundrive. The little gull has little to no voice when in Ireland. The most notable feature of the little gull is their black feathers under their wings and can be easily spotted when in flight for this reason.

Ladybird

Awakening from winter hibernation as spring flowers bloom, the ladybird begins to seek out food and water sources. Plant pests are their favorite food and when the female, the larger of the species, is ready to lay their eggs, they will migrate to where food is abundant. Their red, black spotted outer shell conceals wings that allow them to fly for a prolonged period, over long distances. Flying from one feeding site to another they can consume as many as 5000 aphids in their short one-year lifespan. Their vibrant coloring acts as a deterrent to predators as they actively avoid frogs, wasps and spiders. They are an efficient plant pest controller and assist in the pollination process. As a result, they are considered a friend of both the farmer and gardener and their presence is actively encouraged. It is heartening to know that a tiny creature of such beauty exists to help maintain balance in the cycle of life.

The Ginny Joe

Needless to say, I've never looked into a dandelion prior to this point, and shame on me for not knowing the importance and multiple health benefits I found out about it. I'm somewhat fascinated that the game we used to play as children (blowing the dandelion and making a wish) was, in fact, benefitting in the dispersal of its seed and possible cross pollination process in my little garden. Everyone benefited from this.

For something so commonly found around us, the role it plays in conditioning and balancing the soil, and how it works as part of the surrounding ecosystem in so many ways is brilliant. It seems it's a favorite food source for the bees, butterflies, moths and birds - humans too! And it is part of one of my favorite flower families - the sunflower.

The little dandelion changes from a yellow flower to a white puffball and plays an important role in the surrounding ecosystems, including gardens, fields and forests all around the world. So next time the wind blows I will think of all the little seeds dispersing around my garden and the vital role it plays in our ecosystems.

I Like Lichen

Lichens are considered to be among the oldest living organisms on the planet. From sea-level places to high alpine elevations, they can be found growing just about anywhere. They have adapted to survive in some of the most extreme environments on Earth. In the rain forest and woodlands they can be found hanging from branches and 'living on thin air'. They can even be found living inside of rocks.

They are sensitive to their environment, and changes in their abundance and condition are often indicators of environmental disturbances, such as air pollution, ozone depletion, and metal contamination. If the air is clean, then shrubby, hairy and leafy lichens become abundant, although some have adapted to tolerate more highly polluted areas of urban life.

Lichen are not a single organism, it is a symbiotic relationship between a fungus and algae. It is a mutualistic relationship that both partners benefit from. Like all fungi, lichen fungi require carbon as a food source; which the algae provides. "They are fungi that have discovered agriculture"— Trevor Goward. This symbiosis is something we can learn from and something we should strive for in our own relationships with nature.

REFLECTIONS & FEEDBACK

At the end of the process the participants reflections and feedback were gathered through a questionnaire. This aimed to collect their thoughts, insights and any potential learnings. It also aimed to highlight any aspects of the process they felt could be improved on.

The reflections included here are participants reflections on the overall experience.

Summary of reflections include;

A realisation of how little we are aware of and the limited knowledge we have of our more than human worlds.

A deeper realisation and understanding of the interconnected meshworked world we are a part of.

Provided an opportunity to see things from another perspective.

An enjoyable and thought provoking process.

Comments include;

"Very thought provoking, it was interesting to think of how things flow and are connected and that everyday actions (human, non-human) have a direct impact on the environment."

"Different way of thinking and really enjoyed the path it brought me on. From knowing nothing or very little to interconnecting and meshing different aspects together in lots of ways. Really enjoyed it all. Loved that something so simple (the dandelion) can be so thought provoking when guided."

"Enjoyed the opportunity to see things from a different perspective and do research on something I wouldn't normally do. Very interesting and thought provoking. I thought the content was structured perfectly to bring you on a little journey."

"Interesting exercises that should help people become more aware of their surrounding natural world."

"It was like a part of my brain had been switched off and was trying to reignite. Forcing me to stretch my imagination and move beyond my usual ways of thinking."

Participants were asked to sum up their main takeaways from the experience.

Comments include;

"How little we take things in or imagine we know about. I've always been drawn to trees and find them beautiful but after the exercises I feel more aware that there is much more to it than meets the eye. After the experience I would imagine I will begin to really be observant of nature in a full scaled way. Not just seeing a tree as a single tree. but connected with much more."

"Initially I had assessed that I would be very connected with nature however following the exercises and readings I realised that my connection and knowledge is more surface level rather than critical and in-depth. Really enjoyed the experience."

"Our western reality is a relatively new social construct that isn't working to support or empower us but to actually disconnect us from the reality of the world we live in."

"A broader understanding of the balance required to preserve and protect our natural environment."

"That I, as expected, do not know nearly the extent of what is going on around me, between human and non-human actors. I really enjoyed exploring and looking specifically at one in some depth."

