

The Excavation of Artistic Process; Mining for knowledge, technique and materials to create form

Todd Raymond McKinney

A thesis

submitted in partial fulfillment of the

requirements for the degree of

Master of Fine Arts

University of Washington

2020

Committee:

Philip Govedare

Helen O'Toole

Mark Zirpel

Ann Gale

Zhi Lin

Program Authorized to Offer Degree:

School of Art + Art History + Design

© Todd Raymond McKinney, 2020

University of Washington

Abstract

The Excavation of Artistic Process; Mining for knowledge, technique and materials to create form

Todd Raymond McKinney

Chair of the Supervisory Committee:

Philip Govedare

Department of Painting and Drawing

My judgement is purely out of excitement or joy I get from a work. I often work on multiple pieces at a time. Time is instrumental to the process as it involves repeat judgement and meditation. Creation of a work can take weeks and sometimes even months. Before any painting session I meditate on the outcomes in my head. This helps me visualize my goals and reduce the chances of bad outcomes. If I do not give the work room to breathe, it usually ends in the work's death. But somehow what is created in the process of a mistake, something interesting can happen. In contrast a feeling of dread, or the implication of violence can also be of equal importance. The work needs to be formally exciting, with a quality composition and the illusion of space. I am not interested in creating a pretty picture or working from observation, but rather working from and sparking the human imagination. What was the original thought or jumping point for the work? Have I followed the path of conception, or has the work evolved into something else? Is there a certain level of confusion or disorientation to the work? In this Instagram age we are consuming images at a rapid rate. I follow a lineage of MC Escher and Optical artists. Their works are both disorientating and visually interesting. They force you to really think about what you are observing as a human. The science of the brain and eyes as a sensory system interests me. I ask myself what we can perceive as humans and why are some things invisible to the human eye. Are we in fact hallucinating as a species? Our brains have been filling the blanks in our vision for a long time.

Topics for Thesis

String theory/M theory/Theory of everything/Music/Sound/Vibration/

Space/Physics/Quantum mechanics/Big bang/Singularity/Black hole/Supernova/Nebula/

Mathematics/ Mandelbrot set/ Lorenz attractor/Chaos theory/Butterfly effect/ Koch curve/The golden ratio/Dynamic systems

Supersymmetry/Quantum entanglement/Symmetry/Beauty/Pattern/

Primal/Shamanism/Ritual/Magic/Totemism/Coyote

Religion/Spirituality/Abrahamic faith/Philosophy/Zen/Taoism/Buddhism/ Mandala/Stained glass

Conceptual/Algorithm/Expressionsim/Improvisation/Emotion/Memory/Recipe/Alchemy

Time/Quantum computing/Simulation hypothesis/Mandela effect/Perception/Artificial intelligence

Body/Identity/Pseudo-tumor/Muse/Technique/Process/Materiality/Tools/Social practice/Upcycling

Labels: Conceptualist, Maximalist, Environmentalist

Crafts: low materials, feminine, hobby, communal created, artisans, tradition, utilitarian, primitive, generational

Examples: knitting, sewing, scrapbooking,

Arts: high materials, male, unique, professional, singular genius, artist, avante garde, humanistic merit based, innovation, capitalistic,

Examples: painting, installation, sculpture,

My work situates itself around the post-modern solution of combining high and low materials. I do not judge materials for their face value but instead their potential as a solution formally in a work of art. This means yarn can be just as valuable as paint to create form. There are no rules in the conception of a work, only actions towards solutions. The invisible line drawn by the renaissance to separate the genius from the collective no longer exists in my mind. All human forms of expression are valid and the challenge of combining inputs from various disciplines can only add to the conversation of humanity. I let go off the illusion of sight for the illusion of form. Form can be painted but it can also be sculpted through a mixture of materials. I create steps for each work to achieve the goal of sensation and illusion of space through form. It is both sculptural and painterly; illusionistic and reality; conceptual and action based. Are they paintings, installations or relief sculptures? My answer; does it really matter? The recipe does not remove me from the outcome. It does require me to finish the steps then evaluate the result. If the result does not meet the majority of requirements for an exciting picture; it will be worked on further through another set of procedures. It is an alchemic process comparable to fine tuning a recipe for a meal. Except each painting is its own meal or solution.

Examples of work

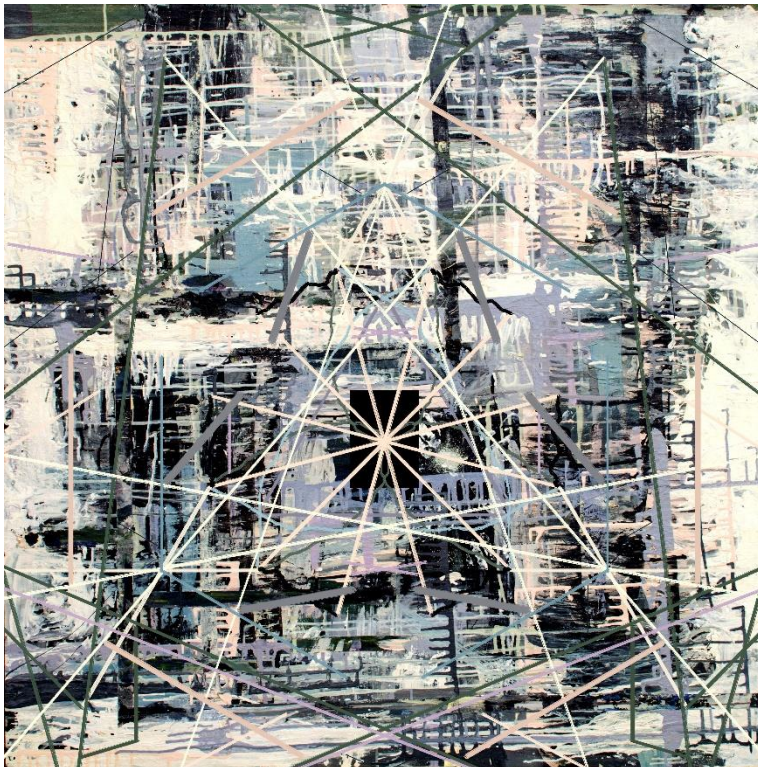
Algorithm 1622 “Welcome to the Reservation” recycled latex, tape and ink on 72 x 48 wood panel



Algorithm 815 “Mai Coyote” Ink and recycled latex on gallery walls



Algorithm 115 “Birth of Light 2” Digital work



Make a wish Ella’s Mural



Algorithm 1980 “Where I walk” Recycled latex, wire, cardboard, latex gloves, wood chips, wood sticks on 60x60 inch panel



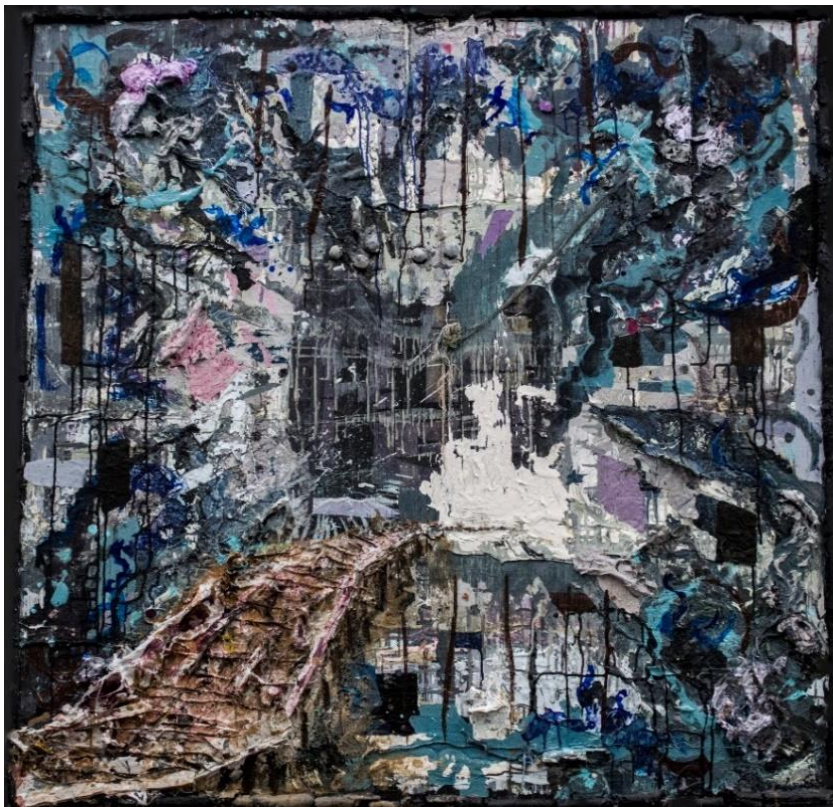
Algorithm 911 “Grief” Recycled latex, graphite, charcoal, obsidian on 48 x 36 inch wood panel



Algorithm 114 “Quantum Entanglement Love” Recycled latex, string, upcycled clothing on three 48 x 48 inch wood panels



Algorithm 102 “Birth of Light” Recycled latex, ink, string, hay and wood sticks on two 48 x 48 inch panels



Algorithm 101 “Medieval”
Recycled latex, clay,
cardboard, string and ink
on 48 x 48 inch wood panel

Algorithm 100 “Sublimation” Recycled latex, hay, wood chips, canvas, two old socks on 48 x 36 inch wood panel

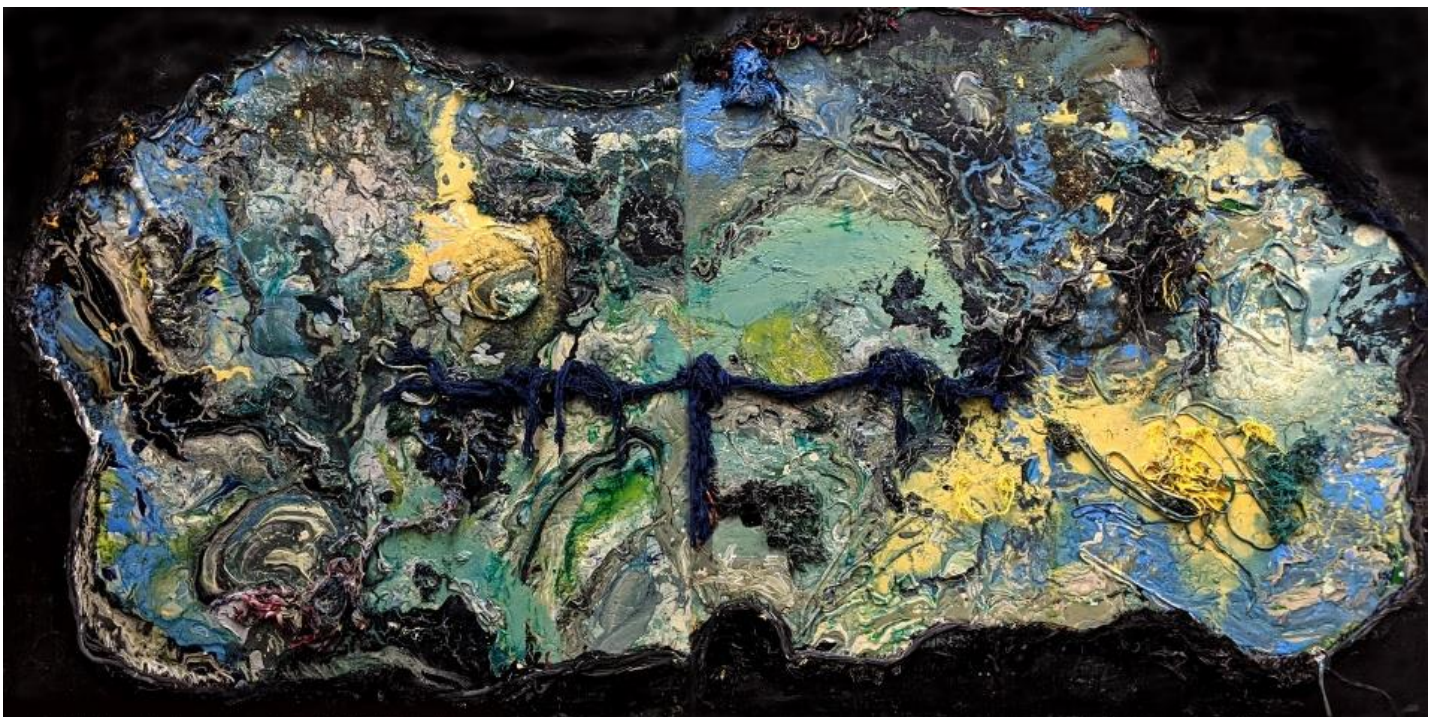


**Algorithm 99 “Lost in the Quantum Forest”
Recycled latex, hay and
wood sticks on 48 x 48
inch wood panel**

Algorithm 90 “Just beneath the Surface” Recycled latex on 48 x 48 wood panel



Algorithm 0 “Elements of Life” WIP Recycled latex, upcycled dog rope toys on two 48 x 48 inch panels





Algorithm 410 "Hurt" Recycled latex, upcycled dog rope toys, painters plastic on 24 x 36 wood panel



Tool #1
1830



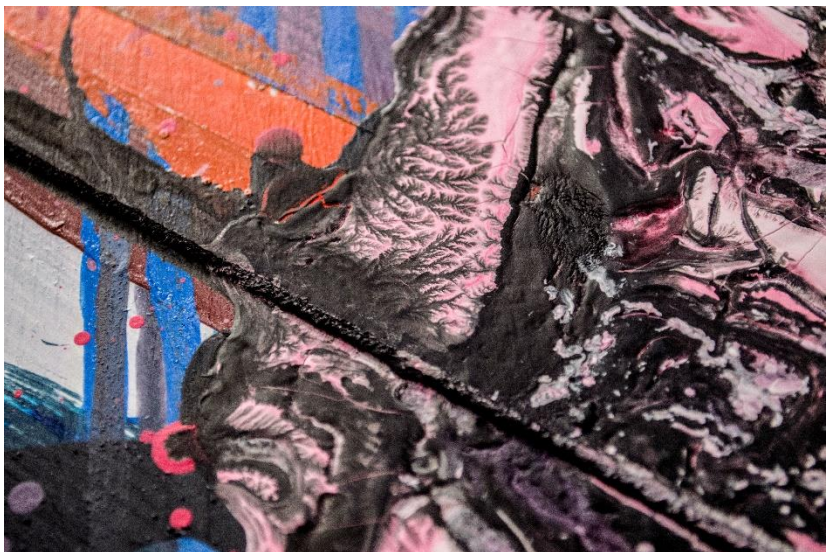
Tool # 2
Stomach Fistula



Algorithm 2100 "Approach on Mars" Recycled latex and clay on two 48 x 24 inch wood panels

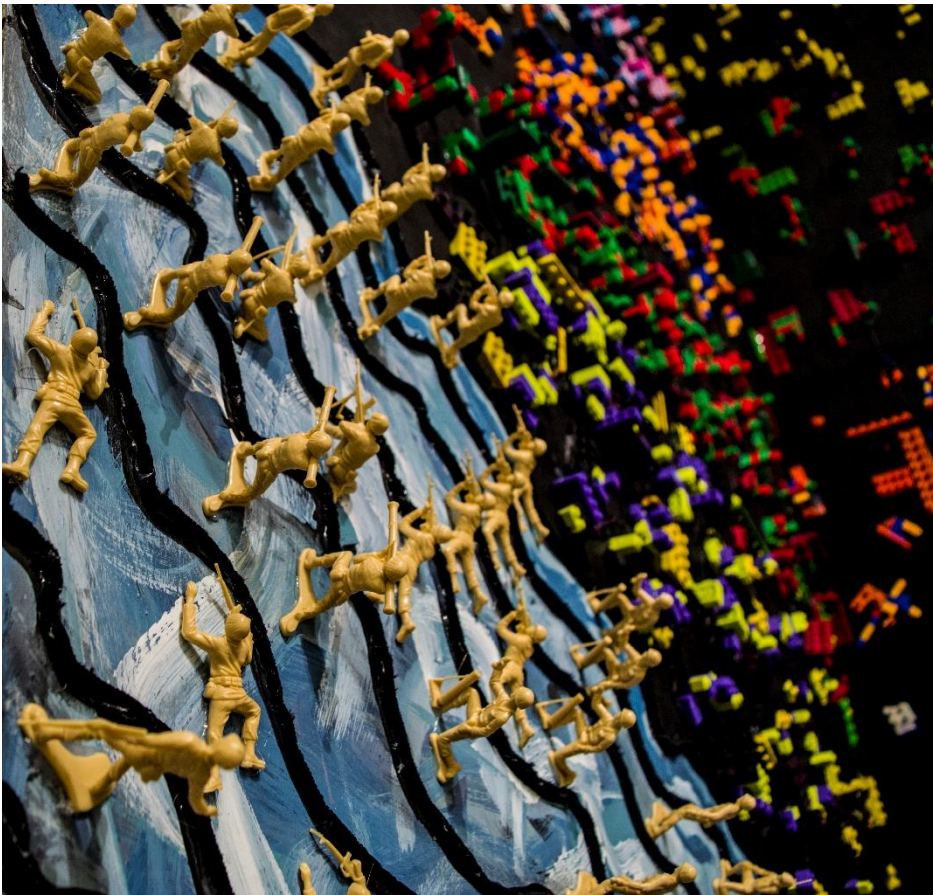


“Algorithm 1637, I think therefore” 2020 upcycled latex paint, acrylic paint, yarn, string, thread, upcycled jeans, and canvas on wood panels. 96 x 96 inches.



