

The background of the entire page is a light cream color, overlaid with a dense, intricate pattern of thin, wavy yellow lines. These lines meander and loop across the page, creating a textured, organic feel that resembles a topographical map or perhaps the edges of a wound being mended.

W Phyllis Wong

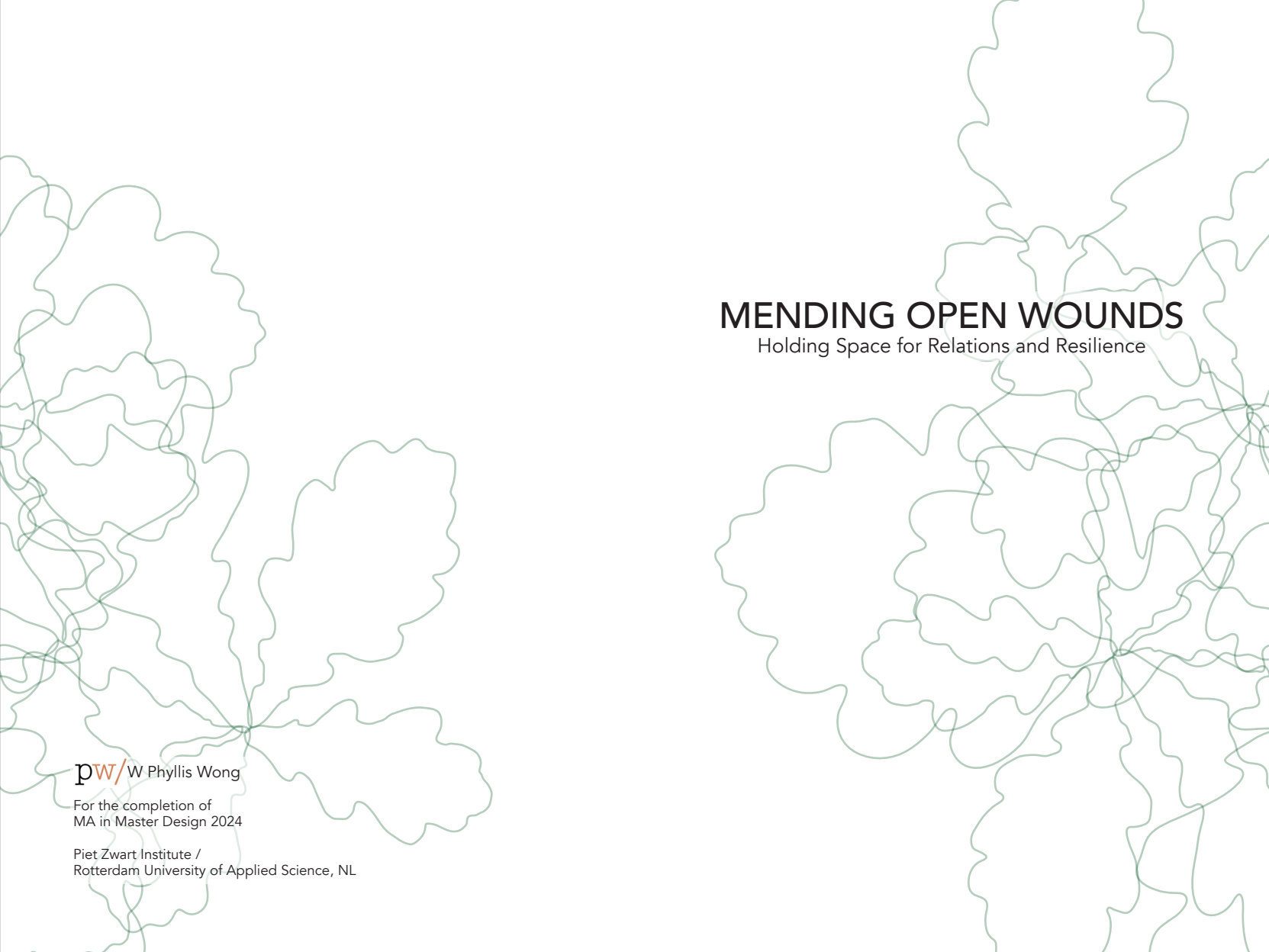
MENDING OPEN WOUNDS

Master Design 2024 PZI/RUAS

The background of the page features stylized, light green oak leaves in the corners. On the left, a cluster of leaves extends from the edge towards the center. On the right, another cluster of leaves extends from the edge towards the center. The leaves are rendered in a soft, painterly style with varying shades of light green.

MENDING OPEN WOUNDS

Holding Space for Relations and Resilience

The background of the entire page is composed of intricate, organic, and somewhat chaotic green line art. These lines form a dense network of loops and swirls, resembling a microscopic view of tissue or perhaps a map of a complex, interconnected system. The lines vary in thickness and density, creating a textured, almost cellular appearance that frames the central text.

MENDING OPEN WOUNDS

Holding Space for Relations and Resilience

pw/ W Phyllis Wong

For the completion of
MA in Master Design 2024

Piet Zwart Institute /
Rotterdam University of Applied Science, NL

Story Telling Publication Title:
Mending Open Wounds
Holding Space for Relations and Resilience
(to be read preceding to Learn(ing) to Unlearn)

Realise You are the Earth
Thich Nhat Hanh

Design questions:

~How can I, as a designer and educator, design accessible and innovative methods to help transition into Regenerative Practice?

~How can I develop a reformed mental framework to unlearn cognitive skills influenced by an industrial growth-driven society?

~How can I design participatory tools and exercises to narrow the gap between Human and NonHuman species?

~ How can Regenerative Practice be integrated and enhanced into the Higher Arts & Design Education curriculum?

Keywords

#practise-of-care #redesign-cognition #affectivity #potential
#interconnectedness #learning-to-unlearn #systems-change
#nonhuman #more-than-nature #Regenerative-thinking

CONTENT

Preface	10
Lexicon	14
1. Introduction: How can potential arise from emergencies?	20
2. Bridging Over: What Precedes The Practice of Care	24
From Material to Cognition	28
On Empathy	33
On Reciprocity	38
On Long-term Thinking	45
3. Manifestation: Connecting the Dots	53
Student Projects	54
4. Conclusion: To the Future Unborn	72
5. Afterword	76
6. References	84

PREFACE

It happened in a recent August. Our young oak tree withered nearly to the core amidst another record-high scorching summer. The scalloped foliage curled inwards in desolation among weak ochre and pale beige hue. The Earth* that kept the roots intact had dehydrated and its upper centimetres had turned into loose sand. We only discovered its ailing state upon returning from our summer break. In our absence, the magnolia and lemon also lost sight of life while bathing within the micro climate of our west-facing backyard. Diligently, water was reacquainted and the rehabilitating trees found refuge in a sheltered corner.

We did not plant nor buy the oak. In fact, there were two, alien residents who out of nowhere, mysteriously sprouted weeks apart in separate occupied pots. As how More-than Nature works, life sprang from a mere little seed to a promising plant. Within a couple of years and without much maintenance, both oak rose proudly taller than the garden desk.

What came as a pleasant surprise unfolded a few weeks later. As a warm autumn gradually entered, the parched, dry leaves clung loosely to the branches, while occasional gusts whisked some away. However, during a routine yard work on an early Sunday morning, I noticed pea-sized patches of spring green peeking from beneath some of the oak's leaves. Regeneration was underway. Through admirable effort, the oak gained strength to rejuvenate and live again. Like an open wound, the torn skin had weaved itself anew. The patch of spring green was slowly shoving out death and healing into life once more. As I lingered and hunched closer to survey the miraculous sight, I pondered on the resilience of our living systems capable of restoring and growing even in the face of adversity.

