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Something Always Beyond: Recognition, Value, and Attention Towards Plant Life

We cannot deny that the collective behaviour of humans is resulting in irreversible destruction to our planet. Despite having been aware of the trajectory of climate change for over one hundred and fifty years (Hayhoe), capitalism and globalization continue to expand at ever increasing rates. David Wallace-Wells' book *The Uninhabitable Earth* paints a devastating picture of the future of our planet through objective, research-based evidence. The gravity of this book rendered me incapable of making creative work that didn't in some way orient itself towards combatting the environmental crisis. I realized that it was not enough to simply convey the reality of what is happening to the Earth; I was curious about why we perpetuate this situation by failing to change our behaviour. This paper is a retrospective collection of the research that led me from my initial curiosity to my visual thesis project.

The body of my research was ignited by the statistic that children in western cultures are able to recognize and identify over one hundred different corporate logos and fewer than ten plant species (Kimmerer). This is profound, as it suggests a flaw in the early formation of nature awareness as a result of culture (in the context of this paper, I will use the term culture to reference the western mainstream culture I participate in). I became compelled to investigate the reasons for this discrepancy in recognition, and the accumulation of research has not only transformed my visual art practice, but also my cognitive and physical experience of the world.

Ethno-botanist Robin Wall Kimmerer suggests that the ability to better recognize corporate images over images of nature is a result of learning and exposure, and this differs between cultures. To support the idea that exposure correlates with image recognition, consider that even when subjects do recognize natural objects, it is often due to the pervasiveness of these images within advertising (Richard). It is very interesting to recall that the first images of the Western Canadian environment were commissioned by the Canadian Pacific Railroad as advertising (McKay 11), suggesting that media may have influenced our recognition of nature for longer than we realize. However, there are clearly other factors involved. The fact that city dwellers are constantly exposed to nature in the form of urban landscaping, yet are generally not able to recall or identify the species they encounter, indicates the involvement of another component in nature recognition: value. I became deeply interested in the interaction between exposure, value, and attention in the formation of relationships between humans and other species in nature.

A fundamental example of the way cultural learning can influence a plant's value is the status of weeds. Michael Pollan reminds us that weeds are “not a category of nature but a human construct, a defect of our perception” (*Second Nature* 98). We have learned to attribute greater value to some plants over others, and evidence of this includes the finding that certain garden plants can increase the likelihood of selling your home (Ebert). The perceived value of a plant affects how likely we are to recognize, identify and pay attention to it. In the context of my own life, I realized that I was able to identify most houseplants and cut flowers in retail environments, but little of the greenery that grew naturally in my neighbourhood. The same is true for most of the people in my life, especially those of the millennial generation, indicating a noticeable trend towards selective plant attention.

The component of attention is very crucial to our relationship with plants. Robin Wall Kimmerer asserts that attention is the path to reciprocity with nature, as it leads to care and respect. Indeed, current research has shown that “attention to individual plant species...may be critical to creating an empathetic connection with plants” (Balding and Williams 1176). The more I read, the more it appeared that attention can be considered the foundation for our experience of and relationships within nature. I realized that, beyond Kimmerer and Pollan, most of the authors I had been reading for their wisdom around being in nature were advocating for greater attention on behalf of humans. Emily Carr, whose journals inspired my early thesis experimentation, writes in *Hundreds and Thousands*, “the earth has softened down, opened up, paid attention, and developed her thoughts...now they are paying her back gloriously. If only we did our part as faithfully” (238). Carr also advised readers to “learn by listening attentively, be aware of your aliveness, alert to promptings” (61), and David Suzuki writes in *The Sacred Balance*, “it would mark the beginning of wisdom to pay attention to ecosystems delineated by nature” (302). Attention is clearly a vital component in the experience of nature, and it seems it would come intuitively, given how nature has been celebrated for its beauty throughout history. However, due to our brain’s tendency to filter perceptual data and avoid sensory overwhelm (Pollan, *Botany of Desire* 166), especially in an urban setting, attention is often diverted away from the precise details of our natural environment. As I have studied attention as a cognitive function throughout my undergraduate education in neuroscience, I began to question the cognitive basis for why nature fails to register in our mental image bank. This line of research revealed the concept of plant blindness, which became the conceptual pillar of my studio work.

