

Human/Nature (dis)Connectedness Beyond the Built Environment

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Abstract

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This thesis explored the dynamics of Human/Nature Connectedness and Disconnectedness within and beyond the built environment, examining how design, systemic barriers, and daily choices shape our relationship with the natural world. It challenged the notion that Human/Nature Connectedness is accessible to some while others remain disconnected. The study reframed Human/Nature Connectedness as an essential, embodied practice rooted in reciprocity and resilience. Grounded in critical theory and interdisciplinary methodologies, including autoethnography, heuristic inquiry, and embodied phenomenology, the research wove a personal narrative through global, experiential inquiry. Comparative analysis of Canada's cool, climatic constraints and Egypt's warm, sunlit landscapes revealed the psychological, spatial, and socio-economic dimensions of Human/Nature (dis)Connectedness. The research also compared dystopian realities with utopian possibilities and envisioned a future realigned with nature's seasonal rhythms; where time is guided by the sun, and cycles follow the moon. The work revealed a resistance to the unnatural, relentless pace of productivity-driven systems that distance us from nature, eroding our health and well-being. The work then encouraged a more balanced, sacred experience with nature, reclaiming the fact that we are *of* nature. Inspired by Indigenous stewardship, the work honoured intergenerational wisdom while advocating systems that prioritize deep-rooted tradition over shallow innovation. It called for generational interconnectedness, broadening our vision beyond instant gratification to respect future generations, grounded in reciprocal coexistence with nature. As a contribution, the thesis proposed *S.E.E.D.S. (Standard for Environmental and Ecocentric Design Specifications)* as an actionable design framework that empowers individuals to transcend structural constraints. Through daily choices, practices and ecocentric values, a convergence towards a holistic lifestyle emerges. More than a guide, it is an act of rebellion where small choices collectively reseed our bond with nature, harmoniously intertwining people and planet.

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To my family and friends, thank you for your love, patience, and motivation through the many ups and downs.

And finally, but firstly, because He is the first and the last, I thank – God. الحمد لله

Dedication

This work is dedicated to the misfits, the misunderstood, the non-academics, those with imposter syndrome, the procrastinators, the distracted, the dreamers, the wanderers, the travelers, the ones who question everything, the ones who know, and the ones wise enough to know they know nothing at all; and especially to those who will never read, or have any interest in reading this thesis. To the restless and the curious in their everlasting pursuit of knowledge...

I hope this work inspires and sheds light.

T, I know you'd be proud of me; I can hear you say, "*Good job, B!*" This one's for you ♥

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List of Abbreviations & Acronyms^{1 & 2}

BE	– Built Environment (also BEs for plural: Built Environments)
H/Nc	– Human/Nature Connectedness
H/Nd	– Human/Nature Disconnectedness
H/N(d)c	– Streamlined combination of: <i>Human/Nature Disconnectedness & Human/Nature Connectedness</i> , referring to both simultaneously; also written as: <i>(dis)connectedness</i> . Note that <i>(dis)connectedness</i> alone refers simultaneously to <i>connectedness</i> and <i>disconnectedness</i> .
Nc	– Nature Connectedness
S.E.E.D.S.	– Standard for Environmental and Ecocentric Design Specifications ³

¹ In alphabetical order

² Only recurring abbreviations used throughout the thesis are listed. Additional abbreviations specific to research, organizations, or contextual references are defined in-text upon first mention.

³ S.E.E.D.S. will be explained and detailed in Chapter 5. Note that the acronym “S.E.E.D.S.” will appear as “SEEDS” throughout this paper; both forms are interchangeable and refer to the “Standard for Environmental and Ecocentric Design Specifications”.

List of Definitions^{4 & 5 & 6}

Anthropocentric: Considering human beings as the most significant entity of the universe; regarding the world in terms of human values and experiences.

Biophilia⁷: A hypothetical human tendency to interact or be closely associated with other forms of life in nature: a desire or tendency to commune with nature.

Biophilic Design: Biophilic: of, relating to, or characterized by biophilia: relating to, showing, or being the human tendency to interact or be closely associated with other forms of life in nature. In the context of this paper, Biophilic Design is of the built environment, i.e. interior &/or architectural design, by integrating nature through one or more of the “*Four Elements*”⁸ of nature: *Earth, Water, Air, Fire*.

Biophobia: Understood as the opposite of *Biophilia* and *Biophilic*; “*a partly genetic predisposition to readily associate, on the basis of negative information or exposure, and then persistently retain fear or strong negative /avoidance responses to certain natural stimuli that presumably have constituted risks during evolution.*”, also, expressed as **Biophobic:** “*negative/avoidance (biophobic) responses—to certain natural stimuli and configurations.*”; “*(fear/avoidance) responses to certain natural stimuli and situations that presumably have presented survival-related risks throughout evolution.*”⁹

Conscious: Capable of thought, will, design, or perception. In the context of this paper, *Conscious* is defined as deliberately acting with intention, and mindfulness.

⁴ In alphabetical order

⁵ Underlined definitions in this section and throughout paper via <https://www.merriam-webster.com>

⁶ Additional contextual explanations and citations for definitions are found in the body of text or in footnotes throughout paper.

⁷ A more in detailed definition and in-depth explanation of Biophilia can be found in Chapter 2.

⁸ Four Elements: Proposed “by the ancient Greeks and endorsed by Aristotle, their most influential philosopher. Aristotle took this scheme from his teacher Plato, who in turn owed it to Empedocles, a philosopher who lived during Athens’s Golden Age of Periclean democracy in the fifth century BC.” (Ball, 2004) Empedocles recognized four elements: earth, water, air, fire. Can also be referred as: “Natural Elements”, throughout paper.

⁹ *Biophobia & Biophobic* as per by Roger S. Ulrich in *Chapter 3 Biophilia, Biophobia, and Natural Landscapes of The Biophilia Hypothesis* by Stephen R. Kellert & Edward O. Wilson (Kellert & Wilson, 1993)

Ecocentric: An ethical perspective that emphasizes the intrinsic moral value of the natural world, advocating for its importance independent of human interests. It posits that humans are one component of a larger ecological community, deserving of equal consideration alongside nonhuman entities.¹⁰ Nature-centered; environmentally ethical; opposite of Anthropocentric.

Holistic: Relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts. In the context of this paper, *Holistic* focuses on all-encompassing; complete; balanced.

Mindful: Bearing in mind; inclined to be aware. In the context of this paper, being *Mindful* / having *Mindfulness* is relating to being present, being aware of one's surroundings, of the consequences of one's choices and actions.

Nature: The external world in its entirety; natural scenery. The “*Four Elements*”¹¹ of nature. In the context of this paper, *Nature* is defined in three ways:

→ *Existing Nature*: a setting that has one or more of the *Four Elements of Nature*: *Earth, Water, Air* and *Fire*; such as forests, beaches, mountains, deserts, parks etc. (predominantly exterior; existing or designed).

⇒ *Integrated elements of Nature* such as courtyards, fireplaces, green walls, water features etc. incorporated in the structural built environment (predominantly interior).

⇌ *Manufactured elements of Nature* such as objects & products that are made of raw or natural ingredients & materials, void of artificial & synthetics; examples include cotton, linen, wood, bamboo, beeswax, plant-extracts, essential-oils etc.

∴ Connection to *Nature* can be via *Existing, Integrated, &/or Manufactured* modes.

Well-Being¹²: The state of being happy, healthy, or prosperous. In the context of this paper, if not explicitly defined in context, is referring to overall well-being both psychological and physical health.

¹⁰ <https://www.ebsco.com/research-starters/science/ecocentrism>

¹¹ See Footnote number 8, for a detailed explanation of the *Four Elements* of nature

¹² Spelling of “well-being” found in quoted excerpt throughout, spelled as “wellbeing” as per referenced authors.

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Chapter 1: Introduction

1.1 Background, Context and My Initial Experience

I set out to explore Human/Nature Connectedness and Disconnectedness¹³ through three interconnected lenses of nature: *Existing Nature*: wild landscapes embodying one or more of the *Four Elements of Nature*: *Earth, Water, Air, and Fire* (forests, beaches, mountains, etc.); *Integrated Nature*: elements incorporated into the built environments (courtyards, green walls, etc.); *Manufactured Nature*: raw-material-based products (linen, wood, essential oils, etc.). Therefore, connection to *Nature* can be via *Existing, Integrated, and/or Manufactured* modes.

Initially examining my research through the lens of interior design, within the *Built Environment* (BE), the direction of my work evolved in ways I hadn't anticipated. I soon realized that my approach, my questions and the potential solutions extended beyond the confines of the BE. In the context of this paper, *Beyond the Built Environment* means moving past my interior design practice and the physical structure of walls, floors, ceilings, and such. It's not just about looking outward, far beyond a space, but also about moving inward, toward the immediate, personal, topical and experiential that shape our sense of *Human/Nature (dis)Connectedness* (H/N(d)c). Beyond the BE also means to move past the physical, special world and into a world of imagination, of multi-dimensional realms. Diverging from my practice of interior design, I encountered converging approaches that inspired redirection towards potential possibilities. Throughout my process, I was reminded not to dig up in doubt what was planted in faith, but to trust the work was taking root.

As an interior designer and instructor, working at the Lester B. Pearson School Board (LBPSB), I noticed on campus that many classrooms, workspaces and staff rooms had no windows (See Appendix A). Spending over six hours a day in these spaces, both students and staff, including myself, often felt and appeared sluggish and fatigued.

¹³ Also written: Human/Nature (dis)Connectedness; Abbreviation: H/N(d)c

This became particularly evident when compared to spaces with windows facing outdoor spaces, with a backdrop of trees, or a courtyard providing visual access to *Existing* nature. My intrigue was ignited, and my research began, even before I enrolled at the Concordia University (CU) Masters of Design (MDES) program. I innately knew something was wrong, which led to my first micro-protest in 2015: an email sent to the school board addressing the unacceptable conditions of windowless classrooms and their negative impact on well-being and health (See Appendix B).

With little success came persistence; I was extremely frustrated at having to convince the school board that it was unnatural to have people in windowless classrooms, while spaces with wall-to-wall windows were used for storage. Bureaucracy overshadowed logic, wellness, and ironically in an interior design program – design. Using our poorly designed BE as a learning tool, I often pointed out to my students that these spaces were perfect examples of “*what not to do.*” After many meetings and pleas, LBPSB finally approved the redesign of storage rooms with wall-to-wall windows, previously occupied by lone printers and miscellaneous supplies, into classrooms and staff rooms for people. Alas, a step towards increased Human/Nature Connectedness (H/Nc), and a logical design solution, but one that was short lived, as we soon moved to a new building where we found ourselves with both windowed and windowless classrooms once again... I felt the sting of defeat (See Appendix C).

By this time, I had commenced my MDES studies at CU, where my research led me to a comparative analysis between the LBPSB and CU campuses, as I was working and studying in both these spaces. Being immersed in these educational institutions, gave me first-hand, experiential observation regarding H/N(d)c on campus in these Built Environments (BEs). This made me question the effects of our BE, disconnected from nature and its potential impact on the well-being of staff and students alike. At CU, I started my research by photo-documenting the presence of *Integrated Nature*, such as plants, in the Engineering, Computer Science and Visual Arts Integrated Complex (EV) building (See Appendix D). I also documented the library building (LB) and noticed installations of green walls of foliage, that were not present during my

undergrad a decade prior, near student study areas (See Appendix E). The windows all along the exterior walls of the library were as they have always been, which gave access to natural light, but minimal, or no other *Existing* natural elements. What were the deciding factors to integrate green walls into these spaces? I wondered if the installations were properly and sustainably maintained, noticing some wilted, yellowing leaves. Were they included for aesthetic purposes, or were there other beneficial factors that played a role in the integration of these green walls?

I intended on continuing the comparison of LBPSB and CU campuses, then came the unimaginable: lockdowns in 2020¹⁴. While the world contemplated its collective fate, I found myself wondering about the fate of the many plants I documented, trapped indoors. I inquired and was informed that some were taken home with staff, others succumbed to dehydration, while a few were voluntarily and unofficially watered and taken care of by the appropriately named: ‘caretaking staff’, on the premises.

I realized what little control we had over the structural composition of the spaces we inhabited, whether they had windows or not, and that the connection to nature was dictated by the existing structure. Our ability to integrate nature into these spaces was basically reduced to (amongst other superficial options) adding plants. Even the fate of plants was out of our hands, and ultimately depended on building (in)accessibility during these exceptional circumstances.

While pandemics and restrictions posed extraordinary challenges to building accessibility (and created roadblocks for my research), I noticed that the prohibition of indoor gatherings encouraged outdoor connection to *Existing Nature*. It became evident that even when forced, people seemed to enjoy their connection to nature. Through experiential and participant observation, I reflected on my own perspective and used an embodied phenomenological approach in my opinion piece, “*Connection to Nature in the Time of Covid*” (See Appendix F).

¹⁴ Federal Canadian and Quebec provincial mandated shutdowns of educational institutions (where I both worked and studied), as well as public spaces for gatherings and the masses in general. Government websites have been deleted. Search “Covid 2020” in <https://www.montrealgazette.com/search/> for various articles.

The culmination of these experiences made me question whether the design of our BE, particularly the presence or absence of natural elements, had measurable effects on well-being. To better understand this, I explored existing research on H/N(d)c and its influence on well-being and mental health. Throughout my research, alongside my lived experiences (shared in upcoming chapters), I analyzed the positive impact of H/Nc and found that we are not merely coexisting *with / in* nature, but that we are *of* nature.

1.2 Framing Human/Nature (dis)Connectedness

To fully frame H/N(d)c, it is necessary to explore how nature exposure within spatial experiences shapes well-being and mental health. Climate plays a critical role, influencing if and how nature can be integrated into the BE across different geographical regions. My research will navigate both within and beyond the BE, where public commercial and private residential spaces each reveal disparities of H/N(d)c. I question and challenge the extent to which individuals can foster a genuine connection to nature. These topics, amongst others, will be briefly introduced in this section and elaborated further in the literature review.

Human/Nature Connectedness, Well-Being & Mental Health

Studies suggest that exposure to nature has significant benefits for cognitive function, emotional regulation, well-being and mental health. However, the decline of engagement with nature raises important concerns about its negative effects on our wellness, and ability to maintain a meaningful connection to nature.

The Problematic of Human/Nature (dis)Connectedness

The overarching problem I initially intended to address was that of H/Nd in the BE. Due to the unprecedented inaccessibility of my places of work and study (and interior spaces in general) where I had intended to conduct comparative analyses, I shifted my research from focusing on local, on-site BEs, to existing relevant precedents. As the research continued, more limitations became evident regarding H/N(d)c globally.

While integrating elements of nature into the BE seems like an ideal solution, the role of the BE in shaping the impact, frequency and quality of our interaction with nature, along with geographic and climatic challenges and constraints, must be considered. This raises an important question: How can we design nature-connected environments that are climate-responsive, ensuring accessibility across different geographical contexts?

Many of the most desirable nature-integrated design elements such as courtyards and greenhouses, are abundant with natural light and are often tied to ideal climates, high costs, demanding maintenance, and specialized knowledge. As a result, access to H/Nc in the BE remains mostly a geographical and financial privilege rather than a global standard, leaving most people with little control over their surroundings beyond the limited options available to them.

This raises additional questions: Can we design nature-connected BEs, including in cooler climates, to ensure H/Nc across different geographical contexts? Or is optimal H/Nc in the BE mostly reserved for warmer climates? Can these BEs be designed for the public sector, or are they more feasible for private residences?

City dwellers with hectic schedules and responsibilities, are found often to limit outdoor exposure and time spent in nature. Research statistics show that in the UK, “there is growing evidence that people are spending less time outside and more time indoors (Office for National Statistics, 2017)” and “people spend considerably more recreational time in front of TV and computer screens and listening to the radio and music (around 15 h per week), than they do engaged in outdoor activities (around 2h per week; ONS, 2017), which in turn may reduce any benefits to health and well-being...” (Martin et al., 2020) Therefore, in fast-paced, urban environments, could it be that city dwellers are missing a vital connection to nature? Is the problem solely due to increased technology, or is poor structural design to blame as well?

Through my research, I came to realize the extent of our limited control over the BE and its impact on H/N(d)c. We have little control over how cities are planned and how buildings are constructed. Urban planning, commercial spaces, and building accessibility are dictated by policies and financial constraints, leaving little room for individual influence. While residential spaces offer some degree of autonomy, people are still bound by personal finances, rent, mortgages, and family obligations etc.

Knowing what is best, understanding the benefits, and having the means to design or live in ideal spaces are different realities. Someone may recognize that their basement apartment, with a small, north-facing window overlooking a wall, is depriving them of natural light and a connection to nature, yet it may be all they can afford, or the most practical location for their work and lifestyle. Similarly, one might understand the positive, calming effects of nature sounds such as rainfall, rustling leaves, crickets at night, and birds at dawn, yet find themselves surrounded by the relentless noise of traffic and city life, due to circumstances beyond their control.

While we design, build, and curate our spaces, do these spaces, in turn, shape us? Does a BE disconnected from nature influence the way we perceive and value the natural world? If the benefits of H/Nc are so well-documented, why is nature often treated as a luxury in design rather than a necessity or a standard?

I noticed that elements of modern lifestyles replaced natural connections, with artificial substitutes: *Water* is filtered, fluoridated and comes from municipality pipes, rather than directly and naturally from a spring source; *Power Generation* depends on electricity distribution and outsourced governance, rather than the elements of wind and sun, aligning daily routines with natural cycles; *Fresh Air* has been replaced by HVAC (Heating, Ventilation, and Air Conditioning (A/C)), air exchangers and artificial air purification systems. Analyzing the BE room by room, I noticed *Kitchens* depend on supermarkets instead of home gardens; *Bathroom/Vanity* beauty products rely mostly on the synthetic, instead of natural, healthier alternatives; and *Bedrooms* with blackout curtains, sound machines, and humidifiers instead of living in synchronicity

with nature's cycles of light, sound and seasons. It seems society has become increasingly surrounded by the artifice, disconnected from nature, opting for synthetic replacements instead of natural elements.

In a world of continuous technological innovation, are we disconnected by design? Have we prioritized functionality of a space, over functionality of the human being? Are climate, cost and convenience the culprits? Framing these concerns within the context of this research highlights these systemic limitations and raises critical questions to find answers and seek alternative ways of thinking and designing within and beyond the constraints of the BE.

Expanding Perspectives

Just as viewing art using pointillism¹⁵ technique such as a painting by Monet or Van Gogh, or a portrait by Chuck Close, even one of Gaudí's intricate mosaics, each incomprehensible up close, taking a step back reveals its full composition. With the obstacles I was facing, I too needed to step back and see the full picture of H/N(d)c to broaden my research perspective.

As an interior designer, it was naturally expected of me to begin my exploration in the BE. However, as I delved deeper into the research, I questioned whether interior design itself was the right lens to clearly address the problematic. While interior design does play an important role in H/N(d)c, the BE overall is influenced by many systemic barriers and various external factors. I was looking too closely at my research, wondering if interior design could help bridge the gap of H/N(d)c, but this felt like a constricting, limiting approach to my research, where a multi-disciplinary alternative was necessary to fully understand the complexities of H/N(d)c.

¹⁵ The theory or practice in art of applying small strokes or dots of color to a surface so that from a distance they blend together. <https://www.merriam-webster.com/>

This shift in thinking led me to reconsider stepping beyond the BE as the primary solution for H/N(d)c and to explore alternative ways to bridge the gap. This realization helped redirect and expand the scope of my research. Perhaps the key to fostering a deeper connection to nature was not just about the BE and bringing the outside in, but required a broader exploration of how individuals can actively integrate nature into their daily lives; this includes, but is not limited to, consumer choices. When it comes to the products we use, the materials we choose, and the way we engage with nature in our daily lives, people have far more agency. To examine this shift, I employed an interdisciplinary, methodological approach outlined in the following section.

1.3 Methodology & Methods, Objectives and Research Question

Methodological Framework

My methodological approach is firmly grounded in *Critical Theory*, which challenges dominant socio-cultural structures and systems, raises awareness, and shares resources, while advocating for alternative ways of thinking regarding H/N(d)c and holistic, conscious lifestyle choices.

Through the research, I critique the systemic barriers that shape our relationship with nature, questioning how H/N(d)c may manifest in design, daily habits, and consumption. I analyze how capitalist and technological systems either shape or numb our sensory experiences of nature. My methodological framework resists academic rigidity, embracing an interdisciplinary combination of research strategies that blend critical analysis with experiential inquiry.

Exploring H/N(d)c, both within and beyond the BE, my research weaves together methods and intertwines multiple methodologies through an interdisciplinary and flexible framework: *Bricolage*. This integrates qualitative and creative research methods, blending personal narrative, experiential inquiry, and comparative analysis,

rather than adhering to a rigid academic structure. This ensures that the academic, intellectual and lived experiences of H/N(d)c are explored, making my research both critically reflective and deeply immersive.

At the core of this research are methodologies that emphasize my personal lived experience, critical reflection, and creative representation. *Autoethnography* situates my personal and professional experiences within the research, positioning my perspective as both subject and investigator. *Heuristic Inquiry* fosters self-reflection, allowing deeper insights to emerge through direct engagement with the subject matter. *Embodied Phenomenology* grounded in sensory perception, enables me to examine and articulate a response to my own H/N(d)c.

Building on this foundation, I used a range of qualitative and visual methods that complement and reinforce one another. *Storytelling* and *Narrative Inquiry* play central roles, creating an immersive narrative that reflects my encounters with H/N(d)c. These local and international experiences will be shared throughout my work to demonstrate my thought processes. Alongside actual experiences and events, I will share my point of view from an imaginative, utopian perspective as I question current realities and envisioning alternative possibilities. *Photo Documentation* captures key moments, experiences, textures and materials that illustrate the presence, or lack, of nature in my surroundings, which served as inspiration for my interpretive design proposal. *Participant Observation* brings an experiential dimension, allowing me to observe real-world interactions with, or in the absence of nature. *Categorization* helps organize emerging patterns, while *Comparative Analysis* contrasts different approaches to nature integration. This methodological approach creates a *Visually Narrative* experience, reflecting the multi-dimensional nature of this inquiry. By combining these methodologies and methods, it is evident that this research moves beyond conventionality.

Table 1: Methodological Framework with one overarching methodology + three main methodologies. Six methods under their respective methodologies, and one cross-cutting method.

Overarching Methodology:		<i>Bricolage</i>	
Methodologies: <i>Autoethnography</i>		<i>Heuristic Inquiry</i>	<i>Embodied Phenomenology</i>
Methods:	<i>Narrative Inquiry</i>	<i>Categorization</i>	<i>Participant Observation</i>
	<i>Storytelling</i>	<i>Comparative Analysis</i>	<i>Photo Documentation</i>
Method cross-cutting all three main Methodologies:			
<i>Visual Narrative Inquiry</i>			

Objectives

This research is shaped by the following five objectives, aligned with *Critical Theory*, each designed to examine, challenge, and expand our understanding of Human/Nature (dis)Connectedness within and beyond the Built Environment.

- To examine, how spatial design influences sensory and emotional responses to nature through *Comparative Analysis* of existing research, as documented in interdisciplinary studies, and *Narrative Inquiry* of personal account, guided by *Autoethnography* and *Heuristic Inquiry* methodologies.
- To identify through *Comparative Analysis* with a *Heuristic Inquiry* framework, climatic, geographic disparities and systemic barriers that influence nature-connectedness globally, in both public and private built environments. To recount lived instances of H/N(d)c in the BE through *Visual* and *Narrative Inquiry*, *Storytelling*, *Participant Observation*, and *Photo documentation*.
- To critically analyze tensions between productivity-driven systems and natural cycles using *Comparative Analysis*, and to propose balanced rhythms, aligned with seasonal patterns, through *Narrative Inquiry* and *Storytelling* – while acknowledging societal necessities and obligations.
- To explore through *Narrative Inquiry*, *Categorization* and *Comparative Analysis*, how individuals can intentionally create holistic connections to nature beyond structural limitations of the BE.
- To highlight Indigenous knowledge systems, intergenerational wisdom, and culturally rooted practices of time-honoured models of reciprocal Human/Nature relationships, through awareness and education.

Research Question

This research investigates whether an alternative framework, that prioritizes individual agency rather than structural or systemic dependencies, can empower people to integrate nature into their lives in more meaningful and easily accessible ways. This study aims to explore the following:

- *How can individuals cultivate a more holistic connection to nature in their daily lives, integrating natural elements beyond the built environment?*

I question what we've normalized in modern life and how we might return to a more natural rhythm by asking: *How can we align ourselves with nature's cyclical wisdom, seasonal rhythms and natural flow, to deepen Human/Nature Connectedness and restore sensory balance in a world that demands constant productivity?*

Rather than viewing the BE as the sole vehicle for H/Nc, this research questions whether a more tangible, personal approach, that considers the choices we make, could provide a more balanced, impactful and positive path forward.

The following, Chapter 2, examines existing research on H/N(d)c in the BE, physio/psychological effects, outlining systemic challenges and various factors that shape our (dis)connectedness to nature. The review continues in Chapter 3, looking at the geography of H/Nc globally, and moves into the imaginary realm in Chapter 4. This sets the stage for an interpretive design proposal in Chapter 5, exploring an alternative approach to developing Nc beyond the BE. It introduces the idea of S.E.E.D.S.¹⁶, laying the groundwork for a framework that prioritizes individual empowerment over external constraints. Chapter 6 then discusses Indigenous intergenerational wisdom, followed by Chapter 7, which analyzes the proposed recommendation, addresses challenges and limitations, highlights areas for future exploration, revisits objectives, and arrives full circle, concluding with final thoughts.

¹⁶ Standard for Environmental and Ecocentric Design Specifications; detailed in Chapter 5.

Chapter 2: What is Nature Connectedness?

2.1 Human/Nature (dis)Connectedness

Examining the value of Human/Nature Connectedness, and the consequences of its disconnection, is essential to understanding the core problematic. Throughout this chapter, I will be analyzing H/Nc well-being, mental health, and the built environment, which include interiors, exteriors, and spaces in between. Designing a space while keeping nature integrated, or at the forefront, is a lovely notion, seldom achieved. With that said, in the context of this paper, regarding nature, I'll start with the concept of love.

Biophilia – noun. *bio·phil·ia*, *bī-ō-'fī-lē-ə -'fēl-yə*

Biophilia¹⁷ combines two words derived from ancient Greek: “life” (bio) and “love” (philia); it literally means *love of life*.¹⁸ The term *biophilia* was coined by psychologist Erich Fromm (Fromm, 1964), “to describe the *psychological orientation* of being attracted to all that is alive and vital.” (Barbiero & Berto, 2021) It was later popularized by biologist Edward Wilson in his book *Biophilia* (Wilson, 1984). Wilson and fellow scholar Stephen Kellert¹⁹ explain in their book *The Biophilia Hypothesis* (Kellert & Wilson, 1993), where Wilson stated: “[t]he biophilia notion compels us (...) ‘to look to the very roots of motivation and understand why, in what circumstances and on which occasions, we cherish and protect life.’” Their hypothesis is explored through a multidisciplinary approach. While they appreciate this, they acknowledge “considerable challenges” due to the editors’ “breadth of their disciplinary perspectives.” However, they believe the work results in “overall coherence and a whole much greater than the sum of its parts.” (Kellert & Wilson, 1993)

¹⁷ Biophilia: A hypothetical human tendency to interact or be closely associated with other forms of life in nature: a desire or tendency to commune with nature

¹⁸ National Library of Medicine – National Center for Biotechnology Information article (Barbiero & Berto, 2021)

¹⁹ Stephen Kellert PhD, Social Ecology, Yale School of Forestry and Environmental Studies (F&ES), a professor of social ecology who helped pioneer the theory of “biophilia” <https://environment.yale.edu/>

Wilson described himself as 'so bold' when he defined *biophilia* as "the innate tendency to focus on life and lifelike processes." He briefly explains the concept and concludes optimistically: "to the degree that we come to understand other organisms, we will place a greater value on them, and on ourselves." (Wilson, 1984) I feel that understanding other organisms isn't the only lens through which to see this. Perhaps recognizing our interdependence with other organisms, and how our survival is linked to theirs, would lead us to place greater value on them, and on nature as a whole. Kellert explains that "[t]he human need for nature is linked not just to the material exploitation of the environment but also to the influence of the natural world on our emotional, cognitive, aesthetic, and even spiritual development." Additionally, he goes on to say that "[t]he biophilia notion, therefore, powerfully asserts that much of the human search for a coherent and fulfilling existence is intimately dependent upon our relationship to nature." (1993) What if we replaced the word "nature" with "ourselves"? What if we look at it as being "one with nature"? Would we treat "nature" differently knowing that it represents self-treatment? Would we behave differently in the world? Be more patient? More respectful? Would we be more, or less ourselves?