CONCLUSION

Each exercise aimed to challenge the participants thinking and present an alternate way of seeing, understanding and relating to our world around them. The theoretical thinking tools and questions aimed to guide the participants view throughout and were useful in attempting to challenge our human centric perspectives and navigate other ways of knowing.

The workbook was successful as a tool for facilitation and can also be used in a more self-directed manner. Although I did find that even with the facilitation and guides participants default to and struggle to move beyond their own human centric views. This was seen in the research phase where much time was focused looking at the human benefits their actor provides. Here they needed to be reminded of considering the guiding questions, and if not encouraged to challenge their thinking more on this, I feel some participants may have stayed on this path.

The anthropomorphic elements that appear in the stories also highlight our struggle to see beyond the human. This tendency to anthropomorphise the more than human actors in our environment can be seen as part of our problem (Urguiza-Haas et al). As we project human attributes upon certain more than human actors, our levels of empathy and acknowledgment are narrowed to what we feel we know and can relate to. It will be important to bring this to the attention of participants as I feel most would be unaware of this tendency. We also attempted to move away from this tendency by providing different instructions for writing our stories. The third or first person approach veers closer to the types of connections we set out to make. For any future tests this approach will be incorporated.

In the short time frame these exercises were completed within, the results were quite successful. Participants did find moments of insight, connection and curiosity with their more than human worlds. Those who had initially assessed their awareness and connection as strong were reconsidering the level to which they had imagined. It may be that until our attention is brought down to finer details, that we realise what little we are aware of. Although I do feel more time taken with the exercises to allow for more critical thought and discussion would've been beneficial.

FINAL THOUGHTS

We set out to explore ways of engaging in alternate perspectives of our more than human worlds, to challenge our human centric views and find points of reconnection along the way. The revised process attempts to challenge our perspectives more than the charrette experience and the incorporation of guides throughout have been helpful tools to guide our thinking. These exercises do work when facilitated with an individual, although aspects of the collaborative engagements may be more rewarding for certain exercises. We see this in the collective mapping exercise a part of the charrette, which allowed for many more connections to be made on the map. The naming exercise could also benefit from a collaborative analysis, allowing individual ideas to be challenged more. Each exercise could benefit with more time taken, allowing more time for critical thought and discussion. There is also a fine balance between keeping things fun and open but maintaining the participants critical thinking. This is where facilitation does play a role in guidance still.

Participants have found enjoyment in the exercises and the opportunity to reconnect. They have experienced moments of curiosity, new understanding and connection. Although, we may not be able to identify any lasting impacts or changes these engagements might have in particular.

What remains evident is that we do struggle to move beyond our anthropocentric views, this is after all how we experience our world, through our human lens. Without other ways of seeing our attention and awareness remains within this confinement. And although it may be a great challenge to move beyond this completely, the important part here is that we are attempting to challenge it and bring an awareness beyond it. It has never been more important that we do.

MOVING FORWARD

Moving forward there is potential for further testing and engagement. The process could be facilitated along with community groups and other members of the public. The naming exercise in particular could be used as a community development tool and facilitate the building of a local folk taxonomy. The stories and maps also have potential to be made into a collective interactive map that could be built upon There is also potential for the exercises to be adapted and/or simplified to suit other demographics. The workbook could be made accessible to a wider audience and could be used as an open access tool for facilitation.

There are also many other ways, (I'm sure) that we may attempt to challenge our perspectives and find points of reconnection. I'd have a strong interest in continuing to explore other avenues for engagement and continuing to engage with the theory, as I am aware, I've only scratched the very surface here. I'd have interest in looking into Irish histories and past ways of knowing here and seeing what could be discovered. There is also strong realisation of the importance of moving our focus beyond the human and attempting to make changes where we can, however small they may be. One way or another, that is what I'll hope to continue.

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TERMINOLOGY

Agency
The capacity of an individual or thing to act, create intervention or influence independently.

Anthropocene
Our suggested current geological epoch, described by the unprecedented scale of crises we now face from the effects of human impact and dominance over the earth and its resources.

Actor
Refers to Bruno Latours Actor–Network Theory which describes everything in the social and natural worlds existing in a constantly shifting networks of relationships. In our context the actor is one that acts and can be acted upon within this network.

Becoming with
Here understand that in being human, one is always tied to the more than human. And that "to be one is always to become with many" (Haraway 2008). It captures the knowledge of the entangled, interdependent relations of both human and non-human.

Entanglement
In quantum physics entanglement may refer to two particles that remain connected although separated by vast distances. We use this as a way of describing the relationships between things, both human and non-human.

More than human or non-human
Refers to any plant, animal, insect, fungi, ocean, river, natural environment etc.

Nature
The natural, physical, material world or universe.

