


Synapse of the Self

By: Leah Backo



The background is an abstract composition of colors and textures. It features a mix of yellow, purple, and grey tones, with some darker, almost black, areas. Fine, thin black lines are scattered across the entire surface, creating a sense of movement and complexity. The overall effect is that of a layered, textured surface, possibly a piece of aged paper or a canvas with light painting.

I dedicate this project to my parents and my older brothers, who have taught me that everything happens for a reason.

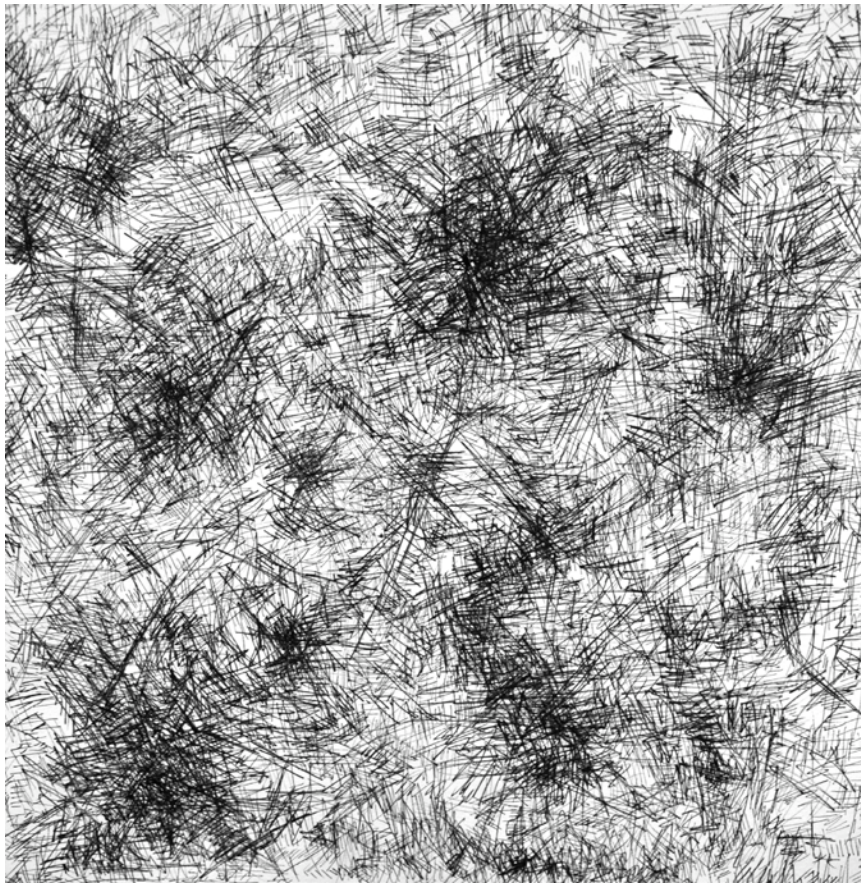


fig. 1: An early experimentation from *Synapse of the Self*

Abstract

Since the dawn of mankind, human beings have thrived in communities. People have always valued companionship, whether it be in the form of a family member, friend, or lover. When we are alone for an extended period of time, we feel different; we begin to thirst for this companionship. Psychologists call this thirst for companionship the need for affiliation. I have chosen to explore this idea of being alone and how it affects our mental states and the way in which we process thought. *Synapse of the Self* consists of a series of large scale drawings that explore both positive and negative mental states that result from the notion of being alone. These visual depictions have derived from my own experiences, from references to psychology and neuroscience, from work in the art therapy field, as well as from artists exploring these ideas. The drawings are made up of layers of marks, textures, and imagery that are a combination of careful consideration as well as a stream of consciousness method which creates dense atmospheres that represent the inner workings of the mind.

Moment.

That moment when
everything starts shaking.

From your fingertips up your arms, through your neck and into your mind.

Then back,
back down your spine into your toes.

The mind begins to realize what is happening.