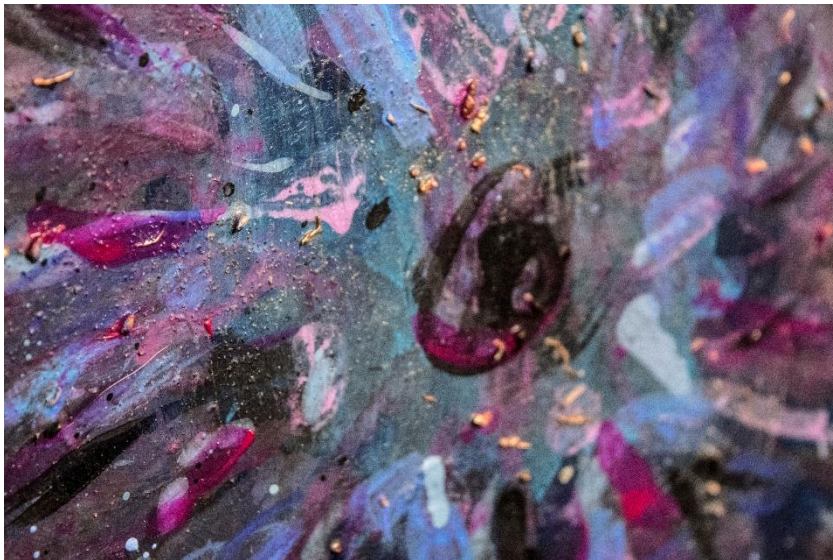
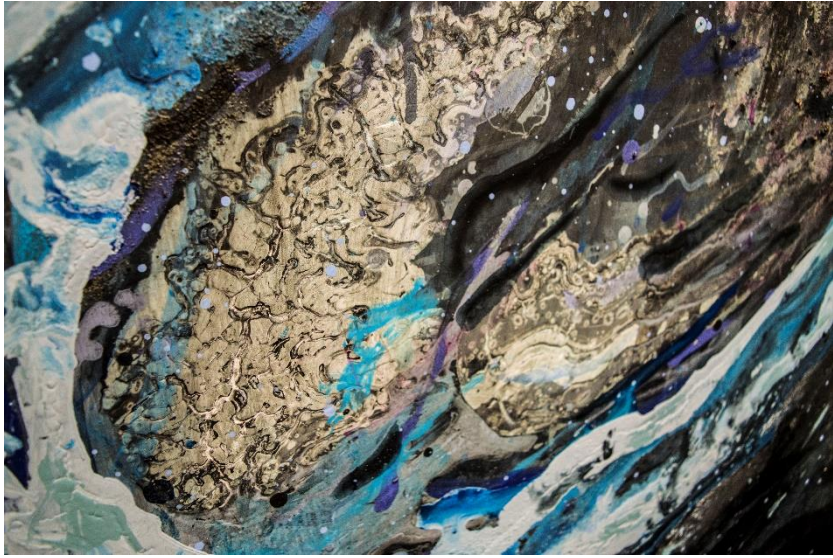


“Algorithm 375, there is No Spoon” 2020 upcycled latex paint, acrylic paint, off brand Legos, molded crayons, toy army men, and yarn on wood panels. 96 x 96 inches.





“Algorithm 1998, Heavy Mental” 2020 upcycled latex paint, acrylic paint, copper, coffee, glitter, charcoal, graphite, and sand on wood panels. 96 x 96 inches.



Material Analysis List

4x4 feet ½ inch wood paneling: I have worked on wood paneling for six years. I've attempted to work on many sizes and shapes but I prefer this ground the most. Any wood thinner becomes easily warped and breaks on the edges when I turn my work. Sometimes I drop things and I need things to hold when they are dropped. It is a sturdy product that holds up to the abuse that comes with my work. It can hold a good amount of weight, which is important to a practice that pastes in a lot of objects, which become heavy over time. This also becomes a disadvantage as well. As items are pasted within it becomes significantly heavier over time. The abuse that comes with a practice is not sustainable over time and as I get older I will have to adapt again. It is also worth noting that this type of ground should be fully cradled before starting the work as there is a chance of buckling.

String + Yarn+ Thread: Sewing and pasting in string has become an important idea for my practice. I'd directly link this idea to what many would call crafts. It is feminine in its foundations but obviously anyone can apply these techniques used to create string art. Usually anchors are placed on the edges of the work and connections are made through these anchors. I remixed this idea by using anchors all over the pieces, along with gluing down the string to have a looser approach. I like the fluidity of string it can be molded directly into a work. It can also be anchored by a nail or screw to create tension. This tension is an important effect along with shadows the string can cast. I'd connect this practice directly to drawing lines. I see no disadvantages in this practice as all three of these types of media are lightweight and malleable. They can also be easily dyed if necessary.

Golden Heavy body acrylic paint: These are some of the best acrylics money can buy. They are thick like butter and almost similar to oil in their consistency. The opacity is quite good as well on this type of paint. Some disadvantages are the cost. They are expensive to say the least. Because of the thickness of the paint, most of the time you will have to thin it out before application. I'll continue to use fine paint in this quality for final coats on a work. Using it on early applications would be a waste.

Latex paint: My favorite type of paint as it links my practice to my fathers of industrial work. The consistency is already formulated for you. The medium does separate over time from the latex. All you need to do is give the bucket a quick mix. Great care is needed over time. I often find myself having to remix the paint. Colors can be a bit drab at times. Great for creating molds, doing large pours, and laying the foundations of the work. Can also be used as the first coat in a gesso like format. Buckets lose their ability to hold out the air over time. This is due mainly to the speed of my practice and abuse.

Sand: A tactic used by the Buddhist Tibetan sand painters. This medium is very versatile. It is similar to the practice of Georges Seurat and that of pointillism. But on a microscopic level. Instead of painting an artist applies dyed versions of the sand. This is something I just started to use as a technique and I need the proper tools for a real analysis. This idea has been remixed by artist Wolfgang Laib, who uses various types of pollen to create work.

Copper: Copper was used in the work AL 1998 Heavy Mental. It was useful in referencing the magnetic properties of space. As with any metal it has a sheen to it. A disadvantage would be it loses a lot of its recognizable properties once it has paint on it. Another problem is its metal and it quite heavy if enough of it is used.

Obsidian: Similar to copper in its properties. It was used in the creation of Algorithm 911 grief. This work was my subconscious way of calling out for help. As I dealt with the loss of my service dog Eydred. The biggest difference with obsidian when compared to copper; it is molten glass and can become quite jagged, easily cutting skin like a surgical knife. It comes from volcanos, which have violent eruptions. I felt immensely hurt by her passing. It's been almost a year and I still often think about her. It was abrupt and not expected and I was mortally wounded by her passing. This is the connection between the material and the idea. Death has always had a way of passing inspiration to me.

Paint mediums; Polyurethane: A useful medium but quite stinky. It should only be used with proper ventilation. I used an acrylic version, which is water based. It dries very fast which is technically an advantage. A problem that often happened with its use was cracking. I would apply multiple coats of it and the coats would crack on each other. I consider it almost as a cheap varnish. I doubt I'll be using it again.

Blick medium: One of my favorite mediums. Its biggest version comes in a one gallon bucket. It is a thick, an almost gel like medium. I usually thin it with water and apply multiple coats. Good for creating transparent layers and good for adding to final coats to protect a work. Expensive but well worth the money.

Golden pour medium: this is a medium created for large pours of paint. It is similar consistency to water but slightly thicker. I used this in AL 1998 Heavy Mental. I liked it but I don't feel like it is worth the money. If I could find an industrial version of this medium it would be ideal. As with all Golden products they are great products but they put a large dent in your pocket.

Flood Floetrol: isn't exactly a medium it is more of an additive. It is cheap and can be used in pours. Great for thin layers of paint. I will be using this much more in the future. It is the closest thing to Golden's pour medium in industrial form. Perhaps I could mimic Golden's formula using this as a base.

Ink/Alcohol: Splashing ink drips on my paintings back at Berkeley was the beginning of my drip phase, which I continue to this day. I'd drip ink on my wood panels and one day I just decided to turn the painting to view it from a different angle. I watched the drip change its course. It was on this day that I realized that the ground of a work could also be used as a tool like a brush. A later learned that the alcoholic ink would react against the latex repelling each other and creating tiny fractals. This led me to start using isopropyl alcohol mixed into the paint, or directly applied to wet paint. One problem with this practice you need proper ventilation. I prefer to use this technique outside in open air.

Tree branches: I started to collect tree branches back in 2018. I wanted to use them as a means of accentuating the fractals in my work in a physical way. Oak trees are best, because they grow in a gnarled fractal like fashion.

Hay: Hay was used to try to understand Anselm's Kiefer's practice. I dissected many of his works. It was useful in the eating of Kiefer's techniques. I like using the hay but it is very messy. It is a good way of building up texture, but I feel more at home using tree branches in my work.

Wax Crayons Crayola: I was originally going to use pasted crayons in AL 375 there is no spoon. This idea quickly changed when I decided I wanted to mold the crayons to create fake Legos. I bought some molds of Legos from Amazon. I utilized a heat gun to melt the crayons down into the silicon molds. It proved to be quite successful, although it was quite time consuming. I want to continue to work with molds in the future. Advantages; colors can be mixed just like paint to create new colors and hues. I could also opt to not mix the crayons, which would create confetti, dirty pour like patterns. I also found that the pigment load on Crayola crayons is actually quite good. The next step would be to melt the crayons directly onto the ground in a drip like fashion. Encaustic type works are likely the next step in this realm of material research.

Building blocks (Legos) and off brand: Another material pointing back to childhood memories. They are light in weight. Offsetting concerns about the weight of a work. They can be connected with ease and glued together if necessary. I also found out that they can be painted, which was surprising to me, because I assumed they are created with a treated plastic (poly). I used them as a means to referencing the digital world surrounding us every day. They also served as buildings in a topographical landscape.

Upcycled clothing: I started using clothing in AL 114 quantum entanglement. It became an autobiography of my journey with my partner Ash. I used old clothing as a symbol of their past. The clothing becomes another direct link to their consumption in this world. Instead of throwing out the clothing or giving it Goodwill, it becomes another form of visual language. It is similar to string in its uses. It is malleable and can also be torn, stretched or ripped. I also used canvas in some of the works, as well as an old pair of pants made of canvas. I ask myself, what does it mean to rip apart something used as a ground in traditional painting? I never enjoyed using canvas, it was far too fragile for my liking. But transforming it on another ground, now that is enjoyable. Once again remixing the old masters.

POST MODERN APPROACH TO MATERIAL

Material based practice

- List of materials: twelve 48x48 inch 1/2-inch wood panels. (Combined will create three 8 foot by 8-foot paintings) cradle on the top and bottom of each panel, 12 inches from edge of the panel. One cleat per cradle. Various colors of yarn, copper shavings, graphite, charcoal, upcycled latex paint, acrylic paint, canvas, sand, upcycled clothing, electrical cords, building blocks (Legos), wax crayons (Crayola).



Thesis Works in progress

I'm proposing two corner pieces and one that will sit flat on a standard wall. They can be shown together or separated. The advantage of the corner pieces is that they only take 4 feet of horizontal space per side. Each corner piece will utilize yarn and string to further the perspectival view; that along with the arrangement of the panels, which provides sufficient depth to the piece. A good example of this style would be one of my previous works Algorithm 102 "Birth of Light." which used string theory and the big bang as inspiration. However, instead of two panels I am proposing four.

ALGORITHM 1998 HEAVY MENTAL

Inspired by the visual input of
nebulas and music as memory

Space as a landscape

Chaotic composition as process

Materials: paint, copper,
charcoal, graphite, sand on four
wood panels

<https://www.youtube.com/watch?v=R9oknw0afwo>





ALGORITHM 1637 I THINK THEREFORE

In reference to René Descartes's I think therefore I am. Cogito, ergo sum.

In response to my own brain condition/body

Perspective used with architecture; corners of 2 walls.

Sculptural lighting can be important as the shadows from the strings further build the illusion of space

Various viewing experiences based on the distance from the work.

Materials: paint, string, yarn, upcycled clothing, electrical cords on 4 wood panels.



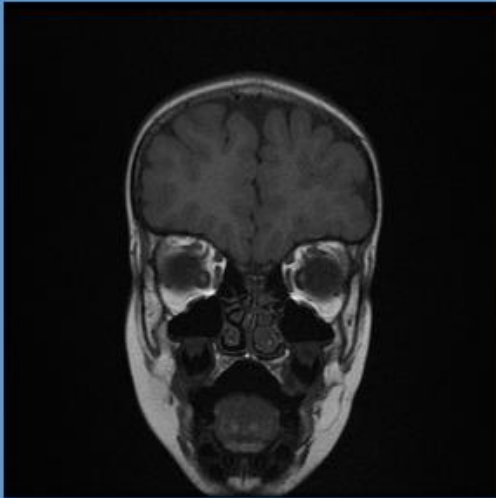


Rene Descartes



Cartesians view the mind as being wholly separate from the corporeal body. Sensation and the perception of reality are thought to be the source of untruth and illusions, with the only reliable truths to be had in the existence of a metaphysical mind. Such a mind can perhaps interact with a physical body, but it does not exist in the body, nor even in the same physical plane as the body.

Artistic response to the Brain/Mind



Pseudotumor cerebri is a disorder related to high pressure in the brain that causes signs and symptoms of a brain tumor—hence the term “pseudo” or false tumor.

Pseudotumor cerebri is also sometimes known as intracranial hypertension or benign intracranial hypertension.

Some symptoms include sleep apnea, headaches, diplopia, tremors, fatigue, memory loss, and nausea.

ALGORITHM 375 THERE IS NO SPOON

In reference to Plato's The allegory of the cave

Readymade knock off Legos along with Crayola cast wax Legos;

A copy of a copy

Materials: Paint, knock off Legos, Crayola crayons, string, yarn, cardboard on 4 wood panels

<https://www.youtube.com/watch?v=uAXtO5dMqEI>





Plato's Cave



Plato's Theory of Forms asserts that the physical realm is only a shadow, or image, of the true reality of the Realm of **Forms**. So what are these **Forms**, according to **Plato**? The **Forms** are abstract, perfect, unchanging concepts or ideals that transcend time and space; they exist in the Realm of **Forms**

Ideals= Ideas (symbols dog, human, chair)
exist out of the material world
Material (Imperfect)world is a copy of the
existing world (A copy of a copy of a)
Knowledge leads to a moral life
Ignorance leads to fear

PHILOSOPHICAL RESPONSE TO SCIENTIFIC THEORY

- Simulation Hypothesis
- Double-Slit Experiment/Wave particle duality
- Superstring theory
- Plato's Allegory of the cave; Theory of forms
- Rene Descarte's Cartesian lens; I think, therefore I am
- Jean Baudrillard's Simulacra and Simulation

Todd Raymond McKinney
Tacoma, Washington
Email realeizar@hotmail.com
Instagram: realeizar
<https://toddraymondmckinney.com/>

Employment

2016-2017 Modern Drapery Inc., Executive Assistant/Project Manager

Education

2020 University of Washington MFA Painting and Drawing
2015 UC Berkeley BA Practice of Art, Minor Conservation and Resources
2013 Los Medanos College AA Fine arts with Honors
2013 Los Medanos College AA Liberal Arts, Arts & Humanities with Honors

Solo exhibitions

2020 "Motif Hotel AIR Exhibition" Motif Hotel. Seattle, WA

Group Exhibitions

2020 "MFA Graduate Showcase" University of Washington, Seattle, WA
2019-2020 "Meany Center Art Exhibit" Meany Hall. Seattle, WA
2019 "Irreducible Forms" Jacob Lawrence Gallery. Seattle, WA
2019 "Summer Work Exhibition" Sand Point Gallery. Seattle, WA
2019 "MFA Student Scholarship Show, Allied Arts Association, Richland, WA
2019 "LMC Alumni Show" Los Medanos Art Gallery. Pittsburg, CA
2019 "Cobblestones & Lumber: UW x SFAI" Fort Mason. San Francisco, CA
2019 "Work in Progress Exhibition" Sand Point Gallery. Seattle, WA
2018-2019 "Meany Center Art Exhibit" Meany Hall. Seattle, WA

2018 “China Earth Day: Save the bay” China Basin Building. San Francisco, CA
2018 “Magic of Mirth” O’Hanlon Center for the Arts. Mill Valley, CA
2018 “Pancakes and Booze” Oakland Metro Opera house Theater. Oakland, CA
2014 “Dia de los Muertos (Day of the Dead)” Kroeber Hall. UC Berkeley. Berkeley, CA
2014 “Remedies: Art, Medicine and Disability” Kroeber Hall. UC Berkeley. Berkeley, CA
2013 “Terrestrial: Who you are, Where you are” Los Medanos Art Gallery. Pittsburg, CA
2012 “CCACA Annual Conference” Davis, CA
2012 “Los Medanos Student Art Show” Los Medanos Art Gallery. Pittsburg, CA
2011 “Los Medanos Student Art Show” Los Medanos Art Gallery. Pittsburg, CA
2010 “Los Medanos Student Art Show” Los Medanos Art Gallery. Pittsburg, CA
2009 “Los Medanos Student Art Show” Los Medanos Art Gallery. Pittsburg, CA

Projects

2019-2020 “Tool Series” a sculptural set of works designed to be tools used in my art practice but also regular displays.
2018-2019 “Shades of Grey Series”- inspired by California’s fires; city centers are painted blanketed in smoke to bring awareness to the coming effects of climate change.
2017-2020 “Algorithm Series” -individual lessons on chaos and order through the use of repetition, technique and the ritual.
2017-2020 “Project upcycle”- upcycling of latex paint, clothes, sticks and other items to be included in future mixed media works
2014 “The Gospel of Yalebert” – a future publication; paintings and text combine to fill the hole between a philosophical approach and the culture of memes
2014 “ART SCHOOL X” – an experimental art space created for art majors at UC Berkeley
2013-2015 “The Wrong Way Home”- a sociological performance intended to evoke emotion on the San Francisco’s Bay Area BART trains

Curatorial Activities

2014 “Art School X” Co-Curator of artists in residency at UC Berkeley

Professional Awards/Fellowships/Residencies

2020 Make a wish volunteer artist; Ella’s mural, Seattle, WA
2020 Graduate Thesis Award, University of Washington, Seattle, WA
2020 Graduate Teaching Fellowship Award, University of Washington, Seattle, WA
2019 Excellence in Teaching Nomination, University of Washington, Seattle, WA
2020-2021 Motif visiting artist, Motif Hotel, Seattle, WA
2019 Gallery at the Park MFA Scholarship, Allied Arts Association, Richland, WA
2019 Graduate Teaching Fellowship Award, University of Washington, Seattle, WA
2019 Graduate Teaching Fellowship Award, University of Washington, Seattle, WA
2019 Graduate Teaching Assistantship Award, University of Washington, Seattle, WA
2018 Graduate Recruitment Award, University of Washington, Seattle, WA
2015 Inductee of Phi Beta Kappa Berkeley Chapter, Berkeley, CA
2012 CCACA Annual Conference Davis, CA
2011 Presenter Community College Honors Research Symposium at Stanford University. Palo Alto, CA
2011 Best painting in show Los Medanos student show. Pittsburg, CA

2009 Best painting in show Los Medanos student show. Pittsburg, CA

Selected Bibliography

2020 Denton, Annie. "Graduate Art and Design Students Adapt to Present in Virtual Thesis Exhibition." The Daily of the University of Washington, University of Washington, 3 June 2020, www.dailyuw.com/arts_and_leisure/article_3b926344-a544-11ea-8ffc-5bb8a7f1e591.html.

