

# **Strangely Lucid: using light to destabilize**

By

Mojie Chi

MFA 2019

THESIS SUPPORT PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF

MASTER OF FINE ARTS

EMILY CARR UNIVERSITY OF ART + DESIGN

2019



©Mojie Chi 2019

**Abstract**

This paper examines the experience of lucid dreaming both from my own perspective and that of others, as well as the theoretical, psychological and artistic aspects of this phenomenon. I discuss destabilizing factors in lucid dreaming: a term used to describe things that normally do not happen or exist in reality as well as the feeling and perception in lucid dreams that persist in the waking state. I examine the research question: how might light be used to evoke a destabilizing feeling and perception inspired by lucid dreams in an art installation? I describe three installation projects that address this question.

## Table of Contents

<b>Abstract .....</b>	<b>2</b>
<b>Acknowledgements.....</b>	<b>5</b>
<b>Dedication.....</b>	<b>6</b>
<b>Introduction .....</b>	<b>7</b>
<b>Positionality, Lucid Dream and Installation Art .....</b>	<b>7</b>
<b>Methodology .....</b>	<b>8</b>
<b>Lucid dreaming and Destabilizing Factors .....</b>	<b>9</b>
Dream #1 .....	10
<b>Intention .....</b>	<b>12</b>
<b>Starting Point .....</b>	<b>13</b>
<b>I. Consciousness and Memories .....</b>	<b>14</b>
<b>Living Ashes 2018 .....</b>	<b>14</b>
Description .....	14
Aspects and Inspirations.....	15
Dream #2 .....	18
<b>II. Consciousness and New Elements.....</b>	<b>20</b>
<b>Unlikelihood 2018 .....</b>	<b>20</b>
Description .....	20
Aspects and Inspirations.....	21
<b>III. Consciousness, Afterimage and Destabilization.....</b>	<b>23</b>
<b>Breathe Me Water 2018 .....</b>	<b>23</b>
Description .....	23
Dream #3 .....	23
Aspects and Inspirations.....	26
<b>IV. Consciousness, Lucidity and Uncertainty .....</b>	<b>30</b>
<b>Strangely Lucid 2019 .....</b>	<b>30</b>
Description .....	30
Aspects and Inspirations.....	31
<b>Conclusion and Future Research.....</b>	<b>35</b>

## List of Figures

Fig.1 <i>Living Ashes</i> , Oct 2018. Pendent lightbulb, mirror boards, tapes. -----	14
Fig.2 Benjamin Bogart, <i>An Artist in Process: A Computational Sketch of Dreaming Machine #3"</i> , work in progress, 2012. Used by permission of the artist. -----	15
Fig.3 Ebru Uygun, <i>Lucid Dreaming</i> , 2010. Fabric, canvas, varnish. -----	15
Fig.4 <i>Living Ashes</i> , Oct 2018. Pendent lightbulb, mirror boards, tapes. -----	16
Fig.5 Wendy Wischer, <i>Shattered</i> (detail), 2017. Projected light, acrylic mirror and coated Styrofoam. Used by permission of the artist. -----	17
Fig.6 <i>Living Ashes</i> , Details of mirror boards-----	17
Fig.7 <i>Unlikelihood</i> , Nov 2018. LED blubs, speakers. -----	20
Fig.8 <i>Unlikelihood</i> , Nov 2018. LED blubs, speakers. -----	22
Fig.9 <i>Breathe Me Water</i> , Dec 2018. LED blubs, speakers, wood box, florescent powder. -----	23
Fig.10 <i>Breathe Me Water</i> , Dec 2018. LED blubs, speakers, wood box, florescent powder. -----	23
Fig.11 <i>Breathe Me Water</i> , Dec 2018. LED blubs, speakers, wood box, florescent powder. -----	25
Fig.12 Olafur Eliasson and Ma Yansong, <i>Feelings are facts</i> , Fluorescent lights (red, green, blue), aluminium, steel, wood, ballasts, haze machines, 2.25 x 18 x 54 metre, Installation view: Ullens Center for Contemporary Art, Beijing, 2010, Photo: Studio Olafur Eliasson, © 2010 Olafur Eliasson, 2010. Used by permission of the artist. -----	26
Fig.13 <i>Breathe Me Water</i> , Dec 2018. LED blubs, speakers, wood box, florescent powder. -----	28
Fig.14 <i>Strangely Lucid</i> , April 2019. Strobe lights, sound. -----	30
Fig.15 <i>Strangely Lucid</i> , April 2019. Strobe lights, sound. -----	31
Fig.16 <i>Strangely Lucid</i> , April 2019. Strobe lights, sound. -----	31
Fig.17 <i>ZEE</i> installation, Kurt Hentschlagel, 2008. Used by permission of the artist. -----	32
Fig.18 <i>Strangely Lucid</i> , April 2019. Strobe lights, sound. -----	33

## **Acknowledgements**

During the process of the research, there are many people who have helped me. This thesis would never have been born without their support.

I would like to express my gratitude to my supervisor Dr. Maria Lantin for the useful comments, remarks and engagement through the learning process of this thesis. Without her, I would never have gotten this far, and she helped me to realize my own strength and challenge my own weaknesses. I am also indebted to Professor Jamie Hilder for reviewing and commenting on my drafts and guiding me to a great area of study. I would also like to thank Professor Randy Lee Cutler, who has helped me revise and clarify my thesis. I want to thank the participants, the viewers, and the audience in my previous installation works, who have willingly shared their opinions and feedback with me, so I could make breakthroughs within my limited cognitive scope. I want to thank my internal examiner Julie Andreyev, who helped me re-structure my paper, giving me helpful comments when the thesis paper was in process. And a special thanks to my mother, who gave me life and the ability to dream, live, and run. I would love to thank her for raising me up and supporting me throughout this entire process. She gave me unlimited tolerance and company during the take-off year, and was able to go on with her great encouragement.

For all of you, I would never have made this far without any of your support and contribution. Thank you very much.

**Dedication**

I dedicate this paper for my mother and deceased father.

In reality and dreams; in the world and the heaven, 我都永远爱你。

在此将这篇文章献给我的母亲和已故的父亲。

无论现实或梦境，人间或天堂， I always love you.

## Introduction

*Deep into that darkness peering,  
long I stood there,  
wondering,  
fearing,  
doubting,  
dreaming dreams no mortal ever dared to dream before.*  
(Edgar Allan Poe)

### Positionality, Lucid Dream and Installation Art

My childhood wish was to have a happy family, but it was never meant to be: it can only happen in dreams. I used to want to live in my dreams. I was born at the end of the summer of 1992. Ten years later, my parents divorced. I was raised by my mother in Beijing, China. At the age of 10, my mother began working abroad for over 5 years. At the age of 18, she sent me to Vancouver, British Columbia to live with my uncle and aunt. Loneliness accompanied me everywhere. I spent the next 8 years studying in the United States and Vancouver. Just when I felt that everything was getting better, my father passed away on November 26<sup>th</sup> 2018. After my father passed away, I sometimes dreamed of him. In my lucid dreams, I could not make out his face, but I was sure that it was him. Lucid dreams were sugar-coated pills for me. They made me consciously exist in the hallucinations that I created, and the lucidity made me clearly perceive the instability of the dreams -- my father's blurry face for example.

Over time, I started to want to wake up from the uneasy feeling in my lucid dreams. I no longer wanted to live in dreams like I did when I was younger. Rather, I wished that I could leave the dream anytime I wanted, but without the emotion fading upon waking, because I felt the pain should be remembered. I have never succeeded in waking myself up from my lucid dreams but I wonder if I can replicate the feeling of being in a lucid dream, and yet free to leave, in my installation art practice.

I use the feeling and perceptual experience of lucid dreaming as inspiration to create artworks. I have found the research into lucid dreaming to be a rich and productive source for exploring light and the experience of instability in installation art. I inform my artistic practice by recording and analyzing my own lucid dreams as well as having conversations with other lucid dreamers. As I develop an understanding of the perception of lucid dreaming, I simultaneously have been looking at a range of artists whose work takes

up dreaming, or the destabilizing potential of light and sound. I have yet to find many artists who have been inspired by lucid dream but I plan to continue my search. What I have found are artists who make unusual environments as a way of bringing the viewer into a particular perceptual experience.

### Methodology

I conducted my research by reading books on psychology, cultural history, neurology, and philosophy. I enjoyed reading these subjects. I came to know more about the idea of destabilizing factors in lucid dreaming from a historical and theoretical perspective. In addition to this research, I kept accounts of lucid dreams, artworks that reference dreams and work with light, feeling, and perception. This led into an investigation of light as a way to evoke the unstable feeling so intriguing in lucid dreaming, in installation artworks.



## Lucid dreaming and Destabilizing Factors

Lucid dreaming is an experience that usually starts when a person consciously finds themselves in a dream. It is a strange experience that one can become lucid without waking up. People will see scenes in lucid dreams that are unstable, such as a changing face, distorted body parts or a clock that is randomly changing time, and yet stay in a liminal state between waking and dreaming.

