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# Behind the Lens

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# Behind the Lens


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**ACKNOWLEDGEMENTS**

Before introducing anything in my film 'Behind the Lens' I'd like to mention a few people to express my appreciation. There are lots of people I'd like to thank for having conversations with me, which gave me a lot of inspiration on my story and idea.

First, I am thankful to my faculty adviser Peter Murphy, who was also the first audience of my film. He not only provided crucial feedback on my story but also helped me focused and clear-minded and encouraged me to keep the concept as simple as possible. In addition to this, Peter also played an important role of stress relief for me during this project, since he always helped me to take it easy whenever I was feeling stressed or overwhelmed.

When Peter and I held different opinions about the ideas or plot in my film and both felt a bit confused, we would always consult with my other committee members, Mari Jaye Blanchard, and Frank Deese. I would also like to thank both of them for their important feedback and new perspectives whenever my advisor and I held differing views. MJ reminded me of my time management and deadlines, and Frank told me to use sound as a tool to send messages and hints about the story. The different perspectives of my professors helped to shape my film in important ways.

There are people I need to thank other than my advisors. I'm grateful to my treasured friends and mentors Xing Hongwei and Hao Haiyan, who I met in the summer before my thesis year. They became like advisors to my whole life. I was moved to meet people like them who are so friendly, compassionate, and kind natured. They influenced me to become vegan and helped me learn what's really important in

life. It's from their friendship that I got my thesis idea, just as I decided to change as a person.

Last but certainly not least, I want to thank my family and my girlfriend for their constant support. As an international student here, living alone became a huge challenge for me while working on my thesis film. Ironically, for the first time living away from home, I began I feel a strong connection to the place I come from and all the relationships I left there. I would never be able to finish this work without all the kindness and help I received from many different places. On the path of my life, the guiding presence that helped me through my darkest roads to bring me to where I am now and made me who I am. And now I am here to express my gratitude from the bottom of my heart.

**ABSTRACT**

Time flies. I arrived at my thesis year after two years of study at RIT, and began working on my film "Behind the Lens." The film runs for five minutes and 56 seconds, and includes hand-drawn animation, music and sound created by me. After some personal changes, I re-pitched a whole new thesis proposal in the fall semester of my thesis year because I felt passionate and committed to the important message of the film. In truth, this story didn't have a clear outline until April in my last semester.

The story is about a camera character going through his life journey, struggling to find answers in his pursuit of true peace. It is based on the idea that each individual's life experiences are different from one another, but that people all suffer the same pain from their own attachments, and these are hard to admit to, or even realize. This means that we are often prevented from seeing what's really important in life. My film mainly focuses on ways to visualize those attachments, and how they can pass through generations. It also explores what would happen to someone after letting go of life's attachments.

"Behind the Lens" is a film with 2D hand-drawing style with character animation combined with motion graphic elements in the background. The character animation is mainly done in TVPaint, and background animation is created in After Effects. Due to the simplicity of the style, I did all the work in my film by myself without assistance in the visuals or sound. This made the project quite a special artistic experience for me. During this production, I learned more than just animation and storytelling, but also sound design and post-production. This paper talks about the creation process for the film, along with the film's visual development. I also discuss the various obstacles and accomplishments that happened throughout the making of this film.

**INTRODUCTION**

*"I would trade all of my technology for an afternoon with Socrates."*

-Steve Jobs (qtd. in Steve 106)

Those of us who are here in the 21st century are living in a highly developed era. We enjoy increased wealth, added conveniences and considerably more choices and freedoms than those who lived in previous centuries. Much of this improvement is due to the rapid and amazing advances in higher technology. Today, digital technology is everywhere and plays a role in almost every part of our lives. However, all this progress and additional comfort has not necessarily led us to more fulfillment. There are many famous and rich people who end up in prison, suffer from drug abuse and addictions, or are open about their struggles with mental health despite their wealth and success. There are many studies, like the one conducted with a Gallup Poll by Jebb, Deiner and Oishi in 2018, that show how wealth affects happiness. Their study determined that most people are happiest at an average annual income of $70,000, and above this amount, happiness levels out (Jebb et al.). People in the middle to upper middle classes are just as happy as millionaires. Therefore, being rich isn't the ultimate status for people to pursue. It's the same with technology. Every year our phone devices get upgraded and operate at faster and faster rates. The time people spend on them is increasing exponentially. According to E-marketer's research '*Time Spent With Media 2019*', people in the US spent about three hours and 35 minutes on their phone per day in 2018, which was an hour more than in the same poll taken in 2014 (Wurmser).

Many people today who have reached the pinnacle of financial and professional success are still searching for more, like meaning, or spiritual, philosophical or psychological guidance. In December 2018, a statistic from a meditation and communication website 'Mindful' showed that in 2012, 4.1% of professionals reported using meditation, and in 2017, that number increased to 14.2% while yoga rose from 9.5% in 2012, to 14.3% in 2017. (Tlalka et al.)

Many others wonder whether our obsession with technology is detrimental to our happiness and well-being. If the CEO and co-founder of *Apple* would trade all his technology for a brief meeting with one of the wise men of Classical Greek history, maybe our relentless striving in this area is misplaced.

But if wisdom is needed, where do we find it? Can we really separate ourselves from modern society's material goals, or our culture's values?  If a change in perspective can happen, what does it look like? My thesis film investigates this type of striving and how it relates to happiness and fulfilment. My character, Gannon and the world he lives in, represent some of the values, attachments and stereotypes that people get addicted to, often without any investigation. My story examines what happens when people aim for targets in their lives based on these values, what happens when they hit them, and how a shift in their aim toward different targets might take place. The visual language that I apply to this narrative through 2D animation, helps create a more charged metaphor. My hope was that this approach not only conveyed the symbolism of this idea more effectively but the feelings associated with it as well.

This paper will examine the ideas that support this story, the aesthetic approach used to help illuminate them and the detailed steps that were taken to create this film.

## Pre-Production

### Conceptual Thinking

In examining this idea, I realized that I needed to construct my world in the form of a metaphor. The difficulty lies in transferring an abstract concept into a concrete setting, using the two aspects of film, visuals and sound. With this in mind, I designed a character with attachments and constraints in his vision: specifically, I made my main character, Gannon, a camera. He sees the world through his various lenses, which define the way he values and understands the world. Gannon continuously tries to add on more, newer lenses due to his longing for a better view of this world. This serves as a metaphor of the accumulated attachment people carry throughout life. Their attachments influence how they evaluate things. Many are not even aware of this fact, and thus it makes them more stubborn. Consequently, attachments impact their lives. Gannon believes that the way he observes the world with his lenses is right, and he holds on to his lens more desperately. Because of this, he strives for more, bigger lenses in the same way people want something more in life.

I, myself, am an example of this. As an animator, I hold strong opinions towards drawing and artistic ability; my 'lens' is a subconscious standard for drawing, which guides me in what I consider to be good or bad drawing. My judgment for animation drawing is personal and mostly based on my own experience, not necessarily standards derived from an objective, professional perspective. When it came to making my own animation, these standards became an inevitable criterion for my

work. People's values become their expectations, and if they are not met, they are disappointed, discouraged, and even distressed.

With this comes trouble; pain. In life, pain is greater than happiness. As we live in the circle of our attachments and expectations, the unknown is a constant source of discomfort as we face things that challenge our expectations and ways of living. As our attachments grow, so do our expectations of the world, and thus our discomfort is compounded.

Thousands of years ago, there were wise men who addressed these problems in their own words:

*Plato asks, "What's your dream?" Aristotle replies, "Wake up and smell the coffee."* (qt. in Gittens 57)

The query Plato proposes is a matter of whim, and Aristotle admonishes him with a quick reply, favoring practicality and real life at hand. Many philosophers are stereotypically credited with lofty thinking, and yet it seems rare to consider those philosophical ideas based in pragmatism, dealing with real life. One such paragon who gave wisdom not only for the soul, but for living, was Buddha, especially in his teachings on how to subdue one's heart:

*"how should they abide their mind, and how should they subdue their thoughts?"*

*"should thus abide and subdue their thoughts."*

(qtd, in Huineng, et al.)

Buddhism isn't the only spiritual philosophy that address this point, Taoism also discusses the struggle of dealing with one's self in the context with the world. Laozi (An ancient Chinese philosopher and writer, the reputed author of the *Tao Te Ching*. the founder of philosophical Taoism) describes the struggle of having names, that is, having attachments:

*"A dao that may be spoken is not the enduring Dao. A name that may be named is not an enduring name.*

*No names – this is the beginning of heaven and earth.*

*Having names – this is the mother of the things of the world.*
(qtd, in Laozi 01)

According to the sagacity derived from different religions and cultures, there is a similar recurring answer to the question of how to observe this world. After one leaves all attachments, the truth will appear. I was inspired by this wisdom and conceived of my idea to have a blank, pure, empty ending for my film.

Gannon is seeking his destination, but he gets lost along the way, as he constantly puts new lenses on. Those lenses reshape his judgement of this world and lead him to stray from his path away from his destination. What he sees through the lenses just never matches the image he seeks, which causes him to keep adding more lenses on, hoping he will eventually have enough to see properly.

When Gannon's lens grows longer and bigger, it also gets heavier. He has a hard time handling it. His world becomes more and more dimensional, filled with more elements, more color. However, it also brings him more trouble. This is easy to understand; a world of pure happiness could be much simpler than a world for creating a portfolio, or a world of looking for jobs.

