LIVE FOR A DAY - LIVE FOR AN AGE

by

Soon Kim

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ABSTRACT

Humanity has a limited amount of time. Life's brevity is what makes it beautiful. With unlimited time, we lose the beauty of the human experience. The same way an immortal cell becomes cancer, an immortal human loses their humanity. Things seem to matter more the less time we have. One's emotional state affects one's perception of time and leads to a heightened awareness that extends even to the body. Most of us focus too much on the past or worry too much about the future; we lose time because we fail to exist deeply in the present moment. Through my research on biological time and the human condition, painting, and personal experience, I delve into the themes of life and mortality with emphasis on time and identity coupled with organic cells and DNA sequences. I hope that my art inspires others to consider the heavy themes that often motivate my art such as the imminence of death, and with the knowledge of that reality, using the time you are given to the fullest.

INTRODUCTION

Humanity has a limited amount of time, usually this finite period is thought of as something bad. I, however, would like to pose the idea that life's brevity is what makes it beautiful. Part of the beauty of the human experience results from the temporal nature of our lives. Perlberg stated that "Death…makes men precious and pathetic" (Perelberg 146). In the same way a cell can mutate to deter death and therefore become cancerous, if human was to become immortal, our humanity would be lost. The very essence of our humanity is the fact that we have limited time; the time we have on this earth matters more as it is limited.

In my work, I delve into the themes of life and mortality through an exploration of science and art. My emphasis on time and identity coupled with organic cells and DNA sequences was inspired by my personal experience with breast cancer. During that particular time, I realized that one's emotional state affects one's perception of time; circumstances may lead one to cherish their limited time or the opposite, not cherish it enough. Also, one's emotional state may lead to a heightened self-awareness and self-perception of one's body. I try to depict this realization in my paintings and drawings through the utilization of organic cells and DNA sequences, the most basic building blocks of one's body and therefore the root of self-awareness in the body. I am made up of a code that is G, A, T, C—not only me, but all humans were created with the organic compounds that these four letters represent; guanine, adenine, thymine, and cytosine. The DNA code affects sex, gender, and race, and can also create diseases and mutations. All living things walk a path that is determined by DNA.

Most of us focus too much on the past or worry too much about the future; we lose time because we fail to exist deeply in the present moment. Therefore, I hope that my art inspires others to consider the heavy themes that often motivate my art such as the imminence of death, and with the knowledge of that reality, using the time you are given to the fullest.

BIOLOGICAL TIME CLOCK

Death is the beginning of another life. I die so that another life can be born. Cells simultaneously have limited time but are also “endless” because a cell divides and passes on its DNA to the next generation of cells; humans, too, have limited time, but our ancestors and our descendants create an endless existence of humanity.

Cell & DNA Cycle

All living things have cells, and we are made of trillions of them. Even though we are different from plants and other animals, we all share the common building block of life: DNA. As science writer Jennifer Ackerhman points out, “However complicated it seems, a salamander, a philosopher, a bird, and a ginkgo tree are all common in genes, which is a path that all kinds of life pass through.”

Humans only get to live as long as our cells regenerate. The cells use the short amount of time they are given to replicate as much as possible; they are used like machines to allow us to live as long as possible. The slow evolution of our universe over trillions and trillions of years is called entropy. In a shorter timeframe, our own cells replicate—for example, let’s assume 50 replications—and ultimately die. After 70 years, our own selves are so broken down that we too die when our cells cease to replicate. As we grow older, our cells slowly stop replicating. Cells may stop replicating after the telomeres in the DNA wear thin or lose their protective proteins, which triggers programmed cell death (Fikes).

It is a biological fact that DNA limits our longevity, so we don't get to decide how quickly our DNA dies. Telomeres are sequences on the end of DNA strands that shorten every time DNA divides; when the telomere runs out, the DNA will "eat" itself, and the cell dies (it may be that cancerous cells have telomeres that don't shorten; but this is still the subject of research) (TA Sciences). It is believed that cancer cells do not die after replications because of a mutation that does not allow the telomeres to wear down. They never start programmed cell death.

