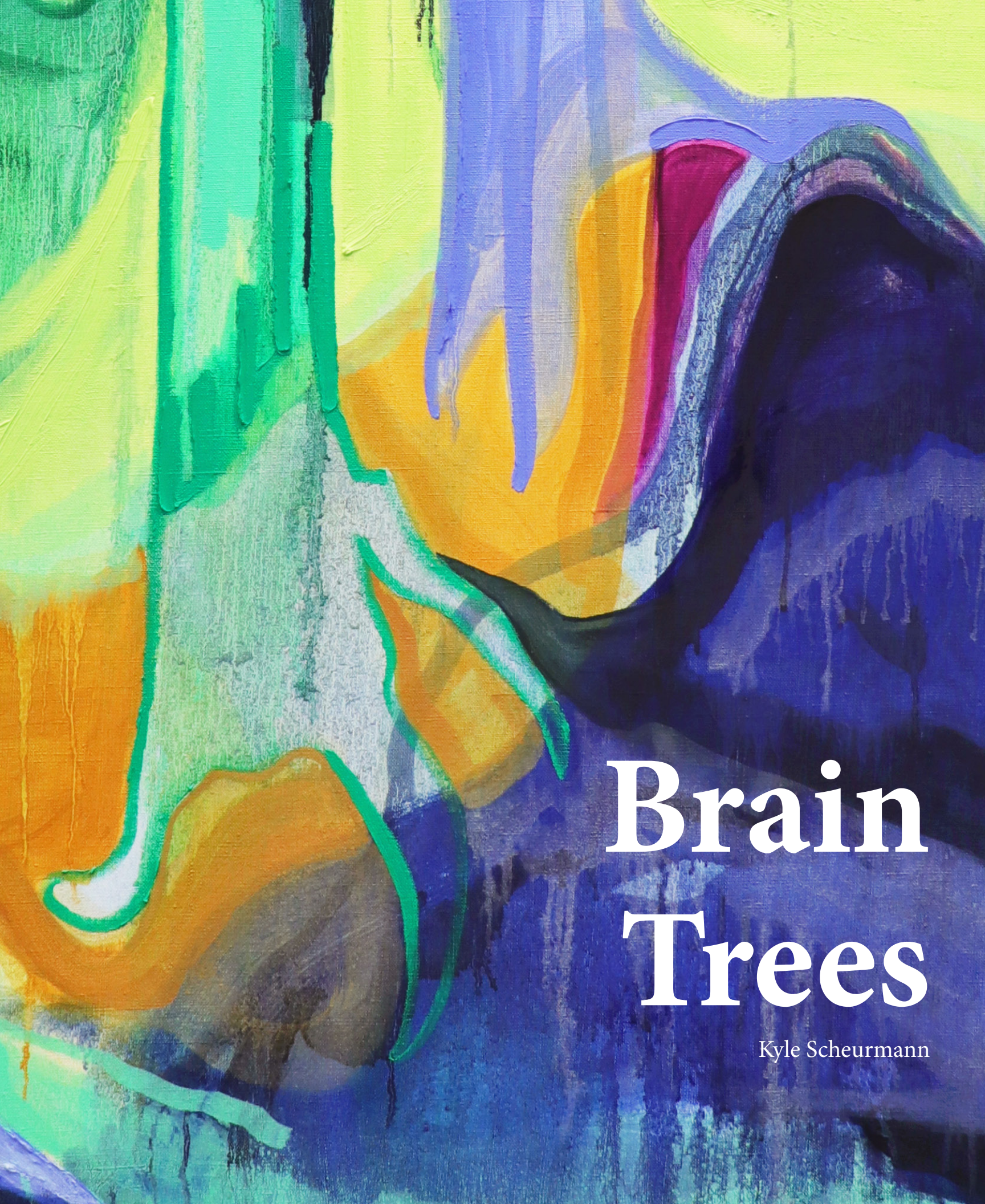

Brain Trees

Kyle Scheurmann

Brain Trees

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A thesis support paper submitted in partial fulfillment of the requirements
for the degree of Master of Fine Arts.

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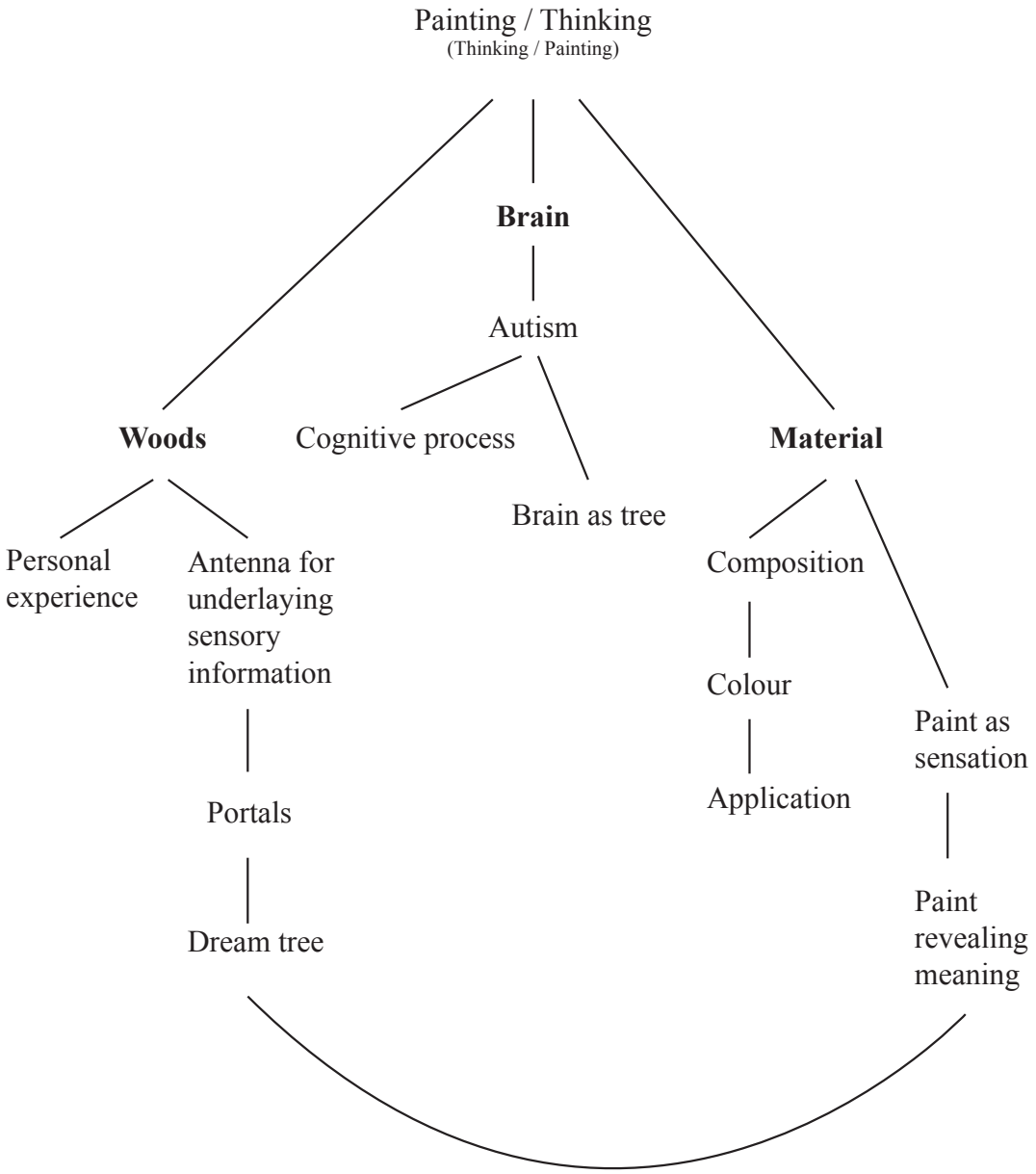