I reflected. In the context where both human and NonHuman species are considered integral components of the natural environment, I observed a significant parallel between the resilience in plant life and the capabilities of humans to adapt in response to environmental challenges. This transformation of both mind and body may require substantial effort. I could assume, only for the human species, that while potential lies in changes in our behaviour and

its driving forces, fundamental shifts in mindset leading to changes in attitudes, values and priorities are imperative. It is a process that requires determination, perseverance and collective endeavours.



This pocket book records my two-year journey where I befriended the modest connotation Regeneration necessitates. Initially, it felt as if my encounter with Regeneration was purely a coincidence. Yet looking back, just as how More-than Nature operates, it became clear that it was a meticulously orchestrated act, triggered by countless seemingly effortless connections during my studies. As I learned to embrace the ethos of Regeneration, I realised the urgent need for humanity to rekindle its symbiotic relationship with our natural world. Our disconnection from this only living biosphere has fuelled the flames of the climate crisis, demanding a profound shift in our collective consciousness.

Consequently, although still in its infancy, the outcome of this undertaking is the exploration and formulation of 'how-to' or methodologies for implementing the practise of care and adjusting the necessary changes in our (design) cognition. Design thinking with a shift in mindset offers a powerful toolkit for addressing environmental challenges. By prioritising a holistic paradigm, we can create new paths that harmonise with More-than Nature. Embracing Regenerative principles empowers us to rebuild our relationship with the environment, providing resilience and the needed positive change.

Special thanks go to the students who participated and contributed their effort and feedback to assist and enrich my research. Since adopting a Regenerative mindset, I found myself on an ongoing quest to redefine my existence as a humble reborn member of my family, community and planet. I celebrate this book as a milestone and the beginning of a new phase of my life.





LEXICON

Earth*: Humus-rich soil, comprising clay, minerals and organic matter, is fundamentally essential for sustaining all life forms and ecosystems.

Holding Space: To create and harness a non-judgemental and supportive mutual space that allows transformative change and restoration to occur.

Interconnectedness: The term refers to the recognition and appreciation of the complex web of relationships and interactions that exist within our ecosystems, societies and economies. Hence, the health and well-being of one part of the system is closely linked to its related parts.

Learning to Unlearn: Consciously evolving cognitive perspectives to embrace diverse species and contexts, unlearning biases for holistic understanding.

More-than Nature: The interconnected ecosystem comprises all living organisms, including humans, other life forms and their environments, fostering mutual dependencies. It resembles ecologist David Abrams' term "More-than-Human World". It is to supersede the word "Nature" cultivated in an industrial growth-driven society, which regards a context excluding the human species.

"Will NonHumans benefit, like Humans, from the promise of salvation? In other words, will NonHumans be resurrected too?"

Bruno Latour

NonHuman: A term that is more specific than 'other than Human' species and refers specifically to living organisms that are not classified as humans. It predominantly encompasses animals, although it can also extend to other life forms like plants, fungi, bacteria and other microorganisms. NonHuman species are defined by their biological characteristics and evolutionary relationships distinct from Humans

Potential: A fundamental principle of Regenerative development emphasizes that potential embodies the intrinsic capability and capacity for growth and transformation. Potential can be realized, whereas problems can only be solved. Potential direct its focus forward, while problem-solving often looks backwards.



Imaging: The role of imaging, also known as mental immersion in this research, draws inspiration from Confluence teaching, a concept pioneered by George Isaac Brown and Stewart B. Shapiro in the 1970s. It holds a crucial position by enriching participants' comprehension and involvement across various contexts. Alternatively known as Humanistic and psychological education, it evolved with the belief that education should simultaneously cater to learners' intellectual and emotional development. Typically, *educators structure lessons with objectives categorised into cognitive, affective and psycho motor domains. Cognitive objectives entail acquiring knowledge, affective objectives involve nurturing attitudes and emotions, while psycho motor objectives pertain to mastering manipulative and motor skills.* Integrating with Confluence education, mental immersion encompasses inner visualisation methods to place images in the mind while projecting deeper comprehension. This approach enhances accessibility and relatability, especially when grappling with intricate concepts in Regenerative practice.

In iterative settings, mental immersion helps participants grasp abstract ideas by connecting inner representations with prior knowledge and experiences. They contextualise information by vividly picturing concepts, promoting engagement and deeper learning. This method pushes for critical and creative thinking by encouraging the exploration of multiple perspectives. Envisioning scenarios enables individuals to anticipate consequences, enhancing potential-driven skills.

Educators guide individuals through inner visualisation from personal landscapes to project outcomes to enhance emotional processing and resilience. Similarly to meditation, participants are prompted to delve into their inner understanding, often with eyes closed, to minimise external distractions and information. Each immersion session focuses on a single focal element, facilitating a journey towards empowerment as participants access their unique inner resources. This mental immersion aids in applying knowledge across various settings, catering to holistic development. Participants are encouraged to engage in these practices autonomously and privately to encourage self-observation and self-awareness, crucial for personal progression.

INTRODUCTION

*This suffocating land
withstanding the staggering piercing walls*

*perhaps you could just bear urban blocks for another hour
and two for the devout and isolating abbeys*

*perhaps five more for the laborious restorers
and seven for the hardship the land carries*

*before you become lush forests and pure flowing water
once more
and the wild seamless living source*

*in that hour of such unbearable pain
when you are given back your name and care of all matters*

*give us more hours
perhaps the lifetime of many trees
to learn the love like a seedling
until we are worth for all*

*let each unborn bearer mend these phases
to learn the love like a fern
until we are worth for all*

Rainer Maria Rilke's *Du dunkelnder Grund*, appropriated

On **Rainer Maria Rilke**:

Selected poems have been carefully chosen to represent corresponding chapters and appropriated to reflect our current escalating social conditions, which the late poet predicted and warned to be destructive.

WHY IS REGENERATIVE PRACTICE NECESSARY AND HOW CAN POTENTIAL ARISE FROM EMERGENCIES?

Amidst the faceless concrete sprawl of our time, humanity has drifted and dismantled the fabric of our ecological stability. In our reckless pursuit of growth, as foretold by Donella Meadows and her team in 1972 in "The Limits to Growth," *we have cultivated an unfortunate relationship of disconnection, leading to profound climate issues*. This pursuit has favoured economic growth and short-term gain over environmental balance, gradually manifesting in behaviours that sabotage our inherent bonds with More-than Nature and each other. As humanity finds itself engulfed in this self-inflicted tragedy, diverse streams of vast and unique knowledge and wisdom converge to resurface Regenerative practices, originally developed by Indigenous cultures from all over the world.

Regeneration resembles a tree that reflects an intricate ecosystem comprised of interconnected components. From the tail-end of the roots to the tiniest leaflet peaking out on the highest branch, every element contributes significantly to the continuous sustenance and expansion of life. It bears a system of its own but only operates collectively to thrive and flourish.

Regeneration is also a multifaceted approach comprising related layers that form a mothership system perpetually replenishing and renewing within a continuous cycle. Its main purpose is to foster life and sustain its presence permanently at default. Rooted in the familiar context of More-than Nature and its relations, Regeneration is the practice where our feet currently tread, rather than just a distant destination sought for refuge. It prospers not only in ancient forests but also in the heart of urban cities, albeit in varied fashion.

At the core of Regenerative thinking lies *the concept of potential, diverging from conventional problem-centric approaches. Instead, it embraces life-affirming methods and place-based resources, encouraging optimism and exploring possibilities*. One key context where this approach focuses is bridging the gap between Human and NonHuman species, striving to maximise potential while minimising separation. This is also what this book entails.



