

ONEIROGEN

Encountering the Impossible:
Transformation through Virtual Reality
A Supporting Paper

Submitted to the Graduate Faculty of the Department of Art
University of Minnesota
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Introduction

The first time I tried the new generation of Virtual Reality (VR) equipment I felt awe. I felt awe at having been transformed from a room full of people to a place far away from anything I've experienced. I felt awe at being able to traverse the world by using my own body. This embodiment and the agency to make decisions and interact with the world around me cemented my presence in the virtual world. It was uncanny. It was absurd. It was unlike anything I had done before, and instantly I knew I needed to investigate this medium further.

What I love about VR is that it can so easily be awe inducing or completely absurd. Awe and absurdity are beyond our understanding of the everyday, they are enigmatic encounters with the Impossible. They are links between what is possible and that which lies beyond the realm of human imagination. It provides a connection to something greater. Like the power of awe, "Calls of the absurd - even when objective - have a puzzling tendency to induce introspection and trigger intuitive insights" (Kastrup *Absurdity* 16). The surrealists understood this and used the absurd, the irrational, the bizarre, and juxtapositions of them with the intent of, "stretching the capacity of the imagination, arousing our dormant creative and analytic powers, and making our minds yield their own particular solution to the artistic conundrum before us"(Chucha 69).

I hope to follow in the Surrealists' footsteps in an attempt to awaken something inside the viewer and search for a new understanding to the world around us. VR is the perfect medium for encountering the Impossible because of its ability to transport the player to a world outside of their physical reality. The physical embodiment of room scale VR creates a strong emotional connection to the virtual

world. Interactive agency makes the user's actions important. They become self aware and reflective. VR has the power to transform the user's inner experience by structuring, altering, and/or replacing our bodily self-consciousness"(Riva 1). This power is transformative and can create real cognitive change in the individual. How to best conjure up this new power of transformation and the empathic qualities it promotes is a constant question in my exploration of VR as a medium. The first part of this document will explore that query as I navigate the technical challenges of VR. But the big question that is central in my quest to understanding its importance is "What does being able to take part in alternative realities mean to our relationship with our physical reality?" In searching for answers I've found inspiration from alchemy, mythology, paranormal encounters, and the writings of Carl Jung and Bernardo Kastrup. All these topics coincide with Idealism and a reality that is fundamentally different than our inherited materialist perspective of how things work. This is something I know in my gut is true, through encounters I've had and life events that have broadened my understanding. I can't assign a singular meaning to this work. It is not meant to be didactic. But I will outline my influences and ideas that provide the framework to how I approach the medium. Awe and absurdity can connect us to the Impossible. VR provides a medium that allows me to investigate what that indescribable Impossible might be. I'm interested in using the transformative power of Alchemy and archetypes as a way to trigger a subconscious reaction. And mythology as way to personal growth through experience and agency. I use my intuition to create objects and encounters in the virtual space that begin to form allegories of a distant transcendent truth. These encounters create a journey for the player, a myth or story the player takes part in. A myth that hopefully changes them by the time they cross back over the threshold and take off the headset.

Part I

Investigating VR as a Medium

Virtual reality presents a number of challenges in creation and execution but ultimately is a paradigm changing medium. All art is emotional, but virtual reality has the power to fully encapsulate the user in an experience that is so believable that their emotional reaction is magnified. The general public is getting their first taste of VR through 360 video and videogames. Both are valid ways of approaching the medium and have seen a lot of releases, but I feel neither fully take advantage of the true power of the medium. It is not enough to just put the viewer in a world where the narrative and plot move along regardless of the viewer. And while fun, VR experiences heavy on gameplay and leveling up distract the viewer from themselves and their situation. The most powerful VR experiences will be some combination of the two, a combination of gameplay and narrative tied together by successful emotional presence.

Kent Bae has proposed a way to categorising the elements that contribute to the plausibility of a Virtual experience. These elements are active, embodied, social, and emotional. The more of each or less of the them can create a more or less powerful emotional reaction.