As Gannon's goal, the image on the photograph, changes, he can't find his destination, and he even becomes distracted from it. When his world becomes increasingly complex, he gets lost into it and suffers as a result.

Only a few people wake up after being buried in their complex, chaotic worlds. The majority of people dig deeper, adding more lenses, and they keep diving into their world of attachments. This cycle is everlasting throughout human history.

Gannon is one of the lucky few: his lens breaks by accident, and it all falls apart. He is able to see the truth, to see the blankness of the world. Everyone may have similar chances, moments in life that allow them to notice the truth. However, we are all trapped in this world full of attachments, and we are surrounded by people in the same trap, we may be scared to change, and prefer to think waking up was just a dream.

However, when all attachments have gone, and all lenses break, Gannon surprisingly finds his destination in the very place where he already is. He found the place he was seeking from the beginning: a simple and pure place that has no filters, illusion, or lies.

## Story Development

**Earlier version**

A few months before the start of my thesis year, I conceived of my idea to use personified camera characters to explain the complex issue of attachments and happiness, and how it affects our lives. In the early versions of the story, the setting and visuals were completely different than the final result. I had a visual plan to show that the camera has different lenses by showing the viewfinder through first person shots, to show that each new lens gives a unique perspective shaping the world. (fig. 01) He would experience several stages in his life: childhood, school, early career, his life in success and fame, the time when he is lost, and finally his decision to take off all his lenses.
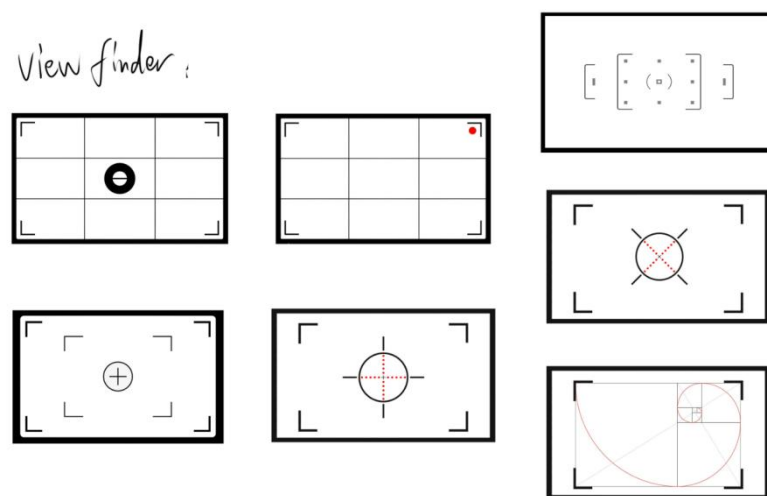


Fig.01. Viewfinder concept design for *Behind the Lens*--line drawing Photoshop. (2018).

When my characters look at something, they use these different measurements as a ruler. They are meant to help them take better photos that fit the rules. For example, the guides display rules such as Golden Division, the rule of thirds, and so on. The

young cameras will learn these rules as doctrine to guide them to take better photos (Fig. 02-03).
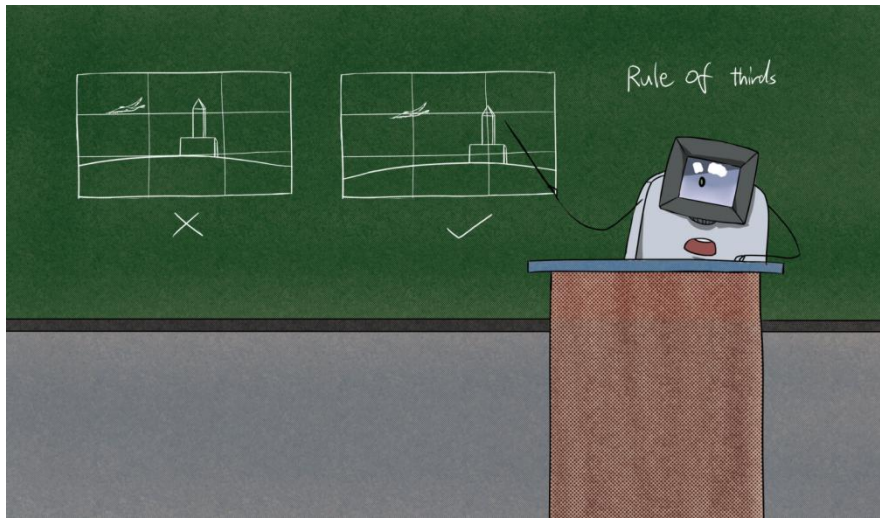


Fig.02. Learning shot for *Behind the Lens*--concept drawing Photoshop. (2018).



Fig.03. Classroom scene for *Behind the Lens*--concept drawing Photoshop. (2018).

When they see any image or sight that does not fit their measurements, they begin to have problems with worsening headaches. This is a common problem that plagues the camera's world, the chronic headaches seem to happen to everyone. There is no cure, except that to relieve their pain, cameras go to the hospital to receive good, aesthetic pictures as treatment (Fig.04).
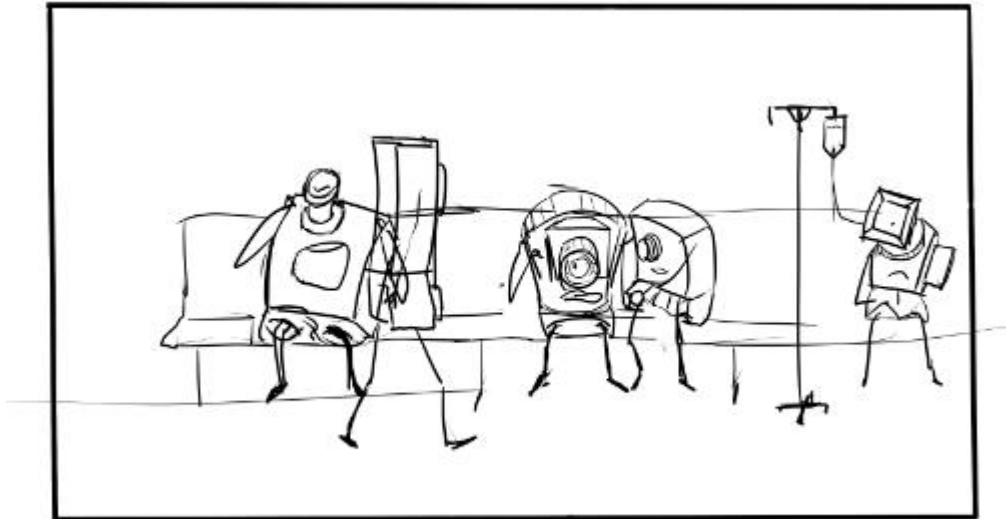
Fig.04. Hospital scene concept for *Behind the Lens*--thumbnail Photoshop. (2018).

However, despite my work on telling the story this way, conveying the relationship between the headaches and measurements was too complex to clearly understand. As my advisor and committee members discussed this problem with me again and again, I started to look for an alternative way to tell this story for my thesis.

**New version**

I had many clear difficulties and problems to solve in the earlier version. The first challenge was to remove the vagueness of the viewfinder and measurements. I was relying on the POV shots to show that the attachments exist literally in their vision and therefore in their minds. However, if I didn't show the measurements in the camera's lens, how could the audience understand that the cameras prefer a certain type of image?

Then, I realized, I also needed to remove the headaches, which I was using to represent the pain and discomfort of life. If I didn't show the headaches, how could I show my character being trapped by his own attachments?

The last problem with the visual storytelling was the photographs; how should I define what makes a good photo in my film? How could I make sure that people would understand it immediately without any explanation? How could I give a truly objective standard for what is good or superior for something that is so subjective (everyone has their own judgment of good and bad in their hearts)? How could I find something relatable, and understandable, to ensure that my audience would empathize with my character?

With so many questions in mind, I went back to China during the winter break of my last year, and there I found the answer that I needed.

If I had to pick one thing in particular that I learned in my three years at RIT, I would assert that it is acting and performance. Acting is one of the most important aspects of animation, and for me it's one of the most vital visual aspects to my work. I began to realize that good acting could solve the first two problems that I described.

Using performance and acting would allow me to display the character's judgments, feelings, and pain, and this would be the most authentic way to allow the audience to feel empathy with a character in animation.

With this new consideration, I was able to dramatically change my story. It became much simpler, while still containing the key points I wished to deliver: Gannon was still a camera, and he still had his journey to go on. He was still adding more and more lenses on, and with each new lens, his world would change a little bit. However, to solve the third problem of conveying a "good" photograph, I decided to change my character's 'better image' to a more complex scene. I created a constantly changing background from the third-person point of view, rather than using first-person POV shots. This method helped to suggest the progression of value or quality, since the scene continually escalates throughout the story.

In this new version, my character had a clear motivation: he had a photograph showing a destination that he wanted to find. To properly convey this message, I also needed well performed acting for the introduction of my character in the film. With the character's goal and motivation established, I established the action of him adding more and more lenses to help him achieve it. However, this method of adding lenses would not only causes his world to change drastically, but also the appearance of the photo he holds as well. Stuck in a cycle, he keeps adding more lenses until his world spirals out of control, and he suffers a great deal of pain. Finally, the immense number of lenses that he wears causes him great discomfort and he is barely able to stand still as his world falls into disorder and chaos. This scenario of events became the replacement for the original conflict of the headaches.

