Entropy’s Child

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Fine Arts

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ABSTRACT

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Art, process, and materials offer me an escape from the sometimes-crushing realities of my personal struggle with chronic mental illness. Escape is often my primary motivator for making art. However, personal meaning and understanding sometimes come while I’m working in the studio. Sometimes the meanings of the work only become clear years later. Personal experience and experimenting with materials and processes have led me to an appreciation and awareness of entropy—the second law of thermodynamics. My sculptures use spontaneity, abstraction, and process to dialogue with entropy.

Keywords: sculpture, ceramics, entropy, art, mental illness
ACKNOWLEDGEMENTS

I would like to thank my lovely wife for her patience while supporting me and keeping me alive through the hard times. Thank you to Brian Christensen, Bryon Draper, and Joe Ostraff for guiding me to this day. Thank you to my peers, teachers, and the BYU Art Department. Thank you to my parents and extended family.
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Introduction

My thesis is a three-dimensional exhibition of assembled forms. The pieces I have been developing over the past few years have evolved from reducing the work to formal investigation, then into a hybrid of form and autobiographical content. The work shifted further toward process and material exploration, which fueled content related to entropy and identity.

The conceptual framework for this exhibition is based on responding to the second law of thermodynamics: entropy. Entropy can be understood as a measurement of disorder in a closed system.¹ I use autobiographical experience as an allegory for the human experience of entropy.

The first scientists to study entropy noted the interwoven relationship between energy and entropy. It was physicist Rudolf Clausius who coined the term entropy in the 1850’s, desiring that the word be as close to the word energy as possible.² As early as 1852, William Thomson (Lord Kelvin) concluded that the universe would inevitably arrive at “a state of universal rest and death.”³ This final state of the universe was dubbed “heat death” by Herman von Helmholtz, in the 1850s.⁴ A century later, the specter of “heat death” would inspire Hans Haacke, Robert Smithson, and other artists in America.

Entropy tells a very truthful story about life—the story of contrasting opposites. Entropy seems to be nature’s answer to energy. I connect this idea of entropy to the dichotomy of life and death. The truth that life and energy have their opposites reinforces the spiritual truth of finding “opposition in all things.”⁵

My sculptures are generated from a process that is allegorical to my phenomenological experience of order and disorder as an artist who struggles with chronic mental illness. Human-psychological-disordering can act as an entropic force, stressing one’s system into its own kind of “heat death.” Because as humans, we generally want to stay alive, we actively work against
the reality of our own mortality. Dieting, exercising, and saying our prayers, we edit our knowledge of an inescapable death with belief in physical longevity enhancement, life expectancy, and the hereafter.

For decades bipolar II disorder, traumatic life experiences, nihilism, fanaticism, depression, narcissism, and self-medicating behavior have worked like a law of nature to “sometimes quickly, sometimes slowly” deplete me. These mental states deplete energy and any value of life within society. When this type of entropy is fighting against one’s will to live, a desolate homeostatic internal environment can become a sterile, numb landscape of subsistence. Accordingly, acceptance has become my response to entropy.

I accept entropy in my art by ordering elements randomly and spontaneously. Mimicking entropy I drop my sculptures and let them shatter. The pieces break uncontrollably which directs the future path of reconstruction and form. As another example of this acceptance, I embrace rather than fight the unexpected cracks and slumping that occur in the kiln firing of ceramic pieces. Thinking about kiln-fired ceramics has guided me to investigate entropy as a theoretical framework for my artwork and process.

The Kiln

The kiln is a beautiful system. As an object, it so perfectly conveys a textbook course for understanding entropy. It is literally a box of energy and thus entropy. The ceramic technician inherently understands entropy. Whether they are consciously aware or not, entropy is present throughout the whole process of firing a piece of clay. The cold kiln is loaded with green, or air-dried, clay which still retains water. The kiln is loaded and the door is closed. Natural gas mixes
with air and burns as it is jetted into the closed kiln. Hot particles rush into the system. As they collide with cold particles in the air and in the clay, the hot particles lose some energy.

