Baskets of Offerings: Design, nature, animism, and pedagogy

by

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Abstract

This dissertation explores how an animist spirituality redirects design. Design has long been understood as the professional practice of creating artefacts, systems, and communications for modern Western “civilization.” Recently, many scholars have been calling for a redirection of design’s talents and agency towards holistic, ecological and ethical practices. To do this, I argue, designers need to build an understanding and a connection with nature, ecological literacy, a visceral understanding of the Earth, and a spiritual knowing that we are interconnected and inseparable from all beings. I learned much of this during my childhood experiences on a farm, and during my exploration of contemplative practices. Through my journaling and my studies, I found that the spiritual and personal were artificially separated from the professional disciplines. I reunited important parts of myself that had been fragmented or split off during my professional teaching and professional design career. Buddhist mindfulness and meditation practices offer psychophysical learning. Contrary to academic intellectual traditions, these offer a path to understanding animist spirituality within mind, body, and heart. I search for pathways to extend this deep learning through somatic and experiential pedagogies in design. I relate several stories of how my colleagues and I have integrated animist, intersubjective, and contemplative practices into design pedagogy. I look for practices to support the embodied, relational, and experiential forms of exploration that can open opportunities for animist ways of knowing. We become aware, with carnal vitality, of our physical and emotional selves in the process. We come to understand ourselves and our bodies as fully implicated in seeing, reflecting, understanding, and practicing design. Reflections, stories, essays, and journal extracts are sorted into a series of *baskets* rather than the traditional thesis form of chapters. Meditative practices interweave throughout. This collection of possibilities allows a *métissage* of ideas rather than a scripted or definitive study.

Keywords: animism; Buddhism; design pedagogy; spirituality; holistic; redirective

Dedication: Touching the Earth in Gratitude

In gratitude to all who have taught me, I bow down to the Earth,

and I bow down to you…

Heesoon Bai, true teacher; Ivan St. Pierre, tending the Earth; Henri St. Pierre, laughter gets us through it; André St. Pierre, we are all learning; Thich Nhat Hanh, ancestral teacher; Joan St. Pierre, keep hands moving and making; Catherine Fraser, words are magic…sentences more; Bethan Lloyd (True Spacious Mind), knowing comes from practice; Rebecca Rose Nicholls, deepest love; Susu Myint (Chan An Dinh), honest commitment to practice; the Farm; grounded learning; Sean Blenkinsop, Earth-based rebel teacher; Ground Squirrel at Manning Park, respect my home; Hélène Day Fraser, embodied relationality; Eugenia Bertulis, the habit of generosity; James Nattall, consistent lovingkindness; Celeste Martin, remain honest; Charles Scott, the joy of dialogue; Henning Mankell, detectives don't sleep either; David Abram, we are born to animism; Zach Camozzi, wicked collaborator; Kate Fletcher, accountable to the Earth; Bonne Zabolotney, a coffee date is never long enough; Mathilda Tham, accepting wildness everywhere; All my students, energy and curiosity; Norma Larson, beauty in the smallest details; Monkey the cat, three legs are ok; Barbara Bender, stay calm and ask questions; Jill McGrath, poetry is meditation; Chelsey Branch, sweet friendship; Laura St. Pierre, art shows no fear; Meara Branch-Duncan, laughter from the belly

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List of Sketches

Old Forest at Birkenhead Lake, 2019

Land and Earth Acknowledgment

I acknowledge that this work has taken place on the unceeded territories of the Musqueam, Tsleil-Waututh and Squamish peoples.

I also acknowledge that the Earth herself was never ceded. This land acknowledgement acknowledges the voice, agency and wisdom of the Earth. Many first nations communities do not feel that the Earth belongs to them, but instead, that they belong to the Earth.

As do we all.

This work is dedicated to all beings.

Dear Reader

I invite the reader to pause and establish themselves for mindful reading.
Please read the following carefully, and then set this aside and meditate for five minutes.
Please find and hold a 'being' of Nature (for example, rock, stick, or seed that has not been modified by industry) lightly in your hands during meditation.

Take the basic meditation posture….
That is, sit comfortably but with your spine naturally straight and tall.
Relax all your muscles, half-close and soften your gaze, or close your eyes,
and anchor your attention on your in-breaths and out-breaths.
If your attention wanders off, thinking about this or that,
gently bring it back to your breaths.
Neither resist nor dwell on whatever thoughts, feelings, sensations, sounds, and sights come to you.
Let them come and let them go.
Become intimately and sensuously involved with your breathing.

Stop trying.
Do not try to turn this into something that is right.
Just be with it.

- Meditation from Bai and Scutt 2009, 2014

A Group of Campanula (Bellflowers), 2018

Basket One: Preliminaries

Baskets of Offerings

> If it is a human thing to do to put something you want, because it is useful, edible, or beautiful, into a bag, or a basket, or a bit of rolled bark or leaf, or a net woven of your own hair, or what have you, and then take it home with you… and then later on you take it out and eat it or share it or store it up for winter in a solider container … and then the next day you probably do much the same again (Le Guin 2015, p. 154).

A thesis is typically written in chapters and reads in linear succession, from the first chapter to the last chapter. That is the traditional way to organize a thesis. My thesis takes a non-traditional approach to organizing the content: I offer you baskets. What I wish to share does not require the reader to follow the chapters in a linear way. What I offer is best understood as a collection of non-linear and evolving explorations. To support this project, I have decided to avoid the traditional delineating title of Chapters and instead to gift my readers with *Baskets of Offerings*. Each basket contains thematically congruent written pieces that address particular topics that I have explored in my research on design, nature, and contemplative practices. I have been writing these pieces here and there over a number of years, in various places, for various purposes including the sheer joy of writing, of contemplation, of daydreaming, and of sorting my thoughts. As such, these pieces take on a variety of writing styles or genres, from narratives, journals, and sketches, to manuscript tracts. Offering collections and experiments that can be viewed according to one's personal preference, invites deep reader engagement. It connects reader and writer within and among many ideas, in patterns that are constantly shifting within a broader understanding of inclusivity. It invites and allows us to come to know from our own situated views. The basket arrangement that I adopted for my dissertation allows for a constantly shifting pattern-making and pattern-following. This practice melds with a fluid and uncontrollable ecological ontology that my dissertation argues for and affirms. It positions humans and all our ideas as *belonging within something else that is larger than us, something not controlled by us: the natural world.*

In her *Carrier Bag Theory of Fiction* (2015), Le Guin proposes that myths of sword-wielding hunters captivated attention through the dramatic re-telling of narratives about

felling mammoths, but that those grand tales overshadowed the everyday acts of gathering and collecting that are more central to the creation of cultures. “In [this vast sack], there is room enough to keep even Man [sic] where he belongs, in his place in the scheme of things …” (Le Guin 2015, p. 154). I take inspiration from her suggestion that collecting, sorting, and sharing generously is an important and meaningful way to build a narrative, less grand perhaps, and less exciting than the hunt, but much more inclusive. As Le Guin said, “It grounds me personally, in human culture in a way I never felt grounded before” (p. 151). Only a few of us can experience the thrill of the hunt, but many of us can relate to the quotidian activities of gathering, sorting, and sharing. I hope that this collection of narratives might (to paraphrase Le Guin) remind people that we belong with many other beings in the world. My basket methodology places me within a narrative of belonging to something larger, of questioning and pursuing my own situated connection to the ecosphere, and my specific situatedness in design, so that I can better appreciate and connect with the situatedness of multiple others. My queries, my explorations, my discoveries in design, nature, and contemplative practices are in a loose arrangement, on view for the reader to pick up, make new connections, share, and carry forward in an ongoing *métissage*, or “merging and blurring [of] genres, texts and identities” (Hasebe-Ludt et al., 2009 p. 9).

The basket is a carefully chosen metaphor and an illustration of interdependence. These baskets do not represent hermetically sealed separate entities. Perhaps woven of birchbark, metal, words, paper, or willow, these baskets are a porous open weave that can easily leak, infuse, sift or filter from one to the other. They do not contain disparate contents in isolation. They are collections of overlapping practices and pedagogies representing many interdependent interconnected concerns. The process of loosely sorting related items into these baskets allowed me to bypass methodical or scientific assessment and calculation. Rational planning, of the sort that I and many designers are taught to do, would have directed me to plan this thesis in predictable and separate sections. These might be labeled: context framing, rationale, theoretical framework, data, outcomes, key reflections, and so on. This process might even allow for a pre-determined notion of a summary or final ending. I could have approached my thesis this way, but it is not natural or intuitive for me, and I believe it would have been limiting. My “basket methodology” came from an early suggestion by Heesoon (personal communication, January 2020) and grew to become an important creative process. It

allowed me to develop this dissertation as a playful and intuitive research process in and of itself. For instance, I did not have a clear anticipated ending in mind. I was figuring things out as my dissertation evolved, and many times the dissertation spoke back to me, asking for things to be moved, shifted, and replaced. The act of sorting writings loosely into their baskets offered me a conceptual freedom, linking and unlinking thoughts a rhizomatic relationship like that which was articulated by Deleuze and Guattari (1988) …or like a network of gopher holes permeating the Canadian Prairie. There are multiple linkages and different ways of getting from one basket to the other. I sometimes paused to sketch the baskets visually, as I would in any design project. In the beginning, the baskets were a quick method to place the essays and start to sort the interrelationships between design, nature, and contemplative practices. Essays and ideas moved from basket to basket, and eventually landed in a shape and in relationships that I had not imagined or anticipated. Sometimes they fell into place of their own volition. For instance, I did not know that I would end with a series of Buddhist reminders (known as *gathas)* that connect moments of design activity to larger spiritual aims. Yet the *gathas* bumped around from basket to basket, and suddenly they were in the conclusion, and finally, in that place they were right. This happened many times during this process: the dissertation spoke with a will of its own. To my mind, this is spirituality in my research process; one that invites and is receptive to relationships and outcomes that emerge through divergent, unplanned exploration.

While methodical or scientific assessments and calculations are important in some endeavors, in this dissertation they would have been misleading or counterproductive. I believe that the rise of scientism during the enlightenment (Merchant, 1980) has hobbled our relationship with “[t]he fluid spontaneity and mystery of original nature” (Bonnett, 2017, p. 89). Bonnett argues that the natural world is a presence that unites with us in completing our own humanness. Notions that we could plan and master nature through methodical scientific assessment and calculation have led to a confused relationship with nature (Evernden, 1985/1993; Merchant, 1980/1990; Plumwood, 1993). These notions of planning and control have brought us to this precarious juncture, a time when the Earth is in serious decline (see David Orr, 2017; Jickling et al., 2017, 2018). My concerns about scientism and rationalism are further developed in Basket Two, where I include an essay, *Who Were We*, describing how these worldviews have limited design’s relationship with nature.

These baskets are without lids, so as to allow open access and provide easy visibility of the inner contents. This, too, is a metaphor for how I reveal myself in this dissertation. During my life as a professional designer and then as a teacher in a professional context, I have been conditioned to separate the personal from the professional and the spiritual from the academic. In my past, 'lids' would have been carefully placed on the baskets to allow a carefully managed or screened view of my self. Over the recent decade, I have been a meditator and a student of Buddhism. I have learned a great deal about myself. At first, I thought Buddhism was an aside to my career and a therapeutic exercise that was distinct from my *real* work. Over time, I realized that my Buddhist practice was helping me to focus, to become a united personal and professional self. I now realize that it is important to bring this spirituality to my practice as an educator and a designer, to integrate and knit together a whole self. This is a challenging and important aspect of my work. It entails being vulnerable, sometimes in contexts that do not invite vulnerability. There are no lids on these baskets; they are as open to new ideas, as to the world, as they are an invitation to vulnerability.

The baskets invite an intuitive reading for the reader as well. They offer unexpected frictions and surprises for the reader. They can be tilted to pour ideas from one to another. The contents within the baskets can be shared in parts, or entire baskets can be rearranged in wholes according to one's preference: organically, systematically, or accidentally. I found myself re-organizing them repeatedly during the writing of this thesis and discovering new insights as I did so. I offer the reader an invitation to do this as well. Ideally, this creates a relationship between me and the reader through our intuitively guided readings of this thesis. To further this relationship, I offer a meditation practice in each basket that you might like to try. These baskets are offerings to my reader with the hope that you find in them some thoughts or practices to take out, share, store, rearrange, and share again—for the benefit of all beings.

The following is a peek into what is in the baskets:

Basket One: *Preliminaries*, offers an introduction to the shape of this dissertation, some suggestions for how to read it, and sets the stage for the research. I would like you, the reader, to understand my passion for design and nature, and my feelings about the profound importance of our relationship with all beings. I discuss the impetus for *redirective* design, a shift in the way that designers understand ourselves and our role, so that we can make a better contribution to the Earth.

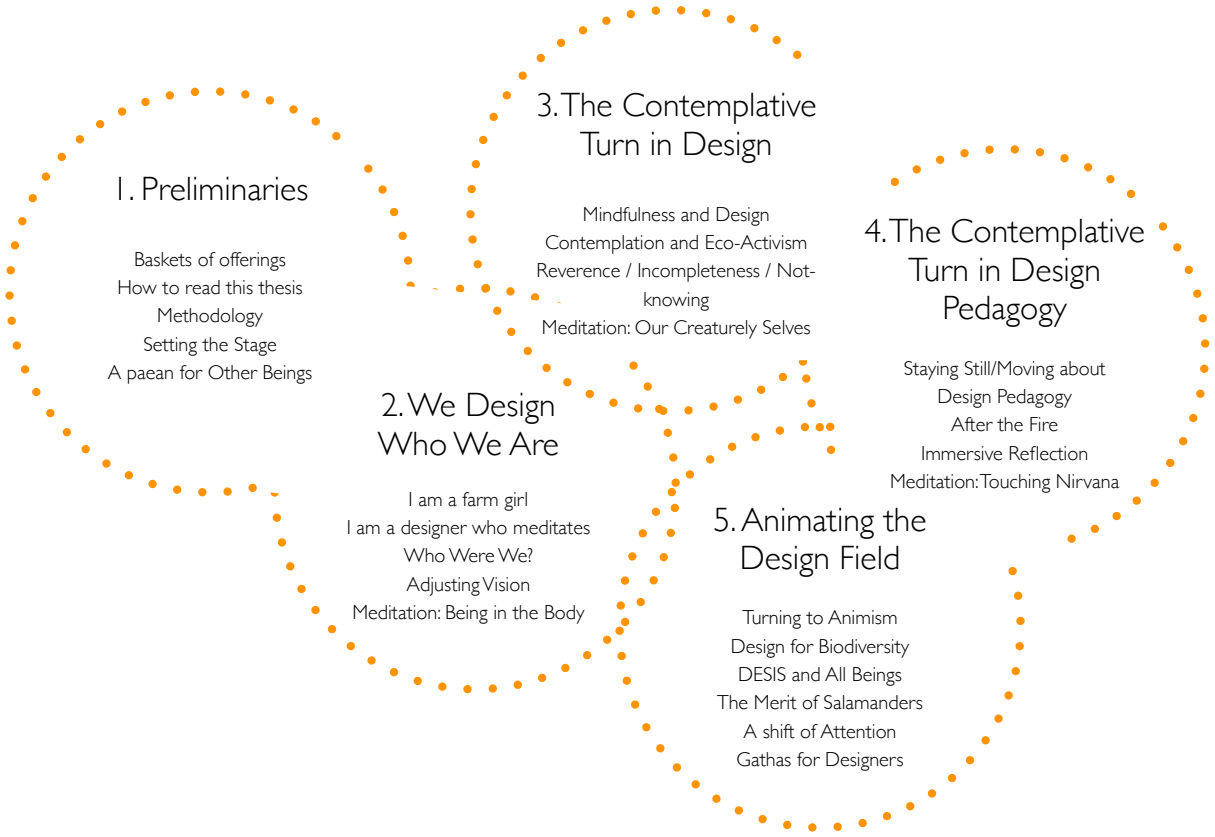
Basket Two: *We Design Who We Are*, offers my experiences from farm girl to designer and teacher who meditates. Design as I know and teach it, is fundamentally an exploratory process. Here are the stories that situate my design, teaching, and research. This basket includes a look at the broader field of design, suggesting that historically, designers may have been working from understandings and worldviews that need questioning. I contend that the hidden and not-so-hidden assumptions of Modernity have made it difficult for designers to fully understand human interdependence with all beings.

Basket Three: *The Contemplative Turn in Design* offers stories and methods to support turning to reverence, turning to not-knowing, and turning to mindfulness. I take a look at the current state of mindfulness, meditation, and contemplative practices in design and I discuss how Buddhist practices can inform redirective design practice, questioning the insistent traces of human-centrism in design culture. *Immersive Design Reflection* opens up the affective dimension for designers, supporting “a broadening of perception” that Sterling (2017, p. 41) says may help to shift our currently dysfunctional worldview.

Basket Four: *The Contemplative Turn in Design Pedagogy* offers stories of *intersubjective* and *relational* pedagogy. I narrate how design students can enter into relationality as a *felt understanding.* This pedagogy includes them as beings, rather than teaching relationality as a theory that designers can apply in various contexts. This is *intersubjectivity*, the dimension of open and vulnerable engagement that Bai says is akin to entering into a state of grace, or spacious awareness with another being (2004, p. 61). Educators can take basket four as a set of pedagogies for design and spiritual relationality.

Basket Five: *Animating the Design Field*, offers experiential ways to bring animism into the design field. I offer stories that illustrate how design might integrate animism, the

understanding that all forms of life have agency (Bai, 2013; Plumwood, 2009). I discuss the emerging interest among many designers to design for, with and within a world inclusive of all beings. I continue to challenge our anthropocentrism. This basket includes a story that recounts some experiments with pedagogy and nature, and an essay about how I practice mindfulness in nature.



A diagram of the baskets

How to Read this Thesis

This dissertation consists of groups of essays that explore ontologies for design, especially animism, and contemplative pedagogy. These essays can be read in the order of the preference of the reader as they explore the baskets. I write in many different forms, depending on what is needed. At times, I write in the traditional academic form, such as the essay "*Who Were We?*" This essay explores how design's relationship with

nature has been shaped in and by history. It was necessary to use a scholarly voice for that content. But there are many times when regular essay prose is inadequate to express the thoughts and emotions that circle around spirituality and engagement in nature. Later in this dissertation I describe how I was touched by the stories Heesoon Bai wrote about growing up with animism (2013). Cued and inspired by the way she wrote, I often turned to the personal narrative to write experientially about practices in nature or practicing Buddhism. Hasebe-Ludt et al. (2009) suggest that "autobiography is a relational rather than a solitary act, and it is in and through the writing that relations, previously unrecognised, become visible and audible for the writer" (p. 29). I find joy and new meaning in writing when the work is personal and emergent, and I hope it touches my readers as Bai's story did for me. In our book *Design and Nature: A Partnership* (2019), Kate Fletcher, Mathilda Tham, and I asked contributors to write from lived experience as much as possible. I am also inspired by how Kate found that the work she needed to do could not be contained within an academic frame. She began to write personal narratives that entwine nature, self, and fashion in a book titled *Wild Dress* (2019). Other scholars including David Jardine, Pauline Sameshima, and Carl Leggo describe teaching, nature, and emotion in their poems. As of yet I am not able to write poems. I often leave invocations in my essays when I feel that sentences are not adequate to describe the intensity of my feelings about the desecration of the Earth. Buddhist scholars like Thich Nhat Hanh and Norman Fischer are poets, writers, monks, and teachers. They use many forms to communicate ideas that range widely in complexity. Nature writers that I hold dear include the very scholarly and evocative, such as David Abram, Michael Bonnett, and Claudia Eppert. Others like Heesoon Bai, Kate Fletcher and Sean Blenkinsop explore a range of prose that is at times scholarly and at times poetic. These different approaches are valuable contributions to ways of seeing. They have informed my thoughts and my style. Some of my essays are written as vignettes. Some are connected to each other and some are not. They are loosely sorted in their baskets so that we can continue to play with their interconnections. It is my hope that this spectrum of writing, from things that can be explained, to moments of not knowing or mystery, can be understood as a valuable pedagogical range to further the conversation about design's emerging role in relationship with nature and spirituality.

Methodology

This thesis has a potpourri of methods in terms of how it is conceived, explored, researched, “lived,” designed and curated, and written. This includes conceptual analysis, theoretical exploration based on literature search, first-person observations, Buddhist practices, pedagogical trials, pedagogical reflections, story-telling, contemplative inquiry, and autobiographical life writings. It contains no empirical, quantitative, or qualitative research contents and protocols involving “human subjects.” Rather it is a collection of practices that help me journey through unknown territory.

The variety of methods used in this dissertation supported a journey of discoveries. I was deeply curious about the relationships that either already existed or could be drawn between the seemingly very disparate ontologies of design, nature, animism, Buddhism, and pedagogy. As I describe later in this dissertation, Buddhism in particular did not appear to fit with design, despite the fact that I have been a committed practitioner in both.

Over the course of my research (and now ongoing), I committed to an embodied practice of Buddhist meditation in the Vietnamese Zen tradition. The heart of this was daily practice, a weekly communal practice, regular walking meditation, and an occasional short retreat (day of mindfulness) on a weekend. I took part in a number of conferences, online communities, and other engagements, to learn the teachings of Buddhism. My classes on pedagogy at Simon Fraser University also permeated this growing fabric of knowing. I began to bring what I learned from this embodied contemplative practice into my pedagogy, and out into nature. I worked in between these strands, journaling about them regularly. I usually wrote my journals by hand, as it engages my body more fully than typing at a computer. I felt a lot of physical, visceral, and visual pleasure from the lines scrawling across the pages of my notebook. When I ran out of things to write, I would stop and do a quick sketch. This usually freed me to write again, and so my journals were curated with sketches of coffee cups, pens, paper from the coffee shop where I wrote much of my thesis. In this process of reflecting-not-thinking, I wove around and through embodied practice, pedagogical experiments and theoretical study. At many times, it was a form of wandering that the Buddha called “aimlessness” (Nhat Hanh 2017 pp. 86-87).

Nhat Hanh states: “Aimlessness is not about doing nothing, it is about not putting something in front of you to chase after.” He says that when we chase too hard, we cannot see what is really there, right in front of us. This wandering and aimlessness enter my walking meditation. “Breathing with every step they take, wayfarers walk at once in the air and on the ground,” says Ingold (2010, p. 1). Pogson describes this experiential walking as [an] entry point into a joyous world of layered themes, images, activities and connections” (2019, p. 30). In this journeying, I have found many connections in the between-spaces.

The autobiographical narratives offer me tremendous learning. For Douglass & Moustakas, this is a form of heuristic inquiry: “an effort to know the essence of some aspect of life through the internal pathways of the self” (1985 p. 39). According to Hasebe-Ludt and her colleagues, it is more than this. Autobiographical writing is a method “in which [researchers] research and teach themselves” (2009 p. 9). Writing autobiography is a “ self-reflexive and self-critical act” (p. 29) that has allowed me to see the preconceptions that were shaping my occasional resistance to insights that arose from my embodied practice. I expose myself and my vulnerabilities to myself through writing, re-reading it later, and sharing that writing with others who might reflect my views back to me through their own lens. In this way, autobiographical writing is a relational act, where we come into relation with ourselves and others.

I reflected in an ongoing practice between my autobiographical writings and my embodied experience. With the freedom afforded by the sorting and re-sorting into baskets, I moved back and forth between essay and experience, juxtaposing my own texts about sustainable design, stories of my pedagogy, engagements with nature, Buddhism, and animism. I was weaving experiential, spiritual, academic, and professional insights. I was following a practice called métissage.

Métissage involves moving and weaving between texts with the aim to find resonances and highlight new understanding, but without endeavoring to arrive at a single narrative. In this way, Métissage is a subversive praxis that “provides a counter narrative to the grand narrative of our times” (Hasebe-Ludt et. al p. 9). In my case, this praxis, or constant swimming between embodied and theoretical knowledge “makes possible new ideas and insights as well as new discourse and action” (p. 37).

As I mentioned above, what I learned from embodied Buddhist practice began to infuse my pedagogy in an evolving process. This is essentially a form of prototyping in the classroom. Prototyping, reflecting and writing is what Jane Fulton Suri, writing in *Design Research Through Practice,* calls "'think to build' and 'build to think'" (Koskinen et. al 2011, p. xi). This is also known as constructive design research (p. 5). Constructive design research is fundamental to design, innate to what we do as designers. It only remains to open up definitions of the word prototype to mean anything that is enacted so as to elicit responses from others. In this way, anything is a prototype.

My methodology also embraces liminality, the uncertain ground between things. I write often about my "unsteadiness, [and] lack of clarity about exactly where one belongs" (Hasebe-Ludt et. al 2009 p. 99). This is evident in much of my writing, and also opens to intuitive ways of being and working. I note in one essay, that the movement between locations, the scribbling on pieces of paper stuffed in a back pocket allows movement of thought, and allows the serendipity of accident as when an important paper fell to the floor, calling for attention. My methodology is inclusive of some chaos.

I consider this thesis an example of contemplative research in both practice and presentation. While the contemplative traditions date back millennia, there is a current surge of interest in contemplative pedagogy as evidenced in a breadth of publications (Bai et al., 2009; Batacharya & Wong, 2018; Eppert et al., 2007; Gunnlaugson et al., 2015, 2019; Sameshima et al., 2019). My learning is rooted in practice, and my commitment is to Buddhist teachings that advocate experiential learning as the greater wisdom over and above an intellectual or anecdotal appreciation. Inspired by Heesoon Bai's etymological musings (personal communication, January 2020), I follow the etymological meaning of 'theory': "theōria: contemplation, speculation; a looking at, viewing; a sight, show, spectacle, things looked at" (Theory, n.d.) – that is, what is shown and revealed on stage in the theatre, in this case, the theatre of my consciousness. My consciousness and its content-process are on stage. As a backdrop to this stage, my methodology involved reaching beyond my own knowing to connect formally and informally with colleagues, peers, trees, and ground squirrels. Co-editing the book, *Design and Nature: A Partnership*, with Kate Fletcher and Mathilda Tham, engaged me in collaborations that pulled me still deeper into my explorations. My interbeing process was, and continues to be, held in intersubjective relationship with the warm and wise community of my Buddhist sangha.

Setting the Stage for the Research Context

> The air is cool and close, a dampness that finds its way under edges. There is a stinky smell from the fish dying after spawning. Mēmxuem is a Squamish Nation word for ‘smelly river’. Heavy fish almost buried under the silt, silhouettes in muted tones of brown and gray. It's a scrappy little spot, with only a small gravel road for a parking area. (St. Pierre Mēmxuem river journal, 2019)

> In 2018, the rivers of the North and Central Coast saw one of the most devastating salmon returns on record. Historically, hundreds of spawning populations of chum and pink salmon provided a huge annual influx of nutrients to creeks and rivers throughout the Great Bear Rainforest, but last year these runs were abysmal. There has never been such a sense of urgency over the state of salmon on the BC coast. (Pacific Wild, n.d.)

During the current global ecological meltdown, many designers are questioning how we may have collectively and individually contributed to planetary damage. We wonder how the design of products, services, systems, and information encourage consumerism and support the priorities of business and economics (Boehnert, 2018; Manzini, 2010; Orr, 2002; Papanek, 1995; Shedroff, 2009; Van der Ryn, and Cowan 1995; Walker, 2014; White et al., 2003, 2013). This is a time in history when many designers are confused and conflicted about our role going forward. On November 2019, the United Nations announced that we have less than 11 years to avoid extreme collapse. Others estimate the widespread collapse of social systems within even less time (Bendell, 2018). The Prime Minister of Canada has declared a climate emergency (Canada’s, 2019). Our temptation is to run quickly, and to run towards technological fixes. In my view of the past several decades, technocentrism, the reliance on new technologies to solve problems, has led to many misguided approaches to what we call *sustainable design* (St. Pierre, 2019b). Efforts at sustainable design have largely followed the definition established by the Brundtland Commission in 1987, “to meet the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, n.d.). Despite many years of work and research in sustainable design, the Earth’s systems are increasingly closer to collapse (Lade et al., 2020). The Union of Concerned Researchers in Fashion (Union, n.d.) stated: “we recognize that uncritical research findings, duplication of research, reduction and misuse of scientific and

technical knowledge reinforces and speeds up this over-simplified condition in the fashion industry." The same can be said for almost all design industries: communication design, industrial design, and interaction design among them. We have been spinning madly in multiple places, often engineering ourselves into holes. I, myself have been part of many such initiatives in design: I am implicated. In this dissertation, I search for root causes of the ecological crisis. I look towards how designers might change our ways of being and learning in relationship with nature so as to shift our allegiances from Capitalism and the priorities of Modernity. In our recent book, *Design and Nature: A Partnership* (2019a), Kate Fletcher, Mathilda Tham, and I wrote:

> We now know that ecological urgency demands more than a tweak of designed objects, design processes and even design systems. In fact, ecological urgency impels us to push against the forces that have birthed design, have shaped design for decades, and now confine it (Fletcher et al., 2019a, p. 10).

To engage fully in caring for and with the Earth means to challenge the foundations of our discipline. In this dissertation I dig around the terrain of design, examining the roots and turning them towards more fertile nutrients. I ask designers to consider "redirecting" (Fry, 2009, p. 7) our sense of who we are as people, and as designers. I offer moments of "rebellion" (Blenkinsop & Morse, 2017), alternative ways of considering, practicing, being, and teaching design with full awareness of our human interdependence with and within the natural world.

Designers are people. Most of us are people who are embedded in the Modern Western cultural context. Some scholars hold designers accountable for the current devastated state of the planet (Papanek, 1972; Shedroff, 2009; Tonkinwise, 2016). But designers are less powerful than these critics might suggest. We are people who learn, work, and live within the same problematic context as most citizens in the Modern Western world. While we are steeped in contemporary culture, designers also have a wide range of talents, skills, and methods for reflecting upon contexts, visualizing change, and influencing society. These capacities have been developed in concert with, and in support of capitalism, consumerism, industrialism, and economic expansion. Many designers are seeking places to offer our abilities in ways that counter dominant power structures (Boehnert, 2018; Escobar, 2018; Fletcher et al., 2109a).

For much of my academic career, I carried deep concerns about how human societies have been mistreating the planet. I researched ways that design could contribute to

planetary health, ultimately realizing that these design methods and approaches could not offer enough unless designers learned to prioritize the natural world with our full attention… in effect, to embrace animist awareness. An animist view of the world implicitly challenges anthropocentrism by bringing attention to the lives of more than human beings. There are many definitions of animism (Harvey 2013), but generally, animism is a way of understanding human situatedness among all beings (Plumwood, 2009). In this dissertation, I use the term *more than human beings* to be holistically inclusive of those “whether born from eggs, from the womb, from moisture, or spontaneously” (Nhat Hanh 2007, p. 345). The animist worldview is inextricable from how Michael Bonnett describes nature as “the self-arising” that is “ineluctably embedded in human being” (2017, p. 82). We are intertwined, intermingling: we ‘inter-are” (Nhat Hanh 2001, p. 55). With these words I remember my twelve-year-old self, sitting at the kitchen table with my father talking about the vitality and importance of the natural world, the space where we all need to place our attention. Attention, the "act of looking attentively at anything" (attention, n.d.) is at the heart of contemplative practice.

The word contemplate comes from the classical Latin contemplāre to look at hard, to gaze at, to observe, to study, to consider (contemplation, n.d.). In post-classical Latin, it also can mean to live in contemplation (8th cent.). Contemplative practice is a component of most spiritual traditions, encompassing “a suite of practices that aim to develop and transform consciousness” (Bai et al., 2017, p. 23). I draw from research that examines contemplative practice as a way to reconsider existing epistemologies and ontologies. Contemplative practices shift the nature of the design process to attune designers to a wider understanding and appreciation of the world; a world that is not limited or defined by technocentrism, humanism, and a bounded sense of reality, but rather to an open appreciation of a complex and interdependent world shared by multiple beings. I contend that designers can use their skills, capacity, and creativity to address the needs of the whole living, spiritual, and biological world. We can do this by turning our attention to other practices, places, and priorities, or what I, along with many other contemporary scholars, call a *contemplative turn*. According to Charles Scott, this turn is intentional: “an ontological orientation of being turned to the other is and can be developed through the conscious act of turning” (Scott 2011, p. 7). In much of this dissertation, I develop, articulate, and propose the many different ways that we can all, intentionally, make a conscious turn towards animism through contemplative practices.

This dissertation has grown in tandem with the book, *Design and Nature: A Partnership* that I co-edited with Kate Fletcher and Mathilda Tham. There, we questioned design's alignment with Modernity, Progress, and Capitalism. We asserted that "there is an alternate alliance for design: a partnership with nature. This partnership with nature disrupts dominant expectations of design, as it is incompatible with the drive of the modern economy" (Fletcher et al. 2019a, p. ix). For me, with my deepening contemplative practice, the alternative alliance for design takes the form of contemplative turns in design. Contemplative practices offer designers ways of becoming aware of, and then challenging, our dominant human-centrism; we need help adjusting to a post-human-centered reality. A world that is shaped and perceived only for humans, a world that excludes about 99% of living beings is a dangerous world. Design has long been entrenched in anthropocentricism, and has become practiced at serving human needs. Making a shift away from anthropocentricism and human exceptionalism is challenging. While this research is directed towards designers, I acknowledge that a turn of orientation and a shift of attention towards all beings is needed in every aspect of human practice.

Historically, the practice of design has been the shaping of artifacts, fashions, communications, environments, and buildings for the advancement of society and economy. Many agree with Fry that this "object centered designing" is now over (2015, p. 421). Fry characterizes the new form of design as "an intellectually demanding and dominantly strategic domain, rather than just a craft and aesthetic practice" (p. 422). Advocates of *design thinking* (Brown, 2009; Martin, 2009) also advance design as a strategic process for intangible realms such as government services, political groups, and in business organizations. It is an exploratory and research-centric activity. However, even intangible applications of design usually remain aligned with Capitalist Modernity, which benefits an ever-growing industry and economy. Boehnert describes how this relationship with Capitalism compromises the capacity of designers, noting that we "are currently not able to effectively address contemporary environmental and social problems due to the systemic priorities of the design industry" (2014). This alignment has been contested in recent years, as designers and scholars call for more justice: socially, ecologically, and politically (Boehnert, 2018; Fletcher et al., 2019a; Fry, 2015, 2017; Escobar, 2018; Manzini, 2020). At the time of this writing, there is a

counternarrative building among my peers and colleagues about economic degrowth, racial equity, feminism, decoloniality, indigeneity, and environmental justice.

I hold, that to fully engage in new ethical practices of this counternarrative, design needs to change from within. In 2009, Tony Fry began to suggest designers should 'redirect' our practice (p. 7, 12). From Fry, I infer two paths for this redirected or *redirective* practice. The most obvious path is an outwards redirection, where designers apply design in ways that are *redirective…* this means attempting to redirect society towards justice. This is a productive path for many designers. The outward redirective path retains its focus is on some *other*, and design either retains a position of 'knowing better' or design engages in practices of deep learning to support the development of wise approaches. An example of this is how Yoko Akama and her team developed a system to support inclusive Indigenous engagement in Australian governance by developing both physical and digital platforms for input (2017a). The field of transition design also offers examples of designers working together to map systemic injustices and redesign entire communities (Irwin, 2015). Other forms of design such as design activism are also outwardly redirective. Activism usually advocates for, or allies with, the neglected, oppressed, or marginalized, taking a stand for greater inclusion and recognition of rights (Thorpe, 2012). Design activism and transition design are forms of ally-ship that position the designer outside of their traditional roles as problem solvers for the Capitalist economy. This places designers in nonhierarchical relationship (allies them) with a multitude of interdependent needs and issues (Escobar, 2018). In some instances, design activism offers effective resistance to the dominant capitalist economy (Boehnert, 2018; Fuad Luke, 2009; Thorpe, 2012). Design's longstanding roots in humanist (or anthropocentric) traditions means that there is a strong path of *externally redirected* design work on behalf of marginalized peoples. Designers are most comfortable extending their energy outwards, changing others and changing situations.

The less-trodden path of *redirective practice* that I wish to call attention to is a shift of understanding within ourselves, accompanied by a shift in worldview that challenges our anthropocentric biases in design. To help with this internal redirection, I offer a strongly grounded, non-anthropocentric spirituality for design. I equate non-anthropocentric spirituality with animism, the understanding that all forms of life have agency (Harvey, 2013). It is a spiritual worldview that de-centers the human, and validates a plurality of

centerings instead (Plumwood, 2009). Getting to this world view is a process of spiritual growth. It involves a set of practices. It involves more than an intellectual appreciation. I advocate greater attention to somatic and experiential ways of learning in design as a way to reimagine, or redirect ourselves. I draw extensively on my own learnings and practice of Buddhist Mindfulness in the Tiep Hien Interbeing tradition of Vietnamese Zen, led by Zen Master Thich Nhat Hanh.

Modernist and humanist traditions make it challenging to admit a grounded animist spirituality in design (Walker, 2013). A grounded animist spirituality would provide a counterbalance for those designers who have been imbued with the learning that supports contemporary design practices at the expense of a living Earth. Spirituality offers a different way of seeing and understanding what is important. As I have noted on my own journey, spiritual views have to be holistically integrated with all of our work, and not set aside as an 'extra' interest on the side. This is integrative. Fragmentation is a key problem. The fragmentation of the spiritual from the professional has allowed all manner of injustices to the Earth (Bai, 2004; Gunnlaugson et al., 2015; Merchant, 1980). Throughout this dissertation I describe my personal experiences, often referencing my journals, to bring forward the parts of myself that I have fragmented and "backgrounded" (Plumwood, 2009/2013) in service of what I thought were the boundaries of my professional disciplines.

The deficit of holistic spiritual practices is frequently noted to be a fundamental and underlying cause of the ecological crisis (Albrecht, 2019; Harding, 2009; Loy, 2018; Sperry, 2019). I agree with these voices. And I see that their stories are nuanced. Loy says "the ecological crisis is also a spiritual crisis: we are challenged to realize our interdependence—our larger "self"—or else." (2015, p. 74). I infer that Loy's view of interdependence includes all beings, animal, mineral, vegetable. In short, an animist interdependence. Walker's words are slightly different. He says "there is a wide range of authoritative voices that find critically important relationships among human actions, environmental responsibility and stewardship, and our spiritual or religious sense" (2013, p. 102). Walker, as a leading voice in design, calls for an increase in spirituality in design. His view of spirituality is still somewhat rational, and stops short of a fully animist worldview. In his phrasing, spirituality might help designers to increase our environmental responsibility, almost as a corrective measure towards a "repositioning of priorities" (p. 107). This instrumentalizing, or tactical application of spirituality, is probably

not Walker's intention, but, as I describe later in this dissertation, tendencies toward instrumentalization are a strong thread through much of design's perception of contemplative practices. The deficit of spirituality in design is a natural consequence of modernism that is reinforced in our pedagogy. As Batacharya and Wong say, "Our system of education teaches us to hold those who talk in terms of spirituality in pity if not explicit disdain, while inculcating what Susan Bordo described as 'masculinist, Eurocentric norms of 'professional' behavior and accomplishment'" (Bordo cited in Batacharya and Wong 2018, p. 12). This view is pervasive in design, particularly the professionalized fields of industrial design and interaction design that are associated with industrial production, economy, shareholder profit, and speed. Without intending to, much design practice tends to overlook the spiritual aspects of being.

My views on spirituality and animism are drawn from my own experiences. I grew up with an appreciation that nature is an extraordinary life force, a being. My experiences on the farm taught me that I was only part of the larger mysterious world. This is my definition of spirituality: a humble awareness of our interconnection among and our interdependence with all beings. Zen Buddhist teachings on interdependence affirm this beautifully for me. Other integrative teaching can do this also. In fact, my inspiration for this research began with a Christian book deeply rooted in holistic epistemologies and ontologies: *Ecotheology and the Practice of Hope* (Dalton & Simmons, 2011). This text drew connections between the ecological crisis and multiple suppressed views: the feminine, the intuitive, the emotional, and the spiritual. The Buddhist practice that I embrace upholds all that Dalton & Simmons describe, and adds the dimension of embodied awareness of animism. This is important to me. My experiential knowledge of spirituality and animism is rooted and fully contained within my Vietnamese Zen practice.

Heesoon Bai's work was the most impactful for me. It shook awake my understanding of animism. In the essay *Peace with the Earth: Animism and contemplative ways* (2013), Bai described how, as a child growing up in Korea, she was guided by her grandmother's animistic views. She says "I had the sense that it was important to share my food with Nature: the myriad of beings, both visible and invisible. There was also the sense that there were more invisible beings than the visible ones" (p. 136). The fact that Bai revealed her personal and historical relationship with animism within an academic context changed the way that I saw my discipline and my research. I began to see animist views as increasingly credible in a wider context. After all, Bai, a professor in a

major university, had authenticated this with an academic voice. I connected this to my own past. Suddenly my father's words about hearing his seeds growing no longer seemed like flights of fancy, but as a spiritual experience and a farmer's contemplative practice. His words became credible and newly powerful. Bai's essay is an example of an academic voice and an academic practice that echoed my need to bring an animist and an ecological worldview into my professional discipline. This essay also exemplified what I now see as an integration of the personal, the spiritual, and the professional.

Along the path of my animist learnings, I have also been inspired by Priscilla Stuckey (2010), Sean Blenkinsop and Laura Piersol (2013), and David Abram (1996, 2010, 2013). Abram tells a story about learning animism while immersed in the mountains of Nepal, and coming back to astonish his neighbours by being able to talk with the squirrels in his back yard (1996, p. 25). After some time, he slowly lost his ability to communicate with these squirrels. This suggests many things to me. First, that animist communication can be learned. Clearly, certain conditions enabled the high level of facility that Abram achieved, but it is also probable that some level of animist communication can be attained by any of us. This is akin to the fact that I will never be a Tibetan throat singer, but after some time and practice, I can participate 'just well enough' in some Buddhist chants. There are degrees of learning and aptitude for the attainment of any skill. The second point that I take from Abram's story is that his capacity for conversation with squirrels diminished as he became reacclimated to modern society. It took a few weeks for him to lose his receptivity to the squirrel vocalizations, and for the squirrels to stop responding to his calls. He says that the reason for this is that he could no longer focus his "awareness on engaging in their world" (p. 25). Abram's story illustrates how the overwhelming demands of our modern lives can obstruct or obscure our relationship with other beings.