2020 Hubbert, Jennifer. "Patron of the Arts: At Motif Seattle, Art Isn't What Covers the Hotel's Walls; It's an Obsession." Canadian Traveller, 4 Mar. 2020, www.canadiantraveller.com/Patron-of-the-Arts-At-Motif-Seattle-Art-Isnt-What-Covers-the-Hotels-Walls-Its-an-Obsession.

2019 Shapiro, Sarah. "From Cultural Immersion to the Chaos Theory, Master of Fine Arts Students Tackle Complex Subjects in Upcoming Exhibit." The Daily of the University of Washington, University of Washington, 22 Oct. 2019, www.dailyuw.com/arts_and_leisure/article_976928ec-f3d3-11e9-bd20-330f73660019.html.

2019 LeVasseur, Lauren. "Artist Program: Motif Seattle." Artist Program | Motif Seattle, Motif/Hyatt, 2019, www.destinationhotels.com/motif-seattle/overview/motif-visiting-artist.

2009 Green, Harry. "From Start to Fall McKinney Has It All." Oakley Herald, 2009.

Biography/ Statement

Todd McKinney was born in San Francisco's Bay Area in 1980. His father gave him an education on industrial painting throughout his childhood. In 2010, he fell ill with a rare disease of the brain, called Pseudotumor cerebri. As his condition progressed, so did his practice. He received his BA from University of California at Berkeley in 2015, with a minor in conservation and resources. In 2017, he rebooted his practice with a focus on minimizing his carbon footprint. He began to upcycle industrial paint, wood panels, tools and other items he found necessary to his practice. His new work flourished into abstract paintings rooted in materials and formalist technique. I'm interested in occupying a space where research and art can coalesce formally. My current works are alchemic, conceptual based paintings. Each work is experimental in nature, exploiting chance. The butterfly effect states that a butterfly flapping its wings in Brazil can cause a tornado in Texas. When I create each action sequentially has an effect to how the next action is formed. Throughout this ritualistic process I use gravity to create grid like structures. As the paint drips, I can turn the painting to guide where it flows, but I can never fully control the outcome. This autonomous process becomes specific over weeks of creation, when I make the conscious decision to stop painting. To put it simply, I do not just paint pictures, I cook visual stimuli and observe the outcome.

Work descriptions

AL 102 Birth of Light: Inspired by string theory, which is a theoretical framework in which the point-like particles of particle physics are replaced by one-dimensional objects called strings. I chose to depict a landscape based on the idea of a vibration ruled universe born through the big bang. My intention was to describe each string with its own frequency, thus multiplying and changing of mark throughout the picture plane. This picture I felt the need to depict the work

from a naturalistic viewpoint of the quantum arena, in which I painted and built up these frequencies through mixed media. I am also interested in the idea of illusionist space and how formalist aspects can create that space through a list of actions. Formally I can map out a composition but I can never fully control my pictures. They live and breathe as witnesses to actions of chance and are rooted in duality.

AL 114 Quantum Entanglement Love: This painting has taught me a lot during its creation. I was inspired by the first captured image of a black hole and wanted to relate the idea of a black holes strength with love. As the piece evolved the idea of quantum entanglement became vital to its existence. The basic idea of entanglement is that when two particles are generated they are connected even when at great distances on a quantum level. One cannot be described without the other. They one, two parts of a whole, yin and yang. I choose three panels to describe this idea. One panel for each particle, and the middle sits a black hole unforgiving, purifying the incoming mess from each particle. Each panel has its own space and direction filled with personal items. In this sense the black hole represents a relationships need for compromise and endless love for the other. Loving someone is not all fun and games. You take it all if you want the relationship to work. You let go of all expectations and just love them for their unique self.

AL 101 Medieval: Inspired by the Big Crunch, a theoretical scenario for the universe, in which the expansion of the universe eventually reverses and collapses on itself. The scene depicts the scenario in a not so distant future.

AL 100 Sublimation: Inspired by the transformative force that goes unseen throughout the universe; such as dark energy, black holes and dark matter. Sublimation is the transition of a substance directly from the solid to the gas phase, without passing through the intermediate liquid phase.

AL 112 Approach on Mars: Inspired by Stephen Hawking's idea that humanity must expand from Earth to other planets by 2100, in order to ensure humanities survival. The discovery of water on the red planet sets us up for a collision course with the celestial body. But what would it feel like to land on the alien planet?

AL 99 Lost in the Quantum Forest: This piece was inspired by long walks exploring Washington's forests. During my walks I would collect the fallen sticks of trees. These sticks would eventually be worked into the painting and become actors within the scene. Thus reminding humans of their intimate connection to nature. In addition, I wanted to reference the quantum realm, which is built of vibrating strings. The sticks become references to those strings through their fractal nature.

Algorithm 911 Grief: A cry for help. An explosion of sadness and grief created through the loss of my beloved dog. Volcanos became a jumping point for the work. It seemed appropriate to use the material obsidian. As dealing with her death felt was both unexpected and a pain felt daily. I still think about her every day. I wish I could have saved her. She developed an enlarged heart due to diet, and ultimately I blame myself for her death.

Algorithm 815 Mai Coyote: I lost my dog Eydred last year on August 15th. Algorithm 911 Grief was work dedicated to the loss surrounded by my anger and sadness. I wanted to make one piece that was on opposite of the spectrum. Mai is my in some native tongues. Even to this day I feel her presence. She is my coyote. Coyotes are said to have great spiritual significance in native mythologies. They are able to pass back and forth from the spirit realm to this physical realm. I choose to use a white patch on the back of her neck as a jumping point. Then I created wave like patterns expanding out from the marking. This eventually formed into wings and an angelic like form revealed itself.

Algorithm 1980 Where I walk: I was born in 1980, hence the name. A self portrait of my process. I wanted my studio and practice to become a fetish on the ground. This was the most random piece I made while attending UW. I picked all types of materials off the floor in my studio and laid them out randomly on the ground. The pours were also very random. There was no true recipe to this piece other than the randomness of mark and pasting in of objects.

Algorithm 1622 Welcome to the Reservation: In 1622, Powhatan natives attacked Jamestown, Virginia; looking to wipe out the local population. The events that unfolded after led to the genocide of millions of Native Americans. Settlers of North American used this attack to justify their actions against the native population. Welcome to the reservation was a saying used by the Native American activist Russell Means. It is used to describe a world that natives have dealt with for a long time. These same actions are now being used against all Americans. The loss of freedoms in this country has been rampant since 9-11.

Algorithm 115 Birth of Light 2: Birth of Light is a reference to Seattle's great fire in 1889. Although the fire caused \$20 million in damages, it also changed Seattle for the better. Stone and brick replaced wood as a standard building material. Rats and vermin were exterminated by the fire. City officials took over the management of Seattle's water and the population soon doubled from 20,000 to 40,000. I found it interesting that such a chaotic event could come with such blessings. I actively observed the Seattle landscape through maps before and after the fire. What was created became a compendium of the surrounding landscape through aerial and a perspectival view. This quasi map became both referential but also fractured. I layered lines as streets, freeways and roads. I dripped paint to create neighborhood like settings. Art is a lot like urban development; each action builds upon the last, in a snowball like fashion. Cities are often built on top of past infrastructure and the layers within Seattle are evidence of that. Recently we had a string of 90 days without the sun in the PNW. Which illustrates my next point, the Pacific

Northwest can be a gloomy place in terms of an everyday palette. I wanted to express that everyday absence of color through the heavy use of white and grays seen in the picture. But I also wanted to comment on my everyday experience with PNW local population. I am originally from California but after being up here for almost two years, I am proud to call the PNW my home. The people here are some of the nicest, most caring people I have ever met in my life. They surprise me every day with their actions; actions like bringing a stranger's dog water, waving a t-shirt on the freeway to indicate a soon to be stop, to a food truck server concerned about a patron's sleep. This vibrant experience is expressed through cool colors such as blues, violets, pinks are seen throughout the picture plane.

Algorithm 90 Just beneath the Surface: An early work during my time at UW. I'm often referencing things humans are unable to perceive. This work represents the bridge between past Algorithms and future ones. It is represented by the unseen grid but is enveloped by large pours which I continue to use to this day.

Algorithm 0 Elements of Life: I have finished this piece, but I have yet to get a good photograph of the work. It is a shy work. The work represented the primordial soup scientists often refer to in the evolution of life on this planet.

Algorithm 410 Hurt: Is a physical representation of the pain I feel when I am deceived. Being honest is not a regular characteristic seen in this place. It is sometimes hard to discern the truth. I burn lots of bridges because of this fact. I took this pain and wanted to express it through paint and dog toys. The dog toys almost become blood vessels dripping on the surrounding wall.

Tool Series

A reflection on a new series I started while attending UW. The tool series are sculptural objects that I use while creating work. These are all handmade tools created for specific actions in my process.

Tool 1: 1830, was the first of its kind. It was an old table leg carved into a native war club. 1830 is a reference to the trail of tears. I claim a right to this through my heritage of the Cherokee. With this large club I purposely damage a painting, creating cracks and indents in the work. Creating work does not always have to be additive it can also be subtractive. I use this tool to channel emotion through violent actions. Destruction as creation.

Tool 2: Stomach Fistula, is a combination of a glass bottle, tubing, and a funnel. This is used to create a pseudo stomach whose job is to spill paint randomly all over the ground. I was inspired by my constant battle with nausea. It has to be hung on the wall in order to work. The paint is poured into the funnel and gravity guides it to the panel on the floor. It features three tubes that can be guided to the panel.

Tool 3: Beat the Devil out of it, is a reference to Bob Ross, one of my favorite painters. He would often slap his brushes violently against his easel after cleaning them. In 2017, before working in my studio I would watch Bob every morning. He made me realize all painters use an Algorithm for their works. I just became more self-aware of it and associated it with painting. This work is a 2 and a half foot piece of wood slathered in paint. The paint is so thick it protects the wood from damage. It resembles a small rectangular club about 3 inches in width. I often use this piece as a means of mixing my paint. But it also serves as a club to close the lids on my paint buckets. If you've ever heard a hammer like sound coming from my studio, then you've heard beat the devil out of it at work.

Reflection on Pseudotumor Cerebri (Intracranial Hypertension (IIH))

Much of this information is anecdotal and from my own experience. One could ask how this all relates to your experience as an artist. I'd argue that all art is created as an expression of the soul and its surroundings. The soul is inherently connected to the avatar (body). So it is important to

view my practice through the lens of my medical condition, which has drastically changed my body. It is big part of my identity as a person and as an artist. Art is life and life is art. Every day we seek different pathways on this plane of existence. It is a journey and we are living our own biographical movie. Everything we experience are inputs and these inputs eventually become remixed as outputs.

In the fall of 2009, I begin to get headaches and become fatigued. It didn't pay much attention to it at first. I was still adjusting to school life and my time management was pretty hectic. By spring of 2010, the headaches became much more regular. I assumed it was based on stress at the time. I made it through the school year but ultimately felt drained.

I decided to go on a vacation with my girlfriend at the time. We chose to go Monterey, California, with the hopes of recharging my batteries. It was a relaxing time but I did not feel any better. I remember coming back to our hotel room one night after our adventures for the day. I rested in the bathroom, I began to read and scan a travel guide for the next day of adventures. That's when I saw it. The text began to shimmer and I saw partial shadow copy version of the text behind each word. I did a double take and rubbed my eyes to see if something had entered my eyes. This served no purpose and I quickly threw down the travel guide to the bathroom's floor. What I was seeing was the early stage of a medical condition called Diplopia. To put it simply I was seeing things in double.

The rest of summer was painful to say the least. My sleep was unrestful, headaches continued, and visual disturbances. It eventually became so painful that I was rushed to the emergency room during the cover of night. An emergency spinal tap was performed. I have a high tolerance for pain but this was on another level. It wasn't administered very well. It felt like someone had reached into my spine and attempted to play with my nerves like a guitar. I took some time to get the results, which were inconclusive. Their first thought was that I had a tumor in my brain.

An appointment with a neurologist was made. I was told that I was diagnosed with Pseudotumor, which exhibited the same symptoms as a tumor. A relief came over me but surely this condition wasn't a good sign either. I was told to lose weight. I was around 260 at the time. Not healthy for my height of 6'3. (As I write this I am about 100 pounds off that number.) I was prescribed Acetazolamide (Diamox) a diuretic used for IIH, heart failure, glaucoma among other things. I also started the process of changing my diet to lose weight. I never ate out and I started my quest to eat mostly organic and free range foods. I also started cleansing my body through regular juicing and coffee colonics.

The medication certainly helped me. I still exhibited symptoms, but it made it much more manageable. The biggest problem with the medication was that it made me feel like a zombie. I was always tired. In 2011, I woke up with my heart attempting to jump out of my chest. I had a sleep apnea attack and was rushed to the hospital for a second time. I was talking to a nurse during my stay and apparently I stopped breathing. I heard a loud peeping, as the heart monitor sounded the alarm. The weird thing was I felt fine. The nurse with a horrified look turned to me and said, "Breathe". I said, o yeah thanks, like I needed a reminder. I was released later that night with a heart monitor. I've had to manage my stress ever since.

I got tested for sleep apnea later that year. It was confirmed that I had a moderate case of sleep apnea. It is not uncommon for people with my condition to have sleep apnea. This gave me better insight to why I was so tired. People afflicted by sleep apnea get far less hours of deep sleep (REM) than the average person. Their passageways become obstructed with leads to them waking up randomly in the night. Fatigue is usually an issue along with hypertension.

I was given the option to wear an oxygen mask every night. I wasn't comfortable going to bed looking like Darth Vader, so I explored other options. I found a study in that showed some promise. The patients were given the tubes to do breathing exercises every day. The theory was that a weakness of the throat muscles and fat deposits led to a blockage of the throat while sleeping. I went ahead with this treatment for myself. I created a digeridoo out of PVC pipe and honeybees wax. I practiced often and found that it did help my sleep.

By 2013, I was attending UC Berkeley in the fall semester, I was still using the motif of the figure at this time. While in Katherine Sherwood's painting class I noticed my ability to be precise with the brush began to dwindle. My hands would sometimes tremble, so I bought a projector, to attempt to make up the difference. I would trace my subjects loosely and create compositions in Photoshop. On the bright side my eyes never got any worse than that night in Monterey. If anything they got better. I rarely saw in double anymore. I still would still see disturbances but they were minimal at best.

In 2014, I developed kidney stones. Another emergency trip to the hospital. The biggest problem with modern medicine is that its methods are often band aid solutions. The medication meant to help me gave me kidney stones. Oxalate crystals had built up in my kidneys. I had a stone so large in my left kidney that the urologist told me it was impossible to pass. Me being the stubborn person that I am, I told him I didn't want the surgery. I started a routine of regular drinking of lemon juice and diluted apple cider vinegar. I made my body acidic on purpose to blow up the kidney stones. It did in fact work. However, I wouldn't recommend to anyone going this route of treatment.

In 2015, I was allowed to get off the drug Acetazolamide. A relief for my kidneys but not so much for my blood pressure. I exhibited a new symptom, regular nausea every day. I did my best to resist any form of treatment but the pain was too great. Nausea is like an animal scratching at a closed door. The initial damage isn't bad, but over time the door wears out and the animal breaks out. In an effort to kill two birds with one stone, I started regular smoking of Marijuana. It also helped reduce pressure on my eyes. However, even this treatment wasn't sustainable. Smoking is an irritant to the lungs, as well as a killer of gut bacteria. It is also not good for overall heart/cardiovascular health. Are you noticing a trend? As one aspect of medical condition is treated another organ is sacrificed. I needed to find another way to live in harmony with my body. I decided to give up this treatment. I gave up Marijuana for other Ayurvedic medicines. I started to consume regular amounts of ginger. Ginger is anti-inflammatory, helps reduce blood pressure and calms the stomach. I buy young ginger to consume on the go and I also have eat ginger in fruit smoothies. Regular consumption has calmed my stomach and the nausea I experience is much easier to deal with.

I started to consume regular amounts of Shilajit back in 2018. It is found near mountains, oozing a tar, pitch like substance out its sides. Think of it as blood of the mountain. It was discovered by ancient people of India. Legend has it they watched monkeys consuming the black pitch and noticed they had lots of energy. Shilajit is a form of liquid minerals rich in Fulvic acid. It is said to have healing effects on the body. It really helps with energy and brain function. I usually take some in the morning in hot tea. It is not recommended for night use, because it can keep you up late into the night.

Turmeric is another Ayurvedic medicine. The root of the plant is used just like ginger. It is a main ingredient in modern day cooking, in the form of curry. It has anti-inflammatory properties along with the ability to eliminate free radicals in the body. I started to cook regularly with turmeric, along with adding it to the regular regiment of smoothies. I have found all these treatments as good alternatives to western medicine.