Throughout the process, the temperature of the environment plateaus. At these plateaus the technician must increase the amount of gas and air to increase the temperature. Entropy works to drive the system to homeostasis. If the kiln could be completely closed and separated from its heat source, trapping whatever heat existed in it, overtime entropy would ensure that the environment will reach homeostasis and cool.

The clay is also affected by entropy. As temperature rises, the molecules in the clay quicken and the clay expands. At temperatures between 660º and 1470º F, water molecules released from the clay enter the environment of the kiln, resulting in more entropy. The greatest risk of damage to the piece occurs when H2O leaves the clay body. As in life, it takes the skill and patience of a wise technician to safely navigate these upheaving changes to both the body and environment. I lack both the patience and skill of a master technician. Fittingly, my work confronts our notion that breaking and cracking are somehow wrong. Rather than seeing it that way, I choose to embrace the reality of entropy both in art and life.

Breaking Down

My choice to pursue the concept of entropy in my work was solidified one night in the studio. While moving a large ceramic piece from my workspace to the photobooth I inadvertently, though carelessly, bumped a corner of the piece against a metal door jamb. It shattered against the door and the floor. Despite months of work laying broken at my feet, I felt no distress standing there holding onto the two remnants clasped in my hands. Strangely, I
peacefully and intuitively accepted this occurrence as just another point of departure. What if this thing we all try so hard to avoid is actually the means for new creative potential? It felt as if watching and thinking about the entropy in kiln firing, had prepared me for this unexpected destructive instant.

Now resolute, smashing old projects to generate entropic fragments entered joyfully to my practice. New pieces were made, gestalts were abandoned, and parts or particles began filling up kilns. No concern was paid to stabilizing them against the destructive forces in the kiln. I wanted more entropy. It was during this phase that my personal life began breaking down as well.

I have struggled with depression and other mental illnesses since I was about age twelve. During my sophomore year of high school my undiagnosed disorders began impairing me physically. After convincing my mother that I needed to see a doctor I received my first diagnosis. “You’re mentally ill,” the doctor explained kindly. I could not accept it. I told no one. Keeping it a secret made it worse—more corrosive, more destructive. Within a year, alcohol and cannabis become the solution to my grave state. Self-medicating worked for a while. Then it made everything worse. My drug use became a suicidal behavior. I found myself in many life-threatening situations and wished I would die.

This was the state I found myself in during the fall of 2018. I had maintained sobriety for twelve years but, the depression that preceded my drug use had never relented. Having lost the will to live, I pushed myself through each day. My artwork had been warning me about my condition. It showed me the gravity of the dilemma I faced. Breaking my sculptures offered me a new willingness to see the parts of myself I had denied and repressed. Working late and alone one night, about this same time, I found myself in a trance-like state. I was able to see my whole
life and much of the darkest corners of my psyche. It was then that a repressed childhood trauma exploded into my consciousness. The full weight and energy of the experience crashed into my being. Crumbled on the floor I struggled to catch my breath. The pain was exquisite.

