

Edge Condition. A Terminal Project Report  
by Stephen Nachtigall. Committee members:  
Carla Bengtson, Colin Ives and Rick Silva.



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<sup>1</sup> Heinrich Füllmaurer and Albrecht Meyer are depicted in the earliest known portrait of scientific illustrators. Reproduced from: Leonhardt Fuchs, *De Historia Stirpium...*, Basileae: In Officina Isingriniana, 1542.

“Because the only hidden meaning of things  
Is that they have no hidden meaning at all.

This is stranger than all the strangenesses,  
And the dreams of all the poets,  
And the thoughts of all the philosophers—  
That things really are what they appear to be  
And that there is nothing to understand.

Yes, here’s what my senses learned all by themselves:  
Things have no meaning—they have existence.  
Things are the only hidden meaning of things.”

- Fernando Pessoa<sup>1</sup>

“What pleases me most at present is plant-life.  
Everything is forcing itself upon me,  
I no longer have to think about it,  
everything comes to meet me, and the whole  
gigantic kingdom becomes so simple that  
I can see at once the answer to the most difficult  
problems. If only I could communicate the  
insight and joy to someone, but it is not  
possible. And it is no dream or fancy: I am  
beginning to grow aware of the essential form  
with which, as it were, Nature always plays,  
and from which she produces her great variety.  
Had I the time in this brief span of life  
I am confident I could extend it to all  
the realms of Nature – the whole realm.”

- Goethe<sup>2</sup>

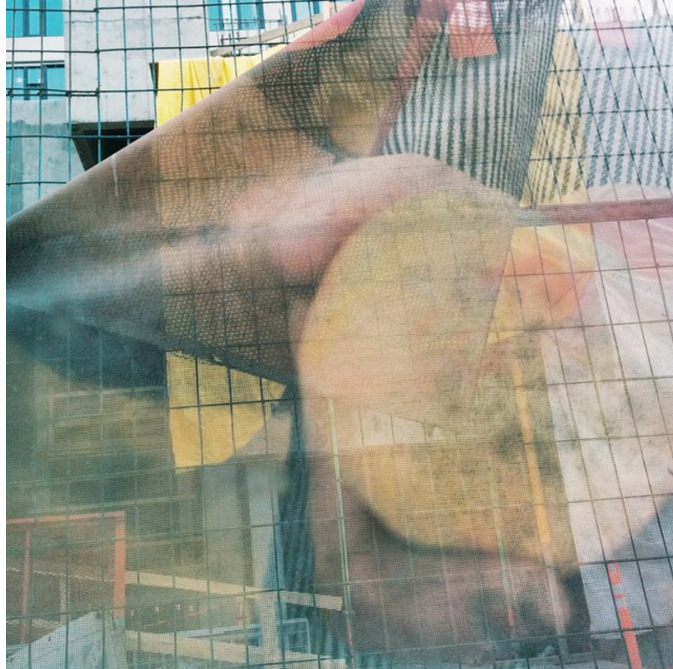
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1 Alberto Caeiro/Fernando Pessoa, *The Keeper of Sheep*, trans. Edwin Honig and Susan M. Brown (River-  
sale-on-Hudson, N.Y.: The Sheep Meadow Press, 1986), p.52.

2 Johann Wolfgang von Goethe, *Letter to Charlotte von Stein*, 1786.



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- 1 Nachtigall, Stephen. "Vine growing through chainlink fence." 2014. JPEG.
  - 2 Nachtigall, Stephen. "Construction site banner." 2015. JPEG.

