

44.2 Ecologies of Collective Imagination

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Abstract

Ecologies of collective imagination involve creating and sharing imagination practice. This modest piece of research engaged 10 artists, environmentalists, and educators to think together about how nature can be a source and a driver of the imagination and sense of possibility for individuals and communities. Together we focused on the concept of re-imagining learning, inside and outside, researching the space of imagination and possibility, nature and well-being for future generations. We explored how collective forms of imagination can engage individuals in actions related to environmental awareness and reparative justice, including ways of widening participation by engaging people who may have been excluded from the power of ecological learning and imagination, ultimately building aspiration and responding to change to build hope for the future. The premise of this project is that human lives are lived in the realm of the possible as much as they are in the here-and-now of immediate experience of the more-than-human world. In this project, we are interested in understanding how we imagine our lives as part of nature, focusing on the question “how can we cultivate an awareness of ‘possible lives’ in ways that respect nature and lead to more hopeful futures?” Our methodology will include opening up spaces for dialogue as a method for the construction of new theoretical and creative methodological tools and processes. This article will consider ecological imagination in the context of art and design education, and creative and eco-pedagogies through a multimodal approach, and a combination of visuals, poetry, and narrative.

[Correction added on 19 May 2025, after first online publication: Hannah McDowall, Tom Doust, Shannon Welles, Goldie Chaudhuri, Anne Pender and Mairéad Hurley were added as co-authors.]

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Keywords

collage, ecological, imagination, multimodal, nature, possibility, research, wonder

Introduction

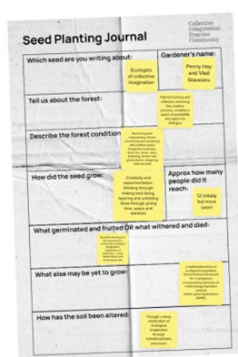
Ecologies of collective imagination involve creating and sharing imagination practice. This modest piece of research grew out of a creative “Huddle” which took place mostly online for several months, starting in July 2023. Huddles are purposeful, peer-led learning journeys, undertaken by small groups of peers who pool their knowledge, experience, perspectives and creativity, with the support of a host and a structure, to co-develop their learning and development. This particular Huddle engaged 10 artists, environmentalists and educators to think together about how nature can be a source and a driver of the imagination and sense of possibility for individuals and communities. Together we focused on the concept of re-imagining learning, inside and outside, researching the space of imagination and possibility, nature and well-being for future generations. We explored how collective forms of imagination can engage individuals in actions related to environmental awareness and reparative justice, including ways of widening participation by engaging people who may have been excluded from the power of ecological learning and imagination, ultimately building aspiration and responding to change to build hope for the future.

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This article will consider ecological imagination in the context of art and design education and creative and eco-pedagogies. As a group, we represent psychology, arts, education, environment and innovation, working together in a transdisciplinary space to develop new methodological approaches to understanding the power of the ecological imagination. Themes emerging include the relationship between nature-connection, arts, imagination and well-being; the interdependence of nature and imagination; states of wonder and places and objects of magical resonance as gateways to ecological imagination; transformation of systems and self; emergence; human–nature relationships; consciousness; cycles of seasons, time, productivity and rest/reflection; and the relation between place and culture, history, tradition, mythology and folklore. We explored these themes further at a hybrid retreat with the members of the Huddle in January 2024 at Hawkwood College, the Centre for Future Thinking.

In this visual essay, we will share our collaborative and interdisciplinary practice research methodologies through a multimodal approach, and a combination of visuals, poetry and narrative. We are inspired in this process, by Greene (1995), Judson (2008) and Glăveanu’s (2020, 2022) writings on wonder and possibility, to discuss emerging spaces of possibility (Hay 2021) in the context of ecological imagination and art and design education (Figure 1).