In 2017, I reset my art practice. The trembling in my hands and other problems with my physical body required a new evolution of my motif. I let go of the traditional motif of the human body. I traded this motif for the pure abstraction based on conceptual actions and spontaneity. This was the beginning of the Algorithm series. It is now 2020 and I have learned so much. Through both trial and error; research and experience. I've went through a lot of pain over the years, but it didn't break me. I am grateful for all of it, it shaped me like a diamond forming in the furnace. I prayed to God for knowledge and it was given to me, but not without a price. Science and religion have always been chasing the same thing. What started as a scientific research eventually has left me with one profound thought. This place exists because it was created. The underlying evidence is in the laws of the universe.

People who inspire me; I am a copy of a copy

Richard Pousette-Dart: *I strive to express the spiritual nature of the Universe. Painting for me is a dynamic balance and wholeness of life; it is mysterious and transcending, yet solid and real.*

Jackson Pollock: *"I don't paint nature. I am nature." "On the floor I am more at ease. I feel nearer, more part of the painting, since this way I can walk around it, work from the four sides and literally be in the painting." "I have no fear of making changes, destroying the image, etc., because the painting has a life of its own."*

Gerhard Richter: *"Now there are no priests or philosophers left, artists are the most important people in the world." "Chance determines our lives in important ways." "I don't think I can do this - painting under observation. It's the worst thing there is, worse than being in the hospital."*

Anselm Kiefer: *"Life is an illusion. I am held together in the nothingness by art." "What does the artist do? He draws connections. He ties the invisible threads between things. He dives into history, be it the history of mankind, the geological history of the Earth or the beginning and end of the manifest cosmos." "Ruins, for me, are the beginning. With the debris, you can construct new ideas. They are symbols of a beginning."*

Jack Whitten: *"Jazz is a pattern." "You got to be able to think like John Coltrane to do what I am doing in painting: The light exist in sheets, just like Coltrane told me. The shit falls across the plane; therefore, it's planar light. (Coltrane used the word 'wave') My ambition is to change the course of art history." "Improvisation i.e., the jazz language. How the jazz musicians use the word. After many hours of conceptual structuring + intense knowledge plasticity. Both of theory + physicality of the instrument + body...the jazz musician let go into pure action. They are Zen*

people! I want this in my painting...I strive for this. I want pure action of the now. My materials are my instrument. Fifty years of knowledge go into what I do. It is all compressed into paint. Compression- compression-compression.....the perceptual/conceptual is compressed into paint. A synthesis of concreteness plus abstraction. I used to think that it was the gap between concreteness + abstraction but this gap has been transcended. I AM ON MY OWN NOW. "

Mark Bradford: *"Life, work - it's all very organic and fluid, a laboratory. I always tell people: whatever your thing is, you just have to be in it. Jump in; you'll figure it out. " "That's how I make work. Along the way, I take notes, I read about history and popular culture. Sometimes I act out things in the studio. I go back to my mother's hair salon so I can hear three voices going all at once. I pull inspiration from everything. " "You either have to find a way to be really creative materially, or you better have a trust fund. And, last I checked, I didn't have a trust fund. "*

Vik Muniz: *"Garbage is the part of your history you don't want your family to know about. " "Drawing is not only a way to come up with pictures: drawing is a way to educate your eye to understand visual information, organizing it into a more hierarchical way, a more economical way. When you see something, if you draw often and frequently, you examine a room very differently. "*

MC Escher: *"My work is a game, a very serious game. " "Only those who attempt the absurd will achieve the impossible. I think it's in my basement... let me go upstairs and check. "*

Jay DeFeo: *"Only by chancing the ridiculous, can I hope for the sublime. There is no such thing as inanimate matter... there is God or divinity in all matter and it is all living energy. "*

Mark Grotjahn: *"I think my masks reference artists who reference primitivism. They're not directly connected to tribal arts. I think they look more like third-grade art projects. "*

Rene Magritte: *"Everything we see hides another thing, we always want to see what is hidden by what we see. If the dream is a translation of waking life, waking life is also a translation of the dream. Art evokes the mystery without which the world would not exist. "*

Henri Matisse: *"Cezanne, you see, is a sort of God of painting. " "I have always tried to hide my efforts and wished my works to have a light joyousness of springtime which never lets anyone suspect the labors it has cost me".*

Paul Cezanne: *"the logic of organized sensation "woven look" "The painter must enclose himself within his work; he must respond not with words, but with paintings. " "I want to die painting. " "Tell me, do you think I'm going mad? I sometimes wonder, you know. "*

Jean-Michel Basquiat: *"Believe it or not, I can actually draw. " "I like kids' work more than work by real artists any day. " "I thought I was going to be a bum the rest of my life. "*

Sol LeWitt: *"All of the significant art of today stems from Conceptual art. This includes the art of installation, political, feminist and socially directed art. " "Minimalism wasn't a real idea- it ended before it started. " "The artist is seen like a producer of commodities, like a factory that turns out refrigerators. " "Artists teach critics what to think. Critics repeat what the artists teach them. " "You shouldn't be a prisoner of your own ideas. "*

Yayoi Kusama: *"I will keep painting until I die. " Suppose I put polka dots all over my body and then cover my background completely with polka dots. The polka dots on my body, merging with those in the background, create an optically strange scene. " My art originates from hallucinations only I can see. I translate the hallucinations and obsessional images that plague me into sculptures and paintings. "*

Cai Guo-Qiang: *"The boyhood dream of becoming a painter stays important to me. " "My work is like a dialogue between me and unseen powers, like alchemy. " "I do believe every artwork*

has its own charisma. Sometimes it's different from what I expect. When a work is finished, it exudes its own charisma and lives its life independently.” “I have always found that if, while creating an artwork, the artist constantly feels that some accident would occur if he is not careful, then it is a very significant moment and a significant work.”

Claude Monet: *“My wish is to stay always like this, living quietly in a corner of nature.” “Everyone discusses my art and pretends to understand, as if it were necessary to understand, when it is simply necessary to love.” “Eventually, my eyes were opened, and I really understood nature. I learned to love at the same time.”*

J M W Turner: *“If I could find anything blacker than black, I'd use it.” “I know of no genius but the genius of hard work.” “It is only when we are no longer fearful that we begin to create.”*

Piet Mondrian: *“Art is the path to being spiritual.” “I think that the destructive element is too much neglected in art.” “The most advanced minds as well as the least advanced are obliged to use the same words. If we adopt new words, it will be even more difficult - if not impossible - to make ourselves understood. The new man must therefore express himself in conventional language.”*

Bridget Riley: *“Focusing isn't just an optical activity, it is also a mental one.” “Painting is, I think, inevitably an archaic activity and one that depends on spiritual values.” “His failures are as valuable as his successes: by misjudging one thing he conforms something else, even if at the time he does not know what that something else is.” “I used to build up to sensation, accumulating tension until it released a perceptual experience.”*

John Cage: *“Everything we do is music.” “Farting, don't think, just fart.” “I can't understand why people are frightened of new ideas. I'm frightened of the old ones.” “When you start working, everybody is in your studio- the past, your friends, enemies, the art world, and above all, your own ideas- all are there. But as you continue painting, they start leaving, one by one, and you are left completely alone. Then, if you are lucky, even you leave.”*

“I have attempted briefly here to set forth a view of the arts which does not separate them from the rest of life, but rather confuses the difference between Art and Life.”

Joan Jonas: *“I rehearsed my work only at night, and when I rehearse, I stepped into another space that was not the same as my everyday space. You could almost call it a séance.”*

Marcel Duchamp: *“I am interested in ideas, not merely in visual products.” “The word 'art' interests me very much. If it comes from Sanskrit, as I've heard, it signifies 'making.' Now everyone makes something, and those who make things on a canvas with a frame, they're called artists. Formerly, they were called craftsmen, a term I prefer. We're all craftsmen, in civilian or military or artistic life.” “If only America would realize that the art of Europe is finished - dead - and that America is the country of the art of the future, instead of trying to base everything she does on European traditions!”*

Robert Rauschenberg: *“The artist's job is to be a witness to his time in history.” “You begin with the possibilities of material.” “I think a painting is more like the real world if it's made out the real world.”*

Joseph Bueys: *“Every man is an artist.” “Let's talk of a system that transforms all the social organisms into a work of art, in which the entire process of work is included... something in which the principle of production and consumption takes on a form of quality. It's a gigantic project.”*

Mark Rothko: *“There is no such thing as good painting about nothing.” Art to me is an anecdote of the spirit, and the only means of making concrete the purpose of its varied quickness and stillness.” “If our titles recall the known myths of antiquity, we have used them again*

because they are the eternal symbols upon which we must fall back to express basic psychological ideas."

Josef Albers: *"Abstraction is real, probably more real than nature." "In Italy the artist is a god. Now if the artist is a god, the scientist is likewise a god." "Ah, the creative process is the same secret in science as it is in art. They are all the same absolutely." "As basic rules of a language must be practiced continually, and therefore are never fixed, so exercises toward distinct color effects never are done or over. New and different cases will be discovered time and again."*

Howard Hodgkin: *"I hate painting." "When I finish a painting, it usually looks as surprising to me as to anyone else." "I look at my pictures, and I think, 'Well, how did I do that?' "I don't look at the work of my contemporaries very much; I tend to look at pictures by dead artists. It's much easier to get near their paintings."*

Carl Krull: *"I'm drawing in an almost sculptural manner, and my expression is of a topographical nature. I want to break with the two-dimensional surface of the paper."*

William Blake: *"Do what you will, this world's a fiction and it is made of contradiction." "The man who never alters his opinions is like standing water, and breeds reptiles of the mind." "If the doors of perception were cleansed everything would appear to man as it is, infinite."*

Vincent Van Gogh: *"Painting is a faith, and it imposes the duty to disregard public opinion." "I put my heart and my soul into my work, and have lost my mind in the process." "Paintings have a life of their own that derives from the painter's soul."*

Bob Ross: *"We don't make mistakes here, we just have happy accidents."*

Pablo Picasso: *"What do you think an artist is? ...he is a political being, constantly aware of the heart breaking, passionate, or delightful things that happen in the world, shaping himself completely in their image. Painting is not done to decorate apartments. It is an instrument of war!"*

Elsa von Freytag-Loringhoven: *"Every artist is crazy with respect to ordinary life" "Everything emotional in America becomes a mere show and make-believe. Americans are trained to invest money, are said to take even desperate chances on that, yet never do they invest [in] beauty nor take desperate chances on that. With money they try to buy beauty--after it has died--famishing--with grimace. Beauty is ever dead in America"*

Colin Martindale: *"Painters cannot copy old paintings. Exact replication is not allowed in any of the arts. If it were, we should make no distinction between typesetters and poets, between musical performers and composers. The notion of art forgery would make no sense at all." "We live in a predictable world. Never, Salvador Dali once complained, had he ordered lobster in a restaurant and been served a baked telephone."*

Georges Seurat: *"Originality depends only on the character of the drawing and the vision peculiar to each artist." "Some say they see poetry in my paintings; I see only science."*

Albert Einstein: *"A person who never made a mistake never tried anything new." "The only real valuable thing is intuition." "The most beautiful thing we can experience is the mysterious. It is the source of all true art and science." "I am enough of an artist to draw freely upon my imagination." "I want to know all God's thoughts; all the rest are just details." "Science without religion is lame, religion without science is blind." "I want to go when I want. It is tasteless to prolong life artificially. I have done my share; it is time to go. I will do it elegantly."*

Steven Hawking: *"The universe is a machine governed by principles or laws- laws that can be understood by the human mind." "That the core of every black hole is inhabited by a singularity where time ends." "A key element for Einstein was imagination. Many of his discoveries came*

from his ability to reimagine the universe through thought experiments. At the age of sixteen, when he visualized riding on a beam of light, he realized that from his vantage light would appear as a frozen wave. This ultimately led to the theory of special relativity..... Imagination remains our most powerful attribute."

Brian Greene: *"We might be the holographic image of a two-dimensional structure." "String theory envisions a multiverse in which our universe is one slice of bread in a big cosmic loaf. The other slices would be displaced from ours in some extra dimension of space." "There's no way that scientists can ever rule out religion, or even have anything significant to say about the abstract idea of a divine creator." "Art makes us human, music makes us human, and I deeply feel that science makes us human." "String theory is the most developed theory with the capacity to unite general relativity and quantum mechanics in a consistent manner. I do believe the universe is consistent, and therefore I do believe that general relativity and quantum mechanics should be put together in a manner that makes sense." "The full name of string theory is really superstring theory. The 'super' stands for this feature called supersymmetry, which, without getting into any details, predicts that for every known particle in the world, there should be a partner particle, the so-called supersymmetric partner."*

Michio Kaku: *"I believe we exist in a multiverse of universes." "In science, nothing is ever 100% proven." "It's pointless to have a nice clean desk, because it means you're not doing anything." "The universe is a symphony of strings, and the mind of God that Einstein eloquently wrote about for thirty years would be cosmic music resonating through eleven-dimensional hyper space."*

Werner Heisenberg: *"Whoever dedicates his life to searching out particular connections of nature will spontaneously be confronted with the question how they harmoniously fit into the whole." "The uncertainty principle refers to the degree of indeterminateness in the possible present knowledge of the simultaneous values of various quantities with which the quantum theory deals; it does not restrict, for example, the exactness of a position measurement alone or a velocity measurement alone."*

Benoit Mandelbrot: *"There is a joke that your hammer will always find nails to hit. I find that perfectly acceptable." "The techniques I developed for studying turbulence, like weather, also apply to the stock market." "Where do I really belong? I avoid saying everywhere - which switches all too easily to nowhere. Instead, when pressed, I call myself a fractalist." "From a great distance, the ball is no more than a point, with zero dimensions. From closer, the ball is seen to fill a spherical space, taking up three dimensions. From closer still, the twine comes into view, and the object effectively becomes one dimensional."*

Walter Russell: *"The keystone of the entire structure of the spiritual and physical universe is Rhythmic Balanced Interchange between all opposites." "Meditation transports one from the transient world of matter to the real world of dreaming's, visions, and imaginings where idea is and concepts are born." "Your body is merely a machine made to express the thoughts that flow through you and nothing more. It is but an instrument for you to express your imagings just as a piano is an instrument for a musician to express his imagings. Just as the piano is not the musician, so, likewise, your body is not you."*

Leonardo da Vinci: *"Poor is the pupil who does not surpass his master." "Nature is the source of all true knowledge. She has her own logic, her own laws, she has no effect without cause nor invention without necessity." "All our knowledge has its origins in our perceptions." "Where the spirit does not work with the hand, there is no art." "The beginnings and ends of shadow lie between the light and darkness and may be infinitely diminished and infinitely increased."*

Shadow is the means by which bodies display their form. The forms of bodies could not be understood in detail but for shadow.” “Men of lofty genius sometimes accomplish the most when they work least, for their minds are occupied with their ideas and the perfection of their conceptions, to which they afterwards give form.”

Carolyn Merchant: *“There is no single concept of nature; it embraces everything that is fluid, changing, and mysterious. Ultimately, however, to “know nature” on earth is to live within it and to revere it in every way.”*

Nikola Tesla: *“Today's scientists have substituted mathematics for experiments, and they wander off through equation after equation, and eventually build a structure which has no relation to reality.” “There is no conflict between the ideal of religion and the ideal of science, but science is opposed to theological dogmas because science is founded on fact. To me, the universe is simply a great machine which never came into being and never will end. The human being is no exception to the natural order. Man, like the universe, is a machine.” “If you only knew the magnificence of the 3, 6 and 9, then you would have the key to the universe.*

Plato: *“Life must be lived as play.” “Philosophy is the highest music.” “Those who are able to see beyond the shadows and lies of their culture will never be understood, let alone believed, by the masses.” “Science is nothing but perception.” “All the gold which is under or upon the earth is not enough to give in exchange for virtue.” “The blame is his who chooses: God is blameless.”*

Rene Descartes: *“Everything is self-evident.” “I think; therefore I am.” “If you would be a real seeker after truth, it is necessary that at least once in your life you doubt, as far as possible, all things.” “The reading of all good books is like a conversation with the finest minds of past centuries.” “The two operations of our understanding, intuition and deduction, on which alone we have said we must rely in the acquisition of knowledge.”*

Carl Jung: *“Show me a sane man and I will cure him for you.” “Our heart glows, and secret unrest gnaws at the root of our being. Dealing with the unconscious has become a question of life for us.” “One looks back with appreciation to the brilliant teachers, but with gratitude to those who touched our human feelings. The curriculum is so much necessary raw material, but warmth is the vital element for the growing plant and for the soul of the child.” “In all chaos there is a cosmos, in all disorder a secret order.”*

Jean Baudrillard: *“It is always the same: once you are liberated, you are forced to ask who you are.” “Deep down, the US, with its space, its technological refinement, its bluff good conscience, even in those spaces which it opens up for simulation, is the only remaining primitive society.” “There is nothing more mysterious than a TV set left on in an empty room. It is even stranger than a man talking to himself or a woman standing dreaming at her stove. It is as if another planet is communicating with you.”*

Eric Thomas: *“Most of the people that I deal with have no vision, and they live out the reality that's given to them.” “When you want to succeed, as bad as you want to breathe, then you'll be successful.”*

Bruce Lee: *“As you think, so shall you become.” “Real living is living for others.” “To hell with circumstances; I create opportunities.” “You must be shapeless, formless, like water. When you pour water in a cup, it becomes the cup. When you pour water in a bottle, it becomes the bottle. When you pour water in a teapot, it becomes the teapot. Water can drip and it can crash. Become like water my friend.”*

Les Brown: *“Life has no limitations, except the ones you make.” “Don't let someone else's opinion of you become your reality.”*

Terrance McKenna: *"Nature is not our enemy, to be raped and conquered. Nature is ourselves, to be cherished and explored." "We are told 'no', we're unimportant, we're peripheral. 'Get a degree, get a job, get a this, get a that.' And then you're a player, you don't want to even play in that game. You want to reclaim your mind and get it out of the hands of the cultural engineers who want to turn you into a half-baked moron consuming all this trash that's being manufactured out of the bones of a dying world." "The artist's task is to save the soul of mankind; and anything less is a dithering while Rome burns. Because of the artists, who are self-selected, for being able to journey into the other, if the artists cannot find the way, then the way cannot be found." "What civilization is, is 6 billion people trying to make themselves happy by standing on each other's shoulders and kicking each other's teeth in. It's not a pleasant situation." "This is why the shaman is the remote ancestor of the poet and artist. Our need to feel part of the world seems to demand that we express ourselves through creative activity. The ultimate wellsprings of this creativity are hidden in the mystery of language. Shamanic ecstasy is an act of surrender that authenticates both the individual self and that which is surrendered to, the mystery of being. Because our maps of reality are determined by our present circumstances, we tend to lose awareness of the larger patterns of time and space. Only by gaining access to the Transcendent Other can those patterns of time and space and our role in them be glimpsed."*

Bob Proctor: *"Thoughts become things. If you see it in your mind, you will hold it in your hand."*

Russell Means: *"Welcome to the reservation." "If I want my people to be free, Americans have to be free."*

James Gleick: *"Our feeling of beauty is inspired by the harmonious arrangement of order and disorder as it occurs in natural objects--- in clouds, trees, mountain ranges, or snow crystals. The shapes of all these are dynamical processes jelled in physical forms, and particular combinations of order and disorder are typical for them." "In daily life, the Lorenzian quality of sensitive dependence on initial conditions lurks everywhere. A man leaves the house in the morning thirty seconds late, a flowerpot misses his head by a few millimeters, and then he is run over by a truck. Or less dramatically, he misses the bus that runs every ten minutes—his connection to a train that runs every hour. Small perturbations in one's daily trajectory can have large consequences."*

Sample Research writing related to my first quarters interests.