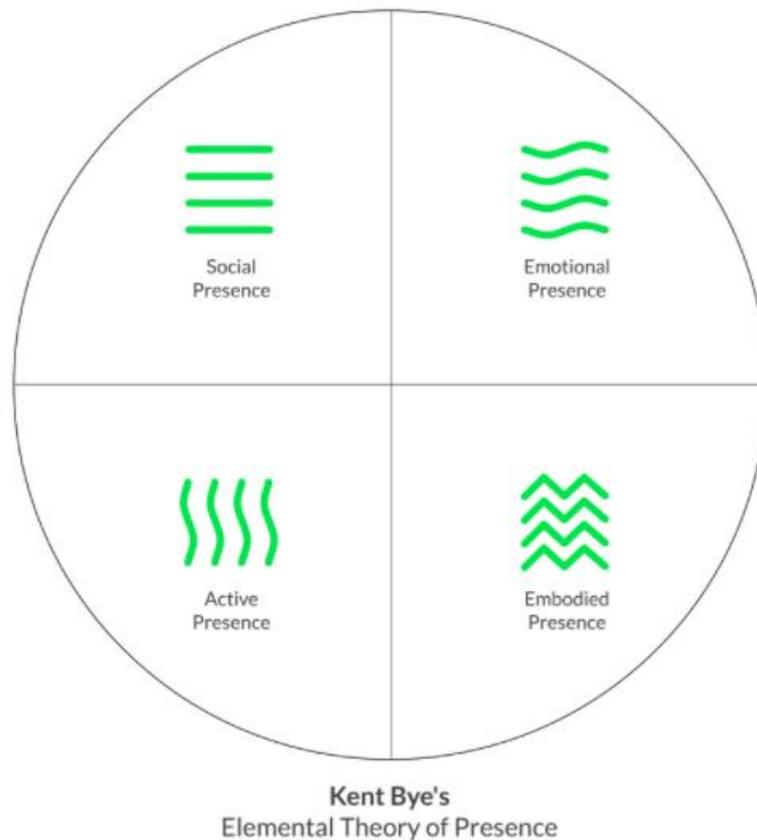


Fig 1. Kent Bye's Elemental Theory of Presence

Taking a cue from videogames, we can use agency as a tool to add a degree of immersion that movies just don't have. When the player¹ can interact in ways with the world that they can in real life, the experience becomes more real. They become more invested in the outcome. Placing the participant at the center of the immersive world triggers primal fight/flight responses while allowing natural inquisitiveness free reign. The player is moving their own body in real life to traverse the world and their movements directly determine their actions in game. The physicality embodies the player in that reality and their actions alter their path in that reality.

¹ I will use "Player" instead of the terms viewer or user.

Process and Limitations:

To create a VR project I use a variety of computer programs. Unreal Engine is the most important tool and serves as the engine to build the experience. I use a variety of 3D modeling programs to create assets to import into the engine. And I use a motion capture program to create animations from my own body movements. To create something like this on my own I have to execute programming, environment design, lighting, character models and animations, sound, gameplay mechanics, and more.

In virtual reality, we design for an entire interactive environment. Getting the player to focus on a specific area or part of the the environment can be tough, so narrative has to be more malleable and adaptive to the individual player. Perhaps a scene will wait until the player looks at a particular character, or the story could continue on with the action taking place in the opposite direction the player faces. Whatever the approach, it has to be done in subtle ways that do not affect believability and take the player out of the experience. Specific Story and Narrative is something I just don't have time for, but hope to explore in the future. For now I am focused on building a modular system that can be easily expanded on as I think up new situations and scenarios. The aim in these early days of VR is to figure out the mechanics that make use of the medium most effectively. I'm more interested in how the player moves through the room scale space, the way the player invests in the virtual space emotionally.

Structure:

When the player puts on the headset they find themselves in a white room. The walls correspond to the physical boundaries of the real world. The room acts a tutorial, to let the player get used to their physical limits and using their hands to pick up and interact with objects. Each object, being, and landscape that appears in the experience is represented as a token that sits on the shelves spanning the walls. In the corners are larger objects made from multiple tokens. These represent stories. The player chooses the story by selecting the object and placing it on a plinth in the middle of the room. The stories are a series of curated experiences. The player travels from one to the next. Five levels/experiences make up each story, and there will be multiple story objects in the introductory room to choose from. Each one a different pre-made journey. At the moment I have two story journeys made up of ten total levels. The object loads the first environment of that journey and windows appear allowing the player to glance out at this new world while still in the safety of the room. When the player pushes the singular button that is on a stand in the middle of the room, they are transported to that world. Whether by interaction with a certain object or actor, or by a timer, the player is then transported to the next level. This continues till the end of the 5th level, where the world disappears, but all the beings and objects spawned during the previous level appear around the player in a black void. The original object the player selected in the beginning rotates next to the player and is now twelve feet tall. After a delay the player is transported to the original white room and has the option to continue on another journey.