# 1. Origins

Roughly 1.6 billion years ago, photosynthetic organisms arose through endosymbiosis (a eukaryotic cell inhabited by a photosynthetic cell) to form the original plastids, eventually becoming what we now commonly consider plants. According to modern science, the convergence of events that led to this symbiosis is a rare occurrence, suggesting that plant life is actually chimerical. Plants are “hybrid creatures cobbled together from the genetic bits of this ancestral union”.<sup>1</sup> These hybrid creatures are why earth’s atmosphere is composed of 21% oxygen.<sup>2</sup> Plants are why we can continue to breathe on this earth. They are why my father and grandfather cultivated a greenhouse together and why my father became a landscaper and horticulturalist in Canada shortly after emigrating from Germany as a young man. This is why I have a schefflera growing in my studio window that I look at affectionately between bouts of productivity and staring at the wall. They are the reason I downloaded a 3D model of a household fern from archive3d.org and continue to make art with it. I care about plants as entities, as objects, and as part of my origin story on this planet. Ancient plants make up part of what philosopher Quentin Meillassoux calls the ‘arche-fossil’; materials that indicate traces of past life but also provide evidence of an ancestral reality from which scientists and philosophers, looking backward from the present, interpret the origins of our terrestrial existence.<sup>3</sup> Plants find their origin in symbiosis, in the coming together of multiple seemingly divergent lifeforms, and to me this reflects the way that things come together to create new things, new phenomenon in the world. Things come together to form emergent properties, establish homeostasis and symbiotic relationships, or simply collide and mix. We have seemingly no better way to learn about the constituent parts of our physical reality than to smash particles together and see what emerges in the aftermath of the collision. CERN’s LHC construed as the evolutionary prodigy of the first ape smashing a stone apart with another stone. Tools are made and also evolve, a relatively minute time scale of human curiosity and ingenuity. Somewhere in that continuum lies my art practice and my terminal project.

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1 Bielli, David. “How the First Plant Came to Be.” *Scientific American*. Scientific American Mag., 16 Feb. 2012. Web. 24 May 2016.

2 Bielli, David. “The Origin of Oxygen in Earth’s Atmosphere.” *Scientific American*. Scientific American Mag., 19 Aug. 2009. Web. 24 May 2016.

3 Meillassoux, Quentin. “After Finitude: An Essay on the Necessity of Contingency”. London: Continuum, 2008. Print.

The art that I make reflects a need to raise questions about the world we find ourselves in. It is a way for me to communicate, through borrowing from existing forms and trying to find symbiosis with new ones. I take ideas, images, things, and arrange them together in order to learn something, say something, see something or simply to feel something.



*Edge Condition*, 2016, 12' x 12' x 12', Steel, mesh textile, stone, grass, LCD screens.

Embodied in my terminal project is a vantage point that envisions a conjoining moment between plant life and technological life. A problematic of current ecological predicaments is permeated within this project, and it is my intention to envision how art can approach and negotiate such questions.

## 2. Intermediaries

Lush green vegetation, cascading waterfalls and waving golden wheat fields; UV printed on vinyl adhesive, stuck to an electrical utility box, vending machine or underground subway advertisement. These cultural moments of decoration and distraction through images of plants and nature mimic a place you feel you might have seen or been to before, but they also advocate a removed conception of nature and our place within it. Construction sites surrounded by printed mesh banners are today a common sight among developing urban infrastructure projects.



*Edge Condition*, 2016, 12' x 12' x 12', Steel, mesh textile, stone, grass, LCD screens.

Printed imagery becomes a kind of permeable mood board encircling these sites, illustrating the feeling or intention of what the building project will eventually become. A screen of happy faces living out perfectly dull urban lives distract our gaze from the labour, waste and mess that the fast paced construction of these buildings entails. The exchange of labour and capital needs to be screened off, our gaze directed toward the more enticing, ephemeral notions of capitalism that we consume daily.

These mimetic veneers incite my curiosity about mimicry and depictions of an ideal natural environment, as if to instill the illusionary potential in distracting our gaze from the disconcertion and alienation that looking at real ecological predicaments sometimes entails. Global warming and climate change are issues that humanity has a hard time grasping because they are what theorist Timothy Morton calls *hyperobjects*,<sup>4</sup> something that is massively distributed throughout space-time to the degree that we can be certain we are not the only original cause of global warming, but certainly not able to avoid our intense complicity with it. These issues are distilled in my practice through a convergence of nature and technology. My work privileges plant-life as an avatar for the hyperobject that we commonly refer to as 'nature'. In my terminal project, this avatar is uprooted and complexified via conjunctures, simulations and meeting points with technicity,<sup>5</sup> the distillation of modernism's story of divergence from nature via relations to power.<sup>6</sup> Technicity via modernism can be seen as the impulse to envision relations with entities and resources in terms of their malleability and potential to serve other interests. Michael Zimmerman frames Heidegger's position in this situation when he speaks about forests and cheeseburgers, summing up the ostensible genesis of our current ecological reality:

"To be capable of transforming a forest into packaging for cheeseburgers, man must see the forest not as a display of the miracle of life, but as raw material, pure and simple".<sup>7</sup>

While this vision of our relationship to the earth that supports us has given us prosperity and the way of life we currently enjoy, it is no doubt problematic and ostensibly untenable in terms of the future of our coexistence with other beings on this planet. Artists approach to this predicament involves reconsidering what we are really thinking about when we think "nature". Elaine Cameron-Weir approaches this dilemma by embodying and complexifying the relationship between natural

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4 Morton, Timothy. "Hyperobjects: Philosophy and Ecology After the End of the World." Minneapolis: University of Minnesota Press, 2013.

5 Technicity precedes technology in that it can be thought of as calculability (computability), manipulability, instrumentality, or framing. It refers to relations in terms of power, where resources exist only in terms of their potential to be manipulated, (re)produced and (re)articulated towards the general flow of power. (Ziarek 62.)

6 Ziarek, Krzysztof. "Ars Technica: From Futurism to Internet and Transgenic Art". *The Force of Art*. Stanford, CA: Stanford UP, 2004. Print. Page 61-102.

7 Zimmerman, Michael E. "Heidegger's Confrontation with Modernity: Technology, Politics, and Art." Bloomington: Indiana UP, 1990. Print.

and synthetic. In an interview on the occasion of her exhibition *snake with sexual interest in own tail* at Venus Over LA, Cameron-Weir responds to the issue:

“At what point do we stop thinking about something as natural? When poppies are made into heroin, you know? Everything comes from the planet we are standing on. What line has to be crossed to be synthetic? I think we can all agree on what you would see as a synthetic surface that’s all smooth, polished, and plastic. It’s interesting how that became consensus.”<sup>8</sup>



*Slide*, 2015, Dimensions variable, Immersion prints on composite wood.

Our relationship to the objects, materials, and lifeforms that form the world around us is being approached through fresh terms and forms through contemporary art practices. Art has the capacity to become this new liaison precisely because it inhabits a space of ‘musing’ that is a materially perceptible space of diversity. Art offers a sensual experience which often entails the sheer materiality of difference in its composition.<sup>9</sup> This balancing of artificiality is “an encounter between humanity and the earth, on the skin of the earth,” as renowned gardener Gilles Clement puts it in his garden manifesto *the Third Landscape*.<sup>10</sup> Clement outlines this landscape as a “privileged area of receptivity to biological diversity,” a “genetic reservoir of the