The full impact of this experience was revealed during winter break, 2018. I was lying in bed in a dark, small, square basement room. My two-year-old slept beside me. Agitation disrupted the otherwise peaceful mood. Something was moving deep inside me. The agitation grew and so I knelt down at the corner of the bed and said a simple and earnest prayer. I uttered the words, “Let it happen.” I got up and laid back down on the bed. As my head hit the pillow, I experienced what I can only describe as a vision. I was walking down a curving flight of floating stairs. A pitch-black abyss surrounded me and expanded into eternity. Each step was illuminated and took me down to a white door. Opening the door let light into and revealed a very small square room. There were no other openings or windows in the room. The only light in the room came from the door being opened. The darkness inside retreated as the light stretched across the room. With the door open, I was able to see and feel the space the room held. The space was saturated with pure fear, anger, and sadness. It seeped into my skin and filled my lungs. In the corner I saw a small child huddled in fetal position on the floor. He was weeping. The reality that this boy was me, as much as I was me, punched deep into my heart. As I reached out my arms toward him, he met me in embrace. Squeezing him tightly I told him, “I found you. I love you. It’s going to be okay!” I came back to myself sitting up in the bed holding myself tight across the chest. My tears become rivers and my soul shook as an indescribable energy ripped out of my body. Overwhelmed, I once again struggled to breathe. Panting and heaving I slowly got control of my body. I collapsed back onto the bed and fell into a profound sleep. It had been many years since I slept so soundly.
Bipolar 2

Following this experience, I began seeing a therapist twice a week and participating in an outpatient program twenty hours a week. After nine months of this intensive treatment program, I was finally diagnosed with bipolar II, which is particularly difficult to catch because it presents as severe episodic depression. Normal bipolar is a much easier diagnosis because the manic phase of the disorder is extreme, inducing psychosis and often requires hospitalization to treat. With bipolar II the patient experiences much longer and severe episodes of depression and the rate of suicide is much higher. Instead of full-blown mania, hypomania is experienced. Hypomania is a mild form of mania. It is rare that one would seek out a doctor during this phase because its effects are mostly positive by comparison.

Failing at achieving any consistent level order for decades allows me to empathize deeply with the human striving for order. Rudolph Arnheim, in his quintessential book *Art and Entropy* stated:

Order is a prerequisite of survival; therefore, the impulse to produce orderly arrangements is inbred by evolution. The social organizations of animals, the spatial formations of traveling birds or fishes, the webs of spiders and bee hives are examples. A pervasive striving for order seems to be inherent also in the human mind-an inclination that applies mostly for good practical reasons.

Finding out that much of the disorder in my life could be laid at the feet of a disordered mind and brain was a tremendously freeing revelation. I started taking Lithium for my bi-polar in February, 2020. Since I have been on the appropriate medication, my life has changed
dramatically. A new sense of order and hope has entered my life, and I wanted to convey this feeling in my artwork. I could not have arrived at this hopeful state without help from others. Similarly, many artists and mentors have influenced my artwork.
Robert Smithson has become a major influence on my understanding of entropy in art. Smithson began investigating entropy in the 1960s. He wrote “Entropy and the New Monuments” in 1966. This essay gives a critical look at the art scene, primarily in New York, and discusses the work of “Donald Judd, Robert Morris, Sol LeWitt, Dan Flavin and certain artists of the ‘Park Place Group.’” Smithson believed that these artists and others, like, Larry Bell, Frank Stella, and Craig Kauffman, “celebrate what Dan Flavin calls ‘inactive history, or what the physicist calls ‘entropy” or ‘energy-drain.’” In the essay, science-fiction landscapes and modern architecture are connected to the minimal anti-aesthetic, anti-humanist ideals pursued by artists at that time. Artist Hans Haacke conceived of an art form where “eventually even the viewer could be dispensed with: ‘the new art does not apply for human sympathy but ignores it . . . The works reject emotion and display none.’” In Manhattan, this was a timely sentiment used to “(cool) an overheated art world in which the radiation from Abstract Expressionism’s ‘apocalyptic wallpaper’ was slowly evaporating into the interstellar voids of Pop banality. Techno-scientific kinetic art, and Minimalist cool.”

Minimalist work dealing with entropy communicated the ethereal zeitgeist generated by cold war anxiety and growing environmental concerns. Smithson pursued entropy along these lines in exhibitions of cold geometric steel structures. *Cryosphere*, 1966, a painted steel wall piece with chrome inserts consisting of six rectangular prisms convening at one end to a hexagonal vertex, is a strong example of his entropy driven work. Later, as Smithson produced his Site/Nonsite work he proposed a new dialectic:
As not simply source material versus art-world relocation, but as the planet Earth between its poles, Arctic/Antarctic metaphor for his own “bipolar rhythm between mind and matter.” The crystalline and organic now had their material analogues in piles of dirt, cuts in pond ice, and vertical steel blades cutting through an amorphous mound of sand.  