In the mid-to-late 1970s, lucid dreaming became a recognized area of scientific research but knowledge and ideas about lucid dreaming existed long before that. In 1867, the first scholar to document lucidity extensively was the French aristocrat, Hervey de Saint-Denys. In his book *Dreams and How To Guide Them*, Saint-Denys states that the mechanism of dreaming can be understood as “clichés souvenirs”, or snapshot memories (8). In further studies, Allan Hobson and Robert Stickgold studies in neurology and psychology found that dreams are strongly involved with reorganization of memories (108). Hobson and Stickgold have shown that memory fragments are reorganized and composed into our dreams without our ever being aware of it during both REM sleep and non-REM sleep time (109). In other words, we process and recompose our memories unconsciously in dreams. Because of this unconscious reorganization of our memories, the content of our dreams seems confusing and unstable when we are lucid in dreams. According to French philosopher Paul Ricœur, “pure memory” is the original memory that has not yet been recalled (Farr 67). Based on this research on unconscious mind and dreams, I think of this raw memory as the unconscious past. Dreams consist of mostly unstable imagery and I assume that this unstable image comes from the uncertainty of memory in everyone. In a dream, a face is presented to us as a constantly changing image but we still are able to recognize it. Consciousness plays a big role in identifying these unstable elements and figures.

Consciousness is a necessary state of awareness. Actions are not minutely controlled but supervised by consciousness to reset the intentions as activity progresses. American philosopher Dan Dennett states that the brain makes us expect the details to achieve the expectation; the unconscious mind will fill in the details based on what we expect, which affects what we see, so we see what we expect to see – we are not in charge of our own consciousness (“The Illusion of Consciousness”)<sup>1</sup>. This further illustrates that we are all able to recognize the destabilizing scenes shown in dreams, it also explains the difficulty our

---

<sup>1</sup> Dennett gave an example of a painting: in a large painting, there is a bridge with many people standing on it. Dennett thought, "if I get close enough, I can see the details of those people." So he walked closer and was shocked to find that the "people" were just dots in the paint.

consciousness has in controlling the direction and tendency of our dreams. Neuroscience philosopher Andy Clark believes that the interaction of people's internal and external perception forms a conscious mind. He states that perception combines memory and prediction (“The Mind-Expanding Ideas of Andy Clark.”). Our perception of the outside world actually interacts with our own unconscious mind to form the consciousness with expectation and prediction from our brain, and we often feel that we are in control of our own consciousness. Philosopher Sam Harris believes that even though it feels like we are in control of our mind, that too is just an appearance in consciousness – the witnessing of our actions becomes a feeling of “I” (26). In dreams, the feeling of “I” disappears a bit, but when lucidity happens in a dream, we gain a kind of separation, a bit of an observer status in the dream; then we can witness where the focus or attention is. In the absence of external stimuli, new elements in lucid dreams are created by waning and shifting attention (Waggoner 114). Because of shifting attention and the appearance of elusive new elements, we become uncertain and unstable when we are having lucid dreams.

Lucid dreams have been shown to trigger parts of the brain that are normally inactive during waking (“Time Sense In Dreams” par.3). For example, a person's perception of time can be strangely distorted in a lucid dream -- decades of “time” can be experienced in only two hours sleeping. In my lucid dreams, time freezes and slows down. For example, I had an almost endless lucid dream when I took a two-hour nap in the afternoon:

#### Dream #1

*In the summer of 2017, my ankle was badly hurt. This injury forced me to rest in bed for 3 months. One afternoon, I fell into a dream from 1 to 3pm. In my dream, I walked out of a building. The street looked like one I had walked in San Francisco, CA in 2016. The sun was shining brightly. I seemed to follow a girl who barely had a face, to a crossroad, and then across the street. Then I walked back to my apartment and lay down, trying to wake myself up. Then I felt like I physically "woke up." Then, I sat up and walked out of the apartment, and saw the exact same street. I continued to follow the girl, crossed the same street, and went back to the house. And then I "woke up" again. When I walked out of my apartment again, I still saw the same street. I suddenly realized that my body was still in bed and I was dreaming, then I became lucid and started to worry. I walked down to the street, went back home, and woke myself up over and over again, like I was trapped in an infinite circle.*

There has been a recent resurgence of appreciation of the potential benefits of lucid dreaming, particularly for athletic performance and trauma healing (Schädlich and Erlacher par.1). When the dreaming brain cannot reduce the emotion associated with a traumatic memory, it keeps working by revisiting that memory night after night (Heller par.11). The benefits of lucid dreaming have long been known by Tibetan practitioners of dream yoga. In speaking of this practice, American psychologist Gregory Scott Sparrow has said that:

The primary purpose for establishing this continuity of consciousness is to allow the dreamer to begin to realize that the environment of the waking state is a self-created dream as well. This recognition leads the adept to the second and most important phase of the lucid dream which is meditating on the Reality behind the dream images. This stage of the lucid dream during which the dreamer may enter an illuminated state is referred to in the Tibetan text as the “Dawning of the Clear Light.” It is a stage in which the dreamer turns his attention to the Source motivating the dream images. (Sparrow 10)

This reference to light in association with lucid dreaming reoccurs often in lucid dreaming literature, and in my own experience using light as a reference point or trigger to enter into a lucid state has been both productive and intuitive. Stephen LaBerge introduced the DreamLight to help practitioners train themselves to enter into a lucid state by flashing LED lights onto their eyelids during sleep (45). Light, as a medium in both psychophysiological experiment and artwork, can be understood as the original trigger of lucid dreams, the unconscious mind source; it can be also understood as the concept of lucidity in dreams. Inspired by the DreamLight and the concept of the “Dawning of the Clear Light”, I decided to use light, an untouchable medium, as the main material in my art practice.

## **Intention**

My artwork is inspired by the feeling and perception in lucid dreams and on related material investigations. It is an iterative process of making and remaking. Overall I am trying to create a feeling of being uncomfortable and destabilized, and yet compelled and fascinated – a feeling of not being sure of wanting to stay or leave. In my own lucid dreams, I have been unable to willfully leave the dream but within these artworks I am attempting to create a situation where people can leave at any time and yet hesitate to do so.

Based on all of the associations between light and lucid dreaming outlined in the previous section, I created a mental picture of a glimmering light within a scene. It became a light that led me to meet people in my dreams who came over and over again, like my father. This light of lucidity always reminds me that once I open my eyes, he will disappear. It is painful but it is worth it. Installation art gives me the chance to have my viewers interact with this similar feeling of lucid dreaming, and be directly implicated materially in the space (Bishop 6). After studying artworks from other installation artists (Bogart, Uygun, Wischer, Eliasson, Ma, Turrell), I gradually decided to use light and sound as the primary media in my practice. I particularly appreciate how light's untouchable and unstable features can be manipulated to create ephemeral and strangely foreign environments.

The intention of my artwork is not to reproduce any particular lucid dream but rather to provide an experiment in visual and auditory perception that is inspired by lucid dreaming, and the elusive and unstable nature of our experience.

**Starting Point**

I started the MFA program in Emily Carr University of Art and Design on the topic of dream formation during the summer of 2017. Later, I gained a deeper understanding of the role of the unconscious mind in dreams and its effect on people. Because of my father's death, I had a lot of lucid dreams of him in November and December 2018, and paid special attention to the feeling in those dreams. I explored how to recreate the uneasy feeling of lucid dreams through installation art works that use light and sound.

## I. Consciousness and Memories

In a dreaming state, consciousness has a less constrained relationship to memory because of the decrease in sensory information. It is always reorganizing memory fragments but in a dream it becomes the main synthesizing component. The unconscious memories are filtered and edited by consciousness, some of them are fragmentally reflected in our dreams. In processing and capturing these fragments of memory, dreams act as a container for projecting unconscious and conscious information in it. *Living Ashes* reflects this relationship between the unconscious memory and the consciousness.

### Living Ashes 2018

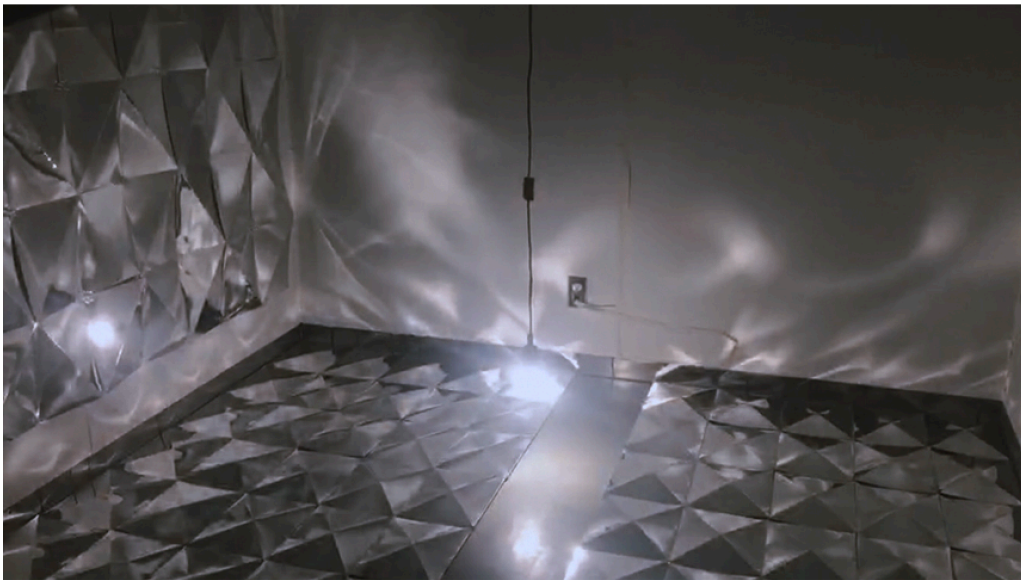


Fig.1 *Living Ashes*, Oct 2018. Pendant lightbulb, mirror boards, tapes.