The new conclusion had Gannon gradually being swallowed up by the overwhelming discomfort and chaos within the crazy scene he has entered. This finally forces him to drop all his lenses. Once he does this, he achieves a turning point, and he discovers that the world is transforming to the pure blank universe that he began with.  As he sees the pure world again, he smiles. I chose this ending after being inspired by a significant quote from Buddhist teachings:

*"Bodhi is fundamentally without any tree;*

*The bright mirror is also not a stand.*

*Fundamentally there is not a single thing*

*Where could any dust be attracted?"* (qtd, in Huineng, no.1)

After Gannon dropped all his lenses, he could only see the world of emptiness, and a place without a single thing blocking the view. And yet, that was the very place he was trying to go; it was not really a new place physically, but a change in himself to realize his world was full of his attachments, and his surroundings changed with him. He had already arrived at his true destination.

**Designs**

Character Design

I began with my concept designs at the same time as I was working to clarify my

story. Once I made the choice to change the storytelling, I removed all complex

settings in my film, such as the headaches and POV measurement shots. As the story

was changing, I decided to make my film's visuals and design very simple and

stylized. Compared to my original character design (fig.05), the new version's story

required Gannon to change his appearance along with his world changing and its
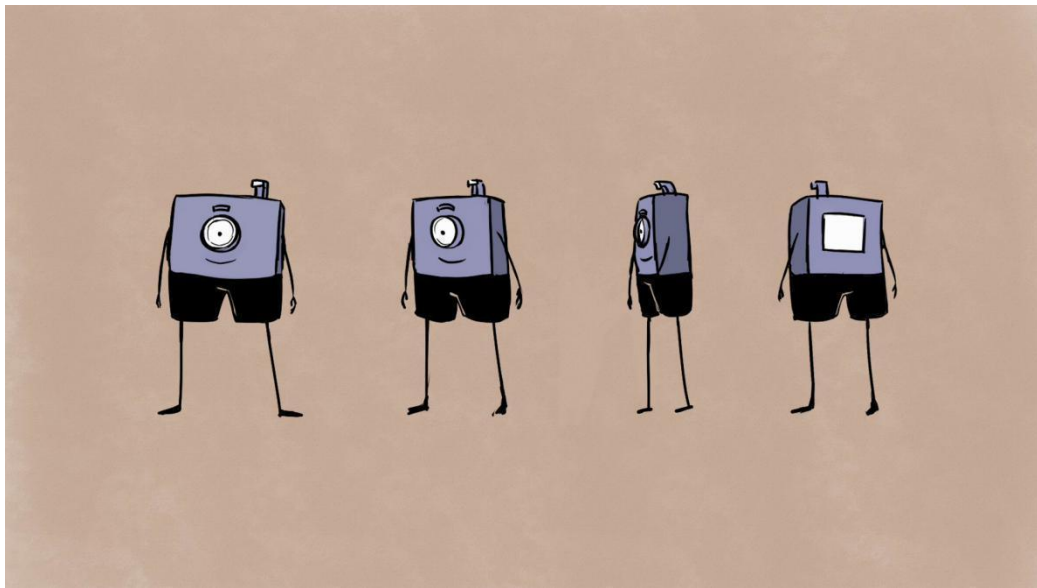
dimension. (fig.07)



Fig.05. Gannon original character design for *Behind the Lens*--model sheet Photoshop. (2018).

Compared to the original version, Gannon was best suited with a simple form at

the beginning, just enough to be able to be recognized as a basic camera character,

and with desaturated color as well. I regarded many references with a simple style I

emulated when designing my own characters. One of which is from a favorite short film of mine: *'I'll Get the Ice-cream'* from *Birdbox Studio* by *Ant Blade* (Fig. 06)



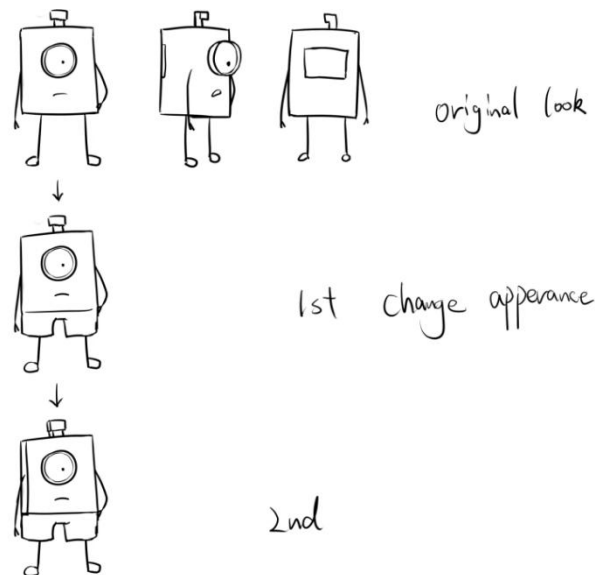Fig.06. Still frame director by Blades, *I'll get the ice-cream,* 0:00:18.



Fig.07. Gannon final character design for Behind the Lens--model sheet Photoshop. (2018).

The other characters in my film are also cameras (fig.09,11,13), and I designed them to be distinct from Gannon. The design for each of them also comes from a real camera reference (fig. 08,10,12). I needed to make some adjustments to their

construction and design to make them more suited for animation and performance in my film.



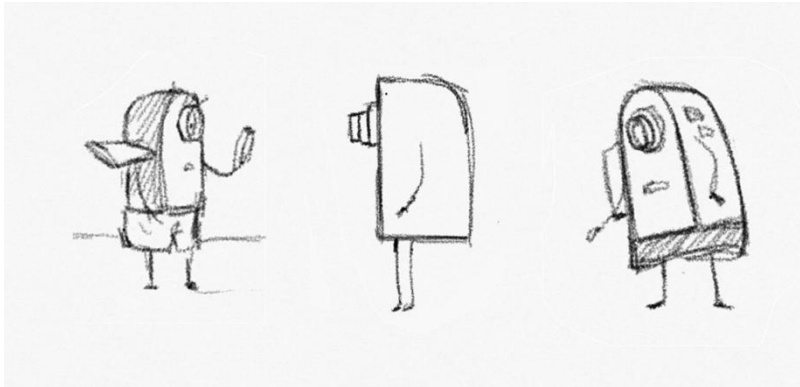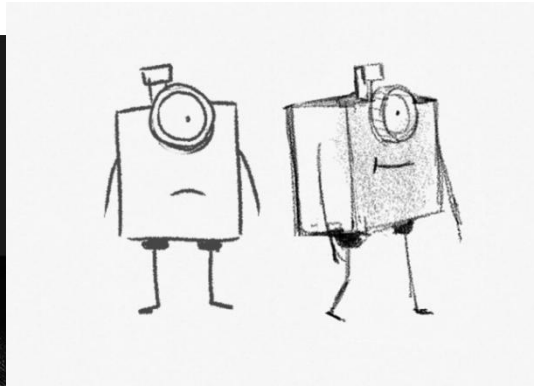Fig.08. JVC GR-DX25EK Digital Camcorder, reference



Fig.09.Character 2, concept design for Behind the Lens, concept Photoshop. (2018).



Left: Fig.10.SONY HVR-V1P HDV 1080I/1080P PAL CINEMA, reference

Right: Fig.11.Character 3, concept design, Behind the Lens, concept Photoshop. (2018).

Left: Fig.12.Olympus OM-D E-M1 Mark II Camera, reference

Right: Fig.13. Character 4, concept design for Behind the Lens, concept Photoshop. (2018).

Background Design

For the background concept, I also considered the simplest 2D design starting out: just a few lines. A horizon line appears in the very beginning, followed by a few vertical lines once Gannon gets his first lens on. Aside from that, Gannon's appearance keeps its original look in this simple world (fig.14).
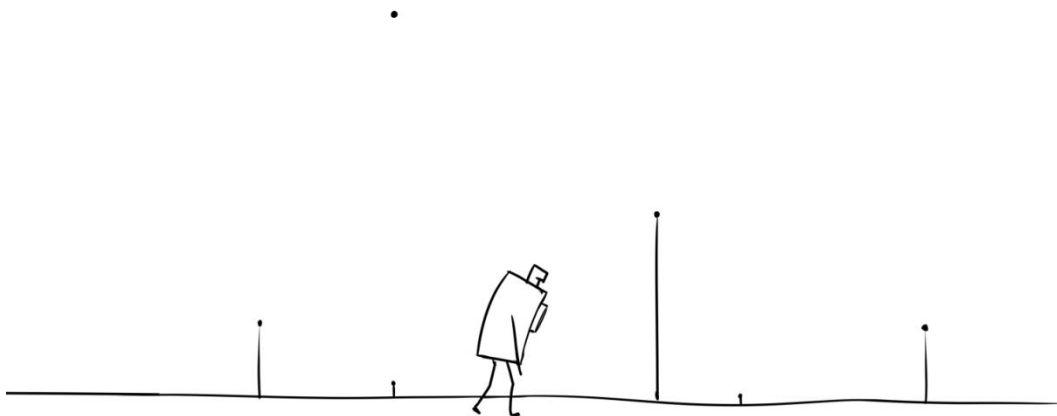


Fig.14. Gannon in line world concept for *Behind the Lens*--line concept Photoshop. (2018).