It can't handle it.

It can't prevent what is happening. It starts to think; it starts to process information except the thinking and the processing are all wrong. It just all starts but instead of finishing it starts again and again. but in a different place and this keeps happening and it can't stop. There are no moments of silence in the mind after the shaking has begun. It's endless, or it seems endless. And then out of nowhere—

it ends.

The shaking stops.

But then,

then the silence starts.

And the silence is worse,

It's like a weight that
pushes, pulls, drags you down.

It's much worse than the shaking,
because in the silence, you realize

you are alone.

from "Moment," a poem by Leah Backo

Background

In March of 2013, I received a phone call from my father telling me my older brother Jeremy, who was living in San Diego at the time, had been admitted to a local hospital. My father didn't know much, just that Jeremy had quit his recently acquired job and had some type of severe mental break down. He remained in San Diego Hospital's psychiatric ward for a week until my father could fly out to San Diego and bring him home to Ohio. He was eventually diagnosed with manic bipolar disorder and has gone through extensive amounts of therapy and medication to be able to manage it. My brother and I have had our fair share of differences, but in hearing about his mental breakdown, I immediately felt a strong connection with him.

There was a period of time between my senior year in high school and my sophomore year in college when I began experiencing episodes of anxiety and depression. I would go through episodes that felt as if I had an excessive amount of energy and I didn't know how to channel it. My thoughts would run on, my hands would shake, and nothing seemed to help it. I tried to channel that energy through focusing on school, running miles at a time, but when nothing seemed to work, I began to use more harmful means to channel it. There would also be spells of time when I would feel weighted down, when I felt incapable of doing anything. While I can only hypothesize that the experiences I had were similar to the one my brother had, I have concluded after many conversations with him, that our experiences stemmed from the same notion: being alone.

Immediately after college, my brother moved from our home town in Ohio, to live in first New York City and then San Diego. In both of these places he had no family and very little friends and, because he had no money, he came home maybe twice a year for a few days. After I graduated from high school, I was experiencing something very similar. I had lost some people that were very important to me and I was about to move three hours away to a college where I knew no one. My anxiety and depression seemed to be at it's worst when I was physically alone.

I am not saying that being alone is a recipe for a mental breakdown, but I do think it has a strong impact on the way our minds work. Another inspiration to this project has been my work and research in America's system of incarceration. There have been countless accounts of men and women who are put in indefinite solitary confinement that actually develop serious mental illnesses such as depression, anxiety, paranoia, psychosis, bipolar disorder, and in some cases even schizophrenia (Metzner and Fellner). There are many activists, myself included, who view indefinite solitary confinement as a violation to human rights and a major harm to the human psyche.

Initially, I chose to embark on this project because I wanted to create something that was relatable to both people who might have these experiences as well as to allow those who haven't to be able to understand what they are like. I have also more recently considered how art might be able to release some of the energy of anxiety or relieve some of the weight of depression and be used as a mechanism to calm the mind.

Influences

I. Psychology

Human beings are social creatures. We have actually evolved to depend on one another for our own survival. In the caveman days, those who strayed from social situations, were less likely to survive. Men hunted together and women gathered together (Szabo, 2010). So we have evolved to contain what psychologists describe as a “need for affiliation.” Psychologist Craig Hill proposed 4 reasons for our motivation to affiliate: for positive stimulation, for emotional support, to gain attention, and to permit social comparison. This is why in fear situations, people tend to seek out companionship (Schreier, 2014).

The drive to avoid being alone is almost as strong as the need for food and water (Szabo, 2010). John Cacioppo, a psychologist and professor at the University of Chicago who studies “lonely” individuals found that people who feel alone, besides being at greater risk of suicide, actually have higher levels of stress hormones, higher levels of blood pressure, and are often unable to sleep. He found that loneliness actually had physiological effects on our bodies and our minds (Marano, 2003). He began an experiment using fMRI scans to study these effects and found that people who were classified as “lonely individuals” actually had different reactions in their brains. When shown a positively stimulating picture, the subjects who were lonely had less activity in their ventral striatum, a region of the brain associated with rewards (University of Chicago, 2009). Additionally, researchers have found that feeling alone and isolating yourself from the world is both a cause and a symptom of anxiety (Calm Clinic).