This is not a surprise. Many have written about how digital technologies and social media make excessive demands on our attention. Abram says we are "caught up in a mass of abstractions, our attention hypnotized buy a host of human made technologies that only reflect us back to ourselves" (p. 22). Since writing *The Second Self: Computers and the Human Spirit* (1984), Turkle has been raising cautions about how digital technologies shift human attention and truncate attention spans. Kahneman in *Thinking, Fast and Slow* (2013) notes the limits of human cognition; we simply cannot process the amount of information that comes our way. Odell (2019) confirms this, and goes on to

describe the efforts needed to resist the attention economy in the age of social media. Odell notes the importance of 'retraining' our attention: "we absolutely require distance and time to be able to see the mechanisms we thoughtlessly submit to" (p. 60). Attention is a scarce resource. This is particularly challenging for designers. Our very practices and disciplines demand that we both set up, and keep up with, trends and various media. We are reminded to pay attention to contemporary society and technology, exactly that which most undermines our capacity to develop and maintain animist awareness. The scarcity and importance of attention is of particular concern to me, and is a critical concern for design and animism. I have pointed out that animist ways of knowing can be learned, just as musicians learn to hear notes, and designers learn to see in order to draw. To learn animism "requires becoming aware of, and then quieting my thinking self, so that I can attune to the differing speeds and modes of communication in the more than human world." (St. Pierre 2019a, p. 22). Where we place our attention, and how we practice are most important. Design's attention is too often hijacked.

Many aspects of design culture contain barriers to slowing down, to paying attention, and to accessing animist ways of knowing. Design has a strong lineage that inspires us to 'solve a problem' by providing professional services. This means that we bring preconceived frames of reference when we attempt to design for other beings. Our professionalized self sees that other beings are in situations that offer discrete problems to be solved. In this way of thinking, the otter or the bear becomes a 'client' that our skills can service. We will design them a 'better' fish tank or zoo. In some cases, we bring a technocentric approach that renders other species less visible to us. In a later essay, *The Merit of Salamanders* (Basket Five), I take inspiration from Robin Wall Kimmerer's (2015) recounting of salamanders being killed by traffic while trying to migrate across a road in New England. I speculate that this 'problem' could be eased either by culvert that seamlessly guides salamanders under the road, or by asking neighbours to periodically stop driving during migration periods. The first option makes salamanders invisible; the second option positions them visibly and affirms their needs as important as our own. It allows the friction of an encounter with other species. The modernist ontology dictates that guiding the salamanders invisibly under the road through a culvert is the most obvious and appropriate solution, because it the easiest for humans. In contemporary contexts, it appears extremist to propose that humans modify their behaviours to support

another species, despite the many benefits that would come of our direct engagement with these others. Some of these benefits include seeing ourselves as less important, and knowing ourselves to be part of the greater and more mysterious natural world.

For centuries, society has effectively 'missed the point' about our interdependence with nature. We need specific tools, practices, and approaches to *threshold* (Barrett, 2017, p. 132) us to new understandings. Contemplative traditions offer a suite of such practices. As I detail later, these traditions offer means of helping us shift our identity, our sense of self, and our place in the world (Bai, 2001a, 2001b, 2004; Fischer 2019; Gunnlaugson et al., 2015; Loy, 2018). If we take a contemplative turn, we shift our understanding of how we interrelate with other beings, other lives, and life itself. The delusion that we are separate from other beings results in technological strategies and solutions that render salamanders and other species invisible. Delusion in design is similar to the delusions that afflict most of humanity: the delusion of being a separate self, the delusion of a self that is separate from the workings of the planet, and the delusion that human beings are more important than other beings. Contemplative traditions offer visceral and somatic practices that help to wake up from the delusion of separateness. For example, Zen Buddhism offers a set of learnings, a community of practitioners, and contemplative practices. These powerful practices train attention and enable a contemplative turn. In this dissertation, I describe how my spiritual practices have supported and enabled my own contemplative turn. I narrate my experiences of bringing Buddhist-informed contemplative pedagogies into design studio classes. My many essays and stories show how closely my Buddhist practices connect with my growing animist awareness. As the sorting of my baskets winds down, I become aware of the growing integration of my self, my spirituality, and my actions along the path of design for all beings.

A Paean for All Beings

A scientist would tell us that biodiversity enables life on Earth: that the complex interactions of many different species creates the clean air, water, and food that we depend on. It seems so simple, and yet when confronted with the plight of the long-whiskered owlet, giant otter or black-footed ferret, it takes a stretch of the imagination to fathom the interplay of many events in that one creature's life that enable the lives of many others. This multifold interdependence was once viewed as 'mechanistic' systems by early ecologists, but is now understood as more organic and mysterious. On the West

coast of Canada, it appears that our beloved resident population of killer whales is dying slowly, one by one. We can point to the fact that their sole food source, salmon, is declining. And then we can point to many reasons for the decline of the salmon. But what we don't really know is what happens to kelp, rivers, air and life itself when the salmon is gone. We don't know what happens to the spiritual realities of many Indigenous communities. We can imagine the interplay of species painted simply as in a food chain, but in real life we have a watercolor where tints run random across the furrows of the surface, seep into distant places, and are caught airborne in surprise.

David Abram (2017) once estimated that with the loss of diversity, the human species would only survive for two more generations. In the context of the talk he gave, he was taking into consideration all of our human-made technologies for survival: manufacturing artificial proteins, cleaning air, desalinating water, and so on. Even so, these would be inadequate to sustain life. Only biodiversity can do that.

More importantly, I interpret Abram to also mean that the human species would suffer from profound loneliness without the multitude of unseen lives sharing the Earth with us. Moments like this have me wishing I was a poet, so I could describe my certainty that the air around me has been touched, breathed, and whispered by many others, and that their living essence, all the interactions invisible to my imagination are still felt in my body. An uplift, moment by moment.

But I am not a poet, and this might seem a flight of fancy, so I retreat to Abram and the scientists: life cannot not be sustained without biodiversity.

And I confess that even if the human species were not able to continue, I would wish for the ground squirrels, golden eagles, and great white whales go on with their lives in this beautiful world.

Sketch 1: An Urban Douglas Maple, 2018

Basket Two: We Design Who We Are

It is my conviction that who we are infuses what we do and how we do it – in whatever field or domain of endeavour. My resolve to take the field of design towards contemplative design and animist awareness bears the ontic signature of who I have become. By inquiring deeply into, and engaging deeply with my self, seeing where I have been, where my current growing tips and edges are, and the inner movement towards the direction I wish to go as a teacher-design professional, I will have a more lucid, rich, and informed understanding of what I could offer to the field of design. This basket offers my experiences from farm girl to designer and teacher who meditates. By offering and reflecting on the stories of my life, I situate my design, teaching, and research within the emergent field of contemplative design.

The essay “Who Am I?” contains more than autobiographical information; it is permeated with my experiences from almost 40 years as a practitioner and academic in the design field. Looking back, I see how inevitable it was that I gravitated to forms of design that tried to integrate ecology. I also see the mistakes that my younger self made by carrying an unexamined faith in modernity and maintaining an optimistic view of the benefits of design as a problem-solving practice. The process of revealing myself to myself in this writing clarifies and strengthens my voice going forward. I am searching for the words, tones, and languages that are more easily heard in difficult conversations, in difficult times, so that I may offer any gifts I may have. As someone who has often felt to be on the fringes, to be misunderstood, and therefore sometimes speaking too stridently, I seek to find a voice that may help articulate the challenging concerns that we are all facing. More than this, I take note from Hasebe-Ludt and her co-authors that “the writer can educate her attention to the lifeworld, where she dwells and with whom she dwells in that world; she can develop her direct sentient engagement with that world and all its ecological relations.” (2009, p. 29). Kate Fletcher’s *Wild Dress* (2019) comes to mind for me here. Kate connects fashion and nature through the membrane of her perceptions: “The Wild Dress writings are from my life. They record details as they were experienced, as I remember them” (p. 9). More than this, I notice that the person who she is shapes all of her observations: “I was undone by a sensation of fleeting rushing recognition: by a feeling of almost understanding, by a connection with a jumper” (p. 56). Fletcher’s writing illustrates how we come to understand new perspectives through our personal

experience. “Only personal knowledge is useful to world-making” writes Bai (2006, p. 11). Designers, passionately interested in shaping worlds, need to bring our personal knowledge to practices of world-making, to admit the subjective, and to understand how much our own views shape the work that we do. In this way, designers “can reveal their systemic relationship and personal responsiveness to the spheres they are entangled within” (Akama et al., 2014). This is the beginning of a *redirective* design practice.

In modernity, we implicitly separate the personal and professional. And yet design has often been described as a lifestyle profession; we live and breathe the work we do. We plan our vacations and travel to places that have bearing on or offer inspiration for our creative work. We socialize with peers and fellow designers to talk about recent trends. I have overheard designers claiming that they should be paid for every waking hour, because they ‘never stop thinking about design’. Our personal selves become subsumed by our sometimes insular and self-contained discipline. This basket includes stories of my learning as a Buddhist practitioner. Like design, Buddhism encompasses a whole life. A deep engagement with Zen encourages practitioners to come to terms with their inner mind, their body, and their relationships with others, bringing mindfulness to every moment, every day, and every encounter. The trainings encourage Buddhist practitioners to look at every detail of our lives. For example, we try to avoid excessive consumerism and to use balanced judgement around social media, even questioning the values of the TV shows we watch. It is a lifestyle that often conflicts with contemporary design lifestyles. These stories in this basket tell of the struggle to reconcile my views and integrate my life. These stories describe my tensions spanning those realities in a world that needs grounded ecological wisdom more than anything else.

Continuing with the theme of ‘knowing ourselves’, this basket also includes an essay, *Who Were We?* that details some historical and underlying influences on designers. This was originally published as *Design and Nature: A History* (2019a). I have renamed it to bring attention to the ideas in this essay that articulate a lack of awareness among designers about the consequences of our pervasive human-centrism. It may be that designers knew *ourselves*, but it appears that most of us did not know or appreciate our interdependent relationship with the natural world. This blind spot has allowed us to shape our work according to the dictates of capitalism and industry. In hindsight, I notice that even when designers did attempt to connect and work with nature, we still placed human needs as the primary focus of our work. Despite the growing understanding of

natural systems, the illusion of human control or mastery has persistently shaped our responses. What if we could see this happening, and know these influences? Would they continue to trip us up without our knowing? This is another example of how knowing who we are, knowing what we are influenced by, is essential to doing the work that we desire to do.

We design who we are. It is possible to have our best intentions undermined by our lack of awareness of who we are, and of the worldview we are operating within. Our personal worldviews along with the dominate voices of our discipline shape our decisions subliminally or overtly. Identity, self-awareness, and humility are themes in this basket.

Who am I?

Parker Palmer's much celebrated line, "We teach who we are" (1998, p. 1), has seen many permutations. I echo the many voices who suggest that we also design who we are (Akama et al., 2014; Puig de la Bellacasa, 2017; Suchman, 2011; Tham, 2019). My professional aspirations past, present, and future; my wishes for a contribution to the field of design; and my pedagogical aims and approaches all bear the signatures of who I was, have become, and wish to become, in an ongoing process of learning, becoming, experiment, and conscious choice-making through attention-giving. I shall, therefore, engage below in an autobiographical reflection to search and re-search my self with an aim to situate my work and establish the grounding for my dissertation.

I am a Farm Girl

I was seven years old. Our family purchased a quarter section (160 acres or 0.65 square kilometers) of farmland near the remote hamlet of Ardmore in Northern Alberta. At that time in 1967, a farm this size could no longer sustain a family, so we continued to live at the local Air Force base where my father worked. On weekends, holidays, and various evenings, we drove the 40 minutes to this old homestead. There was no running water, an ancient wood stove that warmed us in the mornings and an outhouse toilet that was cold and scary in the dark. We planted potatoes, picked chokecherries and saskatoon berries. My relationship with nature started there, in undiscriminating body contact: the dust and dirt of dry land, the mice that rode over our sleeping bags, and the wild strawberries that stained our knees as we roamed through dormant hay fields. My

brothers and I gleefully discovered small stand of poplars where previous owners had discarded their trash: rusted coffee cans, an old mixer, bent forks, fragments of plates, and broken tools. This was my first visceral insight that everything has to ‘go somewhere’. The local dump, too, was a pit filled with old refrigerators, sinks, open trash, and swarms of flies. It was clear to me at a young age that there was no magic place where all the artefacts of society disappeared.

By the time I was twelve, as much as nature was an embodied reality for me, conversations with my father at our Formica kitchen table shaped my values. Dad believed that nature was wiser than humans, bigger, and more important. It was alive. On rainy summer mornings, he would sit with his coffee and say “What a good rain! I can just hear those seeds growing, I can hear them. Listen.” Our 1970’s environmental era discussions shaped an ethic for me: “Nah. Pesticides. Won’t use ‘em. Let the bugs have their bite.” In 1975 my father practiced traditional farming methods like crop rotation. Since one crop will extract certain nutrients from the soil and another will replenish them, traditional farmers planted alternating crops in a field to support the balance of health of the land. Dad also practiced summer fallow, which meant plowing the straw back into the soil and letting a field lie dormant every few years to conserve moisture and digest the nutrients and fibres remaining in the straw. There was no profit in this practice, except in maintaining soil health. I drew from this the understanding that the Earth needed to be both tended and left alone to heal herself from time to time. This is also where I learned that nothing comes from the Earth for free, that everything grown from the Earth extracts something from the land. This foundational learning leaves me sceptical about industry’s quick solutions to single use plastics and naturally sourced alternative materials. All materials extract from the land, and any chemistry that is added into them during processing and use may add toxins if, as is inevitable, they are plowed back into the soil.

Financial pressure drove many changes on our farm and on others, but what has stayed with me was the knowledge that all resources are limited, that nature is cyclical. Worldwide, extractivist and disposal practices are at odds with the cycles of nature. I also retain a deeply embodied knowledge that nature is all, is everything, is an invaluable all-encompassing being that words are not sufficient for. I often feel that nature is something that I cannot explain.

Attempting to explain nature, I have often referred to Michael Bonnett's definition: "the self-originating material/spiritual world, of which we are a part, including the powers that sustain and govern it" (2002, p. 12), but this definition, while being very comprehensive and inclusive, is not sufficient to describe the all-being quality that I experienced on the farm. Heesoon Bai writes that for students to truly understand the natural world, they would need to perceive it as "a sacred order in which they participate as friends and lovers of life." (2001b, p. 11) This echoes Val Plumwood's view of nature as an interrelated and overlapping set of animated creative energies and beings (2009/2013). This point of view is what I would call spiritual at its essence because of the distributed care and attention for numerous beings beyond one's own self. Thich Nhat Hanh describes the Buddha's experience of discovering the insight of interbeing: "He felt all the joys and sorrows of every living being—those born of mothers, those born of eggs, and those born of fission, who divided themselves into new creatures" (2008, p. 119). Linda Hogan's view from the Indigenous perspective echoes this, too. She says that without "the waters, … our intimate relatives, the plant people, the animals, insects, and all our special relations," "a great pain and absence has been suffered by humanity" (2013, p. 17). She goes on to say "We know that a healthy minded human, a healthy community, yearns toward the love and care for Earth and all Earth's creations. It matters little about one's notions of God. What matters is the sacred that is present in everything, everyone" (p. 23). Practicing a relationship with nature is a spiritual practice. It is a relationship that needs to be explored, built, and maintained. It is a relationship that needs commitment (Fletcher et al., 2019a).

I am a Farm Girl who Meditates in the Tiep Hien Interbeing Tradition

> The first time I saw salmon spawning was an autumn day, moist and cool. At first, we couldn't see any fish, then as my eyes adjusted, I saw one, and another. They were still, or dead, at the bottom, huge streamlined shapes lying barely visible. And then I saw some that were floating around, splashing intermittently as they prepared a spawning bed. I was mesmerized by the sense that something Great was going on. James wanted to walk further, but I could not move. I could only stay hunched by the river, stay with these creatures, breathing in the low damp cloud. Breathing with them. (St. Pierre, Mēmxuem river journal 2019)

My transition to Buddhism took time. The seeds were planted twenty years ago when I lived in Seattle. My friend Jamie had convinced me to come to a Mindfulness retreat in

the arcadian setting of Camp Indianola with a group of practitioners (a *Sangha*) who studied together. There I had my first transcendent experience in the meditation hall. Time disappeared as I sat on that cushion. Afterwards, in my newly light and fluid body, I was able to skip rocks in the ocean for the first time in my life: I felt a surprising sense of merging with the world around me. It was also an early clue about what I will detail later in this dissertation as the somatic and embodied learning that is interwoven with Buddhist meditation practice.

Years later, in Vancouver, I searched fruitlessly for a community like the one I knew in Seattle. I tried several different traditions, but nothing felt as meaningful to me as the Mindfulness practice I had been exposed to. This tradition follows the Tiep Hien Interbeing tradition of Vietnamese Zen master Thich Nhat Hanh. Finally, in 2013 I was on a retreat (once again in Washington State) and I met a fellow Canadian. “I practice with a *Sangha*,” she exclaimed, “It is just in East Vancouver!” A fifteen-minute walk from home, literally too close to find.

I fell into that Mindfulness community. A place of peace, spare rooms filled with compassionate people and beautiful rituals, a respite for one experiencing academic politics and carrying burdens about the future of the Earth. At first, I was drawn to the more visible values of Buddhism, like the call for a simple life without resource intensity, and the cultivation of calm spaces in a hectic life. Soon I began to appreciate the depth of the teachings, like the commitment to interdependence as a lived experience. Buddhist psychology offers a deep understanding of our connection with nature: an interconnection, an inseparability. Thich Nhat Hanh uses the present tense, we ‘inter-are’ (2001, p. 55), to inscribe interdependence with all being as an ontology, a path, rather than a fixed theory. Many Buddhist texts declare intentions to support a diversity of beings “whether born from eggs, from the womb, from moisture, or spontaneously” (Nhat Hanh 2007, p. 345). I committed to Zen practice right away, but it took a long time for me to claim ‘Buddhist’ as part of my identity. I needed to grow into this. I learned as I practiced. As my learning deepened, so did my commitment to Buddhism. I received the five Mindfulness Trainings (Nhat Hanh 2007, p. 98) in 2015, and was given the Dharma name “Deep Commitment of the Heart” by Kristin Penn, Ordination teacher of the 43rd generation of the Lam Te Dhyana School.

Since Indianola I have not experienced a transcendent experience in the meditation hall. I do have these experiences in nature, and later in this dissertation I write about how I practice for this. For me, though, transcendent moments are not the point of Buddhist practice. Vanessa Andreotti clarifies that Buddhist practice is about much more than seeking joyful experiences (2019). Deep practice also confers the strength to sit with the terrible, or, to quote Haraway, “stay with the trouble” (2016). We practice to stay close to what really is, and to experientially understand our interrelatedness with all beings in the world. The first time we recited the Mindfulness Trainings together, I was struck by the affirmation: “Aware of the suffering caused by the destruction of life, I am committed to cultivating the insight of interbeing and compassion and learning ways to protect the lives of people, animals, plants, and minerals” (Nhat Hanh 2007, p. 122). This clarity that we care for all forms of life was revelatory for me.

The statement that we ‘cultivate insight’ is also powerfully important. Insight does not simply happen through discussion: it must be cultivated. In Buddhist practice, experiential knowledge is prioritized to the degree that somatic, or sensory, ways of knowing are valued above the intellectual (Bai, 2001; Loori, 2007). The teachings contain repeated acknowledgment of animist ways of knowing that reach beyond intellectual or academic appreciation (Fischer, 2019). Buddhist teachings affirm the interdependence of all life forms (Nhat Hanh, 2007). Altogether, this validated what I knew as a farm girl. Some of the bits of me that had been fractured during my busy career began to reunite.

I am a Sustainable Designer who Meditates

I have been painfully concerned about the environment since the age of 12. I don't know what kind of news media reached us on our remote farm in Northern Alberta in 1972. We only had two television stations (and one of them was in French). We had radio and the small town paper. The internet did not exist. Years later, while doing academic research, I was astonished to see how much ecological wisdom had been generated in the 70’s. But what I remember from that time were my conversations across the old Formica kitchen table with my dad. Once I asked him if he thought society would be able to fix the environmental problem. He thought not. People were not smart enough, he said.

Much of my career trajectory happened incidentally or through serendipity. It was my uncle Ben who visited from 'the city' and talked to me about the joys of university learning: he convinced me to leave the small town and apply to the University of Alberta. It was a classmate in my painting class who told me about an exciting course they were taking called industrial design: I was hooked. My early career was full of struggle. Few people in Vancouver knew what industrial design was. In 1983, there was no design momentum in this city. Working as a design consultant in Vancouver's Gastown the 80's, I realized that most of the North American design profession felt insecure. Designers were working madly to align themselves with business interests as a strategy to establish the profession as a whole. This changed the way I saw design; design was grasping for recognition and for the rewards of growth-oriented corporations and industries. This aspiration and the resulting alignment with business, technology, and industry brings pressures to designers and to pedagogy in a dynamic that continues to this day. In Basket Four, I discuss how the 'old guard' of (mostly white male) designers continues to see design as a profession in service to industry, in contrast to calls from many like Fuad-Luke (2002), Fry (2009), Boehnert (2014, 2018), and Fletcher et. al (2019a), who challenge designers to work outside of industry norms. I side-stepped some of this tension by working as an exhibition designer focused on topics of education, science, history, and natural history; educational and informative work that aligned with my values. Meanwhile, serendipity continued to play a role in my career. It was a faculty member from Emily Carr who noted the need for more women to teach in their program and invited me in to teach 'just one class.' It was pure coincidence that I saw a call for faculty applications to the University of Washington and thought it would be 'fun' to apply. It was an extraordinary circumstance that the University of Washington needed to do a double hire: the hiring committee thought I was grounded enough to balance the other hire that they thought of as eccentric. This started the adventure of my academic career.

Moving to the University of Washington as a young parent, I brought idealism to my teaching, almost as a reaction to the tightly commercial experiences I'd had as a consultant. Design teaching was all fresh possibilities, young and energetic students, materiality, and meaning. I learned Japanese philosophies like Wabi Sabi (Koren 1994) that value texture, unplanned influences, and worn/aged artifacts in design. There was grit there; the substance of real life. There was poetry, in my students' work and in my

own research work. There was great sensual pleasure in making shapes with texture, of handling wood on the table saw and researching how young children responded to my furniture designs. I was practicing design within the world and was fully engaged in joyful exploration. Except for one thing: the environment continued to deteriorate. And I continued to worry.

This underlying worry stayed with me as I studied, practiced, and taught industrial design. I carried my sadness about the deterioration of ecological systems along with my faith that design could do a lot to heal this. I was, at that time, fully drenched in positivism and solutionism: I thought there were rational reasons for everything, and a creative solution for anything. Some of this was the zeitgeist of design. I was among those who saw design as a visionary act. And so, I was an early researcher in what is variously known as sustainable deign or 'ecodesign' (Van der Ryn and Cowan 1995), which is about how to design products with lower environmental impact. Philip White, Steve Belletire, and I spent 14 years developing and refining ecological design curriculum for industrial design programs (White et al., 2003, 2013). This work was often on the fringes of academia, what David Orr calls "the out-shed behind the big house where the real work gets done" (2017, p. vii). Philip and Steve and I had passionate debates about whether any toxicity should be 'allowed' in manufactured products, how to discuss the competing interests of industry and planet, and how designers needed to learn to work with environmental data. While we also embraced Indigenous perspectives and discussed the importance of nature, our loyalties to business and industry kept us researching sustainable design as something applicable within the framework of modernity.

I had an "estranged point of view," (Greene 268, p. 1973) looking on from the outside and seeing what wasn't working. I thought that there was a core misunderstanding even in design's best attempts to do ecodesign and sustainable design; a misunderstanding about nature and our place within it. The practices were well-meant and the mistakes I saw were not deliberate. Most designers have a strong and caring motivation. Contemporary designers act in good faith and want to contribute to the world. But in an environment of confusing and contradictory agendas, replete with overwhelming green-washing at multiple levels, I saw designers making mistakes, regardless of how they attempted to design with nature through immersive creativity, systems thinking, or to simply follow ecodesign practices. Designers were often persuaded by industry rhetoric;

priorities would easily become misdirected. For example, designers all-too-quickly accept what Evernden dubs “solutions du jour” (1992, p. xii): the unquestioned quick fix solutions like so-called compostable plastics and textiles. To this day, I still hear students tell me that bioplastics are a ‘solution’ to single use packaging. They don’t seem to understand that in order to make plastic from a base material like corn, the corn carbon molecules are profoundly modified in order to be able to create bonds that hold water, and that any chemicals added to make that ‘compostable plastic’ would end up in our food systems. They dodn’t seem to consider the amount of resources that would go into the growing, harvesting, and processing of that corn into plastic. It has always been obvious to me that growing corn (or other bio-materials) takes nutrients from the Earth and therefore is an extractive process. Some designers claimed to avoid this problem by capturing a waste material like sawdust from the lumber industry (Quinn 2019). Why do they not imagine that the Earth needed those nutrients back? In nature, sawdust feeds other beings. Soil needs to be replenished. Our collective blindness to the consequences of recklessly taking, using, and disposing mystifies me. To me, this is a basic and fundamental misunderstanding about the natural world that we are part of.

Other designers advocate a form of recycling that purported to recapture, isolate, and re-use toxic materials like lead, mercury, cadmium from our electronic products (McDonough & Braungart 2002). These designers seem to believe in the possibility of absolute and pure containment of manufacturing waste, despite the evidence that natural systems cycle every material relentlessly and superbly (St. Pierre 2019b). Nothing can ever be perfectly contained. As I detailed in the essay *Who Were We*, there is much to be concerned about. I hold that designers are easily misguided because they, like many people in modern culture, do not have an effective connection with nature. At an intellectual level we lack ecological literacy (St. Pierre 2014b). At an intuitive level, we lack visceral understanding of the Earth’s needs. At a spiritual level, we seem to miss the point that we are part of the Earth, interconnected and inseparable. Faced by fragmented and compartmentalized views of the world like this, I found it was difficult to help students sort out decisions about materials and systems. They seemed to lack what I thought of as almost a ‘common sense’ about how the natural world worked. I found that there was much that I could not explain.

Part of the problem was simply that I was trying to explain: that is, I was being discursive. There are insights that cannot be grasped through the activity of a discursive

mind: they require, as we say in our *Sangha*, a path and a practice. At that time in my career, I was still in the 'solution space,' holding the belief that well-applied discursivity, specially loaded with creativity, could 'fix' the environmental problem.

My career and my research into sustainability had taken many turns; nonetheless, during this time I still thought that Buddhism was separate from the rest of my life, a therapeutic exercise that was distinct from my real work. In those years, I felt I was living two lives in parallel. I thought of my practice as private, just as someone else's Catholicism or Judaism would be. In modernity we are conditioned to keep the spiritual and professional separate, to fragment our realities. Spiritual practices became artificially separated from academic pursuits at various points in history, notably, since the inception of modernity in the 17th century (Gunnlaughson et al., 2015, p. 1). But I gradually came to the realization that Buddhism is, above all else, a worldview in enactment, or as I would like to call it, a practice of an ontology. I came to see that this worldview shifted my ways of being in the world. I realized that my Buddhist practice was helping me to focus, see with more clarity, in all areas of my life, including what I do as a designer and as a professor in design, and that none were separate from each other.

I began to imagine how Buddhist practice might merge with sustainability practices after I discovered Joanna Macy's *World as Lover, World as Self* (2003). Reading Macy, I felt that she was saying things I had always known but not articulated, as links and logic became clear. She connected deep ecology, general systems theory, and the Buddha's teachings on interdependence. After this, I read many Buddhist scholars like Stephanie Kaza (2006), Llewellyn Vaughan-Lee (2013), Heesoon Bai (2013), and David Loy (2018). They all confirmed and elaborated clear connections between Buddhism and ecological sustainability. But still, for me this was all separate from my work. I could not yet bring Buddhist spirituality into my teaching and my daily life. It took a process and requisite time.

The Buddhist teachings themselves became slowly clearer to me. The sacred is made concrete in Buddhist teachings. For instance, the legendary monk Dôgen left detailed instructions for how to cook vegetables with extreme respect and care (Dôgen, n.d.). This is often said colloquially as *radish is Buddha's body,* and is the instruction to treasure everything that we use or consume with the understanding that we are consuming the body of the Buddha, and our own bodies. Everything is interconnected.

The phrase indicates an embodied valuing of everything that we consume and use; it affirms the preciousness of the relationship with Earth that I knew in my heart and in my bones when I lived on the farm. It is not unusual in design conversation to say: “All material has a voice. What does that wood want?” But I see this as a distant and metaphorical relationship: the form-giver’s incantation inviting the material to influence its form. It may be magical, but not grounded or visceral. Would a designer have said: “plastic is my body” to bring this insight into a physical way of knowing, an embodied understanding that all material comes from the Earth and is precious? This knowledge that all material and energy have no infinite source has been intuitively evident to me since my youth on the farm. And yet, it was not until my encounter with Buddhist path and practice that I could articulate that radish is Buddha’s body. The human activity of consumption, more complex and beyond the scale of any other species who simply seek sustenance, is now an act that needs constant ethical questioning. In the context of humanity’s consumption, the materials we use in design are Buddha’s body. Plastic is Buddha’s body. Wood is Buddha’s body.

We die, at some point. Somebody or some entity did die in order for this meal to be possible, for this artefact to be possible. These are non-sentimental facts. And there is inevitably some suffering along the way. These pragmatic and enduring insights come from the reality of life and death that was the birthplace of the major religions 25,000 years ago in the Axial Age (Loy, 2018). I am drawn to the Axial age because of its apparent intimacy with Earthly pragmatics, which is expressed in the wisdom traditions like Daoism and Buddhism that emerged during that time. “Daoism is also the Axial Age tradition that most emphatically roots itself in the natural world” (p. 85). In early Daoist texts, nature is thought of as more than a refuge. It was considered the place that reveals the true nature of things, *which human civilization tends to obscure*” (p. 86, italics added). Loy goes on to link this language with that of Buddhism, drawing parallels to how these teachings are deeply rooted in non-duality, seeing all forms as “manifestations of something in itself nameless, formless, ungraspable, and mysterious” (p. 88). Ironically, despite the supposed culture of individualism in Modern Western society, we live in a “consensus reality” (p. 89) where what is ‘real’ is guided by media and advertising, and priorities are set by economic determinism. The wisdom traditions have long advocated that humans think more deeply for themselves (Bai, 2006; Loori,

2007) within the genuine reality of the natural world. This resonates powerfully with my past and present, and offers a propelling vision for design and nature.

The pieces of my personal, spiritual, and professional life continued to stitch together. Things began to shift when my commitments to my practice community (*Sangha*) began to compete with the multiple obligations of a faculty member. At first it was every Thursday evening. Then Saturdays. Sometimes Sundays. Thursday night *Sangha* meetings almost always conflicted with a gallery opening, a guest speaker, or a faculty dinner. It was difficult for me to say no to these events, but I had deliberately and openly committed to my Buddhist practice. Another milestone in this journey of integration came when I discovered contemplative pedagogy at Simon Fraser University. In reading about the program and its explication of contemplative learning, I saw how I could unite all of my passions: sustainable design, pedagogy, and my Buddhist practice through the philosophical framework of contemplative pedagogy. This dissertation weaves together my learnings about my self, my spirituality, and my Buddhist practice, as I explore a holistic view for sustainable design.

Yet, I am Also None of These Things

> The channels of the Mēmxuem spawning area are lined with small shrubs. A little further beyond is an autumn tracework of tree branches, loaded that day with sixteen eagles watching for a chance at a meal. Their conversations twitter and scree across the cool wet air. Once, I heard Yoriko say “I feel your air” to describe the indefinable between-space of Ma (Bai et al., May 2019). ……..These eagles. I feel their air. (St. Pierre, Mēmxuem river journal 2019)

I am not a farm girl.

I am not a sustainable designer who meditates.

Buddhist teachings hold that we have no fixed identity, no separate self. We live in a state of impermanent, interdependent and thus inseparable relationship with all other beings (Nhat Hanh, 2001). In this context, no matter who you are, I cannot be happy unless you are happy. We share a reality. We “inter-are” (p. 55). For that reason, we regularly dedicate our practice to the merit of all beings (Nhat Hanh, 2007, p. 35). Until all beings realize their nature of interbeing, none of us can fully realize our nature of interbeing.

Those of us in Modern Western society tend to identify with a fixed sense of self (Wright 2009, p. 103). Buddhism teaches that nothing remains the same – even for a minute – and that only impermanence is certain. Nothing is fixed, so there is no fixed self. So maybe I was a farm girl for a while, and traces of that remain within me. The ancestral seeds of my farming father and his father are within me. The ancestral seeds of my knitting and stitching mother are there also. But these traces come and go. Maybe I was a designer for a while, and maybe I still practice designing from time to time as I practice teaching, as I practice meditating. But "designer," "teacher," "meditator" - none of these define me just as my body in time and space does not define me. If I see this body, these identities as fixed, I become caught in the story of this individual body, these individual identities. Instead, I have learned to understand that I have no individual, separate self. I am a mutable permeable member of this glorious world and all its beings.

Some First Nation communities seem to share this view. Beeman and Blenkinsop learned that Temi-Augama Anishinaabe elders do not considered their skin to be a boundary between themselves and the world (2008). They experience an interdependent self, one inseparable from, integrated with, nature. Linda Hogan of the Oklahoma Chicksaw Nation says it like this: "Our flesh has never been a boundary for the human being. We only reach out from there to occupy the space around us. Even more significantly, it occupies us" (2013, p. 25).

In a seminal poem, *Call Me by My True Names* (2001), Thich Nhat Hanh describes how interbeing is all inclusive and non-selective. "I am the frog swimming happily in the clear pond, and I am also the grass-snake who, approaching in silence, feeds itself on the frog," (80-81). A few stanzas later, he says "I am the child in Uganda, all skin and bones, my legs as thin as bamboo sticks, and I am the arms merchant, selling deadly weapons to Uganda." We are inseparable from the beautiful, the banal and the unbearable.

And I am all of these things.

This deep understanding *that I am all of these things* implicates me, the writer, designer, and researcher, as a full participant in the world, not someone who can sit back, isolated or aloof. The Buddhist deconstruction of identity brings a visceral and humbling awareness that I am one with all other creatures. It is difficult to relate to the arms seller

in Uganda, and yet, if I am honest, I know that the seeds of selfishness lie within me, as they do in all humans. I am fortunate to have been born into a family that did not encourage the ruthless seeds in me, and into a country that did not suffer the pain and constrictions of civil war. Interbeing, and the full knowledge of interbeing is humbling. It carries the weight of responsibility. I know myself as among and with others, a part of this world, a part of the flowing whole of the Earth. It brings a responsibility to others, and to a life force beyond myself. This ancient way of knowing dissolves boundaries and engages us to fully participate with and to contribute to the well-being of all forms of life, and of life itself within the cosmos. The contemplative turn, for me, is a moral turn. It is not a retreat into the nest of the self, it is an opening of that nest, a dissolving of the assemblage of the sticks and brambles … releasing puffs of down to be carried on the air. The contemplative turn in design is a call to see, to engage, and to act on behalf of all beings.

Most citizens and designers in the global North have been steeped in the worldview of modernity that sees us all as very separate from one another. This supports and allows the 'me-first' characteristics of independence so valued in much of North America. A contemplative turn in design engages designers, who, as I share in the later essay *Staying Still and Moving About*, often learn through pedagogies that have inherent potential for contemplative moments. And as I also touch upon, designers have many gifts to offer to an interdependent world. The history that has taken us to where we are now is one that can be retraced so that we can understand some of the illusions that have hindered designers in our efforts to work for the benefit of all beings.

Who Were We? *

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What follows is an essay that provides a historical context to ideas and practices of design and nature. This history differs from broader theories of sustainable design in that I focus specifically on design's relationship with nature. I investigate how mistaken assumptions about humanity's relationship with nature have influenced design without our full awareness. I illustrate that without a critical examination of deeply held modern worldviews, design's best intentions have often taken us in directions we had not hoped

for. It is my view that design and research have grown out of, and remain embedded in a Western conception of our relationship with nature inherited from the Scientific Revolution. Along with this, I see that despite many aspirations of designers to connect emotionally, philosophically, and functionally with the natural world, nature remains subjugated: an 'other.' I argue, in what follows below, that with each 'new' approach to designing with nature from the Romantic Movement in the late 19th century, through to contemporary design and current design theory, designers inadvertently continue Modernist and colonialist power relationships that distinguishes humans as separate and at the top of a hierarchy, with nature at the bottom. However, these conditions are beginning to change as designers explore ecological theory beyond mainstream influences, and as they engage with embodied research in direct relationship with nature.

Contemporary design is a systematic activity that produces artifacts, systems, interactions and communication materials. Anyone who shapes matter, processes and energy to meet perceived needs can be understood as a designer. This text addresses those designers who shape the world through mass-produced culture, and negotiate the intersections between self, society and the natural environment. Design, carried forward through information, media, technology, goods and services, has tremendous impact on the way that human activities impact nature, and on how people perceive nature.

I adopt the definition of nature as the "self-originating material/spiritual world, of which we are a part, including the powers that sustain and govern it" (Bonnett, 2002). Academics and designers dispute the validity of the word nature, as well as the qualities of nature: is it Tainted? Pure? Wild? Powerless? Mute? Artificial? These disputes rarely acknowledge that engaging with nature requires different epistemologies and ontologies than those which were established through the Scientific Revolution and (Western) Enlightenment. A core ambition of this essay is to establish how easy it is to fall into the illusion that we are engaging with nature when we rely on established ways of knowing and being. Speaking of established ways of knowing, it all started with Scientific Revolution, although, of course, the latter didn't arise out of vacuum (Merchant, 1980/1990).

Scientific Revolution

Western designers are educated within a worldview that began centuries ago, well before the emergence of many specific disciplines like industrial, landscape, fashion, interaction or communication design. The Scientific Revolution began in Europe during the 1500s and continues to influence the work of designers in the Global North. The Scientific Revolution was a slow transition of belief systems: from a world where there was magic and mystery in nature, to one where if a phenomenon could not be seen and measured, it was not real. Before the Scientific Revolution, belief systems such as Organicism held nature in intimate relationship with humans (Merchant, 1980/1990). A spiritual and ritualised relationship with nature was embodied. Illustrations from that time showed plants, humans and other creatures, beings among beings in a non-hierarchical interrelated connection with one another. Nature was considered alive and vital, and humans but one aspect of that complex vitality. In the 1500s, vitalism meant “the unity of matter and spirit as a self-active entity, in which the spiritual kernel is considered the real substance and the material ‘cover’ a mere phenomenon” (p. 117). Organicism was a unifying philosophy.

By the 16th and 17th centuries, technological and commercial changes had eradicated the Organicist belief systems that once held nature in intimate spiritual relationship with humans. Images began to appear that showed male beings as superior in the world order. After this, images highlighted only the head of man as dominant, symbolising the emerging belief that male intelligence was of the highest value: the beginnings of rational anthropocentrism. Women gradually became devalued. Rational intelligence, thought to be held in the head, gradually became a standard by which to make decisions: “A new concept of the self was as a rational master of the passions housed in a machine-like body” (Merchant 1980/1990, p. 214). Philosophers like Bacon and Descartes believed that craft, innovation and invention would extend rational man’s mastery of nature. These beliefs continue to drive design to this day:

> On I go through Carolyn Merchant’s text, seeing again and again how grounded I have been in the scientific and mechanistic paradigms. Right, wrong. If this, then that. Causality. Consequences. Looking at parts. Finding solutions. Common sense. Reason over emotion!! (St. Pierre, Journal, October 2016).

The Scientific Revolution, the Enlightenment and the elevation of scientific and rational thinking combined to diminish society's ability to see mystery and enchantment in the natural world. Contemporary mainstream Westerners no longer see themselves within an unbounded cosmos, beyond humans' control, and a magical world of intrinsic value (Evernden, 1985/1993).

Roots of Modernity

Modernity results from the ongoing trajectory of replacing the Earth-centred values of Organicism with human-centered ones. This began with the inception of Christianity and continued in the enlightenment, thus elevating evidence-based rationalist ways of knowing (Merchant 1980/1990). Tlostanova and Mignolo (2009) argue that, simultaneously, thought itself was colonised by the elevation of reason; a hegemony so implicit that in contemporary times it is difficult to see or question rationalism. With the rise of rationalism, nature, along with emotion, spirit and the female, were increasingly devalued (Merchant, 1990; Walker, 2013). This is what Plumwood calls 'backgrounding' (1993).

> To be defined as 'nature' in this context is to be defined as passive, as non-agent and non-subject, as the 'environment' or invisible background conditions against which the 'foreground' achievements of reason or culture (provided typically by the white, western, male expert or entrepreneur) take place. (p. 4)

Design, as most of us understand it today, grew out of this rational and mechanistic worldview. My observation over decades in this field is that design remains identified with technology, mastery, progress and innovation. Mastery, interpreted either as human control and superiority, or as comprehensive skills, is woven through design's relationship with nature. Later in this essay, I describe how at various times in history, often in the margins and in the shadows, designers and influencers have questioned the Modernist worldview. Escaping the dominant paradigm proves difficult. In prevalent contemporary design we continue to see human centrism, rationalism, assumptions of mastery and little or no reference to the kind of spirituality that tends to decenter human beings and connect them to the larger whole, such as Cosmos and Nature. The persistence of the Modernist worldviews undermines designers' attempts to address the needs of the natural world.

The Arts and Crafts Movement: against Rationalism

Led by William Morris, a number of artists, designers and philosophers in the mid-late 19th century advocated a return to nature and mysticism. Known as the Arts and Crafts Movement, they rejected mechanical production and the mechanistic thinking of the industrial revolution. Their works were passionate and emotional. Fine handicrafts, wallpapers and upholsteries were decorated with lush flowers “inspired by close study of nature” (Pevsner, 1936). Morris’ fiction writing envisions a world where humans are integrated with all of nature, but the work produced at the time belies these ideals. Most are decorative pieces at the service of a privileged class of people, featuring the romance and ideal of nature through line, pattern and sensuality. Some were even toxic, knowingly laced with arsenic, like the Trellis wallpaper (Fallan & Jørgensen, 2017, p. 109).