After the world of simple lines, Gannon enters a 2D world (fig.15) and then a 3D world (fig.16). This path also leads him to see a world of shade, value, and colors. In design, I used squares and cubes to serve as the basic element in the chaotic worlds Gannon travels in because they are the fundamental elements in the 2D and 3D worlds. Moreover, Gannon is not just an observer of these elements. He has interaction with the various elements as he finds himself entering into each new scene. With these concepts and the development of the story, I realized that I needed to put a lot of effort and attention into the background transformation animation, which was its own challenge.
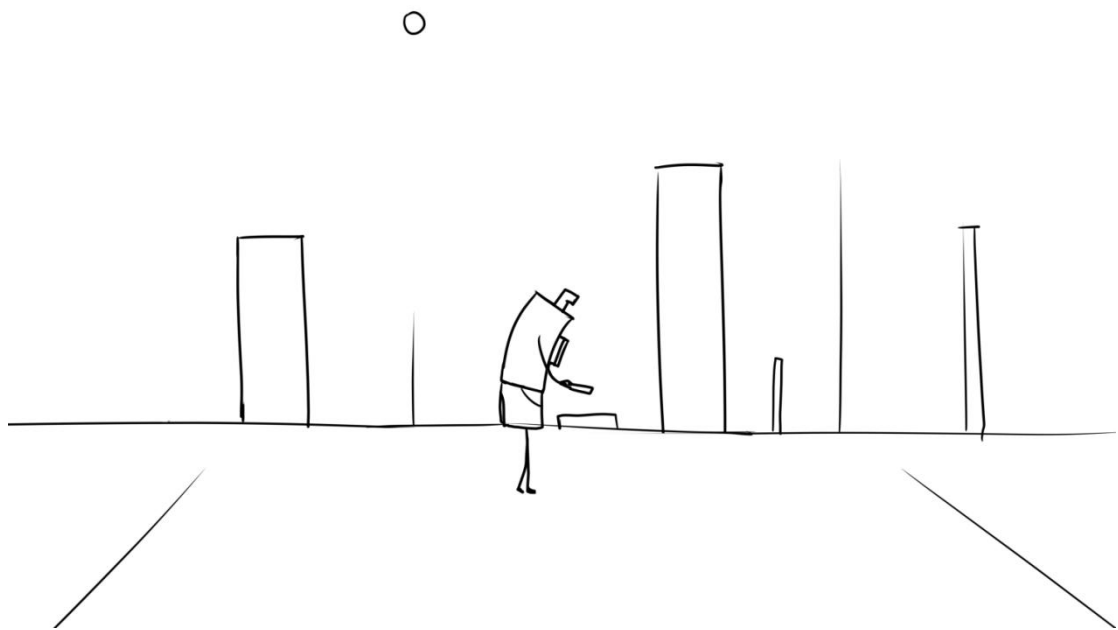
Fig.15. Gannon in squire world concept for *Behind the Lens*--line concept Photoshop. (2018).
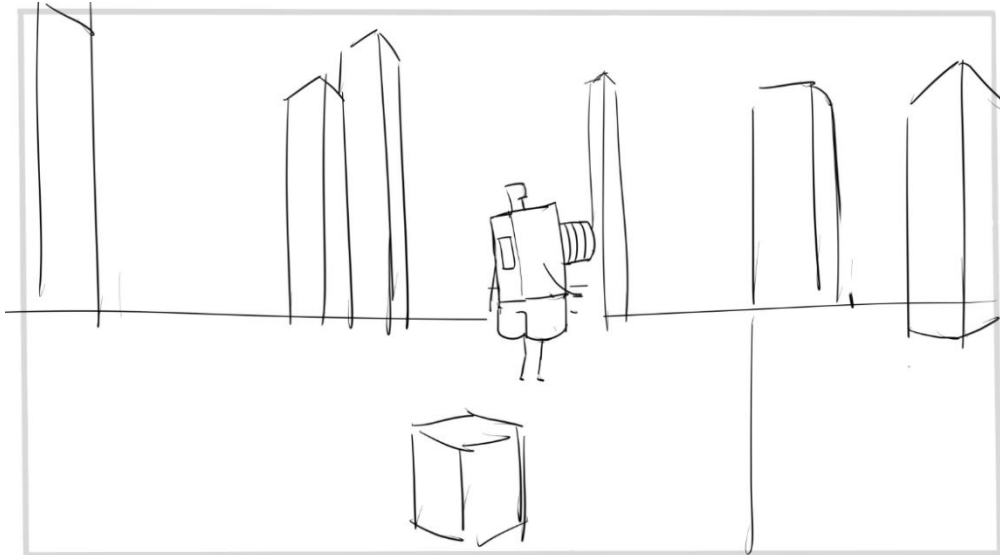
Fig.14. Gannon in cube world concept for *Behind the Lens*--line concept Photoshop. (2018).

The plan for a background that grows and transforms was an aspect I used to make my film unique, however, it also made it difficult to design. This was especially true for the complex world that appears with Gannon's multiple lenses. It seemed beyond my imagination, but I had to develop it for my film, despite the fact that it was my most challenging task.

These challenges led me to a stroke of luck when my thesis advisor, Peter Murphy suggested a crucial solution; researching Surrealist art. This helped me to get ideas for a world filled with chaos and instability.

I found that the elements of surrealism focus on strange feelings, warping of reality, unnatural scenes, and discomfort. I thought that this would be a perfect match for the scene in my film, and I dove into research on this art while I was creating my storyboards.
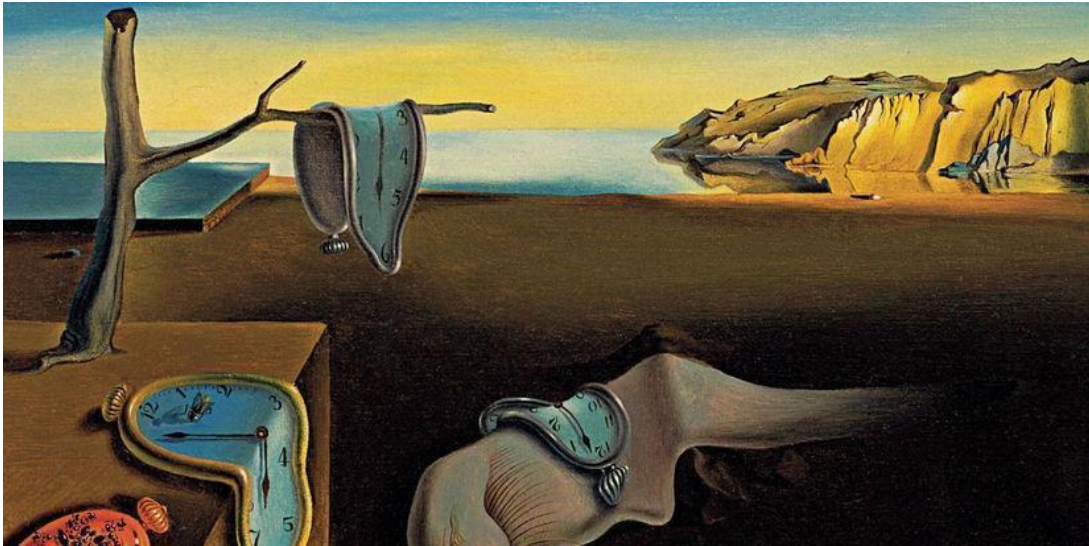
Fig.17. Dalí, Salvador. *The Persistence of Memory*. 1931. Museum of Modern Art, New York.

After reviewing many still images of surrealist art, I got a general idea about its execution and use, and then I also pursued how it was used in film. I was amazed to see the visual impact in the film, *Spellbound* made by Alfred Hitchcock, especially in its use of surrealism in live-action filmmaking to create a dream sequence with a strange and hypnotic atmosphere (fig.18).

Fig.18: Still frame from director Hitchcock, *Spellbound,* 1:29:23.

   I was also inspired by author Michael Richardson's book *"Surrealism and Cinema"*:

*'Surrealist are not concerned with conjuring up some magic world that can be defined as' surreal'. Their interest is almost exclusively in exploring the conjunction, the point of contact, between different realms of existence. Surrealism is always about departures rather than arrivals.'* (Richardson 3)

   In films, a departure signifies the beginning of a story, and also implies constant changing and unexpected things to come. For that reason, I endeavored to make my climax scene constantly morphing. However, during the development phase I was still not clear what color and texture would be used, and I just drew lines for the initial thumbnails (fig.19)

Fig.19. Gannon in crazy scene for *Behind the Lens*--thumbnail Photoshop. (2018).

## Storyboard & Animatic

Since my story concept had reached a comfortable spot, I moved on to the next step: thumbnails and storyboards. I used Toon Boom Storyboard Pro to draw my boards and export my animatic without sound.

It became increasingly evident to me that the most important aspect of my film would be the acting of the character since my storyboards and animatic did not have very many shots or perspective changes. I had already planned to rely on character performance as a key aspect of my storytelling. However, when I actually began drawing the boards, I found that working out the performances itself takes a lot of responsibility and attention.

'Behind the Lens' as a film serves as a dialogue to deliver a message about life. Yet, equally, the ideas discussed are in regards to an elevation above a normal life, just like a high-minded principle that would be told from our grandparents' generation. I realized that even if someone makes a film discussing all the theories and philosophies of life and has many novel ideas and interesting thoughts, if the film does not grab the attention of the viewer, then the film and its message makes no difference. It was for this reason that I knew I needed to depend on the acting to reach the viewer and make the message of the film heard. I needed the film to be down to earth on the level of the viewer; in other words, it had to be relatable.