Painting / Thinking
(Thinking / Painting)
Brain
Autism
Woods
Cognitive process
Material
Brain as tree
Personal experience
Antenna for underlaying sensory information
Composition
Colour
Application
Paint as sensation
Portals
Dream tree
Paint revealing meaning

Through painting, I rely on non-visual sensory information recorded in the woods to inform aesthetic decisions. Research happens in the act of painting. All visual and written references inform the collection of source material, but research happens during the translation between lived experience and paint. When painting reveals meaning, looking at other artists paintings or subsequent readings about recently discovered themes can supplement the research and direct a new path of painted investigation, but can never replace painting.

This document is a descriptive account of how my cognitive system translates sensorial energy observed in the woods into painting. In place of a table of contents, the adjacent map serves as a visual guide through the document with the three main headers becoming structural sections:

The rooted nature of this map better reflects the non-linear progression of thinking through painting utilized in my practice.

Fictional and poetic references are included in this document with only an accompanying painting for context. These references have tangentially informed the production of paintings and are isolated for further interpretation and reflection alongside a finished painting.

Original large oil paintings in this document are at a 1:12 scale.

I acknowledge that land from British Columbia referenced in this document is unceded territory. Land referenced from other parts of Canada, in most cases, is treaty land.

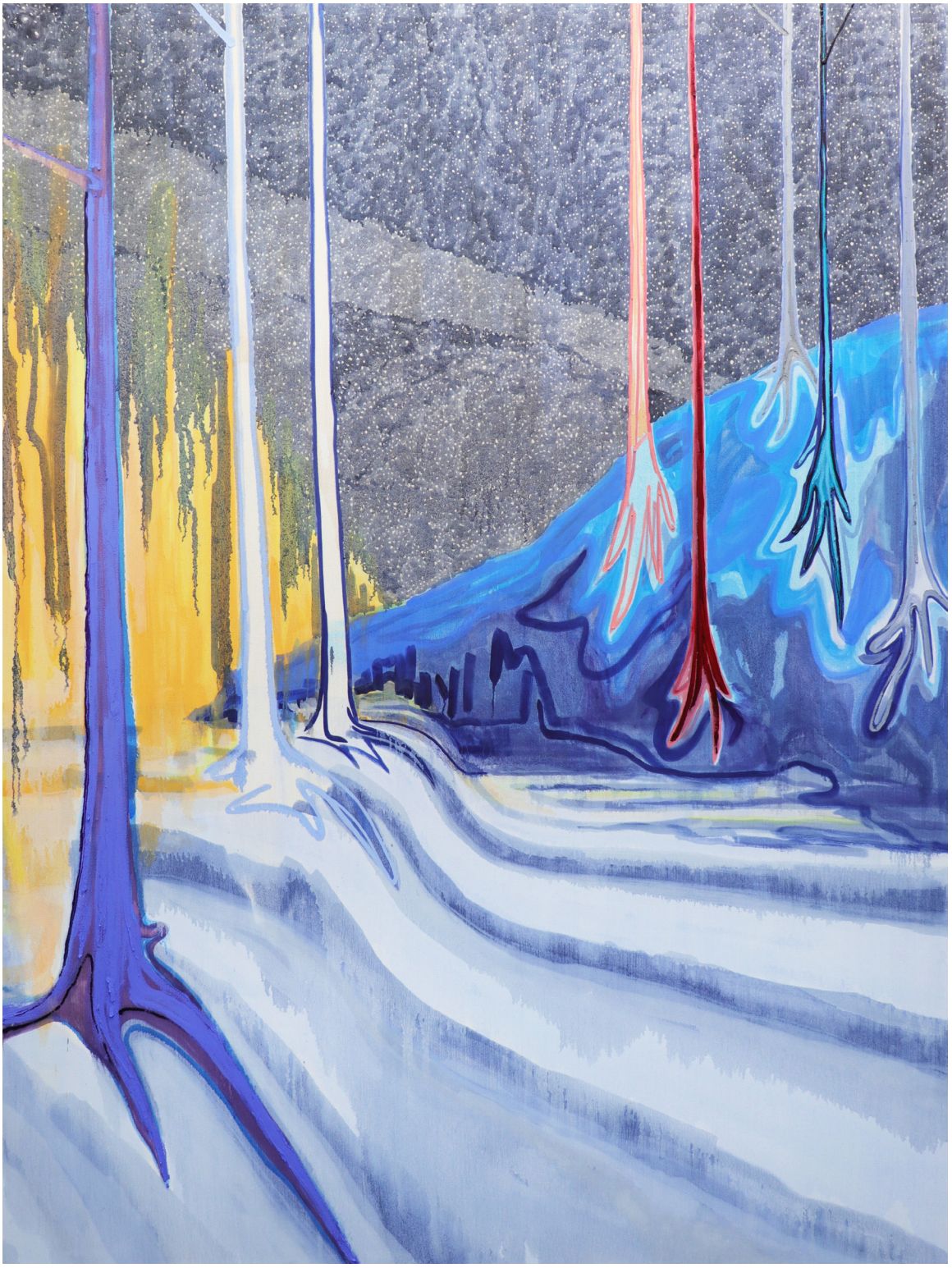


Fig. 1: *A Few Stars in the River*, 2018, oil on canvas, 72x96 inches.

Callahan: *"The leafless tree looked like a brain / The birds within were all the thoughts and desires within me*
Hoppin' around from branch to branch / Or snug in their nests listenin' in
An eagle came over the horizon / And shook the branches with its sight
The softer thoughts: starlings, finches, and wrens / The softer thoughts, they all took flight"

Brain:

An evaluation of cognitive process is important to locate the intent of my research.

All research is made through the lens of my autistic brain, which functions with two distinct cognitive components. The first is an ever expanding set of sensorial *index cards* spatially located at the back above the spine, organized how a computer hard drive might be. The second is an open space near the front, behind the eyes, where *projections* are played back from the information stored on the index cards. As research, sections of these projections are interpreted in paint, inventing new modes of perception.