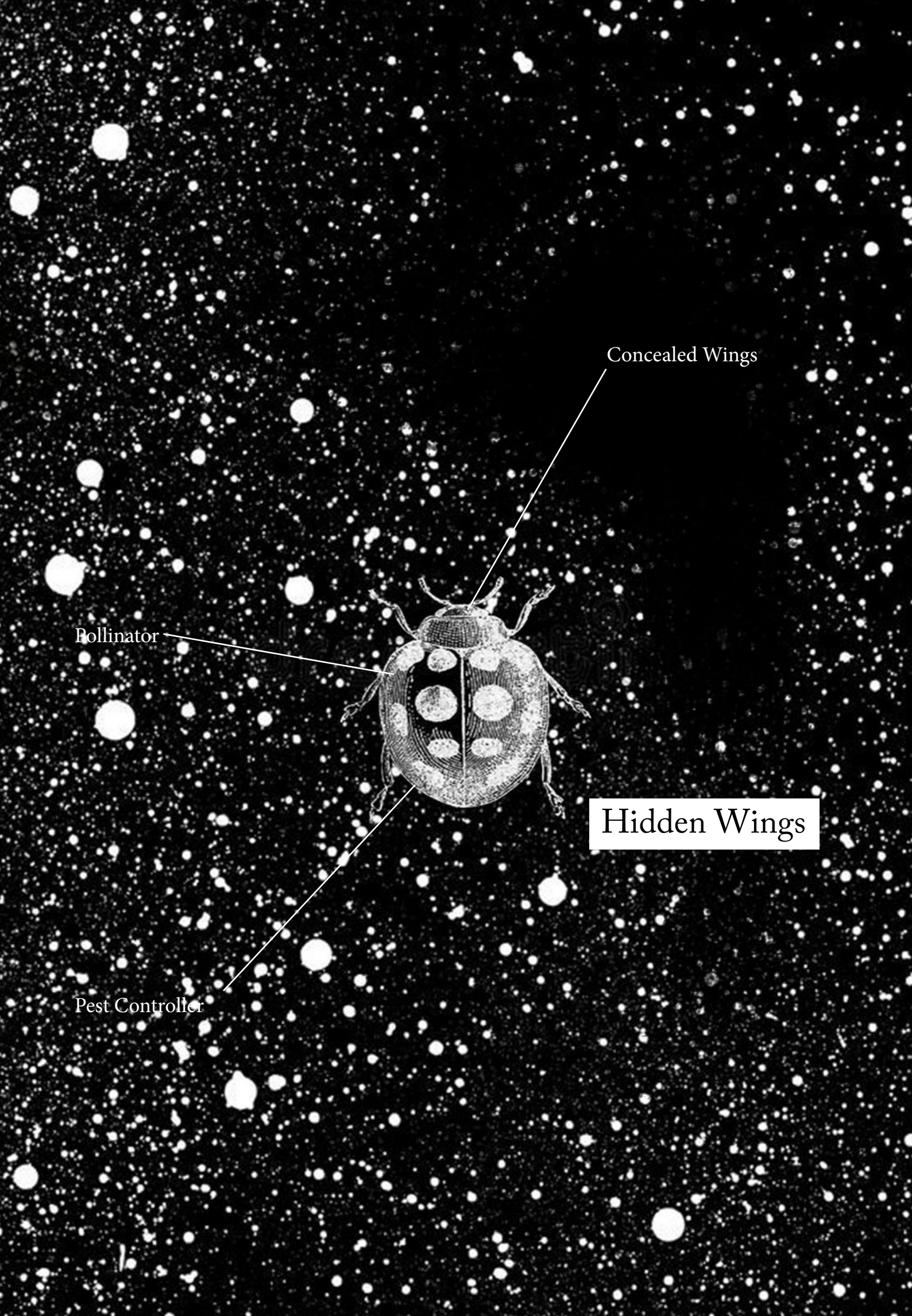
Non-anthropocentric
A view that aims to move beyond thinking solely from a human-centric perspective and instead looks at the importance and urgency of thinking as a multi-species world.


Transforms.
Yellow → White
Puffy
flower.
Barometer
(tell the weather)
Gardens, la
fields. very
common.
V. Recogn


aerate + condition soil.
ie health benefits.
soil stabilises soil conditions
humans eat them too i.e tea
dandelion
insects/birds etc. animals eat them.
humans pick them + blow which also cross polinate
cross polinate, wind carries it impacts surrounding plantlife


Spiders
Make webs which trap flies
Fallen leaves and growth
Create Habitat at ground level for hedgehogs and other diverse species
BUILD NESTS in High branches for protection against predators
Birds


ThE
BEECH
TREE
FOOD
NUTS
FOOD
BIRDS
SHADE From Sun / Rain
Reduces stress / Colour green is good for eyesight
Reduces anxiety and depression
Therefore good for mental health
Two Fungi and is
SHELTER
LICHEN


Concealed Wings
Pollinator
Hidden Wings
Pest Controller