According to the Greek Mythology, the God Zeus bewildered the young woman Mnemosyne and slept with her for nine consecutive nights. The result of their encounter was the Nine Muses, who were similar to everything. Mnemosyne gave the babies to Nymph Eufime and God Apollo. When they grew up they showed their tendency to the arts, taught by God Apollo himself. They were not interested in anything of the regular human everyday life and they wanted to dedicate their lives to the Arts. Apollo brought them to the big and beautiful Mount Elikonas, where the older Temple of Zeus used to be. Ever since, the Muses supported and encouraged creation, enhancing imagination and inspiration of the artists.

The traditional interpretation of the work is based on a late 15th-century poem by Battista Fiera, which identified it as a representation of Mount Parnassus, culminating in the allegory of Isabella as Venus and Francesco II Gonzaga as Mars. The two gods are shown on a natural arch of rocks in front a symbolic bed; in the background the vegetation has many fruits in the right part (the

male one) and only one in the left (female) part, symbolizing the fecundation. The posture of Venus derives from the ancient sculpture. They are accompanied by Anteros (the heavenly love), opposed to the carnal one. The latter is still holding the arch, and has a blowpipe which aims at the genitals of Vulcan, Venus' husband, portrayed in his workshop in a grotto. Behind him is the grape, perhaps a symbol of the drunk's intemperance.

Detail of Pegasus and Mercury. In a clearing under the arch is Apollo playing a lyre. Nine Muses are dancing, in an allegory of universal harmony. According to ancient mythology, her chant could generate earthquakes and other catastrophes, symbolized by the crumbling mountains in the upper left. Such disasters could be cured by Pegasus' hoof: the horse indeed appears in the right foreground. The touch of his hoof could also generate the spring which fed the falls of Mount Helicon, which can be seen in the background. The Muses danced traditionally in wood of this mount, and thus the traditional naming of Mount Parnassus is wrong. Near Pegasus is Mercury, with his traditional winged hat, caduceus (the winged staff with entwined snakes), and messenger shoes. He is present to protect the two adulterers.

As a kid growing up my family often took me on trips to explore the states. While most families would fly, mine selected to drive to their locations. This was not without reason though, as my father could not fly on a plane, due to the installation of a pacemaker to help regulate his heart in the late 80s. Even before then, I don't think he enjoyed the sensation and preferred to be grounded. He took us on lots of trips, the numbers are immeasurable; However, the cumulative effect can be measurable by the number of states I have visited, which is forty-four states, excluding Alaska, Hawaii, and a few of the northeast states.

Being a child at the time I couldn't exactly grasp how big the world was. I would often fall asleep while we were rolling down the highway, only to wake up a few hours later in a totally different state with distinct features. My earliest reasoning for this change was that my father had somehow transformed the landscape through magic, and that the car was just a vehicle to wait out this change to the landscape. I imagined him getting out of the car as I fell asleep and pulling out a large piece of wood, which looked like a paintbrush, then changing the world around me through it. He wielded the brush like a magician and I remember feeling so proud of him, and his abilities. I later came to understand that this thought that I had imagined was not true, so the vehicle was taking us to another location. My father was the catalyst for the change, because he was driving, but there was no paintbrush and the world was a lot bigger than I had previously thought. I learned more than just the facts from this encounter though, I learned that my imagination can be a powerful thing, one that can shape minds for years to come. The freedom of childlike wonder is something behold. I often return to this thought analyzing ideas for new works. Steven Hawking states, *"A key element for Einstein was imagination. Many of his discoveries came from his ability to reimagine the universe through thought experiments. At the age of sixteen, when he visualized riding on a beam of light, he realized that from his vantage light would appear as a frozen wave. This ultimately led to the theory of special relativity..... Imagination remains our most powerful attribute."* (Pg. 199-200, Hawking 2018)

This quote speaks volumes to the power of interpretation and perspective. That there are no wrong processes to approaching an unsolved problem. Cross disciplinary interpretation has a

long history of inspiring artists in the past. The post-impressionist painter, Georges Seurat is a prime example of this. Seurat embraced scientific notions of color theory. Charles Blanc's *Grammaire des arts du dessin* introduced Seurat to the theories of color and vision. But it has been theorized that scientists like Michel Eugene Chevreul, David Sutter, Hermann von Helmholtz and Ogden Rood have all played some part in influencing Seurat's inseparable Divisionism and its offshoot Pointillism. Seurat created dot based paintings by juxtaposing colors next to each other, with the intention of mixing the colors through the viewer's eye and achieving maximum luminosity when viewed from the distance. This Divisionism, as he preferred it, inspired many followers and movements long after his death in 1891.

Like Seurat my work has been heavily influenced by science. My current muse could be interpreted as nature, examined through a scientific lens. Contextualizing verbal scientific thought and the laws of nature, through the medium of paint. For my next project I decided to look specifically into the Big Bang Theory, its process and aftermath. To comprehend the big bang we have to understand that the universe is expanding. Previous studies in 1922 by Alexander Friedmann and Georges Lemaitre in 1927, suggested that the universe was expanding. But it wasn't until Edwin Hubble provided evidence galaxies are increasing moving away from the earth; that we knew that the universe was expanding. This law became known as the Hubble constant. The Hubble Constant is the unit of measurement used to describe the expansion of the universe. The cosmos has been getting bigger since the Big Bang exploded about 13.82 billion years ago. The universe, is accelerating as it gets bigger. Hawking states, "*Hubble was able to measure whether they were moving towards us or away. To his great surprise he found that they were nearly all moving away. Moreover, the further they were from us, the faster they were moving away. In other words, the universe is expanding. Galaxies are moving away from each other.*" (Pg. 46, Hawking 2018) The universe is expanding, imagine a big cone or bell shape, expanding out infinitely, and you might have an idea how the big bang created our universe.

I now had some idea how the big bang created the universe but I was nowhere close to the action of creation. I wanted some forms of visual representation. I usually work strictly from research, but this experience was something different altogether; as I researched forms that would fit visually as explosions. I first examined supernovae, which are the closest relatives of the big bang. Think of them as miniature versions of the big bang. Supernova usually start their out lives out as stars, but they eventually run out of energy to sustain themselves and collapse in an explosion of massive proportions.

The crab nebula is a good example of remnants of a supernova explosion. This was the first astronomical object identified with a historical supernova explosion. Also coined supernova 1054; as it was mentioned as a guest star by Japanese and Chinese astronomers of the time. The Hubble telescope took pictures of the nebula between the years 1999-2000, splicing together twenty-four individual exposures to create a distinct image. When examining the photograph I noticed its center was mostly hollow and that it expanded out infinitely. It had the look of a human iris, with its thin washes of orange and yellow expanding out from its teal and red center. It is mostly symmetrical and a repetition of forms is seen in its physical structure. It is a great picture, but it wasn't enough visual language for me to start the project. I needed more

information both visually and text. I scoured the internet for more examples of form that could be relatable to the idea of an explosion. I looked at images of various flowers in bloom, plants, human irises and actual explosions. All of these images provided me some context in the real world in relation to the theoretical world. The final image I found was one of a Tibetan Mandala.

The psychologist Carl Gustav Jung is often credited for bringing the Eastern concept of the mandala to the Western world. For Jung, mandalas could be used to get a clearer picture of the Self. The psychologist thought that seeing a mandala in dreams or it unexpectedly coming out in a person's art meant that the individual was moving forward in their self-knowledge. The circular forms supposedly unified opposites as they showed who a person is. From ritual symbols used in Hinduism, Buddhism, and Jainism, mandalas have transformed into practically any geometric pattern, chart, or diagram that holds symbolic meaning as a sacred representation of the universe or a visual tool for self-introspection

I had seen mandalas in textbooks growing up, but I never fully understand their actual meaning. I saw them again during my time at Berkeley, while attending talks about India and the Buddha. At that time I appreciated their cultural significance, but I did not see them as inspiration. I again saw them for a third time, after I joined (SGI) Soka Gakkai International in 2015. SGI is a Buddhist organization, rooted in the teachings of Nichiren (1222–82). Nichiren was a Japanese reformist Buddhist monk, who identified the Lotus Sutra as the core teaching of Shakyamuni Buddha. The core Buddhist practice of SGI members is chanting Nam-myoho-renge-kyo and reciting portions of the Lotus Sutra. This action is done in front of a Gohonzon (*moji-mandala*), which is a calligraphy based scroll mandala, used as a tool for mediation. After my third encounter I interpreted mandalas in this way, as tools.

I enjoyed stumbling into these ideas through visual stimuli, versus the use of direct text based research. It exhaled new life into my process and opened up my research to new possibilities. I decided to continue this process and examine mandalas formally through their visual structure. Formally they are geometric pictures with emphasis on symmetry expanding from the center of the picture plane. This is most likely why they are used as mediation tools, as the mind gets lost in the repetition of forms. What I found in the development of researching forms was very different formally from Nichiren's scroll. Traditional mandalas from India and Tibet read more as pattern based compositions that sit flat within its ground. Both styles were symmetrical, but Nichiren's had a sense of space within its composition and it felt much less formal. One could even say that Nichiren's actions were rooted in his expressionistic actions. He was expressing a thought through his calligraphy, whereas traditional mandalas are based on a strict system of creation. They are mathematically based artistic endeavors, which can utilize shapes, figures and line to creation a unique even surface, whereas Nichiren's mandala is essentially just line and can be read as abstract. This duality of the two forms interested me. I wished to combine both forms into one painting. But first I needed to educate myself further on the cultural significance of mandalas.

A mandala is a spiritual and ritual symbol in Hinduism and Buddhism, representing the universe. (It can also represent the self.) In common use, "mandala" has become a generic term for any diagram, chart or geometric pattern that represents the cosmos metaphysically or

symbolically; a microcosm of the universe. These symbols are universal across multiple cultures. Through this exploration of mandala's I found many types of mandalas from various cultures; including Aztec, Tibetan and Indian, Celtic, and European. Each with their own meanings and stylistic differences. However, there is also shared sensibility between all of them.

Christian mandalas are often found on some of the world's oldest cathedrals. You can find them laced within stained glass windows. Some of the world's oldest and most famous examples of Christian mandalas include: Basilica of Saint-Denis: 12th Century, Saint-Denis, France, Chartres Cathedral: 13th Century, Chartres, France, Notre Dame: 13th Century, Paris, France, Milan Cathedral: 13th Century, Milan, Italy, Westminster Abbey: 16th Century, London, England. What separated these works of art from the other mandalas is their use of three dimensional space. They read as relief sculptures with their structural framework protruding out from the stained glass. These lines contain the image, framing its contents; juxtaposed against the thin see through colored glass to give the colors maximum luminosity. This reminded me of Seurat's use of painted frame in his masterpiece, "A Sunday on La Grande Jatte." Seurat painted red and blue dots along the outside of the painting to create the illusion of a frame. It is a subtle way the artist can to add space to the painting.

While searching through this vast array of mandalas, one style in particular resonated with me over time. The Tibetan sand mandalas were of a particular interest to me. Not for their stylistic preferences, but because of the ritual behind their creation. Historically a sand mandala is created with granules of crushed colored stone. Its creation and transformation of the image is highly ceremonial. A team of monks work on the mandala as a team. From the center of the ground, a line is drawn and a circle around it using a drafting compass. Then from memory the monks recreate the pattern called the "Buddha of compassion." They draw these lines out using a white dusted string held by two separate individuals, which are then flicked at the ground, like a rubber band hitting a surface. The pattern slowly forms, as geometric boxes are created with an x through each box. These lines work as a stencil for future patterns. The monks then meticulously lay out the sand accordingly with the help of Chakpur. A small funnel and stick usually made out of copper, which releases the sand through a vibration, created by tapping the funnel with the copper stick. This process takes some time to complete. Most take a few days, but it can take up to weeks to complete, depending on the size of the mandala and how many monks are involved. As it is created, spectating monks chant to bring deities into the design. This is supposed to bring good healing energies to those looking at the mandala.

After all that work the design is transformed through its systematic dismantling. Monks continue their chanting in the background as the ground is swept. The sand is removed in a specific order until mandala has been dismantled. Traditionally the sand is then collected in a jar, which is then wrapped in silk, transported to a river, where it is released back into nature. Some of the sand will also be given out in the form of blessings to any spectators. The transformation of the mandala symbolizes the non-permanence of life and the world. The symbolic gestures the monk wields while sweeping up the mandala is both beautiful and eerily familiar. The monk sweeps in a wave pattern from the outside of the mandala to its center, to create an explosive

image, before it is finally swept up into the container. The image reminded me of inherent nature of the universe. We are all spinning through space pulled by the gravity of invisible entities.

Einstein states, *“Science without religion is lame and religion without science is blind”*. (Einstein 1939-41) I had to follow my visual gut and quickly switched gears to look into another cosmic player related to the big bang, black holes. Black holes are an enigma of science, they exert such gravitational force that nothing can escape their grasp, even light cannot leak. Once an object passes the event horizon of a black hole there is no escape. This makes them collectors of material as they slowly pull matter into their center or theorized singularity. Einstein’s theory of relativity proved that time and space are relative. But imagine a place where time doesn’t exist, because it’s being pulled in the opposite direction of our current spatial universe. The possibilities of researching such a phenomenon is exciting. Hawking states, *“When John Wheeler introduced the term “black hole” in 1967, it replaced the earlier name “frozen star. “Wheeler’s coinage emphasized that the remnants of collapsed stars are of interest in their own right, independently of how they were formed.”* (pg. 106, Hawking 2018)

Black holes, like supernovae, are remnants of stars but on a much larger scale and state of decay. They can’t tell us much about the action of the big bang but they could give clues to the aftermath. Each black hole would have a significant effect on its intermediate space. These cosmic world pools are propelled through space as stars, which are then formed into black holes through chemical reactions. A perfect example of this phenomenon emerges from the observable evidence of galaxies. At the center of every galaxy exists a massive black hole that pulls the matter around it in a spiraling form. We cannot observe the black hole directly. However, the bending of light, combined with the overall shape of observable matter, suggests that something very large is pulling objects towards it. In summary, we humans are spinning on a planet pulled by the nearest star, the sun, which is gliding on a giant propeller of a galaxy. This galaxy that we inhabit, the Milky Way, is being pulled by a much larger force that started at the beginning of the universe. I wanted to incorporate this force within the work but I wanted a precise formula for its creation.

I had to look no further than the golden ratio. Throughout history mathematics has been used to solve many of history’s greatest problems. Euclid the father of geometry knew of it as far back as BCE. In mathematics this sequence can be used to mimic these spiraling patterns, which is the golden ratio. This golden mean is represented as the numbers 1.618. There are two quantities in the golden ratio, if their ratio is the same as the ratio of their sum, to the larger of the two quantities. This sequence is a never ending spiral expanding out from its center. By applying this equation to a stencil I could copy this effect into my work efficiently. Benoit Mandelbrot states, *“For a complex natural shape, dimension is relative. It varies with the observer. The same object can have more than one dimension, depending on how you measure it and what you want to do with it. And dimension need not be a whole number; it can be fractional. Now an ancient concept, dimension, becomes thoroughly modern.”* (Mandelbrot 2008) A sister to this theory is the Fibonacci sequence, a series of numbers in which each number (Fibonacci number) is the sum of the two preceding numbers. The simplest is the series 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 etc. The Fibonacci number is an approximation of the golden ratio. Named after Leonardo of Pisa,

who would later be known Fibonacci. Fibonacci introduced the sequence to European Leonardo Fibonacci came up with the sequence when calculating the ideal expansion pairs of rabbits over the course of one year. Today, its emergent patterns and ratios ($\phi = 1.61803\dots$) can be seen from the microscale to the macroscale, and right through to biological systems and inanimate objects. While the Golden Ratio doesn't account for every structure or pattern in the universe, it's certainly a major player in mathematics. However, the sequence had been described earlier in Indian mathematics by Acarya Pingala, who authored the "Chandaḥśāstra."

