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Possibilities in Simulated Reality

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Possibilities in Simulated Reality

by

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School for American Crafts

College of Art and Design

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Abstract

This thesis work is based on two simple questions- what is reality, and is there any way to determine if you live in a real world. Whether from ancient times or the present, the east or the west, or fiction movies to philosophical reflection, countless people have ruminated on these questions. The answer seems obvious that reality is anything we can perceive based on our perceptions, but it's not necessarily factual even though it feels very real. A philosophical viewpoint called epistemological skepticism indicates that we cannot be certain of anything, and there is a philosophy hypothesis named simulation theory which regards that all the present existence of human awareness including the earth and the universe could practically be an artificial simulation. Which means there is a possibility that we are only a flock of non player characters built up with code that live in a programmed artificial world run by a supercomputer. If it's true that we live in a defined environment, what can we do? Does it mean we do not have any choices or opportunities to make any differences? Through these pieces- this thesis considers multiple possibilities, and allows people to think and explore the opportunities for us even if we live in simulated reality.

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Introduction

In ancient times, many cultures developed elaborate systems of horoscope to reckon the fate of people, speculate the success or failure of things, and predict significant events that may occur in the future, such as Jyotisha in India, I-ching in China, and Astrology in the west. These systems make people wonder if we do live in a system that can be calculated, and it's difficult to distinguish whether it's reality.

Some people may argue the horoscope is pseudoscience, but there are also some theories in scientific fields. In digital physics, an academic article called Constraints on the Universe as a Numerical Simulation concludes that it's possible we live in a simulated world (Beane et al. 2012:1-9). Also, with the development of technology, Mind Uploading and Brain Computer Interface are invented and the understanding of what's real and what isn't starts to blur. Even in the foundation of all other disciplines such as philosophy, there are also some hypothesis like the Butterfly Dream, Allegory of the Cave, and Brain in a Vat which discuss the possibility that reality could be an illusion.

This topic sounds terrifying if we believe it, but the objective of this thesis is not to threaten you. On the contrary, to start thinking this topic is not only a reflection that you are exist in whatever kind of the world, but also a chance to reexamine the surroundings. It seems powerless, but is actually more powerful to break through the frame from both outside and inside. There is no construction without destruction.

BODY OF DOCUMENT
Section I: Context

The original reason to start thinking about the idea of simulation stems from my recent experience and interest in astrolabe. There are a lot of things in life that seem to happen coincidently, but when so many coincidences are put together, it gives me a sense that everything is arranged by a higher dimensional class field, and the fate of humankind is predetermined. Plenty of things have certain laws in life like complex programs, and some appear to be fathomed by humans, such as climatic variation and biological evolution, but more may come along that are random and unordered. It's possible that the irregularity is because they haven't been generalized by human. Compared with the vastness of the universe, human beings have very few comprehensions, so there is a sense of being powerlessness and insignificant. These ideas have helped shape my research.

The "Diamond Sutra", also called "Vajra Prajna Paramita Sutra", is one of the greatest Buddhist classics in the history of Buddhism and contains the highest wisdom of Mahayana Buddhism. This sutra asserts that all things in the world are illusory and unreal, and that there should be no attachment or nostalgia for the real world. There is a length of gatha in The Diamond Sutra narrates that "All composed things are like a dream, a phantom, a bubble and a shadow, a drop of dew, a flash of lightning. That is how to meditate upon them, that is how to observe them" (O'Brien 2021). Everything in life seems to follow this pattern, and, although things look real, they are actually more like the things conjured up by a magician. They can be seen and heard clearly, but not really what they appear to be. The Gatha is not only verifying that everything is impermanent, but also asserting that everything is illusory. We should not be fooled by appearance and regard phantoms as "real". The Buddha is saying 'All dharmas are impermanent,' but he is not saying that they are not here. He only wants us to see the things in themselves. We may think that we have already grasped reality, but, in fact, we are only grasping its fleeting images. If we look deeply into things, we will be able to free ourselves from the illusion. The wisdom is the realization that all phenomena

are empty of self-essence, and any identity we give them comes from our mental projection. The main teaching is not so much that things are impermanent; it is pointing to the nature of their impermanent existence.