In the future I hope to build dynamic environments that change over time the more the player visits a certain experience. I hope to add multiplayer in the future to allow the sharing of experiences with other people.

VR in the Artworld

VR is not as young as it might seem. Artists and programmers have been working with immersive digital experiences since the 80s. But the technological landscape has changed so much that it is hard to look back and draw from their work. For what took thousands of dollars and months and teams to create can now be done by one person with a \$500 headset. It is apparent that museums and galleries are warming up to VR and there is a place in the current art world to show interactive virtual projects. There are a few that I see similar threads to my work. Kevin Mack's projects straddle the line between science and art and are specifically about creative cognitive change in the individual (and with great success). Rachel Rossin experiments with absurdist imagery and blurring the line between real and virtual with sculptures created in VR and made physical. Jon Rafman's experiences at London Frieze Week and the Berlin Biennial blend in with the gallery installation and architecture.

But in a medium of experience it is hard to get access to contemporary artist made projects that are only shown in galleries and museums in specific cities. There is so much potential for the medium that I feel the best course of action is to plunge headfirst into creating my world without worrying too much about what's out there. The best I can do is read what I can about the larger gallery experiences and try out the experiences I have access to, mostly videogames. The videogame world is where I find a whole subculture of independent virtual reality creators making

their own experiences. As opposed to large artists hiring out their VR development to teams and studios, I find kinship with the individuals creating their visions outside of a corporate overview. This tech is accessible and some of the best VR experiences have been built by small teams or individuals.

It is through the medium of videogames where I find a good starting point for approaching the artistic question of interactive experiences. Journey (2012) and the Witness (2016) are videogames that showed me the power of gameplay in developing an immersive interactive experience. The Witcher 3 (2015) and Fallout 3 (2008) showed me how enchanting and addictive a fully realized world can be. Games like Gone Home (2013) and Pyre (2107) proved how effective narrative and character development can be to immersion. These are all non VR (flat) games and admittedly would not work as well in VR. But they provide a grounding in the sense that videogames can be incredibly immersive. The danger of the videogame world is that it is often toxic, and there is a predefined sense of what a VR experience should be. I want to challenge these assumptions and form my own niche in this billion dollar industry.

I see the future of my practice as keeping one foot in the art world by developing site specific VR pieces featuring more uses of haptic feedback. I also think it is important to release experiences through digital distribution platforms to allow anyone in the world with a VR headset to experience it and continue to build relationships with the people making original VR experiences.

Physical Representations

I am trying not to limit my practice to just coding these experiences. I'd like to leave room in my practice to continue to create photographs and sculptures. My

project is filled with many objects, many based on real life using photogrammetry. I try to use them in a way to promote an absurd quality, like “The surrealists [who] attempted to capture the quintessence in their objects to demonstrate the strangeness and beauty that continually surround us, even in the most unlikely and mundane places” (Chucha 74). The 3D objects printed and physically displayed in the gallery bridge the real and virtual worlds. You see the same object displayed in the gallery once you step in the headset, smoothing the transition of states by presenting an object the player can place in a physical reality. After the experience is over, it is evidence to the player that the experience they had was real in some way. Every person will bring their experiences and history to the experience and the interpretations of these objects. There is no objective reality. And there is no objective meaning to my project. The best I can do is draw from my own subconsciousness and history and present them in such a way that might affect the viewer in the most meaningful way possible. It becomes an individual experience. A journey through dreamland that is part my creation, and part the viewer’s agency and interpretations.