Of Nature

I believe that we are not connecting *to* nature as if it were outside of us, but that we are *of* nature. Reconnecting to nature is going back home to where we belong, where we once came from, to what we truly are. I bring up this notion because I truly believe our disconnectedness from nature is unnatural and is the root of much personal, societal, and global chaos.

Wilson said it best when he explained: "We are in the fullest sense a biological species and will find little ultimate meaning apart from the remainder of life." (Wilson, 1984) Although we are *of* nature, in their first day of life, some people are born into an unnatural world from the moment they take their first breath. Their first touch was

most probably a pair of metal forceps or latex gloves worn by an obstetrician²⁰ in a brightly LED-lit hospital room, unless a mother has chosen to give birth at home or in a more “natural” setting with the help of a midwife or doula²¹. Still, while outside the mainstream medical system, it’s not necessarily immersed in nature, per se. What, then, is considered natural in this context? The mother opting for a natural birth, refusing anesthetics? A baby born in a body of water surrounded by dolphins²²? Or giving birth in a forest, amidst birds, bees and trees? Is disconnecting from nature our inevitable and (un)natural progression as artificial and technological advances predominate every aspect of our lives?

I found resonance with my notion in the work of Dr. Jamie Mcphie, PhD in Environmental Humanities and Social Sciences, and author of *Mental Health and Well-being in the Anthropocene*, who states: “I realised the gullibility in thinking nature was an objective ‘thing’ that we could ever possibly be detached from (or ‘connected’ to) in the first place.” He often critiqued and rejected the notion of connection *to* nature stating: “We are always already of nature, therefore we simply cannot have a relationship to nature.” He continues to critique the notion of “Westernised romantic conceptions of an objective ‘nature’ (evident in recently popularised notions such as ‘get out into nature’ or ‘re-connect to nature’).” (Mcphie, 2019) I semi-agree with his statements, and challenge them with the following: People can often feel disconnected from themselves, due to preoccupations, emotions, stress, distractions etc. Some may even say that they don’t “feel themselves”, that something is “off”, that they need to “find themselves”. They yearn for much-needed rest and relaxation, to ground or center themselves. With that said, people *can* become disconnected from *themselves*. So, if they are *of* nature, then when disconnected from *it*, rekindling a relationship and a re-connection *to* nature is possible.

²⁰ Obstetrician: A physician who specializes in obstetrics.: OB, ob. Obstetrics: a branch of medical science that deals with pregnancy, childbirth, and the postpartum period.

²¹ Midwives & Doulas: are people that assist women in childbirth, trained to provide advice, information, emotional support, and physical comfort to a mother before, during, and just after childbirth.

²² Some alternative studies and reports have suggested the benefits to dolphin-assisted births.

The Prelude of *Mental Health and Well-being in the Anthropocene* initially surprised me when Mcphie provocatively stated “There is no such thing as mental health. (...) Any illness described as mental health is really physical health.” (Mcphie, 2019) I found it amusing that “mental health” was in the title, and I disagreed with his statement. A physically healthy person can suddenly or chronically suffer from poor mental health, which can in turn manifest physically and hinder one’s physical health. People that suffer from depression, for example, often develop physical symptoms: “The physical symptoms of depression include: moving or speaking more slowly than usual, changes in appetite or weight (usually decreased, but sometimes increased), constipation, unexplained aches, and pains, lack of energy, low sex drive (loss of libido), disturbed sleep – for example, finding it difficult to fall asleep at night or waking up very early in the morning (NHS, 2021)” If we agree that we are *of nature*, which is generally defined as *the external world in its entirety*, then how can we separate our mind and body, which embodies what we are? As humans, we are not exclusively mental, physical, or spiritual, but a holistic system of mind, body, and soul, with sub-systems that depend on each other for optimal functionality.

If we are part of the eco-system *of nature*, then how do we connect to nature that is part of *the external world*? How do we have more control over the ways we connect to nature? Why is H/Nc so important? What is its correlation to well-being and mental health and Human/Nature Connectedness?

2.2 Well-Being & Mental Health

In a world run by capitalism, technology and “Big Pharma”²³, almost every solution to any problem is either an app or a pill, because those are the most lucrative.²⁴ But when it comes to real *health*, nature can help *heal*.

²³ Big Pharma: Large pharmaceutical companies considered especially as a politically influential group.

²⁴ Top 10 Pharma Companies by Revenue (Updated 2024): 1. Johnson & Johnson US\$85.16B, 2. Roche Holding US\$65.32B, 3. Merck & Co. US\$60B, 4. Pfizer US\$58.5B, 5. AbbVie US\$54.3B, 6. Sanofi US\$46.6B, 7. AstraZeneca US\$45.81B, 8. Novartis US\$45.44B, 9. Bristol-Myers Squibb Co. US\$45B, 10. GSK US\$38.4B
<https://www.nasdaq.com/articles/top-10-pharma-companies-revenue-updated-2024>

“Alternatives to medication and psychotherapy, such as exercise and outdoor therapies (including ‘green’ exercise programmes such as ‘walking for health’ or ‘green gyms’), became more common by the end of the last century, particularly in treating clinical depression (see Halliwell, 2005), following the view in medicine that ‘nature’, as well as physical health, is essential to mental wellbeing (see Roszak, Gomes, & Kanner, 1995). Gass, Gillis, and Russell (2012) state that ‘[b]y spending time in the natural world and reconnecting with its processes, people are in essence also reconnecting to themselves and each other’ (p. 95).” (Mcphie, 2019).

It was also found that “[i]n Europe, from the twelfth century onwards, the belief that visual contact with plants and other biota have psychologically beneficial health effects, have influenced the provision of gardens for patients in health care institutions. (Ulrich & Parsons, 1992; Warner, 1987)” (Mcphie, 2019). Thus far, it seemed that people suffering from both mental and physical health issues can improve their well-being through H/Nc; this was no new phenomenon. “One of the earliest outdoor-based interventions of the modern era, in 1901, was ‘tent therapy’ which began on the hospital grounds of Manhattan State Hospital East, USA (Davis-Berman & Berman, 1994) [where] the patients residing in the tents seemed to recover at a faster rate than the patients left in their hospital beds indoors. This was one of the first evidence-based studies that favoured the outdoors as a place of healing and is oft cited as *proof* of the healing effects of ‘nature’ and the ‘outdoors’” (Mcphie, 2019)

I recently visited my uncle in the hospital, who had stage four cancer. His room was in the intensive care unit; the entire space didn’t have a single window – not for staff nor for patients. I was reminded of my LBPSB experience and how it was difficult to spend time during the day at work; meanwhile, patients at the hospital spent days, weeks, and months in these windowless spaces. Going into his room, my well-versed, interior design eyes scanned the space. It was a space with artificial lights, an HVAC system and artificial sounds from machines that helped ease his pain and keep him

alive. In his condition, I doubt a plant or a scenic view would *cure* him, but I would have at least hoped it might help *heal* him. The intensive care unit was intense indeed, and felt depressing, not only for the obvious reasons of the patients' critical conditions, but for the fact that the space solely relied on the artificial technology and Big Pharma, ignoring 125-year-old knowledge that nature also heals – in some cases, if not the body, then at least the mind, or perhaps the soul.

Mcphie attests that “there has been a great deal of research on a variety of mental health benefits that may be gained from viewing (or being in) green spaces in ‘urban environments’, ‘countryside’ and ‘wilderness’ (see Bragg & Atkins, 2016, pp. 10–11).” However, Mcphie also “scrutinised most of the studies that Bragg and Atkins cited in their meta-analysis (and many more) and found that all of them confine what they think of as ‘nature’ to a very narrow, romantically idealised conception.” He questions connection to the romanticized notion of nature and asks: “if there is a generalised assumption that nature is essential to mental wellbeing, then what does this mean for those who do not have various forms of access (economic, geographical, social, epistemological, etc.) to these particular versions of nature (such as a heavily romanticised ‘green’ nature)?” (Mcphie, 2019) This ties back to my problematic of those disconnected from nature for a multitude of reasons.

Additional studies show that H/Nc is an integral part of our well-being and health. Research highlights positive contributing factors, as “brief contact with natural environments has been found to improve cognition (Berman, Jonides, & Kaplan, 2008), decrease stress (Cole & Hall, 2010; Gidlow et al., 2015), decrease blood pressure (Lee, Park, Tsunetsugu, Kagawa, & Miyazaki, 2009), enhance emotion (Nisbet & Zelenski, 2011), and increase self-esteem (Barton & Pretty, 2010)” (McMahan et al., 2018).

The works of Dr. Roger Ulrich PhD., EDAC²⁵ (Ulrich, 1983) echo nature's positive impact, where his "Stress Reduction Theory (SRT) states that individuals will experience less stress and increased positive affect when in contact with environments that contain the resources that were necessary for survival during our evolutionary history (e.g., those with expansive views, water sources, vegetation)." (McMahan et al., 2018) The theory of Kaplan²⁶, "Attention Restoration Theory (ART; Kaplan, 1995) focuses primarily on cognition and proposes that modern urban environments tax directed attentional systems, which leads to cognitive fatigue and higher levels of stress and irritability. In contrast, natural environments contain a high concentration of elements that are inherently fascinating, (...) reducing cognitive load and thus allowing for both cognitive and affective restoration (see also Kaplan, 2001)." (McMahan et al., 2018) Regarding these two theories: "[a]lthough SRT and ART differ in several respects, they converge on the notion that humans have evolved to respond more positively to natural versus built environments, and a large body of supporting empirical evidence indicates that people do show increased positive emotion and, to lesser extent, decreased negative emotion following exposure to natural environments (see Capaldi, Passmore, Nisbet, Zelenski, & Dopko, 2015; Collado et al., 2017; Hartig et al., 2011; Howell & Passmore, 2013; Russell et al., 2013)." (McMahan et al., 2018) These theories affirm the deep-rooted cognitive and emotional benefits of interacting with nature – insights that not only anchor this study's direction but also validate many of my own lived experiences and views, as will be discussed in the next chapter.

The positive impacts between H/Nc, well-being and mental health are apparent in the evidence reviewed thus far, where nature has proven to be essential and beneficial. However, limitations hinder H/Nc in the BE for a variety of reasons.

²⁵ Doctor of Philosophy with an Evidence-Based Design Accreditation and Certificate

²⁶ Rachel & Stephen Kaplan: Environmental Psychologists and Professors

2.3 The Built Environment

Bringing the Outside In

Connection to nature in the built environment can be through various forms of *Integrated Nature*. One way is by bringing the outside in by incorporating native or exotic plants to adorn our interior spaces. Some biophilic²⁷ designs with plants serve a purely aesthetic role, offering visual calm and natural beauty, without an explicit function. Some plants also serve a functional role, such as Snake Plants (*Sansevieria trifasciata*)²⁸, known for purifying air and releasing oxygen at night, making them a bedroom favorite helping improve sleep quality. The limitations around bringing the outside in, include the need to know how to take care of these plants, maintain their health, troubleshoot when they're not thriving, and making arrangements prior to travel (or lockdowns). Indoor house plants depend on our time, effort and a certain level of knowledge for their survival; this knowledge isn't necessarily tacit – even the most savvy “green thumb”²⁹ requires research.

One would think that I am researching this topic because I love nature, which is true, and that I have a “green thumb”, which is sadly far from the truth. I'm a self-admitted “plant killer”. I somehow managed to kill a small Aloe Vera, a succulent plant, requiring very low maintenance. The second that fell to its detriment under my care, was a cactus – enough said. One does not have to be an artist to appreciate art, or be beautiful to appreciate beauty, or, in my case, be a biophilic connoisseur, “plant lady” to appreciate nature. I simply love and appreciate nature, understand its importance, respect it, and advocate for it as a voice for the voiceless. I partake in micro-protests, one small act at a time. I'll probe and prompt in pursuit of justice, as minuscule as my efforts may seem, it helps me sleep at night, along with my air purifying Snake Plants.

²⁷ Integrating nature through the “*Four Elements*” of nature: *Earth, Water, Air, Fire*. See *List of Definitions* for details.

²⁸ “Snake Plant is one of the most recommended plants for improving air quality. The optimal place to keep this is in your bedroom, because it converts CO₂ into oxygen at night it also removes contaminants from air. The NASA conducts a study to the uses of snake plant according to their results they found out that the snake plant absorbs toxins...” *Journal of Phylogenetics & Evolutionary Biology* article (Berame et al., 2017)

²⁹ Green Thumb: A name for someone with an innate skill for gardening. [An unusual ability to make plants grow.](#)

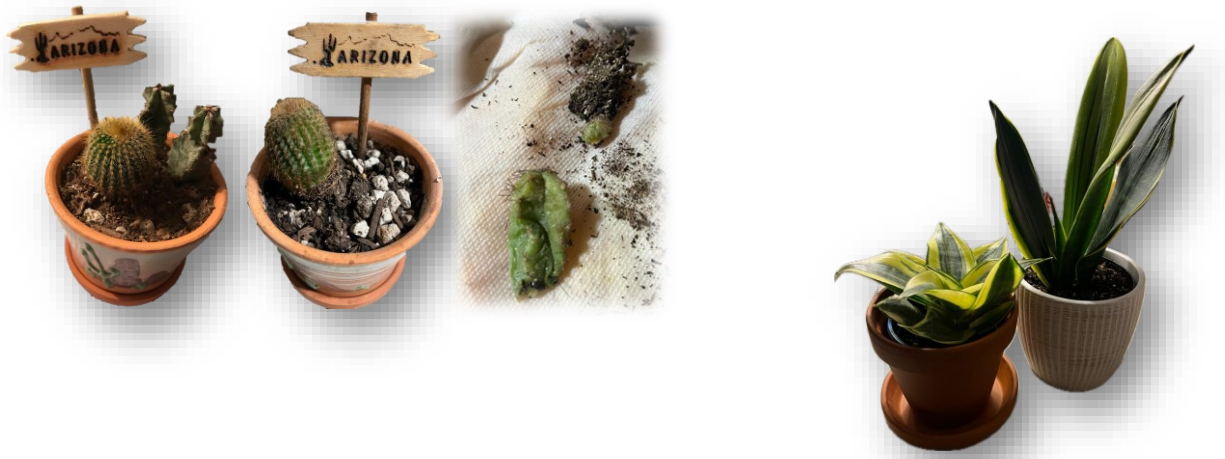


Figure 1: Top left trio: “Rizo”, my cactus, from left to right: thriving, surviving, and no longer alive-ing; Bottom right duo: My two healthy Snake Plants, from right to left, “Sansa” (*Sansevieria*), and “Birdie” (*Sansevieria trifasciata* Hanhii, also known as “bird’s nest”)

Lack of knowledge, time and effort may hinder H/Nc in the BE, therefore, the pursuit of alternative ways to connect to nature in the BE, to the best of our abilities and knowledge is elemental. Besides plants, various natural elements can positively affect one’s mental and physical health, and overall well-being. Elements of nature can be integrated into the space, examples include soil, sand, rock gardens, plants, fireplaces, water features, etc. With a well-thought-out interior design plan, a sense of décor, sufficient space and financial means, integration of natural elements in the BE can help foster H/Nc in private residential and public, commercial spaces.

A thought had come to mind during a long transit at the *Casablanca Mohammed V International Airport* in Morocco. There were floor-to-ceiling windows, and many large pots filled with lush plants (one of which was a Snake plant); but I did not feel connected to nature in this stark, cold, public space. I wondered if the plants might have felt the same way, out of place in this artificial environment, overlooking airplanes take-off and land, with bright fluorescent lights, noisy announcements for flights, for calling people, or for security reasons – it all felt unnatural. By bringing the outside in, we might be simulating nature for our sake, benefitting from a small connection to nature, but what does it do to the plants? Do they thrive or barely survive? Instead of bringing the outside in, why don’t we go out? (See Appendix G)

Inside-Out

With increasing technological advances and conveniences, we tend to spend more time indoors. Connection to nature can be fostered by bringing those who are inside, out. “The psychological value of the outdoor recreational experience is noted by Ulrich et al. (1991:203) in a review of the scientific literature: ‘A consistent finding in well over 100 studies of recreation experiences in wilderness and urban nature areas has been that stress mitigation is one of the most important verbally expressed perceived benefits.’”(Kellert & Wilson, 1993) As mentioned by “Kaplan (1983:155), drawing on extensive research of the naturalistic experience, concluded in a rather more subjective vein: ‘Nature matters to people. Big trees and small trees, glistening water, chirping birds, budding bushes, colourful flowers—these are important ingredients in a good life.’” (Kellert & Wilson, 1993) Regardless of whether this idealized version of nature is accepted or critiqued, the studies make a compelling case for connecting with traditional forms of *Existing Nature*.

The duration of the exposure or connectedness to nature can also contribute positively as “empirical evidence shows that positive emotions and mental restoration and other benefits can occur in as little as 5 to 20 minutes of immersion in nature (Brown, Barton & Gladwell, 2013; Barton & Pretty, 2010; Tsunetsugu & Miyazaki, 2005).” (Browning et al., 2014) Enjoying the benefits of H/Nc doesn’t require lengthy or strenuous outdoor adventures. “When a long duration of exposure is not possible or desired, (...) [c]onsider too that micro-restorative experiences brief sensory interactions with nature that promote a sense of well-being (...) while often designed in response to space-restriction, are more readily implementable, replicable and often more accessible than larger interventions; frequent exposure to these small interventions may contribute to a compounded restoration response.” (Browning et al., 2014) If one’s current BE is less than adequate for H/Nc, then connectedness can be achieved through various outdoor activities such as a picnic, or a walk in the park, by simply being outdoors surrounded by the elements.

Biophobia

Nature hasn't always been a "walk in the park"; it comes with discomforts and has been stressful and life-threatening for our ancestors. As Ulrich notes in the chapter *Biophilia, Biophobia*³⁰, and *Natural Landscapes*, in *The Biophilia Hypothesis*, regarding *Restorative Responses*, it is said that "[d]aily living for early humans was no extended picnic in a serene pastoral environment. It involved fatiguing and often demanding activities to obtain the necessities for survival and sometimes involved stressful encounters with threats." (Kellert & Wilson, 1993) Whereas in contrast to today, the most we might encounter is the nuisance of an insect or a rash from a plant, under normal circumstances. Perhaps on rare occasions, the encounter of few curious creatures that venture out onto our well-maintained, gravel-clad paths could be expected. Nevertheless, we city-dwelling humans on nature hikes are not typically in fight-or-flight mode, spears in-hand, dressed in camouflage to deter predators... It usually is just a *walk in the park*.

Of course, this depends on location, climate, and a range of other factors like tolerance. I love nature, but I don't like bugs. Still, I respect them. I'm one of those people who keeps a "bug jar" for the uninvited creepy-crawly visitors – I try to safely evict them off the premises, unless, of course, I am overwhelmed with biophobia, then yes, you can label me as a "bug killer" too. Biophobia on a small, individual scale might go unnoticed, but on a global scale, it can lead to mass destruction. Kellert and Wilson (1993) state:

"The manifestation of biophobia explicit in the urge to control nature has led to a world in which it is becoming easier to be biophobic. Undefined nature is being replaced by a defiled nature of landfills, junkyards, strip mines, clear cuts, blighted cities, six-lane freeways, suburban sprawl, polluted rivers, and

³⁰ **Biophobia:** An antagonistic and even adversarial relationships to nature. Also, expressed as *Biophobic*: negative/avoidance (biophobic) responses—to certain natural stimuli and configurations.; (fear/avoidance) responses to certain natural stimuli and situations that presumably have presented survival-related risks throughout evolution.

Superfund sites, all of which deserve our phobias. Ozone depletion, meaning more eye cataracts and skin cancer, does give more reason to stay indoors. The spread of toxics and radioactivity does mean more disease. The disruption of natural cycles and the introduction of exotic species have destroyed some of the natural diversity that formerly graced our landscapes. Introduced blights and pests have destroyed American chestnuts and elms. New ones are attacking maples, dogwoods, hemlocks, and ashes. Global warming will degrade the flora and fauna of familiar places. (Peters & Meyers, 1993) Biophobia sets in motion a vicious cycle that tends to cause people to act in a fashion that undermines the integrity, beauty, and harmony of nature—creating the very conditions that make the dislike of nature yet more probable.”

But if we are *of nature*, and we tend to move towards the ‘*dislike of nature*’, then do we, in some ways, dislike ourselves? If we destroy nature, then we are ultimately destroying ourselves. It seems that self-destructive tendencies are unnatural – whereas self-preservation makes more sense.

The saying goes: it’s the *survival of the fittest*³¹, to mean “a natural process that results in the survival and reproductive success of individuals or groups best adjusted to their environment and that leads to the perpetuation of genetic qualities best suited to that particular environment”³² However, I feel as if we, as the human species, are barely surviving, we are far from being the fittest, and that staying on course could lead to not only the destruction of nature, but to our own detriment as a species.

There seems to be a limiting polarity of *biophilia* & *biophobia*, of the inside and of the outside... What if the answer to H/Nc in the BE was in the *in-between*?

³¹ *Survival of the Fittest*, term made famous in the fifth edition (published in 1869) of *On the Origin of Species* by British naturalist Charles Darwin, which suggested that organisms best adjusted to their environment are the most successful in surviving and reproducing. Darwin borrowed the term from English sociologist and philosopher Herbert Spencer, who first used it in his 1864 book *Principles of Biology*. (Spencer came up with the phrase only after reading Darwin’s work.)” <https://www.britannica.com/science/survival-of-the-fittest>

³² <https://www.merriam-webster.com/>

In-Between

A space can flow in a way that blurs the lines between inside and outside. The BE usually has clearly distinct and defined boundaries of the inside and the outside; of walls, ceilings, floors, and of doors and windows. Whereas *Existing Nature* can be seen as borderless; even where land meets the sea, they are still two elements of nature. We can redefine in-between spaces in the BE by drawing inspiration from *Existing Nature*, to promote spatial fluidity through *Integrated Nature*.

Courtyards, were a common feature in earlier designs of the BE, as explained by Professor Abdel-Wahed El-Wakil; an Egyptian architect who designed over 15 mosques in Saudi Arabia and is considered by many as the foremost contemporary authority in Islamic architecture. (*Biography*, 2013) On courtyards, El-Wakil states: “The crucial element is that the traditional house was always established around a courtyard. In Japan, you have the most important part of the house is the courtyard. In all the traditional architecture, even in Oxford, you have the universities were built around courtyards. You have the courtyards of the festivities, you have the lady of the court and the court of justice; everything around the court, because the court was the open living room. And when they explain about the courtyard in the books, on Islamic architecture, and regional architecture, they say: oh, the courtyard is very good, because climate wise, the cold air of the desert drops in and stays there. It has the privacy for the women. It’s all the modern thinking of functional. They don’t speak of the courtyard on the spiritual side, on the metaphysical side. I always say that a house without a courtyard, is like a man without a soul. The courtyard is the soul of the house.” (minute 20:19-21:45) (Caravane Earth, 2022)³³ The once common courtyard, becomes uncommon; in El Wakil’s eyes, do we live in a soulless city without them?

³³ YouTube Documentary: by Caravane Earth entitled: “Documentary: Architect Abdelwahed El-Wakil وثائقي: المعماري عبدالواحد الوكيل” <https://www.youtube.com/watch?v=arTivLicuEs>



Figure 2: Various images of structures built around courtyards. (Caravane Earth, 2022) ³⁴

El-Wakil goes on to emphasize the importance of courtyards, as a form of *Integrated Nature*, in the BE stating: “not only this, it is the protagonist, because the rooms are built around the court. So, what is the court? It’s the open garden. And what is the garden? It’s the God created world. It is nature.” (22:03) He asks: “What is a building? It is man fashioned world. One is fashioned by man, the other is created by God. So, the predominance of the house is having God’s creation in the center.” (22:18) And concludes “So, every culture tried to interpret its image of the macrocosm into a microcosm in their house. And this is what gives meaning to space.” (22:37) (Caravane Earth, 2022) By this interpretation, we then live in soulless, meaningless spaces; a detriment to our health and well-being.

³⁴ All Photo Credits of images used are mentioned in the final credits of the documentary stating: “This film features archival footage from Abdel-Wahed El-Wakil’s personal archive, including images of his selected projects” and credits each of the images used. ©Caravane Earth, 2022 with citation (Caravane Earth, 2022) throughout.

While studies on H/Nc may be in recent or modern, the concept itself not new. “During the last two centuries, in several countries, the idea that exposure to nature fosters psychological well-being, reduces the stresses of urban living, and promotes physical health has formed part of the justification for providing parks and other nature in cities and preserving wilderness for public use (Parsons 1991; Ulrich et al. 1991).” (Kellert & Wilson, 1993) Moreover, 5000 years ago, the value of nature was recognized, appreciated and integrated into the BE, intertwined with ancient structures:

“The belief that contact with nature is somehow good or beneficial for people is an old and widespread notion. The gardens of the ancient Egyptian nobility, the walled gardens of Persian settlements in Mesopotamia, and the gardens of merchants in medieval Chinese cities indicate that early urban peoples went to considerable lengths to maintain contact with nature (Shepard 1967; Hongxun 1982).” (Kellert & Wilson, 1993)

Ancient customs and traditions regarding H/Nc in the BE slowly faded, as going to “*considerable lengths*” for H/Nc is now often ignored or reserved for the so-called privileged. The courtyards mentioned in the studies were located in warmer countries, but what of those who live in cooler climates?

We often speak of nature connectedness in terms of wellness, design, and sensory experience, but connection cannot be built in isolation from place. Design ideals cannot be universal when they must bend to climate, geography, and environmental extremes, all of which impose real constraints. We cannot construct open-air courtyards in sub-zero climates, nor expect adobe (brick or building material of sun-dried earth and straw) to withstand northern winters. In search of where nature connectedness can truly take shape, the I turn to the geographic and climatic forces – conditions that shape, enable, and often restrict our relationship with nature.

Chapter 3: Where is Nature Connectedness?

The search for Human/Nature Connectedness unfolds across landscapes that are charged with meaning and influence. Space, sound, temperature, terrain, and time all play roles in how nature is felt, accessed, or withheld. But place is never just physical, it's emotional, cultural, and systemic. In this chapter, I trace how H/Nc emerges or recedes in different environments, from retreats to rooftops, urban disconnect to serene reconnection by the sea. Between Canada and Egypt, across cities, deserts, and coastlines, this chapter follows the uneven terrain of sensory memory, built form, opportunity, and planetary rhythms. What is revealed is not a single answer to where H/Nc lives, but rather a constellation of conditions that support or suppress it.