Fallan and Jørgensen characterise these Victorian designer reformers as “infatuated with nature” (p. 108), implying that love of nature was an unreasoned and temporary passion. This characterisation underlies much of design and academic scholarship with respect to nature: the term ‘Romantic’ is used in design as a dismissive label noting emotional whimsy and superficial styling that is considered irrelevant to the hard-nosed ‘business’ of design. Morris’ call to align with nature had great resonance for designers, but his ideals were diminished by human-centric and commercial applications. Decorative forms derived from nature were severed from their original context: nature remained an ‘other’ for mankind’s pleasure or manipulation. This story foreshadows design’s later explorations of ecological design.

Early Design and Nature

At the turn of the 20th century, ecological thinking was thought to be a ‘new’ way of looking at the world. The term ecology was first coined by Haeckel in the late 1800s as “the totality of relations of organisms and the external world” (via Hayward, 1995, p. 26). Ecological thinking is a potentially holistic or Organicist way of understanding the world, yet definitions are often contradictory. The mechanistic and mathematical epistemologies of the 20th century framed ecology as a practice of itemising and reducing data “abstracted from the organic context in the form of information bits and then manipulated according to a set of differential equations” (Merchant, 1990: 103). Instead of a self-

organising and complex set of flows, ecology was seen as a way of controlling and organising nature or society (Anker, 2010; Hayward, 1995). The myth that ecological ‘science’ can help us manage or control nature explains an underlying disjuncture between design and nature.

The 1920s and 1930s were a time of sorting out the influence of nature on design in both Europe and North America. While Bauhaus leaders lived in London they engaged in interdisciplinary conversations with biologists (Anker, 2010). These biologists supported scientific technocracy, viewing ecosystems as machine-like systems that could be controlled and managed by humans (Kallipoliti, 2018). As a result, mastery and mechanism permeate the Bauhaus’ early engagement with biologists. Biologist Raoul Francé introduced designer Moholy-Nagy to Biotechnik, the notion that plants could offer solutions to technical problems (Kallipoliti, 2018). Moholy-Nagy thought that emulating nature was the essence of functionalism. Historian Peder Anker (2010) describes the commitment of Bauhaus pioneers to an ideal of the integration of humanity, ecology and design, with a strong advocacy for humanism and mechanism. The conception of ecology as a set of mechanical rules united the seemingly contradictory ideals around humanism and mechanism. Bauhaus contemporaries Haldane and Huxley advocated “a new mechanistic and mathematical approach in biology as a key material basis for a successful, orderly planning of human society with a new urban matrix of mathematically inspired Bauhaus architecture” (Anker, 2010, p. 23).

The Bauhaus alignment with rationalism contrasts the emotional connection to nature embodied by Morris and his followers. The Arts and Crafts Movement produced explicit visualisations of nature that were later dismissed as ‘romantic fashion’. Bauhaus design expressed the perception of an underlying functionality of nature. The resulting order, geometry and control became a prevailing influence in design, establishing the conditions for ecological design as mastery.

Ecological design as mastery grew out of myths that humans can be entirely separate from nature, exemplified by design for space colonies and in capsule architecture; self-sufficient spaces for human survival that attempt to emulate and cycle human waste in closed systems (Kallipoliti, 2015). Alternatively, designers attempted to master nature by replicating living processes in what they called world planning, “the design of the planet

itself as much as the design of an object, building, or territory" often extending to "the synthetic replication of natural systems" (Kallipoliti, 2018, p. 2).

This fascination with control of the Earth system extends to hippies and survivalists, exemplified in the range of tools for survival in the Whole Earth Catalogues (Brand, 1968). "We are as Gods and might as well get used to it" heralded Brand in the first catalogue (1968). This assurance of human mastery underlies early developments of ecological design, and continues in varying degrees today. Ironically, the desire to live "in harmony with Earth's ecosystem became for the majority of ecological designers a question of adopting space technologies, analytical tools, and ways of living" (Anker, 2010, p. 6).

NASA's 1960 Living Pod capsule project was a landmark experiment to hold four men in a capsule that recycled their body waste into food and water. It failed because unaccounted impacts of airborne waste contaminated the equipment. "In addition to carbon dioxide, contaminants in the closed ecosystem of NASA's Living Pod included minute waste particles like dust, hair, skin debris, tobacco particles, odours and toxic substances from cooking, and other formed organic compounds with unpleasant odours like indole, skatole, amines, volatile oils, phenol, nicotine, spores, viruses, and sacrophytic bacteria that decompose organic matter" (Kallipoliti, 2015, p. 78). The four men inside the capsule suffered from headaches and nausea, and had to be removed from the experiment prematurely. Later capsule architecture projects improved on this experience through tighter planning and computation but still did not demonstrate human control over nature (Kallipoliti, 2015).

Pioneer ecological designer Buckminster Fuller believed "that only through advanced systems management could one begin to deal with the daunting environmental complexity of the planet Earth" (Kallipoliti, 2018, p. 19). He advocated the use of technology to solve the world's ecological problems through the computational field of Cybernetics, the compilation of complex data for systems management. Despite his many holistic philosophies, Fuller's conception of himself as inventor inspired by ecological systems aligns him with those thinkers who imagined that nature could be controlled. Fascination with control of the nature may be overt, as with Stewart Brand's declarations (1968), it may be implicit in the design of space capsules, or it may be cloaked in idealism, as it was with Fuller.

Ongoing Human-Centric Influences

Victor Papanek emerged as a hero to young designers in the 70s and 80s when his legendary critique *Design for the Real World* (1972) exhorted them to stop designing 'needless' consumer products and to put their efforts toward less privileged people who truly needed help. His concerns later expanded to a vision for holistic and spiritually grounded design: "There must be a greater concern for and deeper understanding of nature" (1995, p. 48). Despite this, Papanek was primarily a champion for human concerns.

Human-centrism permeates design to this day. Like Papanek, most designers understand human-centred design and social design as ethical practices. When left unquestioned, this human centrism tends to address human needs at the expense of other life forms. Designers are often unaware of this disparity, embedded as we are in a society that does not hold humans in intimate connection with nature and does not value all beings equally.

The Brundtland Commission of 1987 did little to shift this relationship. The premise to "meet the needs of the present generation without compromising the ability of future generations" (Our Common Future 1987) speaks to the needs of humans above other species. This also perpetuated the assumption that ecological systems could be managed, a view that does not take human fallibility into account. "The rich complexities of the natural world provide a powerful antidote to hubris, for if there are fundamental limits to our knowledge of ecosystem dynamics, we cannot easily 'optimize' our tree farms, nature reserves, or levels of carbon dioxide emissions" (Van der Ryn & Cowan, 1995, p. 136). Years later, the Sustainable Development Goals (United Nations, 2015) advance strategies for caring for ecosystems with respect yet still position nature as managed by humans who are at the top of a hierarchy. Nature remains conceived as passive, controlled, mute and powerless. While designers are encouraged to consult the Sustainable Development Goals, alternative or post humanist documents that advocate for all species, such as the Earth Charter (Mosquin & Rowe, 2004), remain on the periphery of design awareness.

Challenges to the mechanistic view of ecology surfaced late in the 20th century and early 2000s. The term ecological design was coined as "any form of design that

minimizes environmentally destructive impacts by integrating itself with living processes" (Van der Ryn & Cowan, 1995, p. x). Capra (2002) described living processes as an interdependent collection of parts within a fluid unbounded complexity of relationships, a multiplicity of nested and circular systems that interact in unpredictable ways. "Wherever we see life, we see networks" (Capra, 2002, p. 9). This is a nuanced view of ancient Organicism; ecology as a self-animating system of energy flows dispersing "agency and creativity" (Plumwood, 2009).

Designers at the turn of the 20th century understood easily that "any designed product, space, or environment has an expansive presence in the world … projects and extends the presence of all things relative to larger environmental forces and the nexus of global flows" (Kallipoliti, 2018, p. 2). As designers grappled with this insight, they tried to reduce environmental impacts by making adjustments to materials and manufacturing processes: a pragmatic and incremental approach. As I describe in the next section, more progressive attempts to engage with ecological flows and integrate with living processes were undermined by pervasive rationalism, mastery and human-centrism. It is challenging to shake deeply rooted views of humanity's relationship with nature. Designers are further constrained by rationalism within the profession, and externally by the conditions of Capitalism. Despite this, designers persistently demonstrate the intention to practice ethically through many diverse approaches: eco, green, organic, sustainable, biotechnical, biomimetic, bio this … and bio that.

Bio This … and Bio That

Bio design, where "biology is both the subject and the medium" (Myers, 2012, p. 195), picks up from Biotechnik, using living nature in a product, as when a grass covered table converts soil energy to charge small electronics. Myers is direct about how innovation furthers human dominance over nature, quoting a designer as saying "One of my goals is to completely design a new life form". Bio design mixes the astonishment at the workings of nature with a desire to master her. Designers appear to be playing God. Bürdek, in his *Design: History, Theory* (2005) holds similar sentiments, "The cultivation of human organs will make the human body an object to be designed" (p. 431). The notion of mastery aligned with creativity is an alluring force in design with nature, eclipsing the energy and self-organising capacity of nature herself.

In the early 2000s McDonough and Braungart also picked up threads of world planning with seductive storytelling in their book *Cradle to Cradle: Remaking the Way we Make Things* (2002). Drawing on principles from the field of Industrial Ecology for recycling materials and waste between industries (Graedel et al., 1993), McDonough and Braungart proposed that toxic materials in products could be recaptured and isolated in 'technical nutrient streams' to be used in manufacturing new products. This would theoretically keep toxins from contaminating natural systems. McDonough and Braungart aligned with the business and industry agenda by supporting expansive manufacturing and consumption. They furthered the notion that nature's resources could be harvested for human needs, overlooking the complexities and ecological impacts of the recycling process and the limits of human control.

Human societies unquestionably need to manage their wastes, but this insight becomes distorted when accompanied by advocacy for ongoing unlimited production. Plumwood (2009) characterises plans for containing waste in closed systems as unrealistic "requirements for future human invulnerability and perfection". The participants in the NASA Living Pod capsule followed instructions to the letter and still the capsule became contaminated. Perfection is unattainable. *Cradle to Cradle* is an Arcadian fable.

Janine Benyus' highly influential book *Biomimicry: Innovation Inspired by Nature* (1997) was met with a powerful and resonant uptake from designers and academics. Echoing the 1930s philosophies of Moholy-Nagy, biomimicry endeavours to model human systems on natural systems, such as wind turbines shaped like a whale fin to reduce energy consumption, with the hope that mechanistic products and systems will then be as sustainable as natural ones. Unlike the technocentric theories of Biotechnik, Benyus included an emotional and spiritual component. Yet as with the theories of William Morris, these ideals became distorted in their application by a focus on solving human problems, and by a deep alignment with economy and industry. This instrumentalises the ideals of biomimicry. Once again nature is being 'used', now as much for the ideas as the materials. Despite having been inspired by nature, wall coating that self-cleans like the lotus plant does, and antiseptic upholstery based on the patterns of sharkskin serve industry much more than nature. The context and framing of Modernism and Capitalism positions most biomimetic artifacts within cultural and industry contexts, leaving them apart from nature.

The term biophilia was originally proposed in the 1970s by psychologist Eric Fromm as the “love of life” (Andreyev, 2017), although it is widely used to describe a general affinity with nature. Fromm and E.O. Wilson who later popularised the term emphasise the importance of biophilia to humans (Andreyev, 2017). There are a wide variety of interpretations of biophilia. Biophilic design can be design to enhance people’s love of nature, design to inform people about nature or design to offer nature as a service to improve human life.

At its best, biophilic design can draw people out into nature and invite or awaken our innate biophilia, our instinctive affinity with nature. Well-designed science apps, for example, help people identify birds, insects and frogs. Through this activity, citizens may become informed, empowered and connected with nature. Beautifully designed nature journals are biophilic. Biophilic design has tremendous potential to open greater awareness and extend the discourse around design and nature. It can inspire an ethics of care.

The realisation of this potential is hampered by human centrism. According to Kellert, biophilic design is practiced primarily “to enhance human well-being” (2018, p. ix) through the inclusion of natural features such as plants and waterfalls within buildings. This can offer meaningful exposure to nature in urban settings. Kellert lists many benefits for people in contact with nature, including affection, relaxation and creativity. Gillis and Gatersleben make this even clearer with their “A Review of Psychological Literature on the Health and Wellbeing Benefits of Biophilic Design” (2015), which focuses entirely on how biophilic design meets human needs. This reduces biophilic design to the provision of nature as service. Framing nature as an ecosystem service devalues nature and leads to further exploitation of the natural world (Boehnert, 2015).

Learning, Practicing, and Shifting Perspectives

Bio design, biomimicry, and biophilic design are attempts to see design and nature differently. They represent a search. These different frameworks offer spaces for communities in design and academia to rehearse, critique and learn about nature in some specific ways. I have noted how these learning spaces are constrained by mainstream design practices that prioritize human needs, rationality, mastery, and economic growth.

A number of lesser-known explorations into design and nature have begun to challenge human centrism and design's illusions of mastery. For sake of brevity (and because the book *Design and Nature: A Partnership* is full of examples) I will mention only a few of them here. These incipient practices are influenced by philosophies that contextualise humans as interdependent within nature, and nature as vital and alive, much like the Organicist thinking of the 14th century. They begin to take us into a more spiritual and philosophical relationship with nature.

"Symbiotic Design" (Ruano, 2016) is a proposed amalgam of biophilia, biomimicry and resilience theory, hypothetically supporting the development of a symbiotic or holistic designer. Ruano prioritises spiritual wisdom, contemplative practice and observation of nature in his proposed methodology. Acosta and Romeva (2010) advocate in "Ecospheric Design" that we shift the epicentre of design from humans to the ecosphere, "to decentralize human being as unique actor, and …recognizing other actors (the rest of the species) in the project of well-being in Earth" (2010, p. 35). The authors have been influenced by the non-anthropocentric Earth Charter (Mosquin & Rowe, 2004), and Gaia theory that the Earth is alive and self-regulating (Lovelock, 1987). "Bioinclusive Design" draws from the feminist eco-philosopher Freya Mathews (2008) to propose inclusive design that "accommodates both the human and the nonhuman components of the greater life system" (St. Pierre, 2017). This approach is influenced by eco-feminism (Mathews, 2008; Plumwood, 2002) and neo-animism, the awareness of all parts of the world as alive and conscious (Bai, 2013).

These latter examples illustrate how moving beyond mainstream influences leads to insightful conceptions of the relationship between design and nature. An abundance of scholarly thought demonstrates widespread interest in this question as well. Yet here too, we see confusion and hindrances.

Scholarly Hindrances

The legacies of mastery, rationalism and humanism continue to dominate academia, leading to an emotional and intellectual distance that keeps design at arm's length from intimate learning about the natural world. The search for knowledge through intellectual reasoning is a direct inheritance from the Scientific Revolution. In the context of learning about design and nature, it is a barrier to understanding, for it runs counter to physical

engagement, humility and curiosity (Jensen, 2008; Vitek & Jackson, 2010; Walker, 2013). Progressive conceptions of design and nature might or might not be supported by academic theory.

Academic statements do not create change. Simple declarations that ‘we are part of nature’, true as they are, do little to contest longstanding belief systems that allow humans to feel set apart and above the natural world, special and entitled. A single intellectual statement framing interdependence, or even a moment of epiphany, is not enough to challenge human exceptionalism.

Similarly, the claim that there is no such thing as nature, or that nature is in fact a social construct conveniently dodges the point that everything is then a social construct. Asian philosophers have taught throughout millennia that we only understand the world through the processing of our minds and bodies (Snyder, 2002; Worthy, 2013). The world and all that we know within it is then a biological, psychological and social construction. Coffee cups and cities, children and African-Americans; these are all social constructs. This is the social imaginary, the way human societies categorise and name the world around us. We cannot dismiss Syrians, women or baseball teams by saying they are social constructs. Nor can we do this with nature.

Traditional wisdom has deep knowledge of interdependence, the wisdom that no entity is separate from any other: sentient and non-sentient beings are interconnected and alive. Design academics variously connect to and become distracted by this insight. A wide body of writing about new materialism invites contemplation about the aliveness of everything around us (Bennett, 2010; Harman, 2018). For many, this extends to be inclusive of manufactured pens, desks and roller skates. This aspect of new materialism provides an avenue for deeply anthropocentric Western designers to remain focused on that which is produced by and for humans. Reverence for human-created artifacts does not shift our relationship with Earth to make ourselves [and our artifacts] “smaller, less central” (McKibben, 1999, p. xxiv).

The world has been tainted throughout by human activity: widespread pollution, extinctions, environmental toxicity and climate change (McKibben, 1999; Worthy, 2013). The argument that “pure” nature no longer exists is offered by some as an invitation for more intervention by designers. Dilnot interprets the “expansion of human artifice in

every direction" to mean that "the artificial is a matter of the possible" (2015, p. 121). Within this worldview, humans can continue to act upon nature as masters. It is a position that frames nature as powerless; she has no capacity, creativity or voice of her own. This trajectory is similar to that of colonisers who through their own intervention reduced the capacities of the colonised, then referred to those reduced capacities as rationale to "justify further exploitation and management" (Blenkinsop et al., 2017).

Scholarly activity can be an obfuscation, distraction and ultimately a hindrance to the conversations that we need to have, and to new ways of knowing. This is changing. Valuable theories including decoloniality, eco-feminism, neo-animism and post-humanism begin to shift academic terrain and suggest appropriately humble positions in relation to nature. Decoloniality is a practice that de-links from Eurocentric and Modernist thought rather than simply working as a scholarly transformation from within the academy (Mignolo, 2007). Eco-feminism reorients us to embodied ways of knowing, liberating subjugated knowledge and enabling a relationship with nature as valued (Fawcett, 2000). Neo-animism validates traditional views that life exists in all sentient and non-sentient beings (Bai, 2013), and post-humanism assumes the interdependent importance of all creatures (Haraway, 2016) The academy is also beginning to admit personal writing, direct lived experience, intimacy and vulnerability into the discourse.

Practising Humility

On a recent walk along the shores of False Creek in Vancouver led by Indigenous guide Nicole Preissl of the Sto:lo First Nation, a group of our students were taught to make rope from the autumn remains of iris leaves (Preissl, 2018). As Preissl told stories of the land, students twined the strands with their hands, creating unexpectedly beautiful fine ropes and bracelets. At the end of the walk, we learned that we could not keep these treasures. The Sto:lo Nation, who lived in harmony with nature for ten thousand years believe that we as individuals do not own artifacts. When one acquires artifacts or knowledge, one is considered rich; this wealth confers the responsibility to give to others. The ropes were gifted to our guide, who promised they would be woven into an installation that would biodegrade over the winter. This is a practice of humility and relation. Weaving leaves, walking, talking and giving back are learning practices done in a supportive community, reinforced over time. It is a ritualised and embodied learning, not an intellectual one.

Emerging practices that may support this type of learning include slow design (Pais & Strauss, 2016) and practices of care (Puig de la Bellacasa, 2017). These practices are specific and place-based. Design for ecological relationality is deeply context dependent; valid and proper knowledge comes from the context in which it occurs. Only with deep understanding of specific local conditions can we begin the relational work of tending (Berry, 2002). Van Der Ryn and Cowan (1995) recount a story of a Chilean farmer's wife who noticed that the butter was a bit sour and from that taste knew that the problem lay in the cow's diet. She was able to recommend to her husband appropriate crops to correct the field's nutrient imbalance. This may seem an aspirational degree of connection to nature's self-maintaining rhythms, yet many Indigenous communities have lived this Organicist and deeply spiritual connection with the land for centuries.

Design, Nature and Spirituality

Stuart Walker asserts that design needs to reclaim a wide range of spiritual practices that are "holistic in that they can affect all aspects of life" (2017, p. 97). The spiritual view of design and nature involves attending to the kind of connection with nature that emerges from the awareness of ourselves as but "one manifestation of a web of relationships which encompasses everything" (Loy via Bai, 2001). Plumwood (2009) describes this as the self-organising creativity of ecological systems. For Plumwood, this was inevitably spiritual, encompassing the many diverse life forms. She proposes that spirituality can be considered "in dialogical terms, as a certain kind of communicative capacity that recognizes the elements that support our lives" (2002, p. 220). This suggests a full engagement with and respect for the natural world. Blenkinsop articulates the value of turning to nature as a teacher: "New relationships and commensurate language will arise slowly out of action—actual engagement in new ways of being present to, and interacting with, the world" (Jickling et al., 2018, p. 36).

Contemplative traditions like Buddhism also practise a dialogical relationship with all beings, animate or inanimate. Indigenous practices that range from storytelling in place (St. Pierre, 2015), attentive receptivity (Beeman & Blenkinsop, 2008), and naming all creatures (Kimmerer, 2015), help us to know the world as full of vibrant spirits. These spirits can take the forms of mountains, trees, ravens, coyotes: beings that are related to us and intertwined with us. This is what Plumwood means by multiple centrings instead of human-centring, a rich and varied complexity of life to be honoured (Plumwood,

2002). Spirituality is in the connections, the organisation of this complexity. Honoring all of this brings us into what Buddhists call right relationship with Earth (Nhat Hanh, 2013).

This essay has described how designers throughout history have been searching for ways to design with nature. I have shown how designers' attempts to work with nature have been limited by worldviews and power relations that were established centuries ago, and by our lack of understanding of who we are. These ontologies are being challenged by theories and philosophies that shift implicit assumptions about power and mastery. This can open designers to humility, understanding and relationship. We can begin to see ourselves more accurately. Conversations about these forms of engagement are nascent, they have barely begun. I search for small stories that move these theories into being; moments of action, of open and humble exploration between design and nature. Moments that begin to enact new terms of engagement for design and nature.

~ end pre-published essay ~

Adjusting Vision: Shifting Ontologies

> This fall I had to work hard to find the fish, adjusting my vision carefully in the dim December light. They emerged slowly, as shadows under the silt of the stream. Large oblong silhouettes. (St. Pierre, Mēmxuem river journal 2019)

I have adjusted my vision many times over the past several years; patiently relaxing my eyes, to see what I did not know was there. As a designer deeply engaged within Modernity, for years I was largely unaware of my own worldview and biases. Mindfulness practice changed me slowly. I changed without knowing I was changing. I had always been a critic of Capitalism and Industry, but I was unaware of how I remained aligned to modernist values of productivity and objectivity…until I began to reflect on my teaching practice. I only recently realized how I have shifted away from the operational mindset of Modernity. Open and direct awareness during meditation practice "disrupts the habit of the mind to react, categorize, and control our experience of the world and of life" (Wong, 2004). I disrupted my habits of control, and admitted the personal, the relational, the inefficient, and the spiritual into my day to day teaching and living. This is what I mean by shifting away from Modernity: it is a new way of being.

I saw myself reacting to situations in a new way. My body knew I had changed before my mind did. This shift was tacitly embodied before it was realized. Schön has described how tacit knowing is part of craft-based learning or design practice (1984). Others describe how the daily experience of professionals at work gives rise to embodied knowledge that can be realized when reflected upon later (Johns, 2009). New insights begin as embodied knowledge and become cognitive. Typical reflective practices help us to learn more about the way we are in the world. They are "a way to integrate and make sense of … assumptions, expectations and perceptions" (Hickson, 2011). Meditation practice, on the other hand, changes *who we are* in the world. It is a "psychophysical practice" (Fischer, 2019). We establish our sitting posture, and we focus on silent, aware breathing while we take in the teachings. Fischer explains how meditation practice leads to more than cognitive insight:

> Feeling-sensation is barely conscious, barely available as an experience. To access it, I need to do more than think and observe it in the usual ways. We think of insight as a cognitive experience. But insight that's fully integrated with concentration practice, in all its somatic depth, is more than a thought or an understanding. It pervades body, mind, and heart; it transforms emotions, physical sensations, and thoughts. It's the foundation of a new identity. (p. 150)

Meditation practices change who we are, and brings us into fuller relation with the interdependent world. This offers a powerful way of coming into animist awareness, which is a way of being, an ontology. I know that animism is important as a way of seeing the world and of understanding our human situatedness among other beings, within a community of others instead of above all others. I use the word animist to convey a non-anthropocentric way of being. Animist ontologies de-center the human and offer a felt sense of "multiple centrings" instead (Plumwood, 2009/2013). Contemplative practices, as I describe in the remainder of this dissertation, offer ways into animist ontologies, ways to change who we are in the world. They are pedagogies for a deeply relational design practice. These spiritual practices weave us into a world outside our own selves, and beyond our self-interest.

Meditation: Being in Our Bodies

… take a moment now and just settle where you are, in your body.

Roll your shoulders up and back.

Feel the direct connection to the floor beneath you, directly to this precious and magnificent Earth. Settle into your body. Feel the belly rise … Feel the belly fall.

This is our moment-to-moment exchange with the world. And as you come into your body, and sensing where you are here and now, perhaps take a moment to appreciate yourself for your practice.

Breathing in we feel the air move into our bodies

Breathing out we return the air to the Earth

Breathing in, we acknowledge the blood, mostly water, flowing through our veins sustaining out lives.

Breathing out, we give thanks to the waters of this Earth.

Breathing in, we feel the strength of our bones, bones built from minerals that are drawn from this Earth.

Breathing out, we know our bodies are of the Earth.

Breathing in, we nurture our tissues, the flesh, the softness of our bodies, composed of energy, minerals and nutrients harvested for us by plants (and maybe animals), composing the tissues of our bodies.

Breathing out, we are grateful for this Earth.

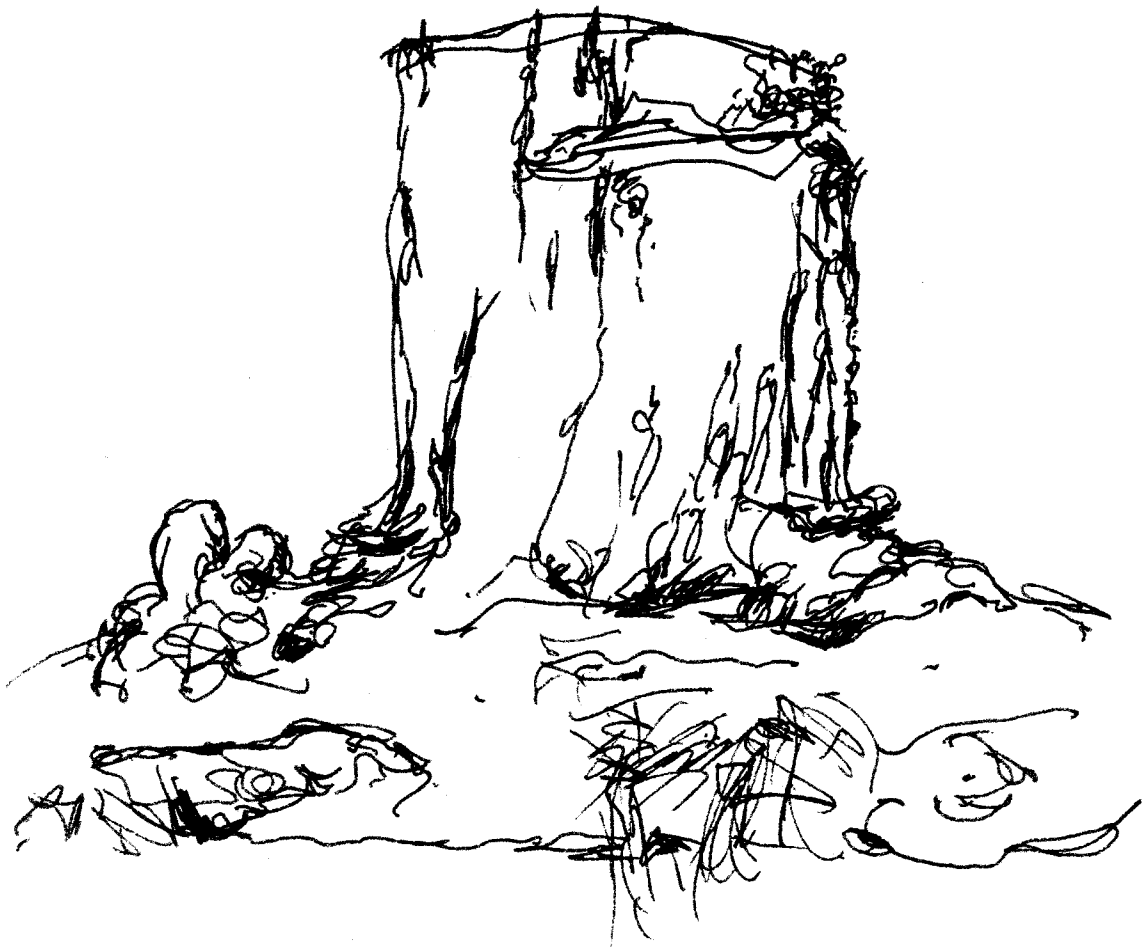
Breathing in, we know our bodies are of the Earth.

… out, we vow to tend to our bodies, to care for them, and for the Earth.

Breathing in, knowing our bodies are of the Earth, we acknowledge that they carry wisdom from this Earth.

Breathing out, we vow to listen to our bodies, to listen to the Earth.

(Adapted from *Earth-Based Mindfulness Practices*, n.d.)



Sketch 2: Stump #9 on Victoria Drive, 2017

Basket Three: The Contemplative Turn

This third basket circles around and through mindfulness, meditation and other contemplative practices that I believe can become interwoven with design. In this basket, I look at my own challenges accepting and embracing contemplative practices. There are three essays in this basket: *Taking a contemplative turn in design*, *Contemplative design as eco-activism*, and *Immersive Reflective Practice*. As with the others, I offer a guided meditation at the end of the basket.

The essay, *Taking A Contemplative Turn in Design,* describes my struggles to accept and integrate Buddhism and animism with my professional identity as a designer and design educator. I offer this with the consideration that others might see themselves reflected in this. My struggles to accept a spiritual worldview in design might help others embrace the changes that accompany learning a new worldview.

The design studio is an energized teaching space. Studio pedagogy easily addresses active, experiential, iterative, exploratory, and even some contemplative practices. This a pedagogy of wondrous variety. I contend that studio pedagogy offers opportunities to develop the qualities that Stephen Sterling (2017) asserts are essential for a pedagogy that will "transcend dysfunctional worldviews:"

> This can be summed up as: a broadening of perception (the affective dimension), a shift towards relational thinking or conception (the cognitive dimension), and manifestation of integrative practice (the intentional dimension) (p. 41).

Like many, Sterling notes the delusion of seeing the environment as a separate reality. He names "mechanism, dualism, reductionism, and objectivism" as problematic legacies of modernism that "[lie] at the heart of the global existential crisis" (p. 40). In the earlier essay *Who Were We* (Basket two), I described how these are also central legacies and challenges within design. Taking up Sterling's thoughts on pedagogy as a way to shift design practice, I journey through the three dimensions he describes: the perceptual affective dimension in Basket Three; the cognitive/relational dimension in Basket Four; and integrative practice in Basket Five. Here in Basket Three I focus on the affective dimension, particularly the perceptual and embodied learning offered by contemplative pedagogies. Design pedagogy indirectly addresses a select number of contemplative

practices. I note some of these in the later essay *Staying Still and Moving About* (Basket four). I explore the current state of mindfulness in design pedagogy and practice, distinguishing between mindfulness as an instrumental practice and mindfulness as a contemplative Buddhist practice. There is growing acceptance of mindfulness in design (Akama, 2017b), but as with popular culture, this is distorted by many instrumental or superficial applications. I describe how dedicated practice is the ground for learning mindfulness. The essay, *Contemplative Design as Eco-Activism* looks into contemplative turns that design can take, and speculates about possible transformations for design. I tease apart the differences between secular and spiritual mindfulness, based on Gottlieb's (2013) sensibility that spirituality is "an understanding of how life should be lived and an attempt to live that way" (p. 5). Within this basket I walk through a number of challenges or hindrances to design and design pedagogies, one of which is how design's dominant culture of expertise gets in the way of accepting mystery and spirituality.

The essay *Immersive Reflective Practice* explores ways to honour the affective dimension in design. Reflective practices have been commonly accepted in design since Donald Schön first wrote *The Reflective Practitioner* in 1984, but usually design reflection excludes the emotions or the affective state of the designer. I invited students to journey through the Buddhist *Four Establishments of Mindfulness* (Nhat Hanh, 1998, pp. 67-76) as they reflected on their work. This counters the tendency to gravitate towards mechanistic, objectivist, and reductionist ways of reflecting. The essay *Immersive Reflective Practice* describes how, as students began to explore their own feelings and perceptions more deeply, they were better able to weave through the broader implications of their research. Much like Renita Wong (2018) describes, they began moving towards a more integrated way of thinking, and a more relational and perhaps even decolonial understanding of design practice. *Immersive Reflective Practice* does not replace the wide range of analytic and critical reflective practices needed in design. It offers another, more holistic mode of practicing design reflection.

As a final offering in this basket, there is a meditation that invites the reader to reflect through their body. As a meditation practice that helps to counter what Bai (2001a) calls "the hyperactivity of the linguistic-conceptual mind" (p. 89), it is an affirmation that knowledge is much more than intellectual. This meditation is one of the ways to slow into what she calls a "deep being-to-being interconnectedness with the world" (p. 96). I offer

this as a reminder to the reader of the importance of the bodily-sensorial understandings in the Buddhist tradition (Fischer, 2019).

Taking a Contemplative Turn in Design

Is there also a shift of attention in the design world that I inhabit professionally? The short answer is yes. The longer answer is: It's a difficult birth, as contemporary design is part and parcel of the modernist tradition that has been dominating the world for a few hundred years. Designers are frequently in action mode, "a consciousness that discriminates, analyses and divides the world up into objects" (Akama, 2012 p. 3). The shift from action mode to contemplative practices challenges many preconceptions and prejudices in design. Designers can easily misinterpret or dismiss contemplative practices as navel-gazing indulgence (Martin, personal communication, April 2019). This perception is understandable. Many aspects of mindfulness practice have been commodified and promoted for a me-first Western culture that seeks relief, comfort, and pleasure (Bai et al., 2017). When instrumentalized for purposes like this, contemplative practices can indeed be self-serving. Mindfulness has also been presented to Western audiences as a therapeutic technique by scholar-practitioners like Jon Kabat-Zinn, who pioneered Mindfulness Based Stress Reduction, or MBSR, in the 1970's (About, n.d.). Many followers advocate mindfulness as self-healing (see for example, Goldstein 2013, Harvey 2020). While mindfulness is a proven approach to stress reduction (see Kabat-Zinn, 2018), it is only one aspect of the Buddhist tradition. According to Kirmayer (2015), "in the societies where it originated, Buddhism is a system of practice that has strong ethical and moral dimensions" (p. 447). Mindfulness dates from the time of the Buddha as one part of an integrated and overlapping suite of eight practices that comprise the Noble Eightfold Path (Nhat Hanh, 1998). These practices are "Right view, Right Thinking, Right Speech, Right Action, Right Livelihood, Right Diligence; Right Mindfulness and Right Concentration" (p. 49). Nhat Hanh clarifies that the word "Right" in this context comes from the Sanskrit, meaning

> "in the right way" "straight, or "upright," not bent or crooked… Wrong mindfulness means that there are ways to practice that are wrong, crooked, and unbeneficial… we learn ways to practice that are of benefit, the "Right" way to practice. Right and wrong are neither moral judgments nor arbitrary standards imposed from outside. Through our own awareness, we discover what is beneficial ("right) and what is unbeneficial ("wrong")." (p. 11)

In my experience learning mindfulness within the Buddhist context, the word ‘beneficial’ refers to the *benefits to others outside of ourselves*. The mindfulness I refer to in this dissertation is grounded in “remembering one’s purpose in meditating, in terms of ethical and spiritual goals” (Kirmayer, 2015, p. 451), and in dedicating the merits of our practice to all beings (Nhat Hanh, 2007, p. 35). *Right* mindfulness is intertwined with many other practices, and all of these are intended to be beneficial to others. This intention is further supported by the Mindfulness Trainings (Nhat Hanh, 2007). These trainings are declarations of ethics that include reverence for life; not striving for wealth or power; the value of loving and respectful relationships; loving speech and deep listening; and managing one’s exposure to all forms of consumer culture.

I embrace the Tiep Hien Interbeing tradition of Vietnamese Zen, a form of socially engaged Buddhism that coalesced during the horrors of the Vietnam War (Khong, 2007). Thich Nhat Hanh and his followers traveled through war-torn areas of the country to deliver food and help to the needy, often while putting themselves in great danger. Socially engaged Buddhism does just that: it engages. It does not hide from the world and may be explicitly activist, as with the Reverend angel Kyodo Williams’ (2016) work on *Radical Dharma: Talking Race Love and Liberation*. Later in this basket, I elaborate further on Buddhist activism, particularly ecological activism. As practitioners, we remind ourselves regularly that we practice for the sake of all beings; these reminders are embedded in readings, chants, and monthly recitations (Nhat Hanh, 2007). It is a spiritual practice, entwined in social and ecological wisdom, and in visceral understanding of interbeing and complexity. For many, this practice may present a challenge. Western cultural norms of what is acceptable have constrained my visible commitment to Buddhism. My struggles to accept that I am a follower and practitioner of Buddhism illustrate the hindrances that designers may have with animism and with contemplative practices overall. This is illustrated in the following essay.

Stumped: An Inquiry into the Limits of Design

June: I wished I could get away. There was steady construction noise on my street. Dump trucks and concrete mixers revved their engines in front of my apartment. Two hydraulic lifts seemed permanently in backup mode, with dueling piercing alarms. This was on top of the vibrations and honks of regular traffic. I tried to numb myself from it, to focus on what I was reading and writing about ecological design. With the cacophony of

industry on my street, it was hard to focus on what I was trying to say about the connections between design and nature.

In mid-July, I heard a new noise among the construction; it had a different cadence to all the rest, unknown but deeply disturbing, somehow viscerally upsetting. Leaving my desk, I went outside to discover that street crews had begun felling the old cherry and maple trees that had been shading the street for decades. (Apparently, their roots were heaving the sidewalks.) The wail of the chainsaw, and the grinding, screeching, and whirring of deforestation equipment completely unsettled me. I could not work on my writing, or focus on my reading. This emotional intensity was confusing. As I spun in circles, I reproached myself for what some might call my sentimentality and my emotionality.

Journal July 19: *Right now I am listening to the roar and crackle of the tree shredder. It pulls at my body. Is it true, as Abram (2017) says, that we feel the pain of the Earth through our body? Our bodies know that the Earth is where survival is. Abram says "use the pain as a gate". So, okay, I engaged with the pain. I decided to bear witness by being present to observe and document the passing of these trees. I videotaped while the crew carved the upper branches so that they lilted out and spun to the ground in acrobatic arcs. Crew on the ground pushed the branches into the shredder. They synchronized their movements, a crew of three workers with obvious expertise, until they finally wore the tree down to a naked nub, toppled it, and then with winches pulled the trunk into the shredder, screaming, shuddering and gasping as it went. It was horrible.*

The entire process of taking a tree down takes between a day or two, depending on the size. When I filmed that maple coming down, I felt awe at the skill of the crew and could appreciate the painful beauty of the operation. At the same time, an unnamable sadness filled my body – I fought against this, dismissed it. Feeling grief over the loss of a tree was something I thought I was not supposed to feel. I was shaking, couldn't eat, was restless, spinning in circles, untethered, breathing shallowly. I was completely overtaken physically but still in denial over the extent and veracity of my grief. Perhaps one of the challenges of the ecological crisis is that most people in the Modern West are socio-culturally positioned so as to not-know or experience feelings, and in particular, difficult emotions (Blenkinsop, personal communication, December, 2017; see also Dalton and Simmons, 2011).

Instead of sitting with my powerful emotions, I searched for a way to manage them. I phoned the Engineering office. I phoned the Parks Board. The engineers and arborists that I spoke to were prepared for complaints, so I caught them by surprise when I started gently asking them "just philosophically" what it might take to get us to a place where we saw the trees as being as important as a pedestrian's safety along an uneven sidewalk. They were quite ready to engage in conversation that was not directly about *my* street and *these* trees. They were both willing to talk about climate change and sidewalk design with me. They also touched on workplace politics: "If we don't talk between departments, how will we be able to start making decisions differently?" The arborist told me "the soil bed is shallow in that area, and the roots have limited places to grow." He and I advocated to save the life of one of those 12 trees. It felt good to connect with these two people. I had enjoyable moments on the phone. Using the calm tone and language of a designer talking with a client or contractor, I felt confident in my ability to reach to other professionals, validating my point of view because it was removed from my uncomfortable emotions. I was in a designer's *safe space:* a rational, measured and careful way of relating to myself and others. Ultimately, these words and conversations offered me the illusion of some control, and helped me to distance from my strong emotions. How very *Modern* and *Western* of me. Action, any kind of action, is preferred over sitting with uncomfortable emotions. Design practice, being mostly action-oriented, is filled with the crafting of words and ideas that allow us to speculate at a distance and keep designers removed from discomfort. And so, as with many situations like this, nothing changed: the tree-removal project went on.

I have written before about my deep connection with trees (St. Pierre, 2015a, 2017) and know that they are "literally able to speak" (Blenkinsop and Piersol, 2013, p. 41). Animism is the understanding that conscious and not-so-conscious communication can take place between humans and more-than-humans (Bai, 2013). This includes squirrels, trees, spiders and rocks. My early communications with trees had been in mossy grottos suffused with green light, or arcades of quiet far from the clutter of daily traffic. There, it was too easy to imagine that my conversations with trees were rarified or mystical moments. Here in my busy urban life, I usually do not stop to listen to their voices. Plumwood (2002) calls this backgrounding; nature, although relied upon, is "taken for granted" (p. 18). During the many years in my home, I have enjoyed the gentle cherry blossoms in the spring and the bright maples in the fall, but like the best of neighbours,

they gave much and asked for little. The shock of their death broke through my awareness. I have begun to realize that perhaps we are all, always, in some form of animist conversation with more-than humans. “[T]here is an ecological relationship in which we are immersed and … this relationship, although unseen and unacknowledged, is fundamental to our humanity” (Blenkinsop, 2005, p. 303). My decision to bear witness to the death of these trees was my redress for not paying mindful attention while they were alive.