Penny & Vlad



Ecological imagination

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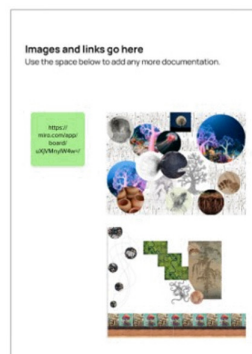


Figure 1

Ecological Imagination Huddle: Seed Journal.

The principles that guided the collective creation of this piece included the following:

- Embrace the cascade
- Be free, be curious
- Trust yourself
- Mystery welcome
- Be playful
- Make it feel effortless and with joy
- Don't worry—there is no judgement
- This is a space for creativity, reflection and dialogue.

Vlad Glăveanu: the concept of collective ecological imagination as a dialogical process

We are deeply inspired by the philosophy of dialogism (Bakhtin 1994) that emphasises the polyphonic construction of knowledge. This approach invites multiple perspectives and fosters authentic dialogues, that is, those dialogues that lead to the emergence of novelty. In the spirit of dialogism, we offer in this article a collage of voices bringing their own unique perspective to the topic of collective ecological imagination. This is all the more fruitful given that collective imagination is, itself, intrinsically dialogical (see Bakhtin 1981). Especially when focused on the environment, collective imaginings gain their strength from the diversity of points of view, types of expertise, worldviews, motives and questions that are brought together and placed in a reflective relationship with each other.

To use a nature-based metaphor, this essay resembles a growing tree: theories of imagination, dialogue and possibility form the roots; the recent experiences of the ecological imagination Huddle and hybrid retreat the authors have been involved in are the trunk from which different voices and forms of expression grow

as strong, blooming branches. Final reflections are offered that, just like a canopy, are not meant to make the imagined tree more unitary but give shape to its intrinsic diversity and uniqueness. As follows, we invite you, the reader, to discover the 'tree' of collective ecological imagination as an evolving assemblage of voices, experiences and hopes for the future; and, in doing so, to add your own perspective, enriching the shared ecologies of imagining we inhabit, and strengthening their capacity to build a different tomorrow for our human, non-human and more-than-human world.

Anne Pender: radical visions for transformation

My contribution to the Ecologies of Collective Imagination Huddle was "FiosFiagh/RavenSight", an experiment in using sound to evoke and reawaken our sense of connection with nature and inspire us into acting to care for it. It comprises a 15-minute soundtrack collage of song and ambient sound audio clips which draws on both research-based and mythological elements of the concept of transformation. My work on transformative approaches to environmental governance and system change incorporates research on how different worldviews – the fundamental 'lenses' through which we see and filter reality – shape the different ways we perceive and respond to environmental challenges (Pender 2023). Each worldview has its own particular set of values and wisdom to contribute to transformation work and the soundtrack sought to identify a piece of music that would resonate with each of five selected worldviews, leading listeners through an evolving path of deeper connection with nature. The resulting soundtrack was a polyphonic collage not only of worldviews but also of musical styles, rooted as it was in differing interpretations of Irish traditional music.

Transformation and altered perceptions are also core motifs in Irish mythology, where people, animals and even places can shape-shift, and the boundary between this world and the Other-World is often blurred. "Tá fios cionn fiagh agat" (you have the knowledge of a raven's head) is an Irish proverb meaning to have the power of second sight or radical vision. It references the ancient Triple Goddess, the Morrigan, who would take the shape of a raven to guide and protect warriors, the raven being traditionally associated with clairvoyance and telepathy. If we are to create a world of thriving for all, we need radical and transformative visions to guide us in imagining and creating the new ways of seeing, doing and being which will lead us, from "here-and-now" to the "realm of the possible" (Glăveanu 2022).