### Description

*Living Ashes* (Fig.1) was the starting point in making installation work based on the conscious feeling from lucid dreaming and the combination of memory fragments from the unconscious mind. I describe these unconscious memories as 'living ashes'. The destabilizing elements are like the ashes of memories<sup>2</sup> in our unconscious mind. This project is an installation work with a participatory element. It consists of a reflective effect in a dim space that is created by projecting light from a pendant light bulb in

---

<sup>2</sup> Ash, here, is a metaphor of the past experience and memories, like after a fire burns over our bodies, the ash left. It is incomplete, even unbeautiful, but it is still part of us.

the centre of a space filled with mirrored surfaces. Before the participatory performance, I asked each participant to come inside one at a time. I let them know that I would count down from 10 to 1, and that they should leave once they heard me say “1”. During the participatory performance, I stood in the centre of the space, looking down and not making any eye contact with the participants. I started swaying the pendant lightbulb while counting down from 10, with uneven spacing between each number.

### Aspects and Inspirations

I worked with the combination of countdown, light, and mirror boards to investigate and convey the unstable feeling of recomposing memories in lucid dreams as well as the uncertain feeling of being able to leave a dream.



Fig.2 Benjamin Bogart, *An Artist in Process: A Computational Sketch of Dreaming Machine #3*", work in progress, 2012. Used by permission of the artist.

The image has been removed because of Ebru Uygun's copyright restrictions.

Fig.3 Ebru Uygun, *Lucid Dreaming*, 2010. Fabric, canvas, varnish.

Thinking about the method of recombination of materials to represent the feeling of having dreams, Turkish painter Ebru Uygun's collage installation work *Lucid Dreaming* caught my attention by using a contemporary collage method of painting that is similar to the surrealists. The surface of Uygun's painting is made of painted overlapping strips, and suspended linen scraps ("An Exhibition 'Lucid Dreaming' by Ebru Uygun." par.2). She paints over the fabric with varnish, and then cuts and reassembles the fabric. Uygun works with the concepts of deconstruction and reconstruction with this method of painting. The collage aspect is a good metaphor for the process the mind undergoes in reorganizing memories and

thoughts. The gesture of the artist deconstructing and reconstructing made this piece a composition, similar to the conscious mind recomposing our unfiltered memories into a lucid dream. It is also a good example of what Allan Hobson's previously described concept of the recomposed fragment of memories in dreams (108). Recombination is a key concept in my practice. Vancouver-based artist Benjamin Bogart also works with recomposing fragments into images. In Bogart's work *Dreaming Machine #3*<sup>3</sup>, the machine has a dreaming mode. In the dreaming mode, the absence of external information leads to a completely fictitious image that simulates external reality. Bogart states that these dream images (Fig.2) are physically different from reality because they no longer rely on external sensory information and because simulators cannot reproduce reality perfectly ("An Artist in Process"). Bogart uses a programmable camera and computer technique to capture scenes that influence the dream mode. It is a good example of what Dennett and Anil Seth posit: consciousness is transformed into hallucination by the expectation of our brains, and a dream is a hallucination with lack of external information.



Fig.4 *Living Ashes*, Oct 2018. Pendent lightbulb, mirror boards, tapes.

Recombining light has become a primary research direction. Because light is an untouchable material, I studied how to use flexible and reflective material for recombination. During this process, I referenced the work of Wendy Wischer, an installation artist who works with light and projection in her work *Shattered* (Fig.5). Wischer created reflective polyhedral cylinders and placed them on the ground

---

<sup>3</sup> *Dreaming Machine #3* perceives the visual context of installation through a video camera and generates images presented to the viewer, these images are generated through dynamic capture from the camera, therefore, they often turn out with a fragmented scene.



(“Shattered (Detail), 2017.”). Because of the multi-surfaced material, the light was reflected in different directions. She works with the idea of moments of shattering that are frozen in time where the viewers are allowed to wander among the fragments and think about their relationship to them. *Shattered* foregrounds the connection between the environment, the viewers, and the light reflections. When viewers are surrounded by broken light reflections, they also become the carriers and interpreters of the shattered fragments, much like a dream. I worked with pendant lightbulbs and reflective paper boards in a dimmed environment. I folded the paper at different angles so the light could be reflected into different directions. In total, I made 158 uneven mirror surfaces (Figs.1,4,6).

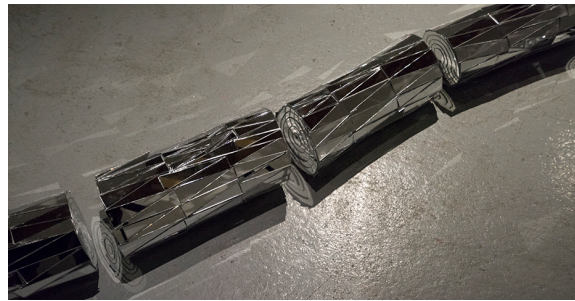


Fig.5 Wendy Wischer, *Shattered* (detail), 2017. Projected light, acrylic mirror and coated Styrofoam. Used by permission of the artist.



Fig.6 *Living Ashes*, Details of mirror boards

Stephen LaBerge invented a device called “DreamLight” to stimulate lucid dreaming. The light device is placed over the dreamer's eye and begins to flash as the dreamer enters REM sleep. After repeated external stimulation, the dreamer might enter lucid dreams (45). This device inspired me to use a flash light effect to convey an unstable feeling. The swinging lightbulb creates a recurrent flashing effect by hitting on uneven mirror surfaces. The feedback from my critique indicated that the flashing light effect of the repeated swings helped gradually adapt to the strange feeling of the space and start to observe. This effect of adaption also happens within recurring dreams:

## Dream #2

*When I was nine years old, my parents and I lived in a gated community with a long pathway at the entry. One night, I fell asleep. In my dream, I was walking and running on the same pathway. However, I could not leave the path. Suddenly, a white blanket appeared out of nowhere, and I started to unconsciously fold it. But to my horror, the blanket started to get increasingly bigger. But I still tried to fold it. Eventually, the blanket became a super-giant thing that I would never be able to fold. I felt extremely anxious. I wanted to wake up but I could not. This dream repeated many times within a month until it became a lucid dream. I sometimes still have this extremely anxious lucid dream, and it almost always ends with a panic.*

The participation of the viewer in my installation artwork plays a significant role. The uneven countdown that I used in *Living Ashes* was inspired by the arousal system during sleep. In terms of waking up from a dream, American neuroscientist Dr. Patrick McNamara states that people do not have a strong desire to wake up most of time, even in a lucid dream (“Lucid Dreaming and Lucid Nightmares” par.3). And even when we do have strong desire to wake up from a nightmare, we often cannot make ourselves leave the dream. To achieve this sense of uncertainty, in the work, I strengthened the destabilization of the countdown, by making the speed irregular. The unstable countdown left participants unsure when they would be able to leave, enhancing the feeling of the uncertainty. Based on the feedback that I got from the critique, people were more willing to experience a space that can hold multiple viewers at one time, not only to passively experience the environment with others, but also to gain from interactions between the viewers within the space. A still lightbulb might be a better to allow more viewers to participate at the same time. Variations could be obtained by changing the light colour or using multiple lightbulbs of different colours of light. The viewers were also interested in the shadows created by the movement of the lightbulb.

In subsequent work, I made connections between light and shadows while allowing multiple viewers to be engaged with the artwork.

## II. Consciousness and New Elements

Influenced by the feedback on *Living Ashes*, I created an environment that allows more people to participate and experience the shadows together. In a lucid dream, new elements are created when a dreamer shifts their attention while being aware of the dream content. In *Unlikelihood* I focused on creating unexpected new elements by using multiple colours of lights and a single-toned sound.

### Unlikelihood 2018

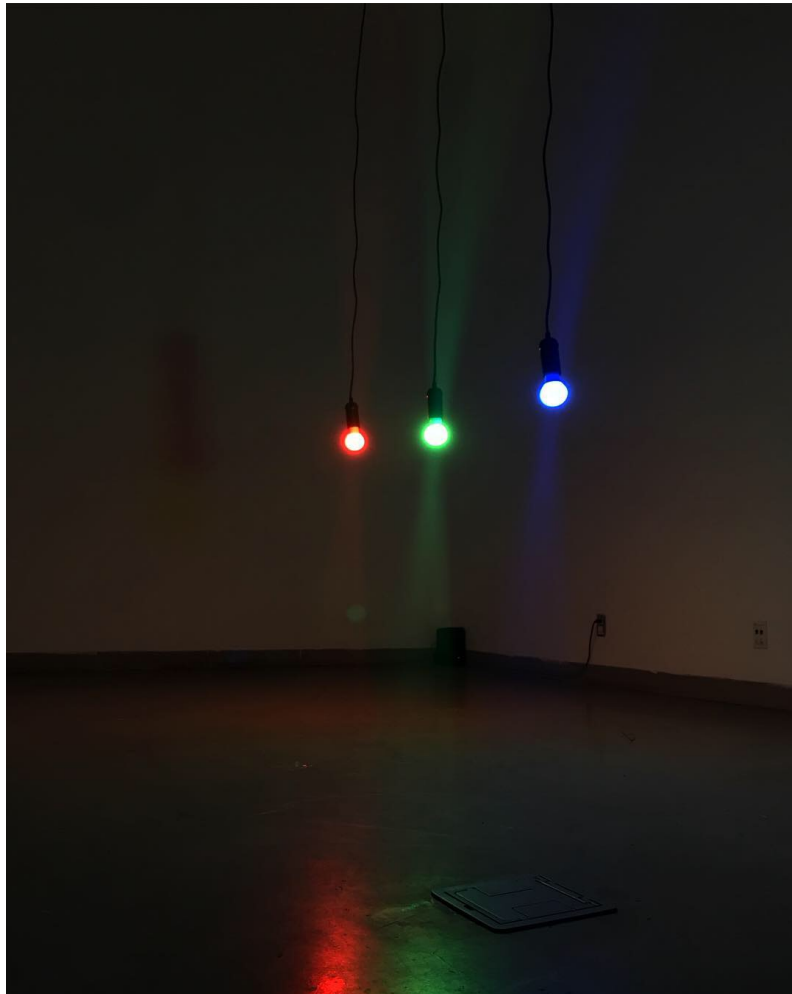


Fig.7 *Unlikelihood*, Nov 2018. LED blubs, speakers.

