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Silicone Love – Her Garden

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Abstract

Silicone Love – Her Garden

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Silicone Love – Her Garden is a mixed media installation representing a conceptual figure: an Internet ghost. It is a metaphor applied to the explore aesthetic properties of online videos. The work emphasizes on deeming web-based footage as an atmosphere rather than a single visual object as in film. A result of studio-based practice, the installation consists of eight video mapped hanging sculptures and a surrounding sound system. Inspired by the form of the Chinese garden, the work revives the ancient architectural theory termed *Borrowed Scenery*. A circular frame is applied and varied to create rhythms of seeing in relation to distance, perspective, and changing lights. The sculptures, moving images, and sound spatialization are structured to encourage playful voyeurism.

The narrative structure approaches YouTube as an ever-growing database of lifelike videos.

Applying both digital and traditional hand crafting techniques, the “ghost” is then realized as a hybrid form of soft sculpture creating volume from projected light. This work transforms online footage into a fictional site, triggering poetic meanings in a viewer’s mind.

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1 Chapter 1. INTRODUCTION

1.1 OVERVIEW OF SILICONE LOVE – HER GARDEN

This document examines the mixed media installation entitled Silicone Love – Her Garden. The work is realized by combining mediums of moving image, sculpture, and sound. To discuss the ubiquitous nature of networked footage from YouTube, this project uses online video as a virtual sculpting material to create a fictional figure – an Internet ghost. This metaphoric figure depicts online videos as a collective form of human memories. To create an immersive site for experiencing the ghost, the installation utilizes the structure of a garden. This is inspired by field research of Chinese gardens, which contain a complex spatial system designed for pleasurable/playful seeing.

The project revives an essential Chinese gardening theory: *borrowed scenery*¹. This architectural principle applies circular door and window frames to simulate a pictorial viewing experience.

The circular framing is implemented through various elements in the space: sculptures, projected images, and sound. Juxtaposing this ancient technology with the contemporary culture of “photographic seeing” (Sontag), the work reconnects new media arts with an ancient form of artistic practice.

¹ *Borrowed Scenery* is the title of the last chapter in one of the most important garden design theory books in Chinese history – *Yuan Ye* / 园冶 (Ji).

Craft-based methods are blended with projection mapping techniques to create a new aesthetic language. Tulle fabric is used as a projection surface, transforming projected video into lighting sculptures. The surface is sewn to extrude and conduct flat moving images into ghost-like figures. The editing of found footage also inherits a craft-based archetype, a video tapestry, a non-linear structure that compresses multiple layers of looping clips into a sculptural performative texture.

Compositionally, the work explores a medium specific narrative emerged from collected Internet data. Utilizing space as an alternative storytelling form, videos and sounds are transformed to architecture made from networked looping video objects and surrounding sounds. Meaning is generated from the spatial relationships between sculptures, which create visual “rhythms”. Repetition, variation, and collage-based editing techniques are applied to compose narratives out of visual and audio data.

The title, *Silicone Love – Her Garden*, is inherited from two previous mixed media installations: 1) *Silicone Love – Intro*, 2) *Silicone Love – Her Finger*. These three installations complete a larger scale of a narrative structure, which deliveries different “chapters” of the Internet ghost story. This series explores online video as an environment, a space-medium (Treske). The ghost inhabits the space and changes its “personalities” depending on different collections of found footage.

Online video sharing culture seamlessly and relentlessly acquires our emotions, longings, and personal stories. The Internet and its visual language is another dimension of human life. By

extrapolating meaning and aesthetic value from found footage, the work constructs a poetic reading of the Internet, rather than developing a system of data-visualization.