The process of creating, presenting and receiving feedback on the soundtrack, while aimed at generating collective impact among listeners has also transformed me. I have always instinctively drawn on art, literature, poetry, music and other creative sources in my work but have been reluctant to consider myself a creative or artistic person. Participating in the Huddle has strengthened the tentative steps I have been making in this direction over the last year, which began with writing haiku poetry in the Irish language and taking impromptu photographs with my phone. To build my confidence (or 'en-courage' myself) in my soundtrack experiment, I came up with a mantra which I wrote on a post-it and stuck on my laptop: "Just make it. You can always make it better but you have to make it first". I subsequently came across a line from the poet David Whyte which echoes this: "Beginning well or beginning poorly, what is important is simply to begin" (Whyte 2019). The process of making the soundtrack also led to the realisation that valuable

insights and ideas on how to 'make it better' were only possible (a) through my actual "making" of the soundtrack, as I worked through various iterations and reshaped it and (b) from the collective imaginings of my fellow Huddle members as they listened to the soundtrack and shared their responses and feedback. The experience of participating in the Huddle, which culminated in a hybrid retreat where members shared their creations, has itself resulted in another creation, as I was inspired to write the following haiku:

*Súile dúnta, ag
tarraingt ar cheol nádúrtha
don croí a ghríosú.*

*Eyes closed, we inhale
nature's music, heart swelling
with joy for action.*

Overall, my Huddle experience and experiment have reaffirmed for me the power of "I/We", "Both/And" processes of continuous individual and collective creation in generating transformation, as explored in the emerging field of quantum social change (O'Brien 2021). As the ecologist and writer Abram (2023) puts it:

... I am dispersed; without an inside or outside, I am a sheer multiplicity, a crowd, a flock of selves, or cells, echoing one another across the fields—less a body than a fluid medium rippling with interpenetrant rhythms, a locus alternately concentrated and diffused, whirling from the darkening hills to the trees.

Hannah McDowall: homecoming

The question I carried into the Huddle arose out of recent work exploring ecological imagination with young people from inner city London (Camden). Most of them did not experience play in wild places as small children, and felt unsure about how to be in nature. In part because nearby green spaces were scarce, and in part because their parents, most of whom migrated to the United Kingdom, did not feel confident introducing them to England's nature, having not grown up here and learned what is safe and what is not. The young people also felt fearful because corners of wilderness in their communities can be places where youth violence happens. My curiosity was to explore with the young people what might come of immersing ourselves in the very ordinary opportunities to be in and with wild places in the neighbourhood. We worked with imagination practice to support us in this immersion, drawing on traditional mythology, nature-meditation, sensory attention to wild beings (feel, taste, shape, smell), making wild teas and creating artworks.

It was to deepen this initial inquiry that I joined the Huddle, asking: how can ecological imagination practice support young people who lack exposure and confidence in natural spaces to find their entangled belonging to the wild world and to their urban neighbourhoods? And what does it mean for them to do so?

Relationships with Huddle members created new opportunities to explore this question further with the same young people in Camden. The trouble has been to

language what feels like the most meaningful parts of this. The experiences are so subtle and embodied, it cannot be languaged directly. Drawing on our Huddle retreat in which we explored the sensory and collective ecological imagination through many languageless and metaphorical modes, I share here my learning with the young people through poetry.

homecoming

*Like needles in a threadless drift, our streets are mythless.
Itchy fingers swipe and 'like';
a misplaced haptic searching for the needled-ends of earth-spun yarn that finely worked,
will fix our lover's image to our breastplate.*

*That's why we hate school uniform.
That feeble polyestered crest can never name our true belonging.*

*Pause then, and let the bark against your spine on East Heath Rise quicken beneath
your shoulder blades, a stretch, a bounce, an earthen cord.
Slow your breath.
Thread the needle.*

*Now we stitch in blind-bright black
a stitch to trace a chestnut leaf
a stitch to chew on hawthorn flower
a Celtic ring
a golden clasp
a nettle sting
a robin's brass.*

*Waiting for the 268 beside old pizza crusts
a thread of ants embroiders in the crumbs a shining path.
Crouching low
bow your head.
Wild's longing for the longing
may yet break us open.*

*Let these images be myth.
Shirts of asters stitched in silence
one sleeve blank to free your wing.
On these days we forget how to talk about the things people talk about
but languageless
we know ourselves
as people coming home.*

Shannon Welles: polyphonic collage

We have been living in monophony – the human voice shouting loudest, drowning out more-than-human song. Can we learn to listen for polyphony, for the tonal varieties always present? How does polyphony differ from cacophony? Will multiple

tones cohere as we become sensitive to relationship and pattern? I brought these questions to the Huddle, to explore ecological imagination through a polyphonic process of collaborative collage.