### Description

*Unlikelihood* (Fig.7) is an installation art practice based on the findings of light and participatory interaction with the viewers from *Living Ashes* (Fig.1). I wanted to test the connection between still lightbulbs, different colours of light, sound, and the participation of the viewers, as a way of introducing new elements. *Unlikelihood* refers to the generating of an unlikely process of producing new elements without being influenced by external stimuli, which is inspired by the appearance of new elements in lucid dreams. *Unlikelihood* includes three pendant lightbulbs – red, green and blue – hanging below eye level. The light from these bulbs forms differently coloured shadows of the body when viewers walk into the gallery. The lightbulbs project the shadow of the viewer on the surrounding walls. Under the influence of three primary colours of light, it forms shadows with three new colours: cyan, magenta and yellow. There are also two speakers placed on the corners of the space, playing a single tone of a sound at a volume that could only be slightly noticed.

### Aspects and Inspirations

I experimented with light and shadow by adjusting the light and coordinating with the human body. Primary-coloured (red, blue and green) lights form three shadows of different colours when they are obstructed: cyan, magenta and yellow (“Primary Colors of Light and Pigment” par.6). The new elements (the shadows) are created when the viewers enter the room. In lucid dreams, the creative dream system appears when lucid dreamers shift or concentrate their awareness of lucidity, leading to the emergence of new dream elements (Waggoner 114). *Unlikelihood* (Fig.8) is using the relationship of this creative dream system, lucidity, and new elements to represent the relationship between light, the human body, and shadow. Carl Jung has said that “everything in the unconscious seeks outward manifestation.” (18). And in his research on consciousness, Dr. John Bargh concluded that actions of an unconscious mind precede the arrival of a conscious mind (77). I think the “unconscious” comes in more like a kind of unexpected resource to consciousness in lucid dreams, and consciousness is the field in which everything that we can sense is appearing, very much like Jung's “outward manifestation”. In this relationship, I compare unconsciousness to a light source, and the new elements of the conscious scene to the shadow, which is created after the interaction with the human body. When viewers were looking at the lights, they would track of the shadows. When they looked back at the shadows, the light source would become the dark side. Shifting attention from the light to the shadow creates new elements within the space, and this shift of attention is often not deliberate.

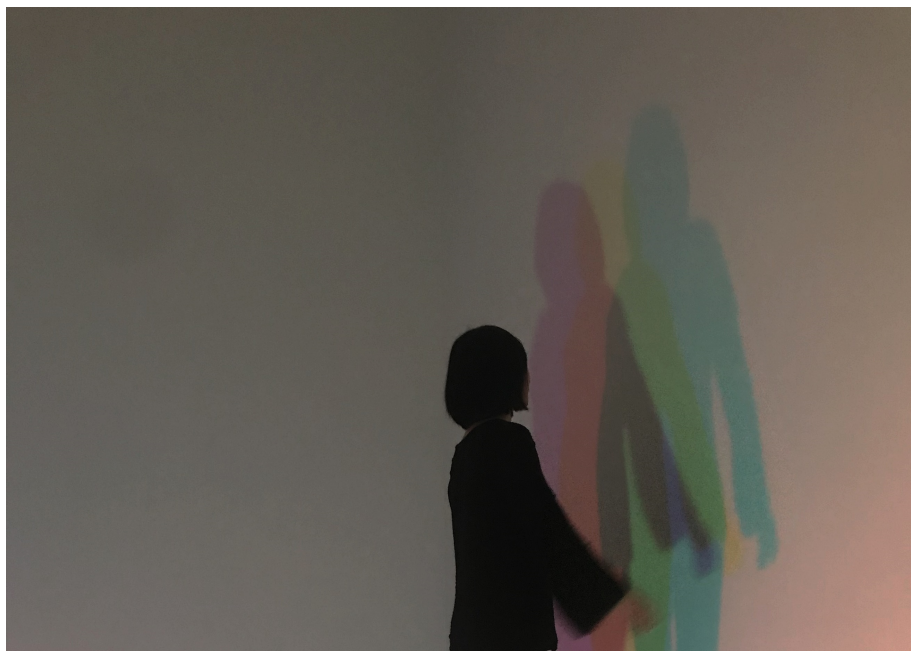


Fig.8 *Unlikelihood*, Nov 2018. LED blubs, speakers.

I also attempted to evoke destabilization by adding a single-tone sound<sup>4</sup> to divert the attention of the audience. In lucid dreams, the shift of consciousness makes new elements stand out. I was drawn to this phenomenon and attempted to represent this sense of unstable shift in my artwork. When people notice the speakers, the low-volume sound played by the speaker became uncertain. The feedback from the critique showed that people were questioning: "Did I just hear a sound similar to the building noise?" The shift of consciousness becomes unstable with this uncertainty.

The feedback surprisingly shows that some saw negative afterimages due to the lights in a dim space after they left the gallery. I considered it as a new idea towards to the next step of making light art. Some of the viewers were very interested in the shadows and the lights, they were questioning if the lights magically created new colours of shadows or if it was just an illusion. I attached an importance to that feedback as a good sign of making work with different colours of light and creating illusions for the viewers. Many thought the volume of the sound was too low to perceive, which is not what I expected when I was making this work. They wondered if there should be some information in the sound. In subsequent projects I adjusted the volume higher and added information to the sound.

---

<sup>4</sup> The dreamers had the highest levels of visual and auditory involvement in their dreams (Zadra 821), the sound that I was using is a 432 Hertz single tone, which is very similar to the background noise. It is a sound that cannot be realized in a low volume, I set up the sound to slightly distract viewers' attention. Like diversion in dream.

### III. Consciousness, Afterimage and Destabilization

The visual transition between the inside and the outside of the gallery grabbed my attention after the feedback of seeing afterimage in my previous artwork. It led me to reconsider the relationship between the outside and inside of the installation work space. Taking the outside of the gallery into consideration made me wonder if it could be used to represent the unstable transition between dreaming and waking states. It reminded me of one of my water dreams.

#### Breathe Me Water 2018



Fig.9&10 *Breathe Me Water*, Dec 2018. LED blubs, speakers, wood box, florescent powder.

#### Description

I have many lucid dreams about water. The water dreams almost always have an unstable and disturbing feeling:

#### Dream #3

*I dreamed that I was walking with my eyes closed, and I was surrounded by fountains and hot springs. I also heard the sound of water flow, but strangely, I did not feel any sense of moisture. I knew clearly that I could not see the surroundings with closed eyes and because this message*

*flashed across my mind, I became lucid. I tried to open my eyes to see the "real surroundings" in my dream. However, I could not open my eyes even with all my strength. I began to feel afraid. Hence, I tried again to open my eyes. Finally, I opened a seam of my eyes. Because the extremely strong light made it impossible for me to keep my eyes open, I closed my eyes rapidly. At that moment, I think that I faded from a lucid dream into a waking state but my dream did not stop, the dream scene seems like a fugitive afterimage in front of my sight.*

*Breathe Me Water* is an installation art that used blue LED light and sound. Based on previous feedback on *Unlikelihood* (Fig.7) and the phenomenon of afterimage from my own dream story (Dream #3), I used a single colour of light to create a negative afterimage hallucination and trigger an uncertain visual phenomenon to the audience. In this installation, I kept one wall opened with a crack just large enough that only one person is able to pass through at a time; the gap in the wall creates a transition of orange light (Figs.10,13). There were three blue LED bulbs hanging in the centre of the space at different heights. In the corner of the gallery, I hid two small speakers in a small white box, playing the sound of leaking water. I also adjusted the volume up –based on the feedback from *Unlikelihood* – to make sure the audience could hear the sound within the gallery. Many of the comments that I got in the feedback session made me think deeply about the information in and out of the space that I create. In addition to the use of light and sound, I unevenly scattered 60-gram ice-blue fluorescent powder on the floor in this installation work, but the feedback from this critique shows that fewer materials can achieve a more prominent effect.



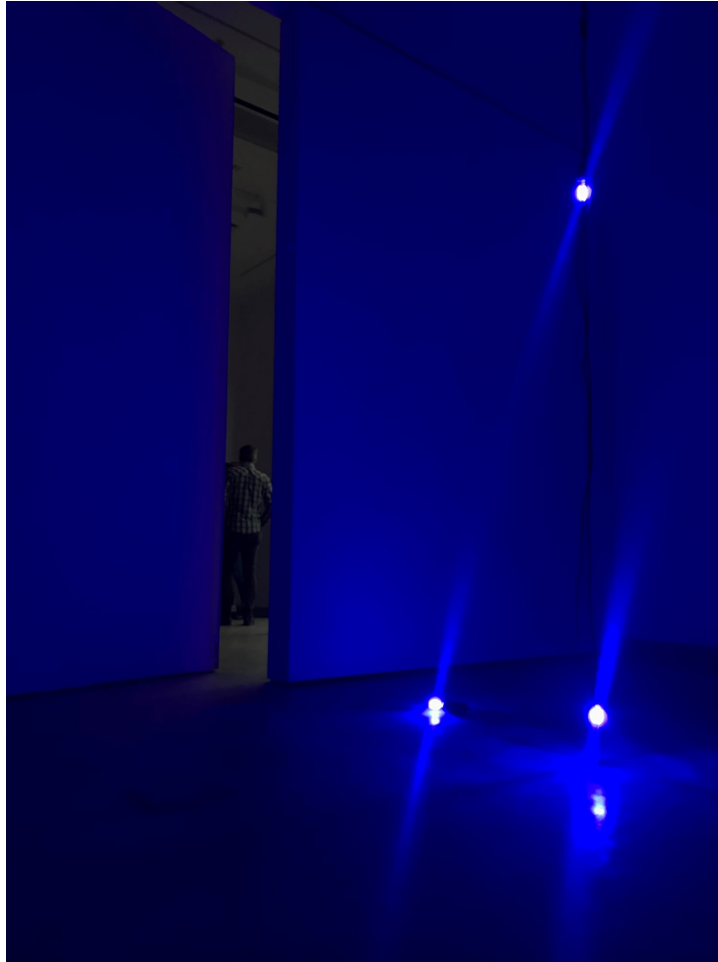


Fig.11 *Breathe Me Water*, Dec 2018. LED blubs, speakers, wood box, florescent powder.