Taoism is a religion that originated in China. It was formed in the 2nd century AD and has a history of more than 1,700 years. Taoism was gradually formed on the basis of the ancient Chinese concept of ghost worship, based on Huang Lao's thought, and inherited the theory of gods and alchemy since the Warring States Period. The core and basic teachings of Taoism are Morality and Virtue. Zhuangzi, also known as Zhuang Zhou, was a famous philosopher, thinker and writer during the Warring States Period. He is a representative of Taoism, and the inheritor and developer of Laozi's thought. There is a story written by Zhuang Zhou, On Leveling All Things called The Butterfly Dream. The story represents a dream of becoming a vivid butterfly, in which didn't know that he was Zhuang Zhou anymore. After waking up for a while, he was surprised that he turned out to be Zhuang Zhou. He couldn't distinguish whether Zhuang Zhou dreamed of becoming a butterfly, or did a butterfly dream of becoming Zhuang Zhou. There must be a difference between Zhuang Zhou and Butterfly, and that is the state of eliminating the difference between things and ourselves to be on very intimate terms (Cheng 2014:563-97). The story declares that the difference between Zhuang Zhou and the butterfly is actually caused by our own limitations. As a person in this specific time and space, the only recognition is between human and butterfly due to the limitations of vision and mind. If you want to break this limitation and leap to a higher state, through the form of "dream" is the only way to achieve it (The Philosophy Foundation 2021). Psychoanalysts such as Jung and Freud have their own explanations for the exploration of "dreams", but it can also be seen that "dreams" are actually a way produced by humans to eliminate their own limitations and move upward. In the higher time and space, "Zhuang Zhou" and "Butterfly" are actually one, but in our time and space, "Zhuang Zhou" and "Butterfly" are in different physical states.   Excepting to rely on future technology and dreams, there is