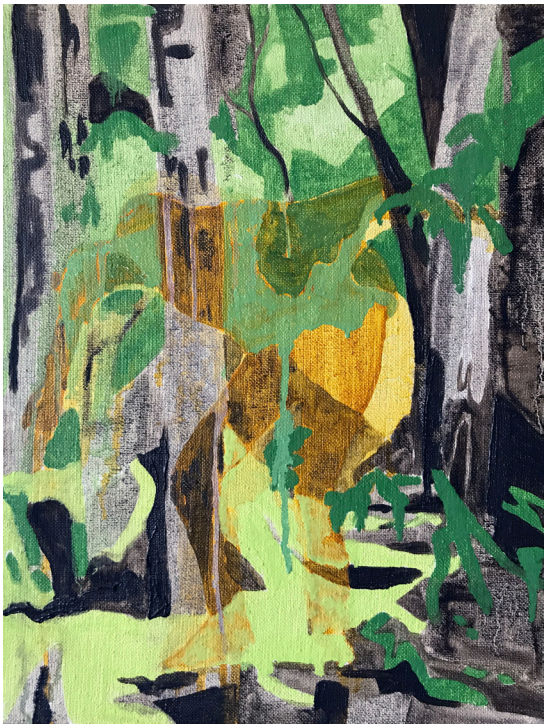
Parts of information from a variety of index cards can be used to form new projections. Different components of index cards can be searched and combined to achieve unexpected solutions and to formulate new aesthetic options. As more index cards are acquired, filled with new sensorial triggers and potential aesthetic outcomes, the research will get closer to reflecting a complete sensorial experience of the woods (where this type of sensory information is most prevalent) in the form of a painting.

Information is recorded to new index cards as it is perceived with no chronological importance, sorted only in clusters of similar cards. Dates and circumstantial information can sometimes be applied to index cards, but it is secondary information that doesn't inform the card's usefulness as a painting tool. New cards generated today sort themselves in-between the older ones.

Autistic brains provide an alternative cognitive reality that can be molded to best utilize specific skills. When writing about the plasticity of the brain, French philosopher Catherine Malabou notes that brain malleability can be generative of new types of information; "Securing a true plasticity of the brain means insisting on knowing what it can do and not simply what it can tolerate. By the verb *to do* or *to make* [faire] we don't mean just 'doing' math or piano but making its history, becoming the subject of its history, grasping the connection between the role of genetic nondeterminism at work in the constitution of the brain and the possibility of a social and political nondeterminism, in a word, a new freedom, which is to say: a new meaning of history."[1]

Malabou's claim that our brains are what we make them, and not what make us, is partially true in my own autistic experience. However, while some traits of autism can be managed

1 Malabou, Catherine, et al. *What Should We Do with Our Brain?* Fordham University, 2008. PDF



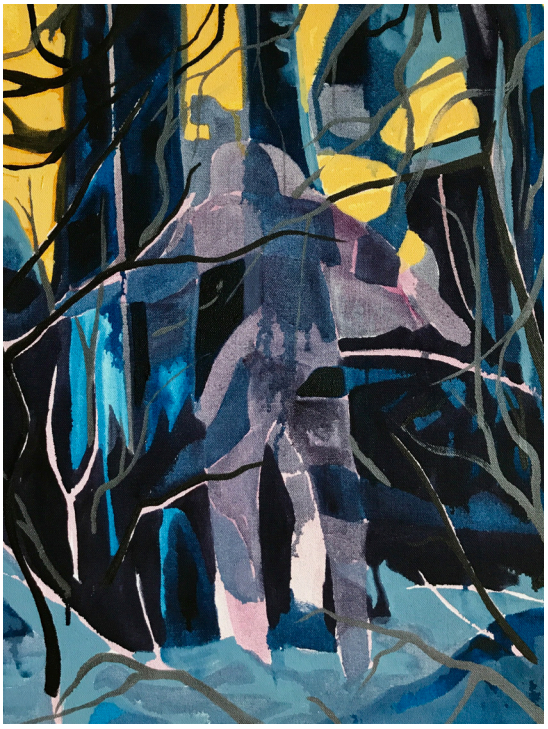


Fig. 2: (above) *Self Portrait as a Tree in a Dream #1,* 2017, oil on linen, 11x14 inches.
Fig. 3: (below) *Self Portrait as a Tree in a Dream #2,* 2017, oil on canvas, 16x20 inches.

over time, other traits are part of the wiring in the brain and construct the parameters of the cognitive system, especially concerning memory. This is common across most of the autistic spectrum. Reading scientific research about memory systems in others with autism has provided a useful framework to navigate something that used to only be a frustration. In a recent study about memory of self-performed action by people on the autistic spectrum, a team of Italian Neuroscientists determined that, "free recall is often impaired and moderate impairments in episodic memory have been reported in these individuals for tasks requiring a high degree of attentional control, or the use of complex organizing strategies."[2] As suggested in the study, narrative and lineage rarely play a role in how memories are saved to an index card and organizing strategies are simple. Visual similarities within projections are used to categorize the index, even if sometimes imagined or miss-remembered.

Autistic brains can filter reality through a hyper specific lens to the point that it becomes a detriment to daily interactions. Visual distractions can be found in any circumstance. As an adult, this is a good example of a part of the system that I have learned to manage. However, sometimes the sensation of looking through that detached lens can be indulged in for the sake of painting.

When stuck on a specific sensation, it sometimes can feel like the autistic brain is operating outside of conventional cultures and histories. The brain can only see what it is locked-on to, and not what is expected or understood.

An a-historical or a-cultural space is obviously an *impossible space* to actually reside in, but in the context of painting, it is a space that artists are encouraged to move towards.

During her 2014 Biennial lecture at the *Whitney*, Amy Sillman articulated the difficulty this dichotomy can cause painters; "You have to go your own way, to cut away from your heroes and influences and still be utterly conscious and literate about the discourse. You have to simultaneously predict, diagnose, and ignore… past present and future, all at once. You have to remember and forget, all at once,"[3]

This *impossible space* may be more easily accessible in an autistic brain through it's detached construction of reality. In the studio, if attempts are made to consciously move towards the

2 Zalla, Tiziana, et al. "Memory for Self-Performed Actions in Individuals with Asperger Syndrome." *Plos ONE*, 5(10), doj: 10,1371, 2010. PDF

3 Sillman, Amy. "Color as Material." 2014 Biennial Seminar, 12 November 2014, Whitney Museum of American Art, New York, NY. Web.

Fig. 4: *In the Woods #3,* 2018, oil on canvas, 48x70 inches.

Sloan: “While the brain is not portrayed realistically, it is nevertheless convincing as a picture of a (biological or artificial) neural network. This is brain-activity as an energized field, with many opportunities for fiery connections and short-circuiting.”

impossible space, it is very beneficial for new ways of painting. I can stand on the platform of the history and contemporary context of painting, accompanied with a thorough knowledge of the medium, but paradoxically, can focus primarily on senses from the woods to inform aesthetic decisions.

With this memory structure established, when referencing other paintings in the studio, historical context is lost to technical merit and how it might be adapted for a new purpose. Across my perception of painting history, these categories could be vague like a colour, or specific like the size of a brush stroke, but rarely corresponding to date. Some index cards produce a complete projection of a painting. This could be one of my own finished paintings, or someone else's painting that has been recorded. The projected paintings appear in 3D and can be zoomed-in on, or panned across. Just like the rest of the index cards, these painting index cards are stored in groupings of visual likeness. Recognizing patterns in these categories has developed into a useful filter for quickly evaluating painting influences while in the act of painting.

Another example of selective specificity in processed information is evident in a common autistic perception of language. There is no conceptualization of the difference between a noun, verb, adjective (or the other ones) because no visual signifiers are attached to such words. They are words that point only to other language and produce no projection. All knowledge about English comes from memorization of visual signifiers associated with individual words, especially the way words look when written.