## Aspects and Inspirations

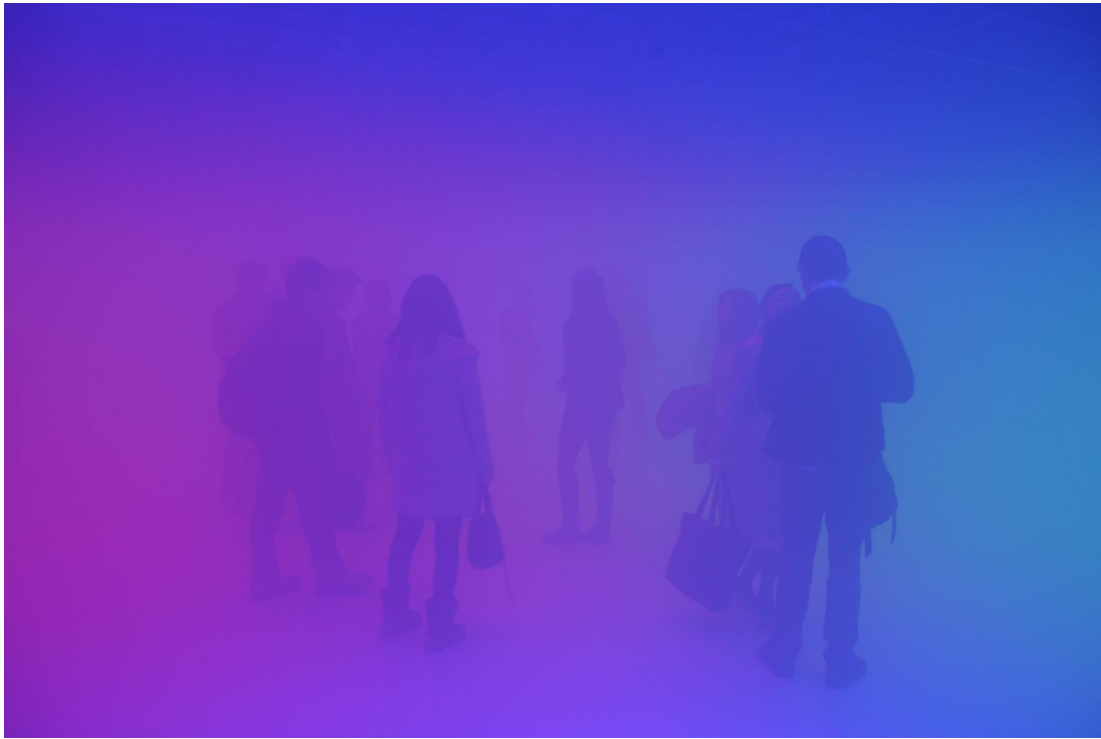


Fig.12 Olafur Eliasson and Ma Yansong, *Feelings are facts*, Fluorescent lights (red, green, blue), aluminium, steel, wood, ballasts, haze machines, 2.25 x 18 x 54 metre, Installation view: Ullens Center for Contemporary Art, Beijing, 2010, Photo: Studio Olafur Eliasson, © 2010 Olafur Eliasson, 2010 Used by permission of the artist.

In the process of preparing the installation, I remembered an exhibition about expressing feelings by using light, called *Feelings are facts* (Fig.12). This was the first collaboration between the Danish-Icelandic artist Olafur Eliasson and leading Chinese architect Ma Yansong. In general, Eliasson's artworks focus on the relationship between space and elemental materials in large-scaled environment, and try to enhance people's experience within the space that he creates. *Feelings are facts*, Eliasson and Ma created an experience through architecture, fog, and light in the Great Hall of Ullens Center for Contemporary Art, which locates in Beijing, China. The work invites the viewers to think about their experience of our surroundings, what we often think of as self-evident perception. Clinical psychologist Jerry L. Jennings believes that dreams have the nature of being self-evident (253). This sense of the self-evident can be understood as the quick predictions as to the outside world based on sense data. Dr. LaBerge and DeGracia believe that the brain creates dream contents without any external visual sources of information, leading to an unstable perception of the dream content (297). We correct course if it is not quite right. In a dream, there is less information to "correct course", because there is almost no sense of "correct" in consciousness during dreaming. This sense of correcting course when faced with uncertain facts is also reflected in my

previous work *Unlikelihood* (Fig.7) when my audience confirmed back and forth whether the colour of shadow and light was consistent.

In terms of using light to create an uncertain perception and feeling, I was influenced by American artist James Turrell who uses light to affect a person's perception within a space. I agree with Turrell's idea: we live within a reality we create, and that we are quite unaware of how we create that reality ("Exploring Perception with James Turrell: Into the Light" par.2). Reality is mirrored onto the surface of consciousness (Maharaj 28) - like light off a surface - but consciousness itself is formless. During my research on Turrell's work, I found that in his work *Pink Mist*, after stepping into a short but winding and claustrophobic dark hallway, there is a pale pink fuzzy rectangle that appears in front of the audience, and it seems quite visible, the viewers' perceptions having been sharpened in the dim light ("Exploring Perception with James Turrell: Into the Light." par.8). This inspired me to think about light transitions and the human perception of light within a dark space. In *Breathe Me Water* (Fig.10), I narrowed the entrance, with slight light passing through the gaps in the gallery. When the audience stepped into my space, they reflected that their eyes could not immediately adapt to the strong blue light, and after a while stayed under this environment, they began to experience obvious negative afterimages when they blinked their eyes. The afterimages and blinking meant that they could not fully focus the faces of the other people in the space. They also mentioned that the lights were dazzling their eyes, and some saw elusive orange light dots after staring at the blue lightbulbs. These kinds of afterimage hallucination caused by strong light create instability and uncertainty within the space. These comments brought me an idea of the relationship between negative afterimage and the colour of light. The gesture of blinking also figures in my later artwork. I also made a connection between the sense of discomfort and consciousness of the audience. As Anil Seth reports, we are not conscious about the organs inside our body when we are healthy. Being sick makes us aware of the illness and prompts us to cure it ("Your brain hallucinates your conscious reality").

The choice of colour of the lightbulbs was inspired by Eliasson's *Room for One*, where he used yellow mono-frequency light. Yellow light makes the viewer's eyes distinguish only yellow and black, which reminded me of how I sometimes have monochromatic dreams ("Room for One Colour • Artwork • Studio Olafur Eliasson."). During the testing of blue light, I sometimes felt depressed within the space if I stayed for a long time. In fact, it has been shown that some frequencies of light will cause depression (Vandewalle, G., et al. par.1). In the feedbacks of some viewers, they stated that they could hardly endure the experience and wanted to leave. It is an interesting and important feedback for me to consider the gesture of leaving or staying in a space. It also reminded me of being eager to leave a dream in my own experience.

According to the transition between the dreaming and the waking state, LaBerge and DeGracia state that it is common for lucid dreamers to unconsciously "fade out" from lucid dreaming into a waking state without interruption of consciousness (291). It is believed that there is a useful processing of feeling during dreams that continues into waking. The reliving of an emotionally intense experience in a dream (lucid or not) can be resolved at a manageable level of anxiety because of a reduced neuro-chemical load (Heller par.11). It reminds me of having a sad dream, and having the mood transformed into a mild level of emotion after waking up. Inspired by this transition, I began to study a way of using light to visualize the effect of the "fade out" of the feeling from the intense to the mild. I found that when the strong blue light slowly passes through the crack, it produces a warm orange colour that contrasts with the blue (Fig.13). In other conversation Dr. Lantin also says: "...when I laugh and wake myself up, it's not usually funny when I wake up." This colour transition also visualizes the contrasting moods and emotions. Like a natural filter, the audience is filtered by the foreign blue-lit environment. Similar to entering a dream, people's appearances change as their status changes. Faces turned into colour blocks composed only of blue. When viewers stared at each other, a feeling of unreality and uneasiness slowly came into being.