BRIDGING OVER

*I weave my voice in the rippling threads that stitch beyond my reach
I weave myself into this for I will not finish this journey
I wonder around Eternity by the lighthouse of hope
I have been wandering long*

*And I am still pondering if I could prey, rage or simply sing a sweet soft
chorus for the unborn*

Rainer Maria Rilke's Widening Circles, appropriated

WHAT PRECEDES THE PRACTICE OF CARE

Mang & Haggard 2016, 213

The alienation of humanity from our natural context has accentuated a division between Human and NonHuman domains. This perspective sheds light on environmental indifference, the decline of biodiversity and ethical dilemmas. There is an urgency to advocate for reconnection to promote ecological balance and sustainable stewardship. To align this awareness with what the core of Regenerative development advocates, it is crucial to understand the following essence. *To make essential systemic changes to our malfunctioning society that advocate for continual growth, one has to be able to create inner personal change and development as a start.* By addressing the individual level first, we lay the foundation for broader systemic shifts. This inner work nurtures the qualities and resilience necessary to challenge existing paradigms, envision alternative futures and advocate for sustainable and equitable change.

Macy & Brown 2014, 75

Embracing renowned and seminal research, autobiographies, theories and frameworks from biologists to physicians and scientists, it quickly becomes evident that restructuring our cognitive abilities offer the potential to address our detachment. This process or transition can emerge as an intimate and personal approach to mitigate the disconnection between humans and our natural living systems, promoting small steps to greater harmony and interconnectedness. To paraphrase deep ecologist Joanna Macy's lifelong work, *we need to realise that compassion arises effortlessly from understanding our interrelatedness with nature.* Other than striving to cultivate it, we need only embrace our inherent connection to all beings including NonHuman. This awareness can foster care and an innate inclination to alleviate the suffering of others.

Harvey 2007, 72
24

In our time, education systems in developing regions led towards *neoliberal structures that had shaped our cognitive abilities by promoting individualism, competition and conformity.* This dominant trajectory extensively suppresses much-needed social consciousness, devalues creativity and limits broader critical thinking. *Recognising these influences is essential for allowing educational environments that prioritise holistic development, social justice and sustainable futures.* Consequently, it is imperative to re-evaluate and reform our educational paradigms to cultivate a more holistic and interconnect-

ed worldview. This involves not only academic curricula but also the cultivation of collaboration and deeper respect for More-than Nature in general. Such an educational shift can inspire future generations to become stewards of the planet, committed to enhancing a sustainable and equitable global society.



These notions had puzzled my mind for years. Yet I was not able to precisely grasp where to intervene hence refrained from delving into them. It finally came to a yield when I, during the process of this research, was confronted with one of More-than Nature's most adaptable materials: soil. With a background as a designer, I consider myself a polymath, proficient and curious in various artistic pursuits. The allure of soil or clay interests me early in my exploration. It emerged from a blend of curiosity and a maker's inquisitive nature. After an afternoon crash course on handling clay from a ceramist colleague, the potential of this medium unconditionally unfolded before me. Within the next few months, I held a close relationship with soil, clay and Earth*; a singular living instrument characterised by being dynamic, charismatic and versatile all at once. Being able to manipulate and shape with clay reignited the long-lost sense of childlike wonder and joy. I explored this newfound wonder reawakening how the texture and tactility of this material can comfort my being. With my bare fingertips dancing on fresh terrain, each touch was an exploration of possibility and discovery. My senses mould, squish and shape uninhibited by rules, guided only by imagination, freedom and good company. Every squelch and every smudge was a reason to unleash new opportunities as if manifesting a masterpiece in the making.

Then on a bleak Saturday morning in February, I drove east toward a small village outside Nijmegen. It was volunteering day at a newly established Regenerative farm, De Biesterhof. No-dig garden beds need to be built from scratch in preparation for sowing in early Spring. When I arrived I was greeted by a tall heap of jet-black compost standing beside the farmer's house, ready to be mixed in as fertiliser. Next to it were wood chips, clippings from the neighbour's



pear orchard, piled up to be used to protect topsoil. Unfortunately, we were unlucky with the weather that morning. Fully clothed in waterproof gear from head to toe, we spent the day battling the ongoing drizzle while shuttling compost back and forth to the garden beds. Within a couple of hours, the mixture of rain and earth turned into a slushy, creamy mush, clinging to the soles of our rubber boots; following and tailing, increasing in mass and delaying our steps with each movement we made.

By lunch break, our boots were weighed down by a thick layer of gathered soil, lighter in shade but malleable like the industrial clay I had been working with recently. I knew very well that this region of the Dutch landscape has Earth* richest in clay, favourably and continuously nourished by the lifeline, the river Waal. Hence it then struck me with the idea of using locally sourced clay which I could process myself. In my maker's mind, I pondered various ways to deconstruct the earth to obtain fine and pliable working clay. I questioned myself how long it would take and how manageable it would be. I also imagined the variety of objects that I could construct from this humble medium, retrievable directly from beneath my soles. But in my designer's mind, these thoughts also prompted me of the deep reminder that earth is also this same modest material that essentially forms the foundation of many lives, the same opaque humus that clads the entire base of our land and the same magical substance full of potential that provides a home for a diverse array of living species thriving underneath.

As dusk approached, I made my way home. Experiencing a mixture of fatigue and rejuvenation after a day's labour amidst the brisk, refreshing air. I drove back feeling grateful. In the trunk behind me lay a sizeable amount of earth still carrying the scent of the rain and grass, carefully wrapped in a thick plastic bag. Flashbacks of Howard and Claudi, the farmers and their courteous yet inquisitive demeanour flickered in my mind as I pierced through an empty motorway surrounded by flat farmland on both sides. We had parted ways while exchanging ideas about what I could create with the handful of soil and with them extending a warm invitation to return whenever I am in need of fertile earth.

FROM MATERIAL TO COGNITION

Shortly after the rewarding day at the farm, my curiosity about the integrity of the Earth was piqued. I began to draw a parallel between the abundant biodiversity and interconnectedness found in soil and the adaptable characteristics and complexity of cognition. The rich diversity and interrelationships within soil serve as a mirror to the intricacies and versatility of human thought processes. Just as healthy soil initiates and sustains ecosystems, humanity should be capable of nurturing new cognitive abilities to regenerate our relationship with the environment. The challenge lies in understanding that cognitive change is gradual. Where do we start and what are the potentials?

Paradigm shifts require the inner transformation of our hearts and minds. Outer transformation is a consequence of inner cognition.

Donella Meadows

Our cognition and intellect is rooted in how the brain functions, encompassing perception, memory and higher-order thinking processes like configuration and decision-making. This largely influences and shapes our overall outlook and actions on life and the world. Biological factors, experiences and social interactions also form cognition. These delicate mental processes enable us to understand the world, adapt to challenges and navigate sophisticated environments influencing our behaviour while developing our unique identities. Altering our inherent cognition can then contribute to a paradigm shift, a common term coined by American historian and philosopher of science, Thomas Kuhn. This term originated

in the context of scientific theory but has since become widely used to describe fundamental changes in various fields or perspectives. A paradigm shift usually involves more than just individual cognitive changes. It results in a widened scope of impact by creating a systemic transformation in thought and practice within a community or discipline. *Kuhn contends that a paradigm shift must derive from accumulating anomalies or irregularity, leading to the formation of a crisis* which parallels the climate crisis. As climate data increasingly diverges from expected patterns, it triggers a crisis, compelling us to re-evaluate existing beliefs and solutions. This prompts the need for a paradigm shift in addressing environmental challenges, from consumption habits, energy production and eventually alterations to our worldview. Just as in science, recognising and responding to these irregularities can drive transformative changes in societal attitudes and policies.

In the context of the climate crisis, efforts to induce cognitive change leading to paradigm shifts, one potential is to incorporate elements of care and compassion in order to reconnect More-than-Nature. This concept has been ingrained in us from our earliest memories through our childhood experiences hence it is logical to explore from there. *Jean Piaget's theories on childhood development highlights the importance of early experiences in shaping cognition and morality. He discusses how children's interactions with their environment, encompassing experiences of kindness and concern can influence their moral development.* This implies that addressing significant issues requires not only factual or logical arguments but also other cognitive qualities and an understanding of individuals' perspectives and emotions. It is a nuanced approach that recognises affectivity on the complexity of human responses to environmental challenges.