Building on top of the Euclidean foundation of geometry and the golden ratio was the Koch snowflake. This is a mathematical curve and one of the earliest fractal curves to have been described. It is based on the Koch curve, which appeared in a 1904 paper titled "On a continuous curve without tangents, constructible from elementary geometry." Written by Swedish mathematician Helge von Koch. Imagine a triangle as it repeats itself evenly over its own surface to infinity and might have a visual representation of the Koch Snowflake. Many other curves have appeared over the years from the camp of mathematics including: the Sierpinski curve, Pascal's curve, Peano curve, etc. All of these curves have one thing in common, they use shapes instead of just numbers, in sequences similar to the Fibonacci sequence. Opening up space to the theoretical framework instead of just numbers.

The sole person responsible for bringing fractal mathematics to the mainstream has to belong to Benoît Mandelbrot. The Mandelbrot set brings the Koch curve to a 3d state that can be wielded with mathematical precision. The fractal was first defined and drawn in 1978 by Robert W. Brooks and Peter Matelski as part of a study of Kleinian groups. Mandelbrot states, *"Fractals are characterized by the coexistence of distinctive features of every conceivable linear size, ranging from zero and a maximum that allows for two cases. When a fractal is bounded, the maximum feature size is of the order of magnitude of the fractals size."* (pg. 276, Mandelbrot 2006) What this means is that every fractal is bound by its beginning but it can also stretch to infinity and if one were to zoom into a fractal picture they would see the same pattern emerge over and over. Imagine a tree stretching out over the landscape. It is bound to its trunk, however it will continue to grow from this trunk in a sequence as long as it is able. Mandelbrot's work was integral to the science of chaos and dynamical systems. He was obsessed with measuring what he called roughness. Using this roughness as a base number he spawned computer based landscapes to prove his theories. It has spawned a large quantities of fractal art through algorithmic based programming. It is clear that he has had a lasting effect on our world through Hollywood's entertainment industry; as many CGI studios employ the use of his techniques in the creation of movie backgrounds. Mandelbrot even tips his hat to artists who knew of this significance, in his book, "From the Fractal Geometry of Nature." He credits Leonardo Da Vinci's "The Deluge" (1452- 1519) series for its swirling gestures meant to represent water. Katsushika Hokusai's "Great Wave" (1829-33) is also used as an example of artists using fractal based ideas in their own works. Interesting enough both works represented some form of cataclysmic event. James Gleick quotes, *"Then what is the dimension of a ball of twine? Mandelbrot answered, it depends on your point of view. From a great distance, the ball is no more than a point, with zero dimensions. From closer, the ball is seen to fill a spherical space, taking up three dimensions. From closer still, the twine comes into view, and the object*

effectively becomes one dimensional.” (Pg. 97, Gleick 2015) From the perspective of a researcher you can’t just unseen these patterns. Once you’ve opened Pandora’s Box, they appear everywhere. The universe loves math and it loves laws that support its physical structure. There are many examples of nature’s laws all around us. From the growing sequence of tree’s to a spiraling cauliflower. Nature from a microscopic view appears very chaotic, but if one zooms out the view, it becomes clear and orderly. Gleick states, *“Our feeling for beauty is inspired by the harmonious arrangement of order and disorder as it occurs in natural objects- in clouds, trees, mountain ranges, or snow crystals. The shapes of dynamical processes jelled into physical forms, and particular combinations of order and disorder are typical to them.”* (Pg.117, Gleick 2015)

As this process of researching unfolded, I began to reflect on what I learned and how I wanted to move forward with my work. Patterns are of particular interest to both old works and new. Gravity also seemed to be a motif that showed up throughout the research and creation of work. In the Algorithms, I used to gravity to create grid like structures, dripping paint down the ground. However, with the black hole algorithms I used gravity in a different way. By spinning the ground to create natural looking explosions, juxtaposed against a mandala, golden ratio based landscape. Moving forward through visual research, I want to examine quite a few artists through this lens of pattern I have developed. Here are a few examples: Pablo Picasso’s and Georges Braque cubism works, M.C. Escher’s math based works, Piet Mondrian’s grid like compositions, Max Ernst’s surrealist geometric backgrounds, Gustav Klimt’s and Henri Matisse’s background patterns and Seurat’s color theory/optical based paintings. These artists along with future research topics of religion, artificial intelligence, and M theory could provide the structural ground for years to come.

Reflection on this strange world

Through God’s grace are born innocent, curious and full of life. But something happens along the way. We become indoctrinated by the world around us. We’re taught to limit ourselves. To find a job or career. To listen to the media and the historical narratives we are taught in school. Pay your taxes, obey the law. To fit into society like a glove and don’t ask questions. Worry about what others think of you. Look forward and consume; watch television, play video games, don’t miss a notification on social media.

Don’t you think it’s strange they try to keep you distracted?

Don’t you think it’s strange they let genetically modified foods, sprayed with pesticides into the food supply?

Don’t you think it’s strange they put chemicals in our water supply?

Don’t you think it’s strange they make money so important that we spend the majority of our lives chasing it?

Don’t you think it’s strange from the day you are born they inject you with a proprietary substance and continue to do so throughout your life?

Don't you think it's strange that the medications to treat diseases often cause as much harm as the diseases they are meant to treat?

Don't you think it's strange they are herding us like cattle into cities?

Don't you think it's strange they sexualize our beauty at an early age?

Don't you think it's strange they divide us by country, color, age and gender?

Don't you think it's strange ...?

How can we break free of this illusion? To quote the movie "They Live" how do we acquire our Hoffman's lens which reveals the truth to us. The movie points to a set of glasses that are wearable, created by rebels to see past this world's illusions. Once the glasses (and through later advancements contact lens) are put on the wearer they see advertisements as a means to control the masses. Subliminal messages appear such as consume, obey, submit, marry and reproduce, stay asleep, and no imagination. American dollars relay the message "this is your god". These messages are sent through a signal broadcast by the television station 54. These programs for your mind are designed to condition you how to live while in this plane of existence.

The glasses in this movie is a reference to Albert Hoffman who was the man who invented LSD and was the first to synthesize and isolate Psilocin and Psilocybin from hallucinogenic mushrooms. During his research in the lab, Hoffman accidentally got LSD on his fingers.

Hoffman stated that he was ... *"affected by a remarkable restlessness, combined with a slight dizziness. At home I lay down and sank into a not unpleasant intoxicated like condition, characterized by an extremely stimulated imagination. In a dreamlike state, with eyes closed (I found the daylight to be unpleasantly glaring), I perceived an uninterrupted stream of fantastic pictures, extraordinary shapes with intense, kaleidoscopic play of colors. After some two hours this condition faded away."* Hoffman describes a colorful landscape full of geometric shapes. Although Hoffman's first dose of LSD was accidental, three days later he had his first intentional dose of LSD. This would later become known as bicycle day, as Hoffman began to feel the effects of the hallucinogen on his bicycle ride home from work.

Hoffman's work was vital to waking up the human race. But what else could this Hoffman's lens represent? Let's return to the movie "They Live". The main protagonist of the story finds the rebels hideout in a church. In the church they attempt to hack the signal keeping the human race asleep. Therefore there must be answers hidden within the Bible. Look no further than the early writings in the bible, in the book of Genesis. When the serpent deceives Eve to eat from the tree of life. Genesis 3:5-7; *For God knows that when you eat from it your eyes will be opened, and you will be like God, knowing good and evil. When the woman saw that the fruit of the tree was good for food and pleasing to the eye, and also desirable for gaining wisdom, she took some and ate it. She also gave some to her husband, who was with her, and he ate it. Then the eyes of both of them were opened, and they realized they were both naked; so they sewed fig leaves together and made coverings for themselves."*

What exactly did Adam and Eve eat that gave them knowledge and woke their third eye. I highly doubt it was just some fruit. It would have to be some kind of mind altering substance. Especially if it had the power to change our progenitor's consciousness. Terrance McKenna attempts to answer this question in his book "Food of the Gods; the search for the original tree of knowledge." He theorizes that the forbidden fruit isn't a fruit at all, but instead magic mushrooms (*Stropharia cubensis*). Also called *Psilocybe cubensis*. The pattern is now clear Hoffman's lens isn't just a reference to Hoffman, but a reference to Psychedelic drugs. These drugs disrupt the illusion or signal, leading to an awakening of our consciousness. The lens is a reference to our eyes. Just like in the story Genesis, when Adam and Eve's eyes are finally opened. But this is again a symbol, as seeing doesn't necessarily mean knowing. The symbol is our third eye, which is our pineal gland and a direct connection to our creator. This could be one of the many reasons why I was woken up from my slumber. As I ingested mushrooms in the late nineties recreationally.

There are many other ways of stimulating your pineal gland. The use of Marijuana would be another, including Ayahuasca and other mind altering drugs. There are possibly other paths that don't include the short cuts of drugs. Other paths include cleansing your body. The removal of conditions that are limiting you pineal gland, such as the regular use of alcohol and exposure to fluoride. Regular meditation is one of them. The use of a sensory deprivation chamber. Perhaps using music in a precise way. Any form of altering our state of consciousness would lead to some form of awakening. We just have to disrupt the signal. *"I've walked a white line my entire life, I'm not about to screw that up."* to which John replies, *"White line's in the middle of the road, that's the worst place to drive."* - *They Live*

Seattle Art museum trip

I visited the Seattle Art Museum to view the show Material Difference, Big Picture: Art after 1945. This section of the museum featured some of Germany's titans sparing in the arena that is the museum. Juxtaposed against one another was both a Gerhard Richter "Abstraktes Bild" work and Anselm Kiefers "Die order der nacht created in 1996." This translates to the "order of the night" in English. I love both of these artists, however Kiefers's work really engulfs the space and I found myself making repeat rounds to look at this particular work. It is a truly colossal work of art, it dwarfs even the largest of its viewers. Kiefer's works are usually monumental in size and this work is no different, its dimensions are roughly 11 x 15 feet. I examined the back of the work without getting too close and it appears to be clamped together.

While observing the painting I saw a life sized man lying on the ground. He appears lifeless or dead, mirroring his natural counterparts in the huge ripe drooping sunflowers scattered across the canvas. There appears to be 10 of the flowers. Formalistically, the man occupies the middle of the foreground and is clearly the focal point of the work of art. He is also the dividing the picture plane into thirds by cutting the picture from the head and from the feet of the figure. This way he passively guides our eye directly where it needs to look. Compositionally the work reminds me of Jackson Pollock's Blue Poles' 1952. As the foreground is worked in a similar way with large shapes invading the viewer's space. The big compositional difference between Pollock's work and Kiefers; Kiefers addition of a second canvas attached to the original, which occupies

approximately 1/5 of the work to create a more open composition. A clear line can be seen in the work where it is attached. Forever reminding the viewer of the reality that this is just a painting. It is interesting to me because it almost becomes an implied horizon line. We get a sense of space through the implied horizon line and how the paint is handled. In the foreground the paint is much thicker and it has a feel that it could fall off the canvas at any moment. It provides a sort of tension that kept me at the work examining it further. As we work our way out to the middle ground the paint gets slightly less dense, which eventually gets much more flat as you move your eyes up across the canvas. This gradual slowdown of the buildup paint gives the viewer an appearance of space visually.

Visually Kiefer spreads out the sunflowers in different angles to create a flow or rhythm to the painting, and no sunflower is exhibited in the same position. The sunflowers are painted wet on wet through a large tool, possibly a brush or painting knife or both. The mediums used are acrylic, emulsion, and shellac. Given this information because of acrylic's limited drying times I would think this painting's wet on wet areas throughout were painted with speed in mind. This is also apparent when examining the brushstrokes of the leaves, stems and buds of the plants. It is highly gestural with thick impasto paint and Van Gogh strokes throughout the work. This along with the lineage of Pollock creates a connection through expressionistic works; that can be implied of a mood through how the paint is handled.

However, Kiefer's work has an implication of violence or tragedy in his works that could only be seen in many classical works. I do feel that Kiefer's work is highly biographical but moreover it wants to teach us lessons, thus linking it to Classical works. It asks the big questions like the fragility of life. Big questions often come up in Kiefer's work that anyone could transpose themselves into. Philosophical questions of humans' purpose on Earth, to question our existence through a lens of death. The connection of time and how it is limited to us through the laws of the universe. That is one of the questions Kiefer wants to raise. Humans are a part of nature; we are not separate and we die just like the sunflowers. Kiefer has chosen to implicate the cosmos through the dead heads of the sunflowers. Our clue to this is through the title of the work and through its cousin "The Renowned orders of the night", which is much more explicit with its message. In the renowned version the body of the human is juxtaposed against an actual sky of stars, implicit of the cosmos in a very direct way. Kiefer states "When I look at ripe, heavy sunflowers, bending to the ground with blackened seeds...I see the firmament and the stars.

"This is an important quote as it also frames Kiefer's works as biographical implicit of his own experience. An experience he feels he should share. Given that fact and how the figure has been painted we can assume that the figure on the ground is actually Anselm Kiefer. I also see biblical connections with the work that are implied through the foregrounds dirt caked ground. It is reminiscent of some of the biblical notions in Genesis, implying man's direct connection with the Earth and nature. *"And the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul."* Genesis 2:7, KJV. Kiefer is reminding us of our impending death, something we cannot cheat. We are created from the dust of the earth and then returned to it through death.

The color palette used in this painting is limited and could share a lineage with the works such as Gustave Courbet's "The Stonebreakers". It is muted and limited through its use of grey, black, blue, and earth oranges. Through the limited color palette we are returned back to the connection of nature. He transposes us to a mystical desert lost to the ravages of time. Which is a theme throughout the work.

Kiefer has also done something else visually that is quite enticing. He has purposely cracked the paint through the order in which the mediums are applied. He took thick paint and mixed an emulsion based retardant, thus giving the acrylic paint more time to stay wet. He then meticulously placed thin layers of shellac all over the canvas. The shellac is usually alcohol based medium made out of bug resin. Because it has alcohol in it dries at a much faster rate than the acrylic, essentially entombing the paint. The shellac doesn't create a perfect seal though and the wet acrylic eventually dries in a truly cracked manner, one only nature could perfectly mimic. This resistance creates the paintings unique look. This is one reason I love his works, as I am a texture junkie in the creation of my own works of art.

The physicality of the works is also something that should not be ignored. Kiefer occupies an aesthetic space somewhere between painting and sculpture. This hybridity or fluidity to his work points to the post medium condition. A condition where the artist isn't grounded in one medium. They flow like water, changing their practice based on the project they want to create, and the problems it poses in its creation. It also points to modernist views on mediums and the advantages each carries. But instead of limiting himself, Kiefer uses each material in a specific way that would be considered a strength across mediums. Kiefer's Maximalist aesthetic is apparent throughout the work. Maximalism is a reaction against minimalism, is an aesthetic of excess and redundancy. The philosophy can be summarized as "more is more", contrasting with the minimalist motto "less is more" – Wikipedia. Kiefer's mastery of material is apparent in all his works. He often works with different mediums for each work. The one thing that unites all the work is how he turns a two dimensional surface into a physical presence transcendent of its material.

Short story on success

There was a young man who wanted to be successful.

And there was this guru he looked up to, so he went to talk to the guru.

He asked the guru what was the secret to being successful?

The guru said if you want to be successful meet me at the river's edge tomorrow at sunrise.

The young man agrees and meets him at the river the next day.

The guru walked into the water and asked him, how bad do he want to be successful?

He said: "Real bad". Then guru said ok then, walk out into the water.

So he walks out into the water. The guru continues to walk out into the water as well.

By the time the young man gets to about waist deep he starts having second thoughts.

Thoughts like, this guy is crazy. I want to learn to be successful but instead he has me swimming.

I didn't ask to be a lifeguard. I want to be successful in life.

The guru said come on a little further, walk out a little further.

By this point the water was at his shoulders.

He can't help but to doubt once again. He says to himself this guy is crazy.

He knows how to be successful but he is absolutely crazy.
The guru saw that he was doubting and said come on out a little further.
He came out a little further, and the water it was right at his mouth.
The young man said I'm out of here and I'm not about to go back in. You are out of your mind.
And then the guru said: "I thought you said you wanted to be successful?"
He said: "I do."
The guru said "Then walk a little further."
So, the young man gets back in the water and makes it next to the spot where guru stood in the water.
The guru took one look at him and dunked the young man's head in the water and held him down.
He continued to hold him down for what seemed like an eternity.
The young man began to thrash about, kick and struggle.
But the guru continued to hold him down, and just before the young man was about to pass out, he raised him up.
Then he looked at him and said, "When you want to succeed as bad as you want to breathe, then you will be successful."

Original Story by Eric Thomas #ettthehiphoppreacher

Edited and transcribed by Todd McKinney

James Harris interview and initial response.

I would say your paintings are an investigation into modes of abstraction, probing the limits between gesture and impulse yet there are some referential elements. Can you talk about your interest in abstraction and what you want the viewer to take away from it?

My interest in abstraction is a product of my medical condition. Pseudo tumor Cerebri. I've had this condition for around 10 years. My original works were using the figure as a motif. I tried to continue this tradition but an evolution was necessary. During my time at Berkeley I lost some of the ability to be as precise with my work. I would have trouble with my vision and my hands would sometime tremble. I started to let go of the figure over time and slowly moved to abstraction out of necessity. But it wasn't until 2017 that I decided to fully let go of the figure and immerse myself in a different art practice. Jackson Pollock was always a personal favorite of mine within the modes of abstraction and I wanted to continue the tradition of the drip in a different way. I moved to use drips using various forces of the universe such as gravity. While at UW I have evolved again to now paste in items within the work to accentuate the space even further. These readymade items that are placed within the works are both a product of my social practice of upcycling and a direct link to my personal log of consumption. This makes them both abstract but as self-portraits in an indirect way. I want the viewer to be confused with the illusionistic space that is provided through my works. Having an immersive experience I believe is important takeaway. I think some sort of meditation or spiritual experience with a direct link to the sublime is also possible. Think in terms of a Mark Rothko's Chapel.