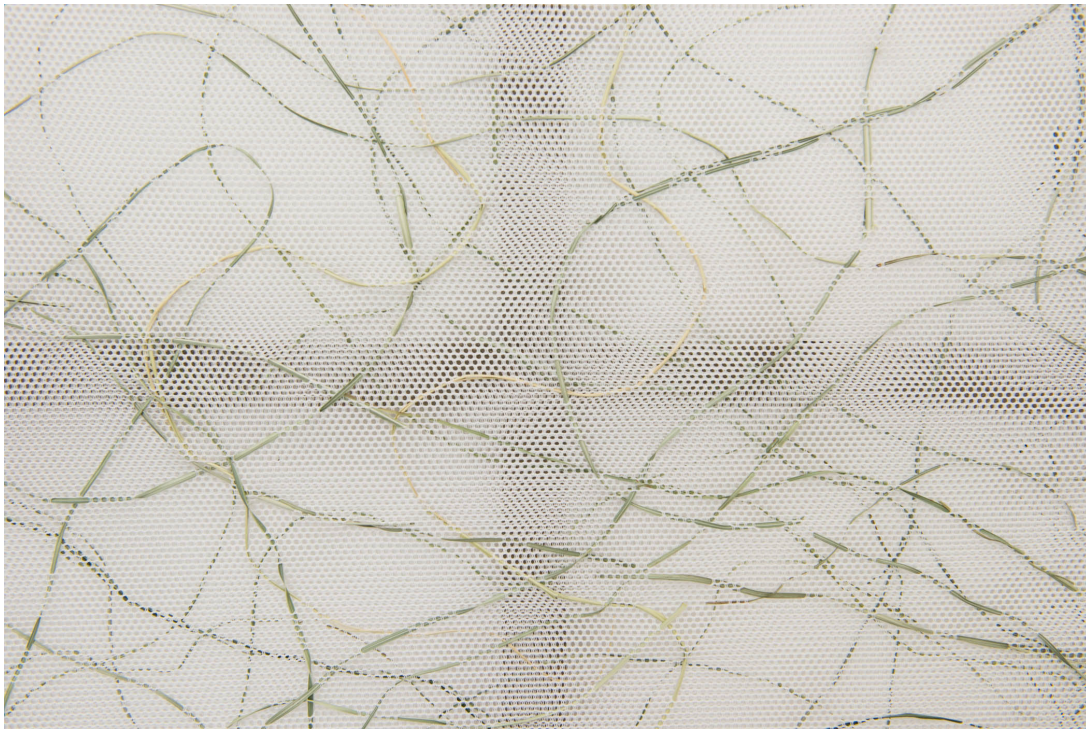
8 Nimptsch, Emily, “Q&A: Elaine Cameron-Weir Emerges as Reluctant Art Star” FLAUNT, March 16, 2016.

9 Nancy, Jean-Luc. “The Muses”. Stanford, CA: Stanford UP, 1996. Print. Page 9.

10 Borque, Beatriz and Merino, Cristina. “Gilles Clement”. *The Plant*. Barcelona: Agpgraf. Print.



planet,” and “the space of the future.”<sup>11</sup> This interstitial space privileges native plant varieties and diversity by leaving areas untouched and sometimes simply trimming grass around certain plant species to highlight their presence. Clement’s theories endow these spaces as ones with the potential for the knowledge or intelligence of these plants to propagate, unhindered by humanity’s drive to overdevelop and subsume more territory for technicity’s ends. Both Cameron-Weir and Clement acknowledge a subversion of the artificial, as everything finds its origin in the skin of the earth, with the artist acting as the alchemist or collaborator with the earth and its materiality. Manifesting plants as stand in for ecological relationships with technicity finds root in my work in the notion that plants themselves are far more than what we commonly see them as.



*Lattice(beargrass)*, 2015, 24” x 36” x 2”, Mesh textile, grass, composite wood.

### 3. Postures

Cracks in the sidewalk with weeds growing in between. A space of capacity that can be exploited by growth. The way that ivy grows and wraps around any support nearby. Objects and organisms find the edge condition of their environments, navigating them as if their nodes, vertices, gaps and losses form a traversable mesh.

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11 Clement, Gilles. “The Third Landscape.” *Gilles Clement*. n.p., n.d. Web. May 20, 2016.