Part II

Idealist Inspiration

Between the ages of 8 and 11 my family lived in a haunted house. It wasn't often but we saw things, heard things, felt things that weren't there. Early on it was instilled in me that the world is a much stranger place than we can physically observe or comprehend. As I got older I grew frustrated with people who laughed off even the possibility of the existence of ghosts. This only strengthened my resolve to continue to look at the fringes of the everyday, which lead me to the world of the paranormal populated with the likes of UFOs and Bigfoot. These often absurd encounters illustrate the existence of the Impossible. A gap of knowing in our understanding. They were a proof of magic to me, that the universe is a lot different and stranger than we think. I continued nibbling at the fringes of the Impossible by reading about DMT experiences, alien abduction phenomenon, cryptid encounters, Scottish fairy mythology, theosophy, philosophy, and low level quantum science. My focus shifted from the "if?" or "how?" of the existence of these extraordinary phenomenon (whether physical or otherwise), to what these encounters with the Impossible mean to our understanding of reality.

I've come to an Idealistic outlook of reality, that consciousness is the base level of reality and the laws of the material world are dependent on it and not vice versa. And somehow every atom is connected to this consciousness. I've found inspiration from Alchemy, mythology, and the work of Carl Jung. These topics have helped me conjure an abstract feeling of what the Impossible might be. How we have traditionally approached the Impossible through storytelling and symbolism. And that the Impossible is hidden deep inside everyone, but we rarely get to access it except through dreams. Shamanic² practices have traditionally provided a way for

² I'm weary of using the term Shaman to describe my work, as a Shaman implies knowledge of a spiritual practice.

humans to journey to the Impossible. But in the contemporary age, access or an open mind to pursue these journeys through shamans or intensive spiritual practices are rare. VR is my way of bringing people there.

Mythology

Joseph Campbell believed “Myths and dreams come from the same place. They come from realizations of some kind that have then to find expression in symbolic form” (Campbell 41). “They are the world’s dreams. They are archetypal dreams and deal with great human problems” (Campbell 19). The Hero’s Journey was Joseph Campbell’s structure for the monomyth. The idea that many myths follow a similar pattern of departure, initiation, and the return of the hero having undergone some kind of transformation. Oneirogen follows a similar path; the player physically puts on a headset and finds himself in another world, the player must inhabit the world to continue the journey, and the player eventually returns to the home room and takes off the headset having come through the experience. The narrative arc is a useful template to base the structure on, but the important part to me is the transformative power of myth.

Of the four functions that Campbell believes myth serves, the type I am trying to emulate is the “mystical function...realizing what a wonder the universe is, and what a wonder you are, and experiencing awe before this mystery. Myth opens the world to the dimension of mystery, to the realization of the mystery that underlies all forms” (Campbell 38). The connection between myth and reality is most succinctly put by Bernardo Kastrup in his writings:

“The fundamental nature of reality expresses itself not just through math but also through myth, which is to say: through symbol and story. We are not just living in a gigantic machine we are also living in the a whirl of stories and dreams” (Kastrup *Allegory* 6)

“Symbols speak of and out of consciousness, but never literally. A myth here is a story that recalls a mystical experience of transcendence...At any point, it may shock, trip of “flip” the listener-reader into a similar awakening through an involuntary shift in cognitive perspective” (Kastrup *Allegory* 8)

“Many fairy tales are ultimately metaphors of the process of individuation. they illustrate the archetypal forces in action, promoting the integration of the psyche” (Kastrup *Absurdity* 85)

What Kastrup describes here is that myth can be way to describe connection to the Impossible. Perhaps through a series of experiences that the player physically takes part in, I can weave a myth like experience that connects the player to a different reality. The player goes deeper and deeper into new levels making the player feel as if they are on a journey. The combinations of objects and experiences on the journey form an allegory for some hidden meaning. Pushing the player’s imagination, transforming their perspective to the reality around them.

Alchemy, Surrealism, and Archetypes

Alchemy was the medieval forerunner of chemistry, based on the supposed transformation of matter. It was concerned particularly with the The Prima Materia, a mysterious element that is the base matter for all reality. It could transform metals into gold and grant immortality through transformation into a substance known as the Philosopher's Stone. The search for the Prima Materia and the creation of the Philosopher's Stone was known as the Magnum Opus. Jung later used this process as a way to describe individuation, using their charts and drawings as instructions written in alchemical symbols to describe a spiritual awakening. It is a process to enlightenment that can't be written in words but initiated by emotional reactions to juxtapositions of archetypal symbols.