An ecological imagination requires a shift from anthropocentric perception to listening and making space for more-than-human tones – imagining *with*. An ecological imagination is alive to relationships and process. But how can we perceive even a fraction of the immense complexity and relationality of life on Earth? I believe the sensorial, the creative, and the imaginative are perceptual portals to meet this complexity. A creative process is an embodied way to sense and describe living systems and to participate with life. I considered what creative making practices might stimulate reflective relationship and a collective, ecological imagination that imagines *with*. I chose collage.

Collage is inherently relational, and the collaborative collage, exponentially so. Materials are selected, altered, and combined in relationship. The simplicity of paper and glue belies collage's complexity. The communication between materials is as important as the materials themselves. Add people and culture to the mix, imagining with each other, and the process becomes an improvised conversation, akin to free jazz. Imagination and intuition drive the process of collage. Insight emerges in the doing, as materials and images suggest relationships that may only become clear in reflection. Collage is accessible to most and perhaps particularly inviting to those who do not consider themselves to be creative or artistic. Collage is playful and fun. It is an exercise in creative communication with materials and participants, to imagine *with*.

In collaborative collage, participants take turns and work on the same collage, responding to the growing assemblage. Imagining *with* is a form of listening. The communication between the elements forms relationships. It is contextual. Each collage addition influences the next person's choices. A collaborative process challenges participants to relinquish attachment and possession of individual creations

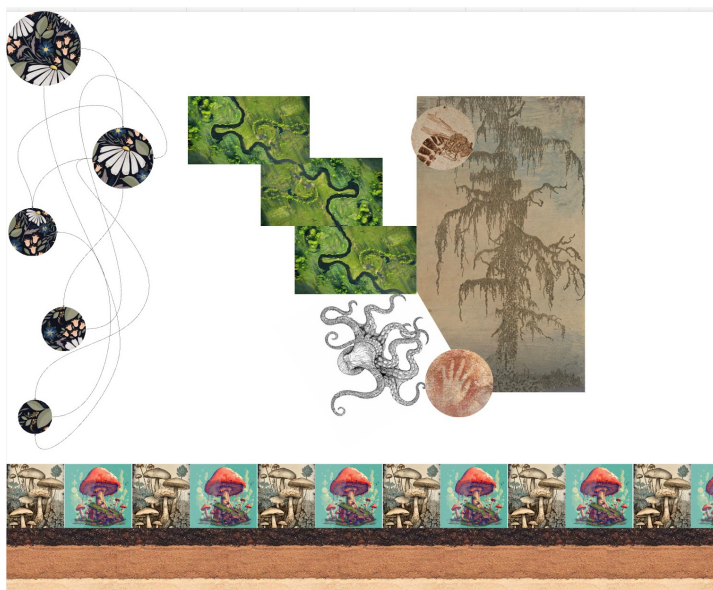


Figure 2
Digital Collage.



Tom Doust: the wonder in wandering

There is already plenty of evidence demonstrating nature's capacity to support human wellbeing, such as the reduction in stress and the increase in positive emotions (Olafsdottir *et al.* 2020). While it is clear that our brains are profoundly affected by nature, growing evidence also suggests that nature strengthens cognitive functioning including imagination and problem solving (Bratman *et al.* 2015). In one study, the exposure to natural stimuli, over the course of a 4-day immersion in nature, led to an increase in performance on a creativity problem-solving task by a full 50% (Atchley *et al.* 2012).

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built environments, can leave us feeling numbed—think crowds of people, noisy traffic and sirens, mobile notifications and pings. In nature we activate the parasympathetic nervous system, enabling us to think more clearly and positively. It is in the natural world then, that we find wonder. We find the capacity for our minds and bodies to wander, to explore new paths, to discover the possible.