3.1 Geography & Climate

Wilson stated that “[t]he question of interest is the preferred habitat of human beings. It is often said that Homo sapiens is the one species that can live anywhere - on top of ice floes, inside caves, under the sea, in space, anywhere - but this is just a half truth. People must jigger their environment constantly in order to keep it within a narrow range of atmospheric conditions. And once they have managed to rise above the level of bare subsistence, they invest large amounts of time to improve the appearance of their immediate surroundings. Their aim is to make the habitat more "livable" according to what are usually called aesthetic criteria.” (1984) Even when humans adapt the BE to enhance livability, they are still constrained by geography and climate.

Having lived between Canada and Egypt, I've adapted to an 80°C temperature range; from frosty -40°C to +40°C heatwaves. Climate imposes unique constraints on each country, from architecture to daily activities, ultimately impacting Nc, health and well-being. Temperature isn't the only factor to consider in H/Nc; the sun, much like how planets revolve around it, plays a crucial role in our well-being and connectedness to nature.

According to an article from the National Library of Medicine: "Sunlight exposure has been—and will continue—being the primary source of vitamin D for most people." (Wang et al., 2023) The importance of the Sun and its association to vitamin D is explained: "Multiple cross-sectional studies, longitudinal studies, and meta-analyses have demonstrated that vitamin D deficiency is associated with an increased risk of depression, and vitamin D supplementation may be beneficial in treating patients with depression." (Wang et al., 2023) Viewed through a climatic lens, vitamin D becomes especially important for those experiencing Seasonal Affective Disorder (acronymically appropriate: SAD), which is described as "depression that tends to recur chiefly during the late fall and winter and is associated with shorter hours of daylight." Additionally, Sick Building Syndrome (SBS) is "a set of symptoms (such as headache, fatigue, and eye irritation) typically affecting workers in modern airtight office buildings that is believed to be caused by indoor pollutants."³⁵ Those living in cooler regions tend to spend extended periods of time indoors due to climatic limitations and may be more prone to developing these ailments.

Building around *Existing Nature* with *Integrated* open-air spaces is ideal for H/Nc in the BE, but not always possible. It is notable, for example, that "[i]n Cairo, temperatures can shift dramatically between very hot in summer and pleasant in winter. Average maximum daytime temperatures range from a very hot 36°C in July, the warmest time of the year, to a pleasant 20°C during cooler months like January. At night, minimum temperatures typically average around 9°C during these months." (Cairo Weather, 2025) In comparison, Montreal's "[a]verage maximum daytime temperatures range from a comfortable 28°C in July, the warmest time of the year, to a very cold -4°C during cooler months like January. At night, minimum temperatures typically average around -14°C during these months." (Montréal Weather, 2025) This does not account for the "Wind Chill" factor – "the cooling sensation that is caused by

³⁵ Both: SAD & SBS definitions from <https://www.merriam-webster.com/>; also defined: "Seasonal affective disorder (SAD) is a syndrome characterized by recurrent depressions that occur annually at the same time each year." (Rosenthal et al., 1984); also "The sick building syndrome (SBS) is used to describe a situation in which the occupants of a building experience acute health- or comfort-related effects that seem to be linked directly to the time spent in the building" (Joshi, 2008)

the combined effect of temperature and wind” that drops temperatures drastically. “Living in a cold country can be hazardous to your health. Each year in Canada, more than 80 people die from over-exposure to the cold, and many more suffer injuries resulting from hypothermia and frostbite. Wind chill can play a major role in such health hazards because it speeds up the rate at which your body loses heat.” (Wind Chill CND, 2010) Here, seasonal occasions of H/Nd from the elements is for survival.

A built environment with *Integrated Nature* could be viewed as an ideal solution, however, climate constraints present challenges that must be considered. Open-air spaces in Cairo thrive in Egypt’s mild winters, but in Montreal, extreme cold and high wind chills make year-round outdoor integration in Canada difficult. What does this mean for those living in cooler climates? Are those in warmer climates the primary beneficiaries of the advantages of H/Nc?

3.2 Destination Egypt

Though deeply personal, my experience in Egypt was pivotal to the unfolding of this research. Through participant observation, I noticed the textures of daily life, climatic rhythms, sensory encounters, and cultural dynamics, illuminated how H/N(d)c is lived, felt, and designed. What follows is a narrative case study that maps these observations, situated within the theoretical framework established earlier.

The cold climate, lockdowns and curfews were not how I envisioned spending another fall/winter season. I was feeling anxious and overwhelmed – whispers of depression were getting louder. So, without a word and within a day, I packed my bags and bought a one-way ticket – destination, Cairo, Egypt. I hadn’t planned beyond seeing family, friends, and getting some sun. It took me a month to recover from the mental overload of Canada; I enjoyed the warm weather and sunny days spent outdoors. Embarking on a solo trip to southern Egypt, my journey started with a Nile cruise in Aswan towards Luxor. I then made my way North-East to the city of Sharm El Sheikh in the Sinai Peninsula, which bridges Asia to Africa, surrounded by the Red Sea and the Mediterranean Sea. Relaxed and sun-kissed, I returned to Cairo feeling

refreshed and connected to my ancestral roots. After the tour, I mentioned to friends and family that I felt I needed a retreat of some sort – something less touristy, more mindful and present, more immersed in nature; something and somewhere that honoured holistic wellness. And because of the algorithms of my electronic devices, my IP address location and surveillance, an advertisement for a retreat with those exact criteria, simply and conveniently popped up.

The Simple Life

The retreat was going to be held in Sinai at an eco-lodge called “*Basata*”, which means *Simplicity* in Arabic; established in 1986, it was the first of its kind.



Figure 3: Panoramic view of Basata Eco-Lodge, South Sinai, Egypt. (Source: <https://www.basata.com/>)

Nestled between two hills, surrounded by the Sinai mountains, along the coast of the Red Sea, the location radiates a soothing atmosphere. Basata’s core values are environmental and societal as they encourage the respect for nature and its conservation. They support local communities by purchasing local and organic products whenever possible to promote ecotourism³⁶ for Egypt. Their sustainable practices³⁷ include the education of the protection of the environment, through informational dialogue and visual aids, especially regarding coral reef conservation.

³⁶ Ecotourism: The practice of touring natural habitats in a manner meant to minimize ecological impact.

³⁷ <https://www.basata.com/sustainabilitybasata>

They hold briefings with their guests, ensuring that the knowledge of appropriate behaviour is understood, and that these rules are for the good of the environment, which in turn is beneficial for humans. Basata aims to:

“[C]reate a unique form of tourism that has a relatively low impact on the surrounding environment, and the native inhabitants, the Bedouins.

It has an underlying philosophy of trust, community, environmental protection and cultural understanding, that follows the definition set by the World Conservation Union (IUCN) that an eco-lodge is:

‘A nature-dependent tourist lodge that offers the tourist an educational and participatory experience and is developed and managed in an environmentally sensitive manner.’

It focuses greatly on building material, unique architecture, solid waste management, and responsible tourism.

The lodge and its underlying philosophy are constantly evolving and developing organically according to the environment and guests’ requirements.”³⁸



Figure 4: Diagram explanation for reef health and conservation: “We protect our reefs by educating our guests and employees about the coral reefs as well as regularly monitoring our reefs health.” (<https://www.basata.com/protectingourcoralreefs>)

³⁸ <https://www.basata.com/about-us>

The eco-lodge not only supports environmental conservation and sustainable design, but it also cultivates H/Nc through its philosophy and practices. It recognizes that guest experiences are enhanced by intentional encounters with the natural world – curated in ways that allow *Existing* and *Integrated* forms of nature to thrive, being accessible and embodied. In *The Biophilia Hypothesis*, Kellert outlines “nine hypothesized dimensions of the biophilia tendency” describing them as “indicative of the human evolutionary dependence on nature as a basis for survival and personal fulfillment” (Kellert & Wilson, 1993). Among these, the “Naturalistic” category is particularly relevant:

“The naturalistic tendency may simplistically be regarded as the satisfaction derived from direct contact with nature. At a more complex and profound level, the naturalistic value encompasses a sense of fascination, wonder, and awe derived from an intimate experience of nature’s diversity and complexity. The mental and physical appreciation associated with this heightened awareness and contact with nature may be among the most ancient motive forces in the human relationship to the natural world.” (Kellert & Wilson, 1993)

This framing supports the idea that the eco-lodge is more than a retreat – it is an intentional space designed to activate biophilic responses through action and architectural choices that prioritize both ecological integrity and human well-being.

The eco-lodge embodies H/Nc through their “*Everyday Green Practices*”, which include: reducing single-use plastic, managing waste, conserving water and energy, and adopting natural, chemical-free products (such as cleaning products, detergents, soaps and fertilizers), minimizing pesticide use, installing mosquito nets to reduce insecticides, encouraging guests to bring their own towels and bed sheets.³⁹ Their building strategy includes using *Manufactured Nature*, constructing bamboo huts and mud brick chalets, to keep the integrity of the location, honouring *Existing Nature*, and minimizing their environmental impact. By using natural materials, not only is it better for the environment, but it also enhances H/Nc in the BE of the eco-lodge.

³⁹ <https://www.basata.com/everydaygreenpractices>



Figure 5: Above: Pictures of chalets built with mud brick and rocks. Below: View from chalet rooftop overlooking bamboo huts on the Red Sea. Basata Eco-Lodge, South Sinai, Egypt. (Photos: Author)

The construction style is the same style as the one of Abdel-Wahed El-Wakil, who upon meeting his mentor, internationally recognized architect Hassan Fathy⁴⁰, was amazed at the work “was done with mud brick, which we considered the dirty material of the slums. (minute 4:24-4:44)” However, he saw it as “looking at the sculpture of Rodin, (who) made the beautiful and famous “*Thinker*” (...) (of Bronze) not of marble, like Michaelangelo’s David. (minute 4:45-4:59)” (Caravane Earth, 2022)⁴¹ To El-Wakil, it was a marvel work of art made with simple tools and materials.

"Simplicity is the ultimate sophistication"

– Leonardo da Vinci



Figure 6: Top Left: *The Thinker*, by artist Auguste Rodin (Top Right). Bottom Left: Hassan Fathy & AbdelWahed El-Wakil; Bottom Right: structures built with mud bricks. (Caravane Earth, 2022)

⁴⁰ “More than any other 20th-century architect, Hassan Fathy raised the status of earth building among architects worldwide. Building in earth—adobe or pisé—has a long and honorable history, and in those parts of the world where stone and timber are scarce and expensive, earth has remained the most economical and widely used building material. This is certainly true in Egypt and most Arab countries.” <https://architecture-history.org/architects/architects/FATHY/biography.html>

⁴¹ All Photo Credits of images used are mentioned in the final credits of the documentary stating: “This film features archival footage from Abdel-Wahed El-Wakil’s personal archive, including images of his selected projects...” and credits each of the images used. ©Caravane Earth, 2022 (Caravane Earth, 2022)

El-Wakil, either intentionally or not, had a micro-protest of his own as he stood by Fathy when he was mocked. He said that people “made fun of him, (as he was) building with earth” when concrete and steel were readily available. They said “He is taking us back behind the cows.”⁴² El-Wakil poetically and affirmatively stated: “If you are building with earth, it’s the material that God created you with. We are all going back to earth coming from the earth.” (minute 11:53-12:12) (Caravane Earth, 2022) He went on to explained that he went back to the university where he taught, to introduce mud brick building to his students, where he was met with fifteen professors who attacked him, bureaucratically and academically. He explained that “it was war”, and as a result, he had to resign from his post. (minute 5:00-5:30) (Caravane Earth, 2022) His thinking behind mud brick building was that of Fathy who stated:

“If we were against concrete... I am against the architects who are imposing concrete on the poor – the economically untouchables. I call them the economically untouchables; they cannot at all afford to build in concrete. And that’s why adobe⁴³ is given gratuitously by God to you.” (minute 10:45-11:06) (Caravane Earth, 2022)

Not only were climatic limitations a challenge to overcome, but economically, the choice to build, either connected or disconnected from nature, depended on one’s means. The most environmentally sustainable, natural product, like mud, was free, and the most environmentally harmful, like concrete, was expensive to buy, yet lucrative for those selling it. In the field of architecture and construction, was *Manufactured Nature* simply cast aside for profit?

⁴² An Egyptian saying implying that someone is outdated, primitive, stuck in the past or backwards thinking.

⁴³ Adobe construction: Earthen materials sand and clay when combined with a natural fibre (straw or husk) and water, gives birth to an innovative yet sustainable building technique- known as adobe construction. Often known as ‘Earth-Architecture’. This technique not only dates back to 2000BC, but is believed to be used by ancient Egyptians. Suitable for regions with extremely hot climate. Advantages include: sustainability, low carbon footprint, great sound insulators, keeps room cool, long-lasting simple maintenance, various finishes, textures, shapes and colours. (Adobe via Archineer, 2021)

El-Wakil considered himself a dissident of the architecture field, which was difficult for him as well as Fathy who suffered because of his strong beliefs. El-Wakil wanted to pay homage to Fathy and made it a mission to popularize Hassan Fathy among the elite in Egypt. He got the opportunity to do so as well as pay homage to the simple yet skilled workers who taught him mud brick construction:

"I got the opportunity when I was asked by a relative of mine to build a villa at the beach of Agami, which is on the outskirts of Alexandria. The big surprise came when I won the Aga Khan Award, the first Aga Khan Award⁴⁴ in 1980, and they put my house on the front cover and they said, 'That's the sort of icon of what the award wants to show.' And then when I got the award, I said, 'I will not accept it unless I share it with the mason, because he taught me how to build domes and vaults.' Aladdin Mustafa was on the front cover of Domus magazine." (minute 16:25-17:42) (Caravane Earth, 2022)

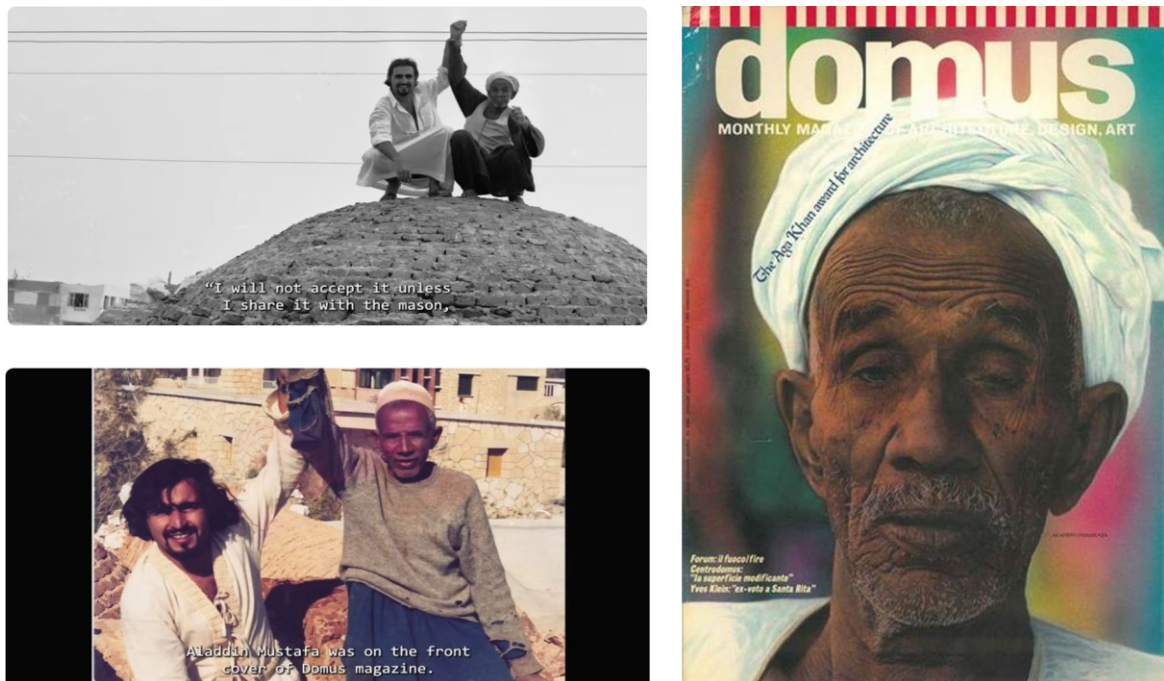


Figure 7: Top & bottom Left: Abdel Wahed El Wakil and Aladdin Moustafa (Caravane Earth, 2022) Right: Domus 612/December 1980: On the cover, Aladdin Moustafa ("Domus Magazine" 1980)

⁴⁴ The Aga Khan Award for Architecture is given every three years to projects that set new standards of excellence in architecture, planning practices, historic preservation and landscape architecture. The Award seeks to identify and encourage building concepts that successfully address the needs and aspirations of societies across the world, in which Muslims have a significant presence. (Aga Khan Award for Arch., 2025)



Figure 8: The structure that El Wakil received the Aga Khan Award for Architecture for the Agamy beach house in 1980 (Above) ("Destination KSA," 2023) (Caravane Earth, 2022)



Figure 9: In 1989 for Jeddah's Corniche Mosque received the Aga Khan award. Photo Credit: sdmimproje.com – The Corniche Mosque. ("Destination KSA," 2023) (Caravane Earth, 2022)

What was also fascinating and intelligent about El-Wakil is that he was inspired by nature in his structures for the quality that they brought through Biomimicry⁴⁵. “You don’t imitate the creation of the Creator by mimicking it, no, by using its principles. So, this is the transformation of nature in art. The nature of the palm tree is transformed in art, by following its principles of shading.” (minute 25:15-25:45) (Caravane Earth, 2022)

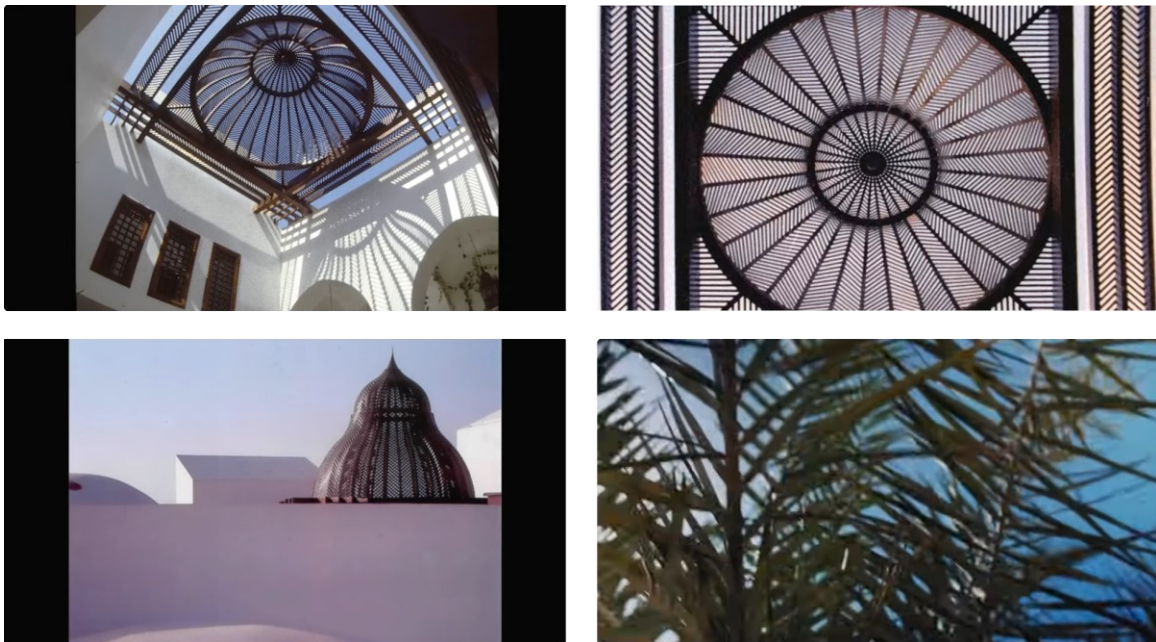


Figure 10: Biomimicry of the palm tree in El-Wakil's architecture. (Caravane Earth, 2022)

Back at the eco-lodge, I stayed in a chalet for some time, and then a bamboo hut, and by far, the latter was where I felt most deeply connected to nature. The design of the bamboo hut facilitated a sensory connection to nature, allowing for natural ventilation and unobstructed views, aligning with principles of biophilic design, promoting wellbeing. The sun shone and the wind moved freely through the bamboo walls and ceiling; waves crashed, the saltwater breeze felt fresh, and sand and seashells lay beneath my feet. I was surrounded by, and part of, all four natural elements. Each morning, I had the privilege of waking at dawn to watch the glorious, majestic sunrise over the Red Sea horizon – no alarm was needed; the transition from

⁴⁵ Biomimicry: The imitation of natural biological designs or processes in engineering or invention.

dark to light woke me. My circadian⁴⁶ rhythm⁴⁷ felt balanced and in sync. In the evening, I enjoyed colourful sunsets and witnessed my first moon rise from behind the Sinai mountains. My connection to nature was immersive, experienced fully through all my senses.

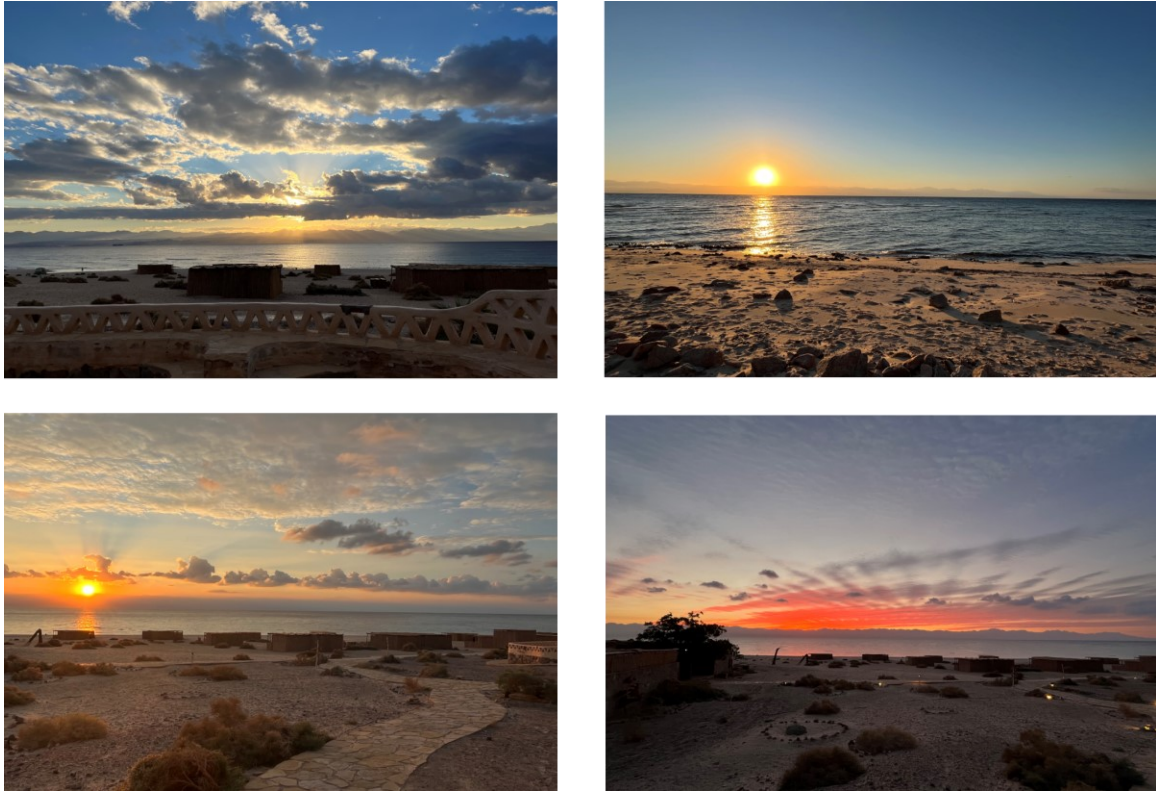


Figure 11: The many, colourful sunrises. Basata Eco-Lodge, South Sinai, Egypt. (Photos: Author)

In my simple BE, I overlooked what was lacking: no heating on cooler nights (although a bonfire was readily available), no fans or air-conditioning on warmer days, no shelter from the rain or strong gusts of wind... I was fully aware of my romanticized experience of H/Nc, however these deliberate omissions were due to my feelings of positive well-being and emotions, decreased anxiety, calm thoughts and peace of mind. I felt healthy, happy and at ease, immersed in biophilia, ignoring biophobia.

⁴⁶ Circadian (rhythm): Being, having, characterized by, or occurring in approximately 24-hour periods or cycles (as of biological activity or function)

⁴⁷ Circadian rhythms are the cycles that tell the body when to sleep, wake, and eat—the biological and psychological processes that oscillate in predictable patterns each day. This internal clock is influenced by external cues, like sunlight and temperature, which help determine whether one feels energized or exhausted at different times of the day. <https://www.psychologytoday.com/us/basics/circadian-rhythm>



Figure 12: *The Moon rises and constellations. Basata Eco-Lodge, South Sinai, Egypt. (Photos: Author)*

Although there was electricity in the mud brick chalets, there was none in the bamboo huts. Electricity was in the main hut of the reception, eating and lounging area for guests. There was no Wi-Fi throughout the premises, allowing people to disconnect from technology, and to reconnect to nature.

The light throughout the eco-lodge pathways was dim and minimal as to not cause light pollution – I’ve never seen so many constellations, so clearly; the stars were breathtaking, the experience was awe-inspiring.



Figure 13: Top: views from the main bamboo hut; Bottom: surrounding area with Integrated Nature: foliage, herbs and a spice garden. Basata Eco-Lodge, South Sinai, Egypt. (Photos: Author)

Connection to devices was not a necessity, nor a priority – it was an occasional, leisurely convenience. Whereas in our tech-dominant society, internet and access to our devices are predominant, and connection to nature is occasional and leisurely. It felt as if where I was on vacation was the real world, and the so-called “real world” was the fake world. I contemplated the juxtaposition of H/Nc in the BE on vacation vs. in everyday life, of living in a warm country vs. living in a cooler climate, of how human and natural I felt on vacation vs. how robotic and unnatural I felt in everyday life, at work, or in the city. I was grateful for my blissful experience and dreaded going

back to the reality that seemed so surreal. What struck me was that this connection to nature was not free; it came at a cost. I had to pay for the freedom and the connection to nature in this particular BE. I was paying for the experience to feel something, to be fully connected to nature, which I believe should be part of daily life. In a capitalist system, even simplicity is commodified.

Cairo Bound

Upon returning from the serenity of Sinai, I realized that I agreed with Wilson when he stated that “[p]eople can grow up with the outward appearance of normality in an environment largely stripped of plants and animals...” (Wilson, 1984) because as I left behind the simple life, I felt completely out of place, and I couldn’t hide it. Although I was in Cairo, my second home, I felt I was an alien who had landed on a different planet – detached from nature – it felt foreign to me. The lights, the noise, the scents, and the crowds overloaded all my senses. Overwhelmed and overstimulated, my body shut down and I fell ill. I stayed in bed for a few days as I adjusted to my new, yet familiar, environment. Although I had spent less time in Sinai than in Cairo, Sinai felt natural to me, more like home, more like myself – in nature, and *of* nature.

One must work to earn money, money that we spend on both necessities and desires, whether material or experiential. If work is a necessary part of life, then do we all just work, waiting for vacation for an opportunity at H/Nc? How were people surviving here, so disconnected from nature? This raises critical questions regarding the socio-economic accessibility of nature connectedness, suggesting that H/Nc may be unevenly distributed across social classes, reserved for the financially privileged.