1.2 ORGANIZATION OF THE DISSERTATION

This thesis is arranged to document research processes leading up to the dissertation project. It starts with an introduction of my early DXARTS projects that establish my interest in working with mixed media objects. The previous works involve a series of material experiments and conceptual developments. This is followed by a literature review chapter providing theoretical and practical context to the creation of Silicone Love – Her Garden. Chapter Four describes the process of completing the project. The exhibition notes section proposes an improvisational installation method, which modifies and refines the piece in order to integrate it with the space of the Jack Straw New Media Gallery. The final chapter concludes the outcomes and reflective thoughts in relation to the future trajectory of my art practice.

2 Chapter 2. PREVIOUS WORKS

This chapter contains two parts. The first part elaborates on three works which focus on the making of computational objects. It emphasizes on two aspects of my pre-dissertation art practice: 1) the exploration of skin/flesh/human-like materials, including silicone, water, muscle wire², etc. 2) conceptual developments regarding emotional objects, digital intimacy and objects as storytellers.

The second part presents my doctoral general exam piece, *Silicone Love – Intro*. This work shifted my art practice to installation-making. It is an introduction piece leading up to my dissertation piece. They share a common theme – the Internet ghost, which explores the cultural impacts of the Internet through found footage.

This chapter documents a series of studio-based research projects that have established a set of technical and conceptual framework in preparation for the dissertation work. Each project is approached through the lens of artistic intention, technical development, material experimentation, and review of the project outcomes.

² Muscle wires are made by a type of Shape Memory Alloy that changes form according to different temperatures.

2.1 COMPUTATIONAL OBJECTS

2.1.1 (): *An Emotional Object*

The work () is an interactive wearable piece. It is a pair of glove-like accessories (see Figure 2.1.1-1), which react to the distance between a wearer's wrists and the surrounding objects.



Figure 2.1.1-1 Photo of ().

Photography by the author.

This project explores the idea of emotional objects. The inspiration of this work came from my first emotional reaction towards Seattle: awe. To explore the relationship between feelings and objects, I imagined that an emotion could be transformed into an interactive artifact. The object performs a person's feeling through its kinetic movements.

Technically, there are two shape-changing silicone pads that are located on the wearer's palms. When the wearer's hands are too close to something (about 2 inches), the silicone pads will

expand and will produce heat. The interaction is achieved by using a pair of sharp infrared distance sensors³ to detect the distance between the wearer's wrists and the front object (see Figure 2.1.1-2). By interpreting the information through an Arduino⁴ microcontroller, it triggers the expansion of the silicone pads.

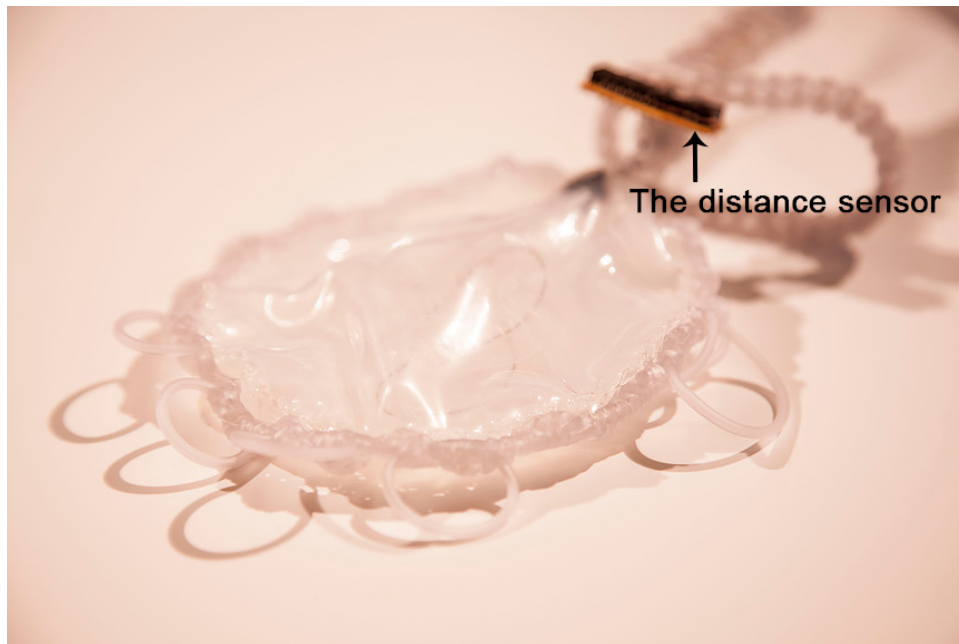


Figure 2.1.1-2 Close-up photo of ().