Many people feel anxiety when they feel alone. Their thought processes change and become far more internalized (Calm Clinic). Furthermore, mental illnesses in general are extremely common both in the U.S. and internationally. About one in four adults have a diagnosed mental disorder (“Mental Disorders in America”). That’s not including those cases that go undiagnosed.

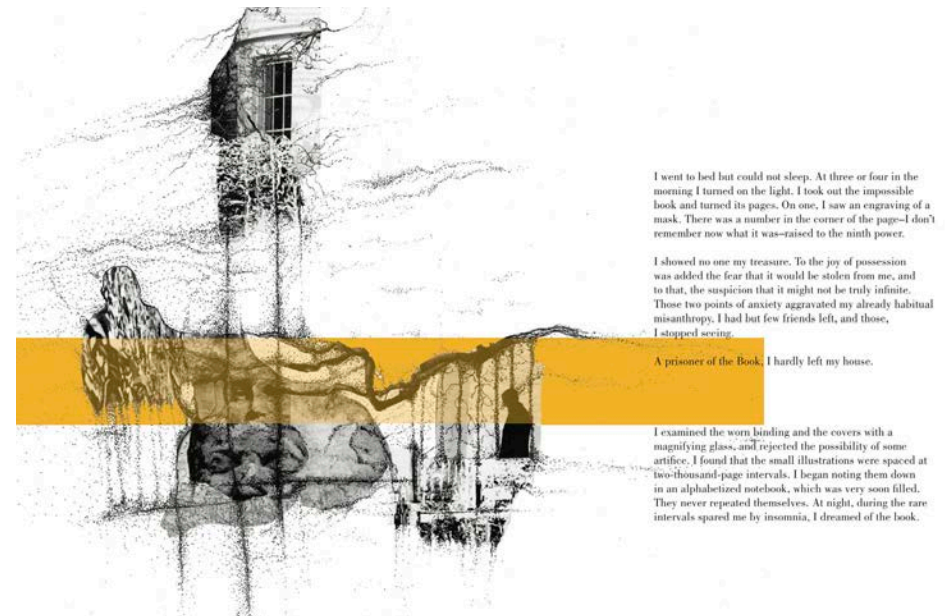


fig. 2: From *The Book of Sand*; written by Jorge Luis Borges, illustrated by Leah Backo

Influences

II. Art Therapy

Art therapy attempts to address anxiety and other cognitive or social disorders through the use of art. The goal of art therapy is not to cure mental disorders, but to improve functioning and increase personal well being; to make it easier in a sense to go about daily life (Rivera, 2008). The relationship of art and psychology was first discovered during the mid 20th century when doctors noticed people who had severe mental illnesses frequently communicated better through art than by speaking (Living with Anxiety, 2012). However, the connection between art and the mind dates back to the beginning of human society. The works of Plato often linked madness and creativity (Rivera, 2008). During the early 1900s, before art therapists really existed, Adolf Wolfli began creating art while he was in isolation at a mental institution. Wolfli's work, (fig. 3) includes an element of a different world, perhaps his own mythology. It has an incredible amount of detail and often includes intricate repetition of certain marks (Spoerri, Baumann, and Gomez). For many, art therapy has become a means to express what they may not have been able to express previously. It becomes a form of communication and it is believed that it helps to reduce feelings of anxiety and of depression, it helps us to communicate, and it helps us channel our thoughts visually (Living with Anxiety, 2012).