I recently did an introductory session on the Japanese practice of forest bathing (Shinrin-yoku) in English woodland. While this therapeutic experience was calming and relaxing, it was also stimulating. In particular, my imagination was sparked by fractals, the naturally occurring patterns that repeat at different scales within the environment. My senses became awakened to natural forms, from vivid green and orange mosses to the spreading shapes formed by a tree's canopy.

It is through this less scientifically proven engagement that I believe humanity can strengthen and stimulate the imagination muscle. Whether it is spending 10 minutes a day or, if we have the time and capacity, immersing ourselves in nature for prolonged periods, the ecological world is fundamental if we are to remain creative beings (the bit that is currently giving us humans some advantage over the machines).

To take full advantage of the ecological imagination, I recommend the following imagination exercises. These stimulate the creative mind to fully open up one's senses.

- *Touch*: discover and explore the materiality of nature by reaching out and connecting with it.
- *Smell*: every aspect of nature has a different smell; smell the earth, smell the air, smell plant life.
- *Sight*: from small but significant spaces to large cathedrals of nature, be in awe of what's in front of you, its immediacy.
- *Sound*: tune into the orchestra of nature from rain falling to birds signing to your footsteps meeting the ground.
- *Stillness*: find a moment of tranquillity. Allow your mind to disconnect from the complex modern world and create the space for your mind to wonder in nature.

A final word. This connectivity to nature is of course the connectivity that many Indigenous peoples and tribes have exercised throughout time. Let us bring the pendulum back from the complexity and reconnect with our ancestry.

Mairéad Hurley: describing my dwelling place

(De)generate, Engender, Generation, Gender, Gene, Genital, Gentrification, Kin, Kind, King, Propagate, Puny, Naive, Nature, Nation, (Re)generative—all from the same root *génh₁- 'to beget'—also the source of arán, the Irish word for bread, literally 'born of the plough'. All kin then, across generations, nations, nature and genetic codes, words connected by a common ancestor. What did this generative collective imagination practice beget for me?

In his 2018 book 'Down to Earth: Politics in the New Climatic Regime', Latour calls for a shift away from a system of productivity "rooted in a division between human actors and their resources" (2018, p. 82), and a move toward a system of engendering. Latour suggests that to find our feet in this new system, it is essential that we "generate alternative descriptions" (p. 94) of our dwelling places—the

'who' and the 'what' that we as terrestrial beings, depend on for our continued existence. The term 'terrestrial' allows space for the more-than-human, including the earth itself, in this complex web of interdependencies. Latour notes that descriptions of a territory likely "traverse all scales of space and time" (p. 95).

The idea of generating alternative descriptions of my dwelling place has guided my inquiry through the Collective Ecological Imagination Huddle. The multimodal descriptions we created together grounded us in this time of disorientation and discombobulation. These descriptions were deeply personal, yet in sharing, we held them up to a light like a kaleidoscope to create new patterns, shapes and distortions. We each shared what we depended on – and by doing so defined a territory, unveiling the things within and adjacent to it that we might have the capacity to change. And so I asked: *how do the wisdom, music, story and song that have been passed down to me from my ancestors help me in this act of describing my dwelling place?*

Latour writes about the myriad ways that nature has been understood, renegotiated and set in opposition by humans throughout the history of modernity. What encounters did my ancestors have with nature, through the times when Irish language and culture were being eroded by colonial occupation and subjugation? I followed this inquiry into the treasure trove that is the Irish Traditional Music Archive – a rich collection of Irish music, song and dance. Nature abounds: we have tunes for the geese in the bog, and the blackberry blossom, the flax in bloom, the rolling wave and the apples in winter. I searched for places of significance in my own life, and discovered a tune connected to the place called Bruckless where my 101 year old grandmother lives and where I spent many of my childhood summers, a small seaside townland in Co. Donegal in northwest Ireland. The meaning of the placename is the badger's den or haunt.