Through painting, an acuteness to both visual and non-visual sensory elements construct new ways of participating in the world. Learning to rely less on vision heightens additional senses that are useful for painting. People with autism are very prone to vision deficiencies and often the images processed are split with highly refracted light. I am extremely sensitive to changes in lighting and subtle variations can become completely overwhelming, taking over the ability to focus on anything but the light. Sharp shooting vertical streaks spike from all lights. As a result, indexing the information collected from all senses is essential to fill memory holes and negotiate an environment. The most important information for a new painting that is stored on an index card is often non-visual, like sound, temperature or tactility. However, even these additional senses are altered by the persistent pervasiveness of light and often other senses take the form of physical glowing passages in projections. These senses contribute to the structure of a remembered environment and their shapes become integral to building painted compositions.

Fig. 5: *In the Woods #2,* 2018, oil on canvas, 48x70 inches.

Guthrie: *"Rosin smells and turpentine smells from eucalyptus and pine*
Bitter tastes of twigs we chewed where tangled woodvines twine
Trees held us in on all four sides so thick we could not see
I could not see any wrong in you, and you saw none in me."

This type of mental processing of raw sensory data is most commonly linked to the brains of nonhuman animals, especially birds. Migratory patterns and eating habits of birds are controlled by a relationship to their surroundings that is uncommon in most humans, except those with autism. In a recent workshop at the *Australian Academy of Science* about the higher cognition of animals, unexpected links to the cognition of autistic humans were revealed and developed into a collaborative article; "The mental processes of autistic humans, which are less governed by rules and learned concepts that pre-empt and alter the perceptions of nonautistic humans, are more literal and less categorizing than those of nonautistics. This type of mental processing is often seen as lower-order processing and hence as a possible link to the mental processing abilities of nonhuman animals."[4] Navigating the world with this type of cognitive system is to operate outside of culture, similar to how animals do. Instead of popular ideals and narratives giving reason to an existence, it is personal lived experiences and sensorial memory that primarily define meaning.

These links between autistic humans and animals are insightful, but I propose to extrapolate the similarities one step further; due to the efferent hierarchy of this cognitive network, I perceive of my brain as a *tree*, paralleled in the way both trees and autistic brains continually branch or root outwards. In addition to this perception, the ability to receive electrical impulses while around trees prompts me to feel more similar to a plant rather than another animal and has made trees the primary visual signifier in all of my paintings.

Reading other adults with autism articulate incremental development in their control over cognitive processes has showed that in almost all cases, there is a *symbolic key* that allows for a quantifiable progression in thinking. In my research, trees have become that symbolic key which penetrates all aspects of life, pointing to tangible growth within my particular cognitive system. For animal scientist and theorist of autistic brains, Temple Grandin, her symbolic key related to doors and gates; "I had found the symbolic key… Each door or gate enabled me to move on to the next level… There was no single breakthrough. It was a series of incremental improvements."[5] The improvement most useful as a result of embracing trees as a key was found by identifying the sensorial energy from trees as subject matter to paint. When brain became tree, painting had to follow in order to explore the possibilities of the cognitive system and new modes of perception.

4 Vallortigara, Giorgio, et al. "Are Animals Autistic Savants." *Plos Biology*, vol. 6, no. 2, February 2008, pp. 42. PDF

5 Grandin, Temple. *Thinking in Pictures*. Knopf Doubleday Publishing Group, 2006. Apple iBook

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Image of painting, *Oncoming Spring*, 1954, by Charles Burchfield.

See image list for link.

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Image of drawing, *The Structure and Connections of the Hippocampus*, by Santiago Ramón y Cajal.

See image list for link.

Fig. 6: (above) Charles Burchfield, *Oncoming Spring,* 1954, watercolor on paper mounted on board, 29.5x39.75 inches.
Fig. 7: (below) Santiago Ramón y Cajal, *The Structure and Connections of the Hippocampus*, pen and pencil on paper.

All similarities between brain and tree have tightened the usefulness of trees as a painting tool. Most specifically, how the electricity in a tree is mimicked by the electricity in a brain. Memories formed in the *hippocampus* region of my brain take the structural configuration of a tree. I paint the inside of my brain when I paint a tree. Brain matter is imitated in the patterning of roots and branches. Analyzing parallels between modes of perception tunes my cognitive awareness and produces indicators in paint that reference sensory systems of the brain, trees and the paint itself. Unfamiliar sensorial integration with an environment such as the woods adds a new way of existing in the world that can ideally be shared with a nonautistic viewer through composition and colour in a painting.

Familiar visual signifiers for how this energy is produced by trees can be found in cells from a human brain. Depictions of how a cognitive system might look like on a microscopic level are evident in brain tissue drawings made by Spanish neuroscientist, Santiago Ramón y Cajal, which look very similar to rooted trees. While attending a fall 2017 exhibition of Cajal's drawings at the *Morris and Helen Belkin Art Gallery* in Vancouver BC, the gallery attendant pointed out one particular drawing that had been observed as the most landscape-esque. It was a drawing of a human brain's hippocampus (fig. 7). When making these drawings leading up to winning the Nobel Prize in 1906, Cajal had no specific understanding of what nerves he was actually drawing. He was using new telescopic technology to look closer at brain tissue than humans ever had before, and from one zoomed-in passage to the next, he constructed the outlines of what are still considered some of the most revelatory depictions of where brains form memories.

In a passage from the exhibition catalogue, it is noted that "Cajal was well aware of the importance of the hippocampus in memory formation, stating in his autobiography that the hippocampus was 'the oldest centre of association in the brain, the storehouse of olfactory memories.' What Cajal could not know, but what modern research has revealed is that the hippocampus is absolutely essential for the formation of new memories. If the hippocampi on both sides of the brain are destroyed, a person is incapable of forming new memories."[6]

These drawings reveal the hippocampus as the physical space in a human brain where tree-like nerves and cells process and create memories, or in my case, index cards. Seeing Cajal's drawings gave literal tree form to the tissue in brains where cognition is enacted. As a result, trees in paintings now take the literal form of nerves, rooted to the core of a larger network.

6 Newman, Eric A., et al. *The Beautiful Brain*. New York, USA; Abrams, 2017. Print. Pg.140

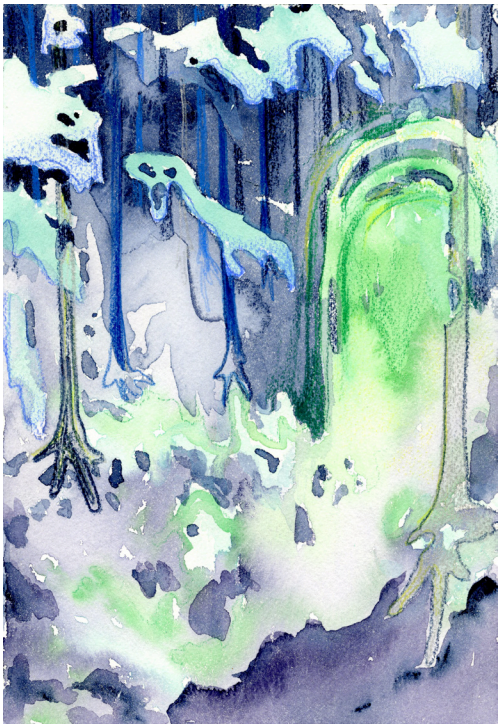

Fig. 8: (above) *Field Study #1,* 2017, watercolour and pencil crayon on paper, 7x10 inches.
Fig. 8: (below) *Field Study #2,* 2017, watercolour and pencil crayon on paper, 7x10 inches.