III. Neuroscience

Neurons (fig. 4) process not only our motor and sensory information but also our cognitive information. Interneurons are

the subset of neuron responsible for transmitting cognitive information between different types of neurons. They are the means through which we can reason, think, dream, plan, remember, and do everything else we do with our minds. However, without synapses, none of that would be possible. A synapse is the connection between neurons through which information is transmitted from one neuron to another through the process of neurotransmission. (Stufflebeam, 2008). The title for *Synapse of the Self* stems from this idea of neurotransmission. I wanted to explore how thoughts not only occurred, but how they were affected by feelings of aloneness, how our processes physiologically change as a result of being alone. So going back to the basics, I began with the synapse and explored how these transmissions were the very reason our brains are able to process thoughts.

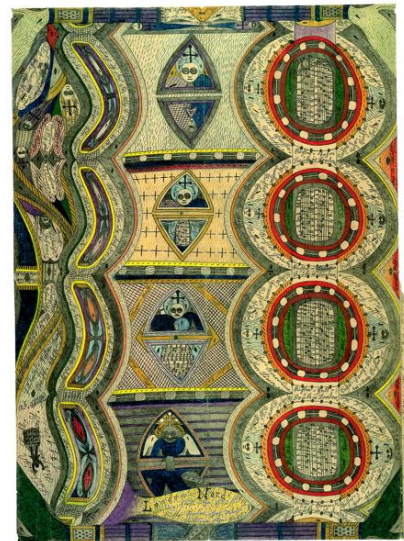


fig 3: *London-North* by Adolf Wolfli

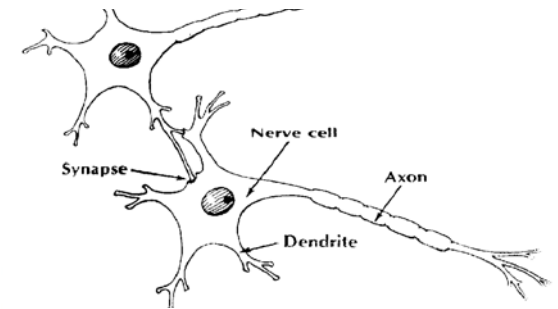


fig. 4: Brain Neuron



fig. 5: *Gold Cortex* by Greg Dunn

Influences

IV. Artists

There are a few artists, such as Greg Dunn (fig. 5), who actually study neuroscience and its processes and interpret them through art. In his work, for example, he depicts neurons and neural activity through paintings and printmaking.

There are also many artists whose works have explored the inner workings of the mind. Art and mentalities seem to go hand in hand. After all it is often the job of the artist to visually depict something that is abstract, an idea, a thought, or an emotion. Adolf Wolfli (previously mentioned), Henry Darger, and Edvard Munch, lived a large part, if not all of their creative lives alone or in isolation and their work was either surreal and obsessive in nature or had an emotional quality. Henry Darger, a man who lived almost his whole life in isolation created a world that was fantastical like Wolfli's, only much more elaborate. It was only after his death that *The Realms of the Unreal*, an over 15,000 page illustrated story by Darger was discovered. The water color collages which accompany the text are perhaps just as complex and mythical as the the story itself, sometimes measuring up to 12 feet in width ("Henry Darger"). For the last 27 years of his life Edvard Munch's lived largely in isolation. He is most famous for *The Scream* (fig. 6) which evokes anxiety and uncertainty in its twisted figure and lined sky (Lubow).

However the artists whose work I am most attracted to all seem to have elements of complexity that is meant to be unrelated to cognition but, for me, still provides correlations to cognition.



fig 6: *The Scream* by Edvard Munch



fig 8: *Autumn Rhythm* by Jackson Pollock



fig 7: *Leda and the Swan* by Cy Twombly



fig 9: *Black City* by Julie Mehretu

Julie Mehretu's work (fig. 9), for example, has probably been the most influential on this project. Her work is built up of layer upon layer of architectural references and cultural symbols to create dense atmospheres of meaning. The line work and layering she used, though they were meant to make cultural and historical references, reminded me of thoughts repeating and overlapping. Cy Twombly's playful and almost childlike strokes (fig. 7) had a similar, though more simple effect for me. His use of color also revealed very different moods. Jackson Pollock's famous layerings of paint also reminded me of this layering of thoughts.