Immortal Cells

Normal cells may become cancer cells if they gain immortality—that is, they don't die when they're supposed to. Some research suggests that cancer cells may not *all* be immortal (Coghlan). Passing on DNA is what makes DNA "immortal." One good example of creatures with immortal cells are jellyfish. They live forever. There is a species of jellyfish, Turritopsis dohrnii, that can theoretically live forever. When an adult jellyfish becomes sick, old, or injured, it turns back into a polyp (which is the baby form of jellyfish) and heals itself over 3 days. Then it grows back into an adult. It can repeat this as many times as necessary (D News).

If mutations escape the cell's notice, or if our cells aren't careful about the DNA they reproduce, our lives could potentially be cut short, resulting in the loss of precious time. On the other hand, mutations could definitely affect our time, but not always in a bad way—some mutations could be beneficial. The majority of mutations do nothing; they are neither good nor bad (silent mutations). The few that can do something are either

bad or good. For example, in the cheetah with a sickle cell disease, it can affect its ability to run fast, catch prey, reproduce and live a healthy life. An example of a negative mutation would be a cheetah that can't run as fast, so it cannot catch its prey; which makes it less strong and capable of producing offspring. A positive mutation would be a cheetah that can run faster, so it consumes more and has more strength and is more likely to produce offspring. An example of human mutation would be the Sickle Cell Disease; just one bad letter in the DNA code creates a very dangerous disorder. In my experience, I had breast cancer; my cells did not catch their own mutations. Maybe my diagnosis with cancer caused me to lose time.

To demonstrate the effects of these cancer cells, think of the cells in our bodies as pixels in a picture; you can't have a picture with just one pixel. You need many pixels to make the picture. You can't have a person without the many cells that make up that person. Studying the individual parts can give us a better understanding of the whole. A cell's job is to make sure the "pixel" doesn't go away—if it does, then you lose a part of the picture. So cancer is the replication of a single pixel that becomes so big that it mutates the picture. Cancer would ruin the body the same way if a pixel started to replicate and take over the whole picture affecting the normal pixels/cells around it.

Over time, as the picture/body becomes more distorted and warped, less of the original picture would remain, and the body would die.

Genome

Human genomes are the record of human history; evolution is a way to perceive time. The genome affects all human conceptions of time: five minutes from now, eighty years from now, five hundred years from now. Even though your grandkids will experience different time, they'll experience it through the genome that you give them.

EMOTIONAL TIME CLOCK

Trillions of cells create a living, breathing being who is capable of learning, knowledge, and opinions. Emotions work against reality. They tend to create an illusion that the human then believes to be truth. This "truth" creates one's perspective, which in turn molds an individual's perception of time.

Personal Time Perception

Time seems to go faster or slower depending on what we are doing. Friedman wrote, "We all know that time flies when we are having a good time and that a watched pot never boils. The watched pot does not boil for any of us, so there must be something lawful about these distortions" (Friedman 19). Albert Einstein observed, "If a man sits on a hot stove for one minute, it will feel like one hour. If he sits with a pretty girl for one hour, it will feel like one minute. That's relativity." Emotions have an effect on our perception of time. For example, when we are around friends, time passes quickly; when we do chores, time seems to drag on. Therefore, what you do directly impacts your enjoyment or dread of time.

One person I interviewed had the following perspective:

> I have a fear of time. I was a little suicidal for about 2 years. During that time, I felt like I had accepted death. I was not running out of time, but I felt like I was not using it. But then I started trying to fill my life with meaning. I started to connect with others. I started to want to help others and see them go far in life. That's when I wanted to start using my time for myself. I then started fearing running out of time. I am 19 but it still feels like I am going

> to run out of time for everything in my life. I feel like my life is going in a circle that I am getting nowhere, but I still feel the clock ticking. (Haupt)

In my experience with breast cancer, I experienced a time of emotions and fears just waiting for a diagnosis or a test result.

Perception of time relies on our senses; do people with different senses (i.e., someone who's blind vs. someone who can see) perceive time differently? Wittmann said that

> consciousness is itself a kind of filter because it focuses our attention on some things to the exclusion of others. For example, if our consciousness is focused on the light in the day, then we only can believe that it is daytime, not night. Light alters our perception of time. The other side meditators are very aware of the affects our senses have on perception of time. (Spinney)

Also, people with depression can perceive time as going slow. Frederick Melges said that

> a central feature in depressive symptoms is a …foreshortening and constricting of future time perspective… Either mental slowing, which makes future-directed actions difficult, or the loss of an…important person or goal, on which one's future seemed to depend, disrupt the normal forward-looking quality so important to motivation. (Friedman 118)

Another examples of personal time clocks are how different age groups perceive time; older people tend to perceive time as passing faster than younger people do. When you're young, you seem to have an infinite amount of time, and as you get older, the infinite becomes finite.