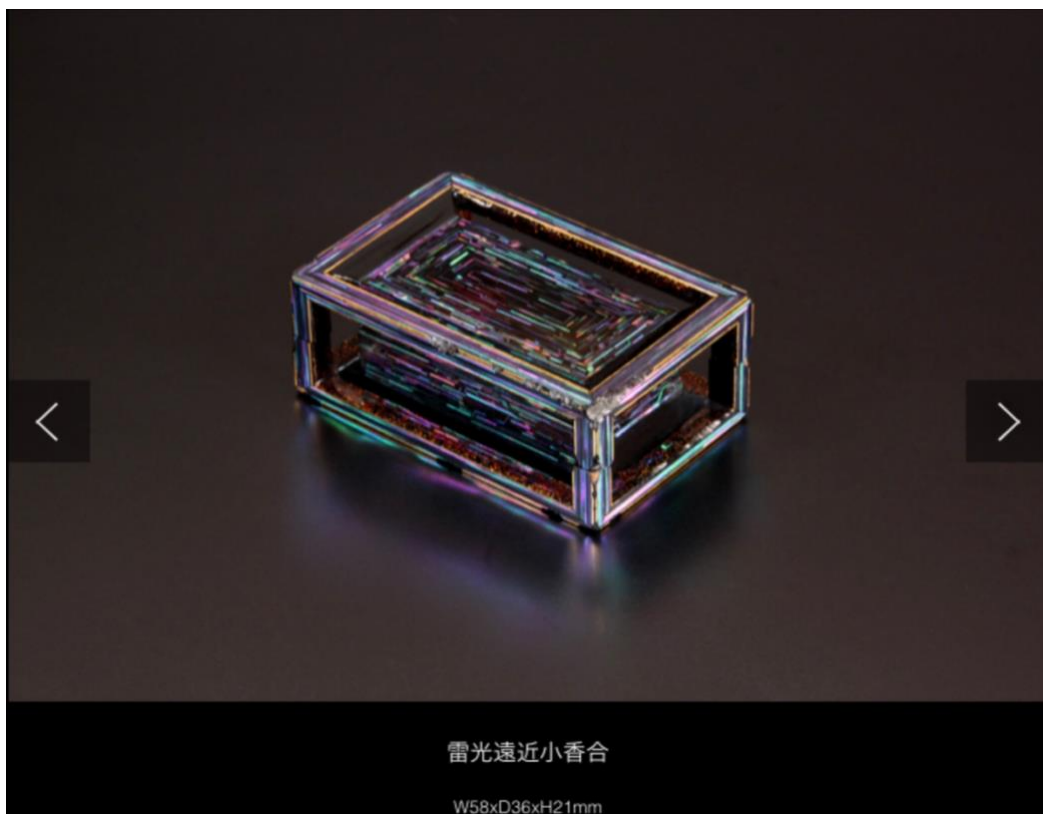
a third way that we can leap from our time and space to a higher spot which is "enlightenment."   This approach is similar to the Zen Buddhism, that is, through "enlightenment" to get rid of the limitation of thinking, so as to achieve a state of freedom of life.
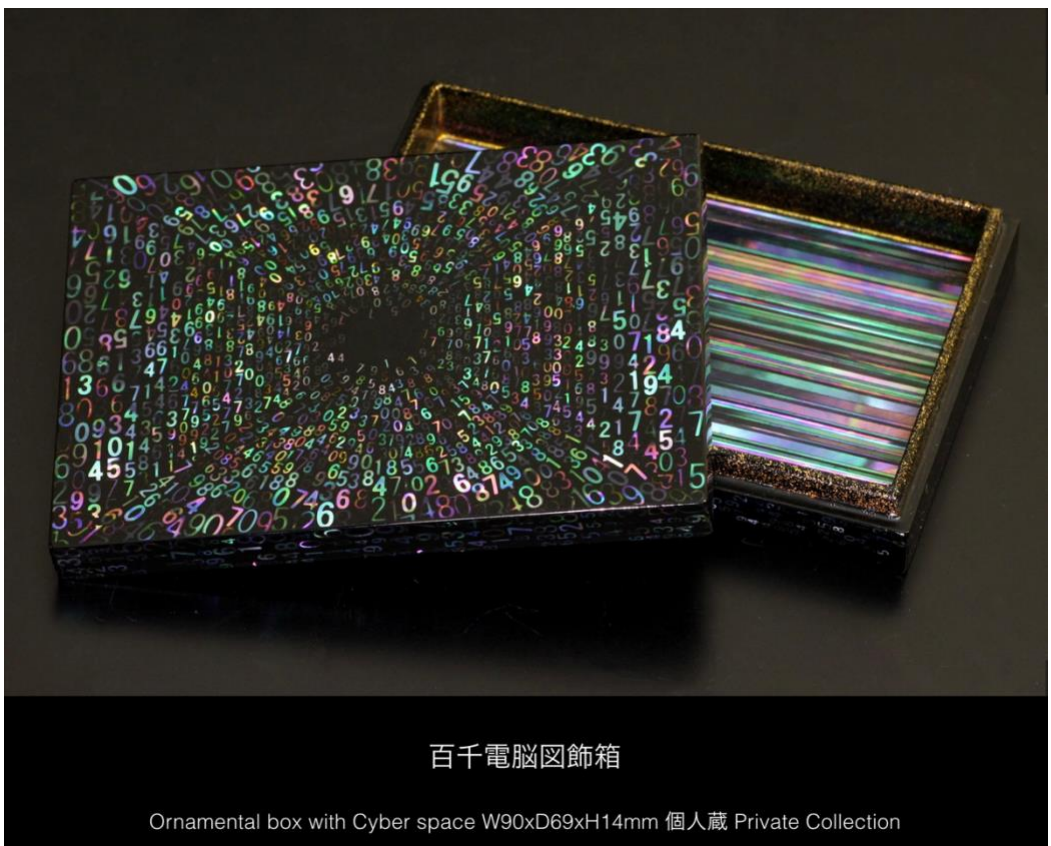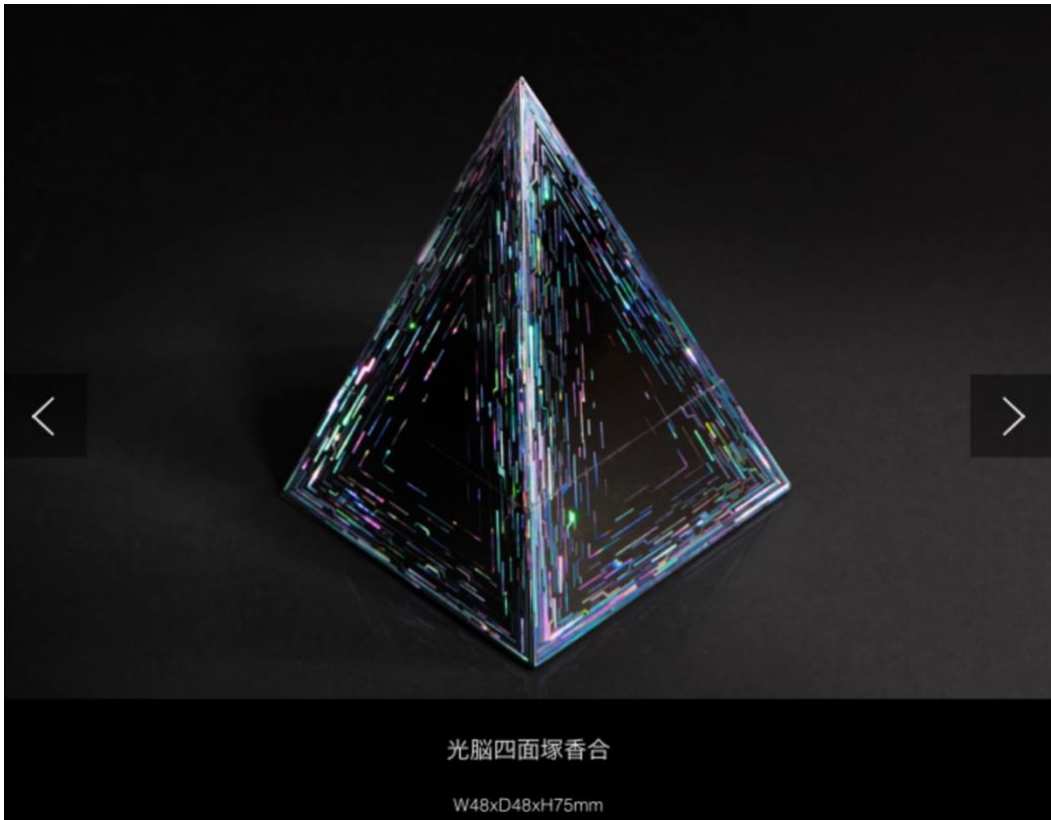
Plato was a great philosopher in ancient Greece and one of the greatest philosophers and thinkers in the entire Western culture. Plato, his teacher Socrates, and his student Aristotle were also called the three Greeks. The concepts he created or developed include: Platonic thought, Platonism, Platonic love, etc. His cave theory is one of the most famous metaphors in classical philosophy. The general content is presupposing a group of people are locked in the crypt from the very beginning, and they can't turn their heads and can only look at the shadows printed on the cave wall in front of them. Behind the group of trapped people, there is a passage, which can run through the entire cave. There is a wall beside this passage. This wall is not high, probably as high as a puppet show screen. People outside walked through this passage carrying various tools and instruments, and the light of the fire shone these shadows on the wall in front of the trapped people. Therefore, these people think that the shadows are the only real things in this world because they have never seen anything else in the world from the very beginning. If one of them was released to see the normal world, he would feel everything in front of him was strange and suspicious. When he begins to accept this normal world and tries to go back to the cave to rescue those partners, it would be difficult for him to adapt to the previous life. Then he will find that it is difficult or even impossible for him to persuade his partner to trust him and leave with him (Bedard 2021).