When I designed my character's poses, his performance needed to be unique but also empathetic. I drew several simple plot boards and placed them on the timeline, trying to find a convincing order, and see which parts can be omitted or simplified. As I continued, some parts were indeed cut, but they were still useful, as they helped me to understand my story and my characters, a valuable part of my film's development.
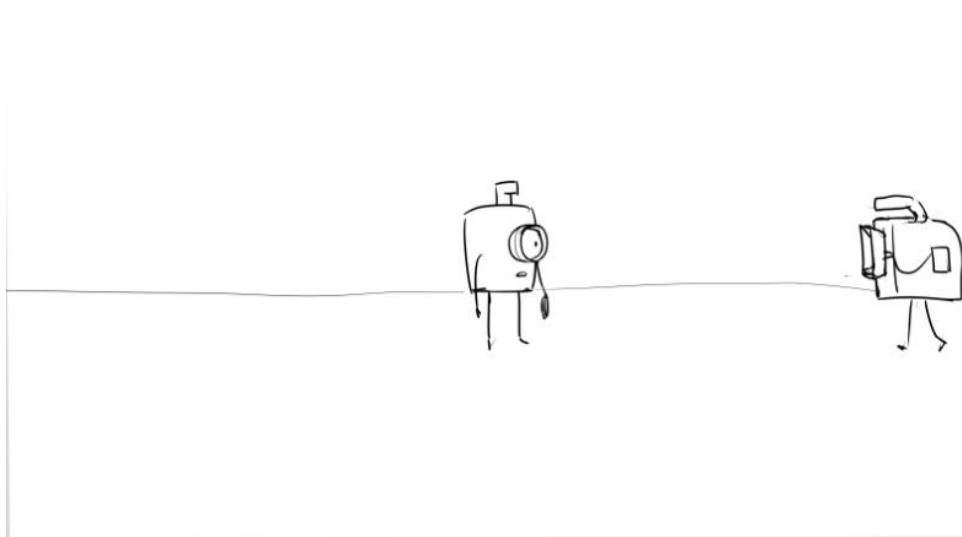
Fig.20. Gannon sees character 3 for *Behind the Lens*--storyboard TVPaint (2018).

I found that my film would be most successful as a long-take film, aside from a few cuts in the middle to POV shots, with the main camera angle remaining the same. I prefer this long-take film style to encourage the viewer's perspective to be more objective, so the audience could connect with Gannon's experience as true observers, as in reality. When I was preparing my character design, I mainly referenced *Birdbox Studios* films and art. This was not only because they excel at simple character design, but due to their use of camera. I find that their still camera with a wide shot plays an important role in making their films funny because it effectively reinforces the realism of the story. In addition to this, I found support for this theory from the book *Post-Theory: Reconstructing Film Studies* which has an argument about the function of cinematic long-take shots:

*"It is in this sense of realm- the sense which I have given to the phrase "Perceptual Realism"- that film is a realistic medium, and deep- focus, long-take style is an especially realistic style within that medium"* (Currie 328).

There was one particular scene in my animatic, a set of montage shots, that continued to cause some discussion with myself and my advisor. As my main shots are long-takes and wide shots, the montage shots served the purpose of indicating my logic behind my story and adding some more personal meaning to the viewers observation; a very common function for montage shot. Among the research on this topic, I recently found Martino Stierli's book *'Montage and the Metropolis: Architecture, Modernity, and the Representation of space,'* which discusses this in its introduction section. As described by Stierli, montage is a tool that imposes a connection between different shots and gives them new meanings (Stierli, 20). Reading about this perspective on montage, I found it to be a perfect visual tool for creating a metaphor. Montages can have diverse uses, and applying them in my film helped me to deliver the story and tone that I wanted, and to portray feelings in a more broad and expressive way.

I wished to not only add meaning through those shots but also compel a feeling of discomfort and disorientation.
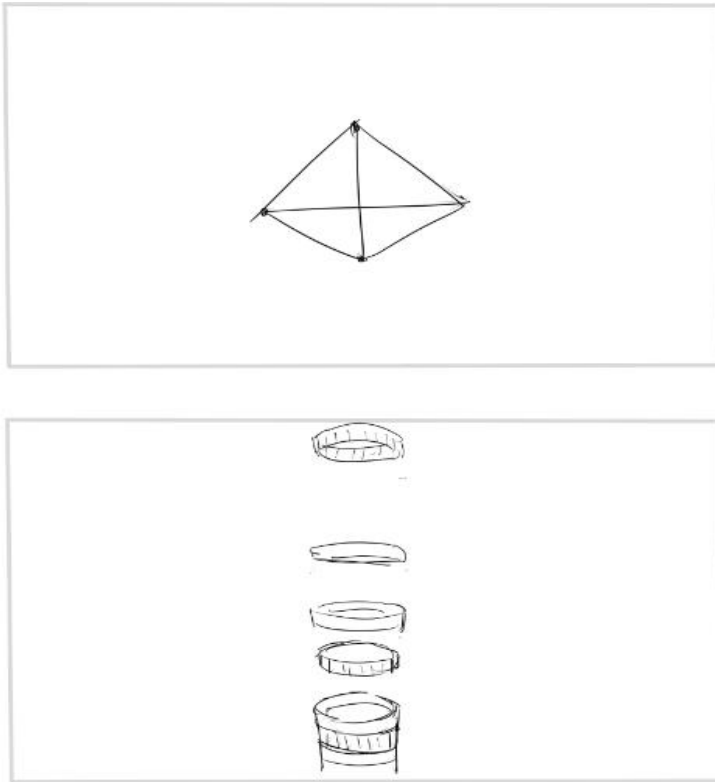
Fig.21. Montage shots concept for *Behind the Lens*--line concept TvPaint. (2018).

However, my advisor and I were still not sure if those shots would work since we could not truly know how exactly it would look until I finished the shots. It involved not just the drawings, but considerable post-production work, and it was possible that I would need several tests to reach the effect I sought. This posed a conflict with my limited timeframe. I decided that the best decision available was to leave the shots under low priority in production, which proved to be a wise choice in the end. Firstly, my film really relied upon the smooth animation and acting to connect with the audience, so it was imperative that I do well in this area even if other areas were lacking. Secondly, after I made time for the animation, I completed the montage shots to my satisfaction as a finishing touch to support my work with the character acting.

**<u>Production</u>**

<u>Animation</u>

Once my story was complete, I essentially moved into the production of animation immediately, as I knew that there wasn't enough time for me to go through a normal step by step pipeline in animation process.

It took roughly nine weeks to complete the character animation. I drew my roughs and keys in TVPaint, and then I cleaned the lines. In the case of this project, I didn't have many project files, but rather, I divided the film into five major sections. Each part shows a certain stage of my character's journey and each part lasted about a minute in duration.

If acting and staging were the major challenges of the storyboarding phase, timing was the greatest challenge I faced when I was doing animation. The acting was based totally on myself, and my own attempts to walk through the actions and attitudes. I also had to break the even pace of my own natural movements, and exaggerate and punctuate the character's movements which are different from myself. When there are multiple characters in an interaction, I tried to make their action overlap each other as little as possible, sometimes with a bit of a delay, to make a little "Ma moment" for emphasis. Ma moments are a pillar of visual storytelling in Japanese animation. It was first proposed as a concept by a master of 2D animation, Hayao Miyazaki:

*"When I clap my hands,' he said, "you hear the sound of the clap. You don't hear what is in between the sound of the clap. In Japan, we have a name for what is in between the sound of the clap. We call it ma, like 'ma-ma.''* (Ebert)

By adding these Ma moments in my film, the connection to the viewer and their experience becomes more powerful because this serves not only as an emphasis to action, it also mimics the human thinking process. Especially in the ending scene, when Gannon sees the photo showing nothing and looking around at his blank world, he pauses for three to four seconds before he finally begins to smile.

## Post-Production

### Background Animation

I didn't have much time for post-production when I finished the animation production, having only about 20 days left before the screening. One of the heaviest tasks I had to do in post-production was the background animation. Since I twice worked in an animation company as a post-production artist, I wasn't too nervous when I arrived at that task. I used mainly After Effects 2018 to do my post production. Firstly, I generated my basic-line world using tools in the program in order to use a motion graphic method to create the background animation later on. When making the background animation, I ran into a problem I didn't expect: I had thought my character would not require any color, but with just linework, my background lines appeared through my character's body. To fix this, I had two solutions: ink all characters to white in TVPaint, or mask the BG lines out of my characters in After Effects. I tried the second method, but I had to give up when I realized the frame rates for the character and masks were incompatible and I had to reset the key on the mask too often to be practical.

After fixing my character's color in TVPaint, I continued with background animation, which was simple for the first couple of alterations, like the line growing, and line changing into a square. However, it was getting complex when it came to the metamorphosis of 2D squares into cubes. This posed perspective compatibility problems. I made a test for the different animations, and then my advisor encouraged me to use these materials and add them together to see how it goes. It turned out to be a very stylized but cohesive animation which satisfied my expectations for my film.

Special Effects

The final task in post-production was the montage shots. When combined with the rest of the animation, I realized I needed those shots to show a connection, or turning point in my film. I tried using particle effects to combine the motion graphic animations together. Specifically, I used *Trapcode Particular* and *Plexus* plug-in to achieve the effects of elements expanding and exploding. Then, I added some abnormal color and texture on top in various blending modes for the same purpose of expressing chaos.