Influences



fig 10: Spectators view paintings by Julie Mehretu

V. Drawing from these Influences

These influences, as well as my own personal experiences, are brought together in *Synapse of the Self*. In order to create the work, I started by isolating myself and channeling how I felt during every moment I've ever been alone and had a severe alteration in my thinking and my mannerisms. I began to channel the conversations I had had with my brother after he was diagnosed with a mental illness. I began to channel the knowledge I had about the men and women kept in solitary confinement for extended periods of time. Initially, I really latched on to the anxiety of being alone. I thought about the inner motivation for companionship that all human beings share and how a lack of human contact not only changes our emotional state, but actually changes the ways our brains function. I thought about art as therapy, especially for people

with mental disorders and how *Synapse of the Self* might take on the form of therapy for myself and my own well being. I made many references to the biology of the brain and neurological processes. I knew I wanted to build up a system and an atmosphere of thought using line, texture, and color similar to Julie Mehretu, Jackson Pollock, and Cy Twombly. And once I had something to focus on— I began to create.

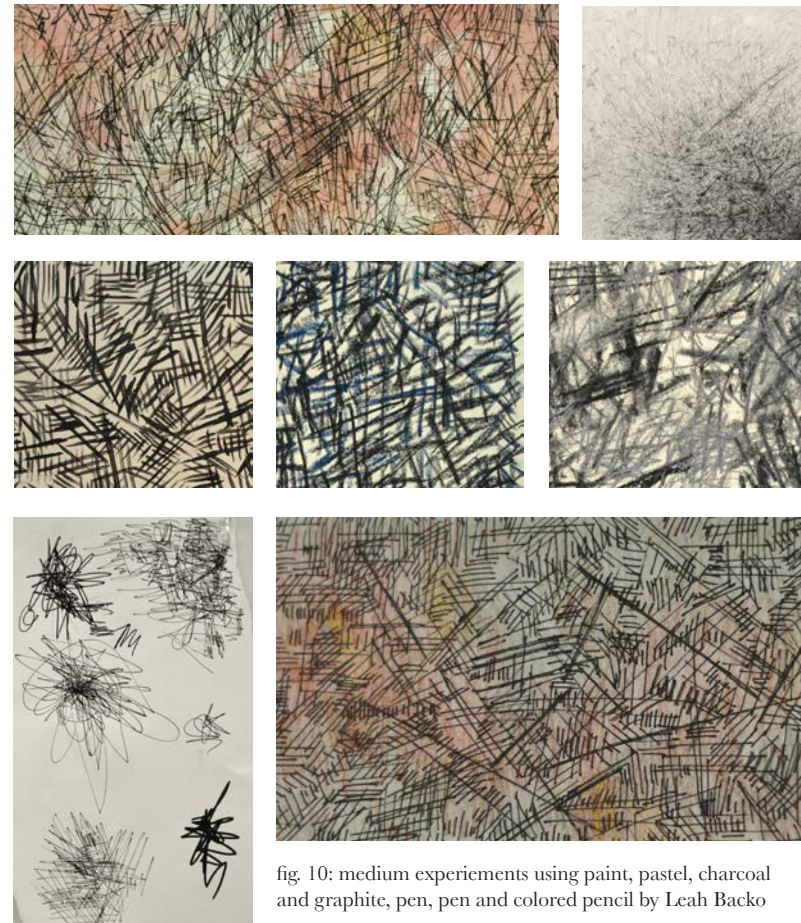


fig. 10: medium experiements using paint, pastel, charcoal and graphite, pen, pen and colored pencil by Leah Backo

Methodology

Synapse of the Self began with lines to represent thoughts (fig. 10). After experimenting with various materials, I began using pen to create sharp, scratchy, knifelike lines which when created in a haphazard, stream of conscience, frantic way, represented the thoughts racing through the mind during an anxiety attack. Pen was also used initially to give a sense of permanence, to represent the fact that the negative effects of loneliness remain with you. The strokes started as rigid and mechanical, but after studying other mark making techniques and relating them back to racing, nonsensical thoughts, became more free form allusive marks. I began to ask myself what I was really trying to visually depict. Was it the thoughts themselves that each mark represented? Was I imagining what the physical space inside of the mind might look like if it were abstracted? Was I trying to recreate the system a thought goes through when a person is isolated? Or was it a combination of these?