I displayed my changing perspective of time in my Time #5 image, a compilation of textured circles against a green background. Depending on what perspective the user chooses, the circles could be planets hovering in the cosmos, or they could be bubbles rising up from the bottom of the ocean. The textures of some of the circles are

reminiscent of the sculptural styles of Antony Gormley, whose goal was to detail the intricate structures that make up the human body.

Furthermore, *The Persistence of Memory* by Salvador Dali, emphasizes the theory of "softness" and "hardness" of time. The shapes of the watches melting on different surfaces depict the way time is dependent upon surrounding circumstances. "Dali's melting watches soon became the most famous symbols of time's newly discovered mutability; each of his three watches is stopped at a different time" (Salcman).

Social Time Perception

Human cells are the best copiers in the world. Human-made machines can reproduce things quickly and efficiently, but not as well as human cells. An art movement called simulacrum utilizes this idea of copying; it is a "copy of a copy," rather than a copy of the original. Andy Warhol was one of the leading figures of the 1960s visual art movement. Two of his most famous works, "*Campbell's Soup Cans*," and "*Marilyn Monroe"* represent the idea of simulacrum. Each can be an exact copy of the copy image. This method of replication in art is similar to the process of cell division – each time a cell multiplies; it is a copy of the cell it came from. This is a more important copy than the original, more realistic copy. The influence of Warhol's use of simulacrum is seen in my paintings in the form of repetition, whether in spheres, DNA sequences, or lines.

The concept of simulacrum is also reflected in modern mass production. Production has changed dramatically since the industrial revolution. Before the

revolution, everything was handmade, such as food and clothing, and each was an original piece of work. After the revolution, most things we used were mass-produced. This mass-production has even affected art, such as paintings, music, photography, and movies. There are no originals in today's mass-produced world. Movies, for example, used to be shown in one theater at a time, and the movie itself traveled; today many copies of a movie are sent out to theaters everywhere to be shown at the same time.

Perhaps mass production helped to create the modern world, which is very fast-paced, and where people like change. For example, we don't watch just one channel—we watch many channels. We don't read billboards but instead watch commercials. Our lives are so fast-paced that we don't want to sit down and have a meal; instead, we go to a drive thru and order food without ever getting out of the car. A static, or slowly changing world, doesn't interest people today.

Modern society has accustomed us to the notion of "instant gratification." We are used to getting what we want when we need it, rather than having to wait as we did in the past. Our perception of time while waiting for things is much different than that of past people; when somebody takes more than a few minutes to reply to an email, we may get impatient and frustrated, although people used to wait days or even weeks for a single letter to arrive. According to Gleick in his book *Faster*, "For many people and businesses, speed is connectivity." In the business world, time is money. Workers view time spent as dollars earned, and many consider the costs of items as "hours worked" rather than a monetary value.

Philosophy has changed in recent history. Modern society has many philosophies and beliefs with no "right answer." In the past, religion was the common belief that

people held, and it unified people. Religion was a higher code than government laws. In modern society are many beliefs that government laws outrank any individual's beliefs. This leads to a changing of philosophy in today's world. Different beliefs mean that it is hard to have a "right answer." This lack of unified beliefs has led to caring more about *individuals* than *people* as a whole.

ATTITUDE TOWARD THE TIME CLOCK

Remembering Death (Time till Death)

We should focus on the quality, not length of our life. We are not going to live forever, so we should try to live full lives. Every living thing goes through changes throughout life; we're born, grow up, get old, and then die. Every living thing will eventually die. Leo Tolstoy argues that instead of being frustrated about our limited time, we should "remember death". When we think about our own inevitable death, we are reminded of the value of the moment—and this enables us to "live for a day—live for an age" (Tolstoy 25 vol.2). This richer experience and appreciation of life allows our moment to be like an eternity. Death is a natural phenomenon, the completion of life. Remembering death helps us to accept these changes and our mortality. Time keeps going, and accepting that time goes on makes these changes easier to accept. Throughout life everyone has ups and downs, and given enough time; the good times can turn to bad, and the bad times can turn to good. Time has the power to heal us. If we accept that time will pass, in good and bad times, then we can grow from these experiences.