Day by day I searched for nature connectedness. I slept between concrete walls, with black-out shutters. I slept well as I was disconnected from everything, namely light and sound, but felt uneasy. I found speckles of H/Nc in frantic sunrise searches, rushing up to the rooftop each morning. In the evenings, I leaned over the balcony to get a peek at the moonrise. And at night, I searched for a glimpse, a glimmer, a twinkle

in the sky for the stars – one star, any star – beyond the smog and bright lights of Cairo. Many palm trees were integrated into the BE, standing tall, neatly in a row; and although I loved seeing them, I still felt the disconnect. I would go for walks at dawn, surrounded by birds chirping musical melodies, as they serenaded the sunrise. These were my primary connections to nature in the asphalt, concrete compound I lived in.

“When people are confined to crowded cities or featureless land, they go to considerable lengths to recreate an intermediate terrain, something that can tentatively be called the savanna gestalt. At Pompeii the Romans built gardens (...) most possessing the same basic elements: artfully spaced trees and shrubs, beds of herbs and flowers, pools and fountains, and domestic statuary. When the courtyards were too small to hold much of a garden, their owners painted attractive pictures of plants and animals on the enclosure (...). Japanese gardens, (...) similarly emphasize the orderly arrangement of trees and shrubs, open space, and streams and ponds.” (Wilson, 1984)

Wilson went on to observe: “it seems that whenever people are given a free choice, they move to open tree-studded land on prominences overlooking water. This worldwide tendency is no longer dictated by the hard necessities of hunter-gatherer life. It has become largely aesthetic, a spur to art and landscaping. Those who exercise the greatest degree of free choice, the rich and powerful, congregate on high land above lakes and rivers and along ocean bluffs. On such sites they build palaces, villas, temples, and corporate retreats.” (Wilson, 1984) Did people really have free choice, or was it an illusion of choice in a rigged system? Was H/Nc in the BE reserved for the rich? What about the common folk with humble means? Was H/Nc in the BE mostly available in times of leisure, or was it attainable every day? Is the disconnectedness deliberate and by design? In Cairo, even the various forms of *Integrated Nature* fell short and felt unnatural. I felt my sensory, disconnected experience was by design, in the urban planning, economic pressure, architectural norms, politics and structural responses to overpopulation⁴⁸, stripping away Nc for convenience.

⁴⁸ Egyptian population as of August 2025: 108, 009, 519 via <https://www.capmas.gov.eg/>

3.3 In Search of Nature Connectedness

Home Bound

After Cairo, my Egyptian vacation came to an end, and I went back home to Canada. In the morning, at dawn, birds chirped, as they were perched on a tree in the front yard. I loved and missed their sound in the morning; they also reminded me of the Cairo birds at dawn. Although I had sleep issues in the past, the sound of birds waking me up never bothered me; it was always an absolute pleasure to witness their multi-layered, multi-species symphony. A few months after returning, I was startled by the sound of chainsaws in the morning. Our neighborhood was facing the result of an Ash Borer⁴⁹ infestation, and the entire Ash tree forest behind our house was being cut down. A few years back, I called the city to inquire about the less than flourishing sight of the trees, they looked depleted and even bare in some parts – I was worried. I often took walks, in all seasons, in the area and enjoyed the trees all year round, the crisp snow in the winter, and the plants and wildflowers in spring, summer and fall. I read about the Ash Borer and informed myself about symptoms and of actionable steps to take. Since the trees were on city property, I was unable to take matters into my own hands. I had another micro-protest, where I called and insisted several times that the city remedy the situation before it got worse. I spoke to the department responsible, yet nothing was done. A few years went by, the city took no action, and upon my return, the Ash Borers won the battle. What was once a lush little forest, was barren – Ash turned to dust. Only after the damage was done, and hundreds of trees and wildflowers were cut down, was a city program put in place. (See Appendix H)

⁴⁹ Ash Borer: Any of various insect larvae that bore in the wood of ash trees. Being responsible for the deaths of hundreds of millions of ash trees in the United States and Canada, the emerald ash borer is considered one of the most destructive insect pests ever to be introduced to North America. <https://www.britannica.com/animal/emerald-ash-borer>



Figure 14: Seasonal nature walks (Photos: Author)

Cities have long favoured prim, properly trimmed, golf-course-like lawns and aesthetically pleasing gardens, over wild and native flowers that support pollinators such as bees. Why do cities remove what was already there, to replace it with the artifice of nature, like sod or gravel, or remove it altogether? Why couldn't the native trees and wildflowers be part of our exterior landscaped BE? Are we so disconnected from nature that we cannot respect its natural state of existence around the BE?

My mini protest was a devastating defeat. I was heartbroken for the trees, and for all the living, sentient beings that depended on them for survival. I often took pictures of the yard and the little creatures that came to visit, but this time, I documented its final moments: the few flowers that remained, the insects that carried on, fluttering from one flower to the next, unaware that it would be their last visit. I stood above the tree stumps which had taken their last breath of CO₂ and took a post-mortem picture after their trunks were cut off (See Appendix I). Could it be that in this day and age, people are still cutting down trees!? What kind of backwards thinking is this!? Why was it the acceptable norm!? While global leaders look for ways to fight the so-called “carbon problem”, strong, silent warriors stand tall on every corner of the earth, absorb carbon, and emit oxygen in return. They ask nothing from us but to breathe... and not to chainsaw them to death. We don’t have a carbon problem, we have a cutting-down-trees-for-profit problem. We have a putting-profit-before-people-and-the-planet problem. Despite the outcome, my protest was successful in speaking up for the silent.

Regardless of public concern, environmental decisions are often reactive rather than preventative, suggesting that *Existing Nature* is still viewed as a backdrop to human priorities, rather than an equally important participant. Nature in this case was treated as aesthetic scenery, and not as extensions of ourselves worth honouring.

Another one of the “nine hypothesized dimensions of the biophilia tendency” is “Aesthetic”, where Kellert explains: “The physical beauty of nature is certainly among its most powerful appeals to the human animal. The complexity of the aesthetic response is suggested by its wide-ranging expression (...) Each exerts a powerful aesthetic impact on most people, often accompanied by feelings of awe at the extraordinary physical appeal and beauty of the natural world.” (Kellert & Wilson, 1993) So, when it comes to aesthetics, where do ethics fit in? Is it possible to live in a place where beauty, ethics and ecological awareness are not in conflict, but in harmony? Perhaps the real beauty lies in finding places where humans don’t just live on the land, but with it.

Striking Gold

Shortly after my return to Montreal, I was presented with the opportunity to live for a year in a beach town in Sinai, Egypt. I packed my bags, bought a one-way ticket, and flew back to my beloved Sinai – the city was called “*Dahab*” and in Arabic, Dahab means *Gold*.

The weather was wonderful. Breezy bike rides were my mode of transportation, strolls along the seashore boardwalk were the norm, and snorkeling adventures became a daily occurrence. Respect for the coral reef was communal where unspoken rules were followed: don’t walk on or touch the coral, use reef-friendly sunscreen and products, and pick up any debris found in the water or along the shore. For newcomers and tourists, visual reminders from world-renowned environmental organizations were posted at dive centers, seaside cafés, and along the boardwalk, reinforcing the importance of reef protection and environmental stewardship (See Appendix J). The community was closely connected, both to each other and to nature, through weekly beach cleanups (both on land and underwater), new-moon bonfire gatherings, markets supporting creative expression from local vendors, and musical jam sessions full of talent and soul. Nearly everyone carried reusable water bottles, declined straws, and brought their own bags while shopping at eco-conscious retailers which offered natural products and health foods. Respect for the environment was not only encouraged, it was the norm.

The Dahab lifestyle reflects what Kellert describes as the “Humanistic” dimension of the biophilia tendency, in which “the humanistic experience of nature reflects feelings of deep emotional attachment to individual elements of the natural environment.” (Kellert & Wilson, 1993) Although signs were posted throughout the town, respectful behavior toward nature in Dahab seemed to stem less from obligation and more from a deep-rooted, truly genuine connection to the natural world – an inspiration to residents and visitors alike – and one of my prominent inspirations for the interpretive design proposal described in detail in Chapter 5.

I was blessed to live in a place where people traveled to vacation. While my apartment had no balcony, the windows were small – where the only strong, fresh breeze came from an even smaller window high up the wall in the kitchen – the rooftop was the million-dollar view. Still, the rooftop was often too hot to enjoy during the day’s blazing sun, but at dawn and dusk it was perfect. The light reflecting on the water and the sun rays setting the mountains ablaze with its glow was a glorious sight.

While this romanticized version of my time living connected to nature was my reality, disconnection was also part of the experience. During the hot summer months, the weather became unbearable during peak sunny hours – air-conditioning offered much-needed relief. The Red Sea provided opportunities for refreshing dips, but even that came with effort – walking or biking there was doable, but difficult. Still, the reward was worth the journey. These cycles of disconnection and reconnection reveal that access to *Existing Nature*, while often shaped by climate, is also shaped by systemic forces: economic, technological, and architectural – obstacles of H/Nc.



Figure 15: The beauty of Dahab life: mountain and rooftop views throughout the day and at sunset.
(Photos: Author)

Sinai is considered a mostly mountainous and desert region, with limited greenery, except near oases and by the sea where palms are plentiful. I was grateful to have a dozen or so palm trees nearby where I lived, and a flowering tree right outside my bedroom window. The birds would chirp melodiously in the morning, and I loved every second of it. I often wondered if those Dahab-native birds would be able to communicate with the birds outside my window in Montreal. Nevertheless, I felt right at home. Every morning, and every evening, I felt as if my rooftop recharged me for my day and relaxed me for my night. Was it the swaying palm trees, the salty sea breeze, the golden mountains, the multicoloured skies, the majestic moon, or the nightly constellations? I felt it was the culmination of the entire ecosystem that I was experiencing and privileged to be a part of.



Figure 16: The beauty of Dahab life: various beach and seashore locations. (Photos: Author)

I became attuned to the moon's cycles, witnessing its presence each night. I looked up at the moon and knew that it was the same moon shining down on a clear night in Montreal. I knew I could never be homesick so long as the moon shone down – it was a part of me wherever I was in the world. It was the same moon that my loved ones were looking at wherever they were in the world. Dahab, in comparison to both Cairo and Montreal, where the smog, the light pollution or the BE structures often obscure such beauty, was free of these afflictions. In Dahab, I followed the orbit of the constellations every night, as I grew accustomed to the sight of their position. I often saw the milky way and thought, did it ever visit Montreal? Knowing very well it did, but that I never witnessed it, even on the clearest of nights. And while the only constellations I knew were *Orion*, the *Big Dipper* & *Little Dipper*⁵⁰, I was mesmerized by the stars and planets that I was able to see nightly, unobstructed with my own eyes.

Beyond the built environment and into the divine, it's no coincidence that Sinai is a sacred land referenced in the *Quran* (Islamic holy book). In *The Believers* (Chapter 23, Verses 19-20): “(18) *We send down rain from the sky in perfect measure, causing it to soak into the earth (...)* (19) *With it We produced for you gardens of (date) palm trees and grapevines, in which there are abundant fruits, and from which you may eat.* (20) *as well as olive trees which grow at Mount Sinai, providing oil and a condiment (seasoning) to eat (for your food)*”, and in *The Fig* (Chapter 95, Verses 1-2): “(1) *By the fig and the olive,* (2) *and (by) Mount Sinai*” (Khattab, 2019), where these verses point to the natural abundance of the region and of His creations.

My time in Dahab was a lived testament to this sacred connection to nature, but like all seasons, it came to an end. As I returned to Montreal, the connection I once felt began to fade.

⁵⁰ Orion: [Latin (genitive *Orionis*)]: a constellation on the equator east of Taurus represented on charts by the figure of a hunter with belt and sword. Big Dipper: the seven principal stars in the constellation of Ursa Major. Ursa Major: a constellation that is the most conspicuous of the northern constellations, is situated near the north pole of the heavens, and contains the stars forming the Big Dipper two of which are in a line indicating the direction of the North Star called also *Great Bear*. Little Dipper: the seven principal stars in Ursa Minor. Ursa Minor: a constellation that includes the north pole of the heavens and the stars which form the Little Dipper with the North Star at the tip of the handle called also *Little Bear*.

Montreal

Back in Montreal, I was once again filled with gratitude as the birds chirped at dawn. I couldn't see the sun or moon rise and set, only their before-and-after glow behind the structures that obstructed my view, beautiful nevertheless.



Figure 17: *Sunrise in Montreal; a partial view from a side street near my home. (Photos: Author)*

At night, I was lucky to see even one star in the sky, though sometimes I wondered if it was a satellite instead. Living my *golden* (Dahab) life, I had grown accustomed to a certain level, frequency, and closeness to nature that now felt diluted. Although I was home, I felt a bit out of place. What was once easy, in plain sight and unobstructed, was now a challenge. I longed for a deeper sense of H/Nc and found myself restless, in search of sunrise; it felt strange to seek connection in my own hometown. Philosopher Glenn Albrecht said, "I hold within me a strong sense of place. My

emotional compass, my inherited biophilia, instinctively directs me to beautiful and biologically rich environments where I want to be ‘in place’ with as much place attachment as possible.” (2007). I share the same sentiments regarding my back-and-forth between Canada and Egypt, and regarding my fluctuations of H/N(d)c. As I looked out the back window, the Ash tree, ground-zero, remained bare, and even four years later, it still is; a haunting reminder, almost dystopian.

This mapping of sensory and spatial experience forms part of my methodological approach, blending personal narrative with critical observation to explore the lived realities of H/Nc. From Montreal to Cairo, from Gold to Ash, from warm to cool – what these locations share, despite their differences, is a recurring tension between the desire for connection and the systems that complicate or commodify it.

Our systems and structures have diverged from the rhythms of nature, creating a fracture between ourselves and the world we inhabit. This disconnect is reflected in our lives and revealed in the stories we tell and the futures we imagine and re-imagine. The following chapter offers an expanded perspective beyond the built environment, revealing both loss and longing, towards reconnection. It explores dystopian and utopian narratives that express our collective Human/Nature (dis)Connectedness.

Chapter 4: Beyond The Built Environment

4.1 Reviewing Nature Connectedness

Regardless of the well-documented benefits of H/Nc on well-being and mental health, access to nature in the BE seems to have limitations. Those in ideal geographic locations, those with resources to design floor-to-ceiling windows, private greenhouses, or courtyard-centered homes, and the ability to travel or relocate to more natural environments, tend to have greater H/Nc in their BE than those without such means. What about equal accessibility to H/Nc in the BE? Are we reinforcing an exclusive model of nature-connected living for some, that remains out of reach for others? Do financial means dictate H/Nc in the BE? If our well-being is so deeply tied to nature, why should access to that connection be dictated by policy, structural constraints, or costly design solutions and lifestyles? We've observed that not all spaces can accommodate to *Integrated Nature* ideals, and region-specific biophilic designs are impractical in extreme climates, where natural elements require ongoing care, expertise and effort. Knowledge gaps widen for those who lack the time and resources for upkeep as nature-integrated design often demands high maintenance.

If my analysis of H/Nc in the BE addresses: the issue of polarity, explores the spaces in-between, and reveals financial, geographical, and climatic limitations, then perhaps the conversation around nature-connection must also extend beyond the built environment. I wanted to visualize the BE beyond the physical, beyond time constraints, beyond current realities and into another realm or perhaps even into another dimension. As a fan of film, I chose to analyze it with critical reflection, as a way of looking at the BE through a window that looks into the future.

Dystopia

I analyzed, with a critical eye, a dozen movies released over three decades between 1990 and 2019. I had watched most of these movies prior to my research studies and

always noticed the lack of nature and wondered why this was the case. Why does Hollywood so often depict dystopian futures void of nature? What do these images do to our thoughts, our mind and ultimately on the way we think and the way we live? These questions led me to formally analyze the films for my research. (See Appendix K) The films were set in the near or distant future, mostly on Earth, with a few exceptions: one on a fictitious planet, one on Mars, and several aboard spaceships or space habitats. I analyzed the presence (or lack) of nature through the three lenses, and the *Four Elements*. My findings revealed predominantly degrading portrayals of nature in these futuristic films, with recurring themes and set designs depicting bleak, desolate worlds. If natural elements were present, the masses were mostly disconnected from them, with populations often in survival mode fighting for basic human rights or for H/Nc. Nature in these dystopian films was usually depicted as a luxury, reserved for a select few elites and the wealthy, on exclusive, members-only starships, being destroyed for profit, or in a time and place void of humans altogether.

Was this surreal reality, visually enabling the normalization of H/Nd? Was this a form of predictive, visual programming or self-fulfilling prophecies, depicting the future? Would these cinematic visuals, void of any kind of nature, increase one's anxiety, worry and stress levels about our actual future? The term *Solastalgia* could be a potential reaction to watching this genre of film, a term that was coined by Glenn Albrecht (2007) meaning: "the distress that is produced by environmental change impacting on people while they are directly connected to their home environment." In his later book, *Earth Emotions: New Words for a New World* (2019), he elaborated on the definition and wrote:

"I define "solastalgia" as the pain or distress caused by the ongoing loss of solace and the sense of desolation connected to the present state of one's home and territory. It is the existential and lived experience of negative environmental change, manifest as an attack on one's sense of place. It is characteristically a chronic condition, tied to the gradual erosion of identity created by the sense of belonging to a particular loved place and a feeling of distress, or psychological desolation, about its unwanted transformation."

What if solastalgia was a possible emotion triggered by watching films of dystopian scenarios void of nature? What if these types of films numbed audiences to the harsh realities of the world? What if this genre of films dulled audiences' senses to their own H/Nd, keeping them docile and lethargic? Although we watch dystopian films knowing they are fiction (for now), their special effects and imaginative storylines are not so far-fetched. Wilson too shared an imaginative, dystopian scenario:

"Visualize a beautiful and peaceful world, where the horizon is rimmed by snowy peaks reaching into a perfect sky. In the central valley, waterfalls tumble down the faces of steep cliffs into a crystalline lake. On the crest of the terminal bluff sits a house containing food and every technological convenience. Artisans have worked across the terrain below to create a replica of one of Earth's landscape (...) The setting is the most visually pleasing that human imagination can devise. Except for one thing-it contains no life whatever. This world has always been dead. The vegetation of the garden is artificial, shaped from plastic and colored by master craftsmen down to the last blade and stem. Not a single microbe floats in the lake or lies dormant in the ground. The only sounds are the broken rhythms of the falling water and an occasional whisper of wind through the plastic trees. Where are we? If the ultimate act of cruelty is to promise everything and withhold just the essentials, the locality is a department of hell. (...) This is a world (...) where people would find their sanity at risk." (Wilson, 1984)

Perhaps the visuals that audiences are exposed to through film are bound to poorly influence mental well-being and increase solastalgia. Is nature disconnectedness being normalizing in film? What do these films say about how we design our BE? What if the opposite was imagined, scripted, designed and filmed instead? It is understood that the film industry usually profits from action-packed, dramatic death and destruction, contrary to calm, peaceful, non-climactic films that would most probably be box-office failures; why is that? Instead of imagining dystopian worlds, what if we imagined a better world that positively influenced health and mental well-being?

If God created the earth, then we designed the world – it's time we un-design and re-create a better, more natural world, one more aligned to our natural instincts, a world that promotes health and well-being... A utopian world.

4.2 Reimagining Nature Connectedness

Utopia

*"You may say that I'm a dreamer"*⁵¹ – to imagine a utopian world. I was inspired on a cold November morning, when I had woken up around 7:30a.m., as I usually did, and noticed that the sun still hadn't risen. It was autumn, and the clocks were just changed for Daylight Saving Time. Even though my routine hadn't shifted, the light had. I felt sluggish. It was as if I had started my day, but the natural world hadn't. I had always known this seasonal lag existed, but on that particular morning, I felt it more deeply.

I couldn't help but wonder, why are we, as beings *of* nature, expected to keep the same relentless pace all year long? Why and when did we feel the need to trick ourselves with clocks just to keep the system ticking? We're expected to wake, perform, produce, repeat – no matter the season. Yet around us, autumn leaves fall, flowers wilt, animals gather food, and bears prepare for their long slumber, retreating in hibernation for winter. Nature is cyclical, ever-changing and never static, so why are we, who are *of* nature, expected to remain constant?

"Be patient with yourself; nothing in nature blooms all year."

– Anonymous

Technology is meant to better our lives, save time, give us access to what we can't easily reach, but often, it feels like a kind of hindrance we've created to our own detriment. Instead of bringing us closer to a good, grounded life, more connected to the natural world, it often pulls us away, for the sake of convenience and profit.

⁵¹ Lyrical excerpt from the song *Imagine* (1971) by John Lennon

<https://www.johnlennon.com/music/soundtracks/imagine-john-lennon/> "*Imagine*" evokes a utopian world in which our heightened consciousness would make everything that oppresses us wither away."
<https://www.johnlennon.com/about/>

The saying goes: “*Get with the program!*”, but what if the program is the problem? What if the true glitch lies in the assumption that more is always better, faster is always progress, and productivity is the point of being alive? There was a time, maybe not so long ago, when people lived in closer rhythm with nature. Progress wasn’t always synonymous with speed, and innovation didn’t always come at the cost of connection. And yet today, despite all our advancements, we seem to be more removed from nature than ever before. When it comes to Human/Nature Connectedness, why does our “progress” so often feel like regress?

What if, in an ideal world, technology didn’t separate us from nature but deepened our connection to it? What if we didn’t even need high-tech solutions to increase our H/Nc, but simply used our five senses⁵², or perhaps even our sixth⁵³, to truly make *sense* of the world around us? What if our global systems were aligned with the cycles of the sun and moon, and the turning of the seasons? Perhaps we wouldn’t be merely surviving within this current system, but living in a world more attuned to nature, we’d be thriving, embracing what it truly means to be *of* nature.

I wondered if we could align ourselves with nature’s cyclical wisdom, its seasonal rhythms and natural flow to deepen H/Nc and restore sensory balance in a world that demands constant productivity. I imagine a world where our schedules align with daily natural cycles, where the rhythms of the seasons shape our own.

Yet, despite these imaginings, this is not the world we currently inhabit. Reality calls each morning with the blare of an alarm clock, indifferent to the seasons' shifting rhythms. The hours march on at the same pace year-round, and for most urban dwellers, especially in colder climates, life unfolds largely indoors, in built environments designed for function over connection. Nature becomes something distant – visible perhaps through a window but rarely integrated into daily life.

⁵² Sight, Smell, Taste, Sound and Touch

⁵³ Sixth sense: A power of perception like but not one of the five senses: a keen intuitive power.

Status-Quo

When we examine the concept of time – how hours, days, months, and years are calculated – it often feels as though time has been dictated to us, creating a disconnection from nature. These manmade systems don't necessarily align with the natural world. "Dawn" and "Dusk," for example, are real times marked by light, and yet their occurrence shifts with each season. Dawn in spring is not the same as dawn in summer, autumn, or winter. Traditional timekeeping used the sun as its guide – midday marked by the sun's highest point, afternoon when shadows stretch longer than the objects casting them, and night beginning when twilight fully disappears and the moon rises.

Daylight Saving Time, "a system for uniformly advancing clocks, so as to extend daylight hours during conventional waking time in the summer months. (...) was first suggested in a whimsical essay by Benjamin Franklin in 1784."⁵⁴ While originally adopted to conserve energy and reduce fuel consumption for artificial lighting, it was embraced by some countries and rejected by others. Regardless of cultural or linguistic differences, we all share in the cycles of nature. So why wasn't nature considered when time was standardized? Why did we feel the need to *save* time, and in turn *lose* ourselves?

The disconnect is also seen in the way we measure the year. The Gregorian calendar (GC), which is solar-based, differs from the Islamic calendar, which is lunar-based (See Appendix L). The GC marks seasonal changes on seemingly arbitrary dates – (more or less) spring on March 21st, summer on June 21st, autumn on September 21st, and winter on December 21st. These dates don't align with any consistent lunar phase (See Appendix M) – neither new moon, full moon, nor any point in between. Full moons scatter unpredictably throughout each GC month, and Daylight Saving Time

⁵⁴ Daylight Saving Time: in countries in the Northern Hemisphere, clocks are usually set ahead one hour in late March or in April and are set back one hour in late September or in October.
<https://www.britannica.com/topic/Daylight-Saving-Time>

only adds another layer of disruption to an already artificial system. Time may be finite, but the way we calculate it, and design our lives around it is deeply out of sync from the natural order.

What if we weren't jolted awake by an alarm, but awakened naturally at our own pace? What if we were no longer ruled by hours and deadlines, but rather by the natural unfolding of the day? The seasons themselves offer us a blueprint for how to live. Yet societal expectations demand constant performance, as if we should bloom, bear fruit, and produce optimally all year round... Nature doesn't function that way – neither should we.

In a more balanced world, the seasons would guide our schedules. Hours and expectations would shift accordingly, in harmony with nature. Input and output would ebb and flow across the year, not remain static. City lights would dim and solely function via motion sensors, as to save energy and reduce light pollution for ideal visuals of the moonlight accompanied by the starlit constellations. Startling alarm clocks would be a thing of the past, of another time and place, of another world. Dawn light and bird chirps would gently awaken us. Traffic filled commutes and the horrors of the evil “rush-hour” would be tales told to children of a wretched, fictional world. What if instead of the status-quo, we lean into the seasons.

Seasonal System

In a world shaped by the four seasons, time would unfold in three layers where they would guide us and setting the tone for how we live, move, rest, work, and play. The cyclical lunar phases, would offer a more focused sense of time, providing a natural pulse and rhythm. Meanwhile, the sun's daily rising and setting would serve as our compass, grounding us in the present:

Spring: *The beginnings where life starts anew. Plants bloom; flowers emerge. It's a time for inspiration, birth of nature, ideas, creativity, and action. Productivity flows. Work feels bold, invigorating, fulfilling, and fresh! Each day brings a new energy. The weather is unpredictable: sun, rain, wind, yet there's a sense of increasing stability. Routines form, and inspiration is ignited.*

Summer: *Days spent in a blissful daze. The longer day supports and holds space for both work and play. It's a season of joy, exploration, and rejuvenation. The sun, the water, the air all energize us. The extended daylight allows for connection with ourselves, and with others. Love and warmth fill the air. Work is produced, but at a gentler pace summers' sweet essence is of balance. The sun recharges us so deeply that even with less sleep, rest is healing. Summer is nature's abundant gift.*

Autumn / Fall: *The season of harvest. A time to reap what we've sown, to gather and to repair. To protect and secure. Like the wind, our efforts become quick and intentional. A time for organization and meeting strict deadlines. Work is often intense and purposeful, demanding focus. The shifting weather keeps us alert. We move in haste, to safely brace ourselves, prepare for what's to come.*

Winter: *The cold sets in. Slowness begins. It's a season for rest, reflection, recalibration and relaxation. A mindfully present time to process the past and prepare for the future. Stillness becomes sacred. Frost settles, and we turn inward. Gratitude and appreciation for our physical, mental, emotional well-being. It's human hibernation, it's rest-oration.*

In-Season

What if food was grown with care and eaten with gratitude? What if food didn't just fill us, but fueled us? It would be cultivated close to home, harvested in season rather than flown across oceans and manipulated to appear ripe. We would eat what the season offers, not what financial markets and shipping schedules dictate. Our bellies would be *full*, our bodies would be nourished, our minds would be tranquil, peace-*full*. We dream of gardens not only to eat better, but to live better. To reclaim the power we've handed to harmful systems. To stop outsourcing our survival to systems that don't serve us. To rebuild self-sufficient, self-reliant, self-serving systems, rooted in the knowing that we are *of* nature, and that in serving ourselves, we live a life of service to nature. From the ground up, we return to the soil, to our roots, and to ourselves. The act of planting seeds, literal and metaphorical, is a quiet rebellion against the industrial, mechanical status quo – it's an act of hope.