I began looking back at Julie Mehretu's work and the way that she creates these atmospheric systems. Each layer has meaning but it is the combination that creates depth, that creates a physical space. It was at this point that I realized my drawings needed more space two dimensionally and more three dimensional depth to answer the questions I was trying to unravel. So I began working on six foot paper and building up more layers onto the drawings. I began to realize how my work was similar to Jackson Pollock's in the way in which it was all about the process. Isolating myself was crucial for me to be able to be engrossed by the work and for me to be able to channel this restless emotion. Working large scale made this

atmosphere of the inner mind seem more powerful and more dynamic. The process of making these works becomes almost as important as the final piece itself.

I initially experimented with spray paint and acrylic paint in order to give the work more texture and found that it also resembled cognitive fragments, as if the small bits of paint broken and scattered were really broken and scattered thoughts, fragmented by the effects of solitude. Drips of watered down acrylic gave another means, in addition to the pen, to depict transmission of thought through synapses. I also incorporated imagery, primarily trees or wooded areas, for three reasons. The first being that the branches of the trees resemble the way neurons branch off in order to transmit information to various destinations. The second, was that when we remember something, we don't just remember it as words or a "line" of thought. We see the imagery. When thoughts race through our minds, they often include flashes of imagery. The third reason is more personal. For me, the woods have always represented solitude. In the backyard of my childhood home, there are miles of woods. Before I began having anxious and depressive feelings, I used to retreat to these woods to get away from it all, to be at peace all by myself. After I began having these mental breakdowns, I retreated to them because I was feeling alone, because somehow the tall trees, and the smell of nature, and sound of birds and a babbling creek calmed me down.

“Language has created the word ‘loneliness’ to express the pain of being alone. And it has created the word ‘solitude’ to express the glory of being alone.”

- Paul Tillich

I wanted to address this idea described by Paul Tillich, a theologian and philosopher. He suggests the act of being alone isn't always bad. In my own life even, there have been numerous times when I have been alone and have been completely at peace. When thoughts connected as they are meant to in a serene and systematic way. I wanted to show the dichotomy between these two opposite effects of being alone as well as how the human life is largely made up of both of these effects. The average human being goes through motions, ebbs and flows, of positive and negative. Even those with mental illnesses go through these ebbs and flows, though for them, the negative is usually more frequent.

There are three main pieces in *Synapse of the Self* to depict these motions. The first, *Restless Abandoned*, depicts solely the negative effects of being alone. Bursts made up of layers of pen line, paint, and color represent the firing of neurons and thoughts in an anxious mind. The line work doesn't seem to make sense, like it is reaching out for something but gets tangled into all of the other lines, all of the other thoughts. *Solitary Composure* depicts the positive effects of being alone. In contrast to the frantic lines in *Restless Abandoned*, it contains straight and methodical lines that connect to each other in an orderly fashion. Colors incorporated into this piece are more muted in tone and give off less of a sense of energy and more of a sense of serenity. *Solitary Composure* represents the mind at ease, in its most productive and organized state. The synapses here are connected in an orderly way, a geometric fashion. *Rise and Fall* is the third piece in *Synapse of the Self*. It is an attempt to show how the human being can experience both positive and negative as a result of being alone.