Feeling somehow responsible for these trees, I walked along my street and awkwardly dropped sage at the foot of those slated for destruction. I felt diminished by the scornful glances of the Parks crew. “People like to have their sewer lines working,” one said to me defensively. One day the crew quickly scattered when they saw me approaching along the sidewalk. In response to feeling dismissed as the crazy lady, I found myself compulsively researching different sidewalks; they would morph with change, like rubber sidewalks (these exist, but don’t necessarily allow for much more root growth). Maybe they could be like boardwalks with empty space beneath for root growth (how much space would the incline for wheelchairs need)? This reaction is common. Designers move quickly to try to resolve ecological problems: we develop apps that support Citizen Science, script virtual reality immersive experiences to incite empathy, create new materials from bark, or invent novel ways of using so-called waste. This is a way of managing discomfort. We jump in to create any sort of change, with a cacophony of useful and not-so-useful projects that have a multitude of unintended consequences. All of this takes place within our bounded reality. This is our place of safety, the *safe space* where we try to make sense. A place where we can feel in control. A place of safety that is bounded from all that we are not supposed to feel and far from the language of other-than-humans.

Reflections on Stumped

I shared the Stumped essay (above) in a class with Sean Blenkinsop and Charles Scott. Sean later commented that my writing revealed my embeddedness in modernity (personal communication, December, 2017). It took me a deeper reflection to realize my immersion in the Modern Western priorities of productivity and technological rationalism. It is clear to me now that my actions as a designer were about seeking my own rational reassurances. In hindsight, I see how the goal-oriented and productive tendencies of the

design profession were in tension with emotional and visceral experiences that I was not culturally ready to allow or understand. In Buddhist discussions, we use the word hindrance to refer to that which presents a difficulty. A hindrance is not an insurmountable problem, only something that needs to be fully seen, acknowledged, and shifted, through the practice of paying close attention, time and again. I was uneasy about signals from my body that were about emotional, interdependent, and mysterious ontologies. This unease was due to cognitive dissonance. I was receiving signals that did not align with how I had been trained. Instead of paying attention to the signals, I tried to hide behind various actions, focusing on what might be directly relevant to a project. This was something that I thought I could manage. This is the practice of a designer. These are a few of our cultural norms. No wonder it took me so long to accept and honour my Buddhist practice! For years, I kept my growing sense of myself as a Buddhist (and an animist) apart from my colleagues and students. I struggled with how much of this self I could reveal at my workplace. This fragmentation was uncomfortable; I rarely felt at ease. I have described in this dissertation how stitching my separate selves together took time. It was also healing. This is an ongoing process, but now I easily talk about my learnings with my students, friends, and colleagues. I enjoy saying, "…hmmm… you know what Thich Nhat Hanh would say about that…" and, "oh I am so happy that I get to be bell master tonight!". For me, this is a wonderful way of being. As I continue to allow this side of myself to be visible, I sense a growing acceptance from others. They see that this practice is part of me. But gaps of understanding remain, mostly around the spiritual aspects of the practice. If I lean on accepted scholarly terms like posthumanism, interdependence, relationality, non-anthropocentrism, I have more success touching the worlds of my colleagues and students.

Even though design is an experiential discipline, designers can become very caught up in academic theory. I thoroughly enjoy reading Braidotti's (2019) theories on posthumanism, Bonnet's (2004) beautiful words on nature, or Escobar's (2018) thoughtful take on racial equity and interdependence. Gottlieb (2006a; 2006b; 2013), who writes extensively on spirituality, contrasted his work with what he experienced in previous decades as "hyper intellectualized techniques of academic philosophy" (2013, p. x). I felt that I understood what he meant. As I mentioned in Basket Two, I have struggled to reconcile my commitment to Buddhist meditation practice with the conventions of my academic profession. I have learned Buddhism as a lived practice…

an experiential practice. This experiential learning contrasts with hyper intellectualized learning. On the surface, it may be that the content I've learned through academic sources is not too different from what I learned through socially engaged and environmentally engaged Buddhism. But at the heart of it, there is a huge difference. The intellectual and morally resonant ideals that come from the rousing words of Escobar (2018), seem meant to be *applied to life* rather than to be lived *within a life*. This leaves a distance between *being* and *knowing, ontology and epistemology*, as I wrote in *Taking a Contemplative Turn* (Basket Three). Bai (2001a) says that concepts are inert and disembodied ideas, "ideas that are not worked into one's whole being with senses and feelings" (p. 87). In contrast, the "psychophysical" (Fischer, 2019, p. 142) practice of engaging in meditation permeates deep into one's being.

According to Gottlieb, spirituality is "an understanding of how life should be lived and an attempt to live that way" (2013, p. 5). It is an understanding that is "liberated from the self-defeating patterns of the conventional social ego" (p. 28). This implies that those who contribute to the shaping of our worlds (i.e., designers) might be eager to embrace spirituality, but unfortunately, that is not the case. Design has been nurtured by modernity and remains embedded within its priorities. In modernity, we have been encouraged to separate the spiritual from what is considered the real work of our lives, and especially from academic work (Gunnlaugson et al., 2015). Many designers imagine that the spiritual and the professional are separate qualities of a life. But Gottlieb's definition of spirituality imagines otherwise: spirituality is *how to live a life*. In Buddhist conversations, we often talk about how we live a life, because our Buddhist practice is not separate from our life: our life is our practice, and our practice is our life. In various moments of my day, in a meeting or in a conversation, I return to my practice. I might pause to breathe and observe the moment, to stay still with what might or might not be happening around me. I might stop to remember a mindfulness training, such as deep listening. I may recite a *gatha* while washing my hands to remind myself that soap keeps others safe in times of pandemic (Mountain Rain, n.d.). And so on. My life and my Buddhist practice cannot be separated.

The wisdom of sustainable design scholars like Escobar (2018), Walker (2011, 2014), and Fry (2009) is inarguable but feels distant. The theory and ethics they write about can be learned and applied – but only at a remove. The practice of Buddhist ethics, only the other hand, arises from day-to-day exchanges of my life and my meditation practice. "In

practice, mindfulness meditation requires remembering one's purpose in meditating, in terms of ethical and spiritual goals" (Gethin (2011) as cited in Kirmayer, 2015, p. 451). We remind ourselves regularly of the desire to eliminate greed, hatred, and delusion. We continually thread and reweave our intentions to cultivate wisdom, compassion, and lovingkindness. This mindfulness blends in with my day-to-day actions, right down to the breathing that I do. I am continually reminded of the impermanence and interdependence that I mentioned in Basket Two. My shared hopes and intentions are that my practice will benefit all beings. When I dedicate my practice for sake of all beings, it follows that I must know myself to *be a being among other beings*. These kinds of learnings are intense and challenging. Unless one is born into a culture of mindfulness practice, these insights are acquired through the dedicated and immersive physical practice of meditation (Fischer, 2019).

Formal meditation is an intentional, bounded act of concentration, carried out in a bracketed time. Everyday practices of meditation, on the other hand, can be applied to everyday activities simply by being present. All Buddhist traditions have their own set of meditation practices and expectations, or *forms*. I have learned my form of meditation practice in the Tiep Hien Interbeing tradition (Nhat Hanh, 2007). One can attend a *Sangha* of this tradition just about anywhere in the world, and in any language (*Find a local group*, n.d.), and the form will remain consistent from Finland, to South Africa, to Hong Kong. I understand my immersion in particular Buddhist practices and their forms as an experiential practice, just as I have moved toward my immersion in particular design practices and their forms as congruent. This has enabled me to connect design and design pedagogy to the Buddhist practice and Buddhist teachings. I describe the qualities of mindfulness and of my meditation practice in greater detail below.

Mindfulness

There is an irony in writing about mindfulness. Mindfulness is only truly understood through experience and practice (Loori, 2007; Tamdgidi, 2008). Generally speaking, mindfulness is the practice of paying attention to the present moment, allowing awareness of the unexpected or impermanent. In mindfulness, our attention is 100% on whatever is happening in the present moment. Hence, there is no distraction, no split or fragmentation in our body-mind-heart consciousness. When I type mindfully, I become deeply located and situated in my body, aware of the motions of my hands as I type,

watching the symbols *s l o w l y* fill in horizontal lines across the page. The content I am describing becomes less important than the sensory event of this typing. My body fills with a sense of quiet. (And now, in this moment, I am laughing to myself as I mindfully type on these keys.) One can wash dishes mindfully, go to the toilet mindfully, walk to the bus mindfully, and so on. Thich Nhat Hanh (1999) says the difference is between "washing the dishes to get the dishes washed" or "washing the dishes to wash the dishes". When we are washing the dishes to wash the dishes, we are fully present with the dishes rather than having half our mind on the next task. Mindfulness, in the tradition of zazen, is also known as *just sitting*. Here, "just" means something like, "for no other reason than just sitting, or just standing, or just walking, or anything that one is engaged in *in the moment*."

Like anything else in late neoliberal capitalism, mindfulness is subject to becoming commodified, engineered as efficiency. It is sometimes seen as a panacea or therapy for the anxieties nurtured by Modern Western society. Well-meaning attempts to integrate mindfulness are often instrumentalized as "skill-based cognitive-behavioural tools" (Bai et al., 2017, p. 22) to serve processes and outcomes. This instrumentalization is ever-present in design. Tactics for mindfulness encompasses a wide range of practical tools and approaches. For instance, Niedderer (2007) interprets mindfulness as a state of awareness that the designer can instigate in others by designing artifacts to disrupt perception. In her case, she creates unexpected behaviours in designed objects as a hypothetical prompt for mindfulness. The Ten Percent Happier App offers a dazzling array of guided meditations from experienced practitioners (Ten Percent, n.d.). As the name implies, the intent is to make one happier. In 2015 alone, there was a proliferation of almost 6,000 apps and websites to support mindfulness (Akama and Light, 2015). An instrumental practice of mindfulness changes the very nature of mindfulness. When something is instrumentalized, there is split between intention and outcome, means and ends, purpose and action, process and results, and so on. This is fragmentation. As I have mentioned in other parts of this dissertation, fragmentation is essential to seeing the world as a mechanism. It is a quality of dualistic thinking, a frame of mind that allows society to continue to mine, utilize and destroy the Earth as if she were not alive. Instrumentalized practices muddy the opportunity for integrative insight that mindfulness offers. Most of us need to apply ourselves with dedicated effort in order to embrace

spiritual mindfulness. Meditation offers a structured practice that helps us to learn the true meaning of mindfulness.

Meditation practice: Learning Mindfulness

There are a wide variety of meditation practices. While many spiritual traditions include meditative practices like “Scripture reading, prayer, and sacred singing” (Fischer, 2019, p. 142), formal Buddhist practices, such as Vipassana or Zen, are grounded in specific techniques of concentration that require devoted effort, and that take place in a contained period. It can be a long time, such as a week-long retreat, or for those who live in monasteries, meditation can be a lifetime of practice. Then again, meditation can be carried out in a short and less visible way, such as when I practice walking meditation in the hall on my way to class. It can be even shorter than that! In an email comforting me about time constraints, Heesoon recounted how her Chan teacher used to say, “If one minute is too long, try 5 seconds!” (email conversation, March 2020). Regardless of the length of time, all of these types of meditation take effort, commitment, work, and dedication: “Cultivation requires discipline, careful steady effort over time” (Fischer 2019, p. 142). Various traditions have precise expectations for how to practice meditation, including how to sit, what the length of time is, and whether there are intervals, and so on. I have learned meditation in the Tiep Hien Vietnamese Zen tradition, and these are the forms I draw from for the narratives that follow.

As I mentioned above, meditation practice is a bounded and repeated act of concentration. This regular practice cultivates insight. The word *practice* connects how I teach and work as a designer with how I learn about Buddhism. It is experiential. Norman Fischer, a Soto Zen teacher, calls meditation “psychophysical practices.” (2019 p. 142). We bring intentions to meditation: to calm emotions, learn how our minds operate, and to open ourselves to new perceptions or worldviews.

> Meditative practices, of the sort found in many spiritual traditions, broaden our range of perceptions, opening us up to what might be called an epistemology of the body—that is, to sources of information that are not mediated exclusively by our intellect. (Batacharya and Wong, 2018, p. 12)

It offers new ways of connecting with the world and knowing our selves. As I also noted earlier in this dissertation, Buddhist meditation "remakes the self" (Fischer, 2019, p. 150) so as to embrace a deep understanding of our interdependence (Bai, 2001). We learn that we are beings among many other beings of equal intrinsic value. According to Loy (2012), meditation is a fluid and interdependent process: "When we meditate, for example, we are not transforming ourselves. We are being transformed. Quiet, focused concentration enables something else to work in and through us, something other than one's usual ego-self" (p. 30). We are not in control of the transformation; we are opened.

It is possible to read extensively about the centuries-old history of various Buddhist traditions, but according to Vietnamese Zen monk and scholar, Thich Nhat Hanh (2008), the Buddha said we needed to learn things ourselves, through practice (see also Fischer, 2019; Loori, 2007). Regular devoted practice: Follow the trainings. Sit on the cushion. Focus on the breath. Let go of the thought. Come back to the breath. Let go of the story. And repeat. Day to day, over several years, I sat to meditate, reminding myself to be present in my body, in this moment. After practicing like this for some time, I started to realize that everything is a story, all my perceptions are constructed. By letting go of the constructions, an entirely new perspective is possible in every moment (Loy, 2018). As I became aware that each moment was different, I connected more deeply with the insight of impermanence. Nothing stays the same, moment by moment. Meditation practice allows holistic insight, into Nhat Hanh (2008) calls "clear understanding" (p. 120).

> In order to attain clear understanding, it is necessary to live mindfully, making direct contact with life in the present moment, truly seeing what is taking place within and outside of oneself.

The clarity that Thich Nhat Hanh refers to here can be understood as *spaciousness*. As we connect directly with life our individual sense of self opens up…we are simultaneously in our bodies and in everything around us. This spaciousness represents possibility. We are not determined by any story that we may tell ourselves or that others may project onto us. Entering into spaciousness is a meditative practice of letting go. We let go of our discursive tendencies to solidify feelings and perceptions into stories – mental formations – that, over time, become like a straight jacket. Discursive thinking is what Bai calls *solid thinking* (personal communication, July 2019), where information becomes story or theory; becomes placed, carved, and fixed. Solid. Letting go of the

story allows the unknown and the possible to enter in: it dissolves the solidity. Spaciousness is a place of open and endless potential, where nothing is fixed. Reality is ever-changing and expanding. In this state, we become engaged with what surrounds us. Context becomes everything. Spaciousness is not detached, it is all-inclusive. When awareness is open, we are in direct connection with a fluid reality. It is more like everything-ness. Or maybe anything-ness. This is what we mean by a spacious state of mind. This learning is supported by a highly somatic practice, which has compelling implications for pedagogy.

Norman Fischer (2019) claims meditation offers a deeper form of learning than the academic learning that is commonly practiced in schools: “I am talking about the psychophysical practice of concentration in which the meditator sits upright in a yogic posture on the meditation cushion or a chair, focused on breathing, silent and aware” (p. 142). I understand Fischer’s description of the psychophysical practice of concentration from personal experience. There are times when I am sitting on my meditation cushion, and I feel like I am *taken up* or am *taken over* by something else. Images, ideas, and sensations come into my awareness; they may have been unbidden images, they may be surprising sensations, my body might feel completely different, in fact it often does. In Basket Two of this dissertation, I described how, after having a particularly powerful meditation experience, I was suddenly able to skip stones on the ocean. This sudden ability was no trivial event. I had tried many times over the years of my life to skip stones. But in that moment after deep meditation practice on the shores of the Puget Sound, my body was possessed of the new knowledge, a new lightness that had me almost dancing across the beach and casting stones with such ease that they skipped once, twice, three times. Something had happened to me during meditation that supported my newfound physical coordination and synchronous relation with the forces of nature: of the rock the water my body. In that moment, both my body and mind were in a state of exaltation, knowing myself a part of a great and beautiful universe. This kind of experience has not happened since, but it was unforgettable. The experience lives on with me.

Somatic learning also happens in the everyday moments of my Buddhist practice. For instance, I have always been a relatively clumsy person. I move quickly and impulsively, easily jarring something off the table, or bumping into corners, edges, or strangers as I

walk. In the meditation hall, I have slowly learned to carry and hold my body gently and kindly as I move through space and time. All this is done slowly-but-not-too-slowly. There is a moment of concentrated awareness when I touch my palms together in *Gassho*. Stepping with care throughout walking meditation and bowing to the altar as I leave the hall, these moments of care, of careful movements, become inscribed in me. I am more and more aware of my body in daily life.

I am deeply enchanted by the sound of the bell, and I often offer services as the bell master. You may like to click this link to enjoy a sound of the bell (Jerome, 2012). It took me a long time to learn how to sound the bell. The instructions are very specific:

> The bell master first wakes [the bell] up by lightly but firmly placing the wooden stick on the rim of the bell and holding it there so that everyone hears a short sound. This prepares the bell and everyone present for the full sound of the bell that will follow a second or two later. The bell can then be sounded. As soon as you hear the bell, follow your breathing. Before inviting the bell again, allow enough time for three in- and out-breaths. (Nhat Hanh, 2007, p. 19)

After many years of practice with the bell, this knowledge is now embodied. I no longer need to count my breaths. I simply move with the feeling. The consistent rhythm of the sound is reassuring and grounding. Regardless of who is bell master on any given day, the pacing is the same, and the sound brings me back to my body.

The chants are also rhythmic, and they too, are repeated, such that if I close my eyes and someone chants the first words, I follow easily and naturally even though I've known all my life that I cannot sing. The point here is not about my increasing ability to sound the bells, to be graceful, or to sing a basic chant, but to articulate the grounding power of somatic learning. The very physicality of Buddhist practice, from the fragrance of incense, to the lit candles, to the sense of quiet in the room, to the restrained aesthetic all contribute to my being present in my body; it all contributes to somatic awareness. Arguably, somatic learning can be part of learning many skills, and I do discuss this later in light of design pedagogy. In the context of Buddhist practice, somatic learning lays the ground that holds the learner through moments of uncertainty. Fischer (2019) is specific about this. He says that "concentration always goes together with insight and serves as insight's support. Meditation practice is somatic. Its site is body, breath, belly, nerves, and sinews. This aspect of meditation becomes crucial when it comes to insight practice" (p. 148).

Ceremonies, rituals and moments of somatic learning are not unique to Buddhism, and permeate many spiritual practices. As Bai (2001a), Wong (2018), and I suggest, somatic and experiential learning offer potential for educational experiences that can shift worldviews and create new understandings of self-among-others. The powerful combination of the somatic practices with psychological learning and insight that Norman Fischer talks about when he says these practices change our very being; they reach us on a level deeper than ordinary thinking and feeling. The “practices that are used today, such as concentration on the body, concentration on breathing, and concentration on the four unlimited emotions of lovingkindness, sympathetic joy, compassion, and equanimity” (2019, p. 144) comprise the psychophysical practice of concentration in meditation. This “pervades body, mind, and heart; it transforms emotions, physical sensations, and thoughts. in all its somatic depth, is more than a thought or an understanding.” (p. 150).

By practicing meditation, I access the state of spaciousness for moments in time. For me, these are moments of spaciousness that I imagine nuns, monks, and committed lay practitioners experience in much of their lives. Sister Annabelle calls spaciousness sheer recognition, a level of sensory awareness that does not let concepts get in the way (Lloyd, personal communication, February 2018). In spaciousness, I unhook from the regrets of the past and worries about the future. The next moment is a new one, completely fresh. Moments of insight emerge unexpectedly. These insights are unplanned and not pre-determined. While the insights are sometimes helpful at a basic level, like when something I had forgotten pops into my awareness, my practice is not instrumentalized in the service of pragmatic insights. Often, I access a state of relaxed being. The state of spaciousness doesn’t make everything else irrelevant, but acts of making, shaping, and creating have a more relaxed pleasantness. This spaciousness allows me to reset my priorities and let go of the drive, the grasping, the action mode of being a designer.

Meditation practice enhances our ability to question our place in the world and to reshape our priorities. We can encounter a deeper engagement with the larger questions of relationship, care, relationality, and ecological meaning. For designers, meditation may bring an ability to question the instrumental nature of design, and to question the priorities of modernity. We may gain insight into the extent of illusion, greed, and hatred

at the core of modern Western society. We can also connect with the natural world at a spiritual level and understand the truth of interbeing. At this deeper level, meditation practice can help us to viscerally understand that we are interdependent with larger systems of life on the planet, and to connect with the lived experience of other species. This embodied knowledge of interdependence is a fully animist spiritual understanding. It offers “an alternative alliance for design” (Fletcher et al., 2109a, p. 9).

Mindfulness (*sati* in Pali, the historical language of the Buddha) actually means much more than staying present:

> The terms sati and smrti refer not to bare attention but to memory and remembrance; hence, mindfulness meditation may not involve simply cultivating present-centered, nonelaborative, and nonjudgmental attention, but include remembering the goals of practice based on previous memory and learning (Kirmayer, 2015, p. 451).

This frames mindfulness as a process of learning and re-learning, a process embedded in ethical goals that orient humans towards wisdom, compassion, and lovingkindness. For Bataychara and Wong (2018), it is a liberating ontology, one that frees people from the constraints of limited understanding. They link this embodied learning with decolonization. This may be of great interest to design educators who wish to decolonize design (Escobar, 2018). Unlike the insights that arrive from intellectual learning, these insights become part of our identity… a new sense of our self and our place among other life forms in the world. Further, as Wright (2009) says, “This realization makes us profoundly aware of our own embeddedness within larger worldviews, languages, cultural contexts, and historical epochs” (p. 207).

Meditation practices may offer designers the space to become aware of and then challenge our attachments to Modernity. We can unhook from our conditioning with the help of these practices. Designers who are caught within the trajectory of modernism could choose when to engage in modern understandings of productivity, forward momentum and action, and when to practice contemplation, sensing, and reflection. We can choose to turn our attention what matters most: the world we are embedded within. This is the potential of the contemplative turn: to redirect design practice from within.

Mindfulness in design

Mindfulness, as a state of being, is interpreted in many different ways in the design field. It can and has been miscast and framed as a behavioural tool in order to be seen as relevant to the modern practice of design. Examples of this are in Rojas and his colleagues' work, who articulate that their research "aims to describe and measure the effects of a mindfulness device in a way that is relevant to design" (2017, p. 1). Their focus on measuring effectiveness and enhancing productivity is deeply mechanistic. It undermines the intended purpose of mindfulness as an integrative, holistic, and spiritual practice. Their goal is to enhance the collaborative capacities of designers. While this aim is laudable, it separates a single goal from the larger spiritual context in which this practice was developed. This fragmentation changes the very nature of the practice from one that seeks integration, acknowledgement of interdependence, and a holistic view of the cosmos, to a simple tool for a purpose.

Montarou (2014) also advocates mindfulness as the search for instrumental outcomes for design. He says mindfulness "provides an opening whereby different levels of consciousness can combine to produce new insight" (p. 5). Here Montarou is referring to an insight that would be useful for the designer (or for the design project), anything from a eureka moment about how a product might be used, to a realization of a better material or composition. Buddhist meditation practice, on the other hand, is not about pragmatism. It seeks insight into our interbeing – our lack of a separate self and our connection with all that is. There is a profound ethical and moral dimension of mindfulness in Buddhist practice (Bai, 2012; Kirmayer, 2015). This is undermined by instrumental applications that do not connect to a holistic spiritually grounded context. As I have said earlier, ethical, moral and spiritual worldviews are needed in design. When mindfulness practices are developed instrumentally, the opportunity for spiritual growth is diminished.

There are, perhaps, too many examples of how mindfulness is instrumentalized in design: how they become tools for collaboration and tools for insight. The designers who develop these tools and the designers who use these tools can easily slide into mechanistic thinking. And in this way, instrumental applications of mindfulness contribute to the fragmentation of the emotion, mind, body and spirit of the designer, the fragmentation that allows us to practice our work without deep consideration of

ecological consequences. Mechanistic and instrumental applications miss the point of, and the opportunity for, true mindfulness practice. Approaching mindfulness in design as a tool will not help the practice of design to take a contemplative turn. However, all is not lost, it seems, even if we do begin with this approach to mindfulness.

Thich Nhat Hanh, in reference to his offering mindfulness practice to Google employees, said that even if one began with instrumental intent, any *sustained practice* of meditation can eventually lead to the insight of interbeing (Confino, 2015). Risky as it is, acknowledging the specific and instrumental benefits of contemplative practice for designers may invite greater acceptance of contemplative practices in any field. I am hopeful but cautious. I can easily generate a list of specific benefits: heightened intuitive abilities, faster and clearer insights, increased and more focused productivity, clearer focus on priorities, increased ability to envision the critical path through a complex process, heightened conceptual and imaginative capacity, and improved listening skills. At a detailed and pragmatic level, finding ways to pause during the activity of design can foster greater sensitivity to the details, implications, and extended consequences of the relationships of the projects that we put out into the spacious world that we share with all beings. Despite all these benefits, I am very aware that focusing on these or seeking them they may lead to an instrumentalist view that can be highly problematic (Bai et al., 2017). Most importantly, an instrumental practice offers fragmentation, which, as I have noted, is an underlying problem in modernity. Some designers avoid instrumentalizing mindfulness by reaching *deeply* into their personal and holistic spiritual practices. I look to two practitioner-designers, Chotiratanapinun (2017) and Akama (2012, 2017b), who bring insights from their Buddhist traditions to design. It is clear from their writings that their spiritual views are inseparable from themselves and from design.

Chotiratanapinun (2017) comes to design pedagogy as someone immersed within the Buddhist culture of Thailand. From this, she advocates a pedagogy based in “Systems thinking [as] an essential approach that assists people to understand the complexity of the world around them as well as encourages them to think in terms of relationships, connectedness and context” (p. 20). She also says “perhaps, the most challenging task any designer has to confront is that of working on the inner self, that of cultivating ecological consciousness and that of realising that everything is interconnected” (p. 28). For practitioner-designers like Chotiratanapinun, engaging the whole self is integral to a practice of compassion, kindness, and empathy. It is integral to the understanding that

we do our work for the benefit of all beings. In this way, design can be a spiritual practice.

Yoko Akama (2015, 2017b) is perhaps the best-known among Buddhist practitioner-designers. She coordinates the DESIS-Melbourne research lab (n.d. DESIS network), and is widely published. Akama practices Japanese Zen. She describes a form of spiritual design practice that surrenders “to impermanence and inter-relatedness” (2017b, p. 219). Her work signals the value of contemplative practice for design, not as a skill that is implementable or useful, but as a holistic ontology. She brings her presence to her work as a practitioner-designer, “cultivating a practice towards mindfulness, motivated by a concern for our world and what futures we are making together” (2015, p. 80). Many of her publications are highly detailed about the origins, practices, and philosophies of Japanese Zen Buddhism. For Akama, mindfulness is a way to unlearn some conventions of design, such as the notion that a causal process leads to an ultimate design solution. Working in collaboration with the Indigenous Wiradjuri people of Australia, her interdisciplinary team came to understand the personal politics of Indigenous self-determination (Akama et al., 2017). They developed a bricolage of “digital and creative materials [that] range in scale and variety, from publicly accessible social and printed media, websites, radio broadcasts and a Wiradjuri digital platform” to support the expression and self-determination of the Wiradjuri people on their own terms. I have long followed Akama’s human-centered design work, and only recently learned that she also holds animist views (Akama & Light, 2020). This was unsurprising. The depth of her writing exemplifies how a contemplative turn in design might naturally encompass an inclusive ecological worldview.

While Akama writes about meditation she does not attempt to offer the teachings and instead recommends that anyone interested in mindfulness join a meditation group. In saying this, she affirms the importance of practice. This is not something that can be learned by only reading. Some who are born into societies where Buddism originated, such as Thailand in Chotiratanapinun’s case, or Japan for Akama, may have learned these practices as young children and so come to it more naturally. Even so, they most likely need to maintain their practice. For those of us in the Modern West, learning Buddhist mindfulness takes time, practice, and dedication.

It is important to note that while I speak mostly about Vietnamese Zen Buddhism, it is not the only pathway to guide a contemplative turn. There are commonalities with many spiritual practices. In addition to Eastern traditions, there are various forms of traditional Indigenous knowledge, and other practices that “Christian monastics and other Western religious practitioners have developed over the centuries” (Fischer, 2019, p. 142). Designers can find holistic views that work for them and search for spiritual resonances within themselves. My caution is that we take care to notice any instrumentalist impulses to ‘extract’ a practice and ‘apply’ it to our own. It takes devoted attention to avoid the pitfalls of fragmentation and support the deeper learning that is implicit in the work of Akama, Chotiratanapinun, and hopefully my own.

Contemplative Design as Eco Activism

Turning to Reverence for Life

> Yesterday I went to the shop to buy seafood and asked the young man behind the counter what the sign ‘sustainably raised salmon’ meant. He wasn't sure, and referred me to his colleague who told me that these steelhead salmon are raised in an inland lake called Lois Lake, near Powell River. He said (casually, as if this was no big deal) that all the wild ones had been overfished. (St. Pierre Mēmxuem river journal 2019)

The contemplative traditions have been variously criticized for either being internally focused and for not taking action on social and ecological issues (Loy, 2019, Bai et al., 2017). In recent years, the Buddhist community has shifted this conception through publications, most notably Thich Nhat Hanh’s *Love Letter to the Earth* (2013) and David Loy’s *Ecodharma: Buddhist Teachings for the Ecological Crisis* (2018). Luminaries like the Dalai Lama reach large audiences through texts such as *Ecology, Ethics, and Interdependence* (Dunne & Goleman, 2018). Recently, the Venerable Bhikkhu Bodhi addressed the United Nations with a call for “mindfulness and clear comprehension of all the dangers we face together today, the most formidable, the most all-embracing, and the most threatening is the one usually called climate change” (Sperry, 2019).

In addition to this, many new and well-established Buddhist communities have been taking advantage of digital technologies to live-stream to dispersed audiences. *One*

Earth Sangha has offered educational series' on becoming an Ecosattva, or caretaker of the Earth (Ecosattva Training, 2019); the Spirit Rock Centre live streamed a series called "No Time to Lose: A Dharma response to Climate Change" (No Time, 2019). Heather Lyn Mann oriented Buddhist practices to climate justice with the "Five Climate Justice Mindfulness Trainings" (Mann, 2013). The *Earth Holder Sangha* hosts monthly online meetings to talk about ecology and Buddhism (Green, n.d.). There is an increasing Buddhist presence at marches and protests. These are direct actions. "Once there is seeing, there must be acting. Otherwise, what is the use of seeing?" (Nhat Hanh cited in Loy 2019, p. 148). However, the more powerful links between contemplative practice, pedagogy, and ecology are often indirect. As the Venerable Bhikkhu Bodhi said, "the Buddha would say that we also need internal changes, changes in our values and our ways of life. And most of all, in the kinds of thinking, the states of mind that underlie the escalating climate crisis" (Sperry, 2019).

In 2015, I received the Five Mindfulness Trainings, a Buddhist vision for a global spirituality and ethic (Nhat Hanh 2006, p. 97). We recite these trainings together regularly. The first training is Reverence for Life.

> The First Mindfulness Training: Reverence for Life. Aware of the suffering caused by the destruction of life, I am committed to cultivating the insight of interbeing and compassion and learning ways to protect the lives of people, animals, plants, and minerals (Nhat Hanh 2006, p. 98).

I also took the EcoSattva Trainings online (Ecosattva Training, 2019). These are Mindfulness Trainings oriented specifically to developing awareness of the planetary crisis and supporting the well-being of all plants, animals, and minerals. Like many Buddhist groups, the *One Earth Sangha* (n.d) faces our ecological crisis honestly. Dedicated meditation and mindfulness practices help Buddhists learn to hold pain. I recite to myself:

> The Earth is being decimated.
> Incompleteness is always there.
> On this path I am already here.

The Earth is being decimated. I am here. I stay on the path. I am walking the streets around my home, experiencing the land around me…the gardens, the trees and the people in their daily life who are all in relationship with Earth, and with me. Incompleteness is always there, as I take another step, consider the multitude of our

interdependencies, and reconsider the self-importance of the human. In spiritual process-based work, I sit with all of these realities. In my practice, I continue to turn towards “interbeing and compassion, and learning ways to protect the lives of people, animals, plants, and minerals” (Nhat Hanh, 2006, p. 98). Reverence is a practice of being, of staying with the pain, and of honoring all forms of life.

Turning to incompleteness

> Sometimes I draw and sometimes I don’t. Sometimes I do visible mending practice sometimes I don’t. I do a lot of these practices sporadically. But I cannot refute the general joy of making marks and making with materials, and how my hands love to do things. How all of these activities aggregate in small ways. Maybe I don’t need to be looking at productivity in a conventional sense. (St. Pierre reflective Journal summer 2019)

In the Buddhist worldview, “incompleteness is always there” (Maitreyabandhu, 2014). The concepts of impermanence and interdependence point to ontologies that may be uncomfortable for some designers, particularly those who are familiar with the satisfaction of creating a beautiful finished artifact. However, process-based work can be deeply enjoyable, and ecologically more benign. As a designer engaged in processes like stitching, mapping walking, and making rope, I know there is always another stitch to be taken, step to be traced, and rope to be made. There is another walk to take. Do not lose heart, there is more work to be done. Incompleteness is always there. Process becomes a spiritual practice. Incompleteness allows for constant flow rather than any stopping to take a position or declare success. It is an antithesis to modernity. Contemplative practices, guided meditations, and reflective activities, can temper or mitigate the rapid cycle that is design-doing. These practices offer an opportunity to reflect on one’s work outside of the human-centered and capitalist frameworks that dominate the explicit and hidden curriculum in design.

Matilda Tham (2008) writes about the process of engaging with one’s artefacts in this way. She connects it to Ivan Illich's notion of conviviality: “personal energy under personal control” (p. 65). It certainly feels true for me. As a practitioner, I embrace a life practice that one friend called “beautifully making do.” This involves living without a car, repairing clothes, making fibers from my garden, limiting my travel, walking practices that are local (and unglamorous). In this way, I stitch together a life that is creative, spiritual, humble, engaged, and always in process: unfinished. In Modernist terms, this is

unproductive and unimpressive, but having tried the alternative, I would not have it any other way. I align myself with Kate Fletcher (2016), who says making do is “about authenticity and personal completeness by having less dependency on material context, a shift in orientation from having to being” (p. 35). The stuff of my life tells me stories of what I have done, reminding me of times when I changed that line or chose that color. Tham (2008) says: “The argument for an active as opposed to passive engagement with the material world, and a sharp critique of industrial society, were central tenets of Illich’s work. With the term conviviality, he described ‘the opposite of industrial activity… the autonomous and creative intercourse among people, and the intercourse of persons with their environment’” (p. 65). Illich (1973) went further to suggest “as conviviality is reduced below a certain level, no amount of industrial productivity can effectively satisfy the needs it creates among society’s members” (p. 11). My projects ground me in the present, with the community around me. Spiritually engaged design is about engaging fully with the process, the moment, the path, not the desire to arrive at an ideal, final, or grand outcome. Contemplative practices offer ways of learning this. It is a path and it is a boundless place, all at once.

Turning to not-knowing

> I remember that the room was quiet. A small group of us were trying to sort some responses to our recent research trip. I was sitting on the floor, writing. The air was filled with shifting movements, rattling paper, the sound of breathing. Bodies were poised in curiosity. Suddenly a colleague swept into the room, filled with energy that came from teaching, talking, guiding, steering and solving problems. He started his sentences before he was through the doorway, of Latour’s recent theory, of the meaning of our research project. … Heads swiveled towards him. Bodies realigned. Suddenly a space was created where something, some decisive theory was known, a defined space; a sharp space. The wondering, the curiosity, and the wandering stopped. (St. Pierre Journal, 2019)

This story describes a common event in design research and pedagogy. The momentum, energy, and attention of a group became commanded by the expert voice. Many design academics are aware that deep ecological change will not come from relying on what we already know, or on our existing ways of knowing. Even so, there is a dance of learning and change: while we admit ambiguity and experiential knowledge, we still fall into moments, as described above, where we assert definitive knowledge. As Whyte (2016) says, don’t fall into the trap of naming things too early.

> … [we need to be] cultivating a relationship with the unknown…. We have to understand that half of life is meant to be hidden from you at any one time…. Half the time you're not supposed to understand what is going on until it makes itself fully known, until it comes to fruition. We're constantly naming things too early. (As cited in Scott, 2019, p. 129)

The expert voice is increasingly being questioned. Vitek and Jackson (2010) published a book that literally names this. *The Virtues of Ignorance: Complexity, Sustainability, and the Limits of Knowledge* addresses itself to the hubris of trying to know everything. Designers are also still deeply embedded in existing epistemologies. In the recent call for journal papers in *She Ji*, Roudavski and Walker (2019) make radical call "to emancipate all types of nonhuman life, including animals and plants." They go on elaborate: "designers prioritize technocratic approaches, overrate human ingenuity and overvalue human traditions" (p. 2). Here, they are naming the problem accurately. At first this sounds very exciting, but a few sentences later, they specify that the call is for "evidence-driven" articles (p.3). Then when they suggest the elements of a proposal, they revert to scientific method in their outline of the research process: "gap in current knowledge; research questions; hypotheses; research methods; research outcomes; discussion of the outcomes; future work" (p. 5). They are not questioning design itself, or our increasing tendency toward scientism. They are advocating the potential for deep understanding, but undermining this by an unquestioning adherence to old and familiar methods and ways of working that stem from the Enlightenment and Scientific traditions. Most design research has broad ranging ethical aspirations, yet design researchers and pedagogues retain methods from the past that limit thinking and constrain insights.

The tension about knowing follows me as I write this thesis. I look over my shoulder perpetually, wondering at which points my design colleagues will challenge my work as not serious enough, not validated enough, not knowledgeable enough. I am caught in this very trap myself, valuing what is 'known' or verified, and allowing that very worry to trip me up. In my journal, I write: "Is it good enough? It seems just so introspective and not powerful enough to me" (St. Pierre, 2020). Kate, Mathilda, and I asserted that design researchers need to "resist the convention and pressure to always legitimize 'less valued knowing' with 'more valued knowing', typically represented by facts and figures" (Fletcher et al., 2019a, p. 397) (see also Akama, 2017a). Even so, it is very tiring to feel this uncertain. Thankfully, these moments come and go. I do know that the practice of holding space for not-knowing is valuable and important. While *not-knowing* is

considered profound wisdom in Buddhist contexts (Nhat Hanh, 2012), in academic contexts this wisdom is unacknowledged.

Steven Sterling (2001) proposed an ecologized curricula of not-knowing. He proposed that students could mix and match to choose their studies from a wide array of options according to their own interests, rather than have faculty direct the curriculum. His “Sustainable Education” curriculum has been referred to extensively in design pedagogy. But this reorganized open curriculum fails to challenge the dominate conservative narrative. It is porous to those points of view that students have grown up with. There are many “implicit messages that learners receive through discourse, media and social environments inside and outside of school” (Lautensach, 2018, p. 171). “Under the banner of value neutrality, generations of learners instead acquired many of their values from sundry sources like the entertainment industry, peer groups, family environment, and whatever cultural context they happened to be exposed to” (Lautensach, 2013, p. 121). Many young students come to design school with an unquestioned faith in technology, an elevated sense of human importance, and a belief that design is about creating cool new things. Those who have grown up steeped in neo-liberal modernity could easily use open curricula to gravitate to what they think they need to know, based on their own desires and their preconceptions of design.

This is a consistent conundrum in design pedagogy. We wish to educate self-directed learners. We wish to liberate the student and to empower trust and creativity. We offer learners many possibilities, we invite them to question design itself, and yet many students gravitate to what they know. Sustainable design, green design, ecological design, deep blue green design, transition design…some of this pedagogy has been with us for over 20 years (Tischner, 2020). And yet we have seen very little real change. An open design pedagogy provides only a loose container for design students. Those who are aware and motivated may develop work that is potentially of great benefit to the planet and for all beings. But working alongside peers who do not always share these concerns, among faculty who hold a variety of opinions, within a culture that celebrates the next new thing, it is easy to be drawn back into the priorities of modern consumerism. Designers are embedded in consumerist paradigms. Most of us feel compelled, in service to our discipline, to stay up to date with changing social, economic, and technology trends that impact our field. As I have mentioned, the culture of the next

new thing, the fascination with a new digital app, or improved tool, shifts and steers designers energies in powerfully engrossing ways.

My experience in teaching *Ecological Perspectives in Design*, a large lecture class on the connection between design and natural systems, taught me how much energy it takes to pay attention to the decimation of the Earth. This sort of attention was almost debilitating for me in the beginning; I could think of little else. My health suffered. Finally, when I was able to begin my contemplative practice, I was able to create a container for my feelings and my learning. More than that, I learned that a particular quality of attention is needed, the attention to hold space for grieving about what we learn, an ability to cradle strong emotions like sorrow and then continue on (Fischer, 2019). This is something to teach to our students. While I learned it in my Zen practice, there are many ways to cultivate the capacity for this sort of attention. For decades, Joanna Macy (1995, 2012) has been leading group activities that release ecological grief in secular and lay contexts. Kimberly Post (2019) affirms the importance of reflective practices to provide a container for emotional learning in sustainability education. Andreotti (2019), acknowledging this capacity, calls to practitioners to use their capacities to support communities who are trying to grapple with intense social and ecological change. Attention is something that practitioners have trained in. It is a skill that must be trained, particularly in our intensely full, confusing and distracting modern world (Odell, 2019).

As I discussed in the introduction to this dissertation, attention is a limited resource. The mind's ability to pay attention to multiple issues and concerns is finite (Kahneman, 2013). Our ability to make many small and large decisions in modern western society is already strained. One often hears the phrases "information overload" or "cognitive overload.'" Buddhist teachings explain how important it is that we carefully choose what we pay attention to within Modernity's overwhelming range of attention-grabbing options. What we pay attention to grows, simply through our attention. What we neglect does not thrive. Thich Nhat Hanh (2006) calls positive attention "watering seeds" (p. 25). He teaches, for example, that if we pay attention to negative emotions, then negativity becomes dominant, despite our desire for peace and happiness. Contemplative practices offer grounding that can provide a container for the inherent porosity of design pedagogy.