So, let us imagine, not just a world where we live for the weekend, but one where we live in season. A life where nature, not just numbers, is the master clock; where we are not expected to function and perform the same in July as we do in January. Because we don't, we can't, and we shouldn't.

Why doesn't society flow with the seasons? Why aren't there *summer* and *winter* business hours of operation? Why are we expected to be the same year-round when nothing in nature remains the same? Leaves bud, blossom, wilt, and fall, and the cycle begins anew the next season. Why do we expect ourselves to be any different? It's unnatural – physically, mentally, and emotionally impossible. We feel the consequences in our bodies, our minds, our energy. We don't think, move, or create the same in winter as we do in spring; we weren't designed to – it's not in our nature. Yet societal norms impose a 40-hour workweek with unwavering expectations, ignoring natural rhythm entirely. Of the fifty-two weeks in a year, most people take only two to recover from the other fifty. And we definitely need to *Recover*; re·cov·er; ri-'kə-vər: *to get back; regain; to bring back to normal position or condition, rescue, to make up for; to find or identify again; to save from loss and restore to usefulness; reclaim.*⁵⁵ This recovery isn't from illness, it's from a sick, societal system with unrealistic expectations. The five-day, nine-to-five work week prioritizes production and profit over people and planet. In a world free from the artificial glow of city lights, free from the noise and pressure of the daily hustle, we might sleep when tired and rise when ready... A slower life isn't lazy, it's aligned.

The vision of seasonal alignment acknowledges real-world constraints and could be a complementary conceptual tool, rather than a replacement to the status quo. It is a balance honouring natural rhythms without necessarily dismissing societal schedules, making them not only imaginative, but attainable through mindful practice. Nature is our greatest healer and most honest teacher, yet it has often been excluded from the systems' design, disconnecting us from nature, and from our roots; my aim is to reconnect.

⁵⁵ <https://www.merriam-webster.com/dictionary/recover>

Connectedness

Reconnecting to our ancestral roots isn't nostalgia for a primitive past, it's a conscious vision of an evolved present, building towards an optimistic future. One where our purpose is not extracted for profit but expressed through passion.

The Japanese concept of *Ikigai*⁵⁶ reminds us that a meaningful life is lived at the convergence of what we love, what we're good at, what the world needs, and what sustains us. (See Appendix N) The Danish embrace of *Hygge*⁵⁷ shows us that meaning isn't always found in grand pursuits, but in the power of small joys, of comfort, of connection, and calm (See Appendix O). *Hygge* also encourages seasonal and monthly pursuits of joy that align with people's environmental surroundings, honouring the natural cycles and the change of pace. Both philosophies offer a more humane, gentle approach, yet stand as radical responses to a world obsessed with output. In a society where working less is taboo and resting is mistaken for weakness, reclaiming our rhythm becomes an act of resistance.

Imagine living in a culture where alignment replaces achievement as the measure of success. Where your schedule is based on sunlight and rest, not deadlines and demands. Where your home is designed for comfort, not constant stimulation. Where work-life balance is not a struggle, but a comfortable given – encouraged and expected. This is not a fantasy. It's a direction. The systems we've inherited have disconnected us from ourselves, each other, and the planet. But there are other ways. Slower, softer, saner ways. Ways that listen to the seasons, honour the soil, and respond to ourselves holistically – mind, body and soul.

⁵⁶ *Ikigai* is defined as: "brings satisfaction, happiness, and meaning to our lives." *The Japanese Secret to a Long and Happy Life* (García & Miralles, 2017)

⁵⁷ "Hygge has been called everything from "the art of creating intimacy," "coziness of the soul," and "the absence of annoyance," to "taking pleasure from the presence of soothing things," "cozy togetherness," and my personal favorite, "cocoa by candlelight". Hygge is about an atmosphere and an experience, rather than about things. It is about being with the people we love. A feeling of home. A feeling that we are safe, that we are shielded from the world and allow ourselves to let our guard down." *The Little Book of Hygge – The Danish Way to Live Well* (Wiking, 2017)

Of course, some may ridicule this vision, calling it delusional, naïve, or out of touch. But perhaps it's the current reality that is the delusion, out of touch with humanity and with nature. The world may mock the barefoot, tree-hugging hippies, but perhaps it's the money-hungry capitalists clinging to their electronic devices and profit-driven schemes who should be questioned. So, who is truly delusional? Who is truly grounded? Who is truly rooted?"

The imagined *utopia* is not a blueprint but an invitation to rethink our relationship with time and nature. By contrasting dystopian realities with aspirational rhythms, I highlight possibilities, not prescriptions, for reconnection.

Re-Connectedness

I understand that for a utopian, seasonal system to shape the world, it would require a paradigm shift, which may or may not happen. That status-quo systems are deep rooted and difficult to weed out and ween off. Connectedness to nature can take on a different form within the system, until a new system emerges. Re-connectedness can perhaps take root, if a sub-system can be envisioned, designed and implemented.

This vision leads the way into the next chapter, where we plant the seeds of reconnection that grow, take shape, and turn into action. Where design serves not just form and function, but intentional, mindful purpose. Where we begin to develop systems not just exploit and extract, but that rather support both the people and the planet, to respect ourselves... to respect nature.

This reconnection encourages recognition of nature's presence not only in wild landscapes and designed spaces, but in the materials we touch daily; the linen of our clothes, the finishes of our tables, the essential oils that scent our homes. When *Existing* and *Integrated Nature* remain out of reach, the tangible, *Manufactured Nature* reflect earth's essence and nature's wisdom, not as substitutes, but as opportunities - seeds waiting to be sown, reweaving our bond through intentional action.

I've always admired the Dandelion; strong and proud, resilient in every way, challenging the BE, growing where it pleases, in almost any condition and terrain. Its short life soon comes to an end, with grace – its bright yellow fades to grey and white, signs of ageing that humans resist, mask, and dye – and die it does. In its death, it bears seeds of life; at its end, it offers new beginnings. This metaphor was a kind reminder that within frustration and limitation of the old, comes inspiration for the new. What I thought was the end of the BE in my research – both as an interior designer and a researcher – became the beginning and the creation of a model that moves beyond its boundaries. Just as the Dandelion defies its borders and structures, just as the white, fluffy seeds take flight, my research transcended beyond the BE, emerging anew.

The S.E.E.D.S. philosophy, detailed in the next chapter – like *Ikigai*, exists at intersections, and like *Hygge*, encompasses the small joys of life – is based on mindful, holistic choices for increased H/Nc. To address the many issues of H/N(d)c, I propose we approach them through a multidisciplinary lens, one that integrates diverse perspectives and collective wisdom.

Chapter 5: Planting an Idea

5.1 An Interpretive Design Proposal

We live in a world driven by innovation, designed to – make our lives easier, to accelerate tedious, daily tasks, and to grant access to ingredients and products otherwise beyond our reach – among other benefits. Yet this pursuit of convenience often comes at the expense of quality and to the detriment of the *Existing* natural world. Society attempts to restore balance, perhaps for the sake of nature, or perhaps to quiet a guilty conscience; Keller and Wilson describe their vision:

“For most of us humans, entangled as we are in daily struggles of material and emotional survival, the threats to real nature, wild nature, are real but not salient. Our little acts of biophilia—buying bird seed, caring for our pets, nurturing our gardens—sustain us emotionally. But what we need now are big, selfless, and costly acts of biophilia to protect nature.” (Kellert & Wilson, 1993)

While I agree that the natural world demands our immediate and urgent attention, I disagree with the notion of “*big, selfless and costly acts*” as the answer. I believe real change begins on a smaller scale, with actionable steps that, over time, lead to profound and lasting transformation.

The prevailing assumption in the context of Human/Nature Connectedness is that it must be achieved through large-scale interventions in the built environment. However, this perspective overlooks a critical factor: not everyone has access to the spaces of the BE; and even when they do, they often lack control over them. This assumption often places the power to reconnect with nature in the hands of architects, urban planners, and policymakers. I challenged this notion by shifting the focus to individuals and their ability to choose elements of *Manufactured Nature* into daily life, away from the BE altogether, through holistic, conscious, consumer choices. This empowers individuals to consider not only what is consumed, but the quality and nature-connectedness of the products and services chosen. A more immediate,

holistic form of Human/Nature Connectedness can be cultivated; one that is within reach and doesn't require awaiting broad systemic change.

I want to encourage choices opting for more natural products, where individuals have greater control over the choices they make and the level of their own H/Nc. It has been said that “[n]atural products have been called the sleeping giants of the pharmaceutical industry. One in every ten plant species contains compounds with some anticancer activity.” (Wilson, 1984) This alone provides a compelling reason to embrace the use of natural products via the previously defined notion of *Manufactured Nature*. The interior designer in me shifted my practice to design my lifestyle beyond the structural built environment, to foster my own H/Nc.

I often approach my consumption with an intention to prioritize nature-connectedness. Instead of reaching for pharmaceuticals, rather than cough syrup, for example, I opt for remedies like honey, lemon, and ginger. When I do need to make a purchase, I gravitate toward herbal medicine or naturopathic methods made with natural ingredients. In clothing, I mostly choose natural fibers over synthetics, and for household cleaning, my go-to remains vinegar and baking soda. While I do purchase mainstream products outside the “natural” realm, I aim to maintain balance by living an *80/20 lifestyle*⁵⁸. This mindset extends beyond purchases, to simple everyday swaps: using airtight containers instead of plastic wrap to store food or repurposing old t-shirts as rags for household cleaning. Ultimately, it’s about making conscious choices over convenient ones.

In a system that prioritizes productivity over presence, speed over stillness, and artificial light over natural cycles, H/Nc often becomes an afterthought. It’s time to question whether these inherited structures still serve us; and understand that just as we have created these systems, we also hold the power to reshape them and create new ones. If we truly want to reconnect to nature with all our senses, let us first

⁵⁸ The *80/20 lifestyle* refers to making 80% beneficial choices most of the time, while allowing 20% flexibility.

recognize the silent systems that disconnect us, let us design new ways of living guided by our instincts, and perhaps even the pulse of the earth. Let us live in a world that honours the natural rhythms we have long forgotten, but never truly lost. Let us walk the path and return to the abundance of the earth.

5.2 S.E.E.D.S.

A seed, though small, holds within it the entirety of life's potential, a universe of possibilities waiting to unfold. It symbolizes birth and the start of a cycle that carries with it the promise of growth, renewal, and transformation. Within its delicate shell is the power to shape not only the future but the very landscape of what's to come. Given the right environmental conditions, the seed takes root, grounded firmly in the earth, reaching toward the sun for the nourishment it needs. It endures the seasons, growing resiliently, unfolding leaf by leaf, branch by branch. Eventually, it blossoms into something far beyond itself, bearing fruit, flowers, and perhaps even more seeds, ready to be spread into the world to continue the cycle. Just as this seed transforms the earth, so too does the concept of S.E.E.D.S., which holds the potential to transform the way we live, interact with nature, and shape the world around us.

S.E.E.D.S.⁵⁹ stands for *Standard for Environmental and Ecocentric Design Specifications*. It is a concept I developed, inspired by a series of life experiences that led me to its inception, and is a lifestyle I strive to live by. SEEDS is a framework for evaluating and choosing products that are healthy for both people and the planet. This includes everything from body care and beauty products to natural fiber clothing, to home décor and linens – all made from non-toxic materials. The concept of a seed in this context represents small actions, steps and growth, for big change.

Each word in the acronym SEEDS was chosen with care, intention and purpose:

⁵⁹ The acronym "S.E.E.D.S." will appear as "SEEDS" throughout this paper; both forms are interchangeable and refer to the "Standard for Environmental and Ecocentric Design Specifications", as defined.

Standard speaks to the need for a baseline and a benchmark – a reference point to guide both consumers and creators. It's not about rigid rules, but about setting a value-driven framework that defines what is acceptable, accountable, and aligned with our ethics and awareness. In a world overflowing with vague claims, a standard becomes an anchor – something solid, clear and trustworthy.

Environmental refers to the environments we live in – our homes, our interiors, the spaces we create and live within, but also to the natural, ecological world. It bridges the outer world with our inner surroundings. It reminds us that the choices we make affect the soil and the air just as much as they affect the space where we sleep, the clothes we wear on our bodies, and the products we use on our skin. Environmental operates on both a macro and micro level.

Ecocentric shifts the lens. Where many remain anthropocentric, focusing primarily on human efficiency or benefit, ecocentrism places the Earth at the center; it's a conscious rebalancing. It recognizes the inherent value of all beings and systems, not because they serve us, but because they exist. To be ecocentric is to design, consume and live with humility, reciprocity, and reverence.

Design is about intention and not just about products and creativity. Whether creating a space, a garment, or a body-care product, design is the act of shaping the world around us. Design is not just about things, but how things are made: the thought behind them, the processes, the materials, and the impact. Design with intention, purpose and awareness.

Specifications ground the concept in the practical, clarifying details of a set of criteria. They are the structure, the fine print and the standards we refer to when making choices to help us align with nature. It gives weight and direction.

Together, these five words form a living framework – SEEDS – a reminder that everything starts small, with intention, and has the potential to grow into something greater. The name itself draws inspiration from LEED (*Leadership in Energy and Environmental Design*), which “is the world's most widely used green building rating system. LEED certification provides a framework for healthy, highly efficient, and cost-saving green buildings, which offer environmental, social and governance benefits. LEED certification is a globally recognized symbol of sustainability achievement, and it is backed by an entire industry of committed organizations and individuals paving the way for market transformation.”⁶⁰ Just as LEED is to buildings, SEEDS is to products.



Figure 18: Left: USGBC LEED certified logo; Right: preliminary mockup of SEEDS logo

Unlike existing environmental evaluation tools, such as LEED (focused on buildings), or LCA⁶¹ (assessing product life cycles), SEEDS is uniquely positioned as a consumer-driven lifestyle framework. While these tools excel at institutional or industrial sustainability, SEEDS aims to empower individuals to make daily choices that foster H/Nc. It is not a replacement for these systems but a complementary approach, bridging the gap between systemic change and personal agency. Where LEED certifies a building's sustainability, SEEDS evaluates everyday products; where LCA quantifies environmental impact, SEEDS integrates ethical, health, and community considerations. It is a holistic, actionable tool for those seeking to align consumption with ecological values.

⁶⁰ <https://www.usgbc.org/leed>

⁶¹ Life-Cycle Assessment (LCA) “is a process of evaluating the effects that a product has on the environment over the entire period of its life” <https://www.eea.europa.eu/help/glossary/eea-glossary/life-cycle-assessment>

The concept of SEEDS focuses on products made for both people and planet. Each of the five SEEDS represents a set of categorized standards to meet, with each *seed* specifying a different aspect of environmental and ecocentric design.

1. **Ingredients / Material: Product is Good for People & Planet**

This standard focuses on the very core of the product, its ingredients or materials, ensuring they are healthy for both the individual and the environment.

Good for People: *The product is made with natural, non-toxic ingredients or materials that prioritize human health. Examples include organic, non-GMO, chemical-free and synthetic-free components, designed to nourish, protect, and sustain harmlessly.*

Good for the Planet: *Beyond human health, the ingredients and materials are also chosen with nature in mind. Examples include reef-safe sunscreens that protect marine life, and biodegradable, non-toxic substances that safely return to the earth through water systems or soil. Materials such as natural fibers: cotton, linen, wool, cashmere, hemp, bamboo, silk, and other earth-friendly options are preferred, especially when designed with circularity⁶² in mind, meaning they decompose naturally or can be reused, causing minimal or no harm to the environment at the end of their life cycle.*

2. **Packaging / Labels: Thoughtful, Sustainable, Minimal**

This standard addresses the often-overlooked aspect of product sustainability, packaging and labeling. Packaging should be biodegradable, recyclable, or, ideally, eliminated altogether in favor of package-free solutions. Sub-categories to consider include sustainable choices for ink, adhesives (such as stickers), string or twine, and air-tight or resealable packaging components, ensuring every part of the packaging lifecycle is mindful of environmental impact.

⁶² Circular design is the practice of creating durable, reusable, repairable and recyclable products that generate zero waste to support a circular economy. In circular design, designers consider all stages of a product's lifecycle and ensure that it is sustainable from manufacturing to disposal. <https://www.interaction-design.org/literature/topics/circular-design> A circular economy is an economic system that keeps resources in use for as long as possible. Materials are recycled, reused, made renewable or regenerated to reduce waste. An ideal circular economy should have renewable energy and products that reduce the use of non-renewable materials. <https://www.interaction-design.org/literature/topics/circular-economy>

3. Local Sourcing: Ingredients, Materials, and Packaging

This standard encourages locally made and, sourcing local ingredients, materials, and even packaging as much as possible. Prioritizing local suppliers not only reduces the carbon footprint associated with transportation, but also strengthens local economies and promotes regional biodiversity. Local sourcing fosters a deeper connection between product, place, and community.

4. Fair Trade: Ethical Ingredients and Materials

This standard ensures that at least one or more of the product's ingredients or packaging materials are Fair Trade certified or sourced through ethical practices. Fair Trade⁶³ sourcing protects workers' rights, promotes safe and just working conditions, and supports sustainable livelihoods, making sure the people behind the product are treated with dignity and fairness.

5. Community: Giving Back and Closing the Loop

This standard looks beyond the product itself, asking: does the company have initiatives in place that give back to the community and the planet? Examples include tree-planting programs, activism and awareness campaigns, volunteer initiatives, fundraisers through sale proceeds, recycling take-back programs, or "pay it forward" models. The goal is to create a cycle of contribution and reciprocity, where purchasing or using a product or using a service, actively supports positive change beyond the individual consumer.

When constraints of the BE limit accessibility to *Existing* and *Integrated Nature*, SEEDS framework looms as an outcome for cultivating connection, by prioritizing *Manufactured Nature*: products with ingredients &/or materials made from natural elements. Using a Venn Diagram⁶⁴ (See Figure 19), the five SEEDS are illustrated as a holistic, conscious convergence that emerges at the intersections of each of the criteria. Throughout the diagram, intersections of two or more SEEDS can be established⁶⁵. The center represents the alignment of all five SEEDS criteria – the holistic ideal.

⁶³ "Fairtrade is the most recognised ethical label in the world" <https://www.fairtrade.net/en.html>

⁶⁴ Venn Diagram: a graph that employs (...) circles to represent logical relations between and operations on sets and the terms of propositions by the inclusion, exclusion, or intersection of the curves. Invented by John Venn (1834-1923): English logician & philosopher <https://www.britannica.com/biography/John-Venn>

⁶⁵ Refer to Figure 19, and see Appendix P, Figure P1 and P2, for visual representations of various combinations.



Figure 19: The five SEEDS criteria Venn diagram:
1. Ingredients / Materials, 2. Packaging, 3. Local Sourcing, 4. Fair Trade, 5. Community; and their central convergence = Standard for Environmental and Ecocentric Design Specifications (SEEDS)

To be considered on the SEEDS platform, companies or products must meet at least one SEEDS criterion, specifically #1: Ingredients / Materials, which is the only one that can stand alone. They may also meet two, three, or four of the five criteria. While the ultimate goal is to achieve full alignment across all five, the SEEDS platform will display their current status in the Venn diagram, which can be updated as the company or product evolves and progresses toward greater alignment. Companies would then commit to a timeline for continuous improvement, strive to earn additional SEEDS over time and build organically towards steadfast growth, until they have fully blossomed into the highest level of recognition, earning all five SEEDS.

SEEDS is about shifting the way we interact with products, prioritizing natural ingredients that are more *of nature*, natural materials, sustainable practices, and long-lasting, ethically made items that enhance, rather than deplete, our experience of H/Nc. Unlike mainstream consumer culture, which often distances people from the origins of their products for the sake of convenience, SEEDS champions awareness, education, and intentional decision-making, encouraging holistic consciousness as a collective, for society and globally.

While global-scale systemic shifts and deep reconnection with nature are crucial, SEEDS also honours the power of micro-level contributions. Just as micro-protests subtly resist and reshape the status quo, holistic, consciousness can serve as everyday acts of alignment and as gentle but persistent gestures that recalibrate our relationship *of nature*.

SEEDS is a concept, a lifestyle, and a guide. It would serve as a platform to consolidate companies and products of *Manufactured Nature* with the SEEDS values. While the popular saying goes, “*Kill two birds with one stone*”, I find it both insensitive and aggressive; I much prefer a gentler, life-affirming alternative: “*Feed two birds with one seed*”. Through SEEDS, the people and the planet become those two birds, nourished together through mindfully holistic choices. If SEEDS were a platform, its guiding message would be: “*Products for the People and the Planet*”. This framework is proposed not as a definitive solution, but as an interpretive tool to inspire critical engagement with nature-connected lifestyle choices. It is an opportunity to seek alternatives and to question the current.

Who? What? When? Where? How?

SEEDS encourages us to question the current systems of consumption that have become the norm. It asks: Is this item ethical? Is it ecological? Is it essential? Is it good for me? Does it harm me – or the planet? Was it crafted with genuine care? Is it in

season, in sync with nature's rhythms? When these questions intersect, we discover a new center and a place where intention transforms into action. Here, a new logic emerges: one that is not industrial, but ecological, not extractive, but regenerative.

What was once a leisurely pleasure – shopping – has become a tedious and often overwhelming affair. With every purchase, a cascade of questions arises: *What* are the ingredients? *What* are the materials? *Where* were they sourced? *How* is it packaged, and can the packaging truly be recycled, or is it merely “made with” recycled material, yet destined for landfill? Or worse yet, in the ocean or in an environment where trash doesn't belong? *Who* made the product? Are ethical practices respected? Is the environment honoured? Has the Indigenous population been acknowledged, or has the cycle of colonization been quietly continued under a different guise? *When* was I truly going to find *Products for the People and the Planet*?

Whether shopping at brick-and-mortar stores in Canada like *Marché TAU*, *Whole Foods* and *Healthy Planet*, or online through platforms like *Well.ca*⁶⁶, I often found myself navigating a maze of contradictions. Even in Egypt, at Dahab local shop *Back to Nature* that mostly sells “natural” products, some were questionable. In the neighboring town of Sharm El Sheikh, which held the 2022 *COP27*⁶⁷ climate change conference, a pop-up shop by *Eco Egypt*⁶⁸, seemed promising, promoting local, “eco” products, predominantly true to their word. However, while most retailers marketed themselves as “health-focused,” they frequently stocked products guilty of “*Greenwashing*”, generally defined as “*the act or practice of making a product, policy, activity, etc. appear to be more environmentally friendly or less environmentally damaging than it really is*”⁶⁹. Buzzwords like “natural,” “eco,” and “healthy” were everywhere, yet many of the products bore questionable ingredients, some laden

⁶⁶ Retailers: <https://marchestau.com/>, <https://www.wholefoodsmarket.com/>, <https://www.healthyplanetcanada.com/>, <https://well.ca/>

⁶⁷ <https://unfccc.int/cop27> Conference that brought countries “together to take action towards achieving the world's collective climate goals as agreed under the Paris Agreement and the Convention.”

⁶⁸ <https://ecoegyptexperiences.com> “A campaign that aims to reconnect adventurous travelers with Egypt's countless ecological sites and protected areas.”

⁶⁹ <https://www.merriam-webster.com/dictionary/greenwashing>

with trace toxins⁷⁰. And while mainstream messaging suggests that trace amounts of toxins are "safe", common sense reminds us that accumulation over time tells a different story.

Just a little bit of carcinogens, just a little bit of forever chemicals⁷¹ (PFAS), just a little bit of hormone-disruptors, in the foods and food-like substances we eat, the products we use topically, the clothes we wear, the sheets we sleep in, the pillows, cushions and furniture we rest on, the air fresheners, candles, and fragrances we use and so on. The purchasing process has become more complicated because our world has become more complicated, driven by profit. Best to avoid the toxins altogether and instead choose products rooted in truly natural ingredients. Yet even when the ingredients passed scrutiny, the packaging often failed – plastic, non-recyclable, and destined for waste. These retailers might still offer better options than conventional ones, but consumers must become fluent in the language of greenwashing to see beyond the surface and make truly informed choices. This persistent gap between marketing claims and genuine sustainability is the critical void SEEDS was designed to fill through transparent, holistic standards.

Why?

I struggled to find products that were both good for me and for the planet. When I discovered a product with ideal ingredients, it was usually packaged in plastic. If the packaging was minimalist and recyclable, the ingredients often left much to be desired. This constant compromise left me feeling unsatisfied, knowing that I was either harming myself with trace toxins or harming the planet with packaging that would float in the ocean for a century, potentially killing marine life. I was searching

⁷⁰ Toxins: a poisonous substance that is a specific product of the metabolic activities of a living organism and is usually very unstable, notably toxic when introduced into the tissues, and typically capable of inducing antibody formation. Trace toxins are small amounts of toxins, generally deemed "safe" for consumption.

⁷¹ Forever Chemicals: a toxic substance and especially a synthetic chemical (as of the per- and polyfluoroalkyl substances group) that persists and accumulates in the environment. PFAS, or per- and polyfluoroalkyl substances, are colloquially known as "forever chemicals" because they are so difficult to break down.

for the utopia of products, much like I searched for an ideal state of H/Nc in the BE. While the BE was largely beyond my control, I realized my purchasing power was something I could influence. I could connect to nature through the products I consumed, the clothes I wore, the candles I burned, the sheets I slept in, the cleaning products I used etc. I realized that I was surrounded by opportunities for nature connectedness, not just within the walls of the built environment, but in the products within and beyond those walls. The choices were abundant, which is *why* I developed SEEDS as a guide to help navigate them.

Growth

The world is shifting, becoming more aware, and with that awareness comes innovation. The good news is: tools already exist. Apps like *Yuka*, for instance, “decipher product labels and analyze the health impact of food products and cosmetics” simply by scanning a barcode; and sites like *Ecologik* act as a “Cosmetic ingredient checker – Safe for You, Safe for Planet.”⁷² But we still have a long road ahead; the goal is to reach a point where products of *Manufactured Nature* no longer rare or radical, but simply the default and an obvious, unquestioned standard.

Challenges arose when shopping for clothes; clothes that we wear every day, covering our largest organ: the skin. Our skin absorbs what’s placed on it through the pores, breathing in whatever materials we choose to wrap it in – either getting choked by toxins or breathing clearly through natural fibers. A garment labeled as a “Linen Blend” or “Made with Cotton” often turns out to be mostly synthetic, made of materials like Acrylic and Polyester (plastic fibers derived from petroleum), or Rayon and Viscose (semi-synthetic fibers processed from wood pulp using heavy chemicals) – it feels dishonest and deliberately misleading. And when I try to live by my 80/20 lifestyle, allowing for occasional, minimal succumbing to synthetics, I often find garments closer to a 60/40 split, with synthetics outweighing naturals. That

⁷² <https://yuka.io/en/> & www.ecologik.com

imbalance leaves the piece lackluster and in the end, not worth the purchase. I also admit to indulging in the allure of a pretty, fully synthetic garment, purchased for the sake of fashion; too many variables make it difficult to be strict.

When it comes to home décor, candles that are made with natural beeswax often contain synthetic fragrances and artificial dyes, negating and devaluing the purity of what the bees had worked so hard to create. Fluffy blankets boasting being made with wool, turn out to be largely synthetic too, riding on wool's excellence and trusted reputation for warmth and durability. Bed sheets and pillows labeled as made with bamboo were often blended with synthetics, diluting the benefits of the natural fibers.