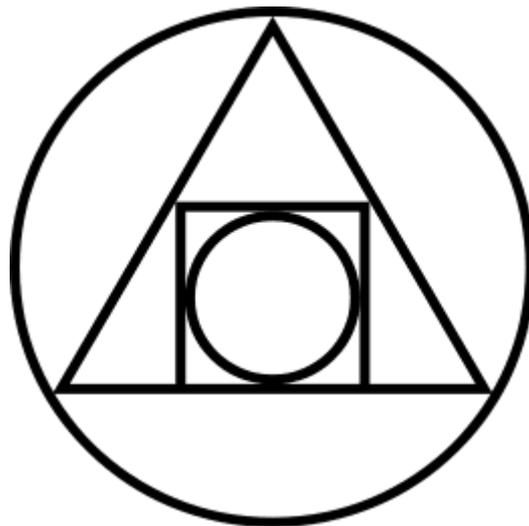


Fig.2 A symbol for the Philosopher's Stone



Fig.3 Alchemical Emblem 6

Carl Jung believed, “Alchemical pictures were not simply illustrations for a text, but attempts to communicate truths independently of the the text...and were a profound expression of the alchemical imagination” (Raff 82). Jung’s interest in symbols is best known in his idea of archetypes, patterns and images that emerge from the collective subconscious. This subconscious is a primordial base reality we are all connected to. Our thoughts and emotions bubble out of this lava as formless thoughts, only taking on representative forms when they reach the surface and spew into our reality in our thoughts or dreams. In other words

“The archetypes do not entail stories of their own, but only primordial templates upon which stories can be woven. They are the basic blueprint for all the layers of storytelling constructing meta-realities above them. Literal motifs merely ‘fill in’ the otherwise ‘empty’ archetypes, resulting in absurd happenings” (Kastrup *Absurdity* 89).

Surrealism was inspired by the alchemists and believed in the agency of the artist to transform the viewer, “The artist, therefore, is attributed with psychic healing properties and alchemical abilities in this capacity to effect a transformation from negative to positive, from the unconscious prima materia to an object that is real and valuable in the external world” (Chucha 66-67). Chucha continues to explain how surrealism uses the transformative power of analogy as their Philosopher's Stone,

“It can be deduced that juxtaposition in surrealist art and poetry is aimed at stretching the capacity of the imagination, arousing our dormant creative and analytic powers, and making our minds yield their own particular solution to the artistic conundrum before us.” (Chucha 69)

The surrealists sought to channel the unconscious as a means to unlock the power of the imagination and jolt the viewer out of their comforting assumptions, Surrealism, “aimed to link the conscious to the unconscious and provide an Ariadne’s thread (intuition) to lead Theseus (the conscious) through the maze of the Minotaur (the unconscious)” (Chucha 66). Dreams are where we have the easiest connection to to this other side of ourselves, and I think of the levels in Oneirogen (Greek for dreamcreator) as travels through the psyche, reaching deeper and deeper layers and reality is transformed around them as they go.

Like Jung’s interpretation of alchemical symbols, my ultimate goal is for Oneirogen to serve as a roadmap to connect with the Impossible. The combinations of objects and scenarios of Oneirogen form an analogy to talk about something that can’t be described in words. The journey through the levels are a process, a series of actions the player performs or experiences to have. It is a way to awaken something inside the player by activating the player’s imagination through physical interaction and

emotional reaction. Oneirogen is a journey through a dream like reality populated by archetypes created by me, and their meaning activated by the agency and imagination of the player. Oneirogen is the Magnum Opus. The player's imagination is the Prima materia. And the player might become the Philosopher's Stone by the end of their journey.