According to the Irish Traditional Music Archive a tune called 'Báthadh Phrochlais' was collected in the area in 1949. It is associated with the Great Drowning at Bruckless in May 1813, when a storm blew up without warning on Bruckless Bay, drowning over 80 fishermen. The story goes that a piper was heard on that night playing this jig which has been known since as 'Báthadh Phrochlais' or 'The Drowning at Bruckless' (Figure 4).

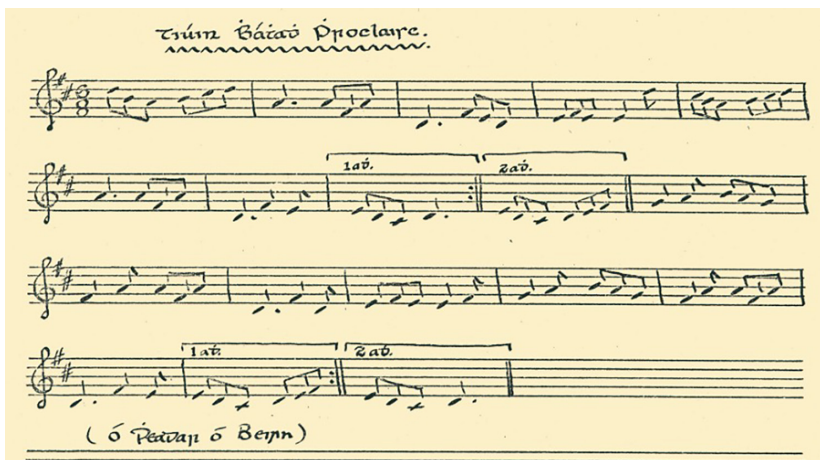


Figure 4

'Tiúin Bháthadh Phrochlais'. Source: Irish Traditional Music Archive.

The legend goes that the fishermen who landed their catch at Bruckless Bay were asked daily by a woman called Biddy Devaney who lived alone nearby for a dole of herring. Growing weary of these requests, on one occasion, she was denied a share of their catch. The story of what followed has been identified as one of many maritime folk legends about ship-sinking witches common across north-western Europe (Mac Cárthaigh 1992). Many versions of the Drowning at Bruckless have been collated, including the following:

When Biddy saw from her own house the fishermen leaving she ordered a little girl, who was staying with her to bring her a tub which she filled with water. In this she placed a small wooden basin. After a few moments the water in the tub began to get slightly agitated and the little girl informed Biddy that a storm was rising and rain was falling. Later when the wooden basin was tumbling from side to side in the tub, the little girl informed her that the boats were tossing about the bay. After a few moments the basin tumbled upside down in the tub and the little girl told her that a terrific storm was raging and that no boats were anywhere to be seen. To this Biddy replied "I am now satisfied my work is done". Next morning the shore was strewn with the dead bodies of the fishermen. Biddy vanished and was never seen again.

Most of the versions I have encountered of this story indicate that those grieving this tragic loss of life needed to direct their uncomprehending anger toward a malevolent supernatural being. The power and unpredictability of the weather and the sea could surely not be anything other than the vengeance of a lone, childless, greedy woman, an outcast of society. In our present era marred by intolerance of difference, reflecting on this story makes me wonder whether it offers another message, one that warns us of the peril of living outside of a code of reciprocity and outside of the principles of a redistributive economy? Is it cautioning against what might happen when we refuse to share the gifts of mother Earth with those in need when we have plenty? Is it a reminder about the danger of othering those who do not conform with certain societal norms? In the place that was named for the haunt of the badger, the memory of the piper's haunting melody across the bay and a feminist reading of a cautionary tale help me to generate alternative and regenerative descriptions for the future of my dwelling place.