It integrates the marks of *Restless Abandoned* and *Solitary Composure* together in one composition, combining colors, mark making styles, and overall suggestiveness.



fig. 11: *Restless Abandoned*, by Leah Backo

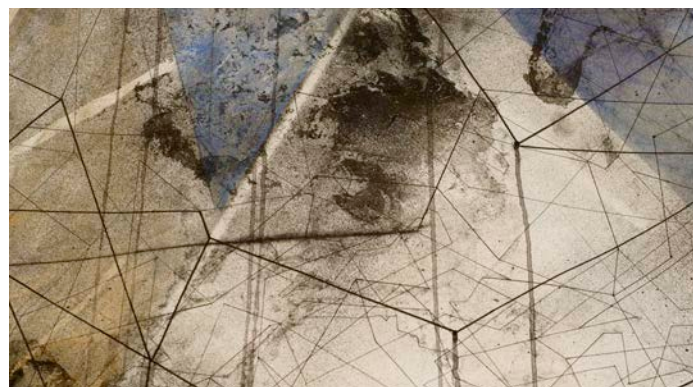


fig. 12: Close up of *Solitary Composure*, by Leah Backo

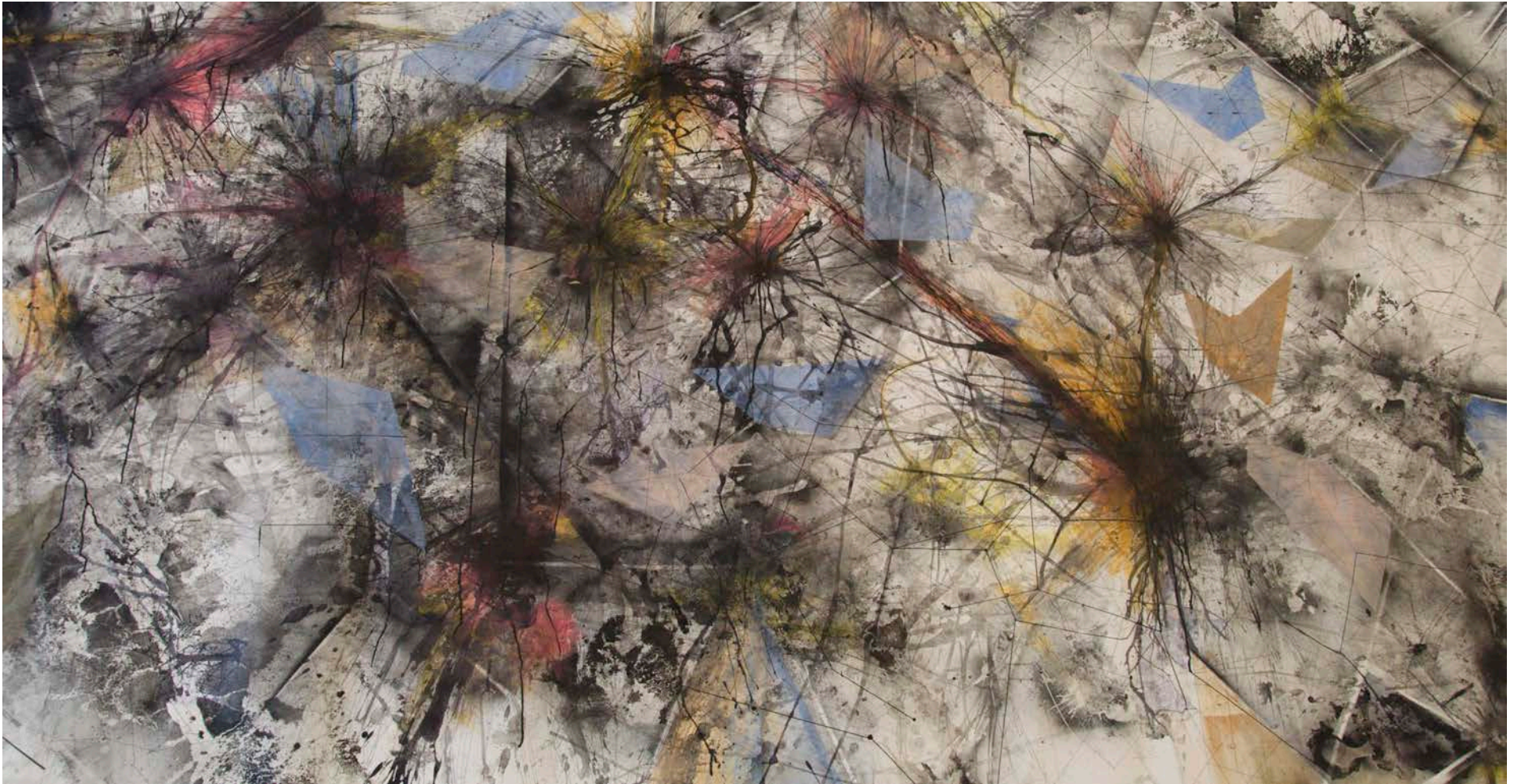


fig. 13: *Rise and Fall*, by Leah Backo

Conclusion

Synapse of the Self is an attempt to understand mentality in general, how we think, and how we process information. It is an attempt to explore how powerful of an effect loneliness can have on our psyche. As Paul Tillich suggests, being alone is not all bad. Many people feel at peace when they are alone or feel more productive. The mind is complex, and thought process can ebb and flow in it's range of positive and negative.

Process, more than anything else, was important to this project. It was critical that the work was created alone and that I let my own feelings and thoughts be let loose onto the paper. Going in