When I need to make a purchase, the SEEDS philosophy would guide me. I find myself digging deeper with every purchase, not just choosing what I like, what looks good, feels good, fits and is reasonably priced, but to investigate the truth behind the label. It's exhausting. While it quietly influences my life, perhaps it could grow louder, find its place in the world as a guide for those seeking to align their choices with their values and deepen their H/Nc beyond the BE.

Certified

Various certifications worldwide present themselves in a variety of ways as the "home", "hub" or "collective" of "sustainability", of being "eco-friendly", or "clean conscious", and other clever phrases. Certifications like *Environmental Working Group*⁷³ (EWG) aim "To empower you with breakthrough research to make informed choices and live a healthy life in a healthy environment.", like *Forest Stewardship Council*⁷⁴ (FSC) state "The future of forests is in our hands.", and *B Corp*⁷⁵ are "Measuring a company's entire social and environmental impact.". These certifications are leaders in their own respective, partnering with other, more specific

⁷³ Environmental Work Group: <https://www.ewg.org/>

⁷⁴ Forest Stewardship Council: <https://fsc.org/en>

⁷⁵ B Corp: <https://www.bcorporation.net/>

certifications like *Leaping Bunny Program*⁷⁶ who states that they are "The Corporate Standard of Compassion For Animals" who hold high standards for "criteria for non-animal tested cosmetic and household products", *Canada Organic*⁷⁷ stating that they are "A leading Voice for Organics in Canada" emphasizing that "Soil is the Foundation of Organic. When you choose organic you promote and protect all ecosystems that are rooted in organic principles and practices", championing holistic ecocentric efforts. Although many platforms, standards, and certifications exist worldwide, SEEDS' concept offers a rare, comprehensive framework – a multi-disciplinary, all-encompassing evaluation tool, making it unique.

In time, SEEDS could evolve and grow into a formal certification of its own, standing alongside other established standards that shape a better, more conscious world. From a spiritual perspective, Dorion Sagan and Lynn Margulis in the chapter *God, Gaia, and Biophilia* from *The Biophilia Hypothesis*, write: "technological plundering of the planet has forced us to revalue our biological connections to other species and living beings. This revaluation is forcing us to see the collusion in our way of life of traditional Western religion, which has provided an impetus for our technological plundering." (Kellert & Wilson, 1993) In this same spirit of revaluation, SEEDS invites us to rethink and to look closely at the choices we make – examining how and where we consume, who we consume from, and the deeper reasons behind why we consume what we consume – all with the aim of strengthening our H/Nc and honouring the planet. SEEDS, unlike other certifications, takes a truly holistic approach.

Holistic

SEEDS is more than a set of standards, it is a holistic collective – an evolving, comprehensive database of inspiration, information, eco-education, and awareness. (See Appendix P, Table P1) It would weave connections between individuals and

⁷⁶ Leaping Bunny Program: <https://www.leapingbunny.org/>

⁷⁷ <https://canada-organic.ca/en>

organizations worldwide, perhaps through an interactive map, with a structured index filled with meticulously curated listings, and not just as a “one-stop shop”. It could be a community-driven platform with a search engine where consumers can find products and contribute by suggesting SEEDS-rated products, supported by a system of verification, reviews and transparency tracking. Users could navigate a map, select regions, and discover various SEED-rated products, both locally and globally. Designers, manufacturers, organizations and retailers would have an opportunity to be showcased on the SEEDS platform, highlighting their products and services in the global pursuit of eco-conscious efforts, while individual consumers would easily have access – win-win.

Designing with holistic intention, SEEDS becomes a tool transforming everyday choices into acts of ecological alignment. Consider an interior designer selecting a sofa for a client. Using the SEEDS framework, they would evaluate options as follows:

1. Ingredients/Materials:

Is it made of natural, non-toxic materials?

- ✓ Favoring natural materials such as full-grain leather, organic cotton, hemp or linen, rejecting synthetic (ex: polyester) upholstery.
- ✓ Ensure frame materials are, for example, FSC-certified wood or reclaimed timber, avoiding toxic materials and adhesives.

2. Packaging:

Was it shipped with minimal, biodegradable, or recyclable packaging?

- ✓ Seeking suppliers shipping in cardboard, compressed wool padding (reusable as garden mulch) or plant-based biodegradable packages.

3. Local Sourcing:

Was it manufactured locally, using regional materials to reduce carbon footprint?

- ✓ Sourcing local workshops to minimize transport emissions.

4. Fair Trade:

Were the workers paid fairly, and were materials ethically sourced?

- ✓ Verify to ensure artisans and craftspeople receive fair living wages (Fair Trade Certified™ or B Corp) and work in safe environments.

5. Community:

Does the company support environmental or social initiatives?

- ✓ Choose brands that plant trees per purchase or fund textile-recycling programs or give back through programs for the people and the planet.

By prioritizing products that meet multiple SEEDS criteria, the designer advances H/Nc beyond structural interventions, aligning aesthetics with ecology. This demonstrates SEEDS as a design methodology, not just a consumer guide. Such intentionality extends beyond design in the BE; each SEEDS-aligned choice becomes a micro-protest against ecological disconnection. A designer specifying a sofa transforms design rationale into resistance, harmonizing aesthetics with ecocentric ethics. Here, SEEDS reveals its powerful, disruptive potential: a framework where design practice converges with daily activism.

SEEDS aims to bridge this gap, educating individuals, designers, and manufacturers to set clear standards that uphold transparency and integrity. By holding companies and ourselves accountable, we reclaim a measure of power. We don't always have a choice in the BE, of where we live or work due to financial, climatic, geographic, or various circumstantial limitations, but we *can* choose the products we bring into our lives and the organizations we support. Standards are not just a rating system; they are a voice for holistic consciousness, for individuals, designers and manufacturer responsibility, and for the greater interconnectedness between products, people, and the planet.

Bombarded with artificiality, our disconnection from nature cannot be solved by a single element: not through interior design alone or with a set of skills, experience and niche expertise. The approach lies in decompartmentalizing various disciplines and weaving them together. SEEDS offers an integrated framework of a deeper, holistic connectedness to nature. It represents an all-encompassing approach, one that reaches deeper, to the root of how we live and consume.

This integration invites a radical rethinking of economic models, where collective demand for SEEDS-aligned design reshapes supply chains from exploitative to regenerative⁷⁸.

⁷⁸ Relating to, Regeneration: spiritual renewal or revival; renewal or restoration of a of a body, bodily part, or biological system (such as a forest) after injury or as a normal process

Demand & Supply

In economic terms, the model of “*Supply & Demand*”⁷⁹ is that regarding the amount of goods and services available for consumers. In this case and in this order, *supply* is the cause and *demand* the effect. But if individual micro-protests can make a difference, then collective *demand* can create change. With a re-order and re-prioritization, *demand* becomes the cause, and *supply* becomes the effect. If individuals demand from designers and manufacturers products and spaces that are more connected to nature, then to be successful, organizations will have to listen to the people. There’s a saying that goes: “*The Power of the People is Stronger than The People in Power!*”; and while the phrase is mostly used in politics and in the case of freedom and justice, it can be used for collective H/Nc. SEEDS could be used as a model, not only for individuals, but for designers who align with H/Nc, expressing themselves with the five criteria at the forefront of their creations. Designers would use SEEDS in the manufacturing of their products; instead of a plush throw made of synthetic fibers, using natural materials is a *Manufactured* way of connecting to nature. Interior designers that source products, without necessarily having a hand in their creation, would consciously opt for, and suggest to their clients more SEEDS-rated products, for example: a throw made of cotton or wool. Designers would choose *Integrated* elements of nature into their designs, consciously creating with SEEDS in mind. If individuals demand it, designers will supply it. Unlike a vicious cycle of negative cause & effect spiraling down, the *Demand & Supply* of the SEEDS model would encourage a virtuous cycle, spiraling up, increasing H/Nc in and beyond the BE.

For individuals, SEEDS embodies conscious consumption, using a versatile framework, not just in BEs, but beyond. For designers, SEEDS translates into material specifications. An example of implementing the SEEDS model in the case of an interior space void of natural elements, would be a collective protest (*demand*), potentially resulting in a redesign (*supply*) using non-toxic, non-polluting materials, good for the

⁷⁹ Supply and Demand: the amount of goods and services that are available for people to buy compared to the amount of goods and services that people want to buy; If less of a product than the public wants is produced, the *law of supply and demand* says that more can be charged for the product.

people and the planet, with recyclable, biodegradable, or no packaging, sourced locally, manufactured with fair trade practices, by companies that support the community, without major structural changes, to promote H/Nc. SEEDS is a versatile model that can be adopted by individuals, designers, and organizations collectively and globally for holistic, collective, conscious consumerism. In adopting the SEEDS model, designing a product, service or space can go from function to connection. For both individuals and designers, SEEDS' model becomes a choice; whether in the design of the BE, or beyond the BE in what we consume; it's a more balanced, healthier, holistic approach to H/Nc.

A conscious collective requires a layered strategy for increased H/Nc. Although this research previously visited studies that showed that being in nature, or even viewing images of nature, can increase well-being and mental health, it is acknowledged that substitutes still fall short of the full benefits that *Existing Nature* provides. SEEDS humbly encourages awareness and education of *Manufactured Nature* to help support genuine H/Nc (*Existing & Integrated*) now and for future generations.

"Education is the most powerful weapon which you can use to change the world."

– Nelson Mandela

As we sow these seeds of knowledge, we see how small, deliberate actions shape both our current surroundings and future possibilities. The SEEDS framework is more than a guide for conscious consumption, it encourages a relationship with nature grounded in mindfulness, intention and stewardship. By perceiving our daily choices as chances to nurture both the Earth and ourselves, we set in motion a subtle but enduring transformation. In doing so, we move beyond consumption, we cultivate. And as with any seed whose growth unfolds across seasons and generations, so too does the reach of our actions. The next chapter broadens this perspective, considering how long-term, ancestral, generational thinking strengthens our commitment to living in balance with nature.

"All the flowers of tomorrow are in the seeds of today."

– Proverb

Chapter 6: Intergenerational Wisdom

6.1 Roots

The journey that began in windowless classrooms was not just about the absence of windows, it was about the absence of vision. It was about spaces designed to contain us, but not to connect us. That space, stripped of nature, sparked the first seed of this journey into inquiry; a protest and a rebellion against a system that normalized nature disconnectedness. How did we get here? When did our species cease to heed the seeds of knowledge planted by our ancestors?

*The Seventh Generation Principle*⁸⁰ is a foundational teaching in Indigenous worldviews, which teaches us that time is a continuum of responsibility and invites us to think beyond the immediacy of our needs. It teaches us that every decision we make today must be considered through the lens of its impact on seven generations to come. This is a perspective of time and of responsibility stretched far beyond our lifespan. Wilson echoes this, stating: "To choose what is best for the near future is easy. To choose what is best for the distant future is also easy. But to choose what is best for both the near and distant futures is a hard task, often internally contradictory, and requiring ethical codes yet to be formulated." (Wilson, 1984)

Those following *The Seventh Generation Principle* live their lives accordingly and emphasize this by explaining the following:

"The indigenous people, our people, were aware of their responsibility, not just in terms of balance for the immediate life; they were also aware of the need to maintain this balance for the seventh generation to come. The prophecy given to us, tells us that what we do today will affect the seventh generation and because of this we must bear in mind our responsibility to them today and always. Because of the sacredness of Creation and the connection to the spirit life of the

⁸⁰ Seventh Generation Principle: "Among the nations of the Haudenosaunee (Iroquois) is a core value called the Seventh Generation (...) In their decision-making, Chiefs consider how present-day decisions will impact their descendants..." <https://www.haudenosauneeconfederacy.com/values/>

earth, we were directed to treat the earth with great care and respect. Our spirits will be carried forward into the next generations and our teachings toward the earth will be carried along with this. If at some point we fail to consider these teachings, the balance that was maintained through the teachings will disappear and we will disappear. It is often said that our people having concept of time and no investment in the future. In fact, our concept of time forces us to think hundreds of years into the future. The investment we make is not measured in dollars or in material wealth, it is measured in terms of our ability to insure that what is here for us today is here for our children and our children's' children tomorrow. Western thinking on the other hand, looks at the world in terms of what can be done today to satisfy the growing wants and needs of self that is endemic of a consumer-oriented society.” (Clarkson et al., 1992)

We may or may not have been taught *The Seventh Generation Principle* growing up, but adopting it in the choices we make could help create a more balanced future. The selfless acts of today will prove to be bountiful tomorrow.

In her book, *This Changes Everything*, Naomi Klein explains: “If we are serious about incorporating environmental needs into the economy, this means changing everything about how we produce and consume and how we travel and live.” (Klein, 2014) Are we willing to sacrifice conveniences and delay instant gratification? Are the consequences too distant? Perhaps it’s not a lack of vision but a lack of power. Klein states: “Indigenous rights in North America did not have powerful forces marshaled behind them and they had plenty of powerful forces standing in opposition. Not just government, industry, and police, but also corporate-owned media that cast them as living in the past and enjoying undeserved special rights, (...) sure they supported Indigenous rights in theory, but usually as part of the broader multicultural mosaic, not as something they needed to actively defend.” (Klein, 2014)

Klein continues to advocate for Indigenous rights, as they “may now represent the most powerful barriers protecting all of us from a future of climate chaos.” (Klein, 2014) These rights are not just for the protection of Indigenous lands, they protect the possibility of all futures. It’s not up to a certain type or group of people to bear the burden of the world. While the Indigenous may be in the right to protect the land,

oftentimes, their rights are challenged: “[A] great many non-Natives are beginning to understand that these rights represent some of the most robust tools available to prevent ecological crisis. Even more critically, many non-Natives are also beginning to see that the ways of life that Indigenous groups are protecting have a great deal to teach about how to relate to the land in ways that are not purely extractive.” (Klein, 2014) Slowly but surely, perspectives are changing, and destructive commonplace is being challenged. Consumer commonplace can also be challenged where SEEDS could be used as a learning tool to cultivate a sense of agency for ourselves and for generations to come.

Values

Education, awareness and instilling biophilic values will help pollinate the idea of H/Nc for future generations. Wilson stated that: “Only through an unusual amount of education and reflective thought do people come to respond emotionally to far-off events and hence place a high premium on posterity. (...) For if the whole process of our life is directed toward preserving our species and personal genes, preparing for future generations is an expression of the highest morality of which human beings are capable.” (Wilson, 1984)

Yet, despite the power of education and awareness to nurture biophilic values, our world often leans toward destruction. Wilson asks: “What event likely to happen during the next few years will our descendants most regret? Everyone agrees, defense ministers and environmentalists alike, that the worst thing possible is global nuclear war. If it occurs the entire human species is endangered...” (Wilson, 1984) I somewhat disagree. While nuclear war would be a magnanimous disaster, what if it’s not simply one destructive, catastrophe? What if, similarly to the saying “*tiptoe to tyranny*”⁸¹, we inch our way to global destruction? It would appear to be a slow, subtle accumulation of seemingly insignificant choices. The quiet erosion could go unnoticed, until its

⁸¹ Described as: A slow, subtle, and inconspicuous progression toward oppressive, authoritarian control.

effects become severe. Wilson explains the dismal reality: “The forests may all be cut, radiation slowly rise, and the winters grow steadily colder, but if the effects are unlikely to become decisive for a few generations, very few people will be stirred to revolt.” (Wilson, 1984) The revolt, then, is ours; who better to start with than our future generations? Instead of inching our way to our detriment, we educate on the importance of H/Nc and healing, starting from the ground up – perhaps the reason behind naming foundational movements “grassroots”⁸².

Revolution

Klein explains: “Slavery wasn’t a crisis for British and American elites until abolitionism turned it into one. Racial discrimination wasn’t a crisis until the civil rights movement turned it into one. (...) Apartheid wasn’t a crisis until the anti-apartheid movement turned it into one.” (Klein, 2014) Some argue that accounts of colonial settler brutality are never told in *his-story*, but rather shared by the voices of the oppressed who shed light on the truth. The oppressors, in denial of reality, make occupation an intolerable crisis to ignore, which is usually followed by a movement for justice and freedom by the oppressed. Similarly, the stakeholders that invest in, profit from, destroy and plunder the earth of its resources won’t admit to the devastating outcome of their actions. It is up to the stewards of the earth to sound the alarm and pave the way for a movement to protect and reconnect to nature.

SEEDS becomes a revolutionary movement not only for consumers, but for society in the way we view and treat the world around us. SEEDS is not simply a framework; it is a call to action – an invitation to reimagine the story we tell about our place in the world. A story where each individual choice, each micro-protest, each seed we plant, has the potential to grow and to flourish in ways we may never live to see, but will be appreciated by future generations.

⁸² Grassroots: being, originating, or operating in or at the grass roots, a *grassroots* organization, the very foundation or source.

Seedlings

In sharp contrast to the windowless classrooms in Montreal, while in Dahab, I had the opportunity to teach in open-air classrooms. Sunlight poured in and the breeze flowed freely through wide-open windows. Courtyards, which I once thought to be exclusive to privileged settings, became part of my everyday reality, natural, effortless, and a way of life. My students, aged 4 to 7 years old, learned various topics, including the basics of planting seeds: where they come from, how to plant them, and what it takes to help them grow: “Sun, water, and love.” I turned this educational workshop into an opportunity to instill values in these children, and to show them a different perspective on nature, via seeds, in everyday foods. As I was teaching them about seeds of nature, I was planting seeds of knowledge.

After our lessons, as both teacher and participant observer, I noticed the children’s discovery of seeds in the fruits they consumed, made them ecstatic; it was as if they had discovered hidden gems, and rightfully so. While I didn’t necessarily feel that I was passing on deep-rooted, ancestral knowledge, the workshop embodied the essence of intergenerational responsibility, mirroring the Seventh Generation Principle’s ethos of nurturing future stewards. I felt I did my humble part in the grand scheme of things – and that’s it: we each do our part, no matter how big or small, to instill in our children, values with strong, resilient roots.



Figure 20: “Seeds” project for resident children of Dahab, Egypt. (Photos: Author)

It was this project, and the lessons taught to the children that inspired the concept title of SEEDS in my own research – to realize that our seeds and seedlings could grow into life, and that the concept of SEEDS could become a way of life. As the teacher, I became the student – as Michelangelo said, “*Ancora Imparo*” – I am still learning.

6.2 Resilience

Nature Shall Prevail

I always admired the strong resilience of nature. I silently cheered on when I noticed plants push through the concrete cracks of city sidewalks, uninvited and unstoppable. In the city we built, vines reclaim metal posts, adorning them with their strength and beauty. Nature does not ask for permission, it persists; it does not yearn for attention, it demands it. It reminds us, in subtle yet powerful ways, that the built environment, no matter how imposing, is temporary, and that nature shall prevail.



Figure 21: Nature shall prevail, documenting the resilience of nature in the BE. (Photos: Author)

No matter how resilient, nature has its limits in terms of destruction at the hands of humans. Wilson describes the consequences as follows:

“There is no question in my mind that the most harmful part of ongoing environmental despoliation is the loss of biodiversity. The reason is that the variety of organisms, (...) once lost, cannot be regained. If diversity is sustained in wild ecosystems, the biosphere can be recovered and used by future generations to any degree desired and with benefits literally beyond measure. To the extent it is diminished, humanity will be poorer for all generations to come.

Other species-rich habitats, including coral reefs, river systems, lakes, and Mediterranean-type heathland, are under similar assault. When the final remnants of such habitats are destroyed in a region—the last of the ridges on a mountainside cleared, for example, or the last riffles flooded by a downstream dam—species are wiped out en masse.” (Kellert & Wilson, 1993)

When will people realize the importance of nature and our negative effect on it? Will it be timely, or too late?

*“Only when the last tree has been cut down, the last fish been caught,
and the last stream poisoned, will we realize we cannot eat money.”*

– Cree proverb

Nature won't wait for our realization. The resilience of nature is a quiet rebellion against the systems that have attempted to dominate it. Naomi Klein writes, "There are ways of preventing this grim future, or at least making it a lot less dire. But the catch is that these also involve changing everything." (Klein, 2014) This change is uncomfortable. It requires the dismantling of stories we've been told about progress, consumption, and ownership. It asks us to challenge the very structures that have defined our lives. Nature will prevail, with or without us; the question is whether we choose to cause its harm or contribute to its healing.

6.3 Responsibility

The power of our responsibility lies in the micro-protests, the micro-decisions and the choices of what we consume, how we design, and how we engage with the natural world. While these choices seem light, they carry the weight of generations. To plant a seed, we may never see fully grown – is the ultimate act of *love*...

That is *biophilia* in its purest form.

Chapter 7: Full Circle - Limitations, Challenges and Moving Forward

The journey has explored the importance of Human/Nature Connectedness, the subtle, strong role of intergenerational wisdom, and the quiet resilience of nature in the face of disconnection. Yet, despite knowing what we know, the path toward reconnection is not without its challenges. While the solutions are within reach, they are not always accessible, nor are they always easy to implement. I turn to reflect on the limitations and barriers we face, the power we hold when we act together, and the simple, yet profound, choices that shape our future.

7.1 The Cost of Connectedness: Limitations and Challenges

Human/Nature Connectedness comes at a cost. Organic, sustainable, and ethically produced goods are marketed as premium products, often overpriced and unaffordable, oftentimes placing them out of reach for many who wish to make better choices. The irony is striking – returning to our roots, embracing simplicity, and choosing wellness have become inaccessible, expensive privileges in a capitalist system that disconnects us from the freedom of what was once price-less: nature.

The price we pay for connectedness may feel high, but the price of continued disconnection is far greater. As the saying goes: *"If you don't make time for your wellness, you'll be forced to make time for your illness."* The barriers are real, but they cannot justify inaction. Even small steps matter when we recognize that the alternative is to remain passive in a system that profits from our disconnection.

7.2 The Power of the Collective

It is easy to feel powerless in the face of global crises; *'what's one person going to do? Said seven billion people.'* But individual choices, when multiplied, become collective movements that can shift markets, challenge industries, and reshape priorities. Systemic change happens when people move together, with shared intention and a shared vision.

SEEDS is not about individual perfection, it is about collective direction. Small, repeated choices, whether in what we buy, how we design, or how we engage with the natural world, become signals that demand change. We may not control the actions of corporations or governments, but we can control our participation. Through a growing collective consciousness, the power to realign priorities from profit, to people and planet remains in our hands.

7.3 Moving Forward

This thesis marks a step in an ongoing journey of inquiry. Human/Nature Connectedness is a vast, evolving field with many intersections left to explore. Future research could investigate how SEEDS may be applied in tangible design projects, educational programs, and community movements that encourages nature-connectedness across diverse cultures and socio-economic contexts.

Delving deeper into seasonally aligned lifestyles can shed light on non-tangible ways of connecting to nature. The role of Indigenous knowledge systems and the potential for cross-cultural collaborations that center ecocentric values are important opportunities to consider. The legacy of this work is not meant to end here, but to serve as fertile ground for future generations to cultivate, expand, and carry forward.

7.4 Revisiting Objectives and Research Question

This research set out to explore Human/Nature (dis)Connectedness across a range of personal, spatial, and systemic dimensions. The objectives shaped the direction of this work and provided a critical lens through which to examine the built environment, socio-economic barriers, expectations and current systems, individual agency, and the role of Indigenous knowledge systems.

Through this thesis, I have addressed previously stated objectives by the following:

- Examined spatial dimensions of Human/Nature(dis)connectedness in the built environment through interdisciplinary literature and autoethnographic analysis, highlighting design's role in sensory/emotional experience. Demonstrated via:
 - *Literature review of H/N(d)c's impact on Mental Health and Well-Being,*
 - *Autoethnographic comparisons: LBPSB windowless classrooms vs. Dahab's open-air school; Cairo/Montreal disconnection vs. Sinai's sensory-rich solar/lunar cycles more connected to nature.*
- Highlighted how geography, climate, socio-economic, and architectural systemic barriers create imbalanced access to nature. Demonstrated through:
 - *Geo-climatic comparison: Montreal's cold vs. Cairo's warm weather,*
 - *Autoethnographic accounts of commodified access to nature (paid retreat),*
 - *Suppression of culturally attuned solutions (courtyards and adobe)*
 revealing how economic priorities can override ecological wisdom.
- Challenged productivity-driven systems by envisioning and proposing seasonal, cyclical models as complementary pathways toward deeper H/Nc, honouring natural rhythms, balanced with societal demands. Demonstrated via: Dystopian film analysis and Utopian Storytelling of rhythm-realignment.
- Proposed a practical, holistic framework and lifestyle guide that invites individuals and organizations to cultivate deeper, more intentional connections to nature through daily choices and practices. This research presented *S.E.E.D.S. (Standard for Environmental and Ecocentric Design Specifications)* as an interpretive design philosophy. This directly answers the core research question by shifting agency from architectural solutions to daily consumer choices and design practices. It is an actionable, speculative framework that could be used to support individuals and organizations toward holistic practices, with conscious, rather than convenient choices, encouraging Human/Nature Connectedness. This positions SEEDS as a tool, for individuals and organizations, a lifestyle and design practice guide for long-term systemic influence. The *methodologies of autoethnography, heuristic inquiry, and embodied phenomenology* collectively enabled this framework's development by bridging lived experience with actionable design alternatives. As a contribution to design disciplines, SEEDS offers an actionable rubric that could be used as a model for designers in their respective practice, championing holistic, ecocentric design in and beyond the built environment.
- Recognized the importance of Indigenous stewardship as vital models for reciprocal relationships with the natural world, and as critical pathways toward nature-reconnection. Inspired by the essential role of intergenerational wisdom, educated and humbly instilled lessons with ecocentric values, for future generations, through a workshop working with children. This concept can be revisited in detail for future research and implemented in various educational and collective platforms.

Together, these objectives guided an inquiry contributing to the discourse on Human/Nature (dis)Connectedness by addressing the question: *How can individuals cultivate a more holistic connection to nature in their daily lives, integrating natural elements beyond the built environment?* This research recognizes that Human/Nature (dis)Connectedness involves space – with constraints – but focuses on daily, ecocentric, holistic habits that encompass the micro-choices that collectively shape more nature-connected realities.

While not claiming to offer universal solutions, this work provides a flexible, interdisciplinary framework, offering a design perspective that *answers the research question* by proposing pathways for deeper Human/Nature Connectedness. These pathways extend *beyond the built environment*, encouraging individual and collective rethinking of our relationship *of* nature.

7.5 Full Circle - Concluding Thoughts

I've come to understand that Human/Nature (dis)Connectedness is not just about physical space; it is about responsibility, community and care. While we may never see the full impact of our efforts, our daily choices are the subtle acts that shape the future. It's not about doing everything, it's about doing something.

We live in an age where the answers exist. We know what is needed to heal our relationship *of* nature. Yet, the question remains: why aren't we doing more? The reasons are complex, but the steps forward are simple; bit by bit, choice by choice, until we go back to nature – full circle.