Plant blindness is a psychological phenomenon introduced by Wandersee and Schussler, and is defined as “both the inability to notice plants in their environment and a failure to

recognize and not appreciate the utility of plants to life on earth” (2). Studies on plant blindness have shown that “humans have higher preference, superior recall, and visual detection of animals relative to plants” (Balding and Williams 1193), and, importantly, there is evidence of a cognitive basis for this discrepancy. Balas and Momen designed a study to measure visual detection of plants and animals by observing attentional blinks. These lapses of attention occurred significantly more often for images of plants than for animals, indicating an involuntary attentional bias (441). Although this study only compared attention towards plants and animals, there is reason to believe, based on statistics such as Kimmerer’s, that we have a physiological predisposition to pay less attention to plants than other imagery. This knowledge was revolutionary for me, as it reveals a neural mechanism of attention that, in tandem with cultural learning, influences awareness, recognition, and perceived value of nature. Although it is unknown whether cognition is shaped by culture, or vice versa, I felt I’d discovered an important component of the answer to why we fail to recognize plant species.

It is interesting to note that Wandersee and Schussler’s definition of plant blindness specifies that it occurs for plants occupying their natural environment, but doesn’t mention those within other environments, such as the commercial. This may be an unintentional designation on part of the authors, but it seems pertinent to my observation of plant value systems. It led me to speculate whether there could be a cognitive mechanism within plant blindness, or similar to it, that applies to our awareness of the plant kingdom alone. For example, is it possible to draw from semiotics and reason that media exposure has resulted in some plants signifying beyond their original sign, taking on more value as an entity within consumer culture, and therefore receiving more of our attention? These speculations reach beyond the capacity of my thesis project, but in the future, I hope to continue with research in this direction.

Balas and Momsen suggest that because plant blindness is a cognitive function subject to plasticity, it is possible to combat and even overcome the attention bias simply by focusing more on plant education, awareness and interaction (442). This offers a promising outlook for the future of our relationships within nature, and questions what outcomes are possible if we are to collectively reshape our cognitive behaviour towards plants. Speaking to this question, the imperative of my thesis studio work is to raise viewers' awareness of the current attentional bias we possess, providing the necessary understanding required to overcome it.

My paintings attempt to achieve this by acting as simulations of our visual experience of nature, utilizing artistic license to elucidate my scientific research through a painterly approach. In this way, they are a synthesis of my educations in neuroscience and visual art; an intersection of science and beauty, as are the flowers and plants they portray. The works are composed of photographic imagery from nature, most often plant and flower matter, collaged and distorted through digital processes and translated into paint. The result is a fragmented, ephemeral suggestion of a scene within nature, with some forms more recognizable, others obscured. This effect mimics the visual experience we generally encounter when we consume nature, perhaps taking in some plants more than others.

I found painting to be a suitable medium for my project as it offered me a way to render plant imagery while avoiding literal representations, offering a more subjective experience for the viewer. Painting also allowed me to create aestheticized visual artworks that appeal to our sense of beauty while avoiding the articulation of fine details, which relates to our ability to derive beauty from nature without having to really look at it.

The paintings are created by first applying a gestural, blurred background that references our visual tendency to group plants together into a single backdrop (Parsley 599). The

background is then imported into Photoshop, where I use collage methods to layer portions of photographs upon it, applying layer effects as I go. The photographs I use are all taken during walks and trips in nature, usually with the purpose of identifying the plant. This process requires me to consider the images with greater attention, and also enhances the personal connection I have with my paintings. Much of my preliminary process involves chance operations, as I have little control over the shape of the plant forms, as well as the colours resulting from pre-set layer manipulations. My main decision-making surrounds the placement and scale of the imagery. The digital studies are then translated into paint, using primarily glazing techniques to achieve the layered effect.

The word “recognize” is defined by acknowledgement, be it through visual attention or the granting of status (“Recognize”), both of which are vital human behaviours for the survival of nature and the suppression of climate change. But the roots of the word “recognize” also imply a re-evaluation of cognition, a new way of thinking and seeing that involves changing our mental processes as well as our cultural discourse. It is my hope that viewers will enjoy my paintings while also thinking critically about what they pay attention to and what they may or may not recognize.

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