Conclusion

Our Western culture is disenchanted, “the secular materialism that pervades postmodern society is, in the end, a form of nihilism. People are told to believe that their lives are accidental, that consciousness is a peculiar epiphenomenon and that the universe is meaningless” (133, Pinchbeck). Despite the fact that science has begun to prove the subjective nature of reality³, we have failed to encompass these new findings into our world view. There is no room for the soul in science anymore. We live in a world dominated by, “[a] neo-Darwinian cosmology: its story suggests that the whole universe is a kind of machine and that its entire dynamics, including life, are driven by a combination of blind change and some mechanical laws” (19 Allegory). We are stuck in a binary way of thinking propelling us forward in a system that depends on constant growth and unfairness to survive. We have dismissed the lessons of cultures around the world in favor of the myth of economic prosperity. In order to save the planet and ourselves we are in dire need of a new

³ Science has proven the nonlocality of atoms and the fact that the mere observation of particles can change their nature

way of looking at our place in the universe. We need a paradigm change. How can an artist help in this gigantic overwhelming quest? I haven't found an answer, but I have found a way of approaching my art best articulated by Bernardo Kastrup:

“If we are to progress in our quest for understanding reality and our condition within it - for understanding the nature of time, space, energy, matter, life, and death - we may have to transcend the boundaries imposed by our art. We may have to shatter the hollow sculpture of our own creation, for we find ourselves imprisoned within it. We may have to acknowledge the formless foundation of chaos, or pure potential, upon which our thoughts and reality rest. And then we may be able to re-sculpt the formless potentials into broader, richer, more beautiful, meaningful, and transcendent art.” (97 *Absurdity* Kastrup)

Virtual Reality provides this opportunity by being a medium that can take anyone to any place that can be thought up by imagination. I create awe inducing absurdist encounters with the Impossible that begin to form allegories of a distant transcendent truth. This is an attempt awaken something inside the player. To take them on a shamanic journey that connects them to the world around them and flips a cognitive switch to make them more present in their physical reality. I want to bring joy to the player and quench the brutal materialism that pervades our everyday. I will use mythology and symbolism to enchant them, to remind them of a basic rule we have forgotten. That the reality we perceive is not the whole truth.

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Raff, Jeffrey. *Carl Jung and the Alchemical Imagination*. Nicolas-Hays, 2000.

Jung, Carl. *The Collected Works of C.G. Jung, vol. 5*. 1967

Image List

1. Terra Mnemonic. 30 x 45" C-Print. 2016
2. Veil of the Incarnate. 30 x 45" C-Print. 2015
3. Untitled #1. Plastic, C-Print. 6 x 6 x 8". 2018
4. Untitled #2. Plastic, C-Print. 6 x 6 x 10". 2018
5. Exhibition Installation. Regis Center for Art. 2018
6. Oneirogen. VR experience, 2018 (gameplay still #1)
7. Oneirogen. VR experience, 2018 (gameplay still #2)
8. Oneirogen. VR experience, 2018 (gameplay still #3)
9. Oneirogen. VR experience, 2018 (gameplay still #4)
10. Oneirogen. VR experience, 2018 (gameplay still #5)



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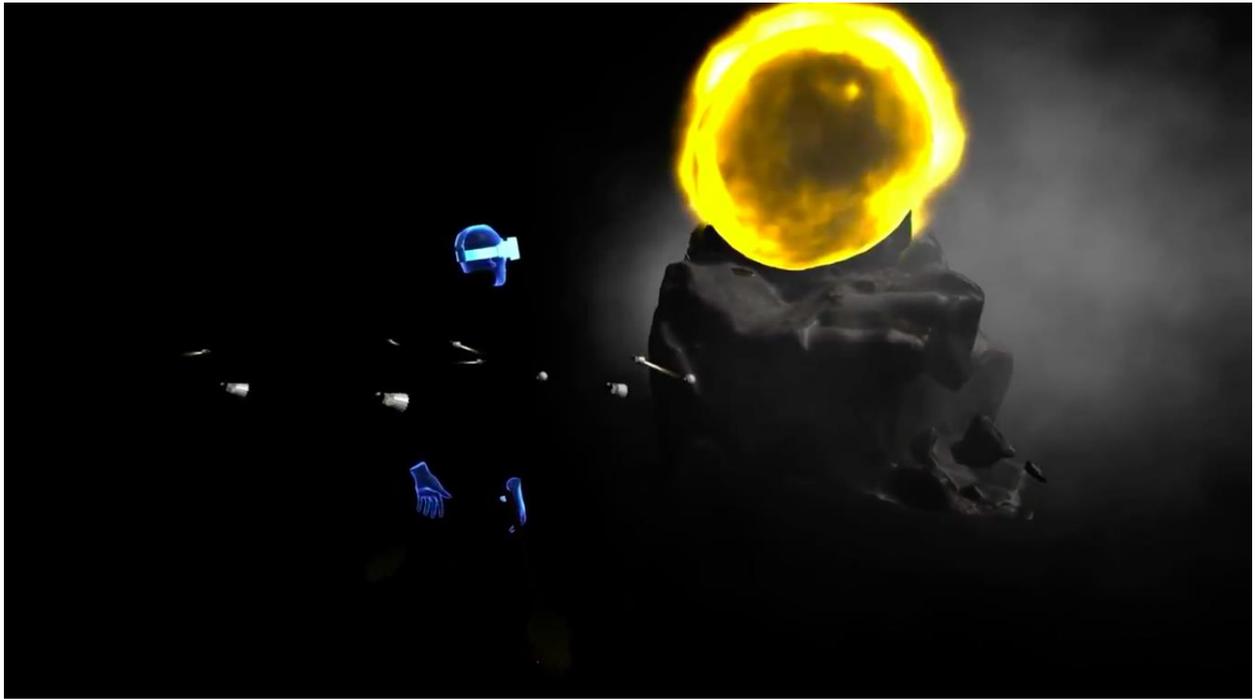
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CV