APPENDIX A

Pictures of Lester B. Pearson School Board Sources Campus

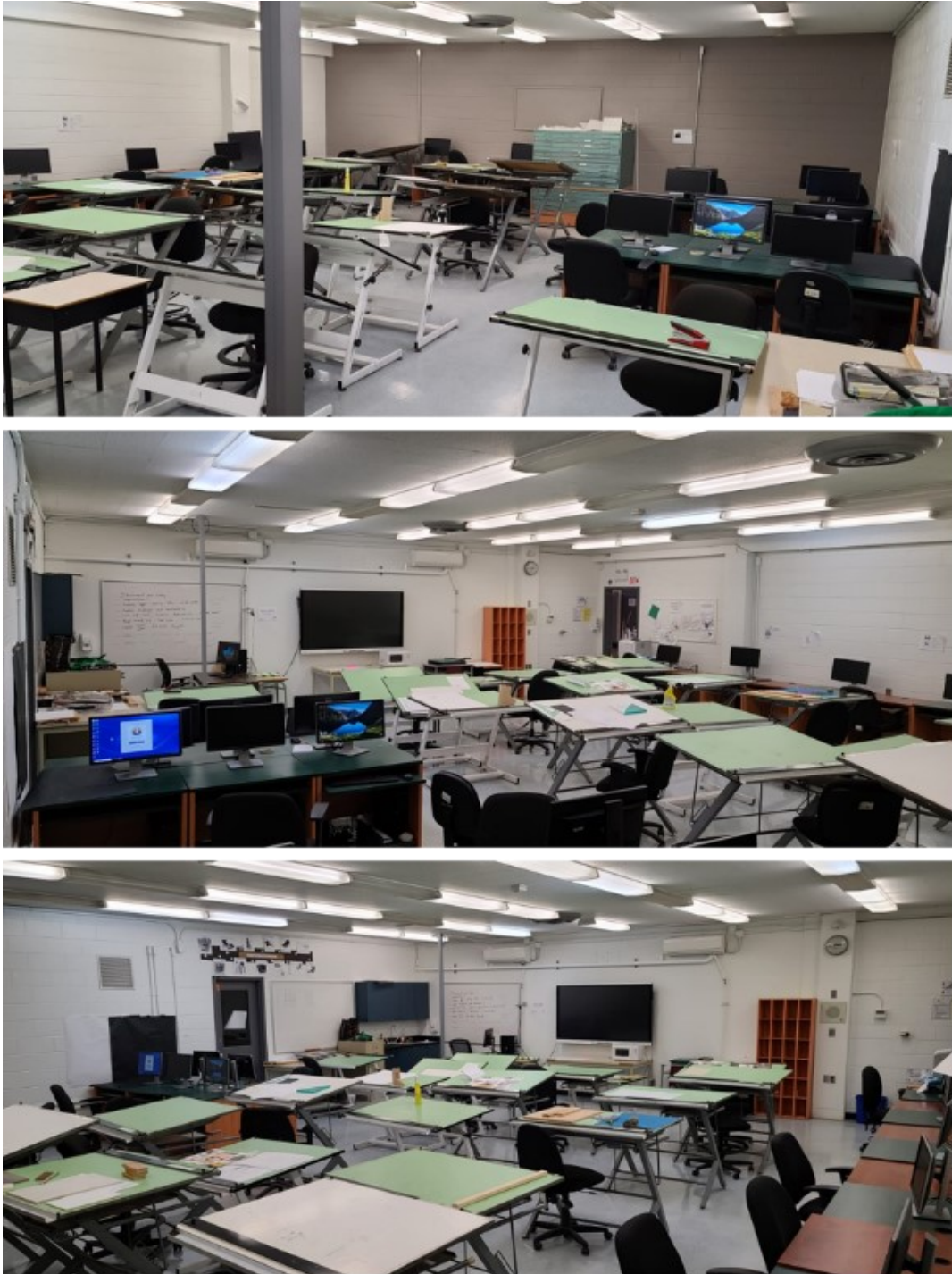


Figure A1: Windowless classrooms, completely disconnected from nature and the outside world, for the Interior Decorating & Visual Display Program at Lester B. Pearson School board campus on Sources & Pierrefonds Blvd., in Pierrefonds. (Photos: Author)

APPENDIX B

Image of Lester B. Pearson School Board Email



IDD International Staff room

Dina Kamal
To: Ardis Root

Tue, Sep 15, 2015 at 11:18 AM

Dear Ardis,

First and foremost, we would like to say Thank You for recognizing and finally being able to give us a place of our own that we desperately needed. Being able to have a place of our own to go to work, to correct and prep is essential to our success as teachers. We completely understand that when a school/centre has a new department, such as ourselves, the international teachers, that it takes time to get settled in and find our place... and this time has come.

Room 142 was designated to us, and being grateful is an understatement, to be able to choose our own furniture, design our own space and to finally settle in. However, I would like to make a requests... After all, I've learned that there is never any harm done by asking and we have only to gain from this.

We have discussed verbally that room 118, the photocopy room will eventually be turned into a classroom seeing how our centre is expanding. With this said, I am ultimately requesting that our staff room be room 118 instead of room 142. The reasons are the following:

- Windows!! A human being needs windows. Many studies have shown that natural light has positive impact on a persons wellbeing, mood, health, alertness and in turn productivity... amongst many other reasons. And that lack of can be detrimental to ones mental and physical health and wellbeing. Working in classrooms with no windows all day is something that we endure as we teach... now having an office to go and work, eat, recharge and relax, again with no windows is almost a full day of work without seeing the light of day... literally. As designers, we can make the best of the space, adding colour, texture, furniture, decoration and soft artificial lighting to make the space as comfortable as possible; but nothing compares to the natural light of windows... nothing.
- Our furniture will soon be delivered, and since room 118 will not stay as is (as previously discussed), it only makes sense to settle into this space from the beginning. The photocopy machine, plotter and boxes of paper have enjoyed daylight for quite some time; its our time now. And the classroom that was designated for 118 can be room 142 where there is already a smart-board installed and the space is "classroom" ready.
- Room 118 is closer to the sample room, the display room the art room as well as other IDD teachers, administration and staff. It is optimally located and groups us together as a team with our fellow colleagues, resources and supplies.

I hope that I haven't taken too much of your time, and I hope that if it is in your hands, that you will take these reasons into consideration in the near future or even eventually one day... some day.

Thank you,

Dina Kamal
Interior Designer
Instructor



Lester B. Pearson School Board
Commission scolaire Lester-B.-Pearson
1925 Brookdale Ave., Dorval, QC, H9P 2Y7
www.lbpsb.qc.ca

Figure B1: Image of micro-protest email sent on September 15th, 2015, regarding windowless classrooms and the importance of windows, requesting alternative arrangements of space.

APPENDIX C

Pictures of Lester B. Pearson School Board Lachine Campus

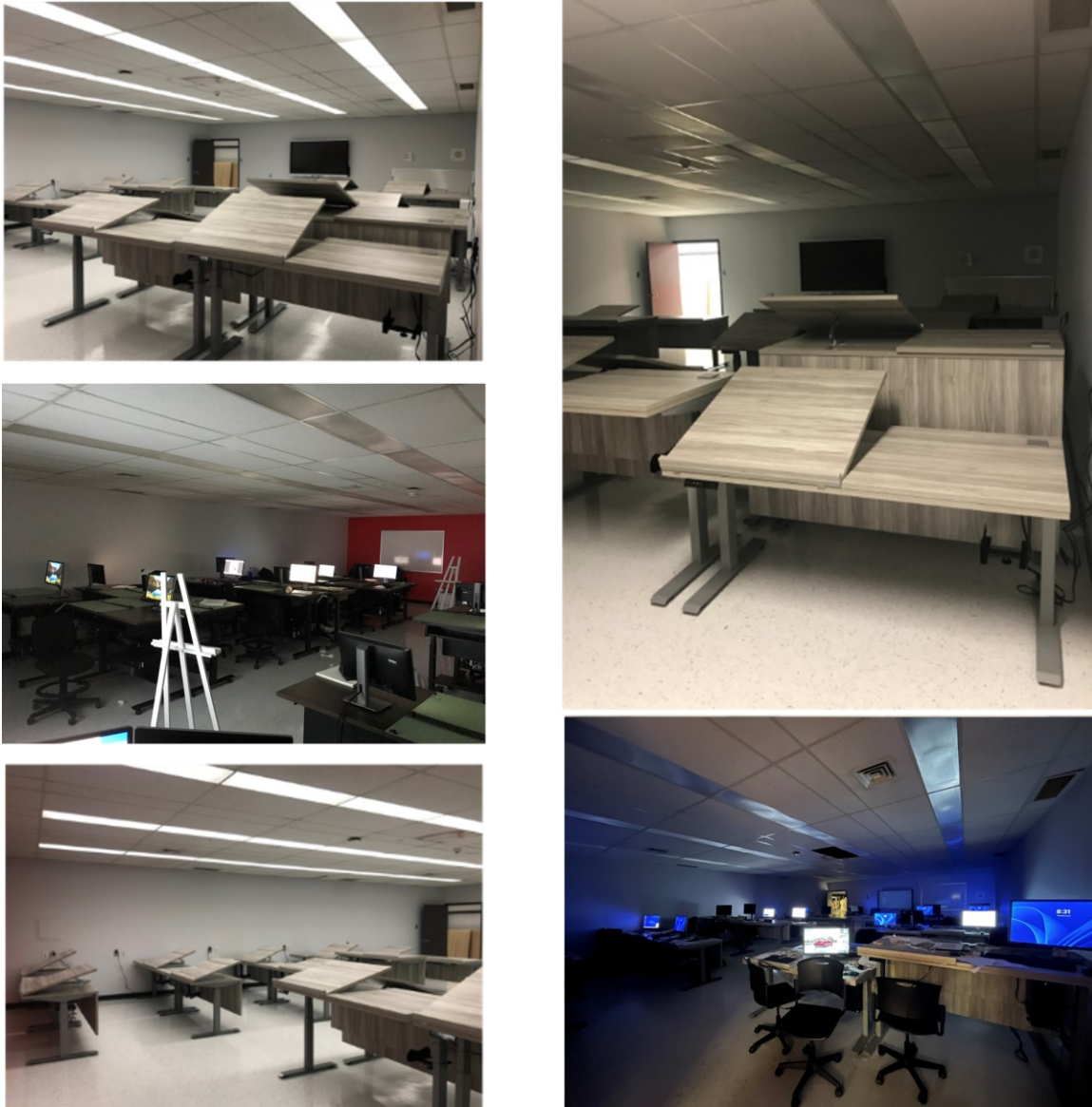


Figure C1: Pictures of windowless classrooms for the Interior Decorating & Visual Display Program taken at Lester B. Pearson School board campus located between Victoria street and rue René Huguet, off of 50th Avenue, in Lachine. Some pictures are with the lights on, and others are with the lights off; completely disconnected from nature and the outside world. (Photos: Author)



Figure C2: Pictures of windowed classrooms for the Interior Decorating & Visual Display Program taken at Lester B. Pearson School board campus located between Victoria street and rue René Huguet, off of 50th Avenue, in Lachine. These classrooms were visually connected to nature and the outside world, though the windows remained fixed and could not be opened. (Photos: Author)

APPENDIX D

Pictures of Plants at Concordia University EV Building

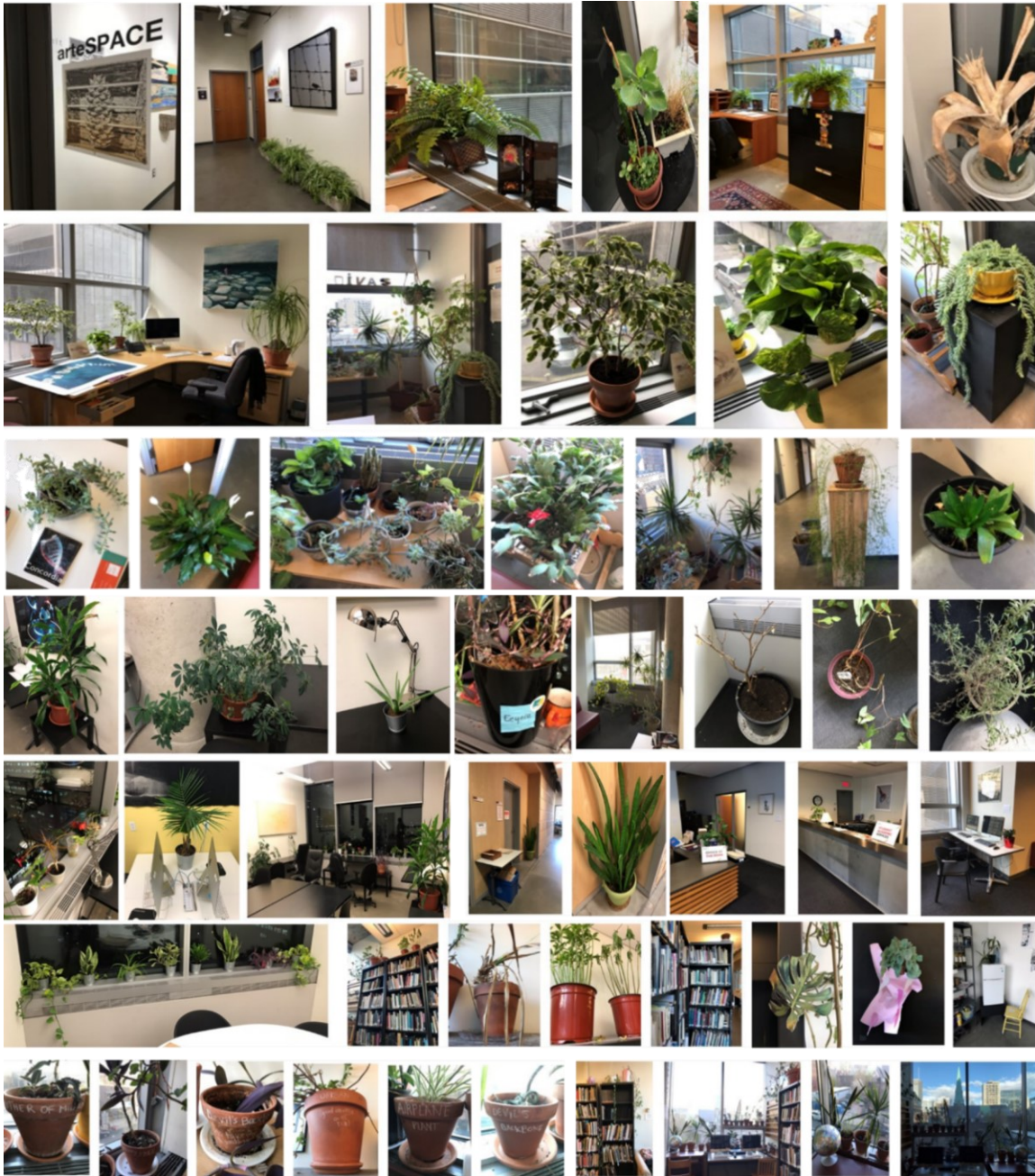


Figure D1: Photo-documentation of the presence of plants in the Engineering, Computer Science and Visual Arts Integrated Complex (EV) building at Concordia University. These plants were brought in by users of the space and considered non-contracted by the University, therefore maintained by the individuals or groups who brought them in. (Photos: Author)

APPENDIX E

Pictures of Plants at Concordia University Library + Floor plans

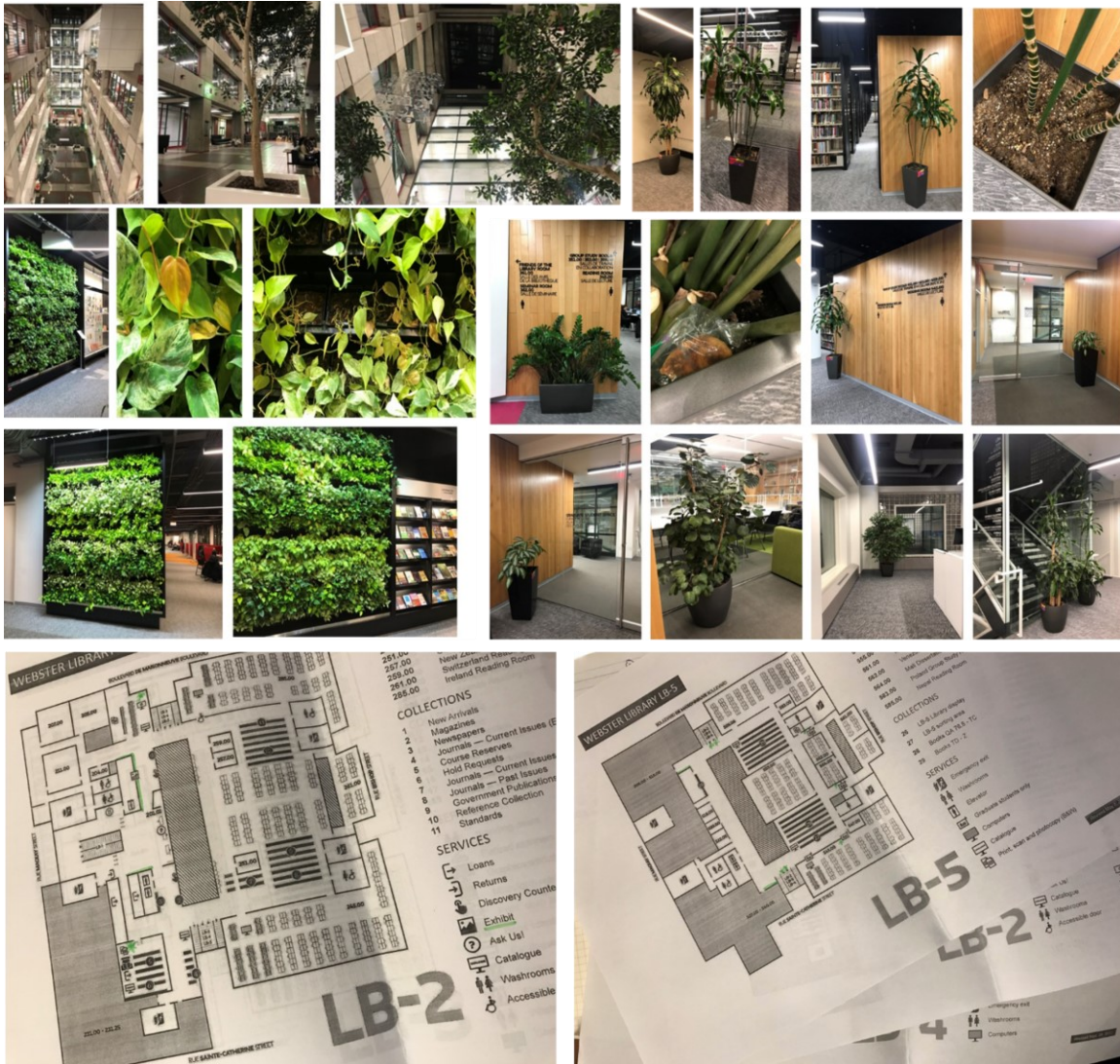


Figure E1: Photo-documentation of the green-wall installations near various student study areas and scattered in multiple areas throughout the floor levels. (Photos: Author)

APPENDIX F

Opinion Piece: Connection to Nature in the Time of Covid

Lockdown. Quarantine. Social Distancing. Oh my! Although unnatural to us, somehow these practices have ironically led us back to nature. Ever heard of those sound machines that play white noise or sounds of nature: wind, water, fire crackling, rain, thunder, birds, insects, animals, jungle, forest, sea etc. All those sounds are meant to be soothing, calming, relaxing and natural. There aren't any sounds of traffic or airplanes, of people walking or construction sounds; nature is the soothing soundtrack. These days, the world suddenly got quieter, and nature got louder. All one must do is listen. Listen to what comes naturally.

Human Nature

When we spend time in nature, leisurely and for our health and wellbeing, we are not visitors, we are of nature, and we connect recharge, inspire, ignite and heal. "We are not human beings having a spiritual experience, but rather, we are spiritual beings having a human experience" (Pierre Teilhard de Chardin). I believe our experience in nature is supposed to be natural, yet we live outside of our natural habitat and unnatural habits have become the societal norm. We live, work, play, eat, sleep and breathe in artificial structures and sometimes forget the natural world around us as part of our human nature. But we have recently been forcefully reminded. People that would normally spend time and money on goods, services and entertainment, are now going for walks, and enjoying the outdoors... in nature! Restricted from gathering in the built environment, bound by new rules, regulations and bylaws, only to go back to tradition, to our roots and back to nature.

Progress vs. Regress

Societies' progress in technology, the built environment and the artificial, has become regress for the natural human and spiritual being. When I'm stressed from the world and I want to relax, I find solace in nature. I think of the beach, the crashing waves, the sand between my toes. Think of the mountain, the crisp air and the rocky terrain. Think of the forest, the leaves rustling in the wind, the birds chirping and serenading my presence.

Back to Basics

This lockdown forbade us from living our twenty-first century lives as we would naturally, but what it has done is given us a gift to live our lives truly naturally. It will take a huge adjustment, time and patience, but I believe that if we go back, just a few steps back to natural ways, we might not be so dependent and feel so helpless amid this worldwide situation. A friend of mine baked bread the other day, another was starting a small garden, and another shaved his own head. Ask anyone who would normally go to the barber or salon for grooming and beauty treatments; these people are forced to either do it themselves or go "au naturel". Forced to be natural, how ironic.

Connection

It's natural for humans to be in nature, to connect with one another, yet we forgot how to do so. I called my dear friend the other day and she mentioned how grateful she was for this situation because we get to talk and connect more often. Loved ones check up on each other more than usual because we are not able to physically be around one another. We are living in unnatural times, yet we are practicing more natural habits. It's only natural to keep in touch with the ones we love, yet somehow, prior to this, we lost touch with them, with ourselves and with the world.

We are given a chance to start anew, to implement a more natural way of being, whether it be a human or spiritual being. I feel that this is an opportunity to realize how disconnected we are from ourselves and from each other, and to reconnect with our human nature.

APPENDIX G
Airport Plant Pictures



Figure G1: Casablanca Mohammed V international Airport in Morocco; indoor, potted plants. (Photos: Author)

APPENDIX H

Emerald Ash Borer



Q [Contact us](#) [Employment](#) [Français](#) [Quick Access](#)

Home > Services to citizens > Trees > Emerald ash borer



Emerald Ash Borer

Subsidy program to provide financial aid in the fight against the spread of the Emerald ash borer

Do you have an ash tree on your property?

The Town of Kirkland is offering a subsidy program that provides financial assistance to private landowners who must treat with TreeAzinMD or cut down one or more ash trees located on their property.

To take advantage of this financial aid program, please complete the [subsidy application form](#). Once duly completed and signed, please submit the application form to the Public Works Department in either of the following ways:

- In person: Municipal Garage, 25 Claude-Jodoin St.
- By email: tpadmin@ville.kirkland.qc.ca
- By mail: 17200 Hymus Blvd, Kirkland QC H9J 3Y8



Terms and Conditions of the Subsidy Program

Treatment

Felling

The Town is responsible for performing the work.

The applicant is responsible for performing the work:

- The applicant must complete this application form in order to obtain a tree cutting certificate from the Town's Public Works Department (issued free of charge).
- The original invoice must include the following: name and address of the applicant, a detailed work description for every ash tree to be felled, including the DBH (diameter at breast height).
- The applicant must pay the costs involved and subsequently request reimbursement from the Town.

Replacement of a felled ash tree

Every ash tree felled on private property must be replaced with a tree that is at least 3.5 cm (35 mm) in diameter measured at 13 metre from ground level, of a species other than a prohibited species.

The applicant is responsible for purchasing and planting the replacement tree which may be obtained :

- from the Town – please verify available programs;
- at his/her preferred nursery – the selected species must have previously been approved by the Town in order for the purchasing and planting costs to qualify for the subsidy

Payment of the subsidy

The payment of the subsidy which the applicant may be eligible to is at the sole discretion of the Town of Kirkland, subject to the availability of funds. Payment of the subsidy will only take place once the Town is in receipt:

- of a proof of felling and of tree replacement, where the subsidy application is for the felling of an ash tree;
- of an invoice for treatment application, where the subsidy application is for the treatment of an ash tree

For questions relating to the Subsidy Program:

Urban Forestry Division
Public Works Department
25 Claude-Jodoin Street, Kirkland (Québec) H9H 5E6

Telephone: 514 630-2727
Email : tpadmin@ville.kirkland.qc.ca

For more information about the Emerald ash borer, [click here](#)



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Figure H1: Document regarding Emerald Ash Borer city subsidy program, due to tree damages. <https://www.ville.kirkland.qc.ca/sustainable-development-/trees/emerald-ash-borer>

APPENDIX I
Ash to Dust



Figure I1: Photo documentation of Ash tree removal (left & middle), alongside Wildflowers, and Insects of the field (right) (Photos: Author)



Figure I2: Photo documentation of Wildflowers, and Fauna Habitat (Photos: Author)

APPENDIX I

Green Fins



Figure J1: Examples of posters hung up for informational purposes in Dahab, by “Green Fins” (GF). GF is “Protecting coral reefs through sustainable marine tourism.” <https://greenfins.net/> Established in 2004, GF’s mission is: “To protect and conserve coral reefs by establishing and implementing environmentally friendly guidelines to promote a sustainable diving and snorkelling tourism industry.” Downloadable conservation tools, such as posters via <https://greenfins.net/action-centre/>

APPENDIX K

Film Analysis

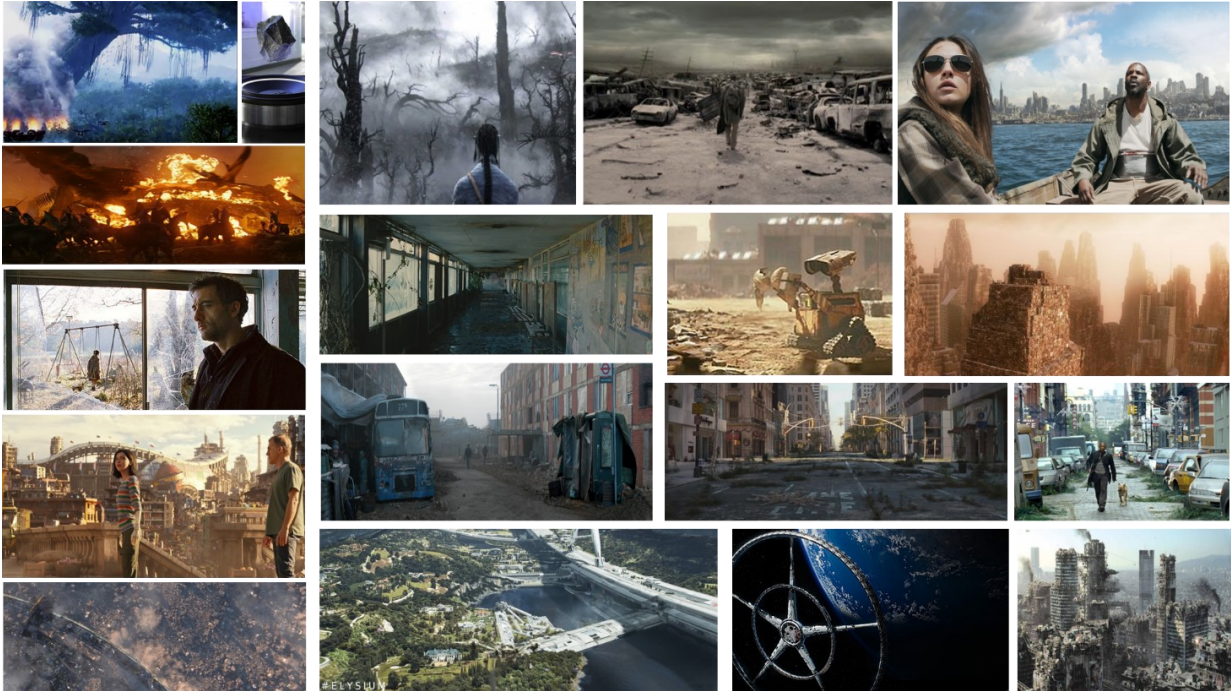


Figure K1: Snapshots of twelve films that were analyzed, entitled: *Avatar*, *Alita Battle Angel*, *Book of Eli*, *Children of Men*, *Elysium*, *Fifth Element*, *I am Legend*, *Into the Forest*, *i-Robot*, *Matrix*, *Total Recall* and *Wall-E*.