Childhood experiences can also be pivotal in shaping cognitive patterns and behaviours that endure into adulthood. *Beginning from our infant years, cognition works from within ourselves through layers of different environmental systems learnings from our immediate surroundings ranging from our family (microsystem), community (exosystem), cultural values (macrosystem), historical*

context (chronosystem). By understanding these systems and their impact on individuals, cognitive interventions can be tailored to support the process of Learn(ing) to Unlearn current social norms. It can also assist comprehensive development emphasising the importance of nurturing environments for optimal cognitive growth and societal well-being. These fundamental experiences can gain insight into the basis of cognitive processes and how they manifest into a bigger impact.



In the context of design education, this research highlights the importance of cognitive transformation through the practice of care. It identifies and emphasises three interconnected and essential cognitive traits: Empathy, Reciprocity and Long-Term Thinking. Participants engage with the Learn(ing) to Unlearn framework, using designed instruments and tools to experience practical outcomes. By infusing affectivity or the influence of emotions, during the participatory process, they can cultivate deeper understanding and impact that resonate with individuals' sentiments and experiences. This approach can stimulate the development of potential strategies and methodologies, addressing the root causes of societal issues and fostering substantial and enduring change. For details of the framework, its iterations and the subsequent process and results leading to student participants' application to their projects, refer to my DR documentation, "Learn(ing) to Unlearn."



I grew up around lots of nature, both taken care of by humans and completely wild. Because I grew up in such a space, I could just step out of my door and explore my garden, sure that I was always gonna find something new and interesting. I was always encouraged to keep exploring using all my senses and move my body to blend with the nature around me. I have now many manual skills and I'm not afraid of nature, of its changes, but it is an interesting element of my life that gives me some peace and the opportunity to become a kid again.



All we used to have a cat called Carbonara and she was always in the garden. This never been a "normal" house pet but more a wild one. And many times she used to come but the door with a mouse or bird she killed. My cousin and I would then bury those animals in a special spot in our garden, and build a cross with sticks on it.

ON EMPATHY

Krznicaric 2014
If Regenerative practice calls for inner development to gradually effect outer systemic changes in society, then focus on our empathy aligns with this distinctive unlearning and mending approach. Social philosopher Roman Krznaric underscores the significance of empathy in comprehending others' perspectives, nurturing connections and tackling societal issues. He asserts, empathy lies at the heart of human society and is a gateway to compassion. Acknowledging that both Human and NonHuman species are essential elements of the more-than nature world, this perspective and mindset shift can extend to encompass interactions with not only among humans but also with NonHuman species. By utilising imaging or mental immersion exercises to assist in this shift, participants can be guided through a mental journey into their cherished landscapes from their childhood, prompting reflection on who else, besides humans, inhabited this picturesque setting.

Taking the impression of a favourite childhood landscape captured by student participant Anna. Her recollection transports us to Villa Melara in Sicily, a haven of vibrant colours and perpetual sunshine, where she spent many summers in the comfort of her nearest kin. Amidst this idyllic backdrop, the presence of Carbonara, the affectionate yet unrestrained cat, symbolises the untamed beauty of More-than Nature, reminding us of our interconnectedness with the animal domain. The ritual of burying perished creatures savaged by the feline tenderly memorialised with makeshift crosses reflects a deep empathy and reverence for life, embodying the principles of Regenerative practice. As Anna and her cousin honour the captured, they also embrace a holistic understanding of their place within the ecosystem, giving a sense of responsibility and stewardship. The ensemble of birds chirping and loud cicadas underscores the vitality of the natural world, while the rows of Cypress trees and the scent of freshly cut grass evokes a sense of tranquillity and harmony. These elements serve as a reminder of the interconnected web of life, urging us to cultivate empathy and awareness in our interactions with the environment and each other.

Through childhood experiences like Anna's, individuals can cultivate a deeper sense of compassion and potentially connect with the world around them, nurturing a mindset conducive to Regenerative

thinking. However, empathy is a complex trait influenced by various factors such as socialisation, experiences and individual differences. While empathy towards NonHuman species seems to be less restricted in childhood, honouring and preserving the beauty and diversity of our surroundings as a human species, regardless of age, can reform behaviours and contribute to sustaining what could be a more compassionate society.



The role-play card game I designed elevates the mental immersion exercise to a deeper level. The act of impersonation of an endangered NonHuman species prompts participants to embody a perspective beyond human experience. In this engagement, players delve into the species' existence, encouraging empathy and understanding. Loosely inspired by *Dave Gray's Empathy Map*, players navigate challenges to experience 'pain' and 'gain' by using their senses while confronting the species' vulnerabilities and threats. This confronting challenge exposes the species' vulnerabilities, prompting contemplation of real-world environmental and societal dilemmas. Such an interactive approach encourages empathy-driven thinking and deepens appreciation for the interconnectedness of life. By engaging with the plight of the chosen species, participants cultivate awareness and advocacy, encouraging a sense of responsibility towards the preservation of biodiversity and the protection of vulnerable ecosystems.

Building upon the immersive experience of the role-play card game, I later developed an extension in collaboration with student participants. Players were asked to image a NonHuman species dear to them and consider the threats it faces within the context of their upbringing. They were then prompted to devise ways to protect this species by integrating the persona they developed into their major's project. By doing so, students can infuse empathy-driven thinking and a deeper comprehension of environmental challenges into their work. This approach adds a personal dimension to their projects, encouraging a stronger connection to the issues at stake and encouraging innovative solutions that prioritise the well-being of the chosen species and its ecosystem.