Describing our territory depends on all the ways we can know our collective past, our traumas, our joys and our hopes for the future. So let's rip, paste, remix, write, narrate, play, sing, wander and wonder. Let us use all the means at our disposal to describe what we depend on, what else depends on it, and on us. The tapestry of descriptions of our interdependencies, woven on a loom of shared imagination, can define our terrestrial dwelling places, and can only be enriched through this collective compos(t)ing.

Goldie Chaudhuri: collaborative mapmaking, a canvas for collective imagination

As I have found myself moving from place to place, I have noticed my relationship to my place changing from that of knowing a place like the back of my hand to the practice of learning a place – sometimes through personalised and guided tours

from locals and elders to other more destination-driven quests. Hurried journeys, always different and determined by the most mundane of logistics: mode of transport, companions, even the weather. These modes of wayfinding impact both one's ability to be present and the mental space to explore alternative possibilities. I relish any chance to be released into a safe and boundaried space to simply follow my nose and lose track of time (and place). It is in these moments that our places invite our imaginations to ask, "What if?"

In the book *Maps of the imagination: the writer as cartographer*, Turchi (2004) explores how writers use storytelling to lead their readers on a journey in much the same way as mapmakers have done through the ordinary world. Similarly in the compilation *You Are Here: Personal Geographies and Other Maps of the Imagination*, Harmon (2004) brings together a collection of illustrated maps which use mapmaking as a medium to explore imaginary worlds. Inspired by this, our Huddle undertook a collective mapmaking exercise to layer the imaginary over a free-hand co-created map of our retreat location.

The Huddle experience culminated with a retreat that was held at an educational centre that happened to be in my hometown. An outdoor oasis within easy reach of my town centre, where I can see off into the horizon at all the geographic landmarks that define my sense of place. It is a familiar place, the place of week-end outings and annual festivals, a place I can wander into without any need for wayfinding. Those of us who were in person at the retreat were given the prompt to go and explore the area and return with any visual artefacts to share and collaboratively collage onto a more literal map of the area. Those participating remotely explored their own places and contributed their findings virtually. I wondered how the experience would be different for those less familiar with the places they were exploring. I also wondered how the experience would be impacted for those co-located and creating a shared output.

Our collaborative map combined found objects, elements from the natural world, illustrations ranging from free-hand depictions of plants and animals to more schematic map-making elements like pathways and gates. We were surprised to find that a few landmarks were portals between our imaginations, inspiring three or four of us to land on the same spot and interpret in our own respective ways.

The wordsmith among us offered, "Beneath the unchanging surface, unseen decomposition, remaking is making a new thing possible." Perhaps this practice of collective mapmaking could be viewed as just such an invitation, could these creative practices be the seed to making new things possible? The experience of this Huddle has given me this continued invitation, and I hope to experiment with more collective mapmaking within familiar environs and beyond.

Imagining with the wild, Penny Hay

We invite you all to dream in the forest, immersed in the sensations of the forest ecology, everything is connected ... to wander and wonder in the forest. The Forest is infinite and illuminating, full of freedom and potential. Our imagination invites a response to nature and beauty, it gives us insight and guides us to dream, to be intuitive, sensitive and open to possibility. We inhabit this space of possibility and imagining. Immersed in the forest, we are sensitised, we tune in. This attunement invites us to explore different ideas

and imaginative solutions for alternative futures. Our collective imagination celebrates the power of imagining a different world.

This assemblage of voices as a multi-modal collage brings a unique expression of collective ecological imagination and hope for alternative futures in the more-than-human world. We have been imagining with the wild, listening carefully and opening-up space for relationships with nature, moving through sensorial portals of possibility and collective meaning making. We explored the concept of re-imagining learning, inside and outside, researching the space of imagination, possibility, and nature. Each of our offerings emerged and connected with each other's to create this collective expression. Creative and reflective processes, space for dialogue and conversation to 'imagine if' as a polyphony. The metaphor of the tree, the branches, roots and the canopy, was important to explore the connectedness of concepts and ideas emerging over time, in and between the group. Together we have been inspired by nature itself as a powerful source of collective ecological imagination and sense of possibility in response to the existential crises of our times.