When viewing your paintings in person you can't help but notice your interest in scale, unconventional materials and three dimensionality. These are very specific decisions an artist makes. How do you make these decisions and why? How do you reconcile your choice of materials?

My process is built first on research then married to the proper materials. When I wanted to work with pieces that referenced the big bang and string theory I started using sticks and strings. The fluidity of string and even clothing interests me because it can be shaped and molded just like clay or latex paint. To quote Bruce Lee *"I said empty your mind, be formless. You must be shapeless, formless, like water. When you pour water in a cup, it becomes the cup. When you pour water in a bottle, it becomes the bottle. When you pour water in a teapot, it becomes the teapot. Water can drip and it can crash. Become like water my friend."* What I am saying is that each project has its own rules and materials, and I must come at each piece with a clear mind. Yes the same materials can be used in different pieces, but each work is its own problem and thus needs its own solution. I call them algorithms because I create loose fitting rules into each work. Sometimes the plan does not work out and then it is time to either break those rules and evolve or transform the piece into something else like a phoenix.

Two of your works are site in the corner of the room. These constructed paintings border on sculpture, coming 4 feet out from the corner, directly confronting the viewer in real space. The material surface, too, is built up, giving the surface of the paintings considerable texture. What leads you to explore the corner?

I'd have to credit someone who is represented by your gallery Mary Ann Peters. She came for a studio visit last year and could not help but notice the physicality of my work. She mentioned trying to play with the physical space of the installation of the work by installing the work in a corner. This almost becomes a remix of minimalist works in the 1960's such as Frank Stella, Sol LeWitt, Judy Chicago etc. But I obviously do not consider myself a minimalist. In fact if anything I am a maximalist artist. Less is not more, more is more. As I layer items through actions the painting reveals itself naturally. It is a physical process that I would also link to aspects of music. John Cage's ideas of process also have had a big influence on my work. My work defiantly exists as on a knife's edge as both sculpture and painting.

Is there an apt distance you are trying to achieve or do you see it as an exercise for the viewer to feel his or her way silently towards a correct spatial interval?

I think physically confusing the viewer has been a good strategy to employ during this age of Facebook, Instagram and Snapchat. We consume 100's of pictures every day and the ability to keep the viewer exploring the work is important. At twenty or so feet the mind cannot tell the difference between the string on the painting and the paint making lines behind it. But there is also a beauty in making this realization but this doesn't happen unless the viewer gets closer to the work. At ten feet much more is revealed, and up close all is revealed. I'd like to think of it as hacking the mind or visual stimuli. Old masters prided

themselves on creating realistic believable snapshots of time. I am however, not interested in snapshots in time or realism, but I am interested in showing the world just how problematic their senses might be.

Each of panel these corner pieces somewhat mirrors the other. I see them as an exploration of space through color and structure. In one the visual language is more abstract while the other has referential imagery. One evokes a psychological landscape while the other a physical one.

This a somewhat a product of the use of perspective and use of the corner. It would be madness to physically fight one of the largest rules of the pieces. That would be like swimming up a raging river. Yes, Salmon do this very act every year but they wither and die right after. Yes I agree, one is much more psychological as it is based on my own conditions and thought, whereas the other piece is more about the illusion of culture and this plane with inhabit as a species. All three pieces refer back to this illusion we live in and how our thoughts create this place on a daily basis.

One has certainly a typographical element. Can you tell me about this?

I'm not sure what you mean by this. I'm guessing you meant topographical. Yes, I have worked with map like grids within my work for some years now. I definitely have an interest in showing odd viewpoints we do not see every day. The Legos and molded crayons are meant to act as buildings and the black areas have drips within them that are like streets, roads, or freeways. As we move further and further away from the forest, I try to point forward to civilization for its love of machinery and technology. Previous works invoke grid like landscapes that look like semiconductors and circuit boards.

The work that sits flat on the work has much less color or would I say more tonally dark. It is divided into four quadrants because of your choice of the works support. The brush work is more agitated or looser than the corner paintings. What is your intent behind the disparate qualities of the three works? Is there a link between the imagery or does it come down to a unconscious decision?

It is a conscious decision to be sure. I wanted at least one work to be more implicative of the qualities of paint and my skill as a painter. It was much more minimal in its visual language and much less busy as far as pasting items within it. It also does not protrude out in any way. I've thought about situating it on the floor with two panels on the wall. To form a sort of L shape but I guess I wasn't quite ready for that in my progression as an artist. Perhaps I digress from the question. The link is mostly in research but not so much is material or form. Each work is its own problem to be solved.

You installed these three works together. Do you see your positioning of these works together as an immersive installation or did this have to with the constraints of the space you were given?

This was more a constraint of the space. Due to the virus outbreak our installations opportunities were limited. My original plan was for the pieces to be installed in the Henry in their own room with a similar installation but much more room to breathe. To be clear

each piece has its own merit and it should not be viewed as three pieces to create one installation.

Mark Zirpel 3D4M inquiries into my practice.

You list 41 topics of interest in your thesis?

I have no desire to limit myself in my research. I'm interested in asking philosophical questions that all humans can relate to. Why are we inhabiting this zoo? What is the purpose? How do we find that purpose? How can we help others in this process? These interests are connected to smaller points of research. For example, my interest in God, spirituality, and the universe is a large interest. However, this interest quickly branches out like a tree into smaller interests such as string theory, simulation theory, and quantum mechanics. I am a seeker of truth but is what considered truth is hidden between disciples.

What is an algorithm and how do you specifically apply that to the creation of a painting?

An Algorithm is a pre-approved plan for work of art, rooted in my background in cooking and photography. It is a set of actions or a recipe. Think of it as the foundations in which my work is born. I create rules for the work of art, based on the research and material to be used. These rules shape where the work goes at the beginning of its creation. The numbers used were evidence of the sequence of products made, however this has evolved into other references, recently the use of history. It is also worth noting that not all rules are to be followed all the time. If I follow the recipe and I feel like my soup is bland then I must use adaptation and improvisation to make it taste better. Rules are created but they are also meant to be broken. This is both evidence of my process and the end product. The alpha and the omega.

What instructions does an algorithm provide in the translation between the cosmological and object?

So we're talking about the translation between the ideas versus the objects. I always start my work with the research first. The research leads to inspiration, once I have that inspiration I start planning. This starts with a compositional idea not to be confused with a composition, as it is much looser than that. Then I research the material I would like to marry with the idea. Then I explore a feeling I'd like for the painting. Feelings such as confusion, sublime, sadness, even anger. All of these can become jumping points for the work. Once all of those parameters are created I start the writing of the steps of the Algorithm. For example for Algorithm 1998 Heavy Mental I wanted to create a landscape that referenced both Abrahamic faith's idea of Salvation married to modern day images of space. This led me to research pictures of nebulas, zoomed out galaxies and black holes. I did some pen studies of these heavenly bodies. However, the first step was not to map out a composition as I wanted a more organic feel to the work. The start of the work I poured a black and white landscape creating images through the resistance of alcohol juxtaposed against the latex. This resistance helped me create the forms you see in the painting. These pours were started vertically and then moved to the floor where the majority of the work

was created. I always want to play with the laws of the universe in the creation of a work. Gravity often plays an enormous part in the creation of my work. In addition, I employed the use of granulated iron and magnets to help me form the space. This is the biggest connection between the idea and the object, as magnetic forces play a huge part in the order of space. Once the forms were created I moved to adding color to the work in thin layers of paint. This work was much more traditional adaptation of the painting technique chiaroscuro. Once I felt it was about 75% complete I started to add the sculptural elements into the work. The paint always leads the work and sculptural elements soon follow after.

In your writing you stake out the domain(s)/sources informing your work, of which there are many, much more adamantly and repeatedly than how it is that you get there. In terms of paint and material, what are you attempting? You mention a couple times of the interest in perspective space, a welcome handle on understanding what is going on here. Your interest in and development of surface, texture, color, material selection etc. Could you help me in understanding your formal explorations and how they relate to the sources noted. There are many.

To show that paint is much more versatile than previous expected. Many artists and critics cite that painting is dead. It is hard to argue with them, when it has been locked into a box, buried six feet under and then covered with concrete. If anything is a strength in painting it is tradition but it could also be cited as its demise. Paint can be used for much more than just depicting a space. Paint can be layered to trap light, but it can also be used as a glue to trap objects. Especially when layered to mimic rebar. A construction environment provides the foundation for heavy sculptural objects. It can also react violently/electrically when juxtaposed against repelling substances. Think of oil vs water, latex versus alcohol. In addition, paint can be used to pour into molds just as any other medium for sculpture.

Perspective is helpful in creating an illusionistic space but it isn't always necessary. By just layering line on top of one another one can create some depth of illusion. In addition, by layering readymade objects into a work I can actually play with the space in real time. Why only rely on paint if I can paste in the actual item? This combined with proper lighting leads to shadows that provide form. This form is what the mind is really searching for. Every day we are faced with illusions in life. But the best lie contains some of the truth. I can provide both.

You reference much, in what way and to what degree does your work resemble the reference?

This is a problem with most postmodern art. How does it reference its inspiration? It does this through the titles of the work along with detailed summations pasted onto the wall. It does this through Instagram descriptions and curators that help them understand just what the hell they are viewing. The average human doesn't have the time to be versed in all subjects. That being said if someone is versed in a subject of my work usually they can jump right in and feel out the rest. I did a show in Richland, WA and one of the curators was married to a scientist at the local LIGO Hanford Observatory. She loved Algorithm 102 Birth of Light and immediately understood it was about string theory and the big

bang. It warms my heart just thinking about that moment. If one doesn't understand my work I think there is enough visual exploration of materials and process to hold the viewer at bay. Life isn't always about understanding but exploring.

Why recycle in your work? Your choice of socks as a material?? What would you not use? To what degree can you employ randomness to purpose? How does your use of "low" materials further your aims?

I recycle/upcycle because we are living in a post-materialistic paradigm. Every day we are led by corporate giants such as Amazon, Walmart, and Apple to consume. We often buy stuff we don't need to fill the void within ourselves. We are destroying this plane at an ever increasing rate. How can I not lead by example? If not me then who? Deep down we know something is wrong with the system, but we are paralyzed by the wheels that continue to spin through invisible forces. *"We buy things we don't need, with money we don't have, to impress people we don't like. The things you own end up owning you."*- Fight Club.

The socks are a process I developed a long time ago in examining my relationship with consumerism. I hoard materials for later use. Why throw out all the time, energy, and carbon? We need to learn from our mistakes as a society. The throwaway culture of TV dinners is dead. This process also has also become another way of utilizing the idea of the portrait. As we can assume who a person was based on the items that they own.

I'll use any material that will help me convey an idea. Art has no rules or limitations. Bubblegum, army men, Legos, socks, dog toys, sticks, hay, string, clay, and sticks have all been used in works. Does this sound like someone who has an interest in holding themselves back?

Each step in an Algorithm is not a straight line but more like a wave. For example one step would be to pour paint. But paint can be poured in a variety of ways. I can pour paint vertically, I can throw a cup of paint at the ground or I can pour paint on the floor like Pollock. The process is much more intuitive than sequential within the steps.

The use of low materials gives me the freedom to look beyond the box of fine art. It gives me flexibility. I eat techniques and inspiration from cooking, crafts, and music. Techniques used across disciplines make for interesting works. What happens when I paint with the tools used in the creation of a cake? What happens when I sew items into a work instead of trying to paint that illusion? What happens when I paint with a magnetic field? These are the things that interest me.

"Postmodern solution of low/high materials". "Actions towards solutions" A solution to what problem?

I'd describe the postmodern solution to art as breaking free from traditional materials, techniques and presentation. Artists moved from traditional methods to utilize intermedia, installation art, conceptual art and multimedia. In addition, those who continued to work with traditional materials remixed their mediums. Painters used industrial painter roller polls, spray guns, sticks and other odd ways to apply paint.

This is a reference to my process. This also connects my work back to my days at Berkeley, creating experimental meditative music and works through sound. I'd layer sounds till my eyes bled. But eventually I'd come to a conclusion. I'd have to credit John Cage with composition as a process. It is not a dead thing once it is started but a living breathing being. I still follow this lineage till this day. Each individual work is a problem and the only way to solve the problem is through actions. Even through precise planning I can back myself into a corner with the steps or rules created. Algorithm 375 there is no spoon, had a specific problem. I got about halfway finished and realized the composition was not good. I almost abandoned the work. Originally I wanted a perspective based walkway leading to a glowing hole in a pyramid shape. I decided to change it completely. Instead of it reading more perspective based I opened it up to a diamond composition exploding out. This goal led to multiple problems; I needed double the amount of Legos and the walkway become about four times the size and morphed into the border of the work. I also needed to layer double the amount of yarn on the border. I ran out of Legos that matched, which led me to paint some of the non-matching versions in the same hue. The border felt really dry as well. Then it hit me what else did I play with as a kid that could be relevant to this work? Army men became that answer. In the end this work took almost three times the amount of time to finish, but it also became the most rewarding because of the battling that occurred between me and the work.

"Exciting" means what to you in terms of painting? You note it as a metric, a goal. How it excitement accomplished? What is visually interesting to you?

This is a hard question to answer. I'd have to talk a little bit about expressionism and the idea of the sublime. I want my work to express something that is not easily understandable.

To challenge the viewer both mentally and visually. In this age of Instagram and Snapchat, how do you keep the viewer engaged? I'd like to bring up Mark Rothko's chapel in Houston, Texas. What does it mean to put a bunch of black paintings in a chapel? With each work he reminds us of our impending death. The paintings become giant tombstones. Even though this is scary, it is also exciting. It is a spiritual experience that is meant to be elevating. Through deep observation and critical thought we rise. What will we do with this limited time we are given on this plane of existence?

I have no algorithm for this metric. This is the hardest part of being an artist. I've found the best tactic is to stare at the work many hours over long periods of time. Looking at the work from multiple angles. Observation is the most underrated tactic in the studio. I'd describe my practice as 66/33 ratio, in actions versus observations. I've spent countless hours staring at works in the studio and out. In addition, I run simulations in my head in all aspects of my life. It helps me make the best decision possible. This way I make less mistakes in reality and more in my head. This is a form of meditation and visualization. The body doesn't know the difference between a visualization and reality. The memory of these actions guides me to easier solutions. I've streamlined this process in my head. It is a hack that I encourage everyone to try, especially during such a mundane process such as transportation.

If it continues to excite me in some way then it is worthy. If it does not maybe it's time to take some bigger risks. Most artists would stay safe but I'd rather make the mistake and learn from it. This is something I try to really emphasize with my students. If you ruin a work that is ok. You will learn from it. Like a child touching a hot stove it gets burned into your psyche.

Difficult works are exciting to me. If they are easy to figure out then there is no fun. I also like walking a visual line between real and fake. Letting a work hack your visual senses. I am a master of visual propaganda.

"All forms of expression are valid" -some more than others? It would seem the study of art implies a desire to increase validity?

I stand firm on this statement. Some may be validated more through society but that is just another method of control. Is a blanket crocheted by your grandma worth less than a Van Gogh? Are they not both made with love and mastery of craft with the intention to please their fellow humans? In the end it's all money and what is money? A made up system designed to control humans and make them believe they are better than the people who live under the bridge nearby. But who is freer, me or the homeless person? Who lives outside the system and who dwells deep inside multiple layers of the system?

Not necessarily, to study anything implies a desire to learn and eventually become a master.

SPACE- the creation of space is stated as an objective. Titles indicate an intention to link your work with celestial, philosophical, theoretical physics.....in the making of the painting does the link go beyond string for string theory.

String was useful in directly linking the idea to the material. But it definitely goes beyond just material. All of life or space is vibration and frequency. If this place is a simulation, frequencies would have to be used to keep the illusion alive. My intention was to link the theories of the Big bang and String theory in combination, to create an explosion described through a variety of marks. These frequencies or strings all vibrate at different levels at a quantum level. If this big bang did occur it would contain all the information and frequencies necessary to create an expanding breathing universe.

I'm wondering about the visual density of your work. Ever make a completely austere surface, singular, smooth, monochromatic. Just wondering. This makes me curious about how your work happens. The sequence of the events. They must be quite a construction project and if this layered accumulation follows an algorithm.

My original Algorithms were rough and just paint. I applied and removed tape and string as means to create texture. Some of these works were more monochromatic but not all of them. It was a much more automated process and took much less time to create work. These were pure action based works with a deep connection to photography and conceptualism. I created 60 Algorithms in 2017 in preparation for the application of grad school.

What do you care about paint?

Paint is my childhood connection to my father. Who I owe much of my knowledge of paint. Without his DNA I surely could not be where I am at today. He is still to this day one of the fastest industrial painters in the world. Who doesn't want the approval of a strong male figure in today's society?

Back to our conversation from glass class having to do with mastery? In what way do you concern yourself with paint, with the craft of painting?

I mastered paint many years ago. However, once I became sick with Pseudo tumor cerebri I had to change my art practice. My concern now is material, research and technique while building on my mastery of paint.

AL 102 work description makes the most sense to me. Illusionistic space. Mandala- a microcosm of the universe. Is your work the same?

I'd like to think so. It is interesting you mention this, the first quarter at UW I did a large Mandala work but it wasn't received very well. I enjoyed it though. I spun the ground on a stand with wheels. I think it was helpful in realizing what my practice was. I have all this knowledge and I continue to seek it. It would be shameful to just bottle it up and keep it to myself. You could say my work is an autobiography of the universe or what some call God.

Last paragraph is the best. Features of physical reality and behavior of matter provide the organizing principle in Todd's work. The degree to which these interests result in successful paintings is open to question.

A reflection on our changing world and the Mandela effect.

I am not from this dimension. I am what is called a traveler. With each shift I vibrate and I transverse to the next dimension. God places me within my next avatar of me. Think in terms of quantum super computers. All the simulations are running at the same time. Thoughts become things. What I focus on is where I am sent. It is a tree of probabilities and there are endless outcomes based on the small decisions I make every day. If I focus on success and a future career then that's what I get. But if focus on my problems and I am negative then I will receive more of that negativity. This is the secret to life. God is not a being holding a magnifying glass to the ant hill, but instead a genie willing to grant you whatever you want, if you are ready to receive it.