The prisoners in the cave do not have insufficient thinking ability, but the environment trapped them also trapped their mind. Coupled with the herd mental interference of group thinking, it is even harder for them to discern the true from misleading. In fact, it's the same in our world that we could lightly be trapped, and the awakening of consciousness allows us to enter another "cave" from one "cave", which

means it needs to be upgraded again and again. We need to observe the world keenly to doubt everything you see and hear, and try to see the essence of things as clearly as possible.

There is an artist I found impressive during my research. Terumasa Ikeda is a Japanese lacquer artist who works with a laser cutter to create works of great precision based on the techniques of traditional Japanese craftsmanship. The motifs of his works influenced by movies, anime, and other subcultures that symbolize our digital society. I felt like the expression of his artworks match the concept of my thesis, and there are some images inspired me.

雷光遠近小香合

W58xD36xH21mm

光脳四面塚香合

W48xD48xH75mm

百千電脳図飾箱

Ornamental box with Cyber space W90xD69xH14mm 個人蔵 Private Collection

Section II: Evolution

     In the beginning of producing the pieces, all the focus was on the concept of simulation, and the direction of creation was restricted into a sci-fi cyberpunk style. I made several wearable body pieces based on the images of artificial intelligence and cyberpunk. During the creation, I felt that the expression became more and more blurred, and what I made couldn't logically convince myself. Then I collected my thoughts and arranged them again, and I found that I had lumped the environment and people together. Theses two important parts should be discussed separately.