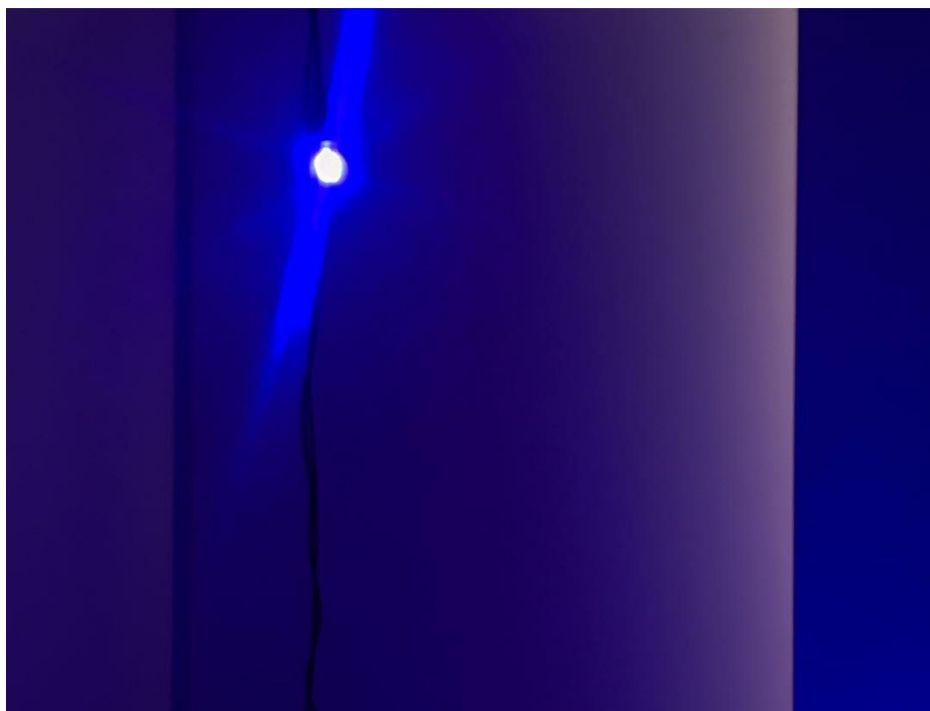


Fig.13 *Breathe Me Water*, Dec 2018. LED blubs, speakers, wood box, florescent powder.

The instability of dreams is uneasy, sometimes accompanied by unspeakable suffering. This is something that is deeply imprinted in my mind by the experiences of my waking life. I am not afraid to face this uneasiness, I am more afraid that the uneasiness will wear away one day, making me forget how I failed to escape from it. But in my installation works, I create an uneasy feeling that could be easily escaped from.

The viewer could leave this suffering at any time, which was my childhood's biggest wish. Rather than attracting the viewers, the desire to leave may be another success to me, like what nightmares and illness do for us.

*Breathe Me Water* attempted to recreate a particular dream state but instead was experienced more abstractly. It was not successful at conveying an idea of a dream to the viewers but it inspired me to continue to evoke the feeling and perception of lucid dreaming in the subsequent work.

Responding to the feedback I received from the three projects, the final project of the MFA uses flashing lights of different colours, and the sound of counting down to create an artificial blinking effect and uncertain auditory experience. This attempts to recreate an unstable and elusive feeling with new elements, including the phenomenon of negative afterimage, new colour by mixing different colours of light, and the interaction between shadows and audience.

#### IV. Consciousness, Lucidity and Uncertainty

Synthesizing previous research and critiques I created a final work that incorporates the concepts of consciousness, lucidity, and uncertainty. In my limited study period in the MFA program, I found that these are three key elements to my art intention. In this final thesis project, I aimed to subtly express these three elements to my viewers.

Light, people, shadows, and sound have become material to my practice. Negative afterimage, flickers, and combinations of different coloured lights have appeared in many of my past artworks. The state of lucid dreaming inspires me to represent a multicomponent effect with the least external stimulation, thus I hope to express an evocative visual and immersive effect with simple materials.

#### Strangely Lucid 2019

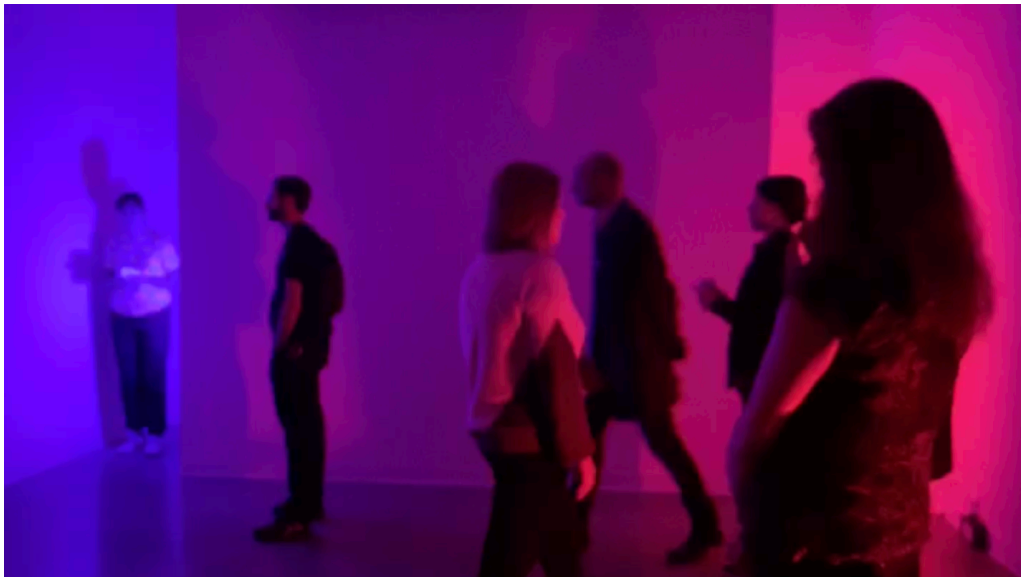


Fig.14 *Strangely Lucid*, April 2019. Strobe lights, sound.

#### Description

*Strangely Lucid* (Fig.14) is the final thesis project created in the second year of the MFA program at Emily Carr University of Art and Design. In this art installation, I used three red and two blue strobe lights, three of them were placed on the ground near the right side of the gallery. The other two were installed behind the middle wall in the gallery on either side. The sound playing was an edited 17-minute audio track, which included brown noise and an uneven countdown from 100 to 1. I recorded my own voice

counting down, and edited it to add a reverb audio effect. I also counted up a few times to confuse the audience's expectation. Indeed, some asked if I was counting up or down. The gallery was covered with blackout curtains to isolate the strobe lights. I hung a 143-inch tall and 60-inch wide black curtain 50-inch from the door. When a viewer entered the gallery they would face the curtain and would have to turn left to fully enter the space. This curtain prevented the strong strobe lights from directly shining into a viewer's eyes.

### Aspects and Inspirations

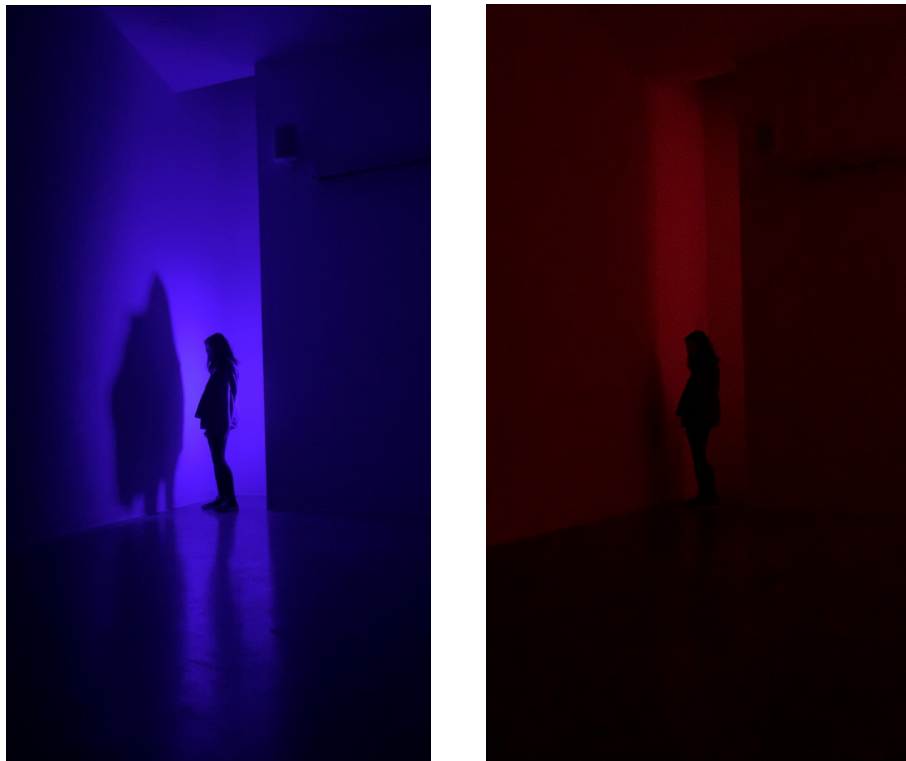


Fig.15&16 *Strangely Lucid*, April 2019. Strobe lights, sound.

In this work, I am aiming to represent the sense of uncertainty in lucid dreams as well as the state of being conscious and lucid. During my research on strobe lights and their visual effect, New York-based Austrian artist Kurt Hentschlager's installation art *ZEE* (Fig.17) gave me the idea of experimenting with strobe lights to destabilize visual perception. Hentschlager creates audiovisual installations and performances with extreme perceptual effects in his immersive installation artworks, which physiologically affect the audience's experience (*"ZEE"* par.3).



Fig.17 *ZEE* installation, Kurt Hentschlager, 2008. Used by permission of the artist.

During a *ZEE* (Fig.17) performance, the viewers wander freely through a space filled with a dense fog, completely blurring all boundaries of the exhibition space while the stroboscopic and pulse lights illuminated the fog. Time seems to stand still in the space because of the blurry visual perception and strobe light effect. The sense of time pausing in *ZEE* reminded me the feeling of time in both the waking and dream state (Dream #1). The perception of the audience seems dimmed and filtered, preventing the formation of a complete and clear picture in consciousness. Shadows were dispersed by the thick fog, thus forming a visual effect with a lack of direction.