Details such as: Title, Year, Rating, Duration, Synopsis, Trailer, Cast, Director, Producer, Writer etc. available on <https://www.imdb.com/>, the Internet Movie Database (IMDb) for each respective film.

Table K1: Film analysis regarding the presence of Natural Elements.

Film Title (in alphabetical order)	Release Date	Setting (location)	Setting (time)	Presence*		Natural Element Details	Notes and Details of Human & Nature Presence
				Human	Nature**		
Avatar	2009	Planet Pandora	2154	✓	✓✓✓✓	plants, trees, water, fresh air, natural light	Nature being destroyed for commodity
Alita Battle Angel	2019	Earth	2563	✓	•	n/a	n/a
Book of Eli	2010	Earth	2043	✓	✓✓✓✓	water, fresh air, natural light	Only at the end
Children of Men	2006	Earth	2027	✓	✓✓✓✓✓	plants, trees, water, fresh air, natural light	Only in remote areas
Elysium	2013	Earth / Elysium	2154	✓	✓✓✓✓✓	plants, trees, water, fresh air, natural light	Only on Elysium (not on Earth)
Fifth Element	1997	Earth	1914 & 2263	✓	✓	plants	Only on a planet/starship
I am Legend	2007	Earth	2012	✓	✓✓✓✓	plants, trees, water, fresh air, natural light	One human throughout, nature took over the city (two humans and more at the end.)
Into the Forest	2015	Earth	near future	✓	✓✓✓✓	plants, trees, water, fresh air, natural light	No electricity. Survival mode.
i-Robot	2004	Earth	2035	✓		n/a	n/a
Matrix	1999	Earth / The Matrix / Zion	2199	✓	✓✓✓✓✓	plants, trees, water, fresh air, natural light	Only in the Matrix (Not Zion / Real World)
Total Recall	1990	Earth / Mars	2084	✓	✓✓✓	plants, natural light	Briefly on Earth as décor
Wall-E	2008	Earth / Spaceship	2805	✓	✓✓	one plant, natural light	Only one plant preserved in a fridge

*	✓	Present
	✓	Present with conditions

**	Each check mark represents one of the four natural elements: Earth (plants & trees), Water (stream, river, lake, sea, ocean, falls etc.), Air (clean, fresh air), Fire (fire, sunlight, natural light)
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APPENDIX L

Calendars

Gregorian calendar: a calendar in general use introduced in 1582 by Pope Gregory XIII as a revision of the Julian calendar, adopted in Great Britain and the American colonies in 1752, marked by the suppression of 10 days or after 1700 11 days, and having leap years in every year divisible by four with the restriction that centesimal years are leap years only when divisible by 400; **Gregorian calendar**, solar dating system now in general use. It was proclaimed in 1582 by Pope Gregory XIII as a reform of the Julian calendar. By the Julian reckoning, the solar year comprised 365 1/4 days, and the intercalation of a “leap day” every four years was intended to maintain correspondence between the calendar and the seasons.
<https://www.britannica.com/topic/Gregorian-calendar>

Islamic calendar: dating system used in the Islamic world for religious purposes. (Most countries now use the Gregorian calendar for civil purposes.) It is based on a year of 12 months: Muḥarram, Šafar, Rabīʿ al-Awwal, Rabīʿ al-Thānī, Jumādā al-Awwal, Jumādā al-Thānī, Rajab, Shaʿbān, Ramaḍān (the month of fasting), Shawwāl, Dhū al-Qaʿdah, and Dhū al-Ḥijjah. Each month begins approximately at the time of the new moon. The months are alternately 30 and 29 days long except for the 12th, Dhū al-Ḥijjah, the length of which is varied in a 30-year cycle intended to keep the calendar in step with the true phases of the moon. In 11 years of this cycle, Dhū al-Ḥijjah has 30 days, and in the other 19 years it has 29. Thus, the year has either 354 or 355 days. No other leap days or months are intercalated, so that the named months do not remain in the same seasons but retrogress through the entire solar, or seasonal, year (of about 365.25 days) approximately every 33 (32.5) solar years.
<https://www.britannica.com/topic/Islamic-calendar>

APPENDIX M

Moon Phases

Lunar (moon) phase: In our entire solar system, the only object that shines with its own light is the Sun. That light always beams onto Earth and Moon from the direction of the Sun, illuminating half of our planet in its orbit and reflecting off the surface of the Moon to create moonlight. Sometimes the entire face of the Moon glows brightly. Other times we see only a thin crescent of light. Sometimes the Moon seems to disappear. These shifts are called moon phases. The eight lunar phases are, in order: new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, third quarter, and waning crescent. <https://science.nasa.gov/moon/moon-phases/>

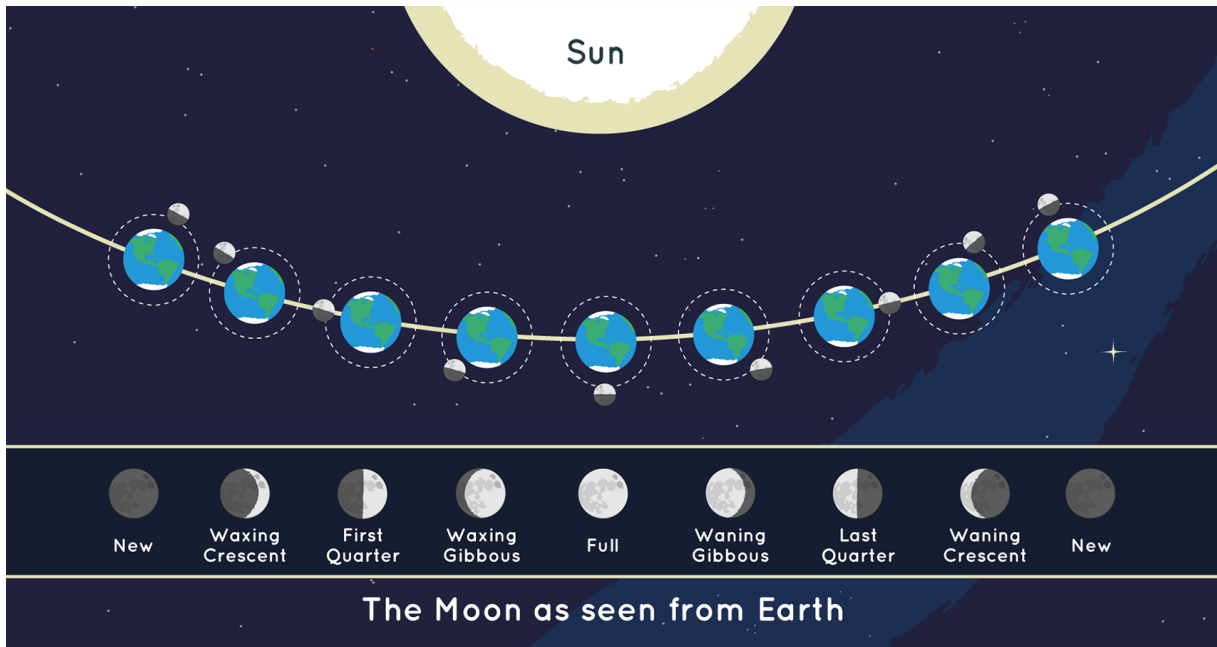


Figure M1: “The position of the Moon and the Sun during Each of the Moon’s phases and the Moon as it appears from Earth during each phase. Credit: NASA/JPL-Caltech”
<https://science.nasa.gov/moon/moon-phases/>

APPENDIX N

Ikigai

What is your reason for being?

According to the Japanese, everyone has an **ikigai**—what a French philosopher might call a *raison d'être*. Some people have found their **ikigai**, while others are still looking, though they carry it within them.

Our **ikigai** is hidden deep inside each of us, and finding it requires a patient search. According to those born on Okinawa, the island with the most centenarians in the world, our **ikigai** is the reason we get up in the morning.

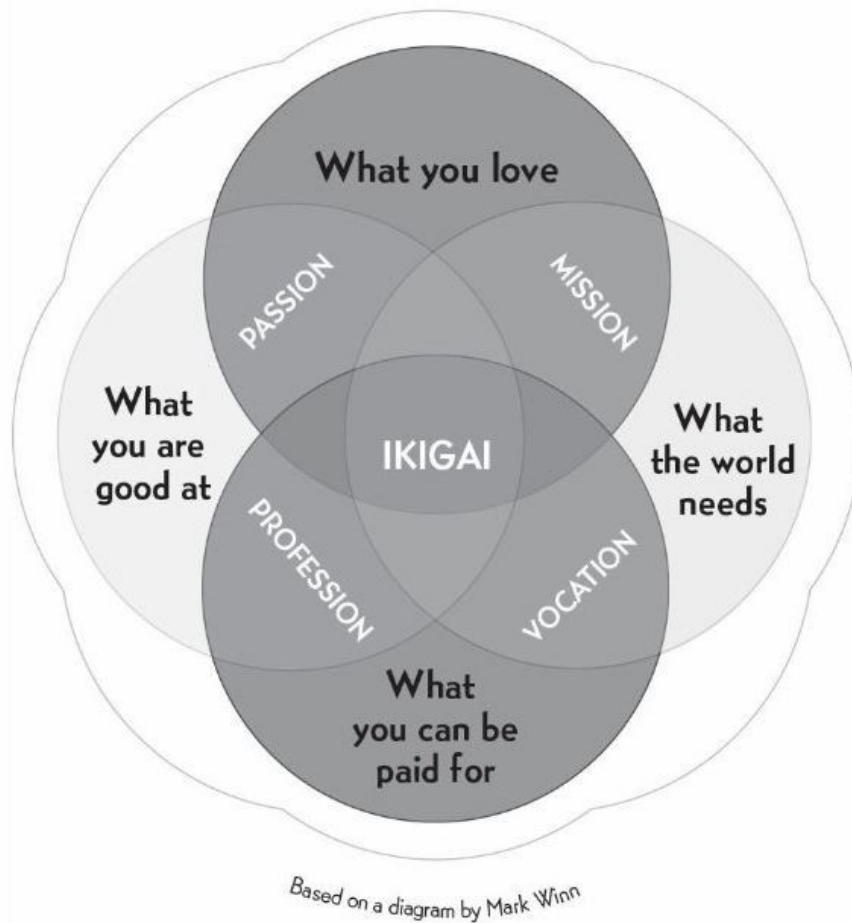


Figure N1: Excerpt and Venn diagram explaining the convergence that creates **Ikigai**. (García & Miralles, 2017)

APPENDIX O

Hygge

The following excerpts are from the book “The Little Book of Hygge” Chapter: Hygge all Year Round (Wiking, 2017)

Some describe the Danish weather as dark, windy, and damp; some say Denmark has two winters, one gray and one green.

With this kind of weather, it will come as no surprise that Danes spend most of their time indoors in the winter months.

In summertime, most Danes spend as much time as possible outside, desperately hoping to enjoy some sun, but in the months from November to March, the weather forces Danes to stay indoors. As Danes do not have the opportunity to enjoy winter activities in their own country, as in Sweden and Norway, or to spend time outdoors in the winter period, as in southern Europe, all Danes have left to do is hygge at home. As a result, the high season for hygge is autumn and winter, according to a study on hygge conducted by the Happiness Research Institute.

Here is a selection of ideas for how to hygge throughout the year.

JANUARY: MOVIE NIGHT

The month of January is the perfect time to relax with friends and family with a casual movie night. Let each person bring snacks to share, and pick out one of the old classics, one that you’ve all seen, so it doesn’t matter too much if people chat a bit during the film.

An entertaining add-on to movie night is to come up with the shortest way of explaining the plot of the given movie. This turns *The Lord of the Rings* trilogy into “Group spends nine hours returning jewelry” and *Forrest Gump* into “Drug-addicted girl takes advantage of mentally challenged boy for decades.”

FEBRUARY: SKI TRIP

If you have the opportunity, organize your friends and family to head to the mountains at this time of the year. Yes, the view in the mountains is stunning, the speed on the slopes is exhilarating, and the purity of the air is amazing—but the best part of the ski trip is the hygge. The magic happens when you and your crew get back to your cabin, tired from the slopes, dirty, and messy-haired, and relax with coffee in shared silence. Remember to pack the Grand Marnier!

MARCH: THEME MONTH

If you and your family are going somewhere on vacation in the summer this might be a way to get a jump on the hygge. If you are going to Spain, spend March exploring the country from afar. By “exploring,” I mean watch Spanish movies, make tapas, and if you have kids, maybe spend one evening putting Post-its on the chairs (*sillas*), table (*mesa*), plates (*platos*) in Spanish, so you can get a head start with the language. If you are not going on vacation this year, you can either take the theme from a country you have been to previously (get those photo albums out) or pick your dream destination. If you can’t go to the country, bring the country home to you.

APRIL: HIKING AND COOKING OVER AN OPEN FIRE

April can be a wonderful month to go hiking, camping, or canoeing. Weather-wise, it may be a bit brisk, so remember to pack those woolen socks (they are extra *hyggelige*), but the month offers benefits in terms of fewer mosquitoes. If you are a city dweller like me, it is natural to panic in the first hours of a hike, thinking, “What the hell will we do out here without Wi-Fi?” However, once you overcome this, your heart rate and stress levels will drop. Hiking is an Easter egg of hygge, as it includes slowness, rusticity, and togetherness. Gather the wood, build the fire, prepare the food, and watch it cook slowly over the fire, then enjoy the after-dinner whiskey with your friends under the stars.

Remember to pack the chocolate eggs for the kids if you are heading out for Easter.

MAY: WEEKEND CABIN



The days are getting longer, and May is the time to start making use of the countryside. One of your friends might have access to a cabin, or you may find a cheap rental—the more rustic the cabin, the more hygge. A fireplace is a bonus. Be sure to pack board games for rainy afternoons. A weekend in May might also present the first opportunity of the year for a barbecue. In terms of summer hygge, nothing beats standing around the grill with a beer in your hand.

JUNE: ELDERFLOWER CORDIAL AND THE SUMMER SOLSTICE



Early June is the perfect time to harvest elderflowers to make cordial or lemonade.

St John's Eve falls on June 23, and on that evening Danes celebrate the summer solstice. This is my favorite tradition. In Denmark, the sun in June sets close to 11 p.m. on a night that never lets go of the light completely. As the sun sets, there is a bittersweet acknowledgment that, from tomorrow, we will start the slow descent into darkness as the days shorten. This is the perfect evening for a picnic. Grab your friends and family and light a bonfire.

JULY: SUMMER PICNIC



July is when Danes really love to get out and enjoy nature. The weather is warm and the evenings are still long. This is the perfect time of year for a picnic by the sea, in a meadow, or in a park. The choice is yours, but get out of town. Invite your family, friends, neighbors, or the people who just moved in down the street. Make it a potluck event, so everybody brings a dish or two to share. Potluck dinners are usually more *hyggelig*, because they are more egalitarian. They are about sharing food and sharing the responsibility and chores.

AUGUST: THE PERSEID METEOR SHOWER



Bring blankets for a night under the stars. While the light nights at this time of year may not be the best in which to watch stars, the Perseid meteor shower occurs in mid-August, usually reaching peak activity around the eleventh to the thirteenth. Look northeast for the Perseus constellation, which has Andromeda to the east and Cassiopeia to the north. If you have kids, this is a great time to bring a book of stories from Greek mythology to read while you wait for the shooting stars.

For people in the southern hemisphere, the Eta Aquarid meteor shower is an option. It usually peaks between late April and mid-May.

SEPTEMBER: MUSHROOM FORAGING

Mushrooms appear mainly in the autumn but can be found from late summer on. There is no better taste than food you have grown, caught, or foraged yourself—and it has a high hygge factor. Bring family and friends for a forage excursion to the forest.

WARNING: Eating the wrong sort of mushrooms can be deadly, so find an experienced mushroom forager and ask them to come along on a forage. Many communities organize group tours.

OCTOBER: CHESTNUTS

It is chestnut season. If you have kids, take them chestnut hunting and use the chestnuts to make animal figurines.

For the adults, buy edible chestnuts, make a cross with a knife in the pointy end, and roast them in the oven at 200 degrees for about thirty minutes, until the skins open and the insides are tender. Peel off the tough outside skin and add a bit of butter and salt.

If you just want quality hygge time by yourself, pick up some mandarins, roasted chestnuts, and a copy of *A Moveable Feast* by Hemingway. It is set in 1920s Paris, when Hemingway was working as a penniless writer.

NOVEMBER: SOUP COOK-OFF

Winter is coming. It is time to get out the old soup recipes and find new ones. Invite family and friends over for a soup cook-off. Each person brings ingredients for a soup to feed one person. Take turns preparing small dishes of different soups, enough for everyone to try. I usually make a pumpkin-ginger soup, which works really well with a bit of crème fraîche. If you want to do something extra as host, bake some homemade bread. The smell of freshly baked bread is definitely hygge.

DECEMBER: *GLØGG* AND *ÆBLESKIVER* (PANCAKE PUFFS)

This is hygge high season. The consumption of candles and confectionery soars, as do BMIs. This is also prime time for *gløgg* (you'll find the recipe in Chapter 4). Start out well in advance by soaking those raisins in port and invite your friends and family over for an afternoon or evening of *gløgg* and *æbleskiver* (recipe in Chapter 11).

*The following excerpts are from the book “The Little Book of Hygge”
Chapter: Five Dimensions of Hygge
(Wiking, 2017)*



While hygge can be an intangible and abstract concept, I do believe that we can use all our senses to detect it. Hygge has a taste, a sound, a smell and a texture—and, hopefully, you will start to see hygge all around.

THE TASTE OF HYGGE



Taste is an important element of hygge because it often involves eating something. And that something cannot be too fresh, alternative or challenging in any way.

The taste of hygge is almost always familiar, sweet, and comforting. If you want to make a cup of tea more *hyggelig*, you add honey. If you want to make a cake more *hyggelig*, you add icing. And if you want your stew to be more *hyggelig*, you add wine.

THE SOUND OF HYGGE



The small sparks and dynamic crackles of burning wood are probably the most hyggelige sounds there are. But don't worry if you live in an apartment and cannot have an open fire without also facing great risk of death.

Many sounds can be *hyggelige*. Actually, hygge mainly has to do with the absence of sounds, which enables you to hear even very quiet noises such as raindrops on the roof, wind blowing outside the window, the sound of trees waving in the wind, or the creaks of wooden planks that yield when you walk on them. Also, the sounds of a person drawing, cooking, or knitting could be *hyggelig*. Any sound of a safe environment will be the soundtrack of hygge. For example, the sound of thunder can be very *hyggeligt* if you are inside and feel safe; if outside, not so much.

SMELLS LIKE HYGGE

Have you ever smelled something that takes you back to a time and place where you felt safe? Or smelled something that, more than a memory, gives you a flashback of how the world used to look when you were a child?

Or maybe the smell of something provokes strong feelings of security and comfort, such as the aroma coming from a bakery, or the smell of apple trees in your childhood garden or maybe the familiar scent of your parents' house?

What makes a smell *hyggelig* differs very much from person to person, because smells relate a situation to ones experienced with that smell in the past. For some people, the smell of cigarettes in the morning is the most *hyggelig* thing there is; to others, the smell may provoke nausea and headaches. One common element of all the smells of hygge is that they remind us of safety and the sense of being cared for. We use smell to sense whether something is safe to eat, but we also use it to intuit whether a place is safe and how alert we should be. The smell of hygge is the smell that tells you to put your guard down completely. The smell of cooking, the smell of a blanket you use at home, or the smell of a place we perceive as safe can be very *hyggeligt* because it reminds us of a state of mind we experienced when we felt completely safe.

SEEING HYGGE



Hygge is very much about light, as we have said. Too bright is not hyggeligt. But hygge is also very much about taking your time.

This can be accentuated by watching very slow movements of things, for example, gently falling snow—or *aqilokoq*, as the Inuits would say—or the lazy flames from an open fire. In short, slow, organic movements and dark, natural colors are *hyggelige*. The sight of a bright, sterile hospital or watching fast-moving vehicles on a highway is not. Hygge is dimmed, rustic, and slow.

WHAT DOES HYGGE FEEL LIKE?

As I mentioned earlier, letting your fingers run across a wooden surface, around a warm ceramic cup, or through the hairs on the skin of a reindeer brings out the hygge.

Old, homemade stuff that has taken a lot of time to make is always more *hyggeligt* than manufactured new stuff. And small things are always more *hyggeligt* than big things. If the slogan for the USA is “The bigger, the better,” the slogan for Denmark is “The smaller, the more *hyggeligt*.”

In Copenhagen, almost all the buildings stand only three or four stories high. New houses made out of concrete, glass, and steel do not stand a chance against the hygge factor in these old buildings. Anything hand-crafted—objects created out of wood, ceramics, wool, leather, and so on—is *hyggeligt*. Shiny metal and glass are not *hyggeligt*—though they can be if they are old enough. The rustic, organic surface of something imperfect or something that has been or will be affected by age appeals to the touch of hygge. Also, the feeling of being inside something warm in a place where it is cold is very different from just being warm. It gives the feeling of being comfortable in a hostile environment.

THE SIXTH SENSE OF HYGGE

Hygge is about feeling safe. Hence, hygge is an indication that you trust the ones you are with and where you are.

And the feeling of hygge is an indication of your feeling of pleasure when someone tells you to go with your gut feeling, that you have expanded your comfort zone to include other people and feel you can be completely yourself around other people.

So hygge can be tasted, heard, smelled, touched and seen. But, most important, hygge is felt. In the beginning of the book, I mentioned Winnie-the-Pooh, and I think his wisdom still holds true. You don't spell love. You feel it. This brings us to the final theme of the book: happiness.

APPENDIX P

SEEDS

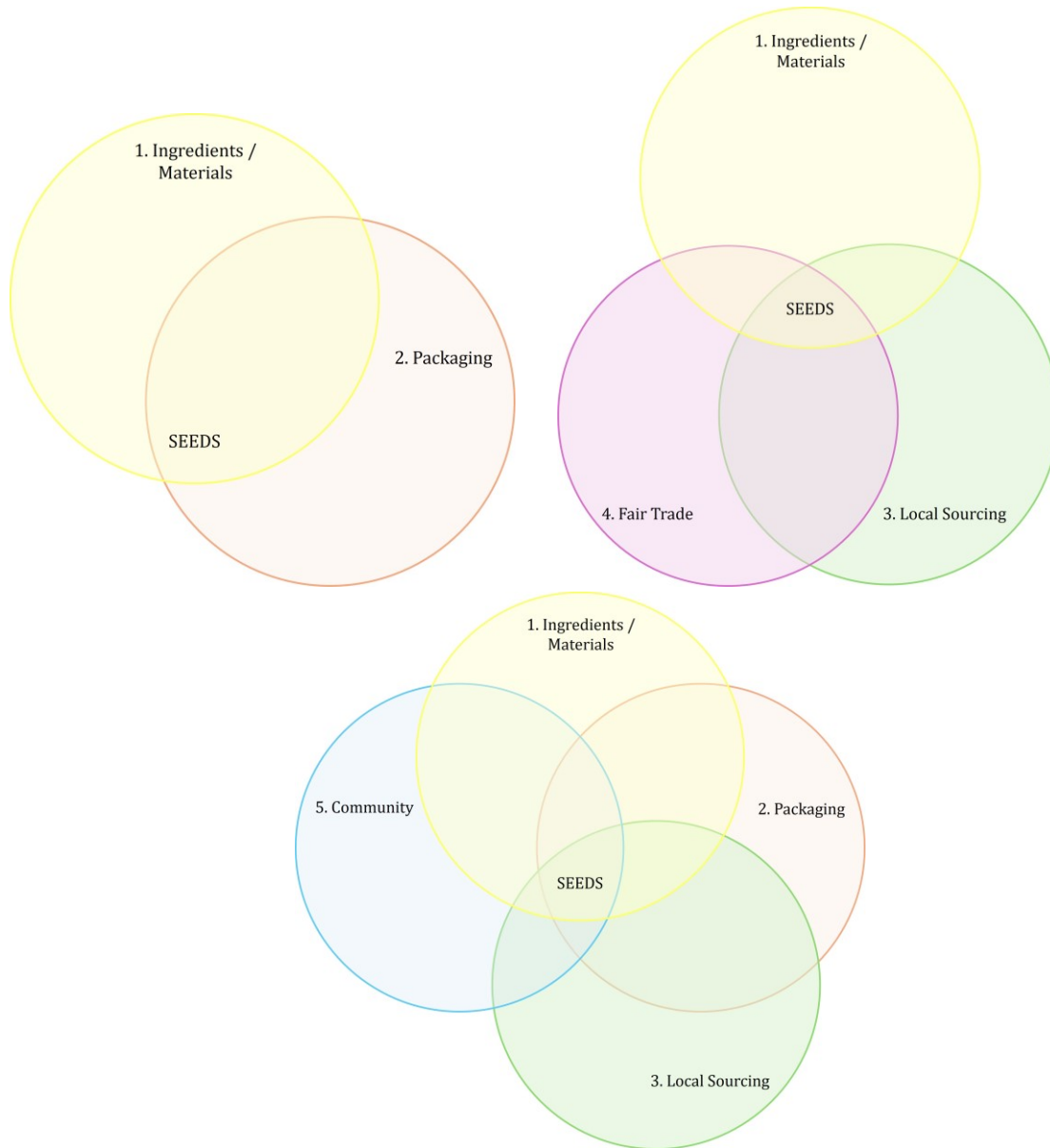


Figure P1: SEEDS: Standard for Environmental and Eco-centric Design Specifications
Venn diagrams: Illustration of three examples of combinations:

Top Left: Combination 1&2:

1. Ingredients / Material & 2. Packaging

Bottom: Combination 1&3&4:

1. Ingredients / Material, & 3. Local Sourcing, & 4. Fair Trade

Top Right: Combination 1&2&3&5:

1. Ingredients / Material, & 2. Packaging, & 3. Local Sourcing, & 5. Community



Figure P2: Illustration of all sixteen combinations of criteria. The sixteen combinations are as follows: **(1) 1, (2) 1 & 2, (3) 1 & 3, (4) 1 & 4, (5) 1 & 5, (6) 1 & 2 & 3, (7) 1 & 2 & 4, (8) 1 & 2 & 5, (9) 1 & 3 & 4, (10) 1 & 3 & 5, (11) 1 & 4 & 5, (12) 1 & 2 & 3 & 4, (13) 1 & 2 & 3 & 5, (14) 1 & 2 & 4 & 5, (15) 1 & 3 & 4 & 5, and (16) 1 & 2 & 3 & 4 & 5.**

Please refer to **Figure 19:** The five SEEDS criteria Venn diagram for larger image and initial detailed explanation.

Table P1: SEEDS: Standard for Environmental and Eco-centric Design Specifications prototype comparison table, part of the SEEDS database. This work-in-progress example offers a glimpse of how companies and products could be compared based on which SEEDS categories they meet. This version of the table is presented as a structural example, with fields and headings in place, to be populated with data in future iterations.

S.E.E.D.S. Standard for Environmental and Ecocentric Design Specifications									
Company Name	Category	Products	Country of Origin	Ingredients / Material	Packaging	Local Sourcing	Fair Trade	Community	Notes
				☐	☐	☐	☐	☐	
				☐	☐	☐	☐	☐	
				☐	☐	☐	☐	☐	
				☐	☐	☐	☐	☐	
				☐	☐	☐	☐	☐	

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