The previous unfinished work of thesis

In fact, the conception is only a background information on account of a hypothesis. Before being framed by the simulated reality, I was framed by the background set by myself. As a consequence, the restriction was breached from the moment the problem was realized, and the possibilities of the creation emerged. The process of evolution is closely similar to the situation of trapping in the hypothesis of simulated reality, and things were turned from powerless to powerful since the possibilities had been seen.

Section III: The Body of Work

The materials of my work are basically acrylic board, resin, copper wire, and stainless steel. The overall work is transparent, to create a vibe that is between the real and the simulated world. The boundaries exist but hard to be seen. The colors I chose are based on science fiction games in cyberpunk style because as I mentioned that I want to create a scene that humans are like non player characters in a video game. I think life is like a game that would end eventually, and the most significant things are the process and experience.

There are two main parts of the work that represent human beings and the world we live in. The colored resin pieces in irregular shapes typify every individual, and the idea is from an ancient story about Nüwa, the goddess of Chinese mythology credited with creating human (Lewis 2006). Since Pangu opened up the world, there has been the sun, the moon, wind, rain, thunder, lightning, mountains, and rivers.

Also, a gorgeous goddess called Nüwa was born. She lived a carefree life in this beautiful, but she felt a little bored with the passage of time.

One day, Nüwa came to a big lake and saw her reflection in the lake, and it was funny that the inverted reflection changed as she changed her expressions . Suddenly, she flashed a thought of making some little figurines like her. Then, she grabbed a handful of loess and started to squeeze out the little clay figurines that imitated the reflection of the lake. Nüwa blew a breath at the clay figurines, and they magically started to move-singing, and dancing around her. Nüwa was very happy, so she kept squeezing the figurines and blowing air, but the world was too big after all. After working for a long time, her hands became numb and pinched out. The figurines were still too scarce to be distributed all over the world. Therefore, she picked up a vine from nearby, placed it into the mud, and splashed it on the ground. In this way, these random mud drops became a crowd of figurines, and Nüwa gave them a unified name, called "human". That's the reason I used colored resin drops to represent human beings.

Another part of my work is the world we live in, and I applied the binary computer language "zeros" and "ones" to symbolize it. There is a sentence in The Book of Changes which embodies ancient Chinese philosophical thinking, which is "In the system of Change there is the Great Ultimate. It generates the Two Modes (yin and yang). The Two Modes generate the Four Forms. The Four Forms generate the Eight Trigrams." (Adlet, trans 2020). Simply explained, the origin of the universe brings forth the Two Modes that refer to the relative of yin and yang. Similarly, in mathematical terms it's the relative of positive and negative, and in computer language it's the relative of zeros and ones.

Everything around us which includes our work and our thoughts, in fact, can be transformed into some symbols or numbers for quantification in the end. In this case, the binary of computer language can describe almost everything, and it's the reason that I utilize the binary numbers to constitute the world.

CONCLUSION

All thoughts and discoveries start from a small question, and all progress also starts from a certain person taking action to change the status quo. This thesis started with discovering the small details in life and then thinking about the reality or the simulation, to the extent that explore the essence of things. In the process of thinking and making this project, I experienced being limited by thought and jumping out of the frame, just like many times that it's not external factors that frame you, but your own thought.