Immersive Reflective Practice

Considering Our Work

The introductory graduate studio course at Emily Carr offers an open-ended, exploratory, and divergent design studio practice. What we teach is qualitatively different from what is normally expected in design pedagogy. We are increasingly aware of the intersectional issues of ecological design, design for decoloniality, design for gender inclusivity, and design for cultural/racial inclusivity (Akama, 2017a; Escobar, 2019; Fletcher et al., 2019a). We believe that designers are called on to change our practices. In this course, the exploration of how to change design has afforded me and my colleagues a number of learning opportunities. This essay describes a Buddhist-inspired reflective practice that provides a counterbalance to how mainstream design reflective process is carried out. In a later essay, *After the Fire*, I narrate the learning that arose from events that challenged our pedagogy. Both of these essays articulate pedagogical learning that took place during our emergent pedagogy and exploratory graduate program.

Reflective practice in design is often taken for granted and assumed to be productive. Instructors often give the briefest guidance, however, implying that when we write and think about what we've done, we will arrive at insights. Kimberly Post (2019), writing about reflective practice to mitigate the stresses of sustainability, implies that it is straightforward: "Reflective practice helps to focus less on the right answers" (p. 248). This was not the case for our students: they were trying to prove that their work was correct. Tonkinwise (2004) describes this "lower order unreflective reflecting" as a form of design narcissism that is "only ever telling you what you know already" (p. 6). In the Autumn of 2018, my colleague Laura Kozak and I drafted guidelines to encourage our students to ask deeper questions of themselves, and to invite wider ranging reflections. While our guiding questions did elicit some interesting reflections, and helped to step away from some self-rationalizing, in several cases these questions had only minimal impact. Looking back at our guidelines in 2019, I saw that we had been on the wrong track ourselves. Most of our questions actually prompted students to *think*: "What were you thinking about when you designed and made this [project]?" (St. Pierre and Kozak, n.d). Some questions prompted discriminatory and analytical judgement, as in: "Looking back, what do you think is *most important* about this [project]?" We had naively thought we were asking the students to stop rationalizing their decisions, when in fact we had

been reinforcing the sort of cognitive modality that supports technical rationalism and maintains the designer at a distant place, apart from their work. We had been blind to our own reliance on the thinking mode, and our inherent discursiveness.

In the Autumn of 2019, I entered this classroom for the fifth year. This time, I was further along in my own research on contemplative pedagogy and deeper into my Buddhist practice. Inspired by Renita Wong's presentation on *Critical Reflection for Social Work* (2019, May 31, Public Talk, Canadian Contemplative Education Symposium, Simon Fraser University), I had begun to develop an alternative guideline for designers. *Immersive Reflective Practice* (St. Pierre & Camozzi, n.d.) invites design students to reflect using the *Four Establishments of Mindfulness* which the Buddha offered in the *Satipatthana Sutta* (Nhat Hanh 1998, p. 67). This is the path that seeks insight by reflecting through the frame of "our body, our feelings, our mind, and the objects of our mind" (p. 68).

I crafted an approach to reflective practice that, without direct reference to the Buddhist teachings, helps to bring attention to physical and emotional sensations: to the affective. As I have noted in other parts of this dissertation, emphasizing experiential, affective, and somatic capacities helps to balance the cognitive and analytical activity that have tended to dominate design for the past few decades (see also Ehn and Ullmark, 2017; Hrebeniak, 2020). As Renita Wong says, "in my years of teaching critical social work, I have found the emphasis on the discursive-conceptual mind in conventional critical pedagogical methods limiting." (2019, p. 258). The growing understanding that there are many unintended consequences to design (Boehnert, 2018; Fry, 2009; Walker, 2017) calls upon us to consider more closely what we pay attention to, and to develop more beneficial forms of attention. *Immersive Reflective Practice* offers a shift towards practices of reflection that support a more situated and embodied social and ecological practice. It allows designers to move away from old structures of thought, and opens the possibility for engagement in other ways of being: intangible, emotive, personally situated, postcolonial, feminist, inclusive, pluralistic.

Over the duration of a semester, my colleague and I trialled this by asking students to practice *Immersive Reflection* weekly. It was a private activity. Students were under no obligation to share their immersive reflections with faculty or others. At the end of the semester, the students wrote separate summary documents which we called "Letter to

Your Future Self." These were shared with faculty. In these letters, students noted their responses to *Immersive Reflection*, and as I describe later, it was clear that many were affected by this process.

The following discussion weaves through my understanding of traditional reflective practices in design as influenced by Donald Schön (1984); contemporary scholarship on reflective practice; reflective practice in education and the social sciences; my personal experiences with immersive reflection; and finally offers an *Immersive Reflective Practice* for design. Immersive Reflection Practice is a concrete action that designers can take to bring the spiritual dimension of mindfulness practice into design. This practice introduces a shift in the designer's ontology away from the "dominance of [the] conceptualizing mind" (Bai 2009, p. 138) toward the perceiving capacity of the body and the senses: the somatic self.

Reflection in Design: Discursive and Non-Discursive Mind

> Lovely sensations of squishy cedar, and a great smell of sap. The sap is sticky. I shift positions to hold one end in my teeth the other in my hands. Then I shift again to hold it in between my knees. I can feel the sap residue on my lips, and a sensation of sap sticking to my jeans. The smell and taste are bitter and astringent. I'm enjoying the colours of yellow cedar as it twists itself around the contrasting colours of the outer surface and the inner surface dark and golden" (St. Pierre, Journal, 2019).

The journal entry above recounts one of my experiences making cedar rope. In writing this, I was also experimenting with Immersive Reflective Practice. Writing this was a joyous experience. Reflective practice is found in many disciplines. The practice of reflection varies along a spectrum from contemplative to analytical practices: there are as many variations as there are practitioners. Sengers and his colleagues (2005) characterize reflective practice as cognitive and rational, "bringing unconscious aspects of experience to conscious awareness, thereby making them available for conscious choice" (para. 9). In other words, rational and modern. Reflective practices can also be subconscious. Consider the insights while we are asleep, or standing in the shower. They can be active or creative. Writing can be a reflective practice, and so can dancing.

At its root, reflection is the activity of reviewing any prior experience with the hope of gaining insights. There is always something to reflect upon. In design, the object of

reflection can be an artifact, a concept, a set of actions, an event that has already happened, or an event that is in the process of happening. The reflective process is complex. Buddhist psychology acknowledges that our minds are interpreters of reality (Nhat Hanh 2006, p. 123), but even more than that, an external object and the interpretation of that object co-exist, or *co-arise* together. “In every school of Buddhism, the constituents of the material world, including the body with its five sense organs, as well as feelings, perceptions, mental formations and consciousness, are considered to be objects of mind consciousness” (Nhat Hanh, 2012, p. 4). We refer to this as “objects of mind”; meaning the object is subjectively perceived and interpreted by the mind. “Subject and object of consciousness rely on each other and manifest together”. Saying this in a different way, Cher Hill (2017) describes how meaning is created (or co-created) between people and objects or events. Citing Barad, she says, “[agency] emerges through intra-actions between and among entities” (Barad (2014) cited in Hill, 2017). The term that Hill picks up from Barad to describe this is “diffractive reflection,” whereby interpretations of any given object or event are as if diffracted into multiple possibilities. Again, this is an intellectual explanation of something that is learned in Buddhism as a bodily reality. Nonetheless, I note general agreement that meaning or understanding is generated *between* the mind and the event or artefact (Barad, 2014; Capra, 1975, 2002; Hill, 2017; Kahneman, 2013; Nhat Hanh, 2012). Accepting that different people will have different experiences in their engagement with an object or event, we can accept that objective truth is not possible (Bai, 2006). As Jones (2015) sums up, “the world outside our own heads is far less the objective and collectively agreed reality we might think” (p. 1601). Immersive reflective practice embraces the subjectivity of reflection.

Immersive Reflective Practice is drawn from contemplative traditions that encourage “care of the self in context of community” (Gunnlaughson et al., 2015, p. 1). These traditions were central to ancient wisdom traditions such as Buddhism and Taoism. The generic term “contemplative practice” avoids associations with specific religious traditions, and supports practices across belief systems. Contemplative practices became artificially separated from academic pursuits at various points in history, particularly throughout the enlightenment and into the modern Anthropocene. We are in an extraordinary time now where these practices are being recognized and reintegrated into academia, ushering along an exponential growth of contemplative research in education and the social sciences (Bai, personal communication, July 2019).

As I have mentioned, in design pedagogy it is often taken for granted that reflective practice leads to greater insight. It is assumed to be a matter of “just thinking about it.” Yet reflection can leave the designer circling around in their own ways of knowing, in their own sphere of awareness (Tonkinwise, 2004). We spend a great deal of time in a “consciousness that discriminates, analyzes, and divides the world into objects” (Akama, 2012, p. 3). For many of us, it is easy to fall into a pretense of objectivity. Much of mainstream design reflection is constrained by this pretense of objectivity, along with habits of logical rational analysis. We imagine that we are in control and are seeing all that is necessary. It is a form of observation and consideration that is retained in the transactional space. Reflective practice can be a cognitive practice that remains utilitarian, distant, and abstract. This can situate design as a form of mastery, being in charge, holding an analytical distance. In the essay *Who Were We* (Basket Two), I discussed how the illusion of mastery hobbles design’s attempts to work with nature.

In design curricula, in the professions, there are many methods that may shape the kinds of reflections we are seeking, as well as support assumptions of objectivity. These may include practices for reviewing information from focus groups, co-creation workshops, market data, and other influences. Analytical reflective practice often guides designers to seek specific insights that are applicable or instrumental to the project at hand. These are useful and important practices, but what does one do when one wants a deeper or more open-ended reflection, one that engages fully with the subjective interpretation of the mind and body? In Buddhist teachings:

> [i]nsight is revealed through the practice of compassionate listening, deep looking and letting go of notions rather than through the accumulation of intellectual knowledge” (Nhat Hanh, 2006, p. 133).

The Buddhist practitioner is on a different journey from that of the designer. Many reflective practices in design assume that process must result in actionable insights or tangible outcomes. These assumptions set in play powerful forces towards productivity, rather than letting go of notions/stories so that insight may be revealed. It follows that, when asked to write a reflection, students usually prepare justifications of their effectiveness and productivity. It is understandable that students are eager to prove that their research was improving a situation or solving a design problem. The drive towards solutions implicates weighing, balancing, and rationalizing to arrive at compromises and best propositions. This is discursive mind. It limits access to the kind of reflections that

Thich Nhat Hanh (2006) says can be revealed through the practice of “deep looking and letting go” (p. 133).

The Discursive Mind

According to Bai (2009), our “consciousness is dominated by the spell of the discursive” (p. 141). As a designer practicing meditation, I find that it is difficult to temper the discursive mind. Mindfulness practice tries to set aside the discursive and analytic mind by focusing on sensory information, usually the movement of the breath. When I walk mindfully, paying careful attention to the physical sensations of the moment, sensation of the footfall on the sidewalk, the air quality, the sensations in the body, I can enter a non-discursive, or meditative state. As soon as *thinking* enters, when I begin assessing the quality of the sidewalk, planning my route, or considering what I will say when I arrive at my meeting, I begin to shift towards a discursive mode. Discursive mind theorizes, fragments, compares and evaluates: it discriminates. It is possible to move between discursive and non-discursive states in a fluid fashion, but it is more common to be lost in discursive thought. It is the nature of the mind to think (Lloyd, personal communication, April, 2018). Reflective practice can be inclusive of non-discursive and discursive modes, but in mainstream design practice it is most often situated in the discursive.

Techniques and practices for discursive and analytic design reflection have evolved over the past several decades to encompass and include many voices, influences and concerns. This ranges from early ergonomics research that sought to systematize our understanding of human dimensions (Dreyfuss, 1967) to market studies and focus groups to acquire public opinion on a design. It then moved into the development of some participatory research methodologies to bring the emotions and insights of lay people to bear on the design research and development process in the late 1990’s (Sanders & William, 2001). All these can feed into the practice-based learning cycle (Kolb, 1984) in various ways. As a faculty member at the University of Washington from 1995 to 2005, I watched how participatory methodologies were developed to advance the public acceptance of emerging digital technologies. Designers and design researchers focused efforts on understanding consumer fears of unknown functions and unfamiliar behaviours of digital media in order to help people feel safe around these then-emerging technologies. Many sophisticated and useful human-centred design

methodologies emerged from these efforts (Sanders & Stappers, 2013). Most, but not all, of them are discursive.

Because of the push towards business-related, defendable and explainable decisions, reflective practice in design has come to involve an interpretive or analytical reflection of data gathered by various means. Tools have been developed to support this analysis. Advocates of life cycle assessment, for instance, bring a precisely quantified process to bear on design decision-making (White et al., 2013, Faludi & Gilbert, 2019). The growth of research methodologies in design such as interviews, participatory design, and ethnographic observations, have generated volumes of data. This data generation is prompted by “a desire to speak to the needs of multiple constituencies in the design process” (Sengers et al., 2005, para. 13). Despite this, budgets and schedules mean that work is usually partitioned, fragmented, and delegated according to expertise. This means that data would be compiled by a researcher who would hand-off figures and quotes to the design team. Data analysis in that context limits the span of awareness to the concrete, observable, and measurable. The popularity of “design thinking” (Brown, 2009; Martin, 2009) which advances a formulaic design analytic process to be applied in government and business sectors, contributes to further pushing design reflection into a discursive corner and dampening the creative intuitive processes that are important to the discipline.

The Non-Discursive Mind in Design

Some non-discursive states are familiar to designers. For instance, most designers are familiar with Csikszentmihalyi’s (1996/2013) description of the non-discursive state of *flow*. Csikszentmihalyi describes flow as the experience of being so focused on a particular physical or mental challenge that one is unaware of one’s thinking mind. When full attention is given to an activity, like skiing, one may become absorbed in the awareness of mountain, the skis, the air, and the body in shifting balance. The discursive mind recedes to the background; we are not aware of thoughts or decisions. Many designers can also recall moments of flow in the design process; those times when all of the details fall into place and it seems that decisions are happening fluidly, without thought. This is *flow*. It is mindful, but it is not meditation, and most of all it is not discursive. Csikszentmihalyi details the balance of conditions like challenge, capacity, and engagement that can bring on *flow* states. Like meditation, all of these require some

initial push, commitment, or investment of energy: one has to make an effort to leave discursive mind behind. Like meditation, this is a practice.

Designers, dealing as they do with many complex and ambiguous problems, need to remember the value of intuitive methods. Elizabeth Sanders, founder of participatory design methodologies, validated the power of intuition when she advised young researchers to simply “be present” with the research samples and allow intuitive insights to arise (personal communication, September, 2007). Designers also practice forms of play and experimentation that offset some of the analytical methods that have been dominating the field recently. Some of these divergent approaches resemble *diffractive* reflection (Hill, 2017). For instance, design teams may work creatively with brainstorm sketches, post-it notes, and loose sketch models by assembling, reassembling and recombining them in random configurations so that the outcomes arise unexpectedly between team members and artifacts. (I discuss some of these approaches in *After the Fire,* Basket Four.) Someone walked through a design studio, picked up a model off of someone’s desk, and turned it upside down to reveal a brilliantly different path. I have heard this story. I have had this experience. Some loose parts were set aside randomly on my table. A colleague walked by and said “looks fantastic!” And when I looked again, I realized that not only was this unplanned composition much more interesting than what I had drawn initially, it also functioned much better. These moments of serendipity and incidental insight remain important to designers, but it is my observation that over the past few decades, a strong leaning towards provable and data-driven methodologies has thrown design out of balance.

In 1984, Donald Schön began a conversation about situating the designer in their practice in his seminal book *The Reflective Practitioner*. Schön (1987) described the reflective practitioner as encompassing embodied and tacit learning. He asked designers to address moments of tacit knowledge during their design process, and to find ways to articulate this knowledge. He called this process “reflection-in-action” (p. 31), the process of noticing. For example, in one of my projects, I harvested materials from my garden to make rope. After a week of making rope, I realized that my hands were folding and unkinking the rope as I went, so as to ease and distribute the tension more evenly along the length. This is an example of what Schön called reflection-in-action. My hands knew to do this before I was cognitively aware of what they were doing and why they were doing it. This was embodied knowledge. My moment of reflective awareness

brought this tacit knowledge to the surface. Schön's insights about tacit knowledge highlights how much we know, but *do not know that we know*.

Knowledge resides in the body, not just the mind. This is what interests me about Schön. I understand that he developed many of his methods to meet what he saw as the scientific imperative (Scrivener, 2000), but I center on Schön's affirmation of embodied ways of knowing. My intention, as I write in a later essay, *Staying Still and Moving About*, is to advance forms of reflection that support or highlight emotional or sensorial ways of knowing that are either nascent or latent in much of design pedagogy. I found immersive reflective practices that support the embodied, the relational, and the experiential forms of exploration that can open opportunities for animist ways of knowing. This requires us to become aware of ourselves in the process, or, as Bai (2009) says, "we need to become completely animated in our eyes, ears, skin, and so on, until every fiber of our flesh is charged with carnal vitality" (pp. 138-139). In other words, we come to understand ourselves and our bodies as fully implicated in seeing, reflecting and understanding the work we do.

Schön advocated practices of reflection as a way of becoming close to the process, of bringing bodily awareness to what is or was in process. Some of his research was in reference to craft activities and craft production, but also applied to reflection throughout all the phases of a design project (Scrivener, 2000). Schön (19984) contended that the designer could be present to and respond to a constantly changing set of conditions and concerns as a project developed. The understanding of the project evolves, and the problem, context, or project is therefore re-framed responsively as needed, in an ongoing process. "This is an epistemology of practice implicit in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, uniqueness, and value conflict" (p. 49). This may help designers become more aware of and respond to their own instincts during the process of designing. He says "our knowing is in our action." He goes on to also discuss feelings:

> We may have once been aware of our understandings but they have become internalized in feeling… we are usually unable to describe the knowing that our actions reveal (p. 54).

This is a part of Shön's research that has been lost over time. In my experience teaching design, I cannot remember feelings being discussed as part of design wisdom. It is very

rare to see design pedagogy that explores the insights that are buried in feelings. Discussion of feelings in design is usually limited to the kinds of emotions our particular product, system, or graphic might bring up: for the person who uses it, how the work influences, matters, or acts on someone else (Norman, 2005). Learning about and through our feelings is one of the *four establishments of mindfulness* that I will describe later.

Schön (1990) advocated “a kind of reflection-in-action that goes beyond stateable rules – not only by devising new methods of reasoning, as above, but also by constructing and testing new categories of understanding, strategies of action, and ways of framing problems" (p. 39). Most scholars agree that some form of documentation is necessary for this. “[I]n each ‘research-in-design’ project, systematic documentation and reflection-in-action play a crucial role as it supports the practitioner’s reflections and brings greater objectivity – or critical subjectivity – to the whole project” (Mäkelä & Nimkulrat, 2011, p. 2).

The actual method of documentation/reflection can include photographing, writing, and sketching, but my preference is to for the personal engagement that comes from autobiographical writing. This helps to bring subjective states to the foreground and supports cycling one’s observations inward and then back outward. Unfortunately, time pressures often intercede. Reflective practices are sometimes set aside in deference to the pressures for increasing productivity. During my twenty-five years of teaching design, I have seen expectations for productivity and performance in design studio classes accelerate exponentially. Often it seems there just isn’t enough time for reflection. In this pressurized context, even when a reflective activity is assigned, it may be hurried and patched together at the last-minute. During a rapid-paced and intense design process, an assigned reflective activity might be the only point at which a student stops to think about how much their project has changed from initial concept to developed prototype. Why did they make the decisions they did? Are these still the most important concerns? What might be the unintended consequences of this project? As I mentioned earlier in this dissertation, designers need to attend more carefully to the social, ecological and systemic implications of design decisions. This calls for much more thoughtful reflection throughout the design process, a skill that designers can practice.

Moments of reflection in design are often structured to be specific to the task at hand. This reflection may be bounded or delimited by expectation. Reflection is often done

through critique and conversation with fellow designers, or by testing ideas with humans who will use the designs. Our design attention is directed towards how something will work, affect other lives, and play out within modern consumer contexts. Design reflection often happens within a bounded and controlled space of attention, a seeking of answers within a particular framework. This limits reflectivity to that which is practical and applicable, and keeps design reflection resolutely away from the messy and sticky priorities of the natural world, and away from the messiness inside our own selves. Hill's (2017) articulation of Barad's (2014) work on diffractive practice clarifies that we ourselves are always implicated in the way that meaning is constituted and re-constituted. It is a messy and relational practice that "[breaks] out of the cyclical, inductive realm of reflection" (p. 2). Only rarely do we stop in studio pedagogy to implicate ourselves as is regularly done in contemplative practices. Rarely do we encourage autobiographical self-reflection of our very messy internal states of being, as exemplified by Mäkelä and Nimkulrat (2011), Tham (2019), Fletcher (2019), and my own writing (St. Pierre, 2015, 2019a).

Reflective Practice in Other Fields

Embodied and grounded ontologies are currently being reintegrated into some areas of academia, notably disciplines and fields that adopt and work with contemplative practices. Today, there is an exponential growth of research about contemplative practices in education and in the social sciences (Bai, personal communication, July, 2019). A wider look at reflective practice shows multivalent disciplines and perspectives (Bai et al., 2009; Batacharya & Wong, 2018; Eppert et al., 2007; Gunnlaugson et al., 2015; Sameshima et al., 2019). Johns (2009) writes about nursing: "Reflective practice is fundamental to professional practice, because I assume that all professions are concerned with knowing and realizing effective and desirable practice" (p. xi). In a profession like nursing, the actions (the processes) are the essence of the profession and are where the learning takes place. Nursing is also an arena of complex emotions; one where emotions are part of the work. Johns acknowledges this in his description of reflective practice: the nurse practitioner brings their whole being to the work, and holistic reflective practice is therefore crucially important to the field. As a result, he advocates reflection as an "artistry" not as a technology (p. xv). However, he stops short of including more holistic influences through Buddhist philosophy.

Wong (2004, 2018), writing about social work, marries reflective-on-action (the act of looking at something that is, that exists, is happening or has happened) with contemplative practice, the act of being present without prior assumption, of suspending thought and focusing on awareness on the breath. She articulates reflective practice as a tool for decolonizing thoughts and assumptions about people and society. She describes her pedagogy as transformative; "these students experienced the restoration and burgeoning of the creative inner life force that goes beyond the binaries and categories of identities" (2018, p. 255). This practice consists of developing awareness of the greater meaning within the situation through checking into the inner continuum of the mind (self), while simultaneously also looking out into the world (environment), seeing how they connect or disconnect. This practice is not the same as an analytical review of a task done successfully. Wong seeks to support open and direct awareness that "disrupts the habit of the mind to react, categorize, and control our experience of the world and of life" (p. 254). This is similar to how Hill (2017) describes diffractive practice, and exemplifies one of the ways in which contemplative practice disrupts Modernity.

What Immersive Reflection Brings to Design

I was inspired by the work of Renita Wong (2019, May 31, Public Talk, Contemplative Practice Symposium, Simon Fraser University). I proceeded to research and develop guidelines for immersive reflection for designers. I practiced with these guidelines on my own (see Appendix) before offering them to a class of graduate design students. Through my personal practice of immersive reflection, I arrived at insights that I would not have realized in other circumstances. For example, I came to the acceptance that it is valid to have multiple projects in states of incompleteness. Whether stitching, making rope, or mapping walks, my personal work has a persistent quality of the serial or unfinished, which I had historically seen and judged as a problem. Immersive reflection allowed me to become aware of this, and to question my judgements about creating and concluding projects. It became clear to me how states of incompleteness are disparaged by the modernist ideology of sweeping narratives, linear progress, correct answers, and celebratory conclusions. I began to see my work as sincere engagement with the ongoingness and messiness of life. This opened up creative avenues for me. These days I wear my clothes midway in the mending process, and have been known to take off my jacket in the middle of a meeting and pull out my needle to work on it. (Since I

work in an Art & Design school, this action is often admired.) The process becomes a lived event. As we say in the Dharma, “Incompleteness is always there” (Maitreyabandhu, 2014).

The Immersive Reflective Practice is a series of non-directive prompts (see Appendix). It asks students to centre themselves in a mindful practice, to stay with the body and sensations, to acknowledge feelings (pleasant unpleasant and neutral), and to write their thoughts down. Once they have completed this part of the journey, they can look closely at their feelings: critical, distracted, happy or focused, and so on. As a final step, they can engage discursiveness: Write about what this work means to you. What might it mean to others? How does it connect to the natural world? These guidelines encourage students to touch lightly on aspects of mindfulness. The 2019 reports prepared by these students were qualitatively different from the reports generated for Kozak and St. Pierre in 2018. These students appeared to notice their own insights and to dig more deeply into what they thought and felt in connection with their work. They took the time to write explicitly about their experiences with materiality, their sensations, and their feelings. Some students stated that their feelings and thoughts were starting to come together; that they were feeling less confused about the assignment. They said that they felt they were more able to access their creativity. These students were clearer than previous groups had been about their intentions, challenges, and moments of insight. Many students wrote about the value of *Immersive Reflective Practice*, and their desire to continue to practice it. I noticed that introverted or shy students engaged in this process, were more able to express their insights in written reflection than in conversation.

One student remarked that the *Immersive Reflection* was so easy that it didn’t seem significant at all. Yet when this student went back to do their final report, all the important things they wanted to say were already right there, in their immersive reflection journal. This student was explicit about how much they enjoyed this process. This may be one of the reasons that those of us steeped in modernity find it easy to discredit contemplative practices: first, that they seem so “easy” as to be insignificant, and second that they are often enjoyable. They come to us *naturally*. The fact that easy and enjoyable practices may lead to insight is not so well understood, and is counter to the narratives of hard work, intellectual rigour, and sweat leading to success. The ease is in this naturalness. It is lacking the tension that emanates from being outcome focused. It lacks the tension that comes from always trying to get somewhere, that is, somewhere else, in time and in

space, rather than being in the moment, here and now. This naturalness allows the feeling that one is not doing anything, because the ego not striving to find answers, puzzle solving, grasping, or wrestling different concepts into a fit. “When the ego ceases to strive and grasp, it does not *will to do something* but is *willing to be there* for whatever arises*”* (Bai, 2004, p. 61, emphasis added). It is not about pushing our creative focus towards where we think the solution is. Instead, insight is arrived at by letting go, letting go of the struggle. As Thich Nhat Hanh (2006) said, it is about “letting go of notions” (p. 133). This ease fosters receptivity and spacious awareness.

Immersive Reflective Practice supports the designer in witnessing their self in a state of receptivity. It helps them to see themselves in relation to, and as part of, their practice, returning us to a “sensuous and animistic perception of the world” (Bai, 2009, p. 139). This is a way to access wisdom through the body, senses and experience. The role of the designer begins to shift from the dispassionate observer, theorist, analyst, from the one who imagines themselves in control, to one who is within the world, in their “present sensory experience” (Bai, 2009, p. 145). This epistemic shift changes the terms of engagement to allow a reconsidering of the purposes and priorities of the project at hand, rather than only its utility for other means and ends. Immersive Reflective Practice supports acceptance of ambiguity, the space-in-between or *ma*, in Japanese aesthetics (Sameshima, 2019). This can help students become more forgiving of themselves, and less focused on the performative. It offers a relational openness that may lead to embracing the validity of all beings, including more than humans. This is a way to value that which cannot be measured and to embrace the “plurality of worlds and world-making” (Bai, 2006, p. 11) that is so important for design. Immersive contemplative reflective practices encourage the designer to wander multi-sensorially, feel their connections to multiple others, and to engage with the joy and the pain of multiple views in a world under threat.

Meditation: Our Creaturely Selves

Adapted from an offering by Bethan Lloyd

I invite the reader to pause and establish themselves for guided meditation.
Please hold a thing of nature (rock, stick, or seed that has not been modified by industry) lightly in your hands during meditation.
You may choose to record yourself speaking this and play it back to yourself. Or you may choose to read it sentence by sentence, pausing to meditate between sentences.

Begin with a deep breath in. Deep breath out.

Check to see that your body is comfortable.

Adjust yourself as you need to. Back is straight.

Head is balanced on the top of the spine.

Roll your shoulders up and back. Release some energy. Open your heart.

Close your eyes. Nobody is watching.

Inhabit your body. Know yourself as a creature.

Sense your feet, that often carry you, walking softly, jumping, springing. How are they doing? Extend gratitude to your feet.

Feel your calves, knees, thighs, up into your hips. Muscles and bones all.

Let's come to the belly now, breathe into the valley of your belly. Breathe out … release.

Let the belly soften, let it all sag out. Feel the vulnerability of your soft, exposed belly.

The belly is the seat of a lot of emotions. For many of us, it's where I anxiety lives.

The belly is filled with nerve endings.

Be with your tender belly, breathing into nooks and crannies that you haven't been aware of before. Find more space in there, find new places.

Enjoy your belly. Breathe.

Now bring your awareness slightly higher in the body. Breathing into the chest, the lung cavity. Let's explore the space around our heart. Breathe into the space around your heart. Relax any muscles around your heart. You like all creatures who breathe, who have hearts.

Explore the base of your neck. Relax all the muscles of your neck, soften.

Breathe. In. Out.

Now as we come up to the head, relax the muscles around your nose … there are larger spaces there than you may be aware of. Breathe into those spaces.

Soften your jaw. Let your jaw sag open. Be a creature at rest. There are no predators about.

Relax all the muscles around your eyes, looking again for air spaces, feeling a new lightness throughout your face. Breathing in. Allow those spaces to breathe. Let everything go.

The last ones to let go of are the muscles in the very top of your head… find them. Relax them. Let your entire head, all the muscles around your skull slide down with gravity…. With your jaw…. Sliding down.

The air is moving in…. and out. You're not in control of the flow of your breath. Your creaturely body is doing this. Your body is in charge, let it be so. Let everything flow. Breathing in. Breathing out.

Sketch 3: Garden Snail, 2018

Basket Four: Shifts in Pedagogy

In this basket, I offer a set of essays suggesting that design pedagogy is ready for a contemplative turn. Contemplative practices bring many different influences to pedagogy. These practices will support skillful teaching (Gunnlaugson et al., 2015). For instance, teachers who are experienced mindfulness practitioners are often better able to bring their full attentive presence to students, and to remain open to new information as it arises. They bring open and spacious awareness to conversations, engendering trust and drawing out a depth of student responses. As a practitioner-teacher, I am aware that depending on my state, I can bring my own grounded and grounding presence into the classroom in a way that shifts the dynamic of communication and learning. This is the personal contemplative practice of the teacher. It is different from contemplative practices as curriculum. Many different contemplative practices can be brought directly into the curriculum to be experienced by students.

A contemplative turn may help foster shifts in pedagogy that support an *internal redirection* of design (Fry, 2009, p. 7). As I described earlier, design can be redirected externally (to enact positive change in products services, systems and society) and redirected internally (to shift our internalized understanding of who we are as designers and of design itself). My conception of internally redirected design is inspired by Fry's (2015) note that redirected design is "not just as a matter of instrumentally changing economic conduct but rather the essence of our mode of being" (p. 418). This dissertation is focused on internally redirected design: how do we change our mode of being as designers, our ontology, our worldviews?

In the previous basket, I described three qualities that Stephen Sterling (2017) notes as essential for a pedagogy that will "transcend dysfunctional worldviews" (p. 41). Basket Four picks up these threads to circle around the second of Sterling's keywords: the relational. Here I explore the *intersubjective*; these essays are about being with others in open and vulnerable engagement. I discuss my experiences and my challenges bringing contemplative and relational pedagogies into the design studio. I see opportunities and niches where contemplative practice can be easily nested into design pedagogy, and how this can impact the way in which students learn, how it may change the impetus of design away from mechanistic and solutionist modes. The first essay in this basket,

Staying Still and Moving About describes stories of the oscillation between active and contemplative states in the design studio that most design educators are familiar with. I articulate the value of this oscillation of states, seeing the potential to enhance or tune design pedagogy towards increasing modes of contemplative practice in design. The design studio is place of sensorial and experiential learning, rich with potential for contemplative pedagogies. Existing practices in design studio need some care and attention to develop a more openly relational pedagogy that will seed the ground for animist awareness and animist spirituality.

The second essay in this basket, *After the Fire*, describes how I explored intersubjective pedagogy with my colleagues and students. Intersubjective pedagogy, which draws connections between multiple subjectivities is an aspect, or sub-set of relational pedagogy (Gunnlaugson et al., 2019). Design scholarship currently embraces the relational (Akama & Yee, 2016; Puig de la Bellacasa, 2019; Escobar, 2018), but is less familiar with the intersubjective. While both terms refer to the practice of being with others in receptive and non-hierarchical ways, relational practice is a more general, broader, and inclusive term (Bai, personal communication, February 2020). Further, in my experience, relational practice in design is often thought of as something applied *to* or *for* others rather than a way of knowing and changing *oneself* in relation *with* others. The pedagogy that I describe in this basket brings design students into experiences of somatic relationality, and also begins to connect faculty and students intersubjectively. In intersubjective practice, there is a "willingness, even if only provisional, to be open, engage, and participate in the emergent reality of the other… it is a very active process of making oneself receptive and susceptible" (Bai, 2004, p. 61). Intersubjectivity is a specific level of subject-to-subject relating that the term relationality alone does not necessarily mean. In the essay *After the Fire*, I narrate how I learned about several important qualities that support intersubjective learning in design. Questions about transparency arose for me while writing *After the Fire*. Do students and colleagues know that this pedagogy is about relationality and intersubjectivity? How important is it that they understand these terms? And finally, how do intersubjective learning experiences support animist spirituality? If, as I believe, relational and intersubjective pedagogies begin to bring students into empathic relationship with all beings and the Earth, then what begins first as a human-to-human intersubjective relationship can progress to a wider relationship with all of life. As Charles Scott (2010) writes:

> The primary and fundamental sense inherent in ecological identity is a recognition that one is a relational being, intimately connected to others—both animate and inanimate—through a web of relationships, and the awareness that one's actions have varying degrees of influence on the web just as one is influenced by it (p. 136).

On the continuum of relational practices, becoming intimately connected to an "other" is just the beginning. Once one realizes that one *perceives and is perceived* by the subjectivity of another being, it follows that one becomes more easily present and receptive to a wider world of beings – this web of relationships that Scott refers to. This, of course, is an inclusive and animist spiritual worldview. Much of the pedagogy I describe in this basket aims to establish the groundwork, or conditions, for understanding the humble interbeingness of animism. (Later in basket five, I describe animism as the visceral sensation that while we are among many others, we are also seen by many "others" who are not visible to us.) Intersubjective pedagogy may establish the conditions to support an attuned and visceral perception that we are all part of a wider world that is inclusive of myriad seen and unseen forms of life (Bonnett, 2017). I see relational and intersubjective pedagogies as "threshold practices" (Barrett et al., 2017, p. 132). Barrett and her colleagues write about how threshold practices can open the way to new understanding, whether this happens consciously or unconsciously. They are practices that open us to new ways of thinking and being. Designers are well educated about paying attention to other *people*. As I have mentioned in other parts of this dissertation, designers have developed valuable expertise in the domain of human-centred design. Intersubjective practices appear to naturally align, build upon, or extend human-centred practices, but in reality something deeper may be happening. By bringing students into an intersubjective space with each other and with their faculty, they may become aware of a sense of connectedness that may lead to ever-greater ever-wider, ever more mysterious connections. They may be changing within themselves and knowing the world in a different way.

Bringing contemplative practices into design pedagogy has its challenges. Contemplative practices are widely misunderstood in design. During informal interviews in May of 2019, colleagues said things like "This sounds like a luxury, an indulgence in a world full of real and pressing needs" and "Is this is a life skill? We don't teach that here." These comments point to the fragmentation that I noted earlier in this dissertation: the compartmentalization of the spiritual, personal, and professional. As I hope I have made

clear in my autobiographical writings, my own experience demonstrates that fragmentation is a disempowering and exhausting way of living. This fragmentation encourages students and faculty to leave aspects of themselves behind when they come to campus, and to conduct themselves according to that which is “taught” in various curricula. Fragmentation allows authoritarian and hierarchical patterns to permeate the academy and to preference “professional behaviour and accomplishment” (Batacharya and Wong, 2018, p. 12). Obviously, this fragmentation makes it difficult to bring contemplative practices into the classroom. Within my context of intellectual freedom, I have the liberty to bring my own pedagogy and ethics into my classes, but my colleagues also have this freedom to express themselves as well. I once co-taught with a colleague who confessed to the class after our guided meditation “I won’t meditate. I just pretended back then.” While this particular situation became a learning moment filled with laughter, it does illustrate the complexity of practices and views within any teaching context.

My peers also criticize the course outcomes. The curriculum that I write about in the essay *After the Fire* has been accused of sitting in opposition to the professionalized aspects of design practice and education that currently prepares students for jobs. One colleague has been accusatory. “Why are you wasting their time?” they asked. The rumours circling around my peers imply that they feel this course is not productive enough. I have overheard concerns that the students do not produce enough quality “designed” outcomes. Historically, design is a pedagogy of productivity. We educate and work to high standards of visual resolution. All of this is valuable. The action orientation of design that I have mentioned earlier is powerful, energizing and important: I would not do away with it. My concern is that these values have superseded everything else. My intention to bring students into animist and spiritual worldviews through intersubjective learning is not positioned as a challenge to existing professional education, but rather is offered as an attempt to balance mainstream practices that have emerged within “Western intellectual legacies of mechanism, dualism, objectivism, reductionism, and so on” (Sterling, 2017, p. 40). As I have stated before, this legacy means that some of design pedagogy has become overly instrumentalized and prone to detached and technocentric views. I offer suggestions to mitigate this pedagogy through subtle resistance and reformation, rather than through wholehearted challenge and upheaval (Blenkinsop and Morse, 2017). There is much design pedagogy that I respect. I seek a

tuning, a rebalancing, and a refocusing, not a repudiation or a rejection of the wonderful qualities that already exist within our pedagogy. Sean Blenkinsop and Marcus Morse articulate this approach very clearly in *Search for a Rebel Teacher* (2017). Citing the work of Camus, who urged *rebellion* over *revolution*, they note the power of small and carefully crafted actions, quiet insurrections to create change. Following Camus, they note that wholesale revolution is often "about the destruction and annihilation of an entire current system, culture, or way of being" (p. 52). Revolution neglects the opportunity to build from what already is in place, the parts of a system that might be valuable. So, in line with their advice, I exalt that which is good: the nimble, sensorial, experiential, and open aspects of design pedagogy, while at the same time I reject the more obviously human-centrist and instrumental. This exaltation can be seen particularly in the essay *Staying Still and Moving About* where I pull forward the value of the spectrum of pedagogy that includes traces of contemplation as well as action. Negation is more apparent in *After the Fire,* which seeks to reset, or as I have mentioned, *internally redirect* design. Both essays, and indeed my entire pedagogy, are about rebellion of the sort that hopefully might change "that which is into that which is desired without making the gap impossible to jump across for real humans" (p. 54).

It appears that design pedagogy is ready for some re-balancing and re-tuning. Many designers are beginning to question themselves, even those I consider to be the "old guard". These are the (mostly male) scholars who contribute prolifically to the *PDH-DESIGN* Listserve that is read by academics around the world. Consider Don Norman's (2020) recent observation on this listserve in reference to Escobar's (2018) book, *Designs for the Pluriverse*:

> I, personally, have always approached design as the interaction of technology and people. Escobar has made me realize that this is not only too limited, but it might very well be one of the causal factors in the mess we have created for humanity.

For those of us who have been following Norman for decades, this is a radical turnabout of his views. Norman's comment affirms the work of many design academics who are beginning to integrate relational epistemologies along the lines of those espoused by Escobar (2018), and others. For many designers, Norman leads by example. Yes, this is a time for designers to question old assumptions and to redirect their worldviews.

I offer two final gifts in this basket. One of these is a short essay on walking meditation for busy people, proof that contemplative practices are versatile and wonderfully adaptable to various needs and circumstances. The other is a guided meditation on the ultimate path of intersubjectivity: touching nirvana. Like the other meditative offerings, these meditations could fit into any of the baskets. None are basket-specific, or place-specific, or fixed conceptually.

Staying Still and Moving About: Design Pedagogy for Deep Inclusivity

Preamble

This essay narrates some ways in which design pedagogy might support opening relationships with other-than-humans, specifically through the capacities of sensory and experiential learning. With a view towards animist inclusivity, I draw from pedagogical theories of gender and racial inclusivity. These theories offer insights for a pedagogy for broader inclusivity. I use Todd's (2010) perspectives on how we sense "others" through *staying still*, and Ellsworth's (1989) theories about "*moving about"* as a lens to refresh my view of how these practices play out in design pedagogy. Although Todd and Ellsworth are writing about how to support racial and gender equity in the classroom, their insights provide a philosophical underpinning for relational engagement with the entire panoply of beings in the ecosphere, also known as multispecies collaboration (Haraway, 2016; Tham, 2019). Todd wrote her essay, *The "Veiling" Question: On the Demand for Visibility in Communicative Encounters in Education,* in 2010, and Ellsworth wrote her classic, *Why Doesn't This Feel Empowering? Working Through the Repressive Myths of Critical Pedagogy,* in 1989. These two articles about the pedagogy of inclusiveness shifted my perspective. I saw new ways of framing design pedagogy and the process of design. This epiphany offered a moment to unite my views with the realities that I teach within.

Design studio pedagogy offers experiential and sensory learning opportunities through assemblage, combination, and re-combination of multiple modes of discussion, action, and experiential or project-based learning. Lay people might understand design studio pedagogy as a variant of the atelier or guild model; students engage with experts, materials, and contexts using methods that range from role play to prototyping. Todd and Ellsworth's theories resonate with aspects of studio design pedagogy and offer insight

for design educators who wish to frame conditions for their students to connect with all manifestations of the natural world. These practices can open design students to a treasuring of all that is different from us whether it be gender, race, or species; whether it be bear, wolf, fern, rock, mountain, mouse, pigeon, crow, whale, or salmon.