Student participants reflect over the Role-Play card game amongst themselves

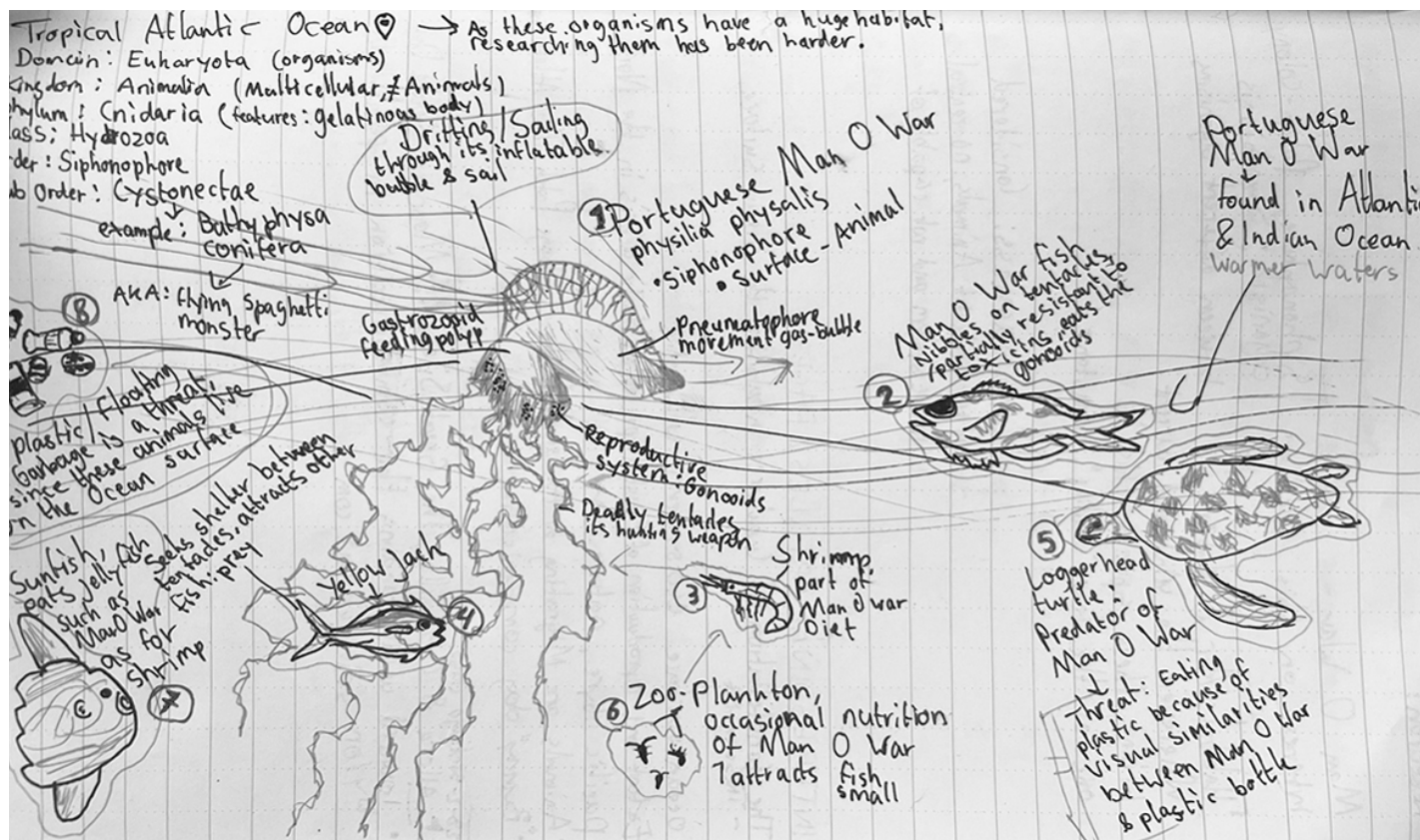


Guild formation, derived from *Permaculture*, a *Regenerative farming method*, involves the clustering of species around a central subject. Essentially, it signifies the symbiotic relationships among various organisms within an ecosystem. Guilds typically consist of cluster of plants performing multiple ecological roles, mutually benefiting each other's strength and vitality. They form a community where plants aid one another by enriching soil nutrients, offering shade, retaining water, attracting beneficial insects, deterring pests and diseases, enhancing soil health and mitigating erosion. Ultimately, plant guilds embody both form and function, aiming to replicate natural stacking and interconnections while offering essential ecosystem services.

38



Guild formation drawing from student participant Lise and her NonHuman specie, the Teasel







I organised field trips as part of inner development of Learn(ing) to Unlearn, situating in context within natural environments to facilitate and promote comprehension of reciprocity. Led by experienced forest rangers, visits to diverse Dutch landscapes provided first-hand experiences. Immersed in forests, participants gained insights into local ecosystems, observing interactions among flora and fauna. These excursions not only deepened the understanding of reciprocity but also promote an appreciation for the intricacies of More-than Nature.

To demonstrate the interdependence among organisms, the 'Earth* gathering' exercise was designed to involve the deliberate unearthing of a handful of soil to reveal the multitude of species residing within it. This simple activity serves as a tangible demonstration of ecosystem complexity, highlighting the intricate web of relationships where organisms rely on each other for survival. Participants witness the diverse array of life forms present in seemingly ordinary soil, highlighting an appreciation for biodiversity and the interconnectedness of living beings with the practical understanding of guild formation. By exposing the hidden world beneath the surface, this child-like and hands-on approach can deepen the understanding of ecological constructs and encourage stewardship of the natural world, promoting awareness of the delicate relationships that underpin Earth's biodiversity. Through guided exploration from engaging forest rangers, individuals developed a nuanced understanding of their relationship with More-than Nature, recognising the potential and reciprocal exchanges fundamental to ecological health. Consequently, these immersive experiences promotes personal growth, encouraging participants to incorporate principles of reciprocity not only in these exercises but also into their daily lives beyond the classroom.

ON LONG TERM THINKING

Long-term thinking is integral to Regenerative practice as it stresses the consequences of present actions on future generations and the environment. By prioritising sustainability and intergenerational well-being, Regenerative practice aim to create lasting positive impacts that endure beyond immediate concerns.

Nestled within Indigenous wisdom, cathedral thinking and the notion of leaving legacies are foundational to their practice as they embody a profound respect for interconnectedness and the well-being and prospects of future generations. *Indigenous cultures view themselves as custodians of the earth, tasked with preserving the balance within More-than Nature for the benefit of all life forms.* This vision and planning for the long term recognise the enduring impact of present actions on the collective future. *The concept of "Seven generations" into the past and future underscores this ethos, emphasising decisions' consequences on descendants into the future.* Such forward-thinking embodies holistic considerations, wherein individuals act as custodians of their environment, preserving it for posterity.

Wilson 2008

*We should acknowledge too that future generations
would never forgive us if we gave up while
there was still the possibility of change, no matter
the odds. We must hear their voices in our dreams
and heed them in our decisions.*

Roman Krznaric

Leaving legacies involves intentionally passing down knowledge, traditions and stewardship practices to successive generations, ensuring cultural continuity and ecological harmony. For Indigenous communities, these concepts are inseparable from their identity and worldview, guiding their interactions with the natural world and reinforcing the importance of comprehensive and intergenerational responsibility. Through cathedral thinking and leaving legacies, Indigenous wisdom offers valuable insights into sustainable living practices and the preservation of cultural and environmental heritage. Furthermore, Indigenous cultures also value storytelling as

a means of transmitting knowledge across generations. Elders pass down wisdom through oral traditions, ensuring continuity and cultural preservation. These narratives often contain ecological teachings, guiding communities on mindful living practices.

Macy 2003

Joanna Macy's Double Circle or Seventh Generation ritual serves as a powerful embodiment of long-term thinking within Regenerative practice. This ritual, inspired by Indigenous wisdom, invites participants to reflect deeply on their interconnectedness with past and future generations and the earth as our only home.

*They tell us that whole species of animals
and plants are going extinct. We know about that, too,
because gone is gone. But they tell us you know about
that while it's happening. Is that true?...
And if it is true, what's that like for you?*

Double Circle Ritual

In the Double Circle, participants form two concentric circles representing different time frames: the inner circle symbolises the present generation, while the outer circle represents the seventh generation into the future. Through guided narrative and dialogue, participants explore the impacts of their actions on both the past and future, casting a confronting and profound sense of responsibility and stewardship. This ritual demonstrates long-term thinking by encouraging participants to consider the consequences of their choices not only for immediate outcomes but also for generations before or yet unborn. By envisioning the well-being of descendants seven generations ahead, participants are compelled to adopt consequential thinking that prioritises resilience and intergenerational equity. The Double Circle ritual also cultivates a deeper awareness of the interconnectedness of all life, emphasising the importance of collective action. By engaging with this ritual, individuals and communities are inspired to align their values and behaviours with the principles of Regenerative practice, creating a holistic approach to societal transformation rooted in long-term vision and legacy-building.





MANIFESTATION

*His vision, from the constantly avoiding gaze,
has grown so weary that it cannot hold
any hope. It seems to him there are
a thousand mentions; but behind the words, no future.*

*As he questions in open-ended doubts, over and over,
the trace of his powerful soft probing
is like a ritual dance repeating around a center
in which a mighty will stands paralysed.*

*Only at times, the limbs draw a stop
lifts, falls and quietly--. An image enters in,
rushes down through the bothered, restrained thought,
plunges into the heart and is gone.*

Rainer Maria Rilke's *The Panther*, appropriated

CONNECTING THE DOTS

Albrecht 2011

To design Regeneratively for NonHuman species embodies the understanding of Symbiosis, departing from the anthropocentric mindset and era. *The Symbiosis approach introduced by ecologist Glenn Albrecht, prioritises the well-being of other species, enabling reciprocal relationships where Human interventions aim to enhance rather than exploit the ecosystems.* This practice of care nurtures cognitive change and affectivity on roles of empathy, reciprocity and long-term thinking towards all living beings. It also importantly acknowledges our interconnectedness and shared habitat. This paradigm shift in design philosophy recognises the urgency of co-creation and sustaining coexistence by envisioning a future where Human actions positively contribute to the resilience and flourishing of all life forms with More-than Nature.