The evidence is in the changing world around us. I remember things one way but this world presents it in another. Throughout the last six years I've seen books I own change their covers and the contents within. I've seen street names change without no notification. I've seen buildings miraculously appear. Even whole shopping centers show up. Movie quotes change and shows. A light switch cover changed within the house I currently am a tenant in. I did not change it, nor did my partner and yet it happened. The most disturbing fact is when I asked my partner about it they said it was always that way. For some reason that is beyond me I am able to peak behind the veil. It is both horrifying and illuminating to know that this world is not what it

seems. We've been tricked and our senses are being manipulated. Every day we join the rat race is one day closer to the grave, and without the time to observe our surroundings how could we know we are being deceived? Don't you see, the game is in their favor, it is designed to keep you in bondage? We have to break free.

But I digress, I hope you can stay with me with an open mind. There is a term for this phenomenon and no it is not Schizophrenia. These experiences I speak of are coined as the phenomenon the Mandela effect. The day I realized I was waking up was on a Bart train in California. I was on my way home from the Berkeley campus, when I read that in the news that Nelson Mandela had died. My first thought was that is weird, because I remember he died when I was young, when my parents were still married. I remember there was a public funeral and celebration of his life on television. Apparently that did not happen in this dimension. He did not die in prison, but went on to have a much fuller life.

Other Mandela effects I remember differently include the adult diapers Depend, which I always understood as Depends. A childhood set of books about a family of bears changed. The Berenstain Bears are now the Berenstain Bears. The fast-food restaurant Chik-Fila has changed its symbol so many times I lost count. Which brings me to my next point. The easiest way to notice these changes are through mass media and corporate entities. I suspect many other changes are being made every day based on our decisions but we don't have the time to notice. However, if you are a fan of a certain movie you've watched twenty times and something doesn't feel right you'll probably take notice of it.

In 1977, at the METZ Sci-Fi Conference in France, the science fiction writer Philip K Dick delivered a talk theorizing that the universe was a highly-advanced computer simulation. Dick stated, "some of my fictional works were in a literal sense are true". He put clues of this in his work *The Man in the High Castle*. I believe Dick's experience was similar to mine. His imagination was so focused that it carried him to worlds held deep within his consciousness. My experience is different for one reason. Each time I shift to the next plane it is very similar to the last, whereas Dick was concentrating on big changes to not only his life but the entire world. For me usually the change is so comparable it is barely noticeable. Are you still there or has your doubt kicked in? It is up to you to decipher the truth. I can open the door but you have to walk through it. You can feel deep down something is very wrong with this place. If it is a simulation, then the simulations are running at the same time it wouldn't be sorted by time, as that is irrelevant. Each plane would be a continuous simulation free from time. Think of a computer and how it organizes information. It would likely would sort the universes or planes by similarity. This explains why each shift is almost impossible to see. As we float through each plane we only make small changes to our destiny.

Further proof of the simulation can be found in the theory of the observer effect. The mere act of observing the subject changes its behavior. This was observed through the double slit experiment. Along with different versions of it, such as the Weizmann experiment. The conclusion; what mystics have known all along, that a conscious mind can have an influence on the reality observed. Both light and matter can behave as particles or waves. But how can this be? It goes back to the idea that we are living in a simulation. Everything has its limits. Just as

your computer goes to sleep when you stop using it for a period of time. If no one is there to observe, does this simulation have to continue? It would most likely change based on the levels of observation. It also brings up the ageless question. If a tree falls in the forest, and there's nobody around to hear, does it make a sound?

This same theory can be applied in sociology and psychology. The Hawthorne effect states that the alteration of behavior by the subjects of a study due to their awareness of being observed. Those wanting to control and observe naturally have to pose as one of the subjects (participant observation) or keep themselves secret to control (naturalistic observation) and observe their experiment as truth. We act much different when we are alone in our homes every day, and yet that version of ourselves stays locked away. When we leave the house we turn around our Janus mask to ensure those cannot see the other version of ourselves. We conform and submit to society with each waking day. This also brings up the question. Who is studying the human race? Is God a scientist and we are its divine experiment?

But I digress again, let's return back to the idea of the Mandela effect. I drive a 2003 Ford Crown Victoria. Another large change that I can attest to was the change in its logo. Specifically the F in Ford changed. It went from a flared out F, with the middle line meeting an uneven triangle like point, transformed into a squiggly pig's tail. This one really messed with me, as I've been driving this car for some time now. One could argue that logos are changed over time. The Ford company has been using a similar logo since 1911 that was based on Henry Ford's signature. However, if you look up Ford's signature the pig's squiggly tail does not exist. Plato said logic is good and ignorance leads to suffering. How can the current logo be based on his signature if it doesn't even remotely look the same. You have to use logos or logic.

Let's break this down further to why logos of corporations are changing. If you look up logos in Google the definition says; "the Word of God, or principle of divine reason and creative order, identified in the Gospel of John with the second person of the Trinity incarnate in Jesus Christ. (In Jungian psychology) the principle of reason and judgment, associated with the animus. The answer has been hidden in plain sight. We have to follow logic to seek truth. God is trying to wake us up the deceptions of this world through logos both philosophically and physically.

Most people don't know this about me, but at one point in my life I wanted nothing more than to be a Seventh-day Adventist pastor. Recently, within the last couple months, I have begun reincorporating that version of me. I ran away from God for a long time. What a better time to give in, than during a world crisis? My faith was always rooted in the Old Testament laws in combination with the gospel of Jesus. I haven't cut my beard in months, or my hair since last year. I've stayed away from pork, bottom feeders and fish without scales since the 2000's. I haven't had a drink in many months as well. I've limited my alcoholic intake since around the time I started to wake up from my slumber in 2014. It is my personal belief that alcohol crystalizes your pineal gland. If your body is a temple to God I believe this is the first step to getting close to your creator. The closer I get to the creator the more that is revealed.

Your pineal gland is a sacred organ, which has connections with the divine. When we pass from this world our body releases DMT through the pineal gland. N, N-Dimethyltryptamine (DMT)

has been used throughout history as a psychedelic drug with hallucinogenic properties. Your pineal gland is your third eye that mystics have been talking about for centuries. Your eye of Horus. Your Annunaki pine cone, which can be seen on ancient Assyrian/Babylonian relief sculptures and statues since the birth of civilization. Why is this important to me? Because Pseudotumor patients have a direct link to the pineal gland through the production of cerebrospinal fluid. Patients with this condition produce too much fluid for their bodies, which mimics a tumor. It has even been discussed that some patients leak fluid, which could cause hallucinations.

As I have found changes in the real world I have also found changes to divine scripture. Examples of biblical changes, ISIAIAH 11:6, *"The wolf will live with the lamb, and the leopard will lie down with the goat, the calf and the lion and the yearling together; and a little child will lead them."* I remember a much different version; ISIAIAH 11:6, *"The lion shall lay down with the lamb and the bear shall eat grass like an ox; and a little child shall play on the hole of the asp, and nothing shall hurt or destroy on all my holy mountain."*

Unseen forces have changed the scripture in an effort to wake people up. Let's break this one down as well. The Lion and the Lamb is a reference to Jesus. Who was first sacrificed on the cross for all of our sins. This makes him the lamb. However, he is also the Lion of Judah, king of the jungle, which returns strike down all evil. This is confirmed in Revelation 5.5-8: *"Then one of the elders said to me. 'Do not weep! See, the Lion of the tribe of Judah, the root of David has triumphed. He is able to open the scroll and its seven seals.'" Then I saw a lamb, looking as if it had been slain, standing at the center of the throne, encircled by the four living creatures and elders. The Lamb had seven horns and seven eyes, which are the seven spirits of God sent out into all the earth."* He went and took the scroll from the right hand of him who sat on the throne. And when he had taken it, the four living creatures and the twenty-four elders fell down before the lamb."

It was never the wolf and the lamb it was always the Lion and the Lamb. Let's break this down further for additional examination. Roman mythology states that Romulus and Remus were twin brothers born of the God Mars. They were abandoned near the river Tiber. A she wolf eventually found them and they suckled from her tits for survival. The two brother's built separate cities near each other and war breaks out between them. Remus eventually dies. Remus's death and founding of Rome are dated by to April 21st, 753 BCE. The Lion is replaced with the wolf because it represents Rome. Christianity's enemy throughout the New Testament. No other civilization has committed more crimes against the Abrahamic faith than those rooted in Rome.

Revelation 16:15 "Look I come like a thief! Blessed is the one who stays awake and remains clothed, so as not to go naked and be shamefully exposed."

This world is an illusion... It's time to wake up... Take back your power...

Treat your body as a temple... Love your neighbor as yourself... Empty your mind, use logos...

Works cited

1. Hawking, Stephen. *Brief Answers to the Big Questions*. Random House Large Print, 2018.
2. Greene, Brian. *The Hidden Reality: Parallel Universes and the Deep Laws of the Cosmos*. Vintage Books, 2013.
3. Gleick, James. *Chaos: Making a New Science*. The Folio Society, 2015.
4. Hawking, Stephen, and Leonard Mlodinow. *The Grand Design*. Transworld Digital, 2015.
5. Mandelbrot Benoît. *The Fractal Geometry of Nature*. W.H. Freeman and Company, 2006.
6. Field, Michael J., and Martin Golubitsky. *Symmetry in Chaos: a Search for Pattern in Mathematics, Art and Nature*. SIAM, 2009.
7. Stewart, Ian. *Does God Play Dice? The New Mathematics of Chaos*. Blackwell, 2002.
8. Greene, Brian. *The Fabric of the Cosmos Space, Time and the Texture of Reality*. Allen Lane, 2004.
9. Kaku, Michio. *Parallel Worlds: a Journey through Creation, Higher Dimensions, and the Future of the Cosmos*. Anchor Books, 2006.
10. Martindale, Colin. *The Clockwork Muse: the Predictability of Artistic Change*. Basic Books, 1990.
11. Falconer, Kenneth. *Techniques in Fractal Geometry*. Wiley, 1997.
12. Shubnikov, Aleksei V., and Vladimir A. Koptsik. *Symmetry in Science and Art*. Plenum Press, 1974.
13. Singh, Simon. *Big Bang: the Origin of the Universe*. Harper Perennial, 2005.
14. Hawking, Stephen. *A Brief History of Time*. Bantam Books, 2017.
15. Werner, Karel. *Symbols in Art and Religion: the Indian and the Comparative Perspectives*. Routledge, 2013.
16. Bühnemann Gudrun. *Buddhist Iconography and Ritual in Paintings and Line Drawings from Nepal*. Lumbini International Research Institute, 2008.
17. Pal, Pratapaditya. *Buddhist Art: Form & Meaning*. Marg, 2008.
18. Hisamatsu, Sen'ichi, and Gishin Tokiwa. *Zen and the Fine Arts*. Kodansha International, 1982.
19. Śāśibālā . *Buddhist Art and Thought*. Akshaya Prakashan, 2007.
20. Bénisti Mireille. *Stylistics of Buddhist Art in India*. Indira Gandhi National Centre for the Arts, 2003.

21. Davidson, A. K. *A Zen Life in Nature: Musō Soseki in His Gardens*. Center for Japanese Studies, University of Michigan, 2007.
22. "Divisionism (C.1884-1904)." *American Gothic, Grant Wood: Analysis*, www.visual-arts-cork.com/history-of-art/divisionism.htm.
23. "Meet your next Favorite Book." Goodreads, Goodreads, 2020, www.goodreads.com/.
24. Einstein, Albert "Science and Religion" 1954
25. McKenna, Terence. *Food Of The Gods: the Search for the Original Tree of Knowledge*. Ebury Digital, 2010.
26. Greene, B. *The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory*. The Folio Society, 2017.
27. McKenna, Terence. *True Hallucinations*. Rider, 2014.
28. McKenna, Terence K., and O. N. Oeric. *The Invisible Landscape: Mind, Hallucinogens, and the I Ching*. Harper San Francisco, 1994.
29. Eliade, Mircea. *Shamanism: Archaic Techniques of Ecstasy*. Princeton University Press, 2004.
30. Kaku, Michio. *Parallel Worlds: Creation, Superstrings, and a Journey through Higher Dimensions*. Doubleday, 2004.
31. Russell, Walter. *The Secret of Light*. Kalpaz, 2017.
32. Kaku, Michio. *The Future of Humanity: Terraforming Mars, Interstellar Travel, Immortality and Our Destiny beyond Earth*. Penguin Books, 2019.
33. Castaneda, Carlos. *The Teachings of Don Juan: a Yaqui Way of Knowledge*. University of California Press, 2016.
34. Leeming, Robert, and Sianrees Says. "The Orders of the Night – Anselm Kiefer – Royal Academy of Arts." *Robert Leeming*, 27 Nov. 2016, robertleeming.com/2014/11/09/the-orders-of-the-night-anselm-kiefer-royal-academy-of-arts/.
35. "Maximalism." *Wikipedia*, Wikimedia Foundation, 3 May 2020, en.wikipedia.org/wiki/Maximalism.
36. Kiefer, Anselm. "Die Orden Der Nacht." *Die Orden Der Nacht – Works – EMuseum*, 1 Jan. 1996, art.seattleartmuseum.org/objects/25473/die-orden-der-nacht.
37. Werner-Jatzke, Chelsea. "Object of the Week: Die Orden Der Nacht." *SAMBlog*, 5 May 2020, samblog.seattleartmuseum.org/2016/12/die-orden-der-nacht/.
38. "The Renowned Orders of the Night (Die Berühmten Orden Der Nacht) - Anselm Kiefer - Google Arts & Culture." Google, Google, artsandculture.google.com/asset/the-renowned-orders-of-the-night-die-ber%C3%BChmten-orden-der-nacht/yQGM4ddBSbbFcA.

39. Basic Instructions Before Leaving Earth, B.I.B.L.E. *The Bible: New International Version*. KJV, NIV, 2008.
40. Baudrillard, Jean, and Sheila Faria. Glaser. *Simulacra and Simulation*. University of Michigan Press, 2018.
41. Cage, John, and Kyle Gann. *Silence: 50th Anniversary Edition*. Wesleyan University Press, 2011.
42. Whitten, Jack, and Katy Siegel. *Jack Whitten: Notes from the Woodshed*. Hauser & Wirth Publishers, 2018.
43. Bouleau, Charles, and Jacques Villon. *The Painter's Secret Geometry a Study of Composition in Art*. Dover Publications, 2017.
44. Lee, Bruce. *Tao of Jeet Kune Do*. Black Belt Books, 2018.
45. Locher, J.L. *The Magic of M.C. Escher*. Harry N. Abrams INC New York, 2000.
46. "Famous Quotes at BrainyQuote." BrainyQuote, Xplore, 2020, www.brainyquote.com/.
47. Hofmann, Albert. *LSD, My Problem Child: Reflections on Sacred Drugs, Mysticism, and Science*. MAPS, Multidisciplinary Association for Psychedelic Studies, 2009
48. Beamish, Jennifer and Toby Trackman, directors. *The Creative Brain*. Netflix, David Eagleman, 25 Apr. 2019, www.netflix.com/
49. Descartes René. *Discourse on Method*. Leiden, 1637
50. Plato, Plato. *The Republic*. Random House, 376AD.
51. Killah Priest's Heavy Mental, Track 10, 10 Mar. 1998.
52. Strassman, Rick. *The Spirit Molecule: a Doctor's Revolutionary Research into the Biology of near-Death and Mystical Experiences*. Park Street Press, 2001.
53. Byrne, Rhonda. *The Secret*. Atria Books, 2018.
54. Susskind, Leonard, director. *Leonard Susskind on the World as Hologram*. YouTube, TV Docs, 4 Nov. 2011, www.youtube.com/watch?v=2DII3Hfh9tY.
55. Tyson, Neil deGrasse and Frederick P. Rose, directors. *2016 Isaac Asimov Memorial Debate: Is the Universe a Simulation?* YouTube, American Museum of Natural History, 6 April. 2016 www.youtube.com/watch?v=wgSZA3NPpBs.
56. Dick, Philip K, director. *YouTube/Philip K Dick- SIMULATION THEORY, We Were Lied To/METZ Sci-Fi Conference*, 11 July 2017, www.youtube.com/watch?v=0LDv8fm_R7g.
57. Gates, James, director. *YouTube James Gates on Does Reality Have a Genetic Basis*, TVO/KPMG, 2012, www.youtube.com/watch?v=b6w0K5FIgsU.

58. Bostrom, Nick, director. YouTube the Simulation Argument (Full), Future of Humanity Institute/ Oxford University, 21 Feb. 2013, www.youtube.com/watch?v=nnl6nY8YKHs.
59. Wachowski, Siblings. The Matrix. Warner Brothers, 1999.
60. Dick, Philip Kindred. The Man in the High Castle. G. P. Putnam's Sons, 1962.
61. Thomas, Eric, director when you want to Succeed, as Bad as You Want to Breathe, Then You'll Be Successful. YouTube, ET the Hip Hop Preacher Http://Etinspires.com/, 2009, www.youtube.com/watch?v=JRfoFGGyRvU.
62. Proyas, Alex, Dark City. New Line Cinema, 1998.
63. Weir, Peter, director. The Truman Show. Paramount Pictures, 1998.
64. Carpenter, John, director. They Live. Universal Pictures/ Carolco Pictures, 1988.
65. Fincher, David, director. Fight Club. 20th Century Fox, 1999.
66. Human, Woke, The Excavation of Artistic Process; Mining for knowledge, technique and materials to create form. Realeizar. 21 June 2020.

Dedications

Thank you to all my past students, who continued to inspire me every day with their passion for learning and life. A big thank you to all the mentors, teachers and faculty, who continued to push me during this evolution of process. In loving memory of my dog Eydred; Cousin Joseph Russell, and first cousin, once removed, Joyce Gardner.