Woods:

Painting the woods provides an environment for aesthetic and compositional interpretation where sensorial information is the most vivid. Evaluating the unique signals offered by the woods is the investigative research at the centre of my practice.

All experiences of wooded areas in North America are acted out on contentious terrain. Where I currently make paintings in Vancouver BC, Canada, my studio resides on the unceded territory of the Coast Salish Peoples, including the territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations. In this context, my experience of the land exists outside of the mythologized construct of the *wilderness*. Over time, the term *Woods* has reflected the most direct description of the environments I explore and paint.

Woods is a material way to refer to a place with lots of trees while maintaining an experiential connotation. It is stripped of being an idealization of a particular place. Words such as *nature* or *forest* convey a space overly effected by the anthropocene and do a disservice to the phenomenological potential of the woods. As a metaphorical tool, *woods also* refers to a network of trees, therefore a network of cells, and therefore a brain.

The amalgamated ecosystems in my paintings are heavily informed by research and personal experience of histories in Canada. Colonialist structures existing around all social, political and geographical realms have tinted every aspect of life as a Canadian citizen. In a recent response to the *Canada 150* celebrations, Nooksack writer Robert Jago reacted to the appropriation of the land in Canada, including some specific wooded regions I have visited to paint field studies (fig. 8 & 9) as source for bigger paintings. "The desire for the return of these lands goes beyond nostalgia. The places Canada has made into parks are filled with our stories—every mountain, every valley has a name and a history for Indigenous peoples. It is in these places that our history is alive: our Mecca is here, our Magna Carta, our Thermopylae."[7] Anthropological awareness in this context is a useful guide to respectfully plan excursions in any new or familiar land. With this knowledge in mind, I enter all wooded areas as a guest regardless of their location on earth and approach all new paintings of the woods with the same respect.

I have always felt physically connected to the woods going back to my earliest memories while camping with my family as a child. In tree-filled envoronments, I first learned my

7 Jago, Robert. "Canada's National Parks are Colonial Crime Scenes." *The Walrus*, Web

Fig. 10: *Tree with Branches,* 2017, oil on canvas, 48x60 inches.

Matas: "*These were lands before we drew them*
These were plants before we grew them /
These were trees before we milled them
These were blue stems before we tilled them"

cognitive system had some benefits rather than mostly road blocks. What I remember is not people or specific destinations, but instead it is the pulsing electrical energy from the woods that remains engrained in my brain.

As an adult, the link to the woods has been maintained by travelling to many regions in order to have unique camping, canoeing and hiking experiences. A life-long heterogeneous relationship with the woods replenishes the mental index of senses and allows for an evaluation across a diverse range of frequencies from each category. Compiling hybrid environments in my paintings from geographically varied source material strips the specificity of place and creates a woods of my own fabrication. Each painting is an accumulation of many experienced locations with diverse terrain and atmosphere. Colour can be determined by an experience in the plains while compositional structure is a reference to the mountains.

Keeping a nomadic approach to landscape is a reflection of the constant flux observed in the woods, and of the transient state of information in the brain. Every encounter with the woods is both unique and the same as the last. Painter Charles Burchfield (fig. 6) has described the desire to capture sensation in the woods through the practice of memory; "Even when working directly from nature, I am painting from memory, for not only am I trying to recapture the first vision or impression that attracted me (and which is all that is worth going after) but also the distillation of all previous similar experience."[8] Although I am not looking to represent the woods in it's direct physical state, constant mental re-visitation of lived experience in the woods is a main resource of painting material. Burchfield's paintings depicting plumes of energy expanding from behind rows of trees point directly to an energy that cannot be seen, but maybe can be remembered or sensed from the moment of encounter.

In all experiences of the woods, my brain serves as an *antenna* for the underlying sensory information coming up from the trees. All trees in all woods are constantly emitting knowledge to be intercepted by each other and I can listen in with increasing accuracy. Each strain has something different to contribute and as a passive participant, this information can be used to carefully navigate the woods. This is most useful as encouragement to move deeper in to the woods. Pulsations that leak through layers of trees serve as a guide to unexpected spaces or uncommon formations in the foliage. The sensation is similar to hearing a distant sound that gets louder as you move closer to it, only to reveal an unanticipated source of the sound. The most colourful trees in my paintings are a result of happening upon these type of locations.

8 Burchfield, Charles. *50 years as a painter.* New York, USA: DC Moore Gallery, Exhibition Catalogue, Distribute Art Publishers, 2010. Print

Fig. 11: *Portal #3,* 2018, oil on canvas, 72x96 inches.

Smith: "Through a chemical and electrical transmission, the single-stemmed axon of one neuron talks to the branched root-like dendrite of another."

It is easiest to quantify this sensory information as electrical energy. Interchangeably referring to it as either *electricity* or *energy* is dependent on if it is active or passive. When in the woods, I actively absorb electricity and while in the studio, I passively flow stored, or potential energy through projections and into paint.

On a scientific level, these electrical impulses have been documented in many different ways, inducing in tree roots as they move through the ground. German forester and ecologist, Peter Wohlleben has condensed several ecological studies into plain language in his book, *The Hidden Life of Trees*. In it, he explains that; "Brain-like structures can be found at root tips. In addition to signalling pathways, there are also numerous systems and molecules similar to those found in animals. When a root feels its way forward in the ground, it is aware of stimuli. The researchers measured electrical signals that led to changes in behaviour after they were processed in a 'transition zone.' If the root encounters toxic substances, impenetrable stones, or saturated soil, it analyzes the situation and transmits the necessary adjustments to the growing tip. The root tip changes direction as a result of this communication and steers the growing root around the critical areas."[9] This information is a concrete example of the type of kinetic energy that exists in the woods which is made available for animals to intercept and decipher. Painting roots is an attempt to interact with the physical source of the signal in order to find an appropriate visual interpretation of the full sensorial experience.

Although the research in Wohlleben's book is tangible evidence that electricity is present in the woods, it does not accurately describe how it feels when energy is absorbed by the body and processed by the brain. The most accurate depiction that matches my own experience is from a then-13-year old autistic boy, Naomi Higashida, writing about his life on the spectrum; "Just by looking at nature, I feel as if I'm being swallowed up into it, and in that moment I get the sensation that my body's now a speck, a speck from long before I was born, a speck that is melting into nature herself. This sensation is so amazing that I forget that I'm a human being."[10] The fact that the energy is simply present is not useful to painting, it is the bodily experience of the energy that is uncommon and overwhelming and translatable into paint. Personal empathy for the woods in this way is contrary to reason for most people, making the interpretation of energy into paint imperative as research for broadening understanding beyond the autistic spectrum.

9 Wohlleben, Peter. *The Hidden Life of Trees*. Greystone Books, 2016. Apple iBook

10 Higashida, Naoki. *The Reason I Jump*. Canada: Knopf, 2013. Apple iBook

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Image of painting, *Untitled (Nemophilia)*, 2017, by Kim Dorland.

See image list for link.

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Image of painting, *Swamped*, 1990, by Peter Doig.

See image list for link.

Fig. 12: (above) Kim Dorland, *Untitled (Nemophilia),* 2017, oil and inkjet on canvas, 48x60 inches.
Fig. 13: (below) Peter Doig, *Swamped*, 1990, oil on canvas, 77.5x95 inches.