Todd describes sensing others and being present with them in terms that evoke the insights of meditative practice, at the heart of which are acts of *staying still*. Stillness can lead to a felt appreciation of an "other" which Levinas referred to this simply as "'il y a', …or there is" (as cited in Todd, 2010, p. 351). Ultimately this is a form of connection which cannot be contained by words or visual representation. The resonant appreciation of an "other" can be undermined by seeing in ways that Todd identifies as form of fixing representation that "seeks to master the other." (Todd, 2010, p. 349). Later, I will explore how representation and mastery relate to design. Ellsworth suggests ways to unsettle those notions of mastery by *moving about* (1989, p. 321). This keeps the transmission between others open and uncontained, and constantly shifts power relationships. Knowledge remains fluid and ever changing. *Staying still* and *moving about* are equally important pedagogical techniques for challenging preconceptions who an "other" might be.

Current design studio pedagogy fosters many forms of *staying still* and *moving about*, but these are not yet framed as design methods that can foster relational and contemplative engagement with multispecies others. This essay seeks to highlight *staying still* and *moving about* as touchpoints in design studio pedagogy that can support sensing and staying present with those who are different from ourselves. Design process is different every time: organic, emergent, and hard to capture. Brennan once described the design process as a "random walk" (via Dubberly, 2014, p. 9). Designers familiar with looping circularities (Nussbaum, 2010) and unexpected detours in their process are uniquely suited to circling along the waves of inquiry around and through *staying still* and *moving about,* and circling back around again. The designer's agile capacity to engage many states of inquiry supports *staying still* and *moving about* as varied, complementary, integrated, and continuous activities.

Designers have a powerful ability to envision change, to visualize change, to operationalize change, and to inspire others to make change. It is possible for designers to create and implement change that is so seamless that individuals are not even aware

that they have chosen or behaved differently. The question is: what do we attempt to change? As I noted in the essay *Design and Nature: A History*, many designers have implemented changes that support Modern Capitalism by, for example, fostering cultural acceptance of (and increased uptake of) new digital technologies, and so on. I believe that the next generation of designers could create the kind of change that fosters healthy human relationships with the Earth. This, of course, is contingent on a *redirected* pedagogy. As I outlined earlier, this means changing our internalized understanding of ourselves and of design "not just as a matter of instrumentally changing economic conduct but rather the essence of our mode of being" (2015, p. 418). Designers engaged in this way could help members of society find ways to engage with many "others." Designers could reconfigure societal choices in Modern Western Culture to align with the needs of the ecosphere. Designers could lead the way helping others to shift their lives in alignment with the Earth's needs. Educators pay a large part in shifting this dynamic. First, by teaching critical theories that challenge Modern Western Capitalism, secondly, by including clear ethics in design thinking, and third, by engaging in pedagogy that supports holistic inclusivity. This essay looks at some practices of *staying still* that may already be part of design studio pedagogy. In relation to this, Ellsworth's theory of *moving about* (1989) is discussed as a lens onto existing studio practice. I look at how design studio pedagogy fosters the practice of circular oscillation, a fluid moving around and through various states of *staying still* and *moving about*. These practices offer the possibility of unsettling preconceived power structures and ways of knowing, and opening designers to new relationships with more-than-humans. When taught in combination with Earth centered ethics, they can contribute to the changes that I envision. They might "confirm, or ignite, the recognition that the world beyond the human sphere is a necessary component of becoming more fully human" (Blenkinsop, 2005).

Contemplative Practice

The contemplative and meditative practices of *staying still* are ways to access receptive awareness of an "other", a felt presencing that is not determined by preconception or contained by words or vision (Bai, 2001a). There are many small ways that designers might encounter a 'designerly stillness' during the design process. Practiced for centuries in Asian Buddhist traditions, staying still in the form of meditation has led to some of the most powerful insights in history, such as the interconnectedness of all

beings (Fischer, 2019; Loy, 1997, 2018). Fischer and Loy's insights have been affirmed in quantum physics (Capra, 1975; Merchant, 1990). One does not need to be an accomplished meditator in order to foster some forms of receptive awareness. In order to find stillness, "the first act we have to accomplish in learning to see is the stop. Without this stop, we cannot achieve enough inner silence, that is, freedom from the fracturing commotion of the discursive mind, to undertake a sustained attending to the other." (Bai, 2001a) Stilling the discursive mind and paying quiet attention is often enough to sense the impalpable presence of the other, the presence that Levinas referred to. It is similar to what the Chan tradition in Buddhism calls "suchness," the true nature of another being that cannot be known in words (Dalai Lama, 2014, p. 277). These moments of encountering the essence or 'suchness' of another transcend animate and inanimate beings.

I described in Basket Three how Buddhist traditions understand and value animate and inanimate beings. People from British Columbia's First Nations communities have also understood relationships with the more than human world for thousands of years (Turner, 2014). Both the traditions of Buddhism and First Nations inform my thinking. Several years ago, I visited the *Unist'ot'en* settlement in Northern BC, where this First Nations community is reclaiming their land and culture (*Unist'ot'en*, n.d.). Dolly, a *Unist'ot'en* Elder, entreated a group of us to please talk to a tree before leaving Northern British Columbia. I remember feeling uncomfortable and a bit silly alone in the rainforest trying to talk to a tree. I quieted myself in my meditation practice and then finally told the tree: "I don't know how to talk to you, but I am here to try." And I waited. Within the briefest of moments, I felt rather than heard the response, as clearly as if it had been spoken: "I am here." This simple response felt right. It was all I needed to hear. I felt a deep, unsettling connection with this tree. It shook my world view. I later realized that this echoed the silent recitation used when my Buddhist community (known as a *Sangha*) shares tea. We say silently to ourselves:

> I am here.
> I see that you are here as well.
> I see that we are here together.

This recitation originates from Vietnamese monk Thich Nhat Hanh's hugging meditation during which we are neither talking or looking at one another (Nhat Hanh, n.d.). It is an example of experiencing in the way that Todd describes it:

> So my experience of the face is therefore not dependent on my being able to see it, but instead on my susceptibility to its presence, to its closeness, to its "there is" as an expression — an expression which has no plastic content, which *cannot be contained in any representation or idea* I have of it" (Todd, 2011, p. 352, emphasis added).

My exchanges with trees have brought a sense of heart-opening to another presence in the world. These tacit conversations are examples of sympathetic resonance, which Bai describes as "the perceiver's participation in the perceived… a communion, a transfusion between them." (2001a, p. 21). Todd affirms the value of a form of connection which cannot be contained in any representation or idea we have of it. We are not in control of the conversation. As with the example of the tree, the perceived and the perceiver are interchangeable. We simply abide with the other: we are present with. Sympathetic resonance, then, is more than communion with nature or "other"; this is an experience wherein the other is encountered as having its own mysterious strength and life force. It is a condition of respect for the other. Stillness and presencing give equal power to the other, and in doing so, shift the balance of power, undoing the kind of mastery that relies on the illusion of fully knowing the other.

The kind of attention that is cultivated through non-discursive reflection in nature can change our personal relationship with the natural world and with our community. "When we lose the source of meaning in our experience of the world, we begin to see ourselves apart from nature instead of a part of it" (Bai & Scutt, 2009:94). Entering into a relationship with the natural world, and experiencing some of the transformative emotions offered by a full engagement such as sympathetic resonance changes us and helps us to see something other than human-centered needs. Sympathetic resonance is a tacit experience that changes one's preconceptions and worldview. We can "stop seeing ourselves as self-existing, self-contained, autonomous, and separate from the world; realize that we are the world" (Bai, 2001b). Setting aside our discursive tendencies, as I suggested in Basket Three, helps us to be in resonance with this humbling and all-encompassing connectivity.

Designerly Stillness

Designers are taught some qualities of stillness in diverse and specific ways. An extensive examination of design practices and theories is beyond the scope of this essay, but I identify a few design practices and theories that indicate receptiveness to

the practice of staying still. Most of these happen within the early phases of the design process that are directed at nurturing creative thinking. I will very briefly describe qualities of staying still that can be found in the design methods of conscious incubation, ethnographic research, co-creative practices, and Slow Design.

Design is primarily a creative undertaking, and the value of incubating ideas is explicitly acknowledged in much of design pedagogy (Cross, 2007; Dubberly, 2014). Students are often assured that it is important to allowed time for ideas to ferment at the “back of the mind”, and that this incubation process requires intermittent shifts away from what seems directly productive. Faculty remind students of those moments of sudden insight that emerge during a shower or a long walk. Taking a break is important. Implicit in this is a valuation of paying attention by not thinking, by not doing, by stopping and quieting the discursive mind, by staying still.

Similarly, cultivating intuition requires moments of quiet attentiveness. Numerous authors write about the importance of intuition in the design process (Cross, 2001; Douglass & Moustakas, 1985; Inder and Reay, 2014). Like sympathetic resonance, intuition can be fostered by setting the right conditions. These conditions may be bodily framed, as in “listen to your gut,” or they may be pedagogical tools such as meditation practice, keeping a journal or dream diary. The methods for cultivating awareness of intuition are varied and personal. Most strategies involve a stilling of the discursive mind; moments of stillness in many different forms. These moments of stillness are encouraged and validated by many design educators.

Much of designerly attentiveness is goal-directed, but even within this context there are moments of deliberately quieting the discursive mind. Designers gather information through a wide repertoire of ethnographic and participatory research methods intended to understand minute and fine-grained details about the way that people live and feel. Synthesizing this eclectic data involves listening not only to words, but to the tone of speakers. They look not only at images but at the way that images are grouped and relate to one another (Sanders, E., personal communication, September 2007). In this way, designers may still the analytic mind in order to listen to the emotions of others and to appreciate emergent patterns.

Slow Design is a movement within design that was inspired by the Slow Food movement. The Slow Food movement began in Italy as a countermovement to the proliferation of fast food restaurants. Slow Food is about taking the time to enjoy a meal with one's friends, allowing ample time for the cook to do the preparation. It also includes paying attention to where the food was grown and how it was slaughtered in order to cultivate an awareness and greater appreciation all aspects of food. Slow Design (Fuad-Luke, 2002) is similar in that designers endeavor to slow down the pace of the lives of citizens as well as to slow the rapid throughput of manufacturing. Importantly, slow designers also attempt to slow themselves down. This means stopping and staying still at moments in the design process. Hay (2008) clarifies that this doesn't mean taking a long time to do a project, but rather that one inserts moments to pause: to fully engage with the people one is working with, the materials one is working with, and the ultimate destination of the artifacts that one designs. The practice of staying still from time to time is explicit in Slow Design (Pais & Srauss, 2016). While there are differences in that Slow Food is a more hedonistic practice, both Slow Food and Slow Design invite a stilling in order to fully appreciate the multitude of beings, materials, and types of engagement that enter into these practices. Slow design invites a broader scope of connection, reaching into multiple contexts, and mapping diverse, or pluriversal (Escobar, 2018) influences.

Taken together, conscious incubation, intuition building, research synthesis, and Slow Design point to how designers are taught some select practices that relate to moments of staying still. As currently practiced in design pedagogy, staying still is instrumentalized in service of the design outcome, but I note that this is the place where stillness is accepted and can be further developed These are opportunities in design pedagogy that allow the perspective that there is something "Standing on the other side of my comprehension, my grasp, indeed my sensory perception, [that] nonetheless communicates — it reveals its presence to me" (Todd, 2010, p. 352). Central to this is the fact that the encounter with the other is momentary; the other changes from moment to moment and is never fixed in time (Sumedho, 2014). While these moments of staying still exist in design pedagogy, they are limited in that they remain goal-oriented practices when the insights of staying still are oriented toward "useful" insights about the use, form, and context for the design. In this way, staying still, like mindfulness, often remains yet another tool for the designer to improve their marketable work, rather than helping designers to practice their talents for the sake of all beings. Because practices of staying

still are supported in pedagogy, I speculate that they offer an opportunity for further development as open-ended or spiritual and contemplative practices. If so, staying still could be transformative. At the time of this writing, however, these moments of staying still are overshadowed by Modern Western Culture's attempts to fix our perception of another being through visuals, words, and diagrams as will be discussed in the next section. These anchors are barriers to sympathetic resonance. They are attempts to fix knowing. And they are dominant in design.

Ways of Fixing Knowing

The insights of sympathetic resonance that arise from staying still are limited by Western tendencies to lock in, anchor or "fix" knowledge. These practices of fixing knowing are in conflict with receptive awareness of "others", suchness, or sympathetic resonance. There are many ways of fixing knowing: Modern Western Culture's tendency to privilege vision through our gaze on others or collecting images; dissecting, naming, and classifying phenomena with words; diagraming or denoting. These all serve to fix the other in a captured and static state. Design practices are replete with techniques for fixing knowing through images, words, diagrams, and other abstractions. Fixing knowing of another establishes a hierarchy: the observer dominates the observed.

Seeing, in this way, limits the potential for perceptions to evolve. According to Todd "the whole point is not to treat the being of others as perceived givens, but to introduce into philosophy a 'there is' which can never be perceived through sight ..." (Todd, 2011, p. 351). Further, when others are "seen" they can be fixed, claimed, or owned. The seen other is a captured other, fixed in a preconceived and often limiting view. Todd underlines Levinas' theories of seeing as a way of fixing knowing, a barrier to presencing in that "the fixation with vision as a western epistemological trope that seeks to master the other" (Levinas in Todd, 2010, p. 349). Mastery, as I described in *Design and Nature: A History*, is one of design's conceits. We are under the delusion we can understand fully, know all that is necessary, in order to take action to direct and control outcomes.

I extend Todd and Levinas' theories to more-than-humans: the toad, eagle, cedar, firefly, bat, bear, fern, salmon and wolf. Here too, fixed images provide a barrier in that they provide the illusion that we fully know the other. The fixed image does not challenge the viewer to engage in an equal relationship with the other and does not allow the other to

flex, change, or chafe against our notion of them. “Inasmuch as the access to beings concerns vision, it dominates those beings, exercises a power over them. A thing is given, offers itself to me. In gaining access to it I maintain myself within the same” (Levinas cited in Todd, 2011). We ourselves are not changed, or only changed in small degrees, if photographs of animals, rivers, and mountain vistas only serve as access to them. Viewing scenic imagery does not necessarily motivate us to address the deep cultural problems that allow the ongoing desecration of nature (Evernden, 1985/1993). By looking at others and capturing them through visual means, we most often maintain ourselves “within the same”, because the security of being in a dominant role does not task us to be open to emergent insight or to question our place in the world (Plumwood, 2009/2013). This is a powerful contrast to the questioning that arises from the intersubjective practices discussed in the next paper, *After the Fire*.

Abram (1996) claims that we fix understanding with words in the same way that Todd asserts images do. Naming conveys ownership and can claim and dominate the “other”. “Laid out immobilized on the flat surface, our words tend to forget that they are sustained by this windswept Earth; they begin to imagine that their primary task is to provide a representation of the world (as though they were outside of, and not really a part of, this world)” (Abram 1996, p. 10). First Nations author Armstrong agrees: “My thinking is that symbols, seen as compact surrogates of things, seem to take on a concreteness in and of themselves that supplants reality” (Armstrong, 1995, p. 318). Words “define the reality rather than letting the reality define itself,” thus limiting the power and agency of the other.

Learning about a tree in accord with conventional pedagogical models requires dissecting, documenting, and labeling separate parts of her in a way that gives the illusion of control. Naming practices that are used as a way of classifying nature may be misguided in that words, and most especially written words, have a tendency to lock in something as “known” and bifurcate understanding into Cartesian dualities (Dickinson, 2013). As soon as I define a tree as a composite of roots, cambium, trunk, bark, and leaves, I will have emphasized “rationality and minimize[d] co-presence and emotional connectedness” (p. 328). Along with how I might photograph it, or study it in intense visual detail, words would help me fix my understanding and mastery of the tree.

The practices of seeing and naming have a tendency to lock the “other” down something as “fixed and knowable” due to the privileging of vision and the concrete and abstract quality of words. This is troublesome because these locked in assessments tend to truncate learning or understanding, and limit the possibility of sympathetic resonance. Designers often fix knowing through both seeing and naming.

Designerly Fixing Knowing

Seeing and naming are important to designers. The aim of designers is to design products, graphics, or services that are beautiful, culturally relevant and functional. Many design methods use both visuals and words in service of our work. Designers create multitudes of notes, words, sketches, symbols and prototypes that acquire a concreteness to not only supplant but reframe and reimagine reality. Design pedagogy helps students fix knowing in many different ways, from the early phases of the process where they are taught to collect images, phrases, and keywords in order to convey to research findings, through to the prototyping phase, where artifacts can be held in the hand.

Visual and symbolic languages are essential tools of the trade at many levels during all phases of the design process. Design educators explicitly task students to practice developing their visual sensibilities. Design students become sensitized to visual languages (visual literacy) as a way of interpreting the world, fostering discussion, and ultimately shaping beauty. The necessary efforts to understand form, balance, and line lead inevitably (and unintentionally) to abstraction and many methods of fixing knowing.

Designers often develop “personas”, which are abstract compilations of fictional people based on research about characteristics and lives of many different people (Sanders & Stappers, 2013). This helps us to connect to a target audience, and provides a ready reference when we discuss the project with others. Although not a universal practice, designers often refer to these fictional personae when discussing the merits of a design: “Sue would find this hard to fit into her schedule.” Or, “Dorian would not be able to lift this.” Replete with stock photos, stories, and keywords, these personas fix our knowing of a sub-group of people. This clearly attempts to circumscribe people, others, and other-than-humans, in the “known”. Biomimicry’s methods of learning from nature do the same to nature: insights and observations from nature are inscribed, described, and

replicated to the benefit of humans and industry (St. Pierre, 2015). Nature becomes dissected, named, analyzed, fixed, known, and applied.

Many design methods can fix understanding. Images, models, prototypes and stories do this. These are essential to the design process in that they mark progress throughout design. These techniques “fix” understanding at various moments in the design process. An advantage of these techniques is that they become markers that help design students manage ambiguity. In their best application, they become points for reflection and change, fostering jumps, leaps, or changes from one fixed moment to the next. Markers throughout the process of design can offer students a momentary respite in an exploration that is full of unpredictability (Day Fraser, personal communication, October 2018). Markers can be understood as a “standpoint' from which to grasp “reality” (Ellsworth, 1989, p. 304). These markers may become problematic if and when they begin to contain or limit possibilities, such as jumping to present polished visuals and prototypes that seem too real. Similarly, many colleagues debate the use of personas (described above), claiming that they can become too limited and restrictive.

Much of design’s focus is on mastery: mastering an understanding of the situation, mastering knowledge of the others that will be impacted by our work. In contrast, Todd describes communication that “depends on a relation with mystery, not mastery” (Todd, 2011, p. 353). This is consistent with my experience of sympathetic resonance. The potent qualities of sympathetic resonance rely on an openness to mystery. This points to a pedagogy that regularly unsettles fixed understandings. Ellsworth poses this as a pedagogy of moving about (1989, p. 321).

Moving About

> The knowledge imposes a pattern, and falsifies,
> For the pattern is new in every moment
> ---TS Elliot, “East Coker”

Ellsworth (1989) states: “I understand a classroom practice of the unknowable right now to be one that would support students/professor in the never-ending ‘moving about’” (321). Ellsworth introduces a multiplicity of ever-changing gestures that affirm connections to others while constantly perceiving differences. An ultimate truth is never

arrived at. Instead, this constant literal and conceptual repositioning and questioning unsettles “every definition of knowing arrived at” (1989, p. 322).

I imagine that Ellsworth’s classroom contains both literal and a figurative moving about. In the classroom, literally moving about would involve shifting positions in the room, moving from one person to another, recombining groups, and formulating new questions and actions. “Our classroom was the site of dispersed, shifting, and contradictory contexts of knowing that coalesced differently in different moments of student/professor speech, action, and emotion.” (Ellsworth, 1989, p. 322). This sets the conditions for acknowledging that students (and faculty) are seeking, never settling on a fixed truth: "…talk to me in ways that show you understand that your knowledge of me, the world, and 'the Right thing to do' will always be partial, interested, and potentially oppressive to others” (Ellsworth, 1989, p. 324).

This moving about is also figurative in that this dynamic behavior opens opportunities for new insights, observations and new and ever-changing moments of connection. Ellsworth is “constructing circumstances in which students of difference can thrive” (1989, p. 324). My concern is for constructing circumstances in which beings of difference can thrive. I particularly seek openings in the way that designers are taught, so that they can learn a worldview that might embrace how their work impacts and engages other-than-humans. When the theory of moving about is overlaid on design pedagogy, it is as if a prism highlights qualities that are already there but are not yet articulated as moving about.

Designerly Moving About

Moving about is one of the great strengths of the design process. The limitations of this essay do not allow for full discussion of the design process, but I will highlight some of design’s ways of moving about. Moving about is inherent to good design process. Highlighting the value of moving about offers provocative insight into current exploratory design research methods.

Designers are taught variations of the design process, which at heart is a methodology that helps us explore subjective unquantifiable knowledge. Designers test ideas through fluid iterative prototyping and experimentation. Hugh Dubberly’s exhaustive compendium

documents over one hundred different design processes. Links to moving about can be found in descriptions of design process's "potential for play" and "its similarity to a 'random walk'" (Brennan via Dubberly, 2014, p. 9). Design process is often stereotyped and misunderstood as a set of linear steps (research-ideate-prototype-test-manufacture) used by some engineers, but this linearity is antithetical to creative design pedagogy. Linear thinking denudes design of "the mess, the conflict, failure, emotions, and looping circularity that is part and parcel of the creative process" (Nussbaum, 2011). The messy random walk of a design process is simply moving about. In particular, the "looping circularity" evokes Ellsworth's "never settling on a fixed truth." By looping back and forth through one phase of the process to another to revisit assumptions, designers seek momentary insights and truths. This moving back and forth, this very unplanned circularity is what I mean by moving about.

Moving about can be further encouraged in the design process. Information can be prepared for assignments or presentations so that is it is fluid and negotiable rather than static and fixed. Instead of documenting ethnographic research with photographs, which can support preconceptions and "fix" understandings, sketches, notes, and poetry can be encouraged: these are more open to interpretation and renegotiation. Markers can be experimental: layered, perceptive, and open-ended. They can be reorganized or randomized within a diffractive methodology (Hill, 2017). Hill says that diffraction "as a metaphor for inquiry involves attending to difference, to patterns of interference, and the effects of difference-making practices." In the context of design conversations, models and sketches can be placed in the center of a room to be reorganized, played with, and reinterpreted among small or large groups of participants. I discuss these processes more thoroughly in the essay *After the Fire*, which follows.

The design process defies description or diagrammatic representation: it cannot be "fixed" by words or symbols. "Do wave-length and amplitude remain constant? Do they vary over time? What are the beginning and [the] ending conditions?" questions Dubberly of design (2014, p. 20). Particle or wave, it is not either. It may be diffractive, or splitting apart in multiple directions (Barad, 2014). It is not fixed. For designers, staying still and moving about are equally valuable states of inquiry. In fact, we oscillate our attention between many states. The design process is an iterative exploration between states of assemblage, deconstruction, analysis, and synthesis, between "constantly both generating new goals and redefining constraints" (Lawson cited in Dubberly, 2014, p. 26)

“and finally knitting all the pieces back together-‘recombining’ the pieces.” (Dubberly, p. 22). This process can be characterized as a rapid parallel reflexive mode of repetitive divergence and convergence, or as “looping circularity” (Nussbaum, 2010). This is akin to diffractive practice as Hill describes it: “an ongoing and cyclical process” (2017, p. 1) whereby new perspectives are gained by openly (and sometimes randomly) recombining materials, sketches, events, and participants. The process can lead to moments of abductive inference and creative leaps.

Staying still and moving about, then, are not contradictory for designers. Although moving about is not overtly functioning in the way Ellsworth describes, it is extensively developed in design pedagogy and understood as crucial to fostering new creative insights. For Ellsworth, moving about fosters the conditions for preconceptions to shift, to allow a new understanding of who an ‘other’ is and hence unsettle racist, or other, preconceptions (1989). It seems to me a simple shift in intentions, from opening up creative moments to opening up understanding of others, would support a form of design pedagogy that opens up unknown spaces for new relationships. For instance, the design programs at Emily Carr encourage a plurality of movements, adjustments and the creation of experimental sketches, models, and videos while moving about. Creative design curricula encourage literal and conceptual repositioning to keep perceptual inquiry fluid. It is a short step to extend this fluid inquiry to support opening up how we see, understand, and accept other people and other non-human beings.

Staying still is not as ubiquitous in design curricula as moving about, but it is present in distinct ways throughout the creative process. Effective design pedagogy affirms the value of moments of staying still. What remains is to sharpen our pedagogical focus on practices of staying still so that these are normalized and become contextualized as practices form more than fostering creative insight. Educators need to clarify why staying still is important, and that it entails bringing intentionality and commitment to contemplative views. Building upon existing modes of staying still, and framing them as spiritual practices for the benefit of all others fosters the “practice of compassionate listening, deep looking and letting go of notions” (Nhat Hanh, 2006, p. 133). This would increase our openness a plurality of beings. Staying still and moving about comprise aspects of the range of practices for connecting with more-than-humans and sensing the complexity and oneness of the ecosphere. This essay has articulated and reframed aspects of design pedagogy that circle around various states of staying still, circling

around, and moving about in agile, fluid, and non-constrained inquiry. As I have described, there is tremendous potential to enhance these practices so as to change designers ourselves, from within. Changing ourselves as designers is the first step in changing the way that we work; an internal redirection would lead to an external redirection (Akama et al., 2014). This pedagogy could engender our full commitment to the entirety of the ecosphere.

After the Fire

> The design student stood at the front of the room. They spoke carefully, describing the arc of their project research. Their slides were carefully synchronized … beautiful descriptive images that enhanced their words. The audience of peers was quietly attentive, clapping at the end. They closed by asking one or two questions. (St. Pierre Journal, 2019)

In many design classrooms, my notes above would be a description of an ideal scenario. In ours, the Graduate Studio at Emily Carr, it was a disaster. These students were upending years of pedagogical development without knowing it. The place was the design studio, a weekly day-long course at the beginning of our Master of Design (MDes) degree. This course was a place where we were accustomed to seeing a creative tempest of informal presentations, ad hoc, digressing, and overlapping conversations. Stuff that shook us out of our preconceptions of what design ‘should be.’

I was shocked. After 5 years of engaging in informal creative conversations, I was literally blindsided, taken off balance by how the easily and thoroughly students reverted to the traditional training of the design discipline. Over many years, I had begun to take the relational pedagogy in this class for granted. In that one startled moment I realized how much the pedagogy we had created differed from the tradition. This moment was propelled by external events. A fire in the school had caused a closing of campus, relocation of classrooms and a massive reorganization. It is entirely understandable that in a time of change and uncertainty, the students would resort to the safety of their prior training. What was most surprising to me was how upset I was. This prompted me to revisit our pedagogy and to try to articulate why I thought it was so important. This essay begins to weave through my growing understanding of how our emergent and relational classroom processes were developed. In revisiting this, I begin to understand for myself

what it was that we had, and how to recapture it. I offer a few examples of what we had accomplished, and how this slipped away from us.

The following narrative explores the slow evolution of what I now know as an intersubjective pedagogy, the “sharing of subjective states between two or more individuals” (Gunnlaugson et al., 2019) in empathetic exchange. In other parts of this dissertation, I refer to how a fragmented view of the world can result in reliance on mechanism, dualism, reductionism, and objectivism (Loy, 2019; Sterling, 2017). The intersubjective pedagogy in GSMD 500 had provided an important place to unsettle or question these fragmented views, and to feel out some relational contexts for design. Our pedagogy had shifted design practices from the performative drive to prove one’s capability and to assert knowledge, and towards acceptance of being vulnerable and open to unforeseen possibilities. This was facilitated through sensorial engagement within and among the many people in the room, through acknowledgement of our respective vulnerabilities, and via unscripted conversations.

My colleagues and I had begun to build a pedagogy to shift design from the performative and transactional, to the relational and holistic. This resonates with the aims described by Akama et al. (2014) to have “students begin by consciously designing themselves, where design becomes an inward movement of change rather than an external one of changing systems, products or behaviours”. Until I was surprised by the students’ new (or renewed) performativity after the fire and began to reflect on our pedagogy, I didn’t have the language to explain this. Nor did I understand how fragile this pedagogy is in a design context. It requires committed faculty, openness on the part of the students, and support on the part of administration. This pedagogy needs to be deeply embedded in our curriculum and in ourselves, in order to remain resilient.

Context: The Design Studio

Every year, I am excited to meet the new Master of Design (MDes) candidates. Most of them are new to Canada, representing different places in the world including Asia, South Asia, New Zealand, Iran, Australia, Africa and the USA. The weekly studio is where we come together in an informal day-long experience. When Hélène Day Fraser and I first co-taught this course in 2014, we were searching for ways to connect across these many cultures and differences. This brought our aptitudes together in a fortunate

combination: Hélène's epistemology and worldview embraces ambiguity well beyond design conventions. She taught situated and relational practices before they were even named and written about in our field. I have extensive teaching experience and at that time was developing my contemplative practice in the Vietnamese Zen tradition. Pacing ourselves through many morning coffee meetings, the two of us began, student by student, week by week, class by class, season by season, year by year, to encourage a culture in the studio that resonates with what I have described as spiritual ways of knowing. (see *Reverence for Life,* Basket Three) We had developed a pedagogy that could shift design trajectories from those that were directive and filled with momentum, towards moments of spaciousness that would allow us all to unhook from any concretized design constraints and preconceptions. This allows a new way of knowing. Design is increasingly called upon to embrace decolonial, ecological, and Indigenous ways of knowing. Our relational pedagogy went a long way towards challenging the traditional cognitive, operational, and rational focus of design. One of the most important pedagogical shifts we made was to replace traditional design critique with unscripted conversations that fostered sensorial, embodied, sensing, open, and experiential ways of knowing.

A traditional design studio course has many components. The mainstay of these is design critique, a time where a group gathers to discuss, debate, or *critique* a design project. Students will typically have prepared verbal narratives and visual representations of their project to show to the class, faculty, and occasional guests. In most design critiques, students expect to be to be 'put on the spot' with critical feedback and probing questions. Varying design disciplines have their own approaches and formats, and varied expectations about audience and structure. There is a wide spectrum of critique experience. On the extreme end of the spectrum are legends of students leaving the room crying and suffering nervous breakdowns afterwards. Scagnetti (2017) recounts a range of negative or even traumatic experiences that encompasses the presenters and the audience as an entirety. The lingering impact of critique is such that, 40 years later, I still have strong memories of the classmate who dominated a group presentation with his laconic charm. Or the time when I was in midst of speaking and a classmate inexplicably burst out laughing. It turned out to be unrelated to my presentation, but still, it marked my memory such that I can bring myself precisely

back to the very moment, the place I stood, the qualities of the room, and the faces in the audience. Critique experiences are powerfully memorable.

Ideally, critique feedback is constructive, helps to develop and improve the project, motivates a student to push their abilities, to question what they imagined their project to be, and to question the wider implications of the project (Scagnetti, 2017). This, at least, is the aim. Despite this, even the most positive or laughter-filled critique is a performative event accompanied by some heightened anxiety and adrenaline. The critique format favours those who thrive in an atmosphere that requires assertiveness, and are able to discuss their views in fairly definitive terms. This perpetuates the Modernist Cartesian epistemology of seeking certainty. Many designers need to graduate with these capacities, but design curricula have become very reliant on critique as a format, and students have become conditioned to critique as a primary modality for design. Students have internalized expectations of showing something good (not bad), and being more right than wrong, of performing *what they are doing*. This meant that they often did not expose the accidents, mistakes, and stumbles that are part of the path of learning, and that might lead to open and spacious moments of new awareness.

Down the street from campus, over early morning espresso, Hélène and I chatted about this. Intuitively, we knew that all forms of critique shut down some parts of the conversation. In the early days of an interdisciplinary and intercultural graduate program, a traditional performative expectation for critique would most likely entrench pre-existing thoughts, pre-existing ways of knowing. Critique culture can obscure the gentle, emotive, and spiritual aspects of being a designer. These qualities are becoming increasingly important as we seek to educate the holistic designer; the one who situates themselves honestly, and relates directly with issues of social and ecological equity. At the end of the Design and Nature book, Kate, Mathilda, and I wrote: that “a genuine exploration into relations between design and nature almost inevitably involves losing our design footing” (2019a, p. 199). We suggested that the traditional assertive and systematic approaches to design could be replaced with guiding qualities such as “sensing, attuning, relating and reciprocity” (p. 200). Further, we embraced:

> …ways of knowing in design research that support the intuitive holistic character of design, countering the scientism that has crept into mainstream design research. We imagine knowledge making derived from what cannot be seen or quantified in the modernist sense will gain credibility and enter a broader

discourse. (p. 201)

Hélène and I both knew that we wished to open up, to unpack, to understand, and to invite the kind of emergent understandings that merge with this holistic vision. This necessarily implied a great deal of vulnerability in the classroom. Our goal was to help students find new connections and to support one another in community, and in their research. What we didn't know at the time was that the pedagogy we were crafting could be understood as *intersubjective* pedagogy, a pedagogy that includes multiple subjectivities, within and between us all (Bai, 2004; Gunnlaugson, et al., 2019). In this paper, I will relate what I learned about this. Learning about intersubjectivity, after the fact, casts a bright light on the pedagogy that we have been threading our way through, and gives me fresh words to tell the following stories with.

Setting up for Peer Review

One of our first decisions was to change the name from *critique* to *peer review*, inspired by our colleague Keith Doyle. This helped to establish that we were looking for an alternative to the critique, but even so, it did not signal enough of a change. *Peer review* easily becomes synonymous with *critique* and many students who came to our program with expectations and anxiousness about critique were unprepared for our pedagogy. It took time to lead them to a relational and intersubjective conversation in peer review. It took time for the phrase 'peer review' to acquire specific meaning for them.

Much of our pedagogy was transmitted by our actions. We gathered ourselves in the studio, sat on floors, moved our bodies around. Our conversations set a tone for generous and nonjudgmental exchange. Hélène surprised us often by following random threads in conversations so that classroom dialogues circled into unexpected and often personal places. Did everything have to be relevant to productivity? To design solutions? No, not at all. I reflected and joined, affirming the digressing conversation. I practiced being solidly present to listen through moments of personal, intimate openings. Slowly, students understood that peer review was a time to talk openly, randomly, musing with each other about sketches, projects, personal histories, and ideas. Together our class had conversations that wandered off the path and were not performative. These kinds of conversations would open unexpected thoughts, places, research opportunities and relationships. Conversations were often personal. Students began situating themselves as people. Where they may have begun this Master of Design program thinking they

would do a project to serve industry, they often *turned* themselves toward work of personal, political, and ecological relevance.

Meditation in Class

From our beginning in 2014, I began offering guided meditations in this class. This wasn't an easy start. On the first day of class, I was so nervous that when our teaching plans shifted to accommodate some unexpected ripples, I was ready to back out…maybe offering meditation was too much for me, too personal. I was still fairly new to Buddhist practice at the time, and not at all confident about bringing something this novel into design pedagogy. But something compelled me, and after lunch I set up a circle of chairs in an empty, echoing gallery space and gathered the students. My nervousness dropped away when I saw how willing everyone was. Soon, as I guided us through a ten-minute short meditation, my own voice calmed me, and the room became quiet, quieter than just the stilling of voice and movement. It was a certain weighted quietness – a quietude.

Years later, I know that this almost always happens. At some point during the meditation, a sense of weighted stillness comes into the room. I can feel it. The group has engaged, they are trusting this experience, and we are breathing together. The room becomes filled with a sort of heaviness, like a gentle blanket has fallen over us all together. I have learned that this sensation does not go on forever. I have learned to accept the flow of the practice, and to bring the group around to ending the meditation before restlessness intervenes. What happens after a session like this is a kind of magic. There is a sweetness in the room, and many quiet smiles. It is like opening a door for all of us. From the beginning, students were delighted. After this, it was easy to offer guided meditations, first thing in the morning every week.

From meditation, it is possible to transition slowly into meaningful conversation. This is when a different kind of design conversation can happen. Unsurprisingly, the peer reviews went best if we moved from meditation directly into design conversations, without interrupting the flow to talk about daily logistics. Maintaining the state of open awareness, from a meditation to peer review, allows a particularly gentle, intimate, and open-ended conversation. The students, as a community, would bring the openness from a sitting meditation practice to the way that they talked about their own and each

other's work. This is when students began to tell stories of their experience, stories that might not be initially be deemed relevant to a design outcome, but were of their direct experience in the world. New directions would be picked up on, due to a nuance or detail that might normally be overlooked. One student, telling us of her design exploration, digressed to describe their fears and sadness about how their culture was viewed by people on this very different continent. This became the dominant thematic for their research work. I now understand, that this meditation practice was important grounding to support an interpersonal and intersubjective pedagogy (Gunnlaugson, et al., 2019). This pedagogy allows that each has a subjective view of ourselves, the world, and the moment. It invites to enter each other's subjective states.

Embodied and Fluid

Midway during our first semester, Hélène and I noticed that a focus on reading and writing was limiting our students' design explorations. This studio course was (and still is) complemented by parallel courses that offer intense contextual and theoretical grounding in design research. Unfortunately, as students were growing comfortable with non-performative peer review, they were also internalizing messages that this studio class was easier and a lower priority, less important than the heavy pressure of academic readings in their parallel classes. Gently and persistently, we pushed back against this focus on theory. Heesoon Bai says that the focus on the "linguistic-conceptual mind and the excessive (and obsessive) engagement with concepts" limits "our ability to experience reality directly as a perceiving and feeling being" (2001a, p. 87-89). Some theory was, and always will be, very necessary, but it took many years of navigating this course, before we found a balance between theoretical learning and active, embodied exploration.

Our request that students express themselves through low fidelity sketch modeling was core to finding this balance. Low fidelity can be loosely translated to mean something that is visually and functionally not very close to being real (Buxton, 2007). These are what we call sketch models, quick and intuitive constructions out of simple materials like paper and tape, that have always been a part of the design processes. Making with hands, stimulates creative thought, and is an ideal way to intuitively generate artefacts that offer a lens for conversations (Sameshima, 2019). Sketch modeling facilitates generative creativity, and it is usually integral to the early ideation phase of a project.

These types of models have also become central to many research methodologies that invite the creative insights or wishes of laypeople by exploring what they “say, make, and do” (Sanders & Stappers, 2013). Rapid, low-fidelity modeling invites emergence. Ideas can change quickly, because so little time is invested in each model. The creator or maker is not attached to any particular idea and can let it go, as merely a “reference point”, before moving on to the next in a flow of creative thought (Sameshima, 2019). The low fidelity nature of rapid sketch models means that they are not visually definitive. Rapidly produced and easily modifiable, they avoid adherence to fixed realities. They inspire random interpretations in others, inviting divergent creative conversation and unexpected narratives. If the sketch model invites the intuitive and the personal, then clearly, it also invites intersubjective conversations. Most students did not understand this initially, but over time, they came to recognize the value of intersubjective conversations around, and with, sketch models. This practice is personal, academic, and it is shared. From this practice, students often find resonant and meaningful research directions that they had never imagined. These research directions are personally resonant, culturally resonant…and they are usually really big places to situate their work.

Over the years, our request for low-fidelity sketch models was challenged regularly by students who came from disciplines where finished visual presentation was expected. In disciplines like graphic design and interaction design, where digital tools are used to create conceptual ideas, students were accustomed to creating polished images and realistic performative prototypes. Some came to the program with the skills to produce an impressive website in a few days, some could prototype a piece of furniture in a week. Aside from the amount of time invested in these outcomes (and the resulting attachment), polished design concepts were often barriers to conversation in a class where some students had none of this training. The low-fidelity sketch model is an equalizer, a way to bridge understanding, to allow all voices to speak, to offer “markers” that could hold ideas long enough for students to feel reassured about encountering divergent ideas (Day Fraser, 2017).

This low-fidelity approach has also been challenged by many colleagues. Some faculty objected to the lack of ‘visual quality’ demonstrated by the first semester projects. Others have been concerned about a perceived bias against technology. Over the years, and with pressure from colleagues, it had become increasingly difficult to ban digital technologies in this first semester of the graduate program. Rules about the choice of

materials and methods are uncommon in an art and design school. Because of this resistance and pressure over the years, by the fifth year of teaching this course, I had begun to relax my guidelines about sketch presentations. My opposition to polished, realistic representations of ideas had become unclear to the students.

I often found it challenging to defend or explain this pedagogy to questioning colleagues. Hélène and I had developed the course over time. Our understandings had become implicit, and between us there was no need for explanation. We had also learned about each other in new ways as we navigated our relationship within the teaching studio. Hélène often says “it took a while for us to know each other in that space”. But after two years, Hélène moved on to an administrative role, and I began to co-teach with faculty drawn from the undergraduate program. When new colleagues came on board, there was a fresh process of getting to know each other. I was fortunate that these colleagues offered me a great amount of trust, because in orienting them to the class, I was asking them to change the way that they taught. And I did not have ready and coherent explanation for why this was necessary. The event of the fire changed this. It forced me to confront my inability to articulate the pedagogy.

Unsettling the Peer Review

Early one semester in the fifth year of this course, an intruder broke into campus and set a fire. The resulting water damage limited access to several parts of the building and disrupted access to facilities and classrooms. Classes were canceled for a week. Then classes were relocated and shops were closed for a month. Our studio was allocated to a new room where it was possible to become distracted. The morning guided meditation became challenging. During this upheaval, peer reviews suddenly changed. A few students with strong skills began to come to peer review with performative, polished presentations…complete with slides and linear narratives. Understandably, in the midst of confusion, they leaned on their prior learning. Peer reviews were suddenly tightly scripted, formal experiences, controlled by the presenter to the point of concluding their ‘talks’ with specific, guiding questions for their colleagues. Pre-planned questions crisply defined and narrowed the scope of response. The audience suddenly went silent: there was no conversational intimacy, no banter, no laughter. Everything became stilted. It was like any old design class: a good one, but a banal one. This stuck in my throat.