During the 2023/24 academic year, I guided Regenerative Practice studios with two different years of BA students at Willem de Kooning Academy, majoring in Transformation Design. The studio curriculum included cognitive change and various frameworks outlined in this book. The assignments were diverse; one tasked students with initiating change through creating an Assembly/Initiative as a team, while the other involved giving voice to NonHuman species by designing a product, experience, or service based on the theme of Symbiosis. The resulting student projects spanned a range of designs across different scales and contexts, all centred on inclusivity towards NonHuman species. These assignments promptly kick-started the challenge of Learning to Unlearn within learners. Riveting ideas, critical inquiries, self-reflections and inspiring proposals demonstrated the students' grasp of effecting systemic change amidst today's climate urgencies which selected few are showcased as follows.



PIEN

ART OF GIVING BACK TO More-than NATURE

biodegradable popsicle sticks made from bioplastic
containing blueberry seeds

NonHuman persona: honey bees

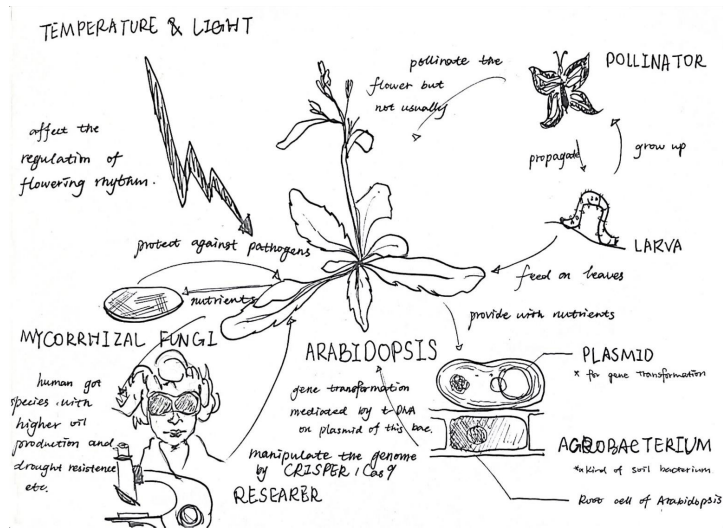
on potential:

*“It could create a mindset change, as people
subconsciously think about their behaviour and its
impacts on other species”*

reflection on Pien’s work:

Pien’s approach to addressing „disposable growth“
is simple, fun and effective. Through clever use of
sustainable materials, she makes the notion of sweet
pleasure accessible to all age groups, demonstrating that
sustainable living can be enjoyable and inclusive.





Guild formation drawing of Arabidopsis; a flowering plant with a short life-cycle typically used in lab for experiments

YUKI

PLANTIN: SITUATED KNOWLEDGE TOWARDS BIOPHILIA

a digital platform, PlantIn, demonstrating the observation from Twitter beyond utility for scientific research

NonHuman persona: arabidopsis

on empathy:

"I use the extremely human-centered platform *LinkedIn* as a metaphor, indicating how NonHuman species are suffering and what is overlooked in both Human and NonHuman species. I hope this digital platform can serve as an educational archive to spread awareness of situated knowledge as common sense in pursuit of the era of *symbiocene*"

reflection on Yue's work:

Yue's background in biology has cultivated a deep appreciation for environmental justice, even in seemingly ordinary plants. Her meticulous approach provoke innovative and inspiring outcomes, demonstrating the transformative power of attention to detail in cultivating ecological causes.

Plant
in

Home
Network
Jobs
Messaging
Notifications
Me

Arabidopsis pulchraflora
Model Organism/ Watercolor Muse/ Street Performer/ Therapist

Who viewed you
2543
Views on post
2248

Recent

- # Model Organism
- # Watercolor Muse
- # Street Performer
- # Therapist

Q1: A New Role Emerges: Arabidopsis thaliana is taking on a new role in the city. Which one does it embrace?

- ☐ Urban Greenery Ambassador, greening up concrete jungles.
- ☐ Botanical Artwork Character, splashed across city murals.
- ☐ Ph.D. Journey Companion, thriving alongside students in the libraries.

PlantIn News
Arabidopsis News from ->

Join us for Transformation

AVA

RESTORATION AS A PRACTICE OF CARE

restorative action for seagrass and system change
in the fishing licensing process in Canada

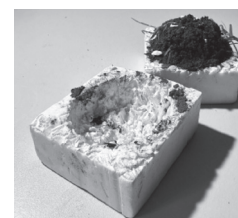
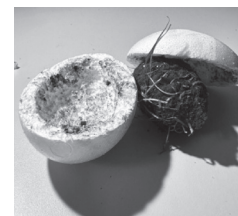
NonHuman persona: dungeness crab

on insight:

*"I want to create more care and thought in the hearts
and minds of those fishing in Canada, towards the envi-
ronment they are entering and the species within it.
Ideally a positive system change!"*

reflection on Ava's work:

Ava's advocacy for system change is comprehensive and impactful, spanning initiatives from seagrass growth to altering fishing license policies. As a maker and caring thinker, she addresses diverse and crucial aspects, highlighting the multifaceted nature of environmental conservation and the need for systemic reform.