Smithson managed to bring the organic and inorganic together in a mound of salt or soil fricated by pieces of steel or mirror. He shows the viewer order amongst entropy. A microscopic view of salt would reveal highly ordered geometry, beautiful crystals. Yet amassed together in a mound, the order is gone, and one sees a loose pile of material. “Entropology” offers many similar ironies. For instance, it is counter-intuitive that water has a greater entropy than ice and so entropy favors melting, but ice has a lower entropy than water and so energy favors freezing. There is an inherent duality embodied in entropy. To speak of entropy, is to speak of energy and its functioning, not only in the day-to-day of a mechanized world, but in the universe at large. My work draws on the work of the Minimalists but, asked from a Post-Modern stance, “now what?” It is with this attitude that I apply hope to the conversation around entropy and art. I concede to Smithson who refers to Vladimir Nabokov’s point that “the future is but the obsolete in reverse.” And as Wylie Sypher argued, “entropy is evolution in reverse.” The universe is a closed system and as such will eventually exhaust all of its energy. However, I am alive today. Survival is paramount from minute to minute. It is often difficult to have a sense of this evolutionary imperative in our comfortable civilized society. Much like the bumble bee instinctually building its hive, I must build or perish. Playing with entropy via art materials allows me to find the balance between knowledge of my inevitable demise and biological dictate
to stay alive. I am alive today, and I have an opportunity to create a reality that is not only tolerable, but sometimes joyful.
Influential Artists

Robert Smithson’s art and writing sets the stage for my work theoretically and gives me a visual history to consider as I seek to evolve beyond what has already been done as it pertains to entropy and art. Other important artists contributing to my own current visual language of material and form are: Peter Voulkos, Anselm Keifer, Elliot Hundley, Jared Lindsay Clark, Brandon Reese, and Mark Bradford.

Peter Voulkos was a pioneer in pushing the evolution of ceramics from craft to art. During the 1960s, at Otis College of Art and Design, Los Angeles, CA, Voulkos had freedom and vision for new sculptural ceramics. The Otis studio consisted of one large room which Voulkos shared with his students. Shared space and cooperative necessity became a catalyst for a burgeoning experimentation. Working with Robert Rauschenberg and other artists at the Black Mountain School had opened Voulkos to performance, happenings, and a growing new attitude toward art in the mid twentieth-century American landscape. Abandoning traditional expectations and modalities, Voulkos employed attitudes and techniques epitomized by the Abstract Expressionists. His work blurred the lines between abstract painting and sculpture. Concerning ceramics, his work opened clay arts to the larger dialogue of art in America. I enjoy his radical style and approach to ceramic arts. Artists like me who appreciate being taken seriously as ceramic sculptors owe much to Voulkos’ work and influence.21

I have had the good fortune to see many Anselm Keifer works in person. His works capture a profundity of human history and deep psychological experience while covering considerable contextual ground. Everything from life, death, spirituality, cosmology, and his
identity as a post WWII German is layered into his eclectic work. Painting, sculpture and installation are used freely in his immense body of work, spanning over fifty decades.

He connects the cosmos and its “construction, demolition, (and) reconstruction”\textsuperscript{22} to his process of building up thick layers of paint and then chipping, scraping “back to the beginning.”\textsuperscript{23} He is interested in referencing the cosmos, its beginnings, and all the big questions consciousness asks. In much the same way, I rely on the law of entropy as a grand overarching theme that ties my work to the functioning of the universe. I feel that I mimic entropy in a similar way that he mimics the creative and destructive nature of the cosmos. “Nothing is lost,”\textsuperscript{24} he says of his work and the universe. He in fact saves all his work and materials planning to one day configure or display them in new ways. Like Keifer, I save all my old works and re-use them to create new pieces.