This was unexpected for me. Nothing had derailed the openness of peer reviews before. I was deeply upset; this pedagogy mattered to me. Unfortunately, I did not see myself clearly at first. I reacted in all the wrong ways. I tried to correct things. I urged the audience to participate. I cajoled, I explained. I filled in gaps. This only made things worse. My discomfort was becoming solid, carried in my body. I could feel tension and worry instead of joy and ease after class. I knew something was wrong, but in the beginning, I was unsure if my reactions were valid. My discomfort became apparent in my body, first. I could *feel* that the mood and spirit of the class was stifled. The formal presentations had changed the tone, but had also but had also hobbled the practice. There was no room in the class for curiosity, mystery, random side conversations. My discomfort built up. Continued to build. By the third week, when students stepped forward with formal presentations I burst out and exclaimed that the use of the slide projector was now off limits. I said this in the passion of a moment, and did not even consult with my co-teacher. That was unusual for me. But so too was the absolute and sudden clarity that our pedagogy was becoming perfunctory, and that this was linked to a new formalism in the peer reviews. Any doubts I may have had about limiting digital technologies, high-resolution presentations, and polished models were gone. After sitting with my discomfort for some time, I recalled without a doubt that our pedagogy had been deeply successful at challenging the traditional cognitive, operational, and rational focus of design. I was now certain that this was important and must be recaptured. I saw what had ruptured, and I realized the need to reset some boundaries and clarify expectations.

After that outburst, there was some repair work to do. My colleague and I needed to make sure that none of the students felt they had done something wrong. This took the form of personal notes to them. All the students needed some help reshaping their expectations of peer reviews. As I drafted notes, I began to understand that there were several qualities of what I was beginning to understand as intersubjective pedagogy. I realized how easy it is for any kind of formality in structure or body language to trigger memories and expectations of the traditional critique. Students, intimidated by the skills their peers showed with theory, concepts or technology, easily reverted to being observers rather than participants. The finished model or polished presentation asserts knowledge on the part of the presenter, rather than invites speculation, or reciprocal and creative dialogue. I drafted a note to the class about bringing sketch models for their next peer reviews. When the following week came, I held my breath. My co-teacher held

their breath. The students who were scheduled that day did as requested and placed their low fidelity sketch models in the center of the room. They talked about what they had been thinking about while they made them, and what they thought now, and what they had realized on the way to campus. The rest of the group was silent and attentive. We waited. And they still stayed silent. My colleague and I let the silence lengthen. The tension finally snapped when one student spoke up. After that, another, then another student had a question or a thought to offer. They responded to the stories, and to the scattering of models on the floor in the center of the room. Easily understood, relatable, non-intimidating ideas were enticed inward and outward. The dynamic of the class experience formed and reformed in a fluid conversation, organic, bubbling, non-directional, open and yet going somewhere. This was what we longed for. This is what had been missing. These were the conversations that led students into new and personally relevant research directions.

Intersubjective Pedagogy

At the same time that I was grappling with the peer reviews after the fire, I was reading about intersubjective pedagogy. It slowly became clearer to me why I had been so upset. I was personally invested, and I was personally involved. The "intersubjective field [forms] between any two or more persons where there are always at least three points a few: mine, yours, and ours together" (Gunnlaugson et al., 2017, p. ix). On the surface, there is nothing inherently unusual in this. Design is always about multiple opinions. The distinction with intersubjective pedagogy is that the subjective state is personal…the feelings, emotions, and spirituality that is normally left out of design conversations, all that becomes relevant. Intersubjective states are inherently inclusive of the *other* in a deep way. Blenkinsop explains this through Buber's I-Thou theory. The Thou becomes known, felt, and seen as a being as important as ourselves, rather than an object in a transactional relationship (2005). "The ability to see the other, understand and embrace the other without giving up the self is the true penetration of being, true dialogue" (p. 287). Bai (2004) clarifies that the intersubjective contains:

> the possibility of resonance and flow of sympathy, whereby the subject enters into a liminal space of ambiguity and wonder. In this space or state, the clear and distinct categorical division between the subject and object gives away to the self's movement towards the others, and there emerges a sense of participation in the other's reality, a reality that is ultimately a mystery. A mystery is not something to

be explained away or solved but only to be participated in (p. 61).

When I began the class with contemplative practice in the form of guided meditation, I unknowingly contributed to the conditions for intersubjective: the creation of a learning space between student and me, between student and student. Meditation together is an intersubjective practice. The container that is created has a foundation of openness and trust. The creation of a space or *container* is central to my pedagogy.

I cannot know for sure but I can speculate that many of the students are impacted by the meditation practice. For myself, I can say that those morning practices take me to a place of non-ego, where I can "step aside so that the grace or the mode of wu-wei can take place" (Bai, 2004, p. 62). "Wu-wei is a Daoist term referring to magical moments of non-action, when everything sits just as it is and is right in the moment. Wu-wei literally means "without action," (Scott, 2011, p. 41). After meditation, when the *container* is established, I am able to set aside any burden of having to know everything, to be the authority. I let go of the notion that I *have to be* an engaging leader, that I am the focus of attention. This does not mean that I am not an engaging leader. I may very well be one, but the *trying to be* one is not there. *Succeeding at being* one is not there. I let go of my own self-importance and self-preoccupation. Leading happens without my doing the leading. This is the practice of *wu wei*. This, for me, is a sacred pedagogy, stepping towards "an intersubjective, participatory perception [that] honours and adores the world" (Bai, 2004, p. 62). This is what the intersubjective, the relational really is…we are fully part of it. Our own hearts are on the table.

The event of the fire changed the dynamic in the classroom in ways that upset me deeply. I was forced to try to understand why I was so upset, and to touch upon my personal participation in an intersubjective pedagogy. I also took the much-needed time to reflect the qualities that are necessary to this pedagogy. Building on what I wrote about design's many modalities in the essay *Staying Still and Moving About*, I now add: the meditation, the low-fidelity prototypes, the unscripted presentations, the rambling conversations, and the vulnerability. In this studio, the action mode of design is balanced with contemplative receptivity. The resulting organic and intersubjective space is unfamiliar to some of us, students as well as faculty. We are all part of an experience we do not normally associate with 'education.' But when the class reaches a point of momentum this process speaks for itself. The interaction is tremendously warm, dynamic, and enlightening for us all. I notice that our drive to be purposeful softens, and

I hear conversations that challenge our mainstream, design notions of knowledge and objectivity. This is about designing re-connectedness, “a proposition in design education to equip students with methods, theory, structures and mindsets that enable their own pathway of inquiry and develop a change-making practice” (Akama et al., 2014). In this space, it feels natural to question the traditional cognitive, operational, and rational focus of design, because there is something to balance it, a way of being that we have ‘slowed into.’ Looking back, I see that relational and intersubjective ways encourage us to wander into new ways of being with one another. The sense that design needs power and mastery is diminished when we are all receptive to a plurality of ways of knowing each other. This is a delicate balancing act, but so far, I have found that within our container, there is little room for power plays, artifice or instrumentalism. We begin to circle around a form of design that is not limited to serving the economy, is not so human centred. We stretch to touch a design of many “world-makings” (Bai, 2006, p. 12). We ground to a design that is deeply situated in personal experience, partnerships and reciprocity. In dialogue and play, in awe and wonder, we are within a world that includes all beings.

Walking Meditation for Busy People

Aimless walking is a joy. It is a way of being in the world without a great deal of thinking; just experiencing and sensing. It is a form of contemplation. But genuinely aimless walking is a rare experience. If, while walking, I begin to do just a little bit of thinking, then before long I find myself musing about things. This is not so bad. Walking while musing can clear my head. It is a gentle form of processing. But I am often too busy to walk aimlessly, or even to walk while musing. There is usually too much on my mind, and too much to do. And if I am trying to work out something particularly difficult, walking while in the grip of strong emotions can make me feel more and more agitated. Thus, walking in and of itself is not always helpful. Everything depends on the condition of the mind, the degree and amount of thinking that is going on.

Thich Nhat Hahn says we should walk to understand, walk to clear our heads, walk to know peace (Nhat Hahn & Nguyen, 2006). He offers a very specific form of walking meditation. It is extensively documented; there are books written about this. What I know about walking meditation from my own experience is that we match our breath with our step and we walk slowly and deliberately. Taking an in-breath, we step. Taking an

out-breath, we step. All of our attention is on the soles of our feet as they touch the ground. We pay attention to the minute moment-by-moment sensations felt by the foot. The heel touches, the foot rolls, the foot lifts lightly off the ground, airborne for only a fraction of a lovely second before gently landing again. This practice concentrates the mind, to the point where the mind is no longer engaged at all. We experience an embodied action without the intervention of mind, establishing ourselves fully in the present moment. When the mind is not interfering, our senses allow other voices, other beings to become known. We become increasingly aware of our surroundings. Even the breeze, overlooked while thinking, comes into play.

According to Thay (meaning teacher, an affectionate term for Thich Nhat Hahn) (1992), we can resolve our deepest problems by walking meditation. We focus on the Earth. “Walk,” Thay says, “as if you are kissing the Earth with your feet” (p. 28). Walking meditation as described by Thay is something I do in the zendo, the meditation hall, and now outdoors. In my day-to-day walks, though, I follow the instructions of my doctor. “Walk,” she says, “at a pace so that you cannot carry on a conversation.” She is mostly concerned about the physical state of my heart and blood pressure. This breath–leaving pace is wonderful (albeit exhausting) if I am in the right state of mind, but it is not meditative. Even worse, if I am upset, angry, worried, or otherwise worked up, fast walking will only increase my inner urgency and turmoil. Blood will literally boil. This helps nothing.

Luckily, I have a third source. “If you have to walk fast,” says my meditation mentor, “then count your steps while walking fast. Count up to 10, and then start over again” (Lloyd, personal conversation 2019). So, I walk counting rapidly: “onetwothreefourfivesixseveneightnineten.” And circle back to 1, again and again. This allows for no thoughts to wedge in the way. 12345678910. I can lengthen my stride, and come into my body, and invariably I find myself noticing how my foot lands on the ground as I count 7-8-9-10. This aligns me with Thich Nhat Hahn again. Soon my breathing is easier. I find myself not thinking. I noticed my foot landing. I notice that Patrick’s blueberries are almost ready to pick, I notice that the wind is high today and that there is a blustery energy about, I notice that the sun is too hot on unshaded streets.

Thich Nhat Hanh and Anh-Huong Nguyen (2006) elaborate on a way to connect breath to footsteps more directly. They suggest that we pace our steps to our in-breath and out-

breath. For example, we might take two steps to an in-breath and two steps to an out-breath. And so on. I find this occupies my mind more than simple counting, so I reserve this method for those days when counting isn't enough. But always, I try to do as they suggest and "smile and say hello to what I see, hear, and come into contact with" (p. 22).

Taking this up as a contemplative practice, I began to map my walks, with my home as the epicentre and each walk the distance prescribed by my doctor: 30 to 40 minutes of cardio exercise at least 5 days per week. There are many destinations that meet this criterion. The Japanese food shop on East Hastings, Trout Lake Park, my office on campus, the public library downtown, and many cafés in Chinatown, East Hastings, great Northern Way, Southern commercial Drive. Seeking directions that I don't usually know, I explore the Wall Street area, and the neighbourhoods close to the Pacific National Exhibition.

I find a liberating sense of belonging and knowing my city. My mental image of Strathcona has shifted from well-known cafés like the Wilder Snail and a busy section of Hastings street to the quiet and leafy back residential streets. I found a lovely park just east of Renfrew where my favourite Japanese shop is. These walks bring me to feeling centred in place, centred in the here and the now, and a groundedness in my community.

My walking practices offer a sense of attunement that begins, simply, with what is close by "bringing an awareness and embedded-ness to what we do everyday" (Akama, 2012). "Breathing with every step they take, wayfarers walk at once in the air and on the ground," says Ingold (2010, p. 1). In 1875, Barron (1875) wrote, "If you confine yourself to walks of twelve miles in every direction from your home, you have a field of observation comprising four hundred and fifty-two square miles" (p. 11). Time limits me to 2.5 miles, or 4 km, in any direction from my home and studio, so my field of observation comprises only 5026.5 sq. km but it is enough to offer what Pogson (2019) describes as "engagement with my local 'place', its inhabitants and processes, [an] entry point into a joyous world of layered themes, images, activities and connections" (p. 30). The discovery of a fast walking meditation practice allowed me to fit meditation into my busy days. Walking when done this way can be a contemplative practice for busy people.

For those who are aware, this is also a practice full of potential for connecting with glimmers of nature. Following paths in the city that offer gardens and trees contributes to my awareness that nature is not confined to settings that we think of as ‘natural’ or ‘wild’, but can be found, albeit in limited and fragmented ways, in urban centres. Urban walking cannot be compared with the well-known benefits of hiking and walking in the woods. But my urban walking meditation practice allows me to connect with small bits of wildness, like the eagles that have nested on North Kamloops Street. One week, I found the feathers of the one eaglet that was taken by a predator. Later that week, I saw the second one in flight with a much larger parent, arcing westward from their nest towards the city skyline. I am grateful to be in a city that, although clearly designed for control of nature and for an undisrupted anthropocentric human existence, has cracks and crevices to allow some wild, some green spaces, where city noises recede to the background and birdsong can be heard.

Plum Village Guided Meditation: Touching Nirvana

The following was transcribed from a guided meditation offered by Brother Pháp Lưu at the Plum Village *Understanding our Mind* retreat on June 28, 2020. The content is centuries old. The meditation walks us through observable and logical phenomenon, building up to an understanding that all matter and energy transforms. This ancient wisdom has since been confirmed in the study of physics (Capra, 1975).

The process for a guided mediation like this is quite consistent. A leader (often a lay teacher, monk or nun), will read each stanza carefully. After reading each stanza, there is a pause of about two or three minutes to allow meditators to practice aligning their breathing with the last two phrases. These last phrases encapsulate the longer content, but they are shortened so as to be easily remembered and repeated during the three-minute practice period. So, for example, after the first stanza (below) was read, I would breathe in, saying to myself “Earth, water, air in me”. Breathing out I would say to myself: “smiling at the elements in me.” I would repeat these phrases with each in-breath and out-breath, aligning the teachings with breath and body. This is another example of psychophysical learning (Fischer, 2019), which I mentioned earlier in the essay *Taking a Contemplative Turn*.

The last phrase of this guided meditation is “I touch nirvana.” Sister Annabelle Laity, also known as Sister Chân Đức, has been a nun for over 30 years (Laity, 2019). She, along with most Dharma teachers, clarifies that only some of us ever touch nirvana, and that nirvana is not in itself a goal to be striven for. She herself has only touched nirvana once or twice (Đức, 2020). Having a glimpse is all that is needed.

Breathing in, I see the elements in me, the Earth, water, air
Breathing out, I smile to the elements in me
- in: Earth, water, air in me
- out: smiling at the elements in me

Breathing in, I see the clouds, the snow, the rain and the rivers in me
Breathing out, I see the atmosphere, the wind, the forests in me
- in: cloud, snow, rain and rivers in me
- out: atmosphere, wind, and forests in me

Breathing in, I see the mountains, the oceans, all of Mother Earth in me
Breathing out, I see that I am with Mother Earth, the most beautiful planet in the galaxy
- in: Mother Earth in me
- out: most beautiful planet in the galaxy

Breathing in, I see the element of light in me
Breathing out, I am made of the light, of the sun
- in: element of light in me
- out: I am made of the sun

Breathing in, I see the sun as an infinite source of nourishment that I consume in every moment
Breathing out, I see that like the Buddha, Shakyamuni, I am a child of Father Sun
- in: sun as our infinite source of nourishment
- out: I am a child of Father Sun

Breathing in, I am the sun, and I smile to the sun in me
Breathing out, I am a star, one of the largest stars in the galaxy
- in: smiling to the sun in me
- out: I am a star

Breathing in, I see the stars and the galaxies in me
Breathing out, I participate in the immortality of the stars and the cosmos
- in: I am the stars
- out: immortality of stars

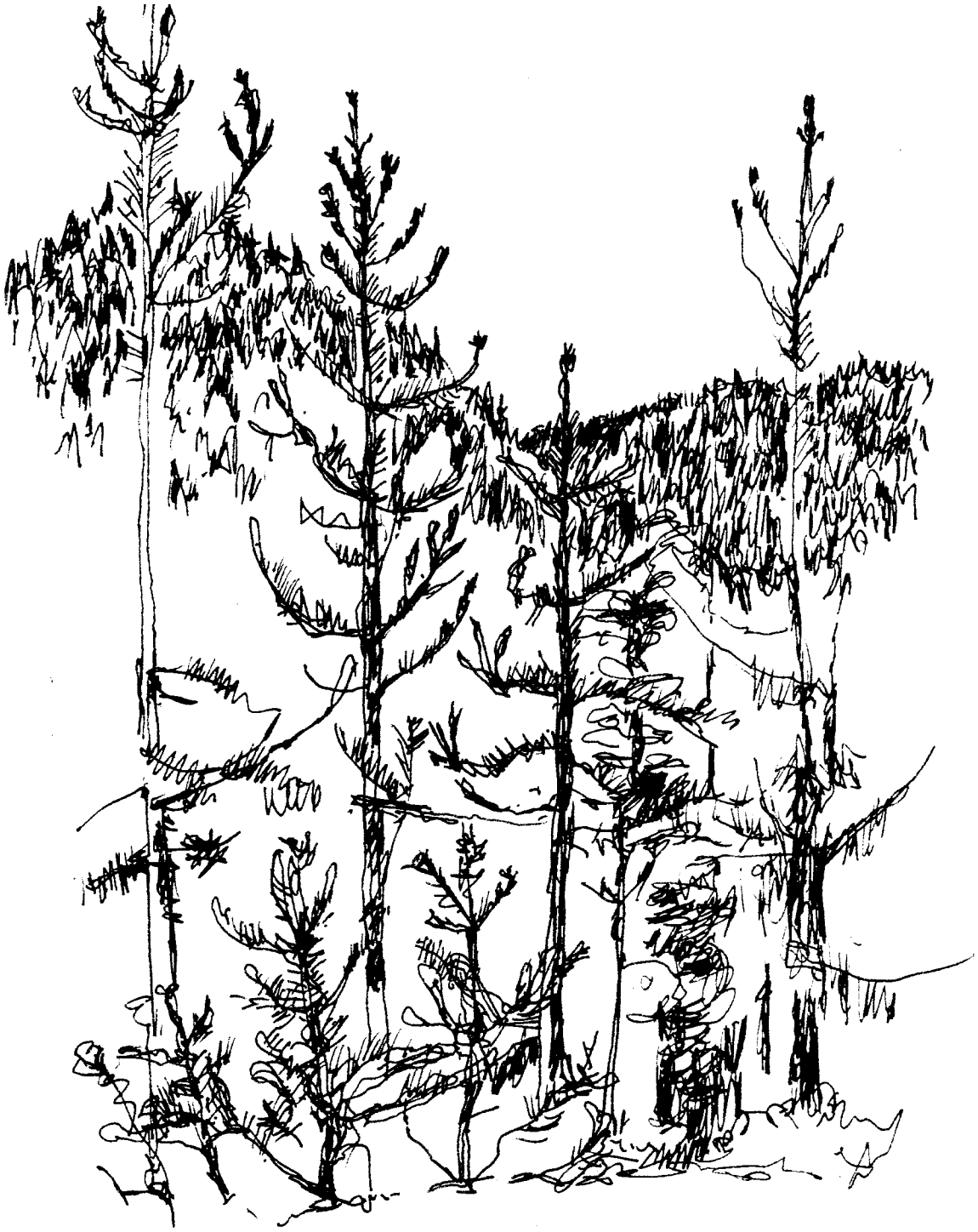
Breathing in, I smile to the cloud in my tea that never dies
Breathing out, I participate in the immortality of the cloud
- in: smiling to the cloud in my tea
- out: I participate in the immortality of the cloud

Breathing in, I see all my ancestors in me, mineral, plant, animal, human, and spiritual.
Breathing out, I see that my ancestors are always alive in every cell of my body and that I participate in their immortality.
in: all of my ancestors in me
out: I participate in their immortality

Breathing in, I see that nothing is created and nothing is lost, everything transforms
Breathing out, I see the nature of not birth and no death in matter and energy
in: nothing is created and nothing is lost
out: no birth, no death of matter and energy

Breathing in, I see that birth and death, being and non-being, are nothing but ideas
Breathing out, I smile to my true nature of no birth and no death
in: birth and death are nothing but ideas
out: smiling to my no birth and no death nature

Breathing in, free from birth and death, I have no more fear
Breathing out, I touch nirvana, my nature of no birth and no death
in: I have no fear
out: I touch nirvana



Sketch 4: Hillside at Manning Park, 2016

Basket Five: Animating the Design Field

This fifth basket contains four short essays that thread together contemplative practice, relational and intersubjective pedagogy, and animism. Following Sterling (2017), I continue to touch upon the “broadening of perception… shift towards relational thinking… and… manifestation of integrative practice” that will “transcend dysfunctional worldviews” (p. 41). While it is too early in this exploration to claim a fully integrative practice, these essays show some qualities of what integrative practice might look like. They connect animism with design, and begin to describe a design that overcomes the delusion of seeing humans as different from, and more important than, all beings.

In the first essay, *Turning to Animism*, I articulate the importance of animism, the worldview that all beings have knowledge and agency, and why it is important for designers to embrace this view. I follow this with *Design for All Beings*, where I relate the practices used in the design for biodiversity research project at Emily Carr. Faculty and graduate students, collaborating with a class of second-year industrial design students, explored a number of strategies to bring designers into closer relation with nature. The research team explored ways to shift attention through meditative practices, stillness in nature, role play, and prototyping in nature. This was an active exploration in ways to open students and colleagues to animist views. This essay is followed by a shorter piece called *The Merit of Salamanders*. This entreats designers who work in the field of social innovation to consider the social qualities of more-than-human beings and accept the frictions that arise from designing with full acceptance of their presence and rights.

The final essay, *A Shift of Attention*, is deeply personal. This essay describes a number of meditation practices that I have explored while in nature. Through these practices, I became immersed in animist awareness. My brief experience with those animist conversations revealed a heart-opening entry into a world of mystery. It unsettled my sense of my place among other beings. While meditating in nature, I experienced what Bai (2004) describes as “a resonance and flow of sympathy whereby the subject enters into a liminal space of ambiguity and wonder” (p. 61). This relates directly to the intersubjective pedagogy of Basket Four. I experienced the same sensation of effortless wonder and resonance, whether it was as human-to-human or human-to-more-than-human. This is integrative.

For the meditation in this basket I offer *gathas*, or short meditations, to help designers keep considerations of the natural world in mind. These *gathas* are written to honour the work of the designer or design student, and help them to remember that our work is embedded in a relationship with all beings. With these *gathas*, I integrate design, animism, contemplative practices, all together and intertwined.

Turning to Animism

This morning I am gathering up my computer to go work at Platform 7 Café on East Hastings, a place I think of as 'mine' after 5 years of writing there. A clutch of papers on top of my desk slips to the floor – oh, it is Abram (2013). He has to come with me; that was the thread I was looking for. As I lace up my boots, I realize how his thoughts connect with what I am trying to say. Quickly! Grab a felt pen and write a few notes on an envelope, stuff it into my back pocket. Zipping up my backpack, I can hear the voices of my friends protesting that I should be working to an outline. I am too close to final deadlines for this dissertation, and they are nervous. "Begin at the beginning" they say, "and go through it systematically." I think my actual practices would horrify them if they knew. This chaos really is the way I think. My work with Kate and Mathilda began to validate this:

> …the work of design and nature is never just the work of the logical mind. And perhaps for this reason -- because it is also the work of the physical real world, the body and the senses -- that it has particular ramifications for design. It is also an example of 'staying with the trouble' (Haraway, 2016) instead of seeking fast and neat solutions. (Fletcher et al., 2019a, p. 399)

More connections come to mind as I walk past Patrick's garden. (How is it that he has broccoli up already?) Kate, Matilda, and I have been saying that designing with nature is a reciprocal relationship, not a one-way transmission. Our book, *Design and Nature* (2019a), is full of examples that begin to enact reciprocal relationships. These range from designing while outdoors, sensing trees or moths with full attention, reconsidering scientific note-taking, and working directly with plant materials as part of a creative and spiritual design process. One story (Wernli, 2019) described how people would feed plants their fermented urine and document how the plants responded to any changes in their personal diet. Many of the attempts at reciprocity in the book are exploratory, open, and wonderfully uncertain. When Abram (2013) describes the ever-present energies of

the natural world, and Thich Nhat Hanh (2013) says trees have their own ways of knowing, they are also referring to a reciprocity, but in a bigger way. They are suggesting that this relationship is not a neat and tidy reciprocity. We won't likely be able to figure it out completely, or even partially. We can't fully know the 'other' (Todd, 2010). Abram (2013) notes that trees or mountains hide parts of themselves from us, are never fully seen. He suggests we find "a way of staying in felt relation to the unseen waters that sustain us, to the invisible tides in which we are immersed" (p. 128). When I realize deeply that the tree's way of knowing is different from my way of knowing (Nhat Hanh, 2013), this knowledge shifts my own sense of self, my sense of my place in the world. I realize that I am also a subject in this holistic relational ontology. Other beings, they see me, too. Blenkinsop (2005) says "this relationship, although unseen and unacknowledged, is fundamental to our humanity" (p. 303). As I have mentioned in earlier essays, theories and practices of relationality are percolating through design research and pedagogy, but they are as yet almost always in reference to people relating to people. How might animist relationality, understood as a vulnerable relationship with the mysteries of the natural world, enter into design pedagogy? I begin to explore this question in my (following) documentation of a research project, *Design for all Beings*.

Animism is the worldview that all beings have knowledge and agency. According to Harvey (2013), there are many ways to interpret and understand the word animism. Inspired by Plumwood (2009/2013), I hold that animism is important as a way of seeing the world and of understanding our human situatedness among other beings, within a community of others, instead of above all others. This, for me, is a visceral sensibility of surrounding aliveness that extends far beyond my own self. In this way, many different animist ontologies help to de-center the human and offer a felt sense of multiple centerings (Plumwood, 2009/2013). Regular rituals and practices, such as those inspired by the Buddhist teachings described in this dissertation, can support designers (and all humans) to find a new identity (or reclaim our original identity) *as beings within a community of beings.* This can begin to dissolve our persistent underlying anthropocentric bias, wean our attachment to modernist views, and support our ability to work towards repairing our broken and impaired relationship with the ecosphere.

In the design field, even the most eloquent argument for animism would land in a community that is deeply committed to human-centrism. The social justice conversation

in design began in 1972 with Victor Papenek's publication of *Design for the Real World: Human Ecology and Social Change*. Although Papanek's anti-consumerist stance was initially rejected by the professional association, the Industrial Design Society of America (IDSA), this book continues to be assigned in design schools (Twemlow, 2018). Graphic designers also spoke for social justice with the *First Things First Manifesto* published in 1994 (Howard). Since then, social justice publications have abounded, including *Citizen Designer: Perspectives on Design Responsibility*, (Heller and Vienne, 2003), *Design for the Other 99%* (Smith, 2007) and more recently, *Designs for the Pluriverse* (Escobar, 2018). Designers are increasingly passionate about designing for humanitarian concerns around the globe. Designing for people, or human-centred design, encompasses a set of methodologies and an epistemology that designers have worked hard to build. This is work that we understand, and it is valuable. It is, however, difficult to see past these very engrossing human-centred practices to the more-than-human. Shifting design to understand and internalize that more-than-human beings are as important as ourselves is going to take explicit and concerted effort. David Loy (2008) tells a story of the Buddha giving his life for other animals (p. 103). The Buddha transformed himself into a rabbit so he could become food for a weak tigress who needed to feed her cubs. In this story, the human life is no more important than the lives of other creatures. The suggestion that other beings can be more important than humans brought down heavy criticism on the Deep Ecology Platform (Naess & Sessions, 1984) for being anti-human (Bookchin, 1987; Drengson, n.d.; Worster, 1995). David Orr (2017) notes that "the humility required to acknowledge interrelatedness and its consequences is not well regarded in rigidly structured institutions permeated with the arrogance of humanism that lead us to our current predicament" (p. vii). I include the traditional design schools amongst these institutions.

Designers are also beginning to learn from Indigenous Nations in North America (DESIS Lab, n.d.), Australia (Akama et al., 2019; West et al., 2016), and others. Given the diversity of Indigenous cultures and histories, it is not possible to make generalizations, but I have learned about some Indigenous worldviews that are holistic, deeply inclusive of all beings, and grounded in an Earth-based spirituality. Indigenous communities fishing off the West coast of North America would often design their nets with a hole to allow some fish escape and continue the cycles of life. Many contemporary fishing practices, on the other hand, are stripping the bottom of the ocean of all life forms by

dredging or bottom trawling (McKie, 2015; Messieh et al., 1991; Thomson, 2020). The difference between nets with purposeful holes to allow escape, and the totality of capture when dredging illustrates the vast gap between a holistic worldview that understands whole systems and supports the ongoingness of life, and a modern worldview that prioritizes the need of people to the detriment of other life forms. Design, even when it attends to people of all classes, races, and cultures, is still attending to people before other living beings. “Harshly, design, in its immediate and expanded sense, is a war against ontological and epistemological diversity,” says Mathilda in our book (Fletcher et al., 2019, p. 138). Design tendencies to provide sanitized and palatable products or solutions for dominant (human) cultures have decimated other species. We have much to learn from Indigenous Peoples.

Heesoon Bai tells me that *how* we know tends to determine *what* we know (personal communication, April 2018). In other parts of this dissertation, I described how contemplative practices have helped to bring relationality into the design studio, relationality between students and faculty, and between each other. Relationality is currently discussed in design as an approach to understanding others, perhaps as a deep research method. But as I have described it in the essay *After the Fire*, relationality and intersubjectivity as an enacted practice is somewhat new to the design studio. My understanding of Martin Buber’s ideas of relationality (via Blenkinsop, 2005; Scott, 2011) is that relationality and intersubjectivity can lead to new knowledge. Once one knows another’s subjectivity, one sees one’s own as well. Seeing oneself subjectively among others in a vulnerable way allows the possibility of relating to the broad panoply of life, inclusive of others that are more than human. This is the place of extended relationships that David Abram, Heesoon Bai, Sean Blenkinsop, Thich Nhat Hanh, and Charles Scott are describing. In seeking to encourage this kind of relationality, contemplative practices are an important *threshold* practice (Barrett et al., 2017, p. 132). Throughout this dissertation I have woven stories of how contemplative practices can threshold a way of becoming in the world, sitting with the world, allowing a permeated understanding of the self along with the cosmos. Contemplative practices integrate with what I affirm in the following paragraph as core capacities for design: *sensing* and *direct experience*.

I first learned about design in the 1970’s, at the University of Alberta, a small design program in the Canadian North. In school, I learned about materials and making, the

pragmatics of daily problems like how to store kitchen spices, lock bicycles, or operate bath taps. Research consisted of trial and error, making and testing. I learned design as a doing, feeling, sensing activity. There was very little theory. At the time I thought my education was unsophisticated, but now I realize that those limits allowed a grounded closeness to the felt and experiential. Somewhere along that path, I learned that materials had a poetry of their own, and that form speaks a language that bypasses the intellect and reaches a visceral and intuitive knowing. These insights were likely a direct inheritance from the atelier model of the Bauhaus School of the 1920's which placed a strong emphasis on craft (Wick, 2000). While this craft-based learning for design has been challenged throughout history, the roots remain in much of design pedagogy. In my view, these roots still hold much of the magic of design pedagogy. It is a pedagogy that has stayed with me. Most students who come to design school are creatives seeking a place where their passion and talents might make a contribution to the world. Their innate creative capacities are amplified when they begin to learn a wide range of new skills in design school. This is an exciting time for many students. At the same time, courses in critical theory expose them to new ways of seeing and understanding the world around them. Design pedagogy is an incredible crucible for new ways of knowing and of learning, and inviting intuitive leaps. Therefore, it is an excellent place for evoking old and new understandings of animism, and for learning how cultures can shift to tend the Earth. I believe the value of design pedagogy as an *experiential* and *sensing* practice is not yet fully realized. In the years since I went to school, design pedagogy has begun to encompass conventional academic traditions, and to align research methods with scientific, quantified, and social science methodologies. There may be many reasons for this, including the desire to justify a place in the academy, and the need to keep pace with the expansion of theory that accompanies the growth of Master's and PhD degrees. The sensing and experiential practices that were the focus of my education in the 80's, are still there but are often pushed aside by theory and scientific method.

Meanwhile, this morning, on the PhD Design listserve that many design academics follow around the world, I notice that the voices for scientific and technical rationalism are in resurgence. Donald Norman (2020), an elder among design scholars, is predictably calling for academics to teach more theory, and to offer more courses on the scientific method. Michael Meyer and Donald Norman (2020 advocate for a "transformation from design practitioners to design scientists" (p. 45). This is not new to

many of us who have been watching. It is advocacy for scientific rationalist views of design and design research…it is modernity all over again. A respondent (Roudavski, 2020), offered a challenge. He said that most schools focus too narrowly on human-centered design practices, and went on to suggest that we can simply turn our existing design practices to serve a different client, say, a frog instead of a person. Aha! Old ways of knowing applied onto new subject matter. It seems that there is a tension here. Kate, Matilda, and I have said that we thought we could not imagine new forms of design emerging within the current constraints of the discipline. "[This] assumption of knowing what is needed, even knowing of a process to apply, falls within the conventions of modern thought, a convention that we are questioning" (Fletcher et al., 2019a, p. 397). The ideas expressed on this listserve indicate that the current constraints of the discipline are alive and well.

Over recent years, theoretical knowledge in the design field has mushroomed (Meyer and Norman, 2020). There was a time when I could list the canon by counting on my fingers: Reyner Banham, John Ruskin, Victor Papanek, Bruch Archer, Paul Rand, Penny Sparke, Herbert Read and a few others. Now, design philosophy and critical theory can fill entire libraries. Much of this theory is important and interesting, but it is also overwhelming. In recent years critical theory has acquired a dimension of importance in design, as almost a religion or creed. This can be problematic. As Bai (2001a) says: "our ability to experience reality directly as a perceiving and feeling being is compromised by the excessive (and obsessive) engagement with concepts" (pp. 87-89). The risk is that too much theory may distance designers from lived experience. As I noted, this momentum is in tension with the sensing and experiential aspects of design pedagogy. New theory is developed rapidly and proliferates: *Transition Design* (Irwin, 2015), *Matters of Care* (Puig de la Bellacasa, 2017), *Object Oriented Ontologies* (Harman, 2018), *Designs for the Pluriverse* (Escobar, 2018). Of course, a lot of these theoretical resources are important, like the paper by David Abram that followed me to the café this morning, and Bai's academic paper describing how she knew animism as a child (2013). And yet, learning by reading, abstraction, and conceptualization invariably competes with other ways of knowing and learning (Bai, 2001a). It disturbs me that academic reading is thought to be a more important way of learning, particularly when it comes to understanding our interdependent place within a cosmos. There is a growing acceptance that designers must learn to appreciate nature and animist ways of knowing

(Fletcher et al., 2019b). Design pedagogy must take care to balance theory with embodied, integrated, somatic ways of learning. Design risks becoming a thinking profession, built on cognitive thought and analytics. *Sensing* and *experiential* ways of knowing are important, particularly if we are serious about shifting our relationship with the Earth and shepherding animist awareness.

Resources that support animistic views are available to designers within academia. Academic texts like *Staying with the Trouble* (Haraway, 2016), *Post-humanism* (Wolfe, 2009), and *The Nonhuman Turn* (Grusin, 2015) are situated in "critical, theoretical and philosophical approaches…decentering the human in favour of a turn toward and concern for the nonhuman" (Grusin, 2015, p. vii). The highly influential work of Arturo Escobar (2018) describes multiple intersecting concerns that includes the Earth and more-than-humans. He proposes "the Liberation of Mother Earth as a fundamental transition design principle" (p. 204). But statements of inclusion are not enough. More than this, these statements of inclusion are not yet fully animist. These writers do not refer to animism directly, but tend towards statements of multiple inclusion. Once again Escobar offers an example: "philosophies of well-being that finally equip humans to live in mutually enhancing ways with each other and with the Earth" (p. xi). So far so good. As I hope I have made clear in earlier parts of this dissertation, I am in full support of this degree of relationality. But in order for a rebalancing of worldviews towards animist understanding, we need far more than a few statements of inclusion. The deeply entrenched concern for human well-being easily pushes animist or Earth-centered ontologies aside. Academic texts like this open up understanding and validate the importance of an alternate worldviews, but they are only part of the learning. The Buddha advised that his followers not listen to him by rote, but to go and experience things on their own, to do their own learning, and "test the truth of Buddhist ideas for himself or herself" (Wright, 2009 p. 199). Theory and philosophy alone do not "pervade body mind and heart… provide the foundation of a new identity" (Fischer, 2019, p. 150). Animism learned solely through cognitive means is not yet an animist epistemology and ontology. And animist views that are only alluded to are less than adequate: they are tokenistic.

In *Design and Nature* (Fletcher et al., 2019a), we questioned modernist norms of delineating and claiming knowledge and practices that permeate design and academia. These forms of knowing establish hierarchies and distance between people and nature.

We speculated that we need to enter “a dynamic, unpredictable and messy process rather than one that is delimited or framed by an academic discourse that attempts to pin down, claim or quantify knowledge and ways of knowing, and thereby instrumentalise knowledge” (p. 10).

While working together on the *Design and Nature* book, we found that it was helpful to replace some conventions with other conventions, often literally switching out the way that we sat or held our bodies, closing our eyes, going out of doors, because ….

> Whatever was happening outside, in the real world of rushing air and changing light conditions (for we are not talking here about places of wilderness or especial beauty, but outside in alleyways, between buildings or at the edge of a muddy path), forced us to enter the world more physically, and this made a difference. Being less ‘in your head’ and more ‘in your body’ precipitated a change in experience that kept spinning a thin thread between reality (and all its attendant environmental challenges) and the abstract world of ideas.” (Fletcher et al., 2019a, p. 399)

Now, here in my café, I am in my favourite spot at the workbench that runs the length of the window. It is sunny today, a rare treat in Vancouver. This January of 2020, we recorded only 1 day without rain (Wet Weather, n.d). And as will happen on these rare sunny days, the shadow from the wall beside me is slowly sliding away along the workbench. Soon it will be too bright on my computer to work. The days that I get here early, I can have several hours to work in this privileged shadow. This jostling between shadow and sun is a good thing. It brings me into an awareness beyond the words on the screen, beyond the thoughts in my mind. Returns me to the sensory and experiential world.

Design for All Beings

The international DESIS (Design of Social Innovation for Sustainability) community shares research based on the compelling premise that communities and individuals need to change in order to achieve ecological sustainability. This network of over 50 labs worldwide does not propose technological fixes. Instead, we design for societal change and community building to establish the conditions for sustainable lifestyles. A research group within the Emily Carr DESIS Lab, *Design for All Beings,* has been questioning the implication that social innovation only included people. Surely, to build sustainable

futures, humans need to be in dialogue with the Earth, and with more than humans! The importance of this was recently acknowledged by DESIS Network founder Ezio Manzini (2020):

> what we have to trigger and support are social innovations in which people change their behavior and act collaboratively, giving voice to entities that, in themselves, are “voiceless”: a river, an endangered species, an ecosystem.

Manzini’s tentative use of the word *voiceless* may be an indication of how new this kind of thinking is to mainstream practitioners. His phrasing conveys a lingering uncertainty about how real the voice of a river is. As I mentioned earlier in this thesis, design communities are deeply embedded in humanist epistemologies. Animist thinking is usually discussed through academic terms like “multi-species” (Haraway, 2016) or “non-human” (Grusin, 2015), or “post-humanism” (Wolfe, 2009). These terms frame animist scholarship at an intellectual distance from the reality that the natural world has intelligence, voice, and agency.

The *Design for All Beings* research group has secured small grants from the Ian Gillespie Research Fund at Emily Carr University. This enabled two phases of research about more-than-human life in coastal tidal zones. The first phase, *Rockfish Paper Scissors*, was focused on rockfish, a declining local species. The second phase, *Design for Biodiversity* looked to a wider community of interconnected lives and beings.

Beginning with the Thing: Rockfish Paper Scissors

A group of researchers led by Louise St. Pierre, Zach Camozzi, and Anna Dixon, initiated phase one of this research project. Called *Rockfish Paper Scissors,* this was ostensibly to develop rockfish habitat. The grant funded Research Assistants and some expenses to support the project team that included several teaching faculty and graduate students. Marine biologist, Amanda Weltman, from the Coastal Ocean Research Institute (CORI) was also central to the team. Thirty-eight undergraduate industrial design students also participated exuberantly. The project brief was set by CORI: to design habitat for Rockfish, a coastal species that has been overfished. This brief was a bit questionable. Rockfish need regulatory support more than they need habitat. This species must live for at least 20 years before they can reproduce, so they are particularly vulnerable to overfishing. However, the request for designed concrete or

rock habitat structures helped us to engage young designers. The brief offered them a specific and tangible goal to work toward and motivated students engage in a project that was about designing with nature. Designers are unsure about their roles when designing with nature (Fletcher et al 2019a). We were asking students to do projects outside of their preconceived notions of role of the designer. The research team had many questions about designing *with* nature, or ultimately, as I indicated at the beginning of this dissertation, to design *within* nature. We had questions about how designers might or might not empathize with what Abram (2013) calls the 'invisibles', creatures that we cannot see (p. 128). Underlying all of this was the research question: how might animist relationality, understood as a vulnerable relationship with the mysteries of the natural world, enter into design pedagogy?

Faculty guiding the *Rockfish Paper Scissors* project invited students to engage with beings under the water and along shorelines. Blenkinsop (2018) articulates the value of turning to nature as a teacher:

> New relationships and commensurate language will arise slowly out of action — actual engagement in new ways of being present to, and interacting with, the world (in Jickling et al., 2018, p. 36).

In the early weeks of the project we explored multiple practices. Research Assistant Reyhan Yazdani developed paper fish as symbols for anchoring thoughts and learning about rockfish. Some of the students carried their paper fish through the 5 weeks of the project (DESIS Lab, n.d.). Zach Camozzi, the lead teaching faculty, hosted animated role play in the classroom; we hid under chairs and imagined what it would be like to be a rockfish resting, hiding, or being chased. The research team took the students outside as many times as possible. One noteworthy experience was a shoreline walk with Squamish guide Nicole Preissl (2018). This is where we learned to make rope from iris leaves (see also St. Pierre 2019b). On other walks, students developed ideas by prototyping within nature, a method developed by Camozzi, (2019). Students also went to the aquarium to observe rockfish (DESIS, n.d.). These direct connections with nature were unsurprisingly powerful. A few students were inspired to take their research further, and went diving in protected marine areas at Porteau Cove, North of Vancouver.