Photography by the author.

In terms of the material experimentation, this is the first project where I started to play with silicone and muscle wire, which attempts to simulate a visual effect of artificial skin. In the next project, *Whisper Mirror*, I continued to explore the manipulation and combination of these two materials. Through the use of mechatronic movement, the silicone creates skin-like texture, a

³ This is an analog sensor for detecting distance. The data sheet of this sensor: https://www.sparkfun.com/datasheets/Sensors/Infrared/gp2y0a02yk_e.pdf

⁴ Arduino is an open-source programmable microcontroller. Please see more detailed explanation through Arduino's official website: <https://www.arduino.cc/en/guide/introduction>

seemingly corporeal substance. The fabrication of the silicone becomes an essential part of my practice in the field of electronic textiles, which will be described more in detail in the project – *Her Finger*.

Various kinds of knotting techniques are applied to weave electronic parts into silicone tubes, creating a hand-crafted computational object. The two silicone pads are embedded in circle-shaped frames made by half hitch knotting. The connecting wires, between the pads and the microcontroller, are interwoven with the snake knotting technique. The microcontroller is situated inside of a pyramid-shaped case, which is also made from the same material but jointed by a honey basket knotting pattern. This project led me to explore a hybridized form of hand crafting, which blends electronic components with traditional sculpting materials.

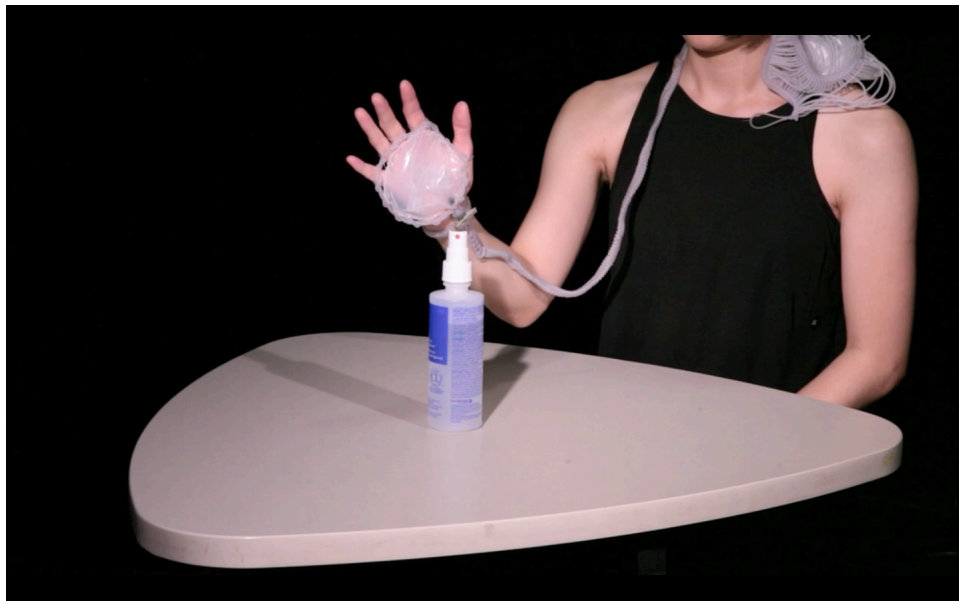


Figure 2.1.1-3 A screen shot from the video documentation of ().

Filmed by the author.