In my experience with breast cancer, I underwent a lifetime of emotions and fears waiting for a single diagnosis or test result. I declined a second surgery out of concern of my quality of life. I did not want to spend my time in countless appointments and waiting for results from examinations and drug trials. Nor did I want to suffer the side effects of the medications. I knew it would become a never-ending cycle, and I did not want to spend my remaining time being anxious or nervous about the cancer that already seemed to be consuming my life. At this point I did what I previously thought was unthinkable—I

accepted death. This is when I gained my freedom. Time is limited, but it does not have to define me. I did not want to spend the remainder of my time constantly at the hospital; I wanted a better quality of life. Freedom is found in embracing our limited moment of time and choosing how to live, rather than surrendering to our fears and being bound by time.

"Carpe Diem (Seize the Day)" - Focus the "Moment"

If I am not for myself, who is for me?
If I am for myself, what am I?
If not now, then when? (Nowotny 132)

Most people focus too much on the past- which cannot be changed- or spend entirely too much time worrying about the future, which is just wasting away the present. The past is situated in the form of memories. The future? Does not exist. We dream of the future; however, there is no guarantee that the future will come. "The past is gone, the future is not yet, and only the present exists…. Not length of life, but its depth is of consequence. The important thing is not the duration of life, but how to live beyond time" (Tolstoy 25 vol.2). The act of remembering, right now is achieved. This should spur us on to live in the present, instead of attempting to be present in the past and future.

One of my friend's grandparents are the perfect example of how experience affects the perception of time. Her grandfather and grandmother both have cancer; however, the grandfather is okay with dying while the grandmother is not. Her grandfather is a content man; he had a full filling life with friends and family that he loved. He is okay with dying now because he is happy with his life thus far. He doesn't have a lot of money but his life is rich with the love he has from his family and the memories he shares with us.

Grandmother, on the other hand, is not okay with dying. She tries to live as long as possible but she does nothing with that time. She is bitter, she argues, and never has anything positive to say. She feels that her life did not go as expected, and she seems to view her cup as half empty instead of half full. These two drastically different examples show how different people come to terms, or don't, with the end of time. "You fear death, but think what would become of you if you were to live forever just as you are?" (Tolstoy 171 vol.2).

PAINTING PROCESSES AND INFLUENCES

Looking at microscopic images of cells, one could almost see them as a work of art rather than definite, fixed biological matter. Many artists, such as Jean Arp "*Configuration with Two Dangerous Points,*" Wassily Kandinsky '*Succession,*" and Max Ernst "*The gramineous bicycle garnished with bells the dappled free damps and the echinoderms bending the spine to look for caresses"* have found their inspiration in cellular bodies, preferring "biometric" forms over geometry, angles, and lines. Organic forms are not limited by boundaries; they have no container, and they allow for a greater degree of freedom than linear forms. I have explored the use of organic forms in my images, characterizing the biological nature of cells and the freedom of not being "restricted" by time.

In my studio, my works in progress employ the use of organic forms and varying textures. My base painting is created on the back of the canvas to develop the type of forms and textures I desire.

The use of abstract art has allowed me to explore the concepts of cell shapes and forms. At first, I had tried making realistic paintings that were illustrations of cells, but I did not feel like this captured the feeling that I was trying to portray in my art. I did not want viewers to merely look at and take pleasure in my art. I want them to *experience* it, to find a meaning more subliminal than the picture in front of them. I felt like there needed to be a more profound meaning behind my work, so I started to explore other cellular concepts like DNA sequencing and genetics that I could use to relate my art to my experience with breast cancer.

After my cancer diagnosis, I found myself constantly worrying about time, asking "Now what? How much time do I have left?" Time became the center of my thoughts and emotions. My perspective was drastically altered when I realized I may be running out of time, but as time went on, I stared to realize that the quality of time is much more important than the quantity, and I tried to capture this changing perspective of time in my paintings. Abstract art gave me the freedom to combine the concepts of biology, time, and perspective. I was able to blend some of my favorite "classical" techniques and mediums with some modern ones that I had never used before, like screen-printing. Curiosity and open-mindedness compelled me to break free from the limits of classical art, and gives open-minded viewers the chance to interpret my art in ways that are personal to them.