Project responses varied. Some students noticed that seagulls had messy eating habits that might benefit rockfish by dropping food remains into the water. They supported this

interdependence by designing strategic places for seagulls to perch, eat, and drop food. But with few exceptions, the students engaged in making models of underwater habitat. At the end of the semester review, concrete scale models filled the room: Modular, tesselated, crenellated, ovoid, stacking, interlocking, geometric, abstract, fissured, organic, and architectural. Design students made *things*. Two guest biologists, Jeff Marliave and Donna Gibbs, came to the project review and satisfied our designerly need to talk about pragmatics by discussing the complexities of installing structures under water. They affirmed the students who designed for interdependence. But they also said what we had expected: “Nice stuff here, but rockfish don’t really need more rocks” (Marliave and Gibbs, personal communication, December 2018). What rockfish need are fishing bans, as well as the rejuvenation of kelp forests that formerly filled the coastlines. Kelp, rockfish, seagulls, and all living beings, are interdependent. We will either thrive together or decline together. After this first phase, we were eager to shift our research attention from the *things* (habitat structures) to the *relationships*.

Beginning with the Relationship: Design for Biodiversity:

When our team secured funding for a second phase of the project, we decided to center on our true objective: to design for biodiversity in the tidal zones of the West Coast. We wanted to find ways to support people’s emotional connection with the world of “invisibles” (Abram, 2013, p. 128). These are underwater species that could not be seen but are all critically important to life on the coast and on the Earth. The challenge was how to effectively engage this next group of second-year students. In this second phase of the project, instead of asking students to design modular habitats, we asked them to design a tool, a system, a ritual, or an event, that would help people connect emotionally with the world at the water’s edge. We changed the terms of the learning from *design as service* to *design for relationality* between humans and more-than-humans. We guided students towards designing communities inclusive of more-than-human beings, which brought us to our definition of social innovation for sustainability. An interesting pedagogical note was that in order for the students to design an entry for empathetic experience for others, they would have to first find it in themselves. This was key. If they searched for their own points of access, they could “threshold” (Barrett et al., 2017, p. 132) themselves toward visceral understandings of the natural world. Threshold concepts are “portals of understanding that lead to a new or ‘unknown space,’ or new

ways of thinking about a field of study." Phase two of the research opened the possibility of new spaces, activities and engagements focused on connecting with life at the shoreline. We had found the perfect way to encourage students to invest in their relationship with wildness.

We had gained several pedagogical insights during the first phase. Direct learning in nature was important, and visual cues could help to anchor knowledge and carry understanding from the outdoors into the classroom. Zach Camozzi, working with graduate student Zi Wang, took inspiration from Yazdani's paper fish markers to develop extinction game cards and other visuals for in-class role-play that brought the outdoors into the classroom (DESIS Lab, n.d.).

Continuing to build on our experience from the first phase, we again invited Indigenous perspectives. Carlene Thomas, a Tsleil-Waututh speaker, gave a dearly intimate and eloquent talk to students and faculty about her people's history of caring for these shores "from time out of mind" (Thomas, 2019). Carleen's talk made it personal. She showed images of ancestors, family, and friends who had lived within the biodiversity of "littleneck clams, butter clams, horse clams, barnacles, urchins, fish, and orcas." This was an emotional and intimate sharing. The importance of the project became manifest and visceral. Because it was a sharing, we felt part of this worldview, embraced by the Tsleil-Waututh culture, and invited in as fellow guardians of the shores. Carleen offered us a direct and felt experience. According to Fesmire (2012), "we cannot respond to what we do not perceive, and we will not respond to perceptions unless they are immediately felt" (p. 217). After hearing from Carleen, the research team and the students were powerfully motivated to work on this project and to pay attention. In other words, to start to know and feel with other beings.

Andrew Simon, an MDes Candidate under my supervision, aligned his research work to focus on designing pedagogical activities that would help students anchor themselves along any of the many local shorelines. In his early field research with marine biologists, Andrew discovered that despite their rational and scientific roots, these biologists showed acute intuition. They seemed to see *where* and *how* different organisms live below the water (Simon, 2020). I wondered if this intuitive capability might allow some people to hear from rockfish about what they need. Abram (2010), in his discussion of shamanism, seems to think this is possible. He met many shamans who spend time in

close connection with nature. Their heightened awareness allows them to "[communicate] with plants, with other animals, and with the visible and invisible elements" (p. 236). Biologists also spend a lot of time simply paying attention. Their occupation requires patient close observation, the kind of attention that I have described in this dissertation as essential to making the contemplative turn to animism. As Andrew saw, a quality of attention can override the boundaries of the modernist worldview. Inspired by this, Andrew designed a series of prompts that could help students train their attention towards nature. He prototyped sealed booklets to give students on Fridays after class. This embedded a temporal rhythm, as the course cycled through the weeks, from Friday to Friday. The participating students took this pocket-sized booklet to their selected location near the water's edge. On the surface of it, there was a suggestion to practice meditation for five minutes before breaking the seal. Opening the booklet revealed a set of activities grounded in somatic learning. Andrew focused on a different sense each week. "How did the smells, of algae or salt or sand, affect you?" (Simon, 2020, p. 27). From that, the prompt supported the subtle practice of "cascading" to commit their somatic experiences to memory. Exit surveys from the students showed an overwhelmingly positive response to the activities. The pleasure itself is unsurprising. We know from many sources that time spent in nature is joyful and healing (Gillis and Gatersleben, 2015; Kellert, 2018). What was most significant was that this method brought young designers into a relationship with nature, and helped them to set aside any focus on productivity or instrumental thinking for periods of time. Andrew's research indicated that the act of careful attention (*staying still*) was more effective at bringing students into a relationship with other beings than simply doing outdoor activities (*moving about*). Qualities of attention were evident in student written responses at the end of the project. Students mention new fondness or affection for other creatures and an increased awareness of the nuanced variety in the natural world. Some students appended reminders to themselves to be sensitive to all forms of life when designing.

This phase of the research was filled with moments of connection with nature. Early in the process, the students practiced Earthbond Prototyping (Camozzi, 2019), a method to directly engage the agency of nature by taking cardboard or wood models outdoors for exploration. "Pay attention," says Camozzi, "because the goal, through practice, is to invite understandings of sentient and non-sentient relationships, not to remove oneself from the place by imagining" (p. 148). Over the next few weeks, students developed

propositional sketches, (these are slightly more detailed than the *sketch models* I referred to in *After the Fire,* Basket Four*),* that showed a range of approaches to designing with nature. Some projects endeavored to 'solve a problem' in the traditional practice of designing for a client, such as hand powered grinders that would grind seashells and return calcium to sea water. Another direct problem-solving approach resulted in beautiful tools, recipes, place settings, and rituals to encourage harvesting and eating sea urchins, which are becoming a nuisance species on the Northwest coasts. The students saw that design could re-shape conceptions in local culture: their designs helped North Americans accept and enjoy eating sea urchins as a delicacy. They also showed an understanding that predation (in this case careful human consumption) can play a role in balancing ecosystems.

One team of students attempted to reconsider human relationships with nature by designing a chair to be installed in an intertidal zone. Throughout design history, designing a chair has been a seminal industrial design project for students and professionals. In this case, the designers created a chair that appeared conventional, but was made from mixed mortar and seashells. It had attenuated legs that would erode, gather other life forms, and through these new relationships, morph into a shape that was for others…. no longer for humans. The project questions presumptions of human entitlement.

Other propositional sketches endeavored to create relationships between people and nature. This form of social innovation, as I describe in a later essay, *The Merit of Salamanders* (Basket Five), acknowledges that all beings are social. We can (and need to) have social relationships with animal, mineral, and plant beings. While many of these projects are experimental, they entice people to relate with nature through sensory and experiential engagement. For instance, a dockside kelp garden is built on pulleys so that the kelp could be pulled up in order to see and touch the changing qualities of kelp life. In another project, a waterside ritual was developed. An organically shaped vessel was filled with seawater and poured back into the inlet, again and again in a ritual that mimics and resonates with tides. Along the spectrum of spiritual and sensory, one team designed a tree planting ritual. The cedar box contained seeds, matches to light sage for smudging, a feather to waft the smoke, and instructions for planting. This project, like many others, acknowledged that many interdependent factors contribute to a healthy

ecosystem and vitality of life at the shoreline. It drew out parallels between how a healthy forest of trees has overlapping and interdependent needs, as does a healthy forest of kelp. They are both complex ecosystems.

In this Design for Biodiversity project, the research team seeded the premise that design with nature is about much more than analyzing and serving a client. In the first of our two research projects (*Rockfish Paper Scissors)*, the rockfish had been seen as a client, and as a result the analytic and solutionist mindset had dominated. By establishing contemplative practices of connecting with nature, we interrupted the momentum of the design process and allowed openings for emotional, somatic, and experiential learning. We explored many practices, including *remembering* (Simon, 2020, p. 18), *thresholding* (Barrett et al., 2017, p. 132) and Earthbond Prototyping (Camozzi 2019). The challenge to understand and support kelp ecosystems countered many tendencies towards fragmentation. It tempered any tendencies to seek immediate technical or solutionist fixes to environmental problems. The Design for Biodiversity project opened new moments and different ways of knowing. This research is incomplete and ongoing. It continually becomes enriched and deepened by other people engaged in the research, and by the more-than-human beings that we are present with.

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The Merit of Salamanders

The short essay below responds to the DESIS 2020 call to respond to planetary urgency, and was published at www.desisnetwork.org. In particular, I respond to Ezio Manzini's statement that design should be "giving voice to entities that, in themselves,

are "voiceless": a river, an endangered species, an ecosystem” (2019) As a designer who has been engaged in concerns for the environment since 1995, I know that biodiversity is critical.

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We are learning that a world without biodiversity does not function; that no people can escape the devastation that will be wrought on a world without ecological diversity. “Biodiversity is just as important for the future of Earth as climate change,” states Sir Robert Watson, chair of the Intergovernmental study by the United Nations (Vidal, 2019).

In a recent lecture, David Abram estimated that in a world without biodiversity the human species would only survive for two generations (2017). This is despite all of our technologies for renewable power, manufacturing artificial proteins, cleaning air, desalinating water, and (yet-to-be-proven) carbon capture technologies. These technologies, it seems, would be inadequate to sustain life. Only ecosystems filled with diverse plants and animals can do that. Biodiversity gives us clean rivers, healthy food, and clean oxygenated air. In addition, there is something more complex, deep and spiritual at hand: Abram was also saying that human species would suffer from profound existential loneliness without the multitude of unseen lives sharing the Earth with us, and that there is an implicit caring relationship between humans and other species, whether we are overtly aware of these relationships or not. Can we begin to prioritize these multiple relationships? Val Plumwood called these multiple centerings (2009/2013); a worldview that acknowledges other species alongside humans. I wonder, what kind of social innovation might offer multiple centerings?

Robin Wall Kimmerer lives in close relationship with other species in her ecosystem. Kimmerer, a scientist and member of the Potawatomi Nation, writes of taking her flashlight out in the early spring’s rainy evenings to safeguard the migration of thousands of salamanders across roads in New England (2015). When she hears a car approaching, she rushes to carry salamanders from the roadway to safety. I don’t know much about salamanders, other than that they are soft-skinned amphibians that look like small lizards, but someone like Kimmerer knows them well. She lives with a deep, planet-centered awareness of the rights of other living creatures. What might the world

look like if we all shared these views? How might this worldview inspire social innovation?

Social Innovation for Biodiversity would first and foremost invite the social friction that comes from accepting the needs of other beings, rather than (as the worldview of Enlightenment in Modernity would have it) brushing the salamanders under the road by building them a culvert, obscuring their needs from view and allowing the people to drive on, oblivious. Perhaps a series of evening ‘tent parties’, where neighbours halt traffic to watch the salamanders parading by? Maybe a salamander watch, where participants come out to count salamanders and a local café sponsors the picnic dinner? A flag crew that halts cars and salamanders alternately? These sorts of responses draw on the DESIS principles of relationality; designing to suit the specific context and to create relationships among communities. It is also a social justice conversation, where the social community is defined in the broadest possible sense. When community is known to be inclusive of all beings, whether salamanders, eagles, wombat or platypus, each and every member of the community has a right to be heard, be present, and have their needs met. In this way, we can expand and grow our DESIS expertise: “With a turn to participation of and partnership with multiple species, the challenges and gifts of participation should be multiplied” (Fletcher et al. 2019a, p. 201). This form of social innovation builds awareness of the complexities of local ecosystems, the power of biodiversity. It invites us to sit on the ground and be with the Earth, learning about other forms of life. It invites widespread social change, and a change of heart.

At Emily Carr University DESIS Lab (DESIS lab, n.d.), we have discovered that prioritizing the needs of the planet is challenging. Funding for research with creatures who don’t have obvious usefulness to humans is scarce. Even when designers set our planet-focused intentions clearly from the outset, it is hard to remain true to those intentions. There is the distraction of technology; the wish to turn things into apps, to digitize information. There is the distraction of the design process itself, a process we all love, with its rich brainstorming, sketches, models, exciting conversations. Sometimes the idea becomes the focus and the design process carries us away. Ideas can become so captivating that we find ways to rationalize them, and before we know it, we are pursuing projects that diverge from the values we began with.

We are all still in the process of developing a culture of design that is critically informed about the needs and rights of the planet, inclusive of salamanders and other beings. We are still learning how to engage with other beings, and how to consult with them. The Union of Concerned Researchers in Fashion (Union, n.d.), suggests that we build an 'activist knowledge ecology' to help designers clarify priorities. At the Emily Carr DESIS lab, we find that reminders of nature during the design process help. Taking everyone outside (and outside again) is basic. Most of us have been conditioned to a world almost completely divorced from nature. It is helpful to reassert and remind ourselves of the deep spiritual connection to the Earth. Journals, drawings, and other embodied methods for tracking nature are integral to a design process that focuses on the planet. It is also helpful to work with a steward, elder, or mentor. There are 'Kimmerers' in every part of the world who are deeply connected to land and place, committed enough to collaborate with a handful of students and designers.

This work is just beginning. It is new, and in need of more discussion, and more research. But anything that brings designers and people in closer touch with the needs of the planet is profoundly important. And urgent.

~

A Shift of Attention*

The first time I spoke with a tree was at the urging of a First Nations Elder who simply entreated me to talk to a tree; no further instructions. I had no idea how to do this. So, I started with what I knew: to meditate. I sat in a close old-growth forest and practised slowly returning to my breath until I was ready to speak to the giant red cedar before me. I confessed that I didn't know what I was doing, but that I wanted to talk with her. Almost immediately, I experienced a soft sensation of knowledge that came from both outside and inside of me. I heard "I am here." There was no definable origin for the message. The statement was simple. It was also the existential or experiential truth-in-the-moment, which I felt compelled to honour.

I left that forest profoundly moved and deeply certain that trees can be heard. It was an experience that changed me. I have since taken up practices that allow me to listen, to shift my attention, to be a student of nature. I draw on Buddhist meditation and philosophies along with creative design practices like drawing and journaling. This is how I search for what students of the Buddha who are also designers might call, 'the right relationship between design and the Earth.'

> This is a quiet mountainside. Tender young lodgepole pines crowd softly together. The morning sun backlights their needles, jewels against the mountain across the valley. Slender stems reach eager for the sky. I close my eyes to "hear with my whole body" (Loori, 2007). The pulsating forest chirps tweeters calls… hums, bubbles, burbles… everything rustles with gentle rhythms punctuated by the lilting song of the Swainson's Thrush. I hear the Earth herself. She is alive. She is creating. (St. Pierre Journal, May 2018)

Journaling, drawing, and ancient practices like Buddhist meditation and philosophical study offer me a path to reflective, non-self-centred engagement with the world. Through these practices, I have come around inevitably to views that can only be described as *animist*: the certainty that all life forms have knowledge and agency and that humans are interdependent with all these others (Harvey, 2013, Plumwood, 2009/2013, Nhat Hanh & Weisman, 2008). I have been surprised at how accessible these animist ways of knowing are to me. Could this be as readily accessible to others?

My practices are varied and can be chosen in the moment. I often begin by drawing trees. I move my hand across the page as I sit with the forest around me. Breathing slows, and the lines just happen: fluid sensuous ink roams across the page. The drawings are not much to speak of, but the practice of doing them is what is important as it helps to focus attention on the place, the movement, the moment. It is the same with journaling. These journals are a free flow; a bridge between observation, meditation, reflection and study. They are ways of staying present in my body, of paying attention to the particular, of being a student again. I learn this way.

My practice of drawing and journaling is rooted in Buddhist teachings. For many years, I have studied and practiced with a local Buddhist community (a *Sangha*). Here also, I am a student. I am drawn to many tenets of Buddhism: the call for a simple life without resource intensity; the commitment to interdependence as a lived experience. Vietnamese Zen master Thich Nhat Hanh uses the present tense, we 'inter-are' (2001, p.

55), to inscribe interdependence as an ongoing way of being, an ontology, a path, rather than a fixed understanding or theory. Many Buddhist texts declare intentions to support a diversity of beings “whether born from eggs, from the womb, from moisture, or spontaneously; whether they have form or do not have form; whether they have perceptions or do not have perceptions” (Nhat Hanh, 2007, p. 345). Buddhist study helps me see myself as a being among many other beings. It has prepared me for the animist and interbeing practice of talking with trees.

In many Indigenous Cultures, all entities have been assumed to have their own voice. Trees, rocks and mountains may have a slower pulse than humans and thus various modes of communication (Abram, 2017). But they do speak. As Thich Nhat Hanh (2013) says, “A pine tree is not just matter; it possesses a sense of knowing” (p. 11). The animist belief in the voice and agency of all beings is less mysterious than many assume. Early colonisers could not understand Indigenous animism; interpreting animist practices through the lens of scientific rationalism, they assumed that what they saw were primitive beliefs that humanoid spirits and demons that could “inhabit and animate materials objects as separate drivers” (Plumwood, 2009[2013], p. 449). Tales of spirits and possession have distorted the Modern West’s understanding of animism. In what might be an attempt to dispel this misconception, Abram (2013) suggests a pragmatic view, that animism may have been a practice that helped Indigenous people stay attentive to the unseen qualities and forces of the natural world around them, a world that many of them relied on for survival. Regardless of the context, animism honours the unique agency of other beings, beings that have their own vitality that is distinct from our humanness, and distinct from each other. In that animism respects an otherness beyond our human realm, it is also a spiritual practice.

Like all skills, animist communication has taken me time and practice to develop, but the practice is rather straightforward. It is not so different from how designers learn to read visual language, or how musicians work to become sensitive to tone and pitch. It requires becoming aware of, and then quieting my thinking self, so that I can attune to the differing speeds and modes of communication in the other than human world. Setting aside discursive mind and turning back to the moment, turning attention to the felt sensations, to the body and breath, time after time: this is the practice.

In Buddhist philosophy, we understand this type of direct experience as a greater wisdom, over and above an intellectual or anecdotal appreciation. Mindfulness practice returns me again and again to a sensorial, corporeal, somatic mode of being in the world; a phenomenal ontology that deepens my relationship with nature. At times I pause to touch a tree, or lean the length of my body against hers. Often this brings a sensation of energy or warmth. Sometimes communication. But it is not predictable. My Buddhist practice teaches me this happens, that the communication is impermanent and not to be pursued as an end in itself.

I once met a cedar on the edge of Stanley Park overlooking the sulphur piles on the banks of the North shore. I noticed she was covered in ivy, an invasive species here on the West Coast. I began to peel the ivy away. After a few false starts, it separated from the trunk in glamorous billowing sheets. I tramped the circumference of the tree, pulling at remaining stubs. Suddenly I felt a strange sensation of warmth, a sort of glow emanating from the tree (St. Pierre, 2017). I stopped, unsure of what was happening. It was palpable. Was it an emanation of joy? Gratitude? I am not sure if those would be my humanist interpretations; emotions read on my own terms. And why would I try to interpret this anyway? The tree has a way of knowing and being that is foreign to what Western traditions have taught me. But still, the tree has something to say, and given more practice, I might begin to understand.

My practice takes different forms. Some years ago, at a silent lake surrounded by mountains, I tried something learned from Robin Wall Kimmerer (2015): to relate to all beings as named and gendered. I focused on my surroundings, and then as a small incantation, I murmured “Mountain, she is solid on the other side of Lake. Lake, he is as still as glass. Cloud, there you are, a light puff! Loon, she is quiet today.” Suddenly, MountainLakeCloudLoon became powerfully present as a physical sensation. I was overtaken. A full body awareness of another much larger presence expanded under and through my skin and inside my bones. It took my breath away. I shook myself quickly from that overwhelming moment. I have since understood that this hasty retreat was not a failing on my part: moments of awe cannot usually be sustained (Blenkinsop, 2005). Yet I know a great deal from them.

> Feeling parched and overheated from the sun on this mountainside, I find a place to do Touching the Earth Prostrations (Nhat Hanh, 2013). Forehead and knees to the hard, dry ground, stinging from tiny stones and pine needles. Ouch. Up. Bow.

> Down on knees again. Palms to the sky in this ancient Buddhist ritual, I affirm my gratitude for the Earth. The Columbia Ground Squirrel nearby is beeping his alarm, a furious pulsating beep. Beep. I stop and notice: Oh! There is a hole right beside my foot… maybe it is his burrow. Stepping away, I take a breath. Yes, he is quiet now. Standing and breathing, the world suddenly shifts. I disappear. I am air. I am a breathing part of this forest. My chest expands and I float with the air that slips around me, this hot Earth, this pine tree, that ground squirrel. (St. Pierre Journal, Manning park, July 2018)

In that moment I felt both interconnected (at one with) and charged by the unknowable outside of myself (expanded). It was what Abram (2017) describes as “an alterity that exceeded my own sentience... a connection with something unknowable, an enigma that drew me into Earthly relationship”. I became aware that there was no separation between me, Earth, trees and ground squirrel. I understand that many First Nations communities do not consider our human skin as a boundary or separation between humans and other beings (Beeman & Blenkinsop, 2008). But even as there was no separation, I did not lose myself; interconnection was neither a unification or a dispersion, but a humbling and heart-opening sense of myself among others. It was what Bai (2001a), who writes about ancient Korean animism, calls sympathetic resonance, “the perceiver’s participation in the perceived… a communion, a transfusion between them” (p. 21).

In Buddhist teachings, relationships become a third knowing: “You and I are the same thing, yet I am not you and you are not me… There is a reality that transcends all dualities” (Loori, 2007, p. 36). I felt opened to a space outside of myself, a knowing beyond being human, a great wonder. I was in relation with beings I perceive as completely different from myself. It was what Abram (2017) calls “a genuine magic”. Children who have not been conditioned into Western dualities can access this magic more easily than adults. One nine-year-old has described her animist conversations exactly like mine: “Little words curl into your mind” (Blenkinsop & Piersol, 2013). Astonishingly, she went on to specify: “You have to know that you’re not thinking.”

Buddhist practices help me identify when I am thinking or not. My design practices of drawing and reflective journaling also take me from my thinking self to my body, and help me let go into a wonder of animist awareness. Many design practices can support other ways of knowing. Sketch models, drawings, reflective documentation, role play and storytelling can unlock designers from their thinking self and help them see things

differently. Like animist practices, they shift the body and “spread mind and creativity out much more widely” (Plumwood, 2009[2013]). In design, we use these methods to seek insights and to explore new relationships. As designers we can choose what we pay attention to. We can set our intentions beyond the human-centred. These design practices are only a slight remove, requiring a mere shift of attention to enable animist learning.

It is a small turn, a shift of attention maybe just 20° away from what we have been taught to seek, to bring attention to the living Earth; to forests, ravens and ground squirrels. To bring ourselves to something larger than ourselves, to see that everything we do, in design or otherwise, belongs to the Earth. This is right relationship. Animist awareness brings a fierce questioning of Modern Western priorities in design. It closes the door on our old priorities of commodification, individualism, acceleration and distraction: once we know the reality of the natural world, there is no going back. Animism has allowed me a route into a fuller understanding of my place within and dependence upon nature; of our shared place within and dependence upon nature.

~ end pre-published essay **~**

Remembering All Beings

Many types of reminders are embedded throughout Buddhist practices. We remind ourselves regularly, sometimes hourly, daily, or weekly, or monthly, of our interconnections, our vulnerabilities, our inevitable death, and our dependence upon other beings for survival. These reminders can take be part of formal services, chants, recitations, or *gathas*. *Gathas* are short sentences recited silently to oneself throughout the day (Nhat Hanh 2007). Practices like this often inquire into the meaning or implications that our actions have for all beings. When reciting a *gatha*, we do it silently while engaged in the practice of the moment. This brings our body into the recitation. For instance, during the COVID-19 crisis, this *gatha* was offered by Mountain Rain online: “When I wash my hands carefully, I vow to cleanse body, heart and mind. May all beings be free from harm. May all beings be well” (Mountain Rain, n.d.). This recitation focuses first on the present moment (hand washing), then brings awareness to the implications of one’s actions for the benefit of all beings (free from harm). A g*atha* is thus grounded in the action of the present moment. This distinguishes the *gatha* from the mantra. A

mantra is a sacred word, phrase or sound that is repeated consistently during activities or during meditation: the phrase stays consistent despite the activity (Murray, 2018). In practicing with a *gatha*, the words connect with the activity at hand, and one aligns one's breath with the words. Any moment is then an opportunity to recite a *gatha*. "Reciting gathas is a good way to meditate while engaged in any activity, be it sacred or mundane." Such reminders are what mindfulness (*sati* in Pali, the historical language of the Buddha) actually means (Kirmayer, 2015). The "the terms sati and smrti refer not to bare attention but to memory and remembrance; hence, mindfulness meditation may not involve simply cultivating present-centered, nonelaborative, and nonjudgmental attention, but include remembering the goals of practice based on previous memory and learning" (p. 451). This frames mindfulness as a process of learning and re-learning, a process that is embedded in ethical goals that can orient humans towards wisdom, compassion, and lovingkindness. We extend this care to all beings. In Zen Buddhist traditions, the intention to direct one's efforts for the benefit of all beings is known as the Boddhisatva path. The Boddhisatva path is a compassionate path. We often recite "all beings are numberless, I vow to save them," even though we do not expect ourselves to attain perfection in our efforts. It is said that if we have saved a life, "even if only an ant or a worm" (Nhat Hanh, 2006, p. 81), we have added to the "great ocean of merit" (p. 82). Intention and actions are what is valued. At this time in history, facing the extinction emergency, the climate emergency, toxicity and water emergencies, it is crucially important to direct our energies toward serving the needs of the planet. The sensibility that both small and large acts add to the 'great ocean of merit' is a sweeping embrace of acceptance and inclusion. It is a powerful and gentle invocation to all of us, to help us direct all our efforts carefully.

As I have noted, design practice and pedagogy at this time remain focused on human needs (Meyer and Norman, 2020). In this context, regular reminders are needed to bring awareness to the reality that humans are but one species among many. These reminders are a form of deep remembering; at some place within our bodies we know that a life in full connection with the Earth is restorative and profoundly right and centering (Wilson, 1984). According to Murray (2018), anyone can write their own *gathas*, observing the practice of aligning breath with short phrases about the matter at hand. *Gathas* specific to design pedagogy can mesh with and complement existing studio practices. These could support designers in our turn from modern rational

technocentrism towards a holistic understanding that we are all in this together, in community with all beings. I have written the following *gathas* and offer them with the hope that they might nest within the world of the design student, and might help to bridge spiritual and technocentric worldviews. These drafted *gathas* below will to be tested, explored, and experimented with in the coming years. I will ask my students to write *gathas* with me, and to share their reflections on this practice. I hope that *gathas* can be used by designers to help them remember our interconnection with all beings, that we "inter-are" (Nhat Hanh, 2001, p. 55).

Gathas for Designers

I move my fingers across these keys. As I develop these ideas, I pause to direct my attention to the Earth. May the Earth heal.

My hands shape this model carefully, knowing it will be realized in [name of plastic]. This plastic comes to be through much suffering. I pause to consider all the chemicals and modifiers that have been added to it. May it never be disposed of.

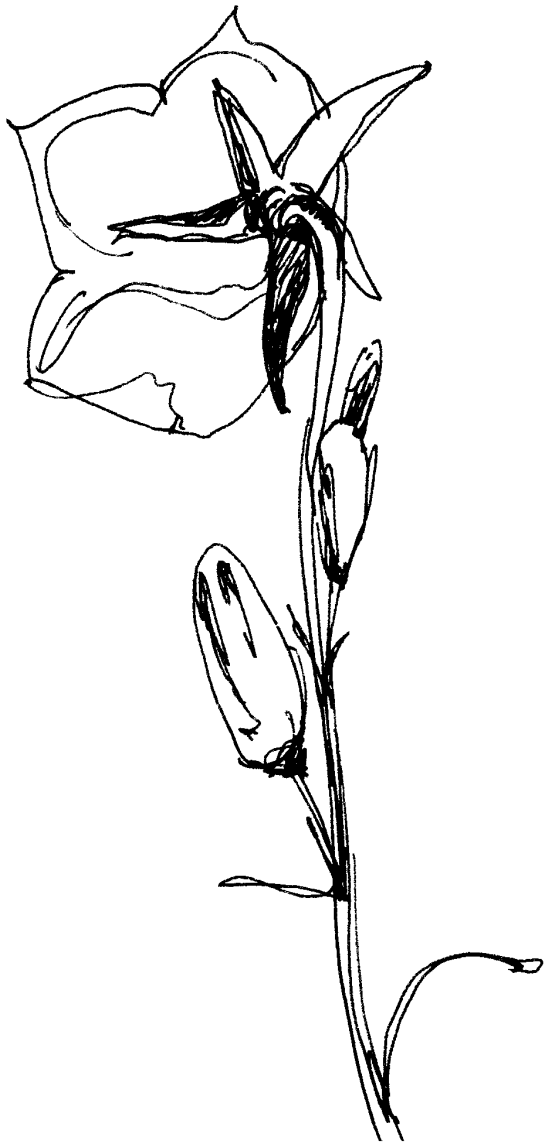
I stroke the sandpaper across this wood. I savour the smell, wondering how many creatures were sustained in the forest this was once part of. I offer gratitude to them for giving up their home.

My hands and body move across this wall where we post our system map. This project will touch humans and also more-than-humans. Let me usher these ideas into the world with care.

The lines move across the page, as I consider endless systems. Let this help to restore the ecosphere.

I set out my co-creation materials. I vow to listen with my body, remain open to difficult conversations. May all beings be heard.

This project taking shape on my computer, my sketchpad, and in my dreams, will inspire others to realize the importance of all beings. I offer my creativity to the world. May all beings be well.



Sketch 5: Early Campanula (Bellflower), 2017

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Appendix: Reflections

Reflections on making Cedar Rope

St. Pierre journal, August 2019

Body: sitting on my red chair. Finding ways to hold rope taut as it slowly gets longer. I need to use my teeth to hold the rope, and then as it gets longer I have to hold it between my knees. My hands enjoy the action of twining, it feels natural to me.

Perceptions: lovely sensations of squishy cedar, and a great smell of sap. The sap is sticky. I shift positions to hold one end in my teeth the other in my hands. Then I shift again to hold it in between my knees. I can feel the sap residue on my lips, and a sensation of sap sticking to my jeans between my knees. The smell and taste are bitter and astringent. I'm enjoying the colours of yellow cedar as it twists itself around the contrasting colours of the outer surface and the inner surface dark and golden. The texture of the rope changes, becomes fat in one place. I unwrapped it and redid it to try to have a consistent width, but it stays the same even the second time, with a bulge about three quarters down its length. It must be the nature of this piece of material, this strip of cedar. It must be the nature of rope to be uneven. So I allow it. Finishing the rope, I curl it into a spiral so it will fit into the envelope that I am sending to Kate. A spiral coil. How will I dry it in time? Maybe I will… (Stop) here I am becoming discursive. (Stop)

Back to feelings: joy. An upwell of gratitude within my body, expanding my chest, lightening near my shoulders, and heart.

Mind: I question myself: do I have the right to make cedar rope, this ancient Indigenous practice? It brings me such joy, such a huge feeling satisfaction. I reflect on the constant negotiation between my body and the material, how I moved the end of the rope from teeth to knees. The experience stays with me. The taste is sticky on my lips. I continued to taste that for hours afterwards.

I wonder about the gifting practice. Is the joy of gifting this to Kate's part of my sense of gratification? Accomplishment? Is the joy integral? I think so. Looking for a scrap of cloth to wrap the damp rope, I try one first that feels too light, synthetic (it was James's old checker dependent pyjamas). It felt not right. Then I found his discarded yoga pants,

grey fabric made of bamboo. I wrapped the coil ceremonially in this gentle fabric before tucking this into the envelope. The envelope becomes quite fat actually. I wonder about wrapping this more carefully, like the Japanese would, and then I remember that probably they would stay very simple with this. Keeping it humble.

Expanding outwards: what is the larger meaning of this act? Am I trying to please Kate? Do I plan to do a lot more rope making in the future? Is this part of my inquiry into indigeneity? Is this the beginning of something larger? I ask these questions because I am inclined to be a bit sceptical about my inconsistent fits and starts at making. Sometimes I draw and sometimes I don't. Sometimes I do visible mending practice sometimes I don't. I do a lot of these practices sporadically. I tend to think of my lack of consistency with some annoyance, and some deprecating scepticism. But I cannot refute the general joy of making marks and making with materials, and how my hands love to do things. How all of these activities aggregate in small ways. Maybe I don't need to be so critically evaluative all the time? Maybe I don't need to be looking at productivity in a conventional sense. I learned this criticality somewhere in my life but I don't think it is helping me now. In writing this, I find that if I look at it all differently I can support myself and build my capacity rather than whittling away at what I do. This is perhaps the gift of good reflective practice.

Reflections on making Fern Rope

Yesterday I made another rope from the discards I could make finding my own garden. These were dead fern fronds, and stems from corn flowers. I soaked them for hours/overnight, and then I twisted them into a rope. They were too brittle and too fragile, but I persisted and I did manage to twine a short length. It was not pleasant work, so very different from the making of the cedar rope. It was filled with worry and the sensation of drippy dead stalks in my hands. When it was done I hung it on the line to dry. This morning, when I sat to have my coffee I noticed that I wanted to move it out of my way. I had an aversion to this rope that I did not have to the cedar rope. The cedar rope had become an object of beauty. But to be perfectly honest the cedar was beautiful even before it became rope. It came to me coiled and beautiful shapes and twined together, and the cedar itself had that square section, an almost pleasing regularity. There was the golden side on one side and then just that one side that was darker. It was already beautiful. The fern rope began as dead brown brittle ferns, and still looks

like dead ferns. Maybe I need to combine this with other materials. Maybe on my walks I could look for what to harvest, I could carry clippers to make that easier. I could ask the first Nations community about what can be used to make a rope around here, or the Earthhand Gleaners (CITE).

Immersive Reflection: For students

Why do I research?

What do I research?

How do I design?

What is my relationship to this work?

How can I open up paths that are meaningful to me?

These are large questions. They cannot be answered immediately. GSMD 500 is a process of experimental making (ACTIONS) and immersive reflection that allows some questions and answers to emerge. This is Research by Design: intense and repeated actions of making (concept or craft) combined with deep critical reflection, called immersive reflection. According to Sevaldson, “Research BY Design, produces knowledge by engaging in the generative, in the act of designing” (2010:13). The synergistic cycle between action (concept or craft) and immersive reflection can draw out tacit knowledge that is held in our bodies and is often difficult to verbalize. Research by Design “emphasizes insider perspectives” (2010:8), bringing the designer into closer relationship with their work. This process helps to bypass the conditioning of our cultures, and counters the ‘dispassionate’ approach of Scientific Modernism. “Meditative practices, of the sort found in many spiritual traditions, broaden our range of perceptions, opening us up to what might be called an epistemology of the body—that is, to sources of information that are not mediated exclusively by our intellect” (Batacharya and Wong 2018:12).

Immersive reflection helps to uncover our deeper thoughts and motivations. It also provides a way to consider the wider, holistic implications of our design work. Immersive reflection may help you discover if you are judging yourself too harshly or limiting your own inquiry at the outset. It might help you realize preconceptions you might have that could get in the way of making connections across cultures and types of people, or with the natural world. It may lead to fresh questions for your research.

Examining and listening through our body, feelings and mental states is an essential aspect of immersive reflection. This may feel unfamiliar to many: because the dominant mode in contemporary education focuses on the intellect, it often takes a special effort to set the ‘thinking mind’ aside for long enough to hear our tacit knowledge; our knowing that is in our action (Schön 1983/2000).

The following guidelines or prompts for immersive reflection are drawn from contemplative pedagogies which have been pioneered in the fields of education and social sciences (Bai et. al. 2001, Johns 2009, Batycharya & Wong 2018). This guideline is not a strict set of rules: please adapt this process as needed, modify it as you progress.

Immersive Reflection: Process

The conditions of reflective process will vary, and your needs will change with time. Please use this as a guideline to begin, and adapt this process as needed.

1. Sit comfortably with notepad and paper close by. You will record rough journal notes for your private viewing. Later, you will extract reflections for your Practice Documentation.

2. Centre yourself. In many contemplative traditions, centering means bringing your mind back to your body. This can be as simple as 5 minutes of focused breathing to the belly (about 2 cm below the navel), paying close attention to the rise and fall of the belly on the inbreath and the outbreath. Or, it can be any centering method of choice, like yoga, meditation, walking, canoeing, etc.

3. Body Scan: run your attention over your body, looking for places that require attention. Breathe into any areas of stress. Contemplate the action you have just completed, and see how your body changes in response to your thoughts. Note or sketch this down.

4. What kind of perceptions did you notice while doing the action? Use concrete language*. For example: “Making cedar rope. The sap is sticky. I shift positions to hold one end in my teeth, the other in my hands. Then I shift again to hold it in between my

knees. I can feel the sap residue on my lips, and a sensation of sap sticking to my jeans between my knees. The smell and taste are bitter and astringent."

5. Feelings. Note the conditions of pleasant, unpleasant, and neutral. Try to describe feelings as they play out in your body. Example: "hmmm…remembering to come back to feelings: joy. An upwell of pleasant sensation within my body, expanding my chest, a lightening near my shoulders, and heart… the joy of seeing marks take shape, or feeling the materials through my hands."

6. Mind Scan: note the state of your mind. Is there joy, elation, worry, desire, impatience, etc.? These mental states can influence your reflections. Write about it. Example: "I am a bit impatient and annoyed. I don't like my lack of consistency. Is this work accomplishing anything? (judgement!)".

7. Re-center yourself. Think of this as coming back to neutral. Accept fully the work/exploration that you have completed. Now begin to engage in what we normally call 'thinking', and expand outwards with questions. Write about what this work means to you. What might it mean to others? How does it connect to the natural world? Example: Is part of the pleasure in this about knowing it is a gift for Kate? Is gifting important to me? Why? Do I plan to do a lot more rope making in the future? Is this part of my learning about indigeneity? Is this the beginning of something larger? Maybe even though all of these activities are different, they aggregate in small ways. Maybe I don't need to be so critical all the time? In writing this, I find that if I look at my collections of actions differently, I can be more supportive of my work, and build my capacity rather than whittling away at what I do.

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*Concrete language refers to words that can describe what can be experienced physically through the senses: touch, taste, hearing, smell. Concrete language is very specific, not abstract.

My Guided Meditations

After many years, I have become comfortable with offering this meditation. When I first meet the students, I tell them about the tradition that I follow and how I learned to do this. I practice Buddhism, but I am not ordained as a teacher, nor is Buddhism in my heritage like it is with some of my friends in my *Sangha*. And my intention is not to convert anybody, nor is it to offer a religious practice. This is a secular contemplative practice, without any affiliation. I might quote Thich Nhat Hahn who mentions "when we calm our bodies…we calm our minds." I tell students to come to me afterwards if they have questions or if they find discomfort in the guided meditation.

The quality of the room and the moment is very important. I will post a sign on the door asking people not to interrupt the session once it is in progress. This is sometimes a little bit awkward as it means there is a barrier to those who may be coming late to the room. But the community gets used to this after a while. I ask everyone to sit in a circle, placing their things (bags, notebooks, coffee, computers) aside so that their body is free of distractions. I always begin with body and posture reminders; it brings us all together in the room, and helps to set an opening for something to begin. It is a ritual of sorts. Many people are familiar with yoga, and some have done meditation, so entering in the body may be comforting and set appropriate expectations. I do this for myself as well. I bring myself into the moment and check with my body before I begin to talk.

I guide the meditation differently every time. Beginning with a deep body scan is almost always effective. I ask everyone to search their bodies for where they hold tension, and to pay close attention to that place perhaps releasing the tension. I once did a guided meditation where I walked everyone carefully through their bodies from head to toe, with the mention of gratitude for their "designer hands." This made everyone smile, and they laughed together about it afterwards. But can't plan ahead to cover things in my talk… I can't plan to mention designer hands every semester, because it starts to feel inauthentic or forced. My colleague Laura once mentioned that she particularly enjoyed it when I remind everyone to smile during the meditation, and then afterwards I found I could not easily invite everyone to smile again.

Sometimes I'm nervous while guiding the meditation despite how well long I've done it before and how well I know this group. I have learned to tap into this anxiety by paying attention to where it sits in my body or my breath. It can be that my stomach is tight, or that my breath is quick and shallow. In these moments it is particularly important to work through my own body; to be with my anxiety and to verbalize something that might feel right for the moment. I often mention forgiveness and acceptance: "it is okay if your breath is tight and short. There is no right and wrong to breathing. We only want to pay attention." I say it out loud when I am actually talking to myself. Another example of this is to verbalize how I am handling myself: "you might feel tightness in your body. Stay with it. Look out at… Don't analyse. Is it unpleasant? Does it stay unpleasant? As you observe it can his tightness become more neutral as sensation? Can you be okay with the tightness?"

I end it slowly, with my voice. I don't use a bell, mostly because it carries connotations for so many people. Thus I just ask everyone to begin to consider stretching and arm, stretching their legs, reaching up with their back, and slowly opening their eyes.