As a group of researchers, we are exploring the future implications of this work, and in doing so developing multi-modal ecologies of collective imagination and possibility.

Acknowledgements

Thanks to Professor Vlad Glăveanu, Professor Penny Hay, Dr Hannah McDowall, Anne Pender, Dr Mairéad Hurley, Tom Doust, Shannon Wells and Goldie Chowdry.

Vlad Glăveanu, is full professor of psychology in the School of Psychology, director of the DCU Centre for Possibility Studies at Dublin City University and professor II at the Centre for the Science of Learning and Technology, University of Bergen. He is the founder and president of the Possibility Studies Network. His work focuses on creativity, imagination, culture, collaboration, wonder, possibility and societal challenges and he has authored or co-authored more than 200 articles and book chapters in these areas. He co-edits the book series Palgrave Studies in Creativity and Culture with Palgrave and the Cambridge Series on Possibility Studies with Cambridge University Press. He is the editor of Europe's Journal of Psychology as well as Possibility Studies and Society, launched by Sage in 2022. He was awarded the Berlyne Award from the APA Division 10 for outstanding early career contributions to the field of aesthetics, creativity and the arts.

Dr. Penny Hay is an artist, educator and researcher, Professor of Imagination Centre for Cultural and Creative Industries, Reader in Creative Teaching and Learning, Bath Spa University and Founding Director House of Imagination. Signature projects include School Without Walls and Forest of Imagination. Penny's doctoral research focused on children's learning identity as artists. Penny is strand leader for Creative Pedagogy in the Policy, Pedagogy and Practice Research Centre, and co-chair of the eARTh research group focusing on education, arts and the environment. Penny was awarded an Honorary Fellowship at Arts University Plymouth and a Fellowship in Imagination at the Centre for Future Thinking; she is a National Teaching Fellow and Fellow of the Chartered College of Teaching.

Dr Hannah McDowall is Director of Canopy, through which she works as an imagination partner to third and public sector organisations eager to go beyond the constraining

assumptions that keep us in a deficit mindset. Her particular focus is on storytelling and myth, ecological imagination and play.

Tom Doust is Associate Director at the Institute of Imagination, a charity that designs powerful learning experiences which empower children to believe they can build a just, fair and sustainable world. A social innovator, he has spent over 20 years devising creative multi-stakeholder programmes with children, young people, families, schools and communities in the education and cultural sectors. Tom is a Design Council Expert, a LEGO® Education Academy Certified Trainer and a Fellow of the RSA.

Shannon Welles is a visual artist based in Seattle. Her work weaves art and ecology together, always rooted in place and community. Shannon holds an MFA in Arts Leadership from Seattle University and an MA in Ecological Design Thinking from Schumacher College / University of Plymouth. Her research inquiries explore the role of artmaking in the Anthropocene and an ecological approach to collective imagination through collaborative making practices.

Goldie Chaudhuri is a design practitioner who works with different communities to co-create spaces to imagine alternative futures – ranging from big picture visioning to practical learning and thinking through making. She's particularly interested in who hosts such gatherings, how people self-select to be involved, and creative methods that allow this work to take root at a place-based level.

Anne Pender is an Environmental Policy Design Fellow and policy research scientist in the School of Architecture, Planning and Environmental Policy at University College Dublin, where she specialises in transformative approaches to environmental and climate policy and leadership. She is passionate about the value of the arts in helping us to address environmental challenges and also writes non-fiction and poetry in both English and Irish.

Dr Mairéad Hurley is Assistant Professor in Science & Society Education at Trinity College Dublin's School of Education. Her research explores the transformative potential of critical science education, with particular emphasis on informal learning environments and the creative intersection of art and science for education and public engagement. With her colleagues in Trinity's Science & Society Research Group, she uses participatory and transdisciplinary approaches to explore the role of science learning in shaping socially and environmentally just and sustainable futures. She serves on the Editorial Board of the journal *Science Education*, with responsibility for the section "Science Learning in Everyday Life".

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