One of the primary influences of my work is the artist Randy Garber, who creates visual portrayals of her battle with breast cancer. The focus of her work was to access the emotional and perceptual experience of being impaired. One of her paintings, *Cell Bodies*, depicts "interior, cellular landscapes that evoke a sense of order as well as orderly growth gone awry" (Garber).

I also found inspiration in Claude Monet's series of paintings of the Rouen Cathedral, a series of images of a single building during different times and seasons. Time, light, color, and a variety of other factors can affect the way we perceive reality. The actual "reality" of this building does not change; only our perception of it is altered. The images have completely different meanings, despite the fact that they are identical in shape, size, and spectral content. Seeing color is one of the most basic brain processes, and even at this most fundamental neurological level, context is everything. It answers

questions that tell us “not only why we see what we do, but also who we are as individuals and who we are as a society.” (Beau Lotto).

Time I. The color yellow evokes feelings of optimism and excitement, analogous to my feelings after coming to accept the uncertainty of time and choosing to live a fulfilling life, no matter the length. Yellow can also make a viewer feel excited and productive. The columns of DNA sequences in my *Time I* painting can be interpreted as silhouettes of buildings in a busy city.

Time II. The organization of many tiny individual objects to make a bigger picture, like pixels on a computer screen, is a fundamental law of nature. We ourselves are composed of trillions of cells. I worked with this idea in my *Time II* painting, where I compressed several different DNA sequences to create an intricate, detailed image. The opaque, circular bodies on the top layer represent past, present, and future, while the hair-thin lines flowing throughout the image are meant to signify the passing of time.

Time III & *Time IV.* The language of DNA sequences – adenine (A), guanine (G), cytosine (C), and thymine (T)– is what creates a recognizable identity for every living thing. My *Time IV* painting focuses on this genetic language, drawing the viewer into the scientific nature of my work.

One of the most important keys to being content and satisfied with life is being present – not dwelling on the past, not stressing about what is to come, but simply being aware of the current moment. My *Time V* painting is divided into three different sections – past, present, and future. The past and future are a single shade of grey, while the section of the present is a bright array of colors, representing the experiences and opportunities of the present moment. Sometimes, our “here and now” is spent in another

time. Our thoughts get stuck in the past or future, and many of the benefits that come with presence are lost. The solid colored circles in my painting illustrate this lack of presence.

Time VI. I take this concept of "identity in color" a step further in one of my paintings: vibrant colors on the right representing diversity of perspectives, personal values and ideas of the present time, and solid gray on the left illustrating the unity and similarity of beliefs of the past.

CONCLUSION

How I came to be at this moment in time has been swayed by my personal experience with breast cancer-everyone has a story in their life. Even though we can't change the parts of ourselves that are predetermined by DNA, we are in control of how we spend our time. Most people focus too much on the past- which cannot be changed- or spend entirely too much time worrying about the future, which causes them to waste away the present. The past is situated in the form of memories. We dream of the future; however, there is no guarantee that the future will come. The act of remembering, right now is achieved. This should spur us on to live in the present, instead of attempting to be present in the past and future.

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Salcman, Michael “The Persistence of Memory” by Salvador Dali (1904-1989)