**Audio**

Sound Effects

I started to imagine my sound very early in the semester, but I didn't get a clear idea until I had a finished picture. I was very careful when adding sound because I knew the sound would definitely dictate the film's tone. This would the most crucial influence over whether the audience found it serious or funny, or realistic rather than

cartoony. I settled on two types of sound effects. Firstly, I wanted more realistic sounds, such as footsteps, camera lens rotation, page turns, and impact sounds. This type of sound helps to ground my non-human character in a more real, physical space. More empathy. Secondly, I wanted unreal, expressive, texture sounds. For example, when the background is morphing, or small sound accents. These were important sound choices because the diegetic sounds helped to make Gannon more real and easier to connect with, while the strange expressive sounds overwhelm the audience immediately, with a sense of tension, and force them to share in Gannon's chaotic experiences.

An important characteristic of my film is that it does not have any script lines. This was a bold choice, as it requires my character's acting to standout and deliver information despite the lack of actual words. I occasionally use a breath or cough sound help bring my character to life, but it's very generic vocal expression.

Music/Composing

In theory, I wasn't supposed to be the composer for my film since, as an animator, my focus was on the visual aspects of my film. However, as an amateur composer, I had experience in composing for more than 15-short films. One thing I learned from those experiences is that as a composer, only when I fully understand what the film is trying to convey could I start composing. Otherwise, the music might be decent, but it may lead the film in another direction by the composer's own emotional expression. Sometimes this isn't a bad thing, but for my thesis film I wanted the music to be directly connected with emotions I was trying to create with the visuals.

As I started composing, I learned how uniquely difficult and different it would be, from all the experiences I had thus far with composing. "Behind the Lens" is not just a character's journey with some exciting experiences, but rather it offers a theory or way of understanding life itself. My previous experience in composing was only about emotional expression and the atmosphere it creates. With this film, I wondered whether a piece of music could reach that deep into people's values. I wasn't sure, but that's what I was trying to achieve.

I came up with a melody of my own understanding of life, and then I started to polish it, adding more layers. I use piano as my featured instrument in solo at the start. Piano has a very unique color in orchestra music, and I think compared to other instruments like woodwinds, strings, brass or guitar, piano has such a wide effective sound range, and its versatile nature fulfills and infinite range of emotional tones. Because of this, there is an air of neutrality that I took advantage of when beginning with this instrument. Then I used strings when the tension of the film was elevated, and percussion to create a feeling of deja vu in the middle of the story. The main composed piece actually starts during my film's ending though the credits and then I used versions of the same melody, with different instruments in the earlier reprises in the film. I created the reprise for the beginning of the film last, simplifying the melody and using only a few basic instruments to help build the opening atmosphere.

Through this, I was able to keep my music uniform; there are distinct pieces, but people are able to recognize they fit together from the same composition. This was one of my goals, and the main reason I composed my own music, because I was afraid about different pieces of music diverging too far in style and making the different parts of my story disconnected. When I started working on a new section of music, I tried to use the same base melody with tiny changes first, and then I adjusted the

speed to get a different mood, for example making a relaxing melody more tense by speeding it up. Then I used different instruments to accent the main instrument, and adding more layers to achieve the effect I needed. Through this process, different pieces of music have variation in mood or tone depending on the context of the scene it accompanies, but they still retain the same foundation.

## Screening

"Behind the Lens" screened on the 4th of May 2019. I gave my artist statement after my film was screened. I discussed my own journey through the entire year. I expressed that through over a year of my expectations rising and falling, and learning from my experiences and people around me, this thesis became a journey of me holding tightly to my original plans and ideas, then finally allowing the film to be what it was meant to be. During the speech, I tried not to keep my head in my papers reading what I wrote, but tried having more connection speaking directly to the audience. I didn't speak fast but kept pace. Sometimes, I needed to pause for a few seconds, not because I was having difficulty reading, but because it became a sort of Q&A with myself, as I became lost in thought by my own words about my film and its message. I was glad that many people spoke to me after my screening, and there were plenty of opinions and positive reactions. It was then that I suddenly understood the purpose of animation, and even film, is not just made to be played for display. Rather, it is a medium designed for communication, and people express their most important messages through this work.

<u>Feedback</u>

A significant piece of feedback I received was from Professor Dave Sluberski, who critiqued my sound. The major problem during the screening was that it was that the sound levels were too loud in the theater that we used. I realized that I had made an error, as I used my own level of sound on my computer to export the final version. This was the same standard that I kept for years, and used for the many films I had successfully screened before. However, the new MAGIC Spell Theater in which our films now screen in, has much higher, real theater sound standards and I did not make the necessary adjustments for this new sound system This small mistake was a pity for my first screening of this film, but it was also a valuable lesson. I forgot to check the gain values before exporting. As Dave remarked: "We have a reason for having numbers in volume." I have taken that to heart from then on. Since our experiences, and our headphones, can be subjective, it's important to not simply rely on our feelings, but also follow regulations strictly.

I also received feedback from Frank Deese, and as one of my committee members he pointed out that I was able to deliver this complex idea in a simple way, which he enjoyed and surprised him quite a lot.

Additionally, my classmates chatted with me after the screening. Yuan Yao, told me that my film didn't seem just like a simple story or feeling. He felt some ancient mindfulness and wisdom. When I mentioned to him where my idea came from, he stated that this piece is a deep film. I was glad that he gets a sense of something like ancient wisdom without any extra explanations.

## **Conclusion**

Throughout Gannon's journey in 'Behind the Lens', he experiences transforming, chaotic worlds until he finally is able to see clearly the truth of his life. For much of the film, he is searching for his place in the world and getting lost, and this is actually not so different from what we constantly do every day. The moments when he looks and realizes his photo has changed is analogous to our experience when we go after a new goal to achieve or desire to fulfill, and get lost along the way. My initial goal for this film was to visualize the process of worldly attachments as they are generated in our chaotic, messy, daily lives. I used Gannon's lens to represent his accumulated attachments, as a literal metaphor for my theme. The painful chaos that accompanies this journey forces people to constantly search for relief, which leads them to a continuing cycle, rather than actual escape. The true way to leave this trap is to let go of those attachments. Gannon merely needed to drop his lenses. It seemed like such a simple action, but to the cameras, the lenses feel vitally important to their lives. They don't know how to function without them. We, as people, also feel the same when others persuade us to let go of something to which we feel attached. It can feel like our lives or identity depend on these worldly things, but that's not true. For people, to let go of attachments it requires much more inner power. Sometimes, it's just a matter of restraining our habits, sometimes it's a need to break one's past prejudices. Only strong minds are able to achieve such changes, and they leave their stories forever in human history.

Despite the many complications along the way, I feel satisfied with the final product of my film. The message I was presenting is deeply philosophical, which made it a challenging idea to visualize.  Yet, despite this difficulty, I feel I was

successful in expressing this idea. This sentiment was echoed by my professors and classmates at my screening.

I changed my story a lot. It began as a very elaborate narrative, and the final version of it ended up being an entirely different idea than the initial one. Finding the right rendition was a struggle. After some time, much like my character, I had to shed the different ideas and story parts that I was attached to, and finish with a simple, straightforward piece that presents itself and my theme on simple terms. I learned many things in my thesis year, one of which was to let the work speak for itself, to not overcomplicate, and to not become overwhelmed by the possibilities and chaos in life.

During the process of making 'Behind the Lens', I made many improvements in my work as an animator. I grew a lot as an artist and craftsman because I did all the work by myself for this film. My drawing skills have been greatly enhanced through this project, especially in the areas of character acting, and creating strong and clear arcs of movement. My post-production abilities have also become sharper. I fixed many of the film's problems in post-production, like using the effects to make the transforming worlds fit more smoothly with the character. Likewise, as I did all the sound work for my film, my ears and audio production skills have received additional training.

However, since the work was all my own, so were the mistakes. For this reason, in the future I will be sure to take serious note of screening standards to avoid future audio problems in my film. Also, moving forward, I think my filmmaking process will be more effective by focusing more on polishing my idea and concepts early in my production schedule.

Aside from the technical and skill growth, the significance of this film to me is that it initiated me to think about those eternal questions of who I am and where I want to go in life. The world setting in my film is my own understanding and interpretation of the world I see around me. The ending is my hopeful expectation for myself that I wish to achieve: to drop all my lens, leave all my worldly attachments behind, and become truly free in mind and spirit.

I was almost surprised when people told me that I made them think about these things, most of all because they told me that they had forgotten to consider their lives on this level for so long due to their messy, busy, daily lives. Saints enlighten people with their wise words. I'm no sage, but I hope my film can become an alarm to people. In some small way, I want to reach people and prompt them, if not to find enlightenment, to look for something more: to discover something behind their lenses.

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**Appendix A – Original thesis proposal**

Logline:

A camera is trying to figure out how to get cameras out of their 'destiny' ending

Treatment(story):

Ganon is a video camera and he was born in a camera village. In the village, everyone was born with a (measuring) ruler within its lens. Ganon feels fresh seeing things through his lens and with his measuring ruler. When observing something that does not fit his ruler, an alarm goes off in his head which causes him a headache. On the other hand, when it fits his measure, he feels good. (example: he saw a rainbow and he would smile, but when he saw many dark clouds over his eyes, he feels pain) He asked his parents why he gets headaches and feels discomfort. His mother smiles and said it's a normal phenomenon; everyone feels headaches sometimes and the pain will disappear eventually.

Gannon goes to school. His teacher gives every student a new lens and places it in front of their desks. This lens has a new standard measure. 'If you want to be a better camera, you have to plug this on.' As many other little cameras plug the lens on their head, but Gannon puts it back into his bag because he likes his own measurements. When he reaches middle school, he realizes his classmates are divided into several groups; those who share similar standard or value on what they see within one group. There are debates and even conflict between different groups of cameras. They insult each other for their 'low eyesight'. And every time Gannon receives a new lens with a new measure, he doesn't plug it. Due to this, his grades are below those of his classmates, and he can't pass the test for the composition and color classes. But his parents don't blame him.