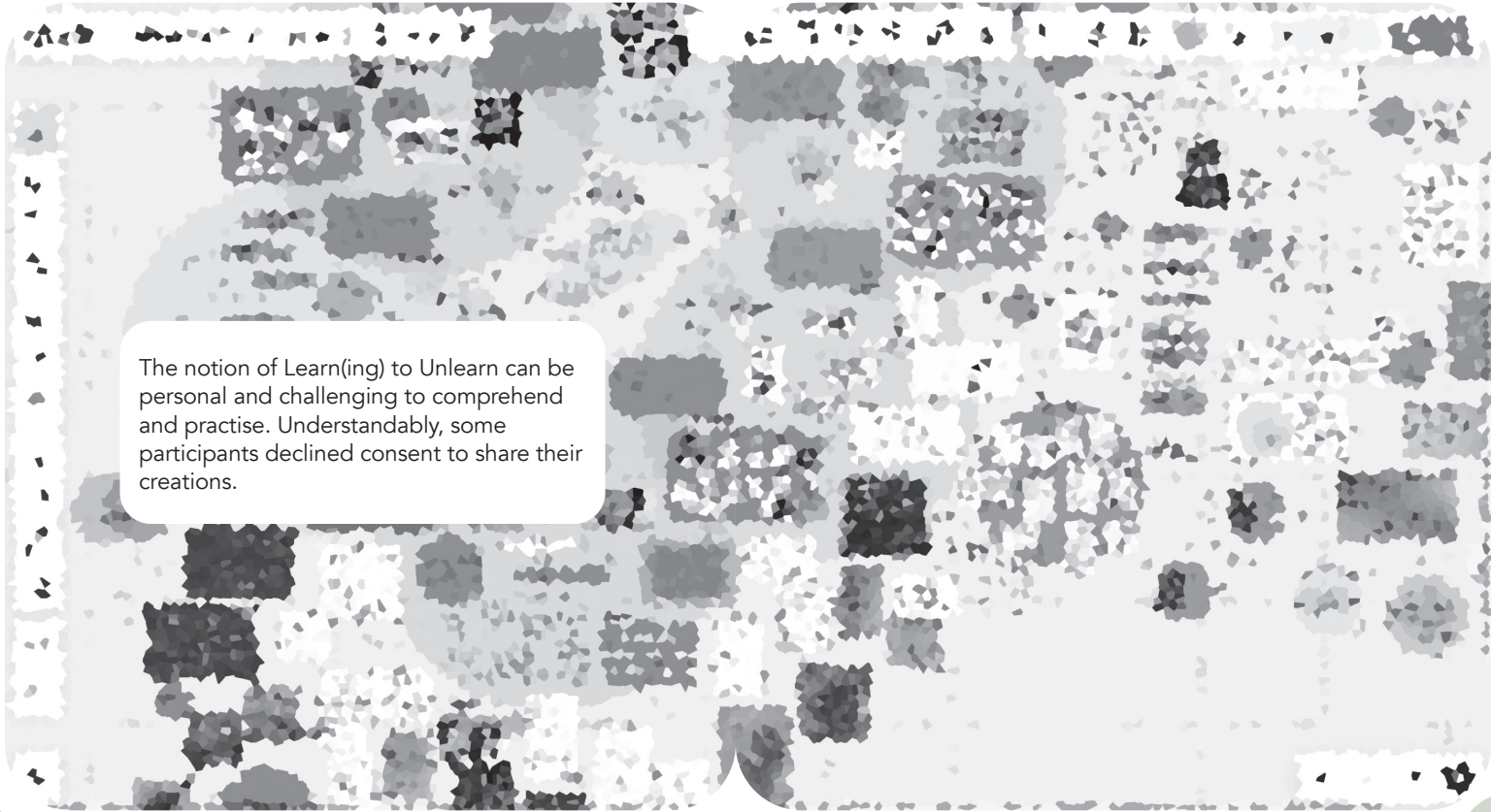
PARTICIPANT

ROLE PLAY GAME

reflection on participant's work:

This participant's has an innovative approach, viewing potential through destruction. It is embodied in an educational game which challenges humanity to reconnect holistically and reciprocally with More-than Nature, illustrating the transformative power of starting with a clean slate.





The notion of Learn(ing) to Unlearn can be personal and challenging to comprehend and practise. Understandably, some participants declined consent to share their creations.

Part of the participant's digital workspace where the student researched, linked and interrelated Regenerative learnings and chosen NonHuman persona while demonstrating the student's comprehension of the concepts central to Regeneration

SARA GARCIA DOMINGUEZ

DIARIES OF LIMONIUM CARIMINIS: A GREEN REVOLUTION

an animated short film to raise awareness of
an endangered native species

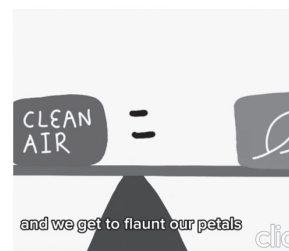
NonHuman persona: limonium carminis

on insight:

"I think throughout my project I thought a lot about the Guild formation, the relation between a plant and a human and how we share the same environment. I did this by questioning, researching and interviewing."

reflection on Sara's work:

Sara's choice of a resonant medium ensures her message is both received and remembered. Her pop and witty style grabs attention and makes her cause approachable. By simplifying complex issues, she powerfully raises awareness about protecting endangered plants effectively.





CONCLUSION

*The future: time's excuse
to frighten us; too vast
a project, too large a morsel
for the heart's mouth.*

Future, who won't wait for you?

Everyone is going there.

*It suffices you to deepen
the absence that we are.*

Rainer Maria Rilke's *The Future*

TO THE FUTURE UNBORN

A destination could be an end but at the same time a new beginning. This publication is marking a new birth in my research and our collective journey towards Regeneration. The potential to hold space for the future unborn is vast, inviting us to envision and craft a new worldview where Regenerative Practices are not metaphors or theoretical concepts but living realities.

Guiding the Generation Z student participants was a deeply reflective experience. This generation who often projects a doomsday future perspective faces unprecedented global challenges that they find helpless to combat. I have experienced fears and uncertainties resolved by confusion and anxiety during my interaction with the students participants. However through this research, I have also witnessed the possibilities of their remarkable potential to drive change from implicit nature of many who already have a connection with More-than Nature. It is our tasks to shift their outlook from one of impending catastrophe to one of endless possibility with as adequate time, compassion and love. Knowing that this may be a long process than planned, we can assist them envision and work towards prospects that is not only sustainable but flourishing by securing them with genuine knowledge and relatable tools.

Reflecting on the Zoöconomic future for example, we foresee a world where the intricate connections between human, animal, plants and environmental health are acknowledged and prioritised. This holistic approach offers a promising forecast, one where the synergy between these domains can lead to sustainable and Regenerative solutions. By embracing this vision, we can guide future generations towards a Regenerative era, stimulating a reciprocal coexistence with our planet. This is not just a hopeful perspective, but a feasible future that we can collectively strive towards.

This research is a call to action for a Regenerative Now and Regenerative Future. In collaboration, we can transform our daily life and world ensuring that Regeneration becomes the fundamental driver of our shared progress.



AFTERWORD

I am writing these closing words in a modest white cottage, nestled in a rustic old fishing village on the northernmost German coast by the Baltic Sea. This humble holiday house sits on two parcels and the view from my room faces the property's lavish piece of wild pasture. Occupied by a combination of mainly towering aged pine and other mature native trees, this piece of undisturbed land is filled with ferns, wildflowers of diverse sorts and multiple assorted plants. It is early May and the pristine sprouting leaves of the huge crowning beech tree directly in front of my window is sparkling shy green; casting a delicate sight of the new Spring.

Built almost a hundred years ago by my husband's great-grandparents, this holiday destination is a stone's throw away from the beach. The house is the result of a 'healing and cleansing' health-beneficial retreat due to the stimulating climate of sea and land combined, missing elsewhere in this almost landlocked country. With gratitude, it continues to serve as a shared refuge within the family in a rotating fashion, especially favourable in Spring and in the increasingly warm Summer months where the Baltic North weather remains unassumingly enjoyable.

Although the interior is basic and unpretentious while the heavy wooden furniture and mix-matched decoration still echo memories of a distant past, the family benefits enormously not only from the ownership but also from the foresight of the forefathers. Apart from the luxury of the property and house, a special relationship with this place and land is forged due to our yearly visits. For the last decade or so, we have been tasked with 'opening' up the house every Spring when the cottage breaks from its winter hibernation as it remains empty in the colder months. It is a unique reciprocal and

caring experience to 'wake up' a premise to allow human interference again. Mundanely enough, it simply involves days of cleaning up. The house when vacant is favourable by insects of many kinds. The physical traces of these winter occupiers are usually their remains; bare webs, beasties hard shells or the occasional paper mache-like wasp hive hung uninhabited but snugly in the attic ceiling. Out in the garden, left unattended most of the year, the scene is free and wild. Every year, the elms and cherry grew denser while the unswerving pines reached nearer to infinity. There are plenty of options where to hang a hammock with the assistance of the study trees or pitch a tent made full of twigs and sticks. It is a mini forest feast the house is surrounded with.

A few minutes walk away from this piece of family heritage lies the basin of the untamed Baltic Sea. Over the years, the climate struggles have battled the coastline significantly. There have been harsh winters where the breakwaters were destroyed and the beaches washed away. The dunes built to mitigate such events were reinforced regularly and floodgates were installed with the fear for the worse. Some parts of the same coastline outskirts of the village have erosions slowly chewing off its bits where we helplessly and empathetically witnessed it inching in every year. But back on the stretch of sandy shore, it remains as the playground for beach combing and sunbathing in the stout and distinct hooded wicker chairs scattered along the edge. This hotspot is an extension of the house and garden as reacquainting with the Baltic Sea is medicinal and traditional for the family. Most of the generations including my children experienced their first beach encounter here on almost the same shore. They would have swum in the same cold salty water and played around with tiny starfish, crabs and trapped jellyfish while the stray wilted seaweeds danced about in the crashing foamy waves. Every generation has shared the same pleasure, joy and observations that this unostentatious place, full of life forms, unconditionally offers. Each visit concludes with hearts full, as each generation absorbs the enriching experience, pulsing with the essence of More-than Nature, replenishing resilience and vigour.