Image 1-Time I, Acrylic, Gesso and Silk Screen on Linen, 2016

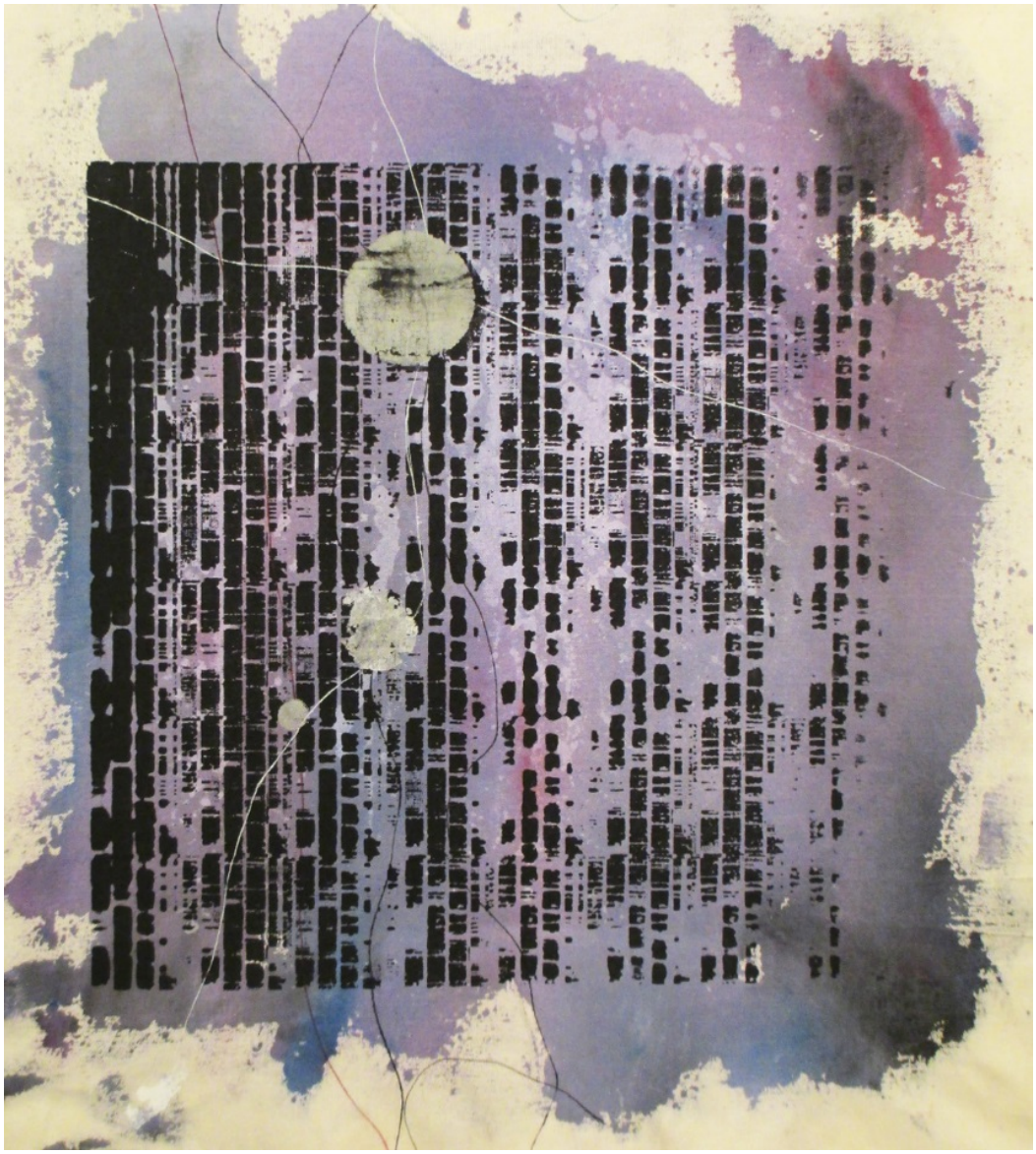

Image 2- Time II, Acrylic, Gesso and Silk Screen on Cotton, 2016

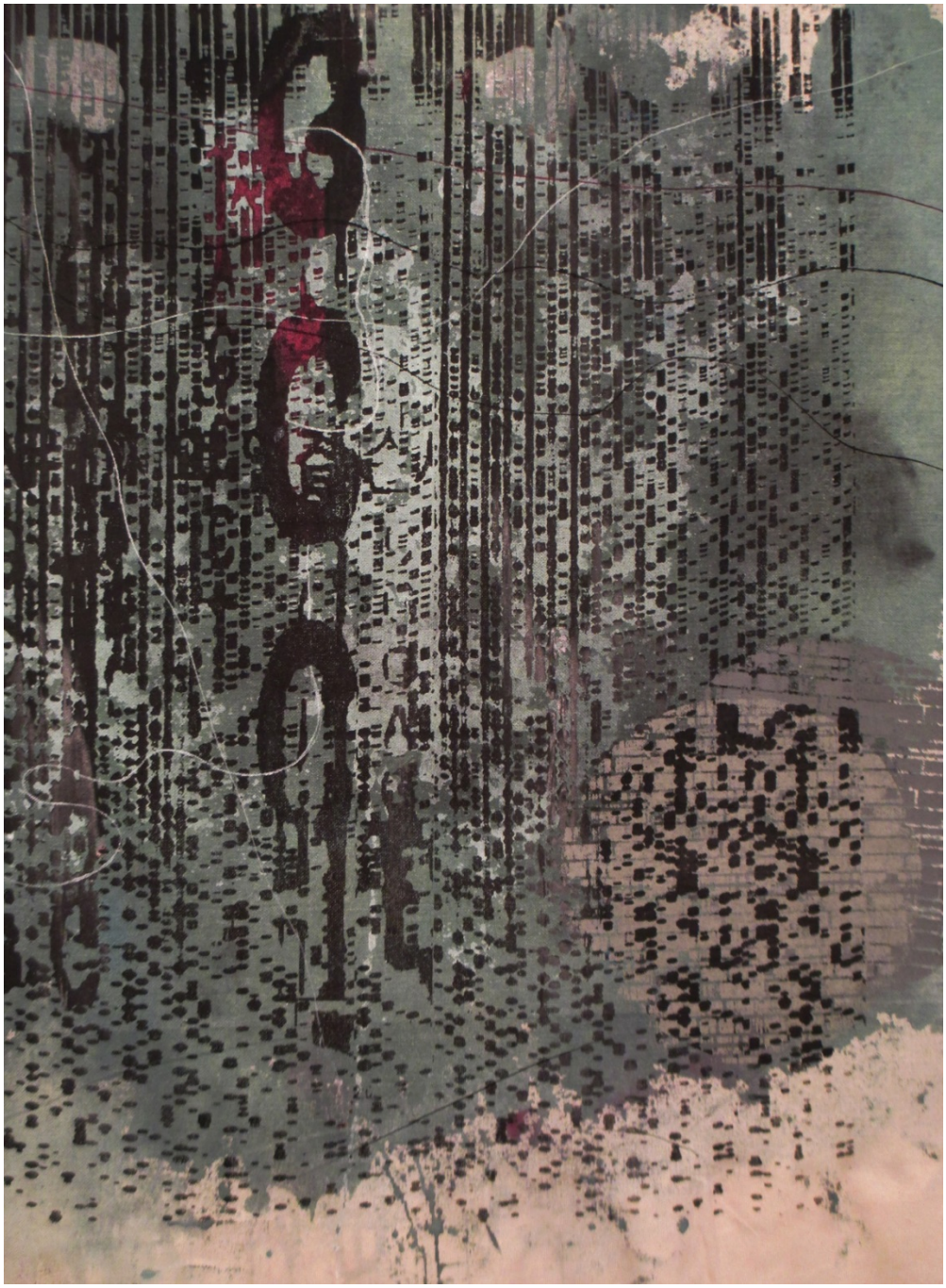

Image 3 - Time III, Acrylic, Gesso and Silk Screen on Cotton, 2016