In my final work, I found that the experience between the inside and the outside of the exhibition space created a strangely foreign feeling because of the stark contrast. People's behavior also seemed visually quite different, and the process of consciousness changes from receiving and processing information coherently to taking a longer time to process and fill in the fuzzy gap of the information that the environment provides. In the initial installation tests, when fellow graduate students and I stepped into the gallery, our movements slowly became unstable visual forms from the strobe lights. I could barely fill the gaps between the fragments of light. The gap created by the strobe lights was difficult to fill because the environment was sparse and defiant of expectations. As my cohort and I were talking and staring at each other, our facial expressions were so unpredictable that we could not predict what we would see in the



next second. We could only rely on the prediction based on the conversation's content. This illustrates the concept of the brain as a prediction engine described by Anil Seth ("Your brain hallucinates your conscious reality") and the relationship between uncertainty and expectations. I adjusted the frequencies of the strobe lights, choosing them such that it became hard to predict the next step and still did not create large gaps. This "just right" uncertainty is a feeling I have experienced countless times in my lucid dreams.

Humans are animals that consciously rely on visual perception to be aware of and locate ourselves. Hindu spiritual teacher Nisargadatta Maharaj believes that consciousness is always of something -- it is a reflection of reality against the surface of consciousness, but it is not reality (28). I found a connection with this idea in my practice: the angled and coloured light against the audiences' faces destabilized their appearance but our consciousness lucidity confirms the identity of the person in front of us all the time.

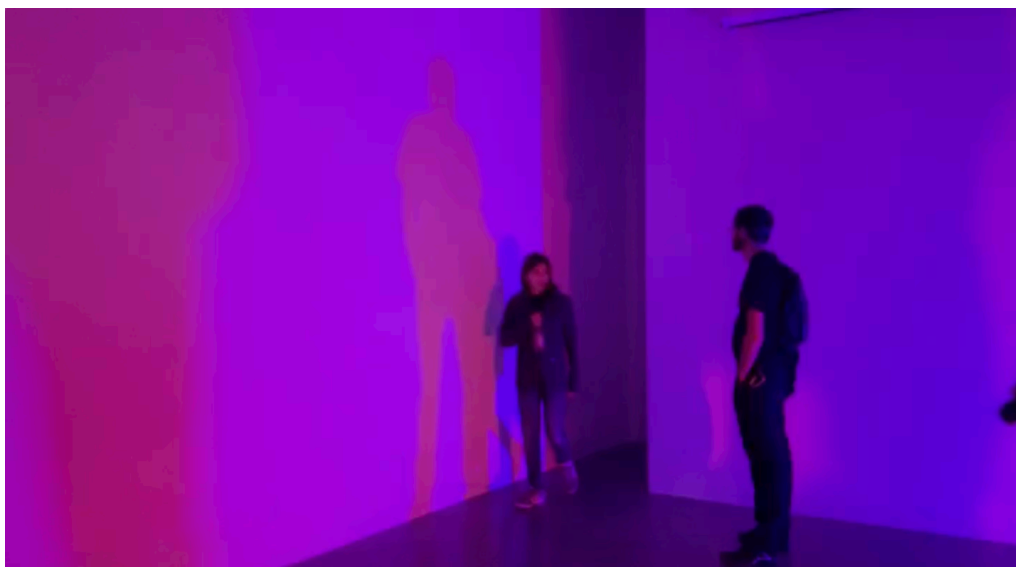


Fig.18 *Strangely Lucid*, April 2019. Strobe lights, sound.

Influenced by *Unlikelihood* (Fig.8), in the final thesis project, I used the additive quality of light colour, creating new elements by mixing two colours of light. An ephemeral purple light appears when red and blue light flash at the same time (Fig.14&18); different positions of lights create different colours of shadows when they shine at the same time (Fig.15&16&18). The possibilities are even more unpredictable when the audience moves in the space and create new elements.

The final thesis project was demanding on the visual perception system. The experience of my internal examiner and others suggest that the information inside of the gallery was too overwhelming to remain in the space very long. This feedback made me reflect on whether I need to include so much

information at the same time, and how the feeling of overwhelm is related to the expression of consciousness and uncertainty. Because the conceptual idea of ephemeral shadows is crucial, I could make some changes to keep the shadows and make the work less uncomfortable for my audience. For example, I could use programmable strobe lights and vary the strobe frequency to be tolerable for the most people most of the time.

## Conclusion and Future Research

In the process of working through installations and studies of consciousness and lucid dreaming, I found that light is a good medium for representing a perception and feeling reminiscent of lucid dreaming. I researched consciousness and lucid dreaming through its related aspects of psychology, neurology, and philosophy, expressing its destabilization through the use of light. When lucidity happens in a dream we gain a sense of unstable separation due to sudden awareness, and are able to influence the focus of attention rather than consciously direct dreams. Because of this shifting attention, elusive new elements are born, and the feeling of a dream becomes unstable. This process continues until we wake up.

I used to want to live in dreams, because they provided a sweet chance to have a life that is not possible in this lifetime. The destabilizing flow of my lucid dreams gave me the uneasy feeling that I was not be able to know when I was going to wake up. When I felt disturbed, I longed to wake up but could not. Therefore, in my artwork I reproduce that kind of uneasiness and instability but provide the audience with an opportunity that has never come true for me in my dreams: they can leave at any time. This feeling of discomfort may form of an overwhelming pressure on my viewers but like illness, it creates an opportunity to notice and respond before it is too late.

The concepts of consciousness and lucid dreaming are represented in my works at the present stage. However, there are still aspects to be explored. The sense of security in being in a lucid dream is an interesting feeling that I have yet to find a way to replicate in my material practice. It seems that the choice of light colour and material is crucial. Some were unable to view *Strangely Lucid* because of severe discomfort with strobing lights. In future work, I will modulate some of the overwhelming aspects so that more viewers can experience and give feedback on the work.

During my investigations of how to use light to represent destabilization in installation art, I gradually found that when lucid dreams become a third state of non-dream and non-waking, the division between waking and dreaming is opened up to another possibility. This inspiration made me re-think the scope of human consciousness. In future research, I will further investigate surrealism and the influence of dream states on their collages and paintings. I am also curious about the relationship between consciousness and dream instability, as well as the physical response to light installation art. In exploring the emotional impact of installation art on the viewer, I developed a strong interest in ways to make the viewer want to

leave an installation. As a Chinese artist<sup>5</sup>, I will continue to explore whether a viewer's rejection and departure can also represent an important influence of art on human behaviour.

---

<sup>5</sup> In China, installation art began to rise in the 1990s, and the study of lucid dreaming is not an active subject in China. As a Chinese artist, I have the responsibility to continue the development of this art form and research field through my studies and understanding.

### Work Cited

- “An Exhibition ‘Lucid Dreaming’ by Ebru Uygun.” *Islamic Arts Magazine*,  
islamicartsmagazine.com/magazine/view/an\_exhibition\_lucid\_dreaming\_by\_ebru\_uygun/.
- Bargh, John A., and Morsella Ezequiel. *The Unconscious Mind*, Vol. 3. 2008, pp. 73-79
- Bishop, Claire. *Installation Art a Critical History*. 2014.
- Bogart, Benjamin. *Dreaming Machine #3*, 2014
- Bogart, Benjamin. “‘An Artist in Process: A Computational Sketch of Dreaming Machine #3’ 2012.” *Ben Bogart - Art & Ideas*, 9 Jan. 2015, [www.ekran.org/ben/wp/2012/an-artist-in-process-a-computational-sketch-of-dreaming-machine-3/](http://www.ekran.org/ben/wp/2012/an-artist-in-process-a-computational-sketch-of-dreaming-machine-3/).
- Dennett, Dan, “The Illusion of Consciousness”, *TED*, 2003,  
[https://www.ted.com/talks/dan\\_dennett\\_on\\_our\\_consciousness](https://www.ted.com/talks/dan_dennett_on_our_consciousness)
- Eliasson, Olafur, and Ma, Yansong, *Feelings are facts*, Beijing China, April 2010,  
<https://www.olafureliasson.net/archive/artwork/WEK100050/feelings-are-facts#slideshow>
- Eliasson, Olafur. “Room for One Colour • Artwork • Studio Olafur Eliasson.” *Studio Olafur Eliasson*,  
[olafureliasson.net/archive/artwork/WEK101676/room-for-one-colour](http://olafureliasson.net/archive/artwork/WEK101676/room-for-one-colour).
- Farr, Ian. *Memory: Documents of Contemporary Art*. Whitechapel Art Gallery, 2012.
- Gackenbach, J., and S. LaBarge. *Conscious Mind, Sleeping Brain: Perspectives on Lucid Dreaming*. Springer, 2012.
- Harris, Sam. *Free Will*. Free Press/Simon & Schuster, 2012.
- Heller, Zoë. “Why We Sleep, and Why We Often Can't.” *The New Yorker*, The New Yorker, 5 Dec. 2018,  
[www.newyorker.com/magazine/2018/12/10/why-we-sleep-and-why-we-often-cant](http://www.newyorker.com/magazine/2018/12/10/why-we-sleep-and-why-we-often-cant).
- Hentschlagel, Kurt. “ZEE” *Kurt Hentschlagel*, [www.kurthentschlagel.com/portfolio/zee/zee.html](http://www.kurthentschlagel.com/portfolio/zee/zee.html).
- Hobson, J. Allan. *Dreaming: A Very Short Introduction*. Oxford University Press, 2011.
- Irenekaoru. “Exploring Perception with James Turrell: Into the Light.” *Extra Energy*, 24 Sept. 2017,  
[irenekaoru.com/exploring-perception-james-turrell-light/](http://irenekaoru.com/exploring-perception-james-turrell-light/).
- Jennings, Jerry L., “Dreams Without Disguise: The Self-Evident Nature of Dreams”, *The Humanistic Psychologist*, Vol 35, 2007, pp. 253-274,
- Jung, Carl. G. *Memories, Dreams, Reflections*. New York: Vintage, 1989. Print.