The mesh is a net, an arrangement of fibers, a network structure, a paradigm. On the stretched screen partitions of my installation, grass navigates through mesh textile, inhabiting its voids and crossing over vertices and nodal points. Although its design is a result of the work of my hand, these panels are to me emblematic of how organisms emerge to find advantage in their environments. The grass navigating through the mesh illustrates a meeting of nature and technology insofar as it echoes a distinction already present between plants and humans. We cultivate spaces for plants to propagate, but it is in the unforeseen spaces that they fully evoke their latent capacity and potential. As humans, we often have a tendency to anthropomorphize things around us in order to understand them. Animism and panpsychism hold the view that all things have minds or mind-like qualities, envisioning sentience to be equally distributed to the things around us. This view of reality has a long history in philosophical thought as well as spiritual. It is a way to relate to our surroundings. Some recent critical thought has taken a “nonhuman turn” to come up with ways to predicate human access to the nonhuman while also giving those entities an autonomy from our apprehension and concern.<sup>12</sup> As scientist John Gardiner justifies in his research, the beauty that we see in flowers is a result of their spiral patterns being in alignment with Fibonacci fractal patterns and an almost constant golden divergence angle. Gardiner states that “when we look at a flower or work of art displaying golden ratio-based morphology, there may be a resonance with the stratum of our consciousness itself which leads us to regard the flower or work of art as beautiful.”<sup>13</sup> Does this deep-seated structure of biological life preen itself towards our consciousness for a particular reason? How can we think like a plant thinks, thus participating in an active relationship with them as a radically other life form? How can the way we investigate our own being, through metaphysics and philosophical thought, be shifted to account for plants as beings in their own right? Phenomenological and metaphysical considerations take into account the hierarchical arrangement of psycho-physiological elements of living organisms and the role that these elements play in determining their reality.<sup>14</sup> Core values of metaphysics such as presence and identity help us determine our being in the world. Phenomenology gives us a sense of what is in front of us,

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12 Shavero, Steven. “Consequences of Panpsychism”. *The NonHuman Turn*. Ed. Richard Grusin. University of Minnesota Press. Print. Pages 19-44.

13 Gardiner J. “Insights into plant consciousness from neuroscience, physics and mathematics: A role for quasicrystals?”. *Plant Signal Behavior*. n.p., n.d., 2012. Web. 24 May 2016.

14 Marder, Michael. “Plant-thinking: A Philosophy of Vegetal Life.” New York: Columbia UP, 2013. Print. Page 62.

behind, below, above and to either side of us. It considers the subject, the mind to be specific, relative to its spacial and existential position. This position determines not only the subjects place in the world but also its original, absolute reference point; its “ground zero”. Plants are rooted in the ground, their position relatively fixed. They are headless, receiving their nourishment both from below and above, along the whole expanse of their corpus while also releasing oxygen and providing nourishment in turn. Because plants subvert so many of the tenets of our own metaphysical existence they are to an extent anti-metaphysical beings. Plants are not simply things floating in space. The posture of a plant connects to what lies below, and stretches out above and surrounding itself to connect the various elements that make up its ecological environment. To quote plant philosopher Michael Marder, “the plant is something in nature that makes nature what it is by bringing together, in a non-totalizing way, its various elements.”<sup>15</sup> It is the posture of the plant that determines its ability to coexist and become entangled in the milieu where it grows. The roots of a plant reach out to connect to subterranean organisms, like the vast forests of the pacific northwest whose root systems provide infrastructure for networked, fungal, rhizomatic systems. The wood wide web. Plants are constantly exposed and intertwined to their exterior(alterior) conditions, thus their existence is ethical because of their absolute existence through exteriority. This Levinasian relation to the other(alterity, not shared attributes, as the key to acknowledging something other than oneself)<sup>16</sup> frames my approach to plant life as an avatar or character in my work.

## 4. Horizons

Along with the framing of plants and technology that occurs in my terminal project, there is an aspect of temporality that is concerned with the future as well as the present. Envisioning our imminent temporal horizon is a challenge of contemporary art, and one that I am drawn to in my work in that envisioning this horizon raises questions about the future of humanity and how our relationship to our planet will evolve and change over time. I decided to approach my project through a speculative lens by framing a scenario in which a technologically mediated plant

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15 Marder, Michael. “Plant-thinking: A Philosophy of Vegetal Life.” New York: Columbia UP, 2013. Print. Page 66.

16 Levinas, Emmanuel. “Time & the Other”. Pittsburgh: Duquesne UP, 1987. Print. Page 75.

form might present itself to us from the future, or how an artificial or nonhuman intelligence might ‘imagine’ plant life. Trans-humanism is the theory that humanity can evolve beyond its current physical and mental limitations through the increasing influence of science and technology. What if it was not only humanity that became technologically mediated, but also other life forms on this planet, a kind of trans-plantism, with increased sentience or the ability to communicate more readily with us, for example? If plants were to demonstrate their knowledge and sentience through technological mediation in such a way that humanity might understand it, perhaps it would occur through images, as it does in the video screens that make up *Edge Condition*.