Image 4 - Time IV, Acrylic, Gesso and Silk Screen on Linen, 2016

Image 5- Time V, Acrylic, Gesso and Silk Screen on Linen, 2016

Image 6- Time V-II, Acrylic, Gesso and Silk Screen on Linen, 2016

Image 7- Time VI, Acrylic, Gesso and Silk Screen on Linen, 2016

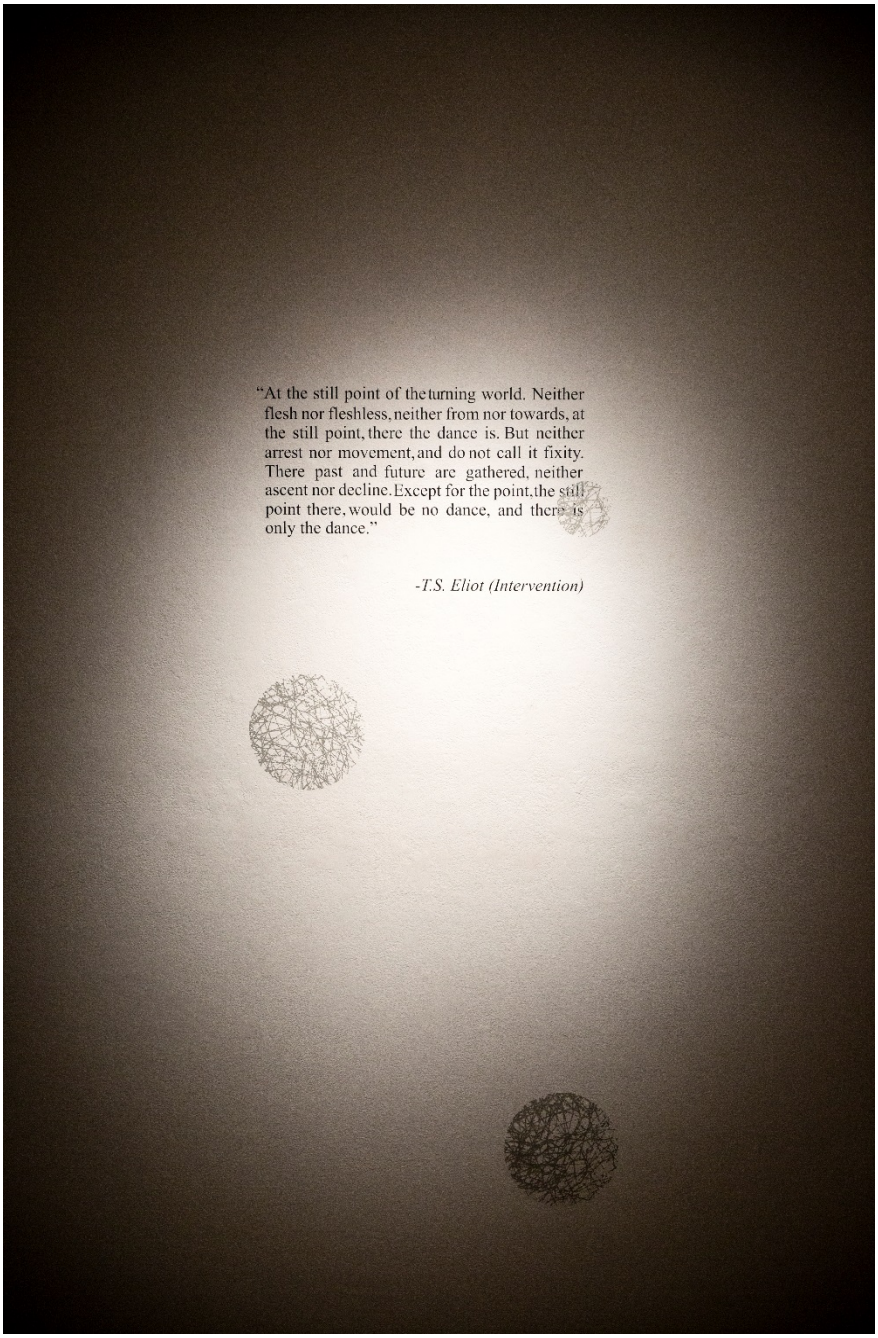

Image 8-Time VII, Silk Screen on Wall, 2016