My interest in making art that is both sculptural and painterly was inspired by Elliot Hundley, whose work exists as a convergence of sculpture, collage, painting, and narrative. I saw Elliot Hundley’s solo exhibition at the Hammer Museum (Los Angeles) in 2006. Concerning both painting and sculpture, it made a deep impact on my approach to both theory and practice. His work is easily comparable to Robert Rauschenberg’s “Combines”. However, Hundley’s work is not illustrative of pop detritus. Rather, he applies operatic narratives and Greek mythology to the subtext of his complex structures of layered images and materials. Seeing his work was my first introduction to art that could be considered hybrid. These large ornately collaged structures defied categorization into traditional genres. Though collaged from many materials and techniques one asks: “Are they sculptural paintings or painterly sculptures?” They existed between the spaces typically inhabited by both. Some pieces sat on the floor while also being suspended from the wall or ceiling. Others were propped up against the wall giving them a
frontal orientation, while others operated in the round. The breaking down of barriers both in
structure and in the use of disparate material has had a deep impact on my current formal
sensibilities.25

Jared Lindsay Clark is another artist that has had a deep impact on my interest in hybrid
work. Clark has accrued a massive collection of ceramic kitsch figurines which he purchases
from second-hand stores. He adheres these pieces with high-chroma urethane resin creating slick
glistening minimal forms. Coining the name “BILD” for his hybrid work gives the viewer a clue
to his intent to subvert traditional categorization. Clark directly addresses the space between
painting and sculpture by creating three-dimensional wall pieces and stand-alone objects which
defy both. The juxtaposition of ceramic and urethane that I use in my work has its origins in
Clark’s “BILDs.”26

Brandon Reese is a sculptor and professor working out of Oklahoma State University. He
combines large ceramic sculptures with other elements like wood. His work has influenced my
ceramic sculptures. He creates large hollow structures from extruded square, clay coils. My
gestural large-scale ceramic forms are in direct dialogue with his. I feel his work is closely
connected to modernist sensibilities and the notion of truth to material, while my work has no
concern with these ideals, outside of subverting them.27

Mark Bradford is a Los Angeles based artist who I see working through the lens of
entropy. His art reflects on history, politics, culture and Identity by tearing through the visual
remnants of the community. Bradford is an inspirational contemporary artist who is moving
painting and art toward some fresh air. In an interview with Bloomberg News, Bradford is
introduced by the narrator as, “Black, gay and liberal”.28 However, the Artist has no interest in
representing all of or, any one specific American demographic. He attempts to represent a human
consideration of life and material. His material varies from paint to collaged billboard cast-offs. He collects billboards and other signage from Los Angeles streets. Some of his excavation yields artifices of commerce from the previous ten years, recorded visually in the paper layers of merchant posters. Peeling into the layers and sometimes adding paint he creates large abstract assemblage/decoupage paintings, and installations. Once, representing the U.S. in the Venice biennale, he installed large sculptural elements of his layered paintings inside the spiraling floors of the U.S. pavilion. Ernest Hardy, author of the essay *Border Crossings*, said this about the Merchant Poster series.

For Mark, process is as important as the final artwork. The scouting and gathering of materials is not just the prelude to creative production but an integral part of it: where things come from matters. Enormously. The previous lives of the materials he uses – the multiple encoded, embedded meanings within them that, in turn, irradiate his own work—is the vitalizing force in his art.  