Education

University of Minnesota Twin Cities. MFA, 2015-2018

University of Canterbury, New Zealand. BFA (Hons) 1st. 2014

Rhode Island School of Design. BFA Photography, 2002-2006

Awards

U of M Travel award to Duncan of Jordanstone. Dundee, Scotland. 2016

CLA Graduate Fellowship. University of Minnesota. 2015

Fulbright Graduate Award. New Zealand. 2014

Collections

Boston Public Library

College of Saint Rose

Solo Exhibitions

The Shepherd's Realm: Dogs of Norway and New Zealand. Peter Hay Halpert Fine Art, New York City. 2015

The Shepherd's Realm V. III. University of Canterbury, Christchurch, NZ. Oct. 2014

Selected Group Exhibitions

Equivalent, Photo Center NW, Seattle WA, August 2012

Small Prints, Humble Arts, Flash Forward Festival Boston, June 2012

Texas Photographic Society's 25th Annual Show, Odessa TX, Jan. 2012

Selected Published Work

New Zealand's Working Dogs, Andrew Fladeboe. Potton and Burton. 2015

New Zealand Geographic, January. 2015

American Photography 27, Fall. 2011

Artist Statement

During the past three years I've transitioned from a decade of working with only photography to a multidisciplinary approach to my practice that combines photography, sculpture, and the programming of Virtual Reality (VR) experiences. I use photography to create realistic 3D assets for the virtual world. I then take some of these assets and create sculptures using a 3D printer. These objects are displayed next to large photographs that are hung outside a private (single user) VR room. The physical prints and objects are a hint of the virtual experience and a meditative reminder to an experience had, a language for a wordless world.

The first time I tried the new generation of VR equipment I felt awe. I felt awe at having been transformed from a room full of people to a place far away from anything I've experienced. I felt awe at being able to traverse the world by using my own body. This embodiment and the agency to make decisions and interact with the world around me cemented my presence in the virtual world. It was uncanny. It was absurd. It was unlike anything I had done before, and instantly I knew I needed to investigate this medium further.

What I love about VR is that it can so easily be awe inducing or completely absurd. Awe and absurdity are beyond our understanding of the everyday, they are links between what is possible and that which lies beyond the realm of human imagination. Awe and absurdity can produce a connection to something greater, an enigmatic encounter with the Impossible.

VR provides a medium that allows me to investigate what that indescribable Impossible might be. I'm interested in using the transformative power of alchemy and mythology as a way to trigger a subconscious reaction. I use my intuition to create archetypal objects and encounters in the virtual space that begin to form allegories of a distant transcendent truth. These encounters create a journey for the player, a myth or story the player physically takes part in. It is a way to awaken something inside the player by activating the player's imagination through physical interaction and emotional reaction. I will use mythology and symbolism to transport them and enchant them, to remind them of a basic rule we have forgotten. That the reality we perceive is not the whole truth.