One day, while having dinner at school (he eats empty film rolls), he receives a call from his father. At the hospital, Gannon sees many cameras in the lobby holding their head and having painful headaches. Gannon rushes through the crowd of cameras and sees his mother lying on the ICU bed. The doctor is pointing an X image and tells his father the diagnosis: terminal high voltage, which is caused by battery decay and

headache. As the doctor continues speaking to the father, Gannon notices a poster: '80% of cameras die from high voltage, be careful!' Under this line there is another sentence: 'How to prevent high voltage? Pay more attention to pleasing images that you like.' Gannon tells his mother 'You will be ok, I will become a better camera and let them cure your problem.' His mother lies down one last time and smiles forever.

Gannon shouts to his father 'you said it's not a problem to have a headache, 80% camera die from headache and it's not a problem?'

``you will understand, we can't escape from this ending.'

'What about the other 20% that don't die from headache?'

'They die from accident.'

Gannon shakes his head, and tears came out.

After his mother's gone, he leaves his home for high school. As he recalls the scene from the hospital; all the patients suffering from headache, and his mother. Ganon opens his bag and plugs each of the lenses on his head. He does each assignment carefully, and pays attention to each image showed by his teacher. When he reaches college, his lens has been very long and contains a lot of small lens within it. He has much more expertise on finding better views and capturing better images at the time. And once he takes a picture that fits all these measurements, he feels very relaxed and the image also helps many other cameras to relieve their headache. Gannon sends his work to some hospitals for these patients suffering from headaches. Gannon wins a lot of awards, and many other cameras like his work. However, he finds his alarm is ringing much more often than before, and he always has a headache too. Eventually, his father also goes to the hospital because of high voltage. Gannon tells himself to be strong; he needs to be a better camera, and the pain he is suffering now is inevitable. 'I have to take better images to help my father and all other cameras who suffer from headaches.' He asks his professor where is the best place for cameras to work. And his teacher said its called the city of success. And it's really far. Gannon still leaves for this far away place without hesitation.

At city of success, he works meets many other different types of beings like: sound recorders, thermometer, pliers. Some of them become friends with Gannon. And Gannon finds these guys have their own measurements on the attributes they care about. They have to cooperate, even combine together as a machine to work. But due to too many different new items introduced in his world, which don't fit his measurements exactly, his headache becomes uncontrollable, and his voltage goes too

high as well. Once Gannon sees another worker in this city also die from headache right in front of his face. He is extremely astonished and his alarm can't be stop.

He quit his job and separates from his friends. One rainy night, when he's alone in his apartment, Gannon opens a bag of photographs taken by him. He looked at his best work from childhood, and finds he cannot accept them visually anymore because it's too far from his new measurement and physically painful. As his alarm starts to ring, he burst out tearing up. 'I can't help you father, I can't help anybody, and even myself.' 'I know why headaches are such a danger now.' Outside the apartment there is lighting and rain. His shadow is cast on the wall of his room. Gannon raises his hand and hold his long lens. He tries to rotate them. Gannon screams with pain. 'I might kill myself by doing this but it's worth a try.' His alarm keeps ringing. His lens drops piece by piece into debris.

The rain stops, the ringing sound fades, and the sun rises.

In the camera village, a strange camera arrives. Gannon walks through many cameras and he has no lens on his front. Other cameras are very curious about him and they show him what they are excited about. Gannon sees the beautiful landscape image and he smiles a little. They show Gannon the bad image too, but he also smiles. Some of the villagers notice this strange camera is Gannon, the camera that used to win a lot of awards. They feel depressed about Gannon's new state of being, and accuse him of having a mental illness camera because he no longer had a "good" judgement on what he sees. An old, weak camera and his granddaughter camera shout to Gannon: 'My grandma needs your beautiful images so badly… but you give up what you were doing!' Gannon keeps smiling and goes in front of the grandma. He looks through her lens for a few seconds, surprising the other cameras. Gannon takes a new lens out without any measurements on it. He draws many lines on this lens. 'Just a few minutes.' Gannon leaves while holding the lens to his face and looking through it. He comes back with many pictures. And when the grandma sees them, she laughs, tears streaming down her face. They want to know how Gannon can take such an accurate image in such a short amount of time. He smiles. 'You can do it too'. Then he throws the lens away and leaves.
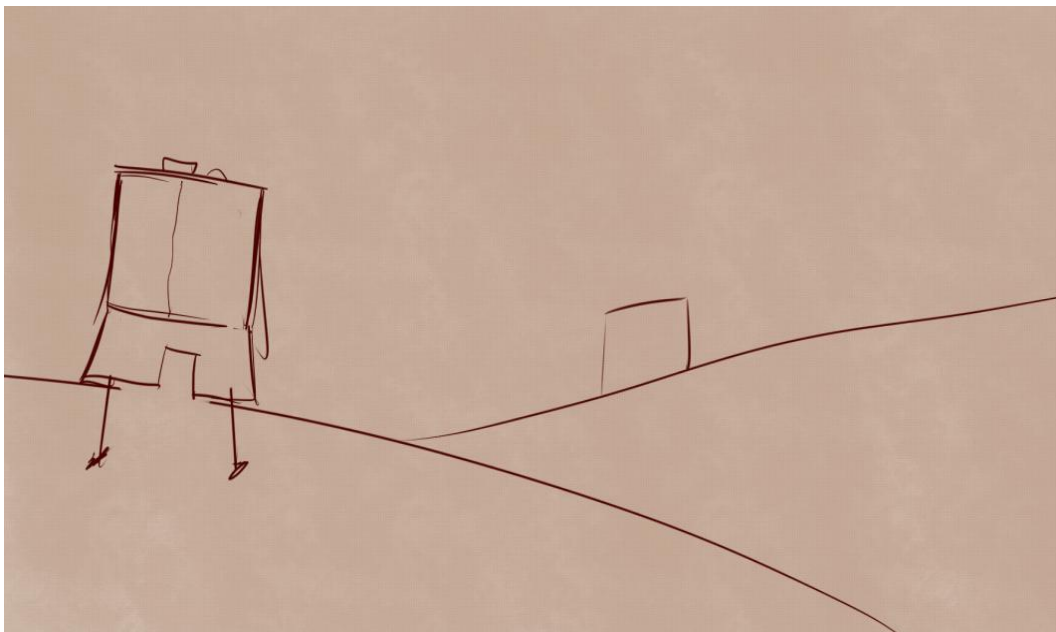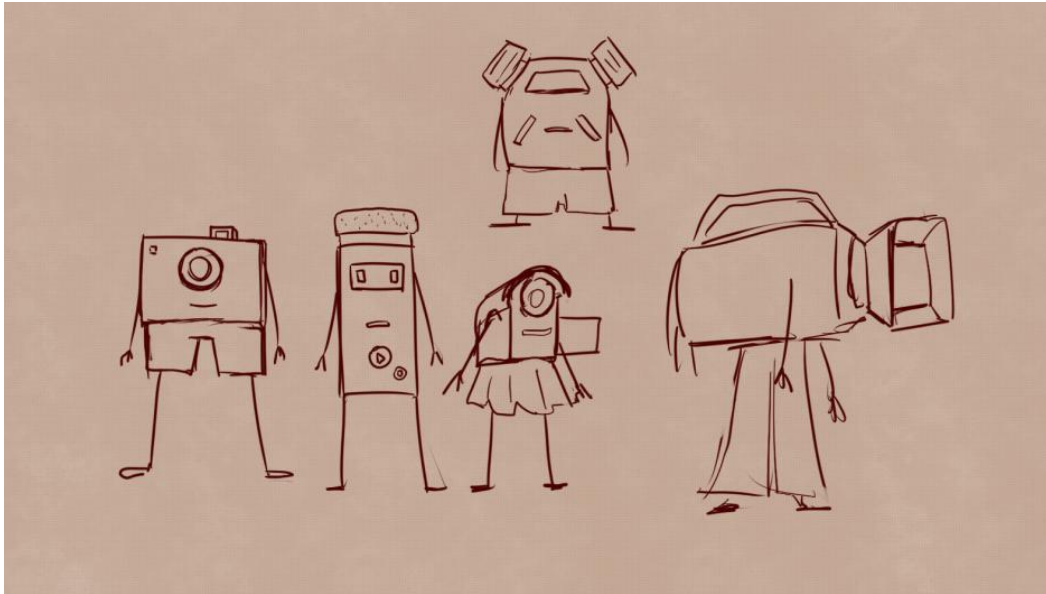
Gannon goes to his father's house. His father is very weak and in pain, but he is very excited to see his son, and ask if he took his new 'work' with him. Gannon shakes his head. His father is saddened, and asks why. Gannon smiles ' I don't want to delay the disease, I want to save you from it'.