This energy is the content of my paintings. As an antenna, current is processed in my brain and stored on index cards that playback as a 3D projection of wooded sensation. It is absorbed in my body like moisture in the air, and flows through my feet with each step. In the past, I would only articulate my connection to the woods by incorporating a figure in the composition. It was a simple way of representing the body in relation to it's surroundings. However, an over reliance on representation eclipsed any phenomenological experience from the resulting painting and in no way referenced the electricity being received in the brain.

In an attempt to paint how a human cognitive system can overlap with cognition in the woods, painted compositions are started based on reactionary gestures to energy emitted from trees. Quick decisions in colour or form which are based on present energy determine large portions of the painting. When in the woods, it is easy to allow a one-to-one correlation between my hand holding a brush and my brain. Like a jolt up the spine, the initial brush strokes have lately been taking the form of *arcing*. As electricity swells from the woods and passes through the body, the brush becomes the conductor, replicating the shape of the current as it connects the body to the trees.

Through iteration, the arced marks have evolved into transitional *portal* spaces; charged, glowing passages permeating the woods. Multiple meanings can be projected in to the portals. In earlier paintings, portals were a pictorial representation of missing information; brain holes where something seemingly vital was stripped from an index card, like a gap in memory. Now portals are a space to envision entering the woods, to actually get swallowed up or absorbed into it as the painting is formed. While painting, the brain projection becomes the imagined space on the other side of the portal. Mentally passing through the portal as an exercise helps hold a projection in my brain and amplifies all energy being played back from index cards. In these moments, I feel grounded by reliable, repeating roots shooting out of my body. Just like nerves grounded in the hippocampus, the stability in the completed circuit becomes the network in which all sensorial information can be shared, processed and painted.

These portals also manifest in the form of a recurring dream. When dreaming, the same imagined space on the other side of a portal can be accessed, just like while in the act of painting.

In the dream, I am a tree. I don't have eyes in the dream, but just like in projections, energy takes a visual form that constructs the environment. I am vaguely aware of the horizon and

Fig. 14: *Trees in a Dream,* 2017, oil on linen, 48x60 inches.

some of the night sky, but the most vivid parts of the dream that I retain when I wake up have to do with sound, temperature, moisture and a strong sensation of being very still. All of the energy in the woods is imprinted on the initial recall of the dream. I can feel the other trees around me, above and below the surface of the ground and sometimes I can hear the wind. In a moment of *déjà reve* while sleeping beside the Kloiya river about a year ago, a full lineage of dreaming snapped into place. As I was about to open my eyes in my tent, countless versions of this dream came rushing to the front of my mind. I still often have this dream in a lucid state and know that every morning I awake from a dreamless night, it means I was a tree while I slept.

In paintings, this dream has become just as valuable a resource as actually spending time in the woods; one encounter now feeds the other. Painting has become like dreaming in that it transplants me into the woods while not physically being there. While in the studio, feeling bodily disconnected from the woods is partially relieved by a persistent cerebral relationship with the woods.

Fig. 15: *Kloiya,* 2017, oil on linen, 60x72 inches.

Smithson: "One's mind and the earth are in a constant state of erosion, mental rivers wear away abstract banks, brain waves undermine cliffs of thought, ideas decompose into stones of unknowing, and conceptual crystallizations break apart into deposits of gritty reason."

Material:

There is a similarity between materially interpreting an esoteric relationship with the woods and materially interpreting an autistic brain. A painting which visually itemizes a projection to resemble underlaying sensorial information in the woods is a painting that reveals new knowledge about the woods, and therefore new knowledge about the brain. In a philosophical journal about seeing and abstracting, Carolyn Wilde points to the transformational potential of painting in that; "Painting, and the ways in which it breaks with previous convention and style, can demand that the viewer re-orders their experience and expectations. A painting can therefore provide for different possibilities of response to the social or natural phenomena of the world."[11] In this way, painting is a conversation I can have with myself where I don't know what I'm going to say next. For example, when responding to initial gestural arced brush strokes with secondary layers, newly painted tree forms find their own ground within the arced structure and outside of representational expectation. Following the direction of these types of abstracted moments is the most generative research into different possibilities for participating in the world. Paint can uniquely reveal this type of knowledge by activating an extended range of sensations. When this happens, paint becomes the energy of the woods, interpreted in the moment of becoming and continually resolving itself for the viewer.

Materiality is assigned based on the collaged logic of the projections. Disruptions are consistent in both the projection and in the aesthetic choices of the painting to form a complete depiction of lived and painted experience. During an interview with *Canadian Art,* painter Peter Doig explains how he selectively draws from personal lived experience and not the expectations of contemporary ideals to formulate a composition; "I try to stay away from discourses, and make it up my own way. I was asked to describe my paintings once, and I said, think of a collage. They are basically pieced together from things that I've seen, things I've remembered, even wallpaper I've seen, bits of things I've seen in other people's paintings. At the same time, I don't want my work to look like collage; I want it to look like something whole."[12] Painting disruptions in the projections right alongside the vividly remembered sensation is an example of trusting the research to decode alternate ways of perception within a loosely familiar framework.

11 Wilde, Carolyn. "Painting, Expression, Abstraction." *Philosophy and the Visual Arts: Seeing and Abstracting.* Ed. Andrew Harrison. Dordrecht NL: Reidel Publishing Company, 1987. Print

12 Mays, John Bentley and Benjamin Klein. "The Closer You Get: An Interview with Peter Doig." *Canadian Art*, 30 January 2014. Web.

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Image of painting, *Rising in the Brush*, 2017, by Rachel Macfarlane.

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Image of painting, *Red Moon in the Orchard*, 2017, by Darby Milbrath.

See image list for link.

Fig. 16: (above) Rachel Macfarlane, *Rising in the Brush,* 2017, oil on canvas, 40x30 inches.
Fig. 17: (below) Darby Milbrath, *Red Moon in the Orchard*, 2017, oil on linen, 41x58.5 inches.

When this trust is activated, my position as the maker is excavated within the woods through painting. Using the act of painting as a calibration of sensory elements helps move past the literalness of landscape. Within abstracted pictorial spaces, new logic is invented and old rules are broken to better match the actual sensorial experience of the woods. In the painting, *Trees in a Dream* (fig. 14), a large indigo void sits in the centre of the frame as a representation of a disruption in a projection, like a hole in the brain piercing a memory. Once painted into the composition, this passage became it's own ground to spawn tree roots from. Space became defined in a nonliteral way and additional grounded anchor points were revealed for more trees to be rooted to. This alternate wooded reality is just as believable as a space as actual bodily encounters with the woods can be.

Methods from modernist and expressionist landscape painting provide generative examples of sensorial experiences outside of expected visual representation. German painter, Ernst Ludwig Kirchner's use of vivid colour blocked areas spatially sitting in-between trees invent a pictorial space that is not easily accessible. Instead, Kirchner requires the viewer to construct an alternate way of inhabiting the woods he has painted, either metaphorically or by imaged additional senses. These types of painting references construct the platform of historical context that I stand on while in the studio to reach the *impossible space*.