The work is documented as a video recording of the object being used (see Figure 2.1.1-3). The criticism of this project lies in the incompleteness of experiential context. In order to create meaningful artifacts, the relationship between a computational object and a narrative structure will be further explored.

2.1.2 *Whisper Mirror: Digital Intimacy*

Digital intimacy is an emotional state emerging from mediated communication over networked interfaces. It is inspired by the book, *Alone Together: Why We Expect More from Technology and Less from Each Other*, by Sherry Turkel. The book writes about a social phenomenon where people turn to a digital device for emotional needs, rather than in-person conversation. Turkel describes the irony of technology “In a surprising twist, relentless connection leads to a new solitude. We turn to new technology to fill the void, but as technology ramps up, our emotional lives ramp down.” “Together and Alone” (Turkel) becomes a new kind of human emotion. The concept of digital intimacy is created to represent this contradictory mental status.

Whisper Mirror is an experimental interface, which attempts to explore touch-based telecommunications. It is an artifact imitating the action of human whispers. The interaction is achieved in two parts: 1) a microphone as an input sensor, which receives the signal of the participator’s whisper; 2) a soft hanging interface intimating the whisper through a series of mechatronic movements. The interface is mainly made by silicone (see Figure 2.1.2-1).

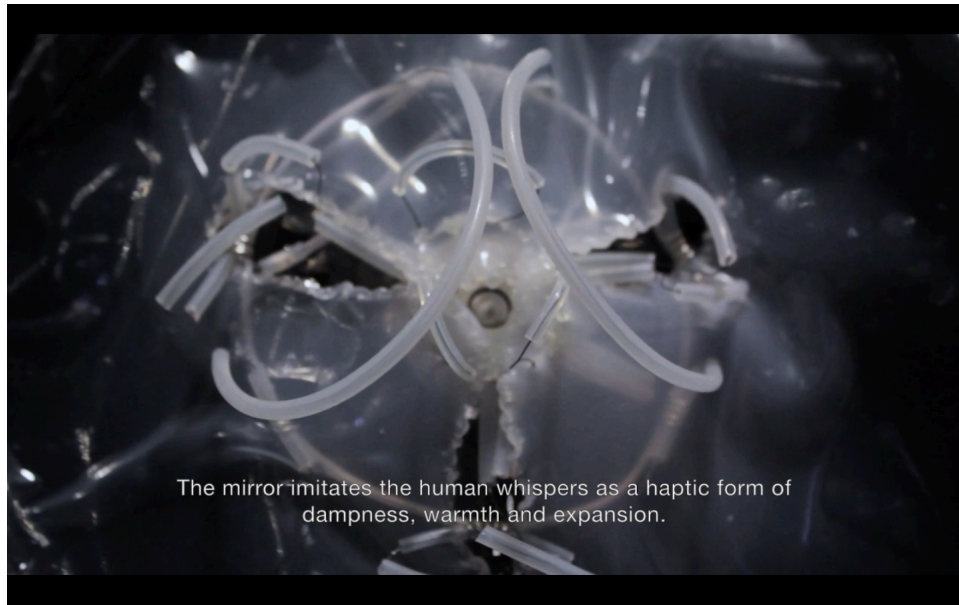


Figure 2.1.2-1 A screen shot from the video documentation of *Whisper Mirror*.

Filmed by the author.

Combining an expandable flower-like structure (made of muscle wires) and an ultrasonic vaporizer, the object performs a series of rhythmic movements controlled by a microcontroller.

The interaction is programmed through Arduino and Processing. Processing is used to receive and analyze the input data of a whisper through a built-in library called *Sound*⁵ and a technique named *Fast Fourier Transform*⁶ (*FFT*) *analysis*. Through transferring the analyzed data to Arduino, the speech data is mapped to control the physical movements of the interface: 1) expansion and contraction of the muscle wire 2) “on” and “off” status of the ultrasonic