Whether we are trapped in a simulated world or whether we are computer codes is not really important, what's important is the process of thinking and change. This is the foundation of human development so far, and this is also how I've accomplished my thesis works. Although I did lots of research and had professional guidance from the committee, I couldn't finish it if I didn't think outside of the box. I've learned that even though the objective condition of the environment is significant, the most authoritative consideration is oneself. Regardless of whether this world is real or not, it's fair to everyone living in this world, and where an individual can develop depends on one's own cultivation. "I think, therefore I am". Thinking is the first step in action, and it's also important not to be afraid of being different. You must have the courage to be different and take actions, so that you can break out of the frame, influence the people around you, and create more possibilities.
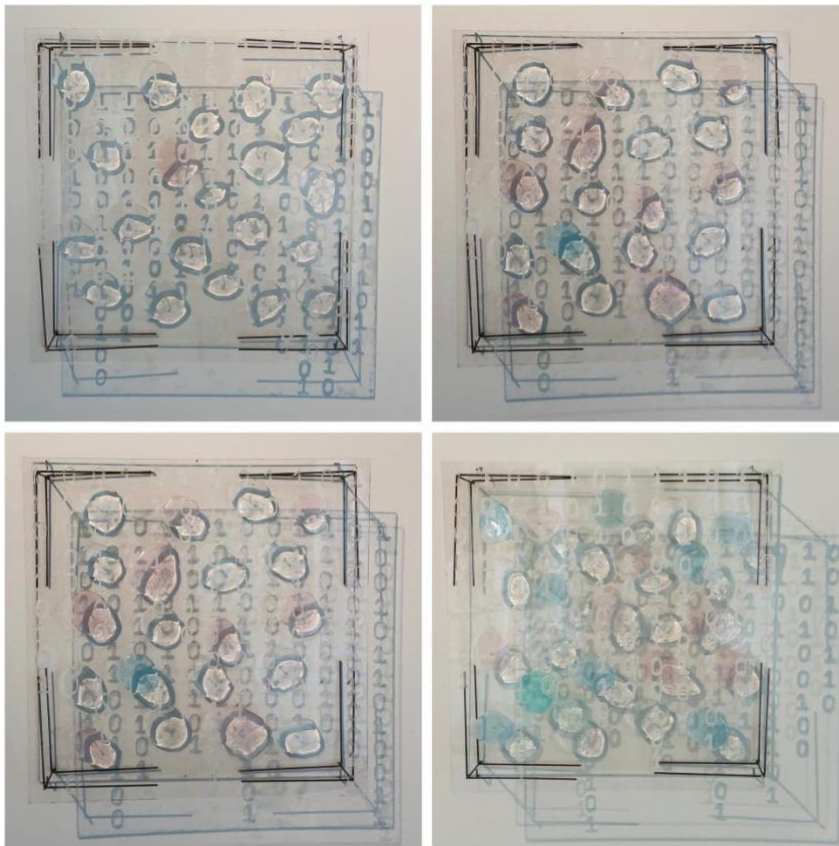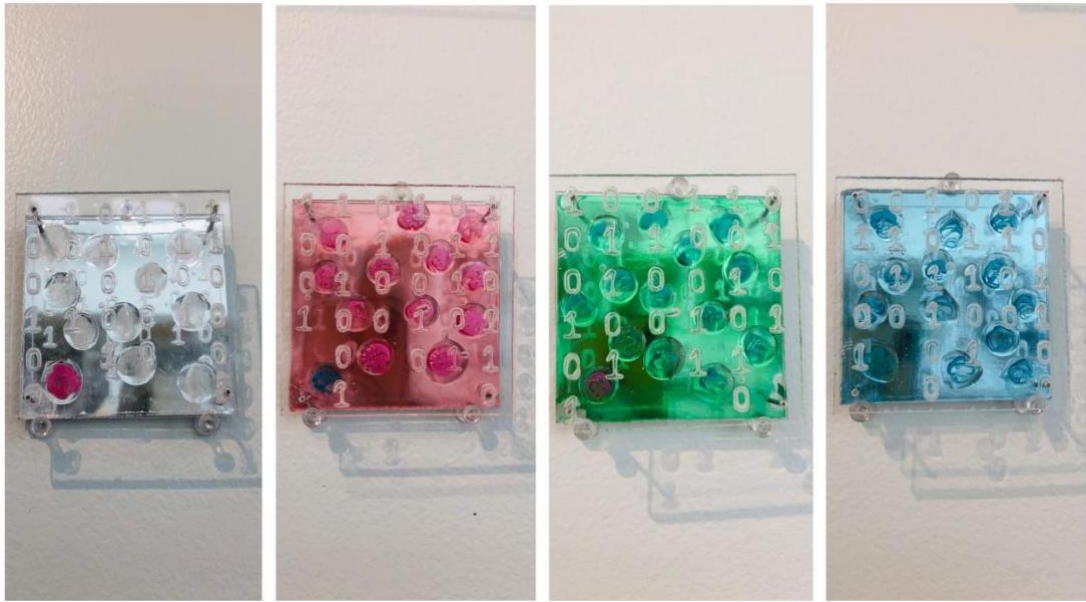
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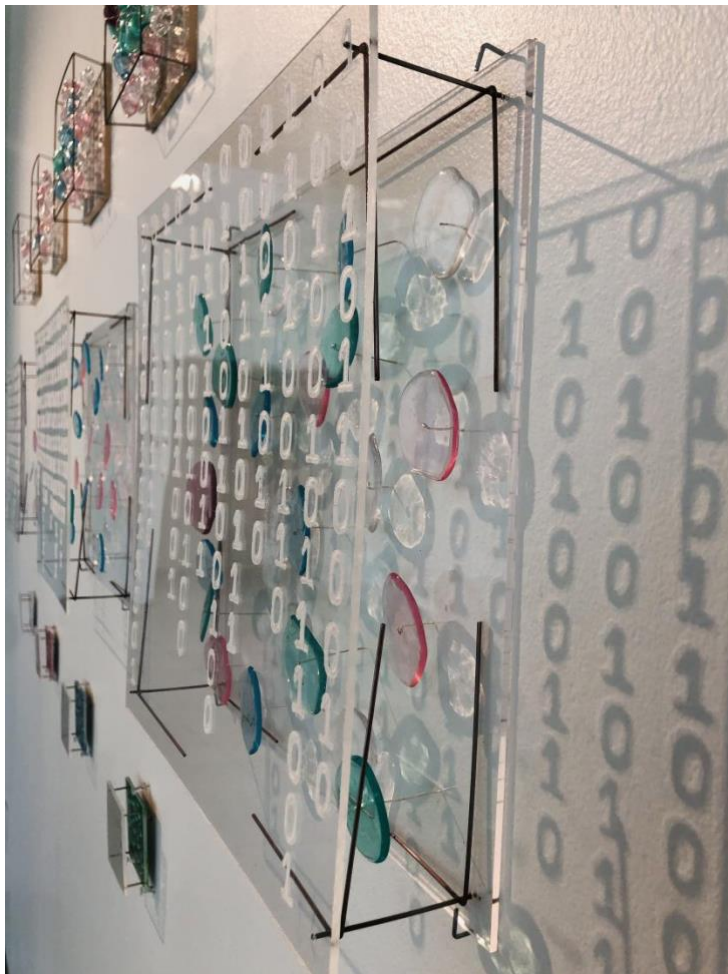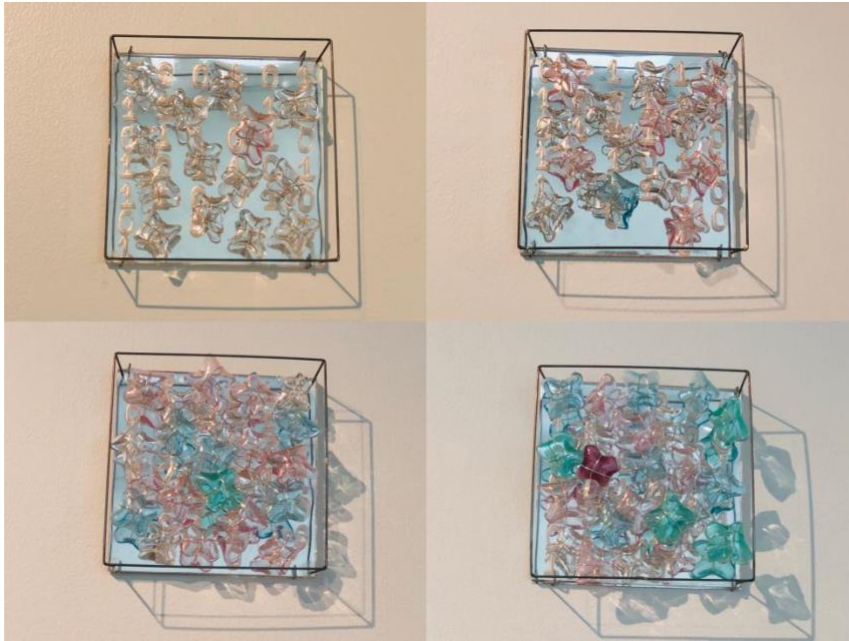
Medium: Acrylic, Resin, Stainless Steel, Copper

Size: 6" * 6" * 1" Each

Medium: Acrylic, Resin, Stainless Steel, Copper

Size: 12"* 12"* 1.5" Each

Medium: Acrylic, Resin, Stainless Steel, Copper

Size: 3" * 3" * 0.5" Each

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