Minimally familiar components can become a grounding mechanism while building an environment in paint. Visual keys, such as brain nerves in place of trees are painted as basic compositional elements and become a gateway for me to comprehensively activate additional sensations recorded in the woods. When painting deviates from the condition of a projection, trusting the deviation is an essential part in the painted research of the woods. The deviation locates meaning by revealing intuitive knowledge of the woods. Now, trees in mental projections have taken the visual forms of the trees from paintings. Painting has revealed meaning and permanently altered the projections. Where thin linear projected trees used to stand, claw-like roots now split into a reactive ground from the end of a nerve.

As it is easiest to decipher electrical senses at night while depending less on vision to explain an environment, a nocturnal colour palette has developed, spiked with radiant accents. Colour can assert the quality of a form. When used to describe an intangible sense such as communicative electricity between trees, the colour becomes the form. Radiant green and lemon become portals to an ephemeral space where energy is transported through a visible vapour. Red and pink set up the deepest part of the woods where the blues slip into magenta. Legibility in the darkness is only made available by it's lustrous compliment. The shift from day to night in painted compositions amplifies the tone of the electricity in trees.

Fig. 18: *Portal #1,* 2017, oil on canvas, 96x72 inches.

An example of how paint can store the energy from the woods is hinted at in some of Emily Carr's late career narrative writing from *Klee Wyck*; "The canoe passed shores crammed with trees - trees overhanging stony beaches, trees held back by rocky cliffs, pointed fit trees climbing in dark masses up the mountain sides, moonlight silvering their blackness."[13] Although the description of the shore is visually literal, the notion of *silvering blackness* distinguishes a kinetic flicker of electricity emanating from the trees. After reading this, I started cutting silver paint in to the darkest colours to reflect the luminous passages in the composition and to enhance the eco-electrical impulse. Colour and sensorial saturation are exaggerated when juxtaposed with the silvered dark areas, therefore becoming felt energy such as a somatic temperature.

Patiently building a painting in many layers gives the capacity to utilize multiple different versions of a sensory memory from the woods. Working on multiple paintings at once reveals time in the energy of the mark. Painted layers are afforded time to fully dry before new semi-transparent passages build on top, making it easier to build an interconnected network of root drips below the surface. The tactility of the soil in the woods is replicated in the sedimentation of the paint when slowly layered in this way. Breaking the binder from the pigment with mineral spirits lets slow, separate drains to become ground. In the painting *Kloiya* (fig. 15), minimal permanence of the layers reveals a web of connectivity happening underground, mirroring underlying sensory information in the woods as well as loosely defining the root structures of trees. This is as close to a pictorial representation of the omnipresent electrical pulse I feel in the woods. Sometimes electricity in the woods happens in an instant and is better suited for more saturated colours and quick arced brush strokes, especially as highly saturated colours inherently hold a high level of visual energy. But underneath all of the electrical peaks, there is a persistent tone humming in the soil. This can only be replicated by a painting process dependent on time, like a droning sound waiting for it's consistency to inhabit a listener.

Reflecting the intelligence of the woods in compositional decisions enhances the logic of the painted hybrid spaces. Like trees reaching upwards for the energy from the sun, applying verticality to a series of trees produces a rhythm similar to the one felt while passing though cold, leafless woods. As bare trees recede in the peripheral, the decibel level of the energy in the woods is turned up, causing all senses to fit in harmony with the rhythm. When the composition is in tune, it is easier to recall dream and physical encounters with the woods. The interplay between painted elements becomes generative of new meaning within the brain and the woods. As a result, painting often tells me things about the woods that I hadn't

13 Carr, Emily. *Klee Wyck*. Madeira Park, BC, Canada: Douglas and McIntyre Ltd., 2013. Print. Pg. 151

Fig. 19: *Winter Trees,* 2018, oil on canvas, 48x60 inches.

Erdrich: “And now they take the first steps, now knowing
how deep the woods are and lightless.
How deep the woods are.”

observed before. An example is the painting, *Portal #1* (fig. 18), where applying exaggerated verticality to all trees in the composition left space in between the trunks to respond to atmospheric energy sensed beyond the foreground. It is in these open compositional spaces that the first painted portal was found, glowing green up the right side of the frame. Portals are now prevalent in all experiences of the woods; lived, dreamed and painted.

Painting has the ideal set of controllable qualities in colour, texture and composition to make these new phenomenological spaces a relatable reality. Verbal descriptions are increasingly unproductive to quantify sensation or environment as painting becomes closer to a full articulation of the woods, seen through my autistic cognitive system. During a 2014 interview with *Border Crossings*, painter Charline Von Heyl points to the uniqueness of painted information; "You are aware of the fact that you are looking at something that you cannot describe, that you can only understand or not understand. So you're arriving at a knowledge that cannot be translated into words."[14] Instead of language, it is most informative to look at and engage with moments in painting to reveal how this new knowledge is shared.

In the most recent paintings, the primary concern was to strip as much familiar pictorial space from the composition to illicit a complete submersion in the woods. These frontal confrontations of abstracted foliage are intended to provoke bodily senes through a breakdown of visual expectedness. Colours are chosen in reaction to the developing composition with no regard for local values.

In this new work, painting without conventional compositional landscape elements provided many opportunities for development in other areas. (fig. 4 & 5) Instead of building a painting from the surface to the foreground in several layers, new paintings grew in a radial way. Coloured shapes and other aesthetic decisions stemmed outwards from a central point to fill the frame before additional layers were built on top. Any minimally representational elements, such as a branch or a leaf, had to be planned differently while working this way. Most of these shapes became negative spaces while colours filled the canvas around them. As a result, new opportunities to invent shapes and colours based on my senatorial experience of the woods were present while painting. By trusting these abstracted discoveries to operate as foliage alongside painted elements that were made to more closely match the terrain, a whole new set of pictorial signifiers became available with no reliance on representation to reference a wooded area.

14 Enright, Robert and Meeka Walsh. "Too Little and Too Much--All the Time: Charline Von Heyl and the Life of Painting." *Border Crossings,* vol. 33, no. 3, Sep-Nov2014, pp. 34-50. Print

Fig. 20: *Red Leaves,* 2018, oil on canvas, 48x60 inches.

Installing groupings of paintings in an exhibition setting revealed unexpected relationships across divergent period of thinking and opposite methods of creating space. As a result, paintings gave new meaning to each other. Paintings with minimal pictorial space could point to material moments in other paintings with a clear foreground and background. The most prevalent example of this was the relationship between the paintings, *A Few Stars in the River* (fig. 1) and *Untitled (Red with White Trees)*. (fig. 21) The warm consistent values in *Untitled* juxtaposed the cool ground in *A Few Stars in the River* which created a resolution to both paintings not felt in other contexts. Additional relationships across paintings were established based on repeated shapes, paint viscosity and saturation. Paintings that did not get exhibited, in some cases, were stronger when isolated but did not fit into the broader lineage.

Through painting, I have access to sensory inputs that are fundamentally different from most other people. I will never be another person, so I will never know for sure, but it is a framework I will continue to test against my growing archive of finished paintings. The lived labor of my personal experience is recorded in paint and reflected back at me to evaluate.

Just like the brain, the canvas becomes the container for all sensation to take form. Familiarity between the brain and painting multiplies each time a part of cognition splits off on to a new frame. Through time, part of my brain, and therefore part of the woods, is stored in each brush stroke. The edge of my brain becomes the edge of the woods; abstracted and seeping into the painting. My entire lived experience and all of my embodied knowledge become housed in the material.

My brain becomes a tree, becomes a painting.