*Edge Condition*, 2016, 12' x 12' x 12', Steel, mesh textile, stone, grass, LCD screens.

In Benjamin Bratton's e-flux article *Some Trace Effects of the Post-Anthropocene: On Accelerationist Geopolitical Aesthetics*, Bratton brings up a provocative statement relating to the future of images being inevitably tied to machines. Images today are a sub-genre of machines because they are relentlessly produced through technological archiving as opposed to being archived after the life of the image has passed. This cultural content proposes an accumulation of human visual experience that according to Bratton, will be of enormous value to future artificial intelligences.<sup>17</sup>

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17 Bratton, Benjamin. "Some Trace Effects of the Post-Anthropocene: On Accelerationist Geopolitical Aesthetics". e-flux. n.p., n.d., Web. May 19, 2016. Page 9.

As a sentiment that aligns with Ranciere's examination of images being inherent to ideas of fate and the apocalyptic discourses of our current cultural climate,<sup>18</sup> it is interesting to me to speculate on all our images and digital material existing as a future plaything for artificial intelligences or perhaps vegetal intelligences. Musing about temporality in this way evokes a modality of expectation, speculation, or envisioning an oncoming horizon as a condition of experience for my art.

## 5. Conclusion

*Edge Condition* proposes a space where plant forms are able to become superficial, breaking free from their terrestrial ground to grow towards a more mediated, technological cultivation. The plants shown on the flatscreen displays of my installation sway and dance as if effected by an unseen force, striving to find root once again. Strands of grass weave through the mesh panels that make up the walls of the structure as if to seek the cracks and interstices through which new life might propagate. These sculptural and digital investigations are not proposed as a juxtaposition between nature and technology, but rather a striving for a third space, a hybrid ecology. In his essay *The Third Table*, philosopher Graham Harman utilizes Sir Arthur Stanley Eddington's comparison of the real, physical, everyday table that we are familiar with, to the table as it is described by the extent of our knowledge of physics. Harman puts forward his argument for a third table; one that is "an intermediate being found neither in subatomic physics nor in human psychology, but in a permanent autonomous zone where objects are simply themselves."<sup>19</sup> Harman goes on to explicate artists as primary practitioners or exemplifiers of this third table because they are able to manifest objects at a deeper level than the features through which they present themselves or announce themselves. Artists are able to allude to connections and to objects that cannot quite be made present. My work aims to give emergence and agency to these connections and objects. Artists invest in the idea of a horizon that can reclaim a future qualitatively different from the present by puncturing holes in the conditions of expectation that frame our experience.<sup>20</sup>

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18 Ranciere, Jacques. "The Future of the Image". London: Verso, 2007. Print.

19 Harman, Graham. "The Third Table." Ostfildern: Hatje Cantz, 2012. Print. Page 10.

20 Osborne, Peter. "Anywhere or Not At All: Philosophy of Contemporary Art". London: Verso, 2013. Print. Page 211.

*Edge Condition* inhabits a horizon point where plant-forms, whether simulated or technologically mediated, are perhaps reaching out to us from the future, beckoning us to ecologize as well as modernize. My installation is not a call to return to nature, but to realize that nature is not available in singular, displaced instances, and is rather wired to our being and to our origin. Perhaps we can look to plants as a model for an ethics that resists the totalizing effects of our metaphysical inquiries, instead taking into account the consequences and benefits of how we remain embedded to this planet. If we take plant life as this model, we might realize that “to live is to be superficial and dis-organized: to exist outside the totality of an organism: to be a plant”.<sup>21</sup>



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21 Marder, Michael. “Plant-thinking: A Philosophy of Vegetal Life.” New York: Columbia UP, 2013. Print. Page 84.  
22 Nachtigall, Stephen. “Edge Condition installation view.” 2016. JPEG.

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