- LaBerge, Stephen, and DeGracia, Donald J., “Varieties of Lucid Dreaming Experience”, *Individual Differences in Conscious Experience*, pp. 269-307, 2000
- LaBerge, Stephen, and Howard Rheingold. *Exploring the World of Lucid Dreaming*. 1991.
- MacFarquhar, Larissa. “The Mind-Expanding Ideas of Andy Clark.” *The New Yorker*, 31 May 2018, [www.newyorker.com/magazine/2018/04/02/the-mind-expanding-ideas-of-andy-clark](http://www.newyorker.com/magazine/2018/04/02/the-mind-expanding-ideas-of-andy-clark).
- McNamara, Patrick. “Lucid Dreaming and Lucid Nightmares.” *Psychology Today*, Sussex Publishers, 27 July 2012, [www.psychologytoday.com/ca/blog/dream-catcher/201207/lucid-dreaming-and-lucid-nightmares](http://www.psychologytoday.com/ca/blog/dream-catcher/201207/lucid-dreaming-and-lucid-nightmares).
- Nisargadatta, et al. *I Am That: Talks with Sri Nisargadatta Maharaj*. Acorn Press, 2012.
- Poe, Edgar Allan. *The Raven*. 1845
- “PRIMARY COLORS OF LIGHT AND PIGMENT.” *Learn*, [learn.leighcotnoir.com/artsspeak/elements-colour/primary-colours/](http://learn.leighcotnoir.com/artsspeak/elements-colour/primary-colours/).
- Saint-Denys, de H. *Dreams and how to guide them*. London Gerald Duckworth, 1982
- Schädlich, Melanie, and Erlacher, Daniel, “Practicing sports in lucid dreams – characteristics, effects, and practical implications”. *Current Issues in Sport Science*, volume 3, no.7. 2018, doi: 10.15203/CISS\_2018.007
- Seth, Anil. “Your brain hallucinates your conscious reality”. *TED*, 2017, [https://www.ted.com/talks/anil\\_seth\\_how\\_your\\_brain\\_hallucinates\\_your\\_conscious\\_reality/transcript](https://www.ted.com/talks/anil_seth_how_your_brain_hallucinates_your_conscious_reality/transcript)
- Skork, Kerstin, and Anna Niedl. “Lucid Dreams and Metacognition: Awareness of Thinking – Awareness of Dreaming.” *Lucid Dreams and Metacognition: Awareness of Thinking - Awareness of Dreaming* | *Max-Planck-Gesellschaft*, [www.mpg.de/8869963/lucid-dreams-prefrontal-cortex](http://www.mpg.de/8869963/lucid-dreams-prefrontal-cortex).
- Sparrow, Gregory Scott. *Lucid Dreaming: Dawning of the Clear Light*. A. R. E. Press, 1987.
- “Time Sense In Dreams: Living 90 Years In 1 Lucid Dream.” *HowToLucid.com*, 26 Sept. 2017, [howtolucid.com/time-sense-in-dreams/](http://howtolucid.com/time-sense-in-dreams/).
- Uygun, Ebru, *Lucid Dreaming*, Green Art Gallery, 2010.  
[islamicartsmagazine.com/magazine/view/an\\_exhibition\\_lucid\\_dreaming\\_by\\_ebru\\_uygun/](http://islamicartsmagazine.com/magazine/view/an_exhibition_lucid_dreaming_by_ebru_uygun/).

Vandewalle, G., et al. "Spectral Quality of Light Modulates Emotional Brain Responses in Humans." *Proceedings of the National Academy of Sciences*, vol. 107, no. 45, 2010, pp. 19549–19554., doi:10.1073/pnas.1010180107.

Waggoner, Robert. *Lucid Dreaming: Gateway to the Inner Self*. Moment Point Press, 2009.

Wischer, Wendy. "Shattered (Detail), 2017." *Wendy Wischer*, [www.wendywischer.com/installation/](http://www.wendywischer.com/installation/).

Zadra, Antonio L., et al. "Prevalence of Auditory, Olfactory, and Gustatory Experiences in Home Dreams." *Perceptual and Motor Skills*, vol. 87, no. 3, 1998, pp. 819–826

### Work Consulted

- Ball, Pamela. *The Complete Book of Dreams and Dreaming*. 2003.
- Blackmore, Susan. *Consciousness: A Very Short Introduction*. Oxford University Press, 2017.
- Bogart, Benjamin D. R., et al. “An Integrative Theory of Visual Mentation and Spontaneous Creativity.” *Proceedings of the 9th ACM Conference on Creativity & Cognition - C&C 13*, 2013.
- Brown, R. Lane, and Phyllis R. Robinson. “Melanopsin—Shedding Light on the Elusive Circadian Photopigment.” *Chronobiology International*, vol. 21, no. 2, 2004, pp. 189–204
- Freud, Sigmund. *The Interpretation of Dreams*. vol. 96. Hayes Barton Press, 1950.
- Grotstein, James S. “What Does It Mean to Dream? Bion’s Theory of Dreaming.” *A Beam of Intense Darkness*, 2007, pp. 259–289., doi:10.4324/9780429471209-26.
- Herndon, Holly. *Godmother*. 2018
- Hentschlag, Kurt. *ZEE*. 2008
- “Installation Art – Art Term.” Tate, [www.tate.org.uk/art/art-terms/i/installation-art](http://www.tate.org.uk/art/art-terms/i/installation-art).
- Jones, B E. “Arousal Systems.” *Current Neurology and Neuroscience Reports.*, U.S. National Library of Medicine, 1 May 2003, [www.ncbi.nlm.nih.gov/pubmed/12700104](http://www.ncbi.nlm.nih.gov/pubmed/12700104).
- Jung, C. G. *The Archetypes and the Collective Unconscious*. Routledge, 2014.
- LaBerge, S. *Lucid dreaming: An exploratory study of consciousness during sleep*. 1980
- Lynch, David. *Mulholland Drive*. 2002
- Mlodinow, Leonard. *Subliminal: How Your Unconscious Mind Rules Your Behavior*. Vintage Books, 2013.
- “Minimalism – Art Term.”, [www.tate.org.uk/art/art-terms/m/minimalism](http://www.tate.org.uk/art/art-terms/m/minimalism).
- “Negative Afterimages.” *The Illusions Index*, [www.illusionsindex.org/ir/negative-afterimages](http://www.illusionsindex.org/ir/negative-afterimages).
- Nuttin, Joseph. Consciousness, behavior, and personality. *Psychological Review*, Vol. 62. no. 5, 2004, pp. 349-355
- O'Regan, J. Kevin. “Change Blindness.” *Encyclopedia of Cognitive Science*, [nivea.psycho.univ-paris5.fr/ECS/ECS-CB.html](http://nivea.psycho.univ-paris5.fr/ECS/ECS-CB.html).



Paulson, Steve, et al. “Dreaming: a Gateway to the Unconscious?” *Annals of the New York Academy of Sciences*, vol. 1406, no. 1, 2017, pp. 28–45.

Schredl, Michael, and Daniel Erlacher. “Frequency of Lucid Dreaming in a Representative German Sample.” *Perceptual and Motor Skills*, vol. 112, no. 1, 2011, pp. 104–108., doi:10.2466/09.pms.112.1.104-108.

Spaulding, John. “The Dream In Other Cultures: Anthropological Studies Of Dreams And Dreaming” *Dreamworks*, vol. 1, no. 4, 1981, pp. 330-342

Soon, Chun Siong, et al. “Unconscious Determinants of Free Decisions in the Human Brain.” *Nature Neuroscience*, vol. 11, no. 5, 2008, pp. 543–545., doi:10.1038/nn.2112.

Tane, Tsuyoshi, *Light Is Time*, 2014

Thompson, Evan. *Waking, Dreaming, Being Self and Consciousness in Neuroscience, Meditation, and Philosophy*. Columbia University Press, 2015.

Turner, Rebecca. “52 Ways How To Lucid Dream - Mindset, Methods & More.” *World of Lucid Dreaming*, [www.world-of-lucid-dreaming.com/how-to-have-your-first-lucid-dream.html](http://www.world-of-lucid-dreaming.com/how-to-have-your-first-lucid-dream.html).

VanEeno, Cedric. “Minimalism in Art and Design: Concept, influences, implications and perspectives” *Journal of Fine and Studio Art*, vol. 2(1), 2011, pp. 7-12

Voss, Ursula, et al. “Lucid Dreaming: a State of Consciousness with Features of Both Waking and Non-Lucid Dreaming.” *Sleep*, vol. 32, no. 9, 2009, pp. 1191–1200., doi:10.1093/sleep/32.9.1191.

Waggoner, Rober. “Can You Lucidly Interact with the Subconscious Mind?” *Interacting in Lucid Dreams with Your Unconscious Mind – A Troubleshooting Guide*, 2016, [www.lucidadvice.com/articles/shifting-focus-moving-from-a-lucid-dream-to-an-obe/](http://www.lucidadvice.com/articles/shifting-focus-moving-from-a-lucid-dream-to-an-obe/).