and adding layer upon layer was symbolic of thoughts being added over time. The layerings created a physical space, a web of thoughts, and what was, in my opinion, the best way to visually depict the inner workings of the mind.

I have learned a great deal about myself as both an artist and a person by working on this project. I have come to find that experimentation is critical to a successful creative work, that curiosity in materials can make or break a project, and that most importantly, feeling alone sometimes is okay. It's how you deal with and channel those feelings that can impact yourself, your loved ones, and maybe even, the world for better or worse.

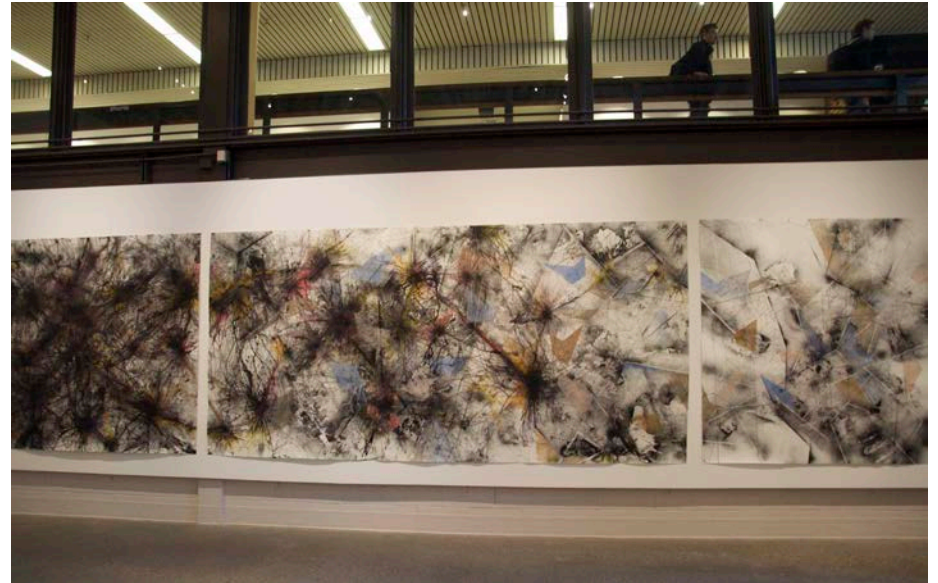


fig. 14: *Synapse of the Self*, by Leah Backo

Special Thanks

To Robert Platt, Ed West, and Mary Ayling for keeping me focused, challenged, and motivated throughout the year. Your encouragement and constructive criticism is what pushed my project to become what it became.

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