His work can be very direct, exposing societal issues, as in his 2016 piece, *Finding Barry*. An enormous map of the USA drawn by sanding into the stairwell walls of the entrance to UCLA’s Hammer Museum reveals years of layers of previous paintings. Each state has a number that corresponds to “the number of adolescents and adults out of every 100,000 people who were diagnosed with AIDS at the end of 2009.” Bradford responds intuitively to supercharged environments—responding to riots in L.A., death and violence, all over the world—and yet still makes everything personal and “always beautiful.”
Design and Process: “Entropy’s Child”

The sculptures in this exhibit are hybrid sculptures that challenge and play with materials. Like many expressions of modern and contemporary art, my sculptures defy traditional categorization. They exist in-between painting and sculpture. They reject the notion that sculpture is defined as carving or casting. They exist to challenge expectations and break down distinctions between the modalities of drawing, painting, and sculpture—order and chaos, art and life. I am trying to bring art and life closer together through my aesthetic practice. These sculptures are assemblages of diverse materials (clay and urethane) almost as life is an assemblage of diverse experiences. They are unified by their linear construction, wide palette of colors, and loose gestural organization. They are spontaneous but generated from accumulated sources. The process of creating the work is evident in the form. It is clear that parts are created, broken, and reconfigured and recombined with other fragments to create a new iteration of form. Some pieces appear as monsters, the kind of monsters lurking in our unconscious. Some are more ordered and bounded in conscribed rectilinear forms. The works are laid out in a bi-lateral symmetrical pattern. There is a progression from one side of the space to the other that moves from most ordered to less and less ordered forms, culminating in a piece that looks like a puddle of flowing energy. This “puddle” piece was fashioned by gathering the drippings from the creation process of the sculptures in the exhibit. This layout reinforces the progression expressed in entropic function, breaking down order and energy to its imminent stage of stasis.

Vibrant, high-chroma colors are used to show energetic chaos. My jarring, even saccharine palette springs from my manic state during construction of early iterations of the work. One could imagine the colors in my work as Walt Disney’s vomit after too much theme
park confection and one too many spins on the Mad Tea Party ride. The intense combinations of color from spray paint cans and stained urethane also connects to my exposure to graffiti and wall murals in and around Los Angeles, where I grew up. I see a strong connection between the energy filled color of graffiti against grey commercial buildings and the juxtaposition of intense color against earthen tones of linear ceramics in my work.

Focusing on a visceral sense of balance and composition, I worked freely and made choices spontaneously, even intuitively, as I used a stick to drip stained resin onto the pieces. It was important to use bright veils of color to accentuate and balance the natural hues of iron oxide coated clay. The flowing, dripping colors may be an entropic product of the clay substrate breaking down, or it may be seen as a secondary element growing from the dead forms they cover. The abstract nature of the work is intentionally ambiguous in order to facilitate varied phenomenological experiences from the viewer.

The work evolved into a scale that responds to my body and other important bodies, like those possessed by my wife and children. The scale and proportions of environments that I routinely inhabit also play a part in determining the scale of my work. Specifically, the pieces needed to be able to exit the doorway to my studio.

It was important to express different attitudes with the scale and gesture of the work. This is done to connect the exhibit to the implicit probability of outcomes found in a closed system as entropy occurs. While a mound of dust from disintegrated sculptures might convey the idea of entropic stasis more purely, I imagined sculptures that visualized various states in the moving process of entropy.

I hope that my sculptural assemblages of elements generated through an entropic process of creation, destruction, and rebuilding or reorganizing of fragments reflect my sincere attempt to
share my experience, failure, success, insight, and hope with others-like my life, my work, sense of self, and survival have been a systematic process of building, destroying, and rebuilding.
Figures

Figure 1. *Entropy’s Child* (installation view), 2020, ceramic and urethane

Figure 2. *Entropy’s Child*, Boulton
Figure 3. Entropy’s Child, Boulton

Figure 4. Entropy’s Child, Boulton
Notes


5. 2 Nephi 2 (The Book of Mormon).


Bibliography


*The Book of Mormon* published by the Church of Jesus Christ of Latter-day Saints, Salt Lake City, 1920.