Image 9- Gallery View I

Image 10- Gallery View II

Image 11- Gallery View III

Image 12- Gallery View IV

Image 13- Gallery View V

Image 14- Gallery View VI

Image 15- Gallery View VII

Image 16- Gallery View VIII

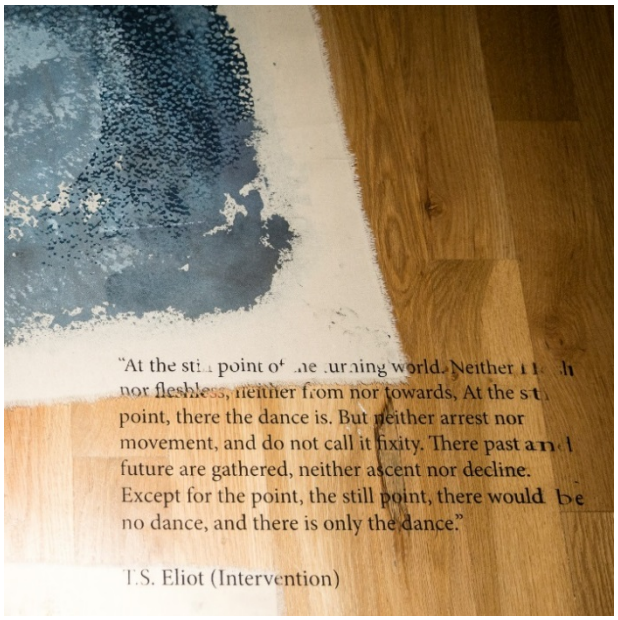

Image 17- Gallery View IX