Rationale:

I always have a feeling that my own life is not real. In other words, I feel like I am living in a dream. We keeping learning different kinds of knowledge and concepts about this world. We learn what's good, and what's bad. When going to school, we learn what's correct, what's wrong. As an artist, we learn which is beautiful, and which is not. Looking back on our own lives, every time we feel happy or sad, eager or depressed, annoyed or scared, we might be misguided by these feelings and desires, and confuse them as reality. It's easy to misunderstand a situation and the atmosphere. But we have a range of what we know, and it keeps growing since we're born. Human beings are accustomed to using this range of different knowledge to measure other things, people and situation…When it fits this range, we feel good and comfortable. When it does not, we feel pain, anger, sadness, frustration…People have an illusion about future; they think that if they learn more and work harder, it can bring them happiness. But the larger your range of knowledge is, the more unknown elements you will find in your life. Which means more pain because it doesn't fit their known range. In my opinion, we are living in a prison of our knowledge, and we are in pain living here. Going out of that range doesn't mean we don't learn anything. We still have to learn, but we also have to learn to put down that knowledge when we don't need to use it. Our experience and knowledge shouldn't be bound to our lives. It's created for helping people, not for making them suffer pain.
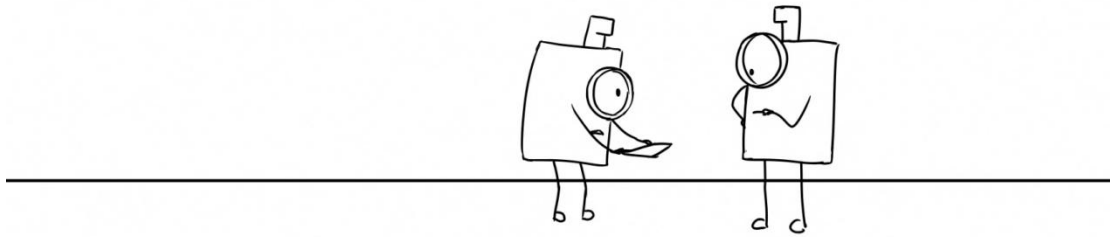
Vision:

This film is a 2D drawing style animation. Below, I have some rough character designs.
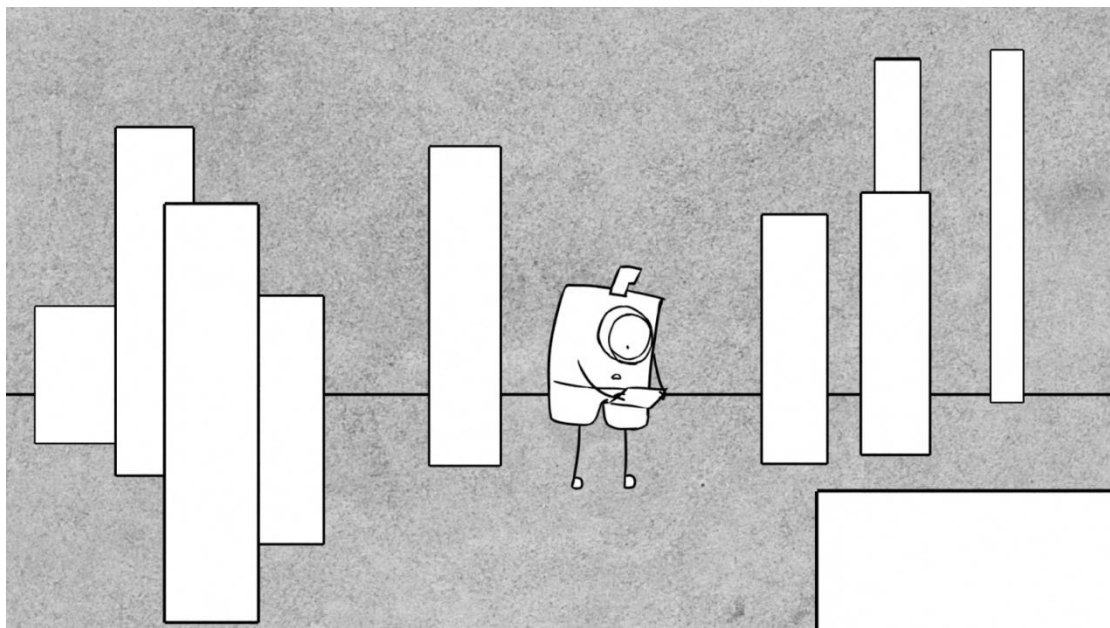
Budget:

| Categories and Items | Quantity | Cost | Subtotal | |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Drawing station | | | | |
| Wacom Tablet | 1 | 300 | 300 | |
| Animation program | | | | |
| TVPaint 11 Pro | 1 | 200 | 500 | |
| Festival fees | | 300 | 800 | |
| | | | | |

## Timeline



Behind The Lens

| | Fall | | | | | | | | | | | | | | | | Spring | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |

preproduction
Compelete story
Character design
Concept design
Storyboard
Animatic

production
Rough
Keys
Inbetween
BG painting
Ink
Color

Post production
Composite
After Effect
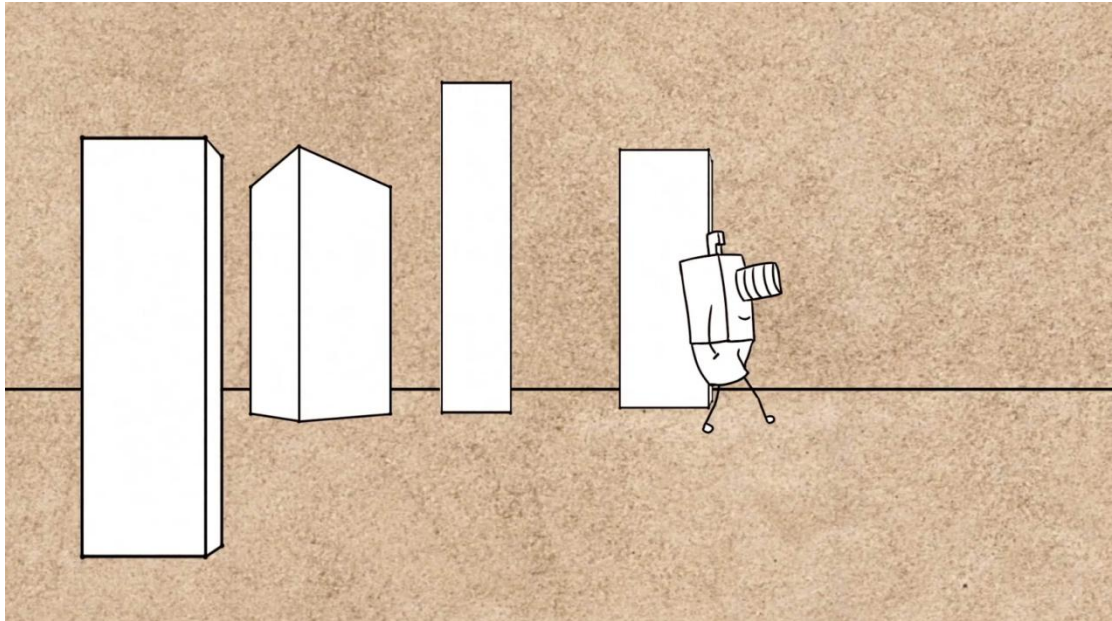Final adjustment

Sound
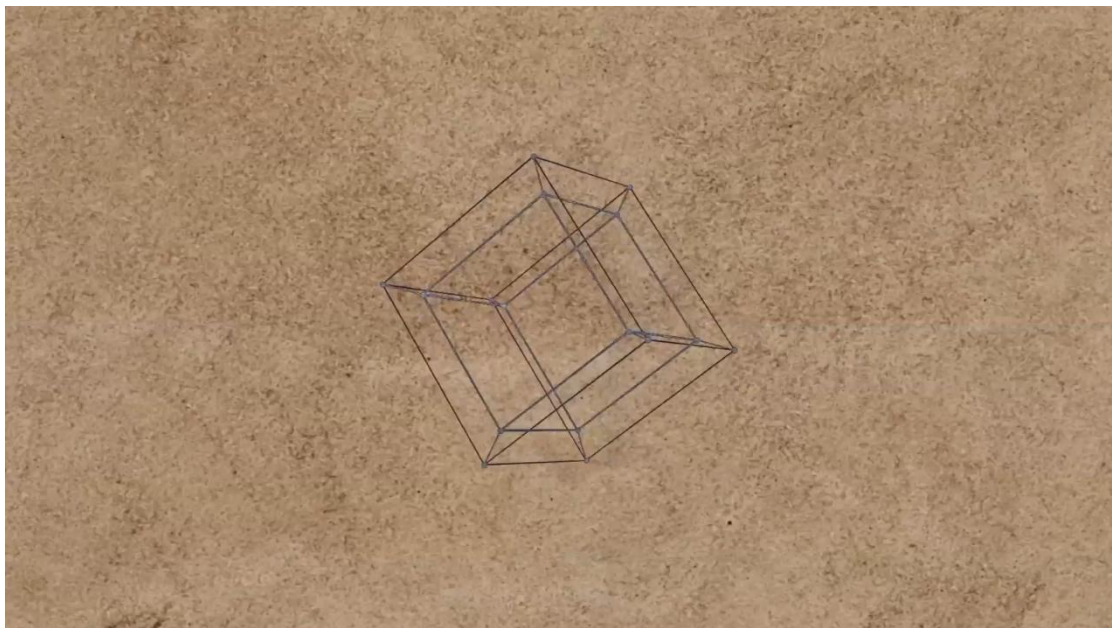SFX
Music
Mixing

**Appendix B – Production Stills**



(Guoxiang Zhao, Behind the Lens, 00:00:42, still frame)



(Guoxiang Zhao,Behind the Lens, 00:02:24, still frame)

(Guoxiang Zhao,Behind the Lens, 00:02:59, still frame)



(Guoxiang Zhao,Behind the Lens, 00:03:33, still frame)

(Guoxiang Zhao,Behind the Lens, 00:04:04, still frame)