Fig. 21: (left) *Brain Trees,* Install #1, 2018, Michael O'Brien Exhibition Commons.
Fig. 22: (right) *Brain Trees*, Install #2, 2018, Michael O'Brien Exhibition Commons.

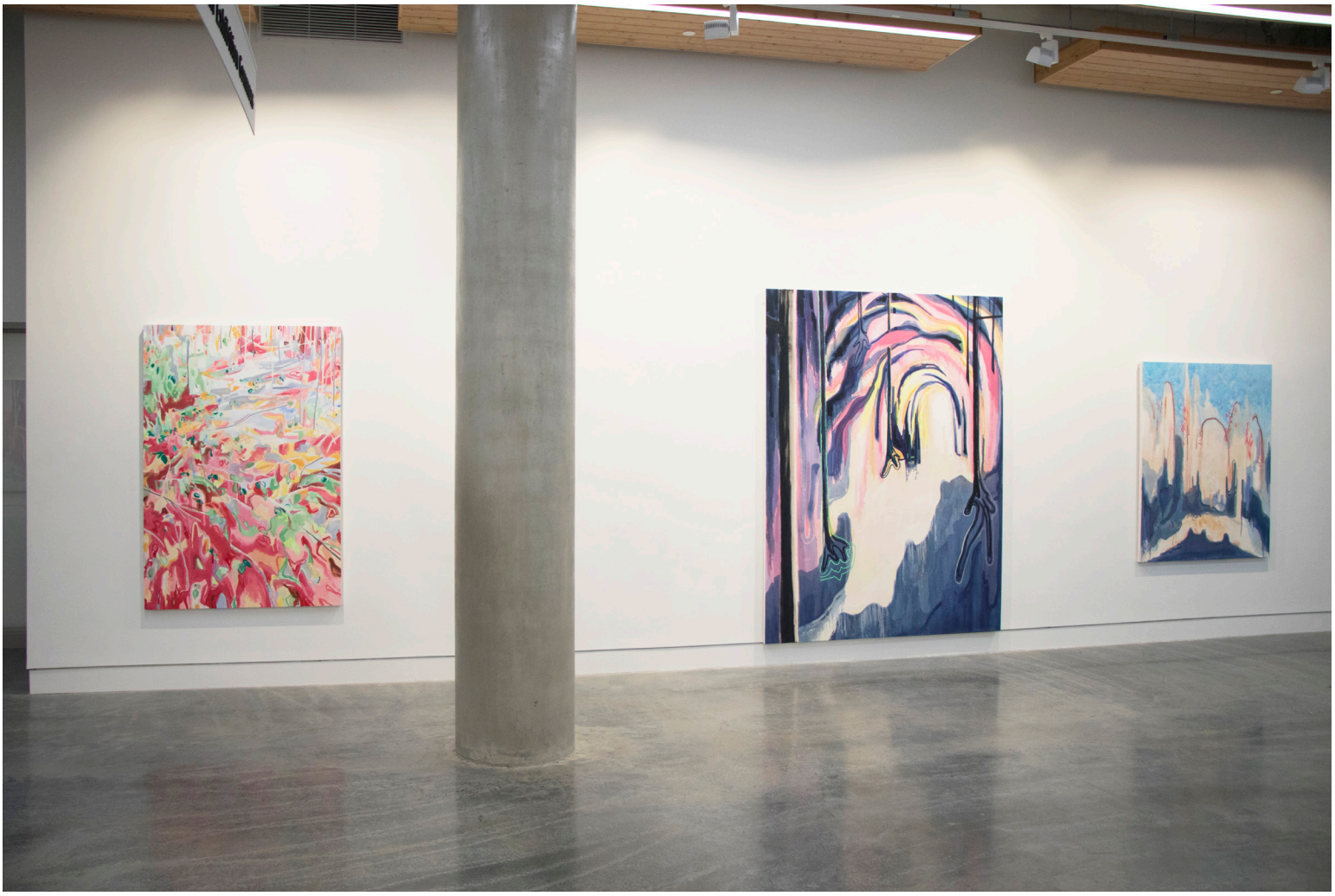

Image List:

Fig. 1: Kyle Scheurmann, *A Few Stars in the River*, 2018, oil on canvas, 72x96 inches.

Fig. 2: Kyle Scheurmann, *Self Portrait as a Tree in a Dream #1*, 2017, oil on linen, 11x14 inches.

Fig. 3: Kyle Scheurmann, *Self Portrait as a Tree in a Dream #2*, 2017, oil on canvas, 16x20 inches.

Fig. 4: Kyle Scheurmann, *In the Woods #3, 2018*, oil on canvas, 48x70 inches.

Fig. 5: Kyle Scheurmann, *In the Woods #2*, 2018, oil on canvas, 48x70 inches.

Fig. 6: Charles Burchfield, *Oncoming Spring*, 1954, watercolor on paper mounted on board, 29.5x39.75 inches.
(link: https://www.burchfieldpenney.org/collection/object:1990-003-000-oncoming-spring/)

Fig. 7: Santiago Ramón y Cajal, *The Structure and Connections of the Hippocampus*, pen and pencil on paper.
(link: https://goo.gl/4JoMj9)

Fig. 8: Kyle Scheurmann, *Field Study #1*, 2017, watercolour and pencil crayon on paper, 7x10 inches.

Fig. 9: Kyle Scheurmann, *Field Study #2*, 2017, watercolour and pencil crayon on paper, 7x10 inches.

Fig. 10: Kyle Scheurmann, *Tree with Branches*, 2017, oil on canvas, 48x60 inches.

Fig. 11: Kyle Scheurmann, *Portal #3*, 2018, oil on canvas, 72x96 inches.

Fig. 12: Kim Dorland, *Untitled (Nemophila)*, 2017, oil and inkjet on canvas, 48x60 inches.
(link: http://www.kdorland.com/portfolio-item/nemophilia-5/)

Fig. 13: Peter Doig, *Swamped*, 1990, oil on canvas, 77.5x95 inches.
(link: https://www.christies.com/features/Doig-Transformative-Landscape-5973-1.aspx)

Fig. 14: Kyle Scheurmann, *Trees in a Dream*, 2017, oil on linen, 48x60 inches.

Fig. 15: Kyle Scheurmann, *Kloiya*, 2017, oil on linen, 60x72 inches.

Fig. 16: Rachel Macfarlane, *Rising in the Brush*, 2017, oil on canvas, 40x30 inches.
(link: http://metiviergallery.com/artists/Rachel-MacFarlane/paintings)

Fig. 17: Darby Milbrath, *Red Moon in the Orchard*, 2017, oil on linen, 41x58.5 inches.
(link: https://www.artsy.net/artwork/darby-milbrath-red-moon-in-the-orchard)

Fig. 18: Kyle Scheurmann, *Portal #1*, 2017, oil on canvas, 96x72 inches.

Fig. 19: Kyle Scheurmann, *Winter Trees*, 2018, oil on canvas, 48x60 inches.

Fig. 20: Kyle Scheurmann, *Red Leaves*, 2018, oil on canvas, 48x60 inches.

Fig. 21: Kyle Scheurmann, *Brain Trees*, Install #1, 2018, Michael O'Brien Exhibition Commons.

Fig. 22: Kyle Scheurmann, *Brain Trees*, Install #2. 2018, Michael O'Brien Exhibition Commons.

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