Regeneration is place-based, deeply personal and rich in emotions. I am certain that this place will maintain its distinctiveness for my children, who have spent as much time here as I have since they were born. The uniqueness of this place will possibly become one of their favourite landscapes and hold a special spot in their mental memory, where they will unconsciously weave themselves and their interconnectedness with various familiar species of this place. As they grow, this haven will serve as a touchstone, grounding them amidst life's ups and downs, offering peace and strength drawn from the enduring comfort of More-than Nature and the legacies left for them. Woven with shared experiences and cherished moments, this humble cottage and its surroundings will remain a vibrant, ever-evolving chapter, enriching generations to come with its boundless gifts and comfort.

I zoom out to visualise the many other significant landscapes that surrounded and comforted the childhoods of my student participants. These influential places have partly shaped their relationships with More-than-Nature and influenced how they will design their world for the better. Just as every cell of humanity is created and operates according to the values of More-than-Nature, every inch of space in our minds carries the bright potential to reacquaint, regenerate and reinvent possibilities for everyday challenges. This intrinsic and deep connection is our innovation and capacity. We are inherently linked to the natural world around us and together, we can inspire and create a tomorrow grounded in creativity and harmony.



*it's 3:23 in the morning and I can't sleep
because my great great grandchildren
ask me in my dreams
what did you do while the earth was unravelling?*

Drew Dellinger

CREDITS

Special thanks to 2nd year (23/24) BA students from Transformative Design course at Willem de Kooning Academy. They are, Aistė Maciulevičiūtė, Ajša Kacjan, Anne-Florance Deul, Ava Clark, Blanka Szegedi, Bonita Buurman, Elise Leussink, Felix Döringer, Hooi-Ying Zhang, Lena Grötting, Lise Riggeling, Liza Simonova, Lydia Cross, Magdalena Matlok, Maxe den Boer, Mia Luz, Nóra Kocsis-Barna, Pien Thoonen, Sara Garcia Dominguez, Tijn Louter, Ugnė Jasiulionytė, Yue Zhu and Zofia Twardowska.

And from 3rd year (23/24) BA students from Transformative Design course at WdKA They are, Anna Mascagni, Anne-Florance Deul, Ashley van Donk, Danique van Venrooij, Elizabete Sadauska, Emma Lenaerts, Jonas Bleijerveld, Lente Jntema, Linde Dibbelink, Nathan van Valkengoed, Neomi Chocolaad, Pablo Teijeiro Fokkema, Yookyung Jun and Urvee Kulkarni.

Thanks to WdKA learning coach Alice Blokland and course director of Transformation Design major, Hill Scholte.

Images of all student works are the copyright of their respective creators. The selection of work is based on their inspiring and resourceful ideas that illustrate how they elevate their comprehension of the design framework. Works are published by permission.

Photography
in Mending Open Wounds
Page 12, 31, 38 & 39 by Bryndis Ragna Brynjolfsdottir
All others including selected pieces from the series “Winter Recess” & “Spring Break” are by Phyllis Wong

in Learn(ing) to Unlearn
All, except students’ selfies, are by Phyllis Wong



Gratitude to tutors: Hanneke Briër, Harma Staal, Jan Belon, Jop Japenge, Meike Eggers, Michelle Kasprzak, Moniek Driesse, Sietske Klooster & Vasilis van Gemert

peers: Ann Conefrey, Brittany Thorpe, Djie Han Thung, Esther Verhamme, Jie Chen & Judith Sanders

experts: Aldje van Meer, Aliet Rogaar, Anne Vlaanderen, Bas van den Berg, Bas Groenveld, Claudi Rudolf, Eline Wielemaker, Emily Zhang, Eve-Barbara Robidoux, Femke Coops, Harm Scholtens, Hisako Ichiki, Howard Koster, Inge Paeßens, Iris Veentjer, Iwan Pol, Jessie Bragdon, Jen Telesca, Karlin Boelens-van der Klink, Katerien Bast-ter Meulen, Klaas Kuitenbrouwer, Marcel Schouwenaar, Madeline Berlis, Mieke Lopes Cardozo, Martin Probst, Rink Schelling, Ruben van der Scheer & Susan Schardijn

Know that, this research which is the fruit of your attention, insights and guidance will continue to mature and evolve. I give you all my thanks.

REFERENCES

Albrecht, G. A. (2011). Symbiocene. <http://healtheart.blogspot.com.au/2011/05/symbiocene.html>

Bronfenbrenner, U. (1979). *The ecology of Human development: Experiments by nature and design*. Harvard University Press, pp 22-26

Capra, F., & Luisi, P. L. (2014). *The systems view of life: A unifying vision*. Cambridge University Press.

Camrass, K. (2023, September 4). Regenerative futures: Eight principles for thinking and practice. *Journal of futures studies*. *Journal of Futures Studies*. <https://jfsdigital.org/articles-and-essays/2023-2/vol-28-no-1-september-2023/Regenerative-futures-eight-principles-for-thinking-and-practice/>

Gunter, M. A., Estes, T. H., & Schwab, J. H. (1990). *Instruction : a models approach*. Allyn And Bacon, pp 27

Gray, D. (2010). *The Empathy Map*

Harvey, D. (2007). *A brief history of neoliberalism*. Oxford University Press, USA, pp 72

Kimmerer, R. W. (2013). *Braiding Sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Milkweed Editions

Krznaric, R. (2014). *Empathy: Why it matters, and how to get it*. Random House

Krznaric, R. (2020). *The good ancestor: How to think long term in a short-term world*. Random House.

Kuhn, T. S. (1962). *The structure of scientific revolutions*. UNCH, pp 89, 153

Latour, B. (2009). Will NonHumans be saved? An argument in ecotheology. *Journal of the Royal Anthropological Institute*, 15(3), 459-475. <https://doi.org/10.1111/j.1467-9655.2009.01568.x>

Macy, J. (2003). *World as lover, world as self: Courage for global justice and planetary renewal*. Parallax Press.

Macy, J. & Brown, M. Y. (2014). *Coming back to life: The guide to the work that reconnects*. New Society Publishers, pp 75

Mang, P., Haggard, B. & Regenes Group. (2016). *Regenerative development and design: A framework for evolving sustainability*, pp 88, 117-118, 213

Meadows, D. H. (1974). *The limits to growth: A report for the club of Rome's project on the predicament of mankind*. Universe Books

Meadows, D. H., Randers, J., & Meadows, D L. (2004). *The limits to growth: The 30-year update*. Chelsea Green Publishing Company.

Pawlyn, M. (2019). *Biomimicry in architecture*. Routledge.

Pawlyn, M., & Ichioka, S. (2021). *Flourish: Design paradigms for our planetary emergency*. Triarchy Press

Piaget, J. (2013). *Origin of intelligence in the child: Selected works*. Routledge

Stiphout, M. V. (2019). *First guide to nature inclusive design*. Next City

Stiphout, M. V. (2023). *Second guide to nature inclusive design*. Next City

Wahl, D. C. (2016). *Designing Regenerative cultures*. Triarchy Press

Wahl, D. C. (2020, June 1). "The deliverable is capability". Medium. <https://designforsustainability.medium.com/the-deliverable-is-capability-54ef4aafd7ae>

Watson, J. (2019). *Lo-TEK: Design by radical Indigenism*. Taschen

Wilson, S. (1966). *Research Is Ceremony : Indigenous Research Methods*. Black Point, Nova Scotia :Fernwood Publishing, 2008

Yunkaporta, T. (2020). *Sand talk: How Indigenous thinking can save the world*. HarperCollins.

Zoöp, 2023, D. ©. (2022, May 3). Zoop. <https://zoop.earth>