5-2016

void loop ( ) {

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A thesis submitted in partial fulfillment
of the Requirements of the degree of
Master of Fine Arts in Art

By

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Henderson State University
Bachelor of Fine Arts in Sculpture, 2012

May 2016
University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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ABSTRACT

Void loop is an exhibition that addresses the dynamics of survival through an investigation of power, predation, migration, destruction, and renewal. As an installation of sculpture, video, and sound, the work on display explores associations between the human and natural worlds that inform who we are as individual, social and biological beings.

The repeated code surrounding the "void loop" title is a basic call and response serial communication between the microcontroller and the sensors. It commands the microcontroller to infinitely loop all code following the function, mimicking the repetitions of a pulsing heart. For the exhibition each piece is based on the action of summon and response, specifically with responses to historical and contemporary events that not only have shaped our society, but also continue to affect our environment.

With the advancement of technology, most of our contemporary experiences are increasingly being mediated. I designed the exhibition as a simulation of natural world responses partially controlled by the viewer. Imagery, personal history, observation, and experience sourced for creating an immersive interactive environment are comparatively driven by the writings of Roy Ascott on "*Behaviorist Art and the Cybernetic Vision,*" a suggestion of interactive work governed by the viewer with artworks viewed as experiences instead of objects. The sculptural elements combine the natural with the artificial to help simulate these behavioral responses, partly inspired by the writings of Jean Baudrillard on "Simulacra and Simulation," in which the image is a copy with no original to reference.

ACKNOWLEDGMENTS

I would like to thank my thesis committee: Bethany Springer, David Gibbs, John C. Kelley, Mathew McConnell, Jeannie Hulen and Alissa A. Walls. I would also like to thank Marie Hornecker, Dewane Hughes, and my family and friends for their continued support. Most importantly, I would like to thank my wife Linda and daughter Olivia for their undeserving support and patience.

DEDICATION

I dedicate this thesis to Olin Ray Cromer and to the memory of Olin Lee Cromer, John Waid Hill and Edward Mac Hornecker, who instilled invaluable life lessons and morals that shaped my direction in life and art.

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Having a childhood immersed in the natural world has profoundly impacted the significance of family tradition, as well as a direction for my artistic practice, specifically with the work in this thesis exhibition. Sourcing memories, personal history, experience, and observation, I reference the natural world as metaphors for the human world. I focus on associations between the two worlds and similarities in behavioral response to the affects of historical and contemporary events that have shaped our society, and continue to affect our environment. To address these influences and concerns I have created an installation composed of sculpture, video and sound partly inspired by the theories of Jean Baudrillard and Roy Ascott.

II. INFLUENCES

PERSONAL HISTORY AS ART SOURCE

I was born in Texarkana, Arkansas in 1979, but lived in Ashdown, a small southern town about twenty miles north east of Texarkana until the age of 5. I lived there with my mother and father in a singlewide trailer off an old country road surrounded by tall trees, buzzing insects, and other creatures of the natural world. We had a dog pen full of redbone hounds, a sandbox, and a small creek behind the trailer. I remember walking outside one day to help feed the hounds and noticed a nest of baby rabbits. As I tried to get closer, my mother snatched me up. A snake that was close by struck, but missed. The belly of the snake had a big lump from already swallowing one of the baby rabbits. I remember being scared and sad, but also captivated. It was my first time witnessing a predator!

Another time while living there, I recall sitting on the forest floor with my back against a fallen tree. With a slight breeze, I could hear the sound of birds and an armadillo rustling in the leaves near by. My father pointed to a movement in the fork of a nearby tree. Then at two small

humps on a limb of the tree. I first noticed a bushy tail move with the wind and then discerned two humps as another squirrel's ears. I was amazed at how he could find them so easily. After the hunt, he showed me how to clean the squirrels, and we ate them for dinner.

Shortly after my fifth birthday, my parents divorced and my mother remarried. We moved to another small town in central Arkansas to live with my stepfather, while my father stayed in Ashdown, where I visited him every other weekend, spending most of our time on outdoors activates. Growing up, I spent the majority of my childhood and young adult life immersed in the natural world playing, hunting, and fishing. When not in the woods, I spent time with my father and grandfather building raccoon and squirrel traps. The personal connections with the men in my family were centered on these types of experiences. I camped in the summers frequently, one week with my maternal grandparents and two weeks with my father's side of the family. Aunts, uncles, cousins, siblings and grandparents all camped together.

Since that time, I have lost both of my grandfathers and a grandmother to illness and age. After the passing of my maternal grandfather, an undergraduate professor, Mac Hornecker, would often accompany me on hunting trips. He shared a similar passion for hunting and our relationship extended the kind of familiar bond I had with my grandfathers. We shared hunting stories from our childhoods and would often have meaningful conversations about my interest in attending graduate school. Unfortunately, Mac died of a spider bite shortly after one of our hunts.

My family passed a vast majority of their life lessons to me by immersing me in the natural world. Today I continue to spend time outdoors, hunting and fishing, but often alone. And when I go into the woods or pick up a fishing pole something happens along the journey that triggers the memory of an event or a conversation shared with one of my family members or Mac. In a way, the natural world has become a way of reconnecting with my past, reflecting on

the present and contemplating the future, with my wife, our four-year-old daughter, and the son we're expecting in October. I look forward to instilling the same in them by continuing my family traditions, experiencing the outdoors, sharing old memories and building new ones.

The natural world and my family have heavily influenced my personality. I have studied patterns in feeding, sleeping, and migration of most animals found in the woods of Arkansas, on the way to becoming a better hunter and fisherman. When deer hunting, for instance, I rely on this knowledge to imagine myself as trying to anticipate in a deer, which direction it travels in the morning and evening hours, what it prefers to eat in the area that I am hunting, and what scents and calls to use depending on the mating season. Ultimately I have to become the deer in order to kill the deer. Immersed in natural world while growing up, gave me a sense of value and respect. As a hunter, before I take a shot, I think of myself in the position of that animal and contemplate my role in the environment I have immersed myself in, weighing every possible outcome.

As an artist, inspired by these events, I focus on these experiences to make associations that on the surface level may not appear relatable. Contemporary and historical events affect both worlds and as someone whose upbringing is so closely tied to the natural world, I am concerned for how the younger generations will share in the same experiences. With issues of drought, water contamination, deforestation, and global warming it is my hope that making some of these associations in my work will help people to see that behavioral reactions and responses of animals in the natural world to these events are not that dissimilar to our own.

HISTORICAL AND CONTEMPORARY ART INFLUENCES

During my undergraduate study, I found inspiration in the works of Henry Moore, David Smith, and Alexander Calder. These artists were the first sculptors I had been introduced to and I respected their level of craftsmanship. Site-specific and kinetic sculptures became an interest and something I explored in my studio practice.

When I started the MFA program at the University of Arkansas, I researched the work of Lawrence Weiner and Sol Lewitt during my first semester. The notion that Weiner's sculptures exist only as the words describing them really impacted my studio practice and thought process. At first I completely disagreed that they were even sculptures, but after reading Lewitt's *Paragraphs on Conceptual Art* (1967) and his *Sentences on Conceptual Art* (1969), I gained a better understanding of how an artwork could be focused on an idea rather than a form. This changed my own approach to art making and thinking about other works of art. Lewitt diminished attention to an art object's form and emphasis on the aesthetic value, and this idea did not settle well with me at first.[1] But I began to appreciate his ideas and approach to art, particularly the way in which he left most of his sculptural forms unfinished to force the viewer to complete the work.

Duncan Alexander Cameron Stewart is an emerging multi-disciplinary artist who has influenced me formally and conceptually. His works construct and deconstruct narratives within space and usually focus on themes such as framing, editing, longing, and desire. His sculptural installation *A Room Dreaming of a Lake* (2005) focuses on a literal and metaphorical narrative of a lake. Individual elements taken together suggest a lake—the sound of water on a vinyl record, a 8mm film projection of water, two prints of water surfaces, and an island of brown carpet

[1] "Sentences on Conceptual Art – Sol Lewitt," ALTX – Ebook Index, accessed November 22, 2015, http://www.altx.com/vizarts/conceptual.html.

surrounded by blue masking tape. The curator, Petrina Ng describes the installation in an exhibition essay for, the gallery, Project Space:

> As each of these elements asserts only a fraction of a landscape, a glimpse of a suggestion of an image, it is impossible to view this work singularly in isolation. Stewart proposes four views of the same view of something (a Lake?) that is almost nothing, but still somehow is something when considered as a whole. When faced with an impression that is duplicated in multiple, we naturally are drawn to look for imperfections, anomalies, and chance occurrences. We become obsessed with a search that is ultimately doomed to be un-gratifying—because this is work that cannot be held onto too tightly. Stewart pushes further these ideas of replicating the ephemeral by implicating the viewer to contemplate what is not there, and consequently to become a part of the Room itself. Your experience of viewing these works becomes an experience of your imagined self.[2]

This concept of deconstructing a narrative and relying on the viewer to reconstruct it resonated with me. This work, coupled with Sol Lewitt's, influenced my editing process, enabling me to consider only presenting partial information, leaving room for interpretation, and the viewer's completion of the work.

Formally I also appreciate the simplicity and power of Duncan's aesthetic choices and craftsmanship. He demonstrates a well-conceived intention to detail. Whereas craftsmanship usually supports this detail, Duncan's lack of craft is supported by the formal decisions and arrangement of elements with purpose and meaning. He exposes cords and other materials, as well as processes used as a deliberate point of his working methodology.

Contemporary artist Pierre Huyghe has also influenced my work. Conceptually Huyghe disrupts the viewers understanding of fiction and reality. In her article, "Suspension of Disbelief: From Simulacrum To Critical Fiction In The Works Of Thomas Demand and Pierre Huyghe," Dana Liljegren writes about their work in relation to Baudrillard's simulacrum:

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[2] Petrina Ng, "A Room Dreaming of a Lake," Duncan Alexander Cameron Stewart, Project Space Exhibition Essay pdf, accessed April 12, 2015, http://www.xpace.info/exhibition-event/a-room-dreaming-of-a-lake/.

> In our contemporary commodified world of mass marketing, images have come to govern our experience of reality. The development of postmodern heterotopias, such as the Internet and virtual reality as well as the rise in popularity of science fiction, provide the framework within which the artistic practices of Demand and Huyghe operate. Their work visually, and often phenomenologically, explores the space between fictional narratives and simulation. Rather than activate the superficial, flat repetition of the Warholian simulacrum, Demand and Huyghe strive to blur the line between the real and the fictional by engaging the viewer through the use of narrative elements.[3]

Huyghe creates work based on hypothetical situations that question the ways we perceive the world and the linear format of film, news, and other media. His work focuses on non-linear elements, giving the viewer multiple perspectives into and interpretations of his work. One installation, in particular, *A Journey that Wasn't* (2005), merges events that took place during a trip he took to Antarctica and a reenactment of that voyage in New York. Between the title and fluctuations from video footage of the Antarctic trip to a highly orchestrated, New York spectacle, the viewer is left to question whether the voyage took place at all. "Reality is so unbelievable that to tell it the right way, you must tell it as fiction," says Huyghe in an article for the Tate.[4] *A Journey that Wasn't* demonstrates that with all its copies and fictions—there is no original, no truth.

Huyghe's work is often temporal, changing throughout its exhibition. "As I start a project, I always need to create a world. Then I want to enter this world, and my walk through

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[3] Dana Liljegren, "*Suspension of Disbelief: From Simulacrum To Critical Fiction In The Works Of Thomas Demand and Pierre Huyghe,*" *Interventions Journal*, vol. 2, issue 2: Shadow of a Doubt, July 10, 2013, accessed April 10, 2015, https://interventionsjournal.net/2013/07/10/suspension-of-disbelief-from-simulacrum-to-critical-fiction-in-the-work-of-thomas-demand-and-pierre-huyghe/

[4] Nicolas Bourriaud and Shaun, tr Whiteside. 2006. "The Reversibility of the Real." *Tate Etc* no. 7: *Art Full Text (H.W. Wilson)*, EBSCO*host* (accessed April 18, 2016).

this world is the work," he observes.[5] Huyghe presents different elements that either melt, decay, or set to timers that create temporal effects. This places the viewer on a journey viewing his work in exhibitions—with the work and the viewer's experience in constant flux. Huyghe's project made me reevaluate my own work as a collective, and how the relationships between pieces could change their interpretation and meaning. I started to consider non-linear work that allowed multiple levels of interpretation.

III. CONCEPTUAL DEVELOPMENT

During my first and second semester in the graduate program, I focused on the ideas behind my work and less on the craftsmanship. I experimented with materials and areas of emphasis that were unfamiliar to me, such as video and sculptural installations. Not surprisingly many of these experiments felt forced and failed. During the first semester of my second year, I experienced more failures, but began to find important moments in them, ones that would lay the foundation for my candidacy work and thesis exhibition. The first part of the semester, my work used computer programs to interface viewers with objects and videos. I had concepts for the work, but I found it difficult to execute at my current skill level. After a tough midterm critique and feeling rather lost in the program and lost within my own studio practice I realized I needed to reevaluate my projects and get to the core of what really interested me.

Often when I need to think or reflect, I go hunting. The time I spend outdoors in the refreshes my senses and gives me perspective, and I parlayed this into a project at a storage unit completed for an installation class. Each student had his own storage unit to exhibit a sculptural installation. I devised a live performance involving skinning and processing a deer, but while I

[5]"Romance," Art21 Segment: Pierre Huyghe, Season 4, Episode 1, (October 28, 2007), accessed November 21, 2015, http://www.pbs.org/art21/watch-now/segment-pierre-huyghe-in-romance.

was hunting a few days prior to the installation, I sat on the forest floor next to a tree. The smell of the decaying leaves and soil reminded me of the last time I had gone hunting with Mac Hornecker. I noticed before that most of the time when hunting or fishing, a smell or event would trigger a memory, but none had recalled a memory so vivid as the smell of the soil and leaves on that day.

I started thinking about the olfactory sense and how powerful it can be in triggering memories. I decided to fill a cardboard moving box with soil, rocks, and pungently decaying leaves and sticks. Under "Contents," I labeled the moving box as "Other" and wrote "Fall 2011", on it to denote the memory evoked by that smell. I placed the box onto a pallet in the back corner of the storage unit. Storing memories using smells instead of pictures allowed me to see if others would react as strongly as I did to the scent by evoking memory of the outdoors. Later in the semester I started thinking of other ways to include personal aspects in my work. I continued to go hike and hunt to see what might emerge from those experiences.

During the summer of 2014, I took an Arduino (microcontroller) class and learned a very basic foundation for creating interactive work using sensors and motors. After one excursion, I returned with some logs and pulled out my Arduino parts. I wanted to see if I could recreate an experience with a tree frog I recalled from childhood. I remembered the tree frog barking from a distance, but becoming silent as I got closer to it. During mating, tree frogs use hollow logs as natural megaphones to amplify their call and increase their success rate. I also looked to the work of the contemporary artist Duncan Alexander Cameron Stewart, who used blue tape as a borderline to frame his work both conceptually and formally. I decided to use green tape instead as the color speaks to the green used in screen technology and video work. The green signified the replacement or removal of information. I created a taped square to frame the Arduino and log

components, then programmed the Arduino with a proximity sensor and placed a speaker inside the hollow log. The speaker plays the mating call of the tree frog. When the viewer comes within three feet of the log, the sound stops. As the viewer walks away from the piece the frog continues its mating call.

This piece accompanied another installation in the same room. During a recent hike, I noticed a puddle of water reflecting the sun's bright rays. The light illuminated the water's surface, but when I stepped in between the sun and the water, my cast shadow revealed what was underneath. To recreate that experience I placed a video camera across the room and used four different computer programs to create the effect. I used a video of running water on the floor, but one only visible when a viewer stands in front of the camera. I then used white noise and a box fan as a modulator, recreating the sound of water flowing over rocks. I also created a visual for this sound using final cut pro to manipulate the white noise to give the appearance of a waterfall. These two pieces ultimately recreated personal observations of the natural world using certain elements as triggers for memory.

During my fourth semester, in preparation for my candidacy review, I continued this body of work, but began to consider the associative qualities of these distinct events and experiences. After researching Pierre Huyghe's piece entitled *A Journey That Wasn't,* I interpreted the separate pieces as components of a single installation. In one of the rooms that I had painted black, I created a holographic campfire using rear projection onto a pyramid vitrine that contained a stack of firewood. I wanted to recreate a campfire circle that could be experienced anywhere, one that featured all the key visual elements but void of the sounds or smells. I wanted to omit certain aspects to allow the viewer to complete the missing elements in an active engagement with work.

I created two more individual pieces for the installation: An eighteen-foot tall concrete Indian trail marker tree and an Arduino-simulated moonlit tree shadow. I constructed the concrete tree from a steel armature and covered it with white Portland cement. Native Americans used trees as trail markers to signify places of importance, such as water sources, encampment, or ceremonial sites. Small oak saplings were bent over and tied to the ground in a specific direction. This method forced the tree to grow horizontally. Over time, all limbs were trimmed except for one or two growing vertically. These trees marked migration trails as well. Several studies conducted by Dennis Downes, an artist and author who devoted his life's work and research to studying the Indian trail marker tree determined whether or not some of these trees in existence today were authentic based on the tree's diameter and height of the ninety-degree bend from the ground. Downes concluded that it needed to be at least thirty inches in diameter and three feet from the surface of the ground to bottom of the bend.[6] I modeled my tree according to the dimensions in these studies. The installation of the concrete tree stood in the center of a twenty-foot diameter rotunda. Sod surrounded the tree in the formal art space.

This piece ultimately became about the failed attempt at growing grass indoors when trying to accommodate all of the plant's needs—water, light, nutrient rich soil. At first, the white Portland cement of the tree stood in stark contrast with the green grass. As the grass faded and died, the two elements became more alike in the fading of colors. The fading of the grass symbolized the failed attempt at trying to grow something where it would not typically grow and also showed the passage of time over the three months it was installed. The ghostly white tree symbolized its existence in the natural world as something that once served important in the

[6] Dennis Downes, and Neal S. Samors. 2011. Native American trail marker trees: marking paths through the wilderness. [Buffalo Grove, Ill.]: Chicago's Books Press, 66-67

seasonal migration of the American Indians. The tree's use in the migration along the Trail of Tears as, Indians left everything behind and migrated to the reservations, to it now being more of a relic in history of the American Indian culture. There are only a few dozen of these trees still in existence and they will only exist for another 30-40 years before they die off.

As I approached candidacy, my investigations into these kinds of associations between the human and natural worlds spurred me to consider how my own experiences in nature and experiments in art could inform future projects into the environments of nature and technology. I started using technology to create simulations of the natural world, evoking memory and loss.

CRITICAL LENS

Influenced by the fusion of natural and manmade elements, I became interested in the relationship between the two. Using *Untitled: Signal Interruption* (fig. 1) as an example, with wooden logs that suggest a place and technology that mimics a behavioral response of a tree frog, does not reflect a specific place or experience because of it being so far removed in its reproduction. I realized these experiences were theatrical and I could control the variables. The interconnectedness of the natural and artificial elements to function as a simulation excited me.

While researching, I discovered a connection with my work to the writings of Jean Baudrillard on "*Simulacra and Simulation"*. He describes the simulacrum, as a copy for which there is no original to reference.[7] He breaks simulation as a simulacrum down into four stages: the first stage, a faithful copy as a true representation, the second stage, a perversion or unfaithful copy, the third stage, a confusing copy that pretends to be a faithful copy, and the fourth stage, a

[7] Jean Baudrillard, "Simulacra and Simulations," Selected Writings, ed. Mark Poster (Stanford; Stanford University Press, 1988), pg 166-184, accessed November 22, 2015, https://web.stanford.edu/class/history34q/readings/Baudrillard/Baudrillard_Simulacra.html.

simulation with no relationship to any reality or point of origin.[8] Baudrillard gives an example of simulacra that relates his theory historically to the mass production of copies during the Industrial Revolution. The copies becoming commodities imitating reality and break down any belief in an original, because the prototype is just as real as the original.[9] Bauldrillard termed this meticulous reduplication of objects or images as hyperrealism. He discusses this and how society must interpret hyperrealism today in his essay "The Hyper-realism of Simulation,"

> "…today, reality itself is hyperrealistic. The secret of surrealism was that the most banal reality could become surreal, but only at privileged moments, which still derived from art and the imaginary. Now the whole of everyday political, social, historical, economic reality is incorporated into the simulative dimension of hyperrealism; we already live out the 'aesthetic' hallucination of reality. The old saying, 'reality is stranger than fiction,' which belonged to the surrealist phase of the aestheticization of life, has been surpassed. There is no longer a fiction that life can confront, even in order to surpass it; reality has passed over into the play of reality, radically disenchanted, the 'cool' cybernetic phase supplanting the 'hot' and phantasmatic…"[10]

With Baudrillard's theory of simulacra and simulation, I made connections in the reproduced components of my own work, specifically with the process of copying, editing, and composing materials from multiple sources for a singular event. I have often thought of natural and manmade as being separate entities, however after being influenced by these readings I started thinking about them as not being that dissimilar. Especially when they are both interconnected and dependent on each other as a simulation of a system. This inquiry carries over to not only include the formal concerns of my work, but also to my interests in social structures of the human and natural worlds and the associations between the two.

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[8] Baudrillard, "Simulacra and Simulations."
[9] Baudrillard, "Simulacra and Simulations."
[10] Jean Baudrillard, "The Hyper-realism of Simulation," The university of Florida School of Art and Art History, accessed April 20, 201, http://art-tech.arts.ufl.edu/~jack/courses/f06-art6933/papers/space/baudrillard-hyper.pdf.

The theorist and artist Roy Ascott influenced this body of work with his writings focused on the relationships between the artist, artwork, and the viewer. In his essay, "*Behaviorist Art and the Cybernetic Vision,*" Ascott suggests that in modern art there has been a shift in viewing art as objects to viewing art as behaviors or experiences.[11] He describes the artworks as participatory of the viewer consisting of feedback loops and relationships that give control to the viewer and help govern the experience. He further describes this type of artwork:

> This cybernetic process of retroaction generates a constant stream of new and unfamiliar relationships, associative links, and concepts. Each artwork becomes a sort of behavioral Tarot pack, presenting coordinates that can be endlessly reshuffled by the spectator, always to produce meaning. This is achieved principally in one of two ways: either the artifact has definitive for but contains only a small amount of low-definition information; or its physical structure is such that its individual constituent parts can change their relationships either by the direct manipulation of the spectator, by him shifting viewpoint, or by the agency of electrical or other natural power.[12]

Ascott posits that the disciplinary areas no longer divide modern works of art. Instead, there is a merger of all mediums and a transition in sculpture from the pedestal to installation art where viewers interact with the work, walk through the work, and touch the work. This appealed to my senses and everything I wanted to aspire to in my own work.[13] For this thesis exhibition I wanted to create works that seemed non-linear and were responsive to viewer proximity as they moved throughout the space.

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[11] Roy Ascott and Edward A. Shanken, *Telematic Embrace: Visionary Theories of Art, Technology, and Consciousness.* (Berkeley, Calif: University of California Press. 2003), 110.
[12] Ascott and Edward, Telematic, 112.
[13] Ascott and Edward, Telematic, 118, 119.

IV. VOID LOOP ( ) {

CONCEPTUAL FRAMEWORK AND INSTALLATION

In this exhibition, I address the dynamics of survival through an investigation of power, predation, migration, destruction, and renewal. As an installation of sculpture, video, and sound, the work explores associations between the human and natural worlds that inform who we are as individual, social, and biological beings. The work focuses on using historical and contemporary events and the behavioral responses of the natural world as metaphors for the human world. Nature is often a metaphor for being pure, innocent, untouched, and wild, so it operates as a contrasting narrative for viewing and interpreting the work. In conveying the changes in structures and systems due to these adverse affects, it is my hope that viewers will consider the similarities and be sensible to the world around them and aware of issues that affect everyone and everything. As I continued developing the concept for the work, I sourced inspiration and material from personal history, experience and observation.

On a road trip through the Arizona and New Mexico Deserts in fall of 2015, I filmed the landscape filtered through the lens of a water bottle. This 8-minute video came to embody some of the thematic concerns of the exhibition by emphasizing aspects associated with survival, destruction and renewal such as reasons for summoning a response from an individual to come together and act as a collective either by force or seasonal implications. The video projected as a panorama bridges the east and south walls of the gallery space (fig. 3). It starts with a band of green color and moves from right to left within the space. The video's imagery with bands of green color, unidentifiable at first, begins to suggest a landscape when blue emerges starting to separate the skyline from green vegetation. As the video progresses it changes from one state to another in form and color. Halfway through the video the color scheme shifts to shades of orange

and reds and becomes even more atmospheric. At this point, the video begins to reference the body, fire and destruction. As the video shifts colors and forms back to the green, the black line at the top of the video comes crashing down like a wave, a reference to renewal. The black line boarding the top of the video give a sense of weight or heaviness that slowly pushes the video from the top of the wall to the bottom. Throughout the video the line moves across the top of the image later revealing itself as water. A shift from atmospheric free flowing forms to an overwhelming sense of being underwater attributes to this waterline and its movement from top to bottom. This weight can be associated to the weight that water plays on our society today in regards to seasonal migration, forced migration, locust swarms and an overarching concern for water conservation.

The ambiguity of the video leaves room for the viewer to attach his own associations within the framework of other pieces in the exhibition. It has an atmospheric quality that gives an appearance of the video itself moving around the space unlike most videos that are confined within the frame. The corner projection gives reference to a panorama commonly associated with an unobstructed view of a landscape or a continuously changing scene—unfolding of events. In this case it hints at being open minded to change and awareness to life altering events. The two viewing planes of the corner projection make for a more immersive viewing experience and aides as a backdrop for the entirety of the exhibition.

Not long after shooting the footage of the Desert, I was reminded of an event that happened earlier in the year. In June of 2015 The National Weather Service reported a massive rain cloud over Albuquerque, New Mexico, but it did not rain. Instead, the dense cloud consisted of hundreds of thousands of grasshoppers. The Doppler Radar System tracked the swarm's movement from Albuquerque, N.M. through Texas and into Oklahoma. Insect swarms usually

occur after a rainy period followed by drought.[14] Grasshoppers in particular lay an abundance of eggs during the rainy season, enabled by plentiful vegetation. During droughts vegetation becomes sparce, which pushes the grasshoppers into other locals in search of food. Typically grasshoppers are solitary creatures, but when forced into these dense populations of overcrowding a swarm-inducing serotonin triggers within them that causes them within two to three hours to morph into locusts. The physical rubbing together of the hind legs triggers the serotonins release. Scientist have concluded that it only takes three grasshoppers to start a swarm.[15] During their transformation, they change color from green to brown, grow wings, and take to the sky—traveling faster, eating more, and breeding with increased frequency. The newly transformed locusts act in unison with the other locusts, as one unit. However, the motivation of the swarm is not out of survival as a group, but survival as an individual. Each locusts faces in the direction of the swarm, not to effectively act as a unit, but as a defense mechanism. Locusts are cannibalistic, and if they are not careful and do not move with the swarm, they themselves will be eaten.[16] The transformation from grasshopper into locust is not triggered out of needing to band together to forage for food; it is triggered out of fear.

When a swarm lays eggs swarming locusts hatch. Pesticides or a lack of food source prove to be the best solutions in preventing a swarm. The effects of these grasshoppers stretch to all vegetation. They eat everything in their path—grass, crops, and trees are left bare. According to an article posted in the *World Economic Forum*, "one swarm can cover 20% and consume up

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[14] Katherine Harmon, "When Grasshoppers Go Biblical: Serotonin Causes Locusts to Swarm," Scientific American, January 30, 2009, accessed October 15, 2015, http://www.scientificamerican.com/article/when-grasshoppers-go-bibl/.
[15] Christian Yates, "How can we control locust swarms?" World Economic Forum, November 11, 2015, accessed October 15, 2015, http://www.weforum.org/agenda/2015/11/how-can-we-control-locust-swarms/.
[16] Yates, "How can we control."

to 220.462 tons of vegetation per day."[17] While the locusts that started in Albuquerque were only in the hundreds of thousands, they have been known to range from millions to billions in number and can cause other species to die from hunger. This rare yet natural phenomenon has occurred throughout history, and swarms of locust have often referenced biblical or apocalyptic events. Such as the plagues referenced in the biblical story of Moses freeing his people in Egypt and the devastation of crops in the USA's settlement of the West. Recent swarms, as the November 2008 Australian one stretched almost four miles long. Others have wreaked economic havoc in Africa and China.[18]

Many species of animals and insects migrate seasonally for water, food, and shelter. I found similarities between these migration patterns and the nomadic journeys of humans throughout history. An estimated 40 million nomadic people live in the world today. While nomadic migration is a way of life for them, forced migration is not. Just like grasshoppers, people affected by scenarios where they have to leave their homelands because of war or the lack of food and water, such as current events taking place in the Middle East and Africa. People in these types of conditions may react in desperate measures similar to the destructive power of the grasshoppers. Since drought is a specific condition of grasshoppers morphing into locusts and considering the epic proportions of drought occurring today impacting human and animal migration, the importance of water conservation cannot be understated. Drought is currently affecting the Western United States at an alarming rate; an estimated 45 million people live in

[17] Yates, "How can we control."
[18] Malcolm Burrows, "A brain chemical changes locusts from harmless grasshoppers to swarming pests," University of Cambridge Research, January 30, 2009, accessed October 15, 2015, http://www.cam.ac.uk/research/news/a-brain-chemical-changes-locusts-from-harmless-grasshoppers-to-swarming-pests.

drought conditions, as of April 21, 2016 according to the U.S. Drought Monitor.[19] I have also read predictions that the next world war could be fought over the needs of water.

With *Untitled: Swarm—Transformation* (fig. 4) I use the metamorphosis of the grasshopper and its impact on our ecosystem as a metaphorical parallel to humans forced into similar desperate situations to find food, water, and shelter. This piece is mounted in the middle of the gallery space on the east wall. Using holographic techniques similar to Pepper's ghost (an illusion of reflecting an image with a mirror or clear film that projects the image in another location with a ghostly appearance) frequently used in haunted houses and amusement parks, I created a video of a grasshopper superimposed onto a natural log. Every twenty to thirty seconds the legs of the grasshopper move and over the course of eight minutes transforms from green into brown in color. A proximity sensor attached to the log monitors the distance between the viewer and the hologram. Within sixty inches from the sensor, a sound is triggered playing a digital interference. The sound overlays with a continuous looping background music and mimics cellphone interference with electronics. This references the locust swarm interference with the Doppler Radar System and similar interferences that we experience. The Doppler Radar for instance sends out large sonar waves that reflect back when it hits an object. For its purpose in weather detection, rain clouds are dense enough to reflect the sound. This enables the weathermen to see the storms size, direction of movement, and pace. Locusts are not the only creatures to interfere with the sonar and give false readings. Swarms of bats, birds and mayflies have also created similar effects on the Dopplar Radar System. Scientists have found that locust swarms are easily susceptible to randomness, which can disrupt their tendency to swarm. Atmospheric frequency introduced to a swarm could disturb their pattern and cause them to

[19] "U.S. Drought Monitor," The National Drougth Mitigation Center, accessed April 21, 2016, http://droughtmonitor.unl.edu/Home/RegionalDroughtMonitor.aspx?west.

break down into smaller swarms.[20] However the likelihood of this actually working is unlikely because of the incredible mass of these migration swarms. Digital frequencies are something that we deal with every day and usually do not make us aware of them unless they are causing issues. Such as a cell phone disturbing the sound of stereo speakers, rain disrupting the signal reception of satellite TV, or the onset of headaches from high-pitched frequencies.

Untitled: Swarm—Migration (fig. 7) uses four low-rise green pedestals dispersed throughout the center of the gallery floor. These house naturally decaying logs and boulders placed in its center. A semi-polished aluminum grid surrounds the natural elements encasing and supporting clear acrylic cubes of dirt and tall grass. The green pedestal each have three to four acrylic cubes and references the absence of particular place and the aluminum structures gives references to incomplete cubes, grids, root systems, and suggests continued growth. All acrylic cubes are networked to the wall piece, *Untitled: Swarm—Transformation*, so that the proximity sensor also activates a motor within each cube. Fifteen servomotors in total were programmed to mimic the sound and movement of a grasshopper. All of the motors move in unison with one another similar to the beginnings of a swarm when activated by the viewer. Their movements and sound within the tall grass allude to their transition from grasshopper to locust.

After researching the locust and their survival of the fittest attitude towards swarming and thinking about power struggles between predator and prey, a method for summoning earthworms called worm grunting came to mind.

Sourcing personal history and a child hood story, I recalled a memory of my paternal grandmother and how both my grandparents were avid fishermen. When I think about my

[20] Yates, "How can we control."

paternal grandmother, I picture her sitting in an aluminum folding chair next to the bank wearing a wide brimmed hat, scarf around her neck, a pair of brown work gloves with the fingers cut out and a bucket of live earthworms next to her. My paternal grandfather raised and harvested his own earthworms. I remember the first time I saw the worm bed and experienced him feeding them. On the back of his land stood a very large pine tree surrounded by years and years of collected pine straw and a large wooden stake sticking out of the ground. He spread cornmeal around the tree and pulled out his pocketknife and started tapping on the wooden stake. A few minutes went by and the earthworms started emerging all over the place. It was mesmerizing and captivating.

My maternal grandfather also harvested earthworms, but in a different manner. An expert at crafting whatever he wanted sourcing things lying around the shed or the house. He had taken an old extension cord, cut the female end off of the cord and wrapped an 8" nail to each of the wires and placed them into the ground. Then he plugged in the cord. An electric shock created a similar affect on the earthworms, but at a more alarming, increased rate of surfacing.

Today, most worms are grown in farms and grunting is a dying tradition. Several people still do it, mainly in the Florida Panhandle, as a source of income. A few festivals throughout the year commemorate the summoning of the earthworms, but the amount of people that still practice worm grunting are limited. Scientific studies have also been conducted to compare the sounds and vibrations of the worm grunting with that of a foraging mole. Studies concluded that the vibrations of the wooden stake mimicked the vibrations of a mole, the earthworm's natural predator.[21] The migration of the earthworms to the surface of the soil only happens in three

[21] Kenneth C. Catania, "Worm Grunting, Fiddling, and Charming—Humans Unknowingly Mimic a Predator to Harvest Bait," Plos One, vol. 3, issue 10, October 14, 2008, accessed November 22, 2015,

different scenarios—food, excessive water, and escaping a predator. Typically fear forces the worms out of the soil in worm grunting, but my grandfather had been doing this for years to the same worms repeatedly. He fed them every time he did it, so I would like to believe that he conditioned them into surfacing for food. In either case the grunting vibrations evoke a sense of power in the summoning of the earthworms whether out of predation or for purposes of feeding.

With *Untitled: Worm Grunting* (fig. 10) I wanted to use the predator—prey anecdote of worm grunting being used for two different reasons and obtaining the same results—a summoning of the earthworms to the surface as a parallel to the relationships between the powerful and the powerless. This can be interpreted as having undertones to political, social and economical predation.

In this piece a video of a dirt mound is projected in front of the entrance to the gallery as a 8' x 16' rectangle on the floor. It is accompanied by deep base sounds comparable to worm grunting. The sound is very similar to a heartbeat. At the start of the video the soil erupts in rhythm with the grunting. The earthworms break the surface and begin to emerge as if they had been summoned. A green membrane surrounds the mound of dirt. As the worms leave the mound they penetrate the membrane forming a new barrier around them. The new barrier references the self and solitude of displacement. The worms vacate the dirt mound for a couple of minutes and then return. This process is repeated to show the cyclical struggles of power over the weak.

All pieces in the exhibition where created with the intentions and purposes of being presented as an immersive, viewer interactive installation. The proximity and placement of each piece was also considered. I wanted a physical overlap of imagery and sound between each piece

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http://as.vanderbilt.edu/catanialab/manage/wp-content/uploads/2012/07/pdf20.pdf.

that would tie everything together and stage the experience for the viewer. The walls and columns of the gallery were painted green to serve as a backdrop for the physical components in the gallery. *The Untitled: Worm Grunting* video projected on the floor at the gallery entrance forced the viewer to either negate it or walk through it. Two thirds of the way through the floor projection on the left wall, *Untitled: Swarm—Transformation*, housed the hologram and the arduino hub that powered and controlled *Untitled: Swarm—Migration*. As a viewer approached the hologram a proximity sensor would trigger a sound similar to cell phone interference and each of the 15 servo motors located in the free standing pedestal pieces would mimic the sound and movements of the grasshopper, signaling the beginning stages of a swarm. A network of cables connected each piece in the installation that could be sourced back to the wall mounted holographic image of the grasshopper transforming into a locust.

On the east and south walls of the gallery bridged a video projection, *Untitled: Journey* that served as another backdrop for the physical components in the installation. An accompanying sound played through a series of speakers with high tones on the east wall, mid tones on the upper west wall, and the base tones on the floor, near the video projection at the entrance of the gallery. This sound being similar to lower notes of a synthesizer set the tone through the installation, meant to be a little overwhelming and give an undertone of importance or murky feeling of uneasiness.

MATERIALS AND PROCESSES

In this work, the materials and processes used help to convey meaning for all pieces in the installation (fig. 6). I use both organic and synthetic materials. The organic represents the natural world. The synthetic represents the manmade world, technology, reproduction, manufacturing, structure, and order. For the installation, I used a combination of the two as a

paradox to suggest that both materials are similar in purpose and meaning, essentially animating the inanimate.

Semi-polished aluminum gridded structures support and contain the natural elements, while illustrating circuit boards, solder, and a network of roots suggestive of continuous growth. Low-rise pedestals painted green support the aluminum structures as well as organic boulders and decaying wooden logs. The green screen paint denotes its use in video technology as being something that is removed and replaced. Primarily this is used for alternate backgrounds. The color is used in the work to symbolize this removal and replacement and suggest an unknown setting/backdrop for the work. The pedestal itself is also used to comment on sculptural work moving away from the pedestal to more spatial arrangements and installations where the viewer walks through the work instead of around it. I wanted to use the idea of a pedestal formally and conceptually as part of the piece. Traditionally the pedestal serves only one purpose, to elevate a sculpture, with my work I wanted to enact this purpose as a way of elevating the work not only physically, but also metaphorically within the context of the green screen. I also wanted to bridge the purpose container aspect of the pedestal, by having the aluminum structures continue off of the pedestal onto the floor.

In each acrylic box I planted dying grass and a servomotor. Each motor programed to turn 180 steps with an increment of 8 steps forward and 5 steps in reverse moved inside the tall grass. The sound and movement emulated slightly shook the grass and simulated a grasshopper. The automation of the grasshopper by sound and movement is meant to symbolize life in a dying system.

With the hologram of the grasshopper, I used an iPhone to loop a video that reflected off of a 1/8” piece of clear acrylic and superimposed its image onto a log supported by an aluminum

structure. The grasshopper changes from green to brown to reference its transformation from grasshopper into locust. Mounted to the same structure are a two microcontrollers and a wave shield. I programmed the wave shield and one microcontroller to play a looped cellphone interference sound triggered by a proximity sensor. The second microcontroller I programed to operate all of the servomotors inside the clusters of dying grass, also being triggered by the same proximity sensor. Both sounds and movement triggered by the proximity sensor when a viewer is within 60 inches is symbolic of its behavioral responses and conditions. The grasshopper changes into a locust based on close proximity of another grasshopper and the cellphone disruption sound is based on the close proximity of it and the speakers, so rather than those conditions the viewer becomes the catalyst for these two behavioral responses.

A Cat5e networking hub powered and supplied the signal from the microcontroller to all the servomotors. This too was mounted to the same aluminum structure as the microcontroller and hologram. The Cat5e cable itself is used specifically for networking Internet and landline phone connections. I used it to physically and metaphorically network all components together, natural and manmade alike—all feeding off of each other.

The backdrop video presented as a panoramic on the south and east wall of the gallery was filmed through the lens of a water bottle. The video is symbolic as a paradox as well. Filming a landscape that has year-round issues with drought through the lens of water flooded the landscape and presented an alternate view. This alternate view is meant to evoke a sense of uneasiness of how things that seem certain may not always be. The water line at the top of the video represented a heaviness that made the landscape appear that is was completely submerged or drowning. I edited the video so that the projection started at the top of the wall and throughout

the video slowly moved to bottom of the wall. The waterline slowly moving down the wall is meant to also suggest that the viewer could also be submerged under water.

CONCLUSION

void loop expresses my personal views as an artist and as someone who grew up immersed within the natural world as well as other broader cultural views. I realized while making the work for candidacy year and for this thesis how important it is to include personal views, interests, and experience while also being aware of bigger contemporary and historical issues relatable to a wider audience. The structures and systems that govern who we are and how we live out our lives have similar influence to animals of the natural world. With predictions of water wars, effects from climate change, an increase in natural disasters and disease, I hope that my children and younger generations have the opportunity to experience the natural world as I have over the years. I hope my work finds some significance with the viewers to spark a conversation associated with thinking differently about the relationships between the human and natural worlds.

V. BIBLIOGRAPHY

Ascott, Roy, and Shanken, Edward A. *Telematic Embrace: Visionary Theories of Art, Technology, and Consciousness.* Berkeley, Calif: University of California Press. 2003

Baudrillard, Jean, Simulacra and Simulations, Selected Writings, ed. Mark Poster (Stanford; Stanford University Press, 1988), pg 166-184, accessed November 22, 2015, https://web.stanford.edu/class/history34q/readings/Baudrillard/Baudrillard_Simulacra.html.

Baudrillard, Jean, "The Hyper-realism of Simulation," The University of Florida School of Art and Art History, accessed April 20, 2016, http://art-tech.arts.ufl.edu/~jack/courses/f06-art6933/papers/space/baudrillard-hyper.pdf

Bourriaud, Nicolas, and Shaun, tr Whiteside. 2006. "The Reversibility of the Real." *Tate Etc.* no. 7: *Art Full Text (H.W. Wilson)*, EBSCO*host* (accessed April 20, 2016).

Burrows, Malcolm, "A brain chemical changes locusts from harmless grasshoppers to swarming pests," University of Cambridge Research, January 30, 2009, accessed October 15, 2015, http://www.cam.ac.uk/research/news/a-brain-chemical-changes-locusts-from-harmless-grasshoppers-to-swarming-pests.

Catania, Kenneth C., "Worm Grunting, Fiddling, and Charming—Humans Unknowingly Mimic a Predator to Harvest Bait," Plos One, vol. 3, issue 10, October 14, 2008, accessed November 22, 2015, http://as.vanderbilt.edu/catanialab/manage/wp-content/uploads/2012/07/pdf20.pdf.

Demos, John, "Colonization & Settlement," 1585-1763," accessed April 20, 2016, http://www.gilderlehrman.org/history-by-era/colonization-and-settlement-1585-1763.

Downes, Dennis, and Neal S. Samors. 2011. Native American trail marker trees: marking paths through the wilderness. [Buffalo Grove, Ill.]: Chicago's Books Press.

Harmon, Katherine, "When Grasshoppers Go Biblical: Serotonin Causes Locusts to Swarm," Scientific American, January 30, 2009, accessed October 15, 2015, http://www.scientificamerican.com/article/when-grasshoppers-go-bibl/.

Liljegren, Dana, *"Suspension of Disbelief: From Simulacrum To Critical Fiction In The Works Of Thomas Demand and Pierre Huyghe," Interventions Journal*, vol. 2, issue 2: Shadow of a Doubt, July 10, 2013, accessed April 10, 2015, https://interventionsjournal.net/2013/07/10/suspension-of-disbelief-from-simulacrum-to-critical-fiction-in-the-work-of-thomas-demand-and-pierre-huyghe/.

Ng, Petrina, "A Room Dreaming of a Lake," Duncan Alexander Cameron Stewart, Project Space Exhibition Essay pdf, accessed April 12, 2015, http://www.xpace.info/exhibition-event/a-room-dreaming-of-a-lake/.

Nuwer, Rachel, "How Conversations Around Campfire Might Have Shaped Human Cognition And Culture," Smart News, Smithsonian Magazine, September 22, 2014, accessed April 20, 2016, http://www.smithsonianmag.com/smart-news/late-night-conversations-around-fire-might-have-shaped-early-human-cognition-and-culture-180952790/?no-ist.

"Romance," Art21 Segment: Pierre Huyghe, Season 4, Episode 1, (October 28, 2007), accessed November 21, 2015, http://www.pbs.org/art21/watch-now/segment-pierre-huyghe-in-romance.

"Sentences on Conceptual Art – Sol Lewitt," ALTX – Ebook Index, accessed November 22, 2015, http://www.altx.com/vizarts/conceptual.html.

"Sol Lewitt On Conceptual Art – Paragraphs on Conceptual Art," SFAQ / NYAQ / AQ Internatinal Arts and Culture, accessed November 22, 2015, http://sfaq.us/2011/11/sol-lewitt-on-conceptual-art-1967/.

"U.S. Drought Monitor," The National Drougth Mitigation Center, accessed April 21, 2016, http://droughtmonitor.unl.edu/Home/RegionalDroughtMonitor.aspx?west.

Yates, Christian, "How can we control locust swarms?" World Economic Forum, November 11, 2015, accessed October 15, 2015, http://www.weforum.org/agenda/2015/11/how-can-we-control-locust-swarms/.

Fig. 1
Untitled: Signal Interruption
2014
Arduino, SD Card, Proximity Sensor, Speaker, Wire, Wooden Logs, Green Screen Paint
16” x 36” x 72”

Fig. 2
Untitled: Signal Interruption, detail
2014
Arduino, SD Card, Proximity Sensor, Speaker, Wire, Wooden Logs, Green Screen Paint
16” x 36” x 72”

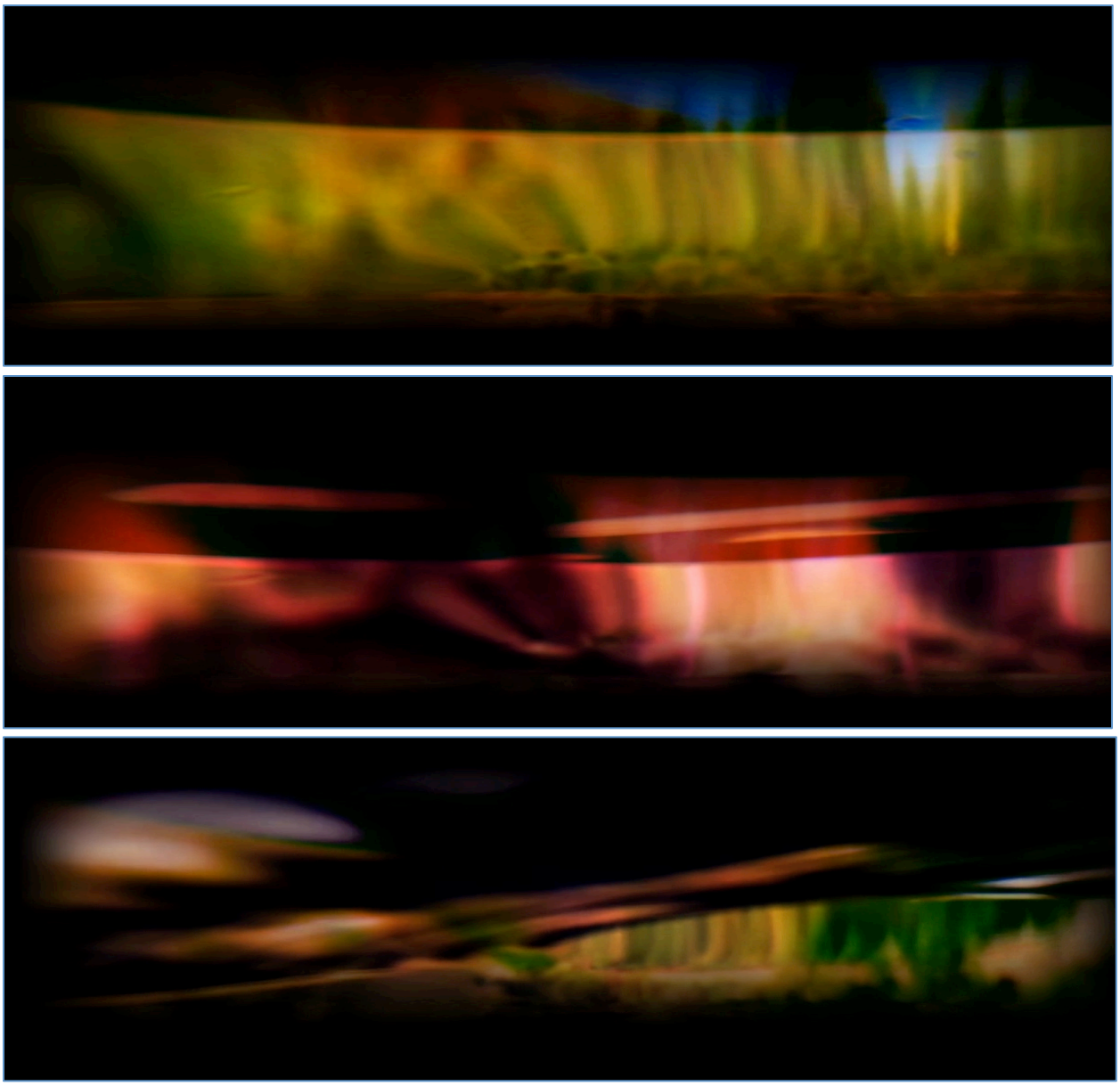

Fig. 3
Untitled: Journey, video stills
2015
Video Projector, iMac, Speakers
Time: 8 min looped
Dimensions: shown: 96” x 288”

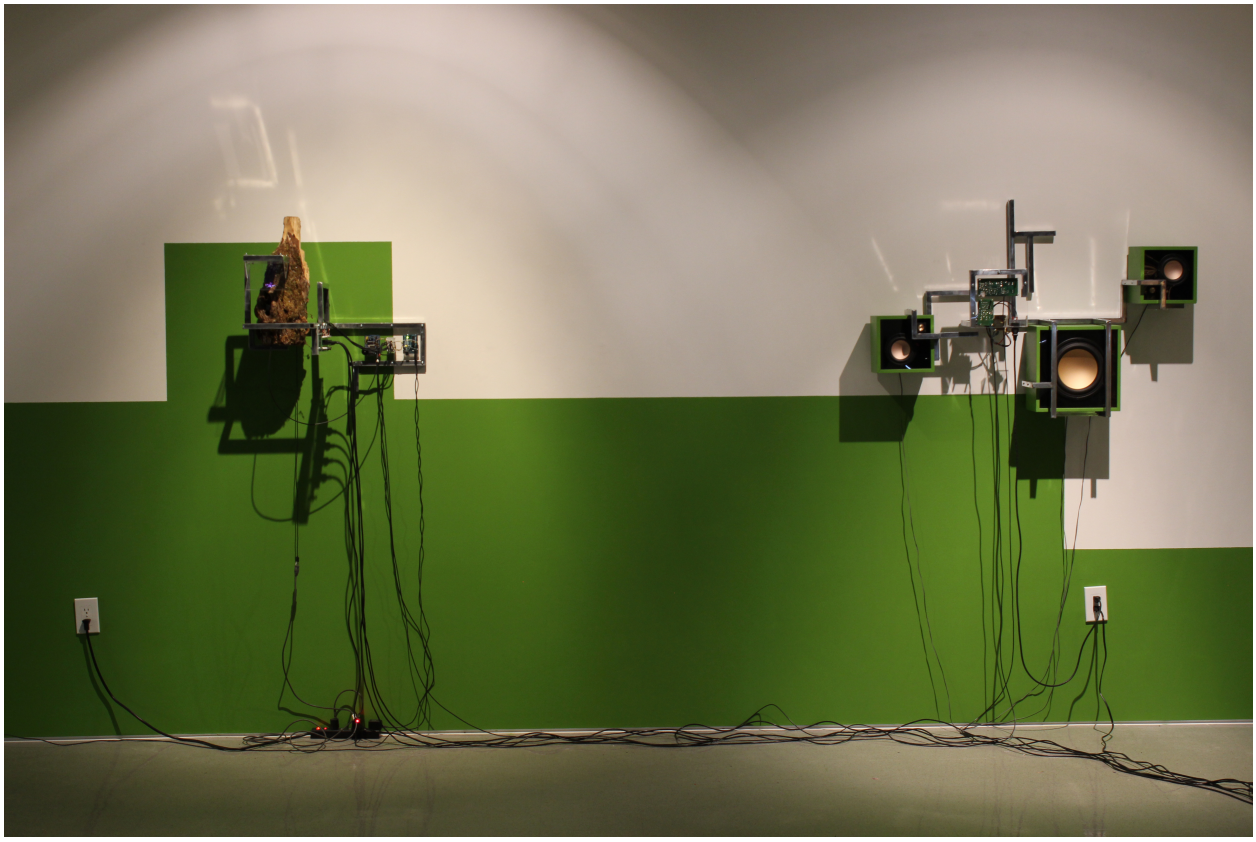

Fig. 4
Untitled: Swarm-Transformation
2016
Video, iPhone, Arduino, Proximity Sensor, Cat5e Networking Hub, Cat5e Networking Cable, Speakers, Amp, Acrylic-Clear, Semi-Polished Aluminum, Wood Log, Green Screen Paint
Time: 8 min looped
Dimensions: shown: 96” x 18” x 74”

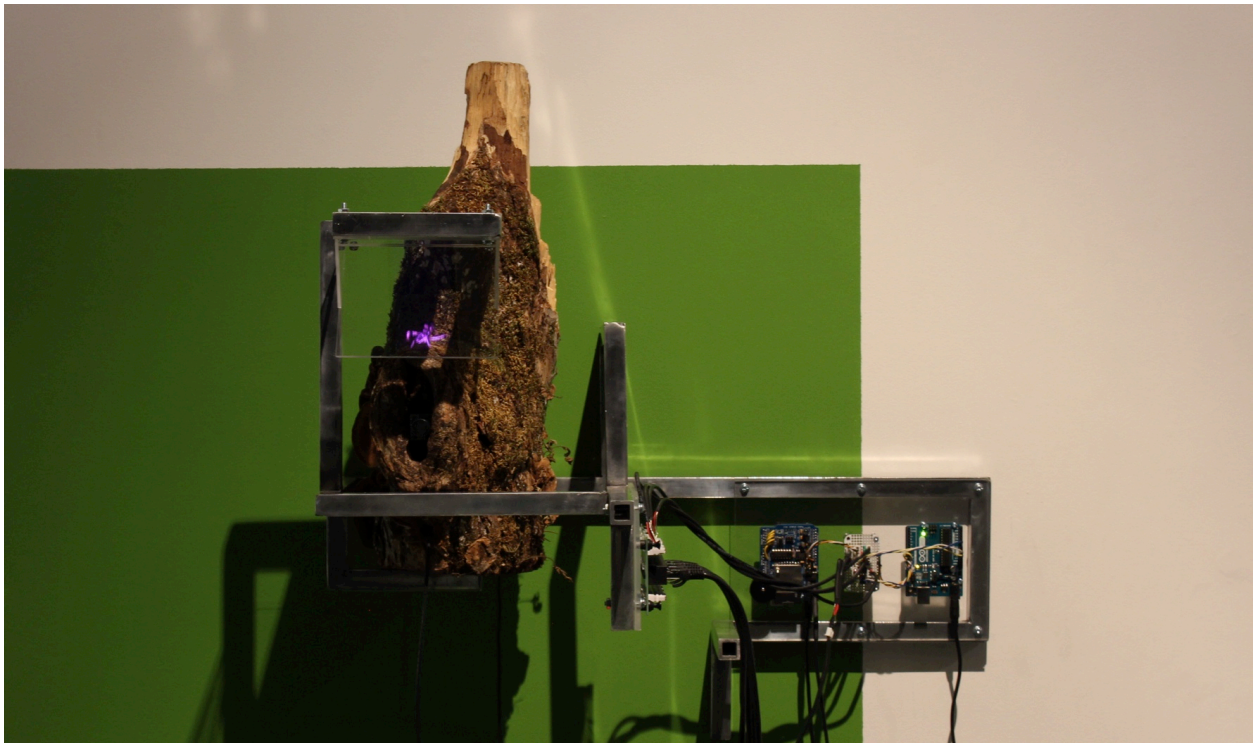

Fig. 5
Untitled: Swarm-Transformation, detail
2016
Video, iPhone, Arduino, Proximity Sensor, Cat5e Networking Hub, Cat5e Networking Cable, Speakers, Amp, Acrylic-Clear, Semi-Polished Aluminum, Wood Log, Green Screen Paint
Time: 8 min looped
Dimensions: shown: 24” x 18” x 22”

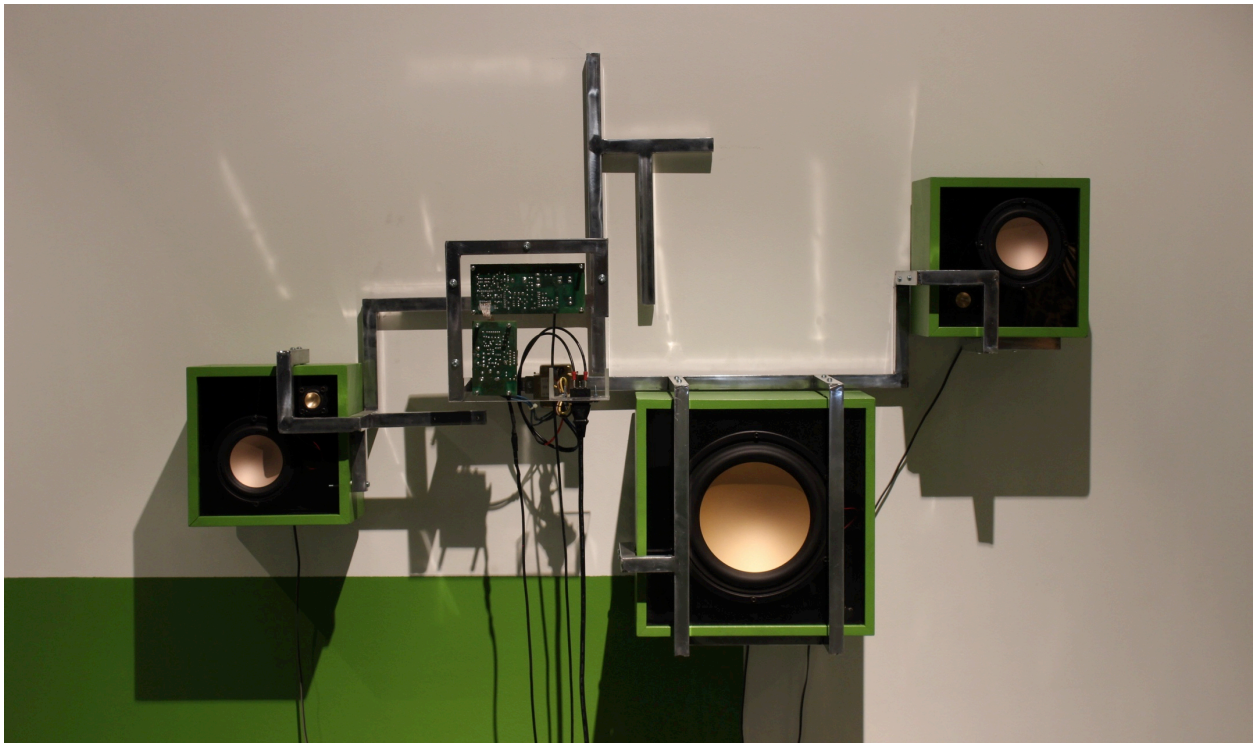

Fig. 6
Untitled: Swarm-Transformation, detail
2016
Video, iPhone, Arduino, Proximity Sensor, Cat5e Networking Hub, Cat5e Networking Cable, Speakers, Amp, Acrylic-Clear, Semi-Polished Aluminum, Wood Log, Green Screen Paint
Time: 8 min looped
Dimensions: shown: 36” x 10” x 28”

Fig. 7
Untitled: Swarm-Migration
2016
Arduino, Proximity Sensor, Servo Motors, Cat5e Networking Cable, Acrylic-Clear, Semi-Polished Aluminum, Boulder, Grass, Soil, Green Screen Paint
Large Pedestals: 68” x 68” x 72”, Small Pedestals: 36” x 36” x 72”

Fig. 8
Untitled: Swarm-Migration, alternate view
2016
Arduino, Proximity Sensor, Servo Motors, Cat5e Networking Cable, Acrylic-Clear, Semi-Polished Aluminum, Boulder, Grass, Soil, Green Screen Paint
Large Pedestals: 68” x 68” x 72”, Small Pedestals: 36” x 36” x 72”

Fig. 9
Untitled: Swarm-Migration, alternate view
2016
Arduino, Proximity Sensor, Servo Motors, Cat5e Networking Cable, Acrylic-Clear, Semi-Polished Aluminum, Boulder, Grass, Soil, Green Screen Paint
Large Pedestals: 68” x 68” x 72”, Small Pedestals: 36” x 36” x 72”

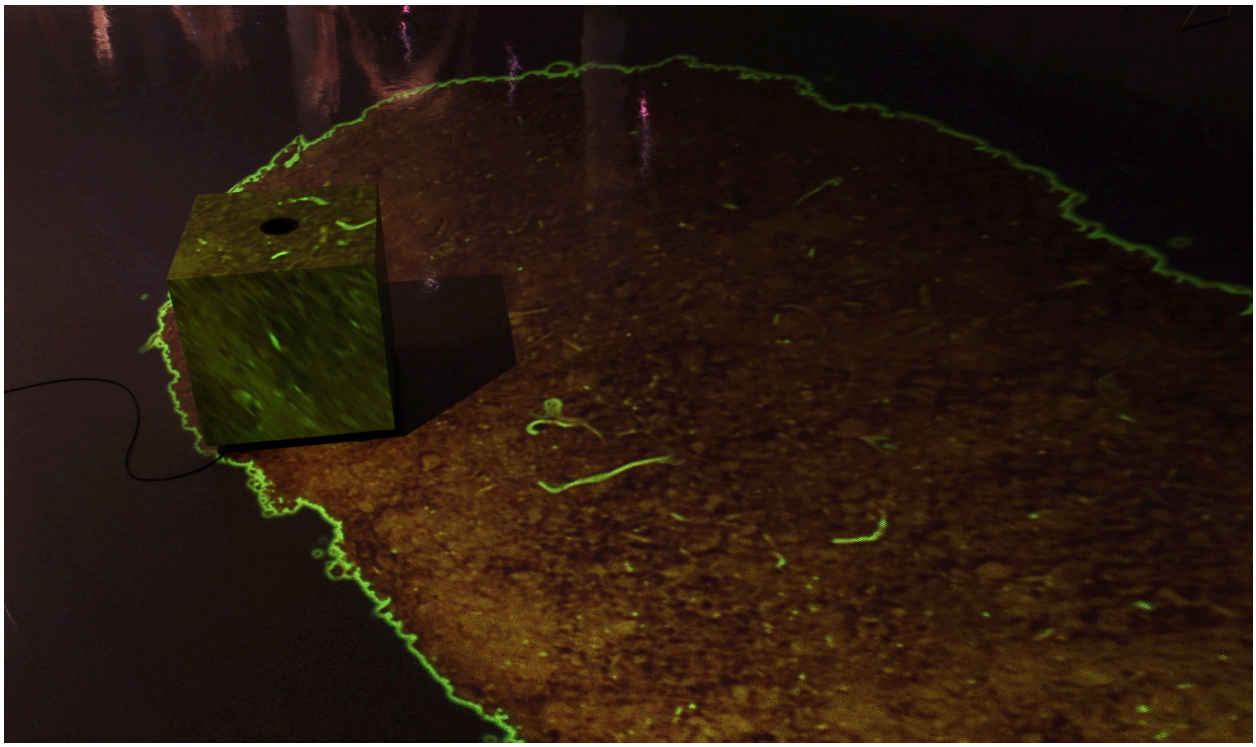

Fig. 10
Untitled: Worm Grunting
2016
Video Projector, SD Card, Micca Box, Subwoofer, Green Screen Paint
Time: 16 min looped
Dimensions: shown: 96” x 192” x 18”

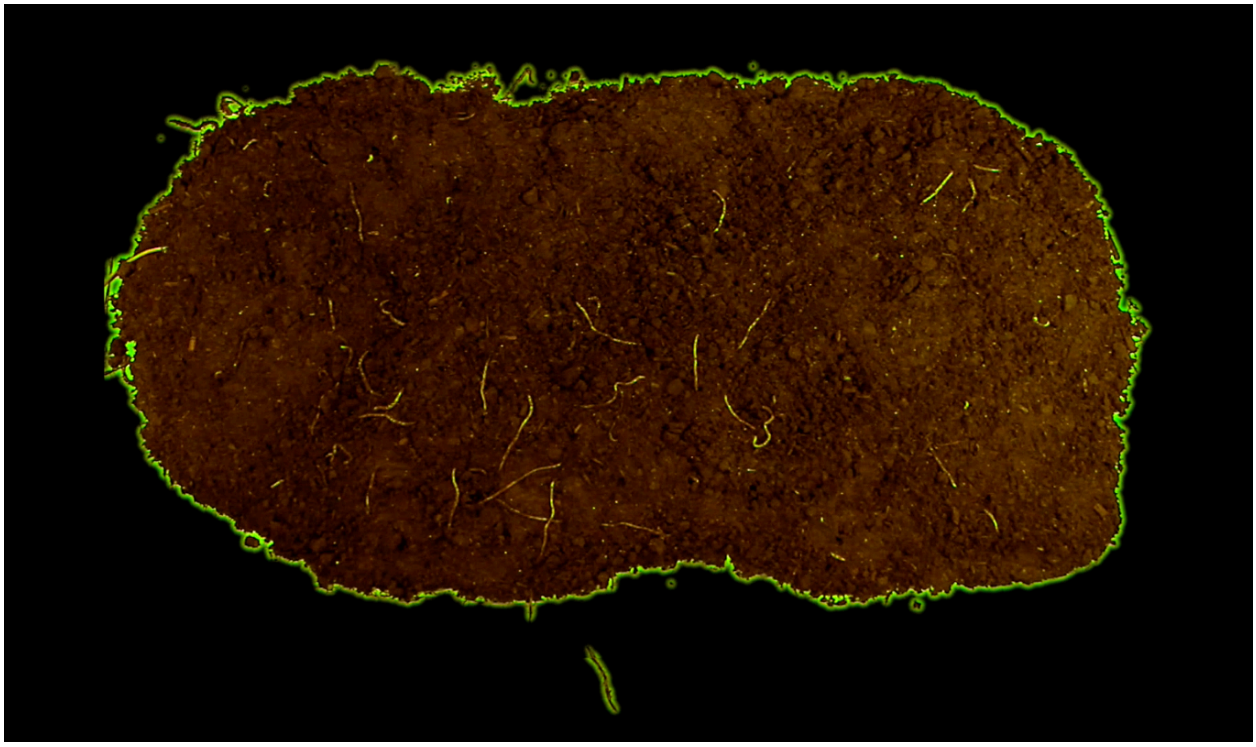

Fig. 11
Untitled: Worm Grunting, video still
2016
Video Projector, SD Card, Micca Box, Subwoofer, Green Screen Paint
Time: 16 min looped
Dimensions: shown: 96” x 192” x 18”

Fig. 12
void loop, installation view
2016
View from Gallery entrance

Fig. 13
void loop, installation detail
2016

Fig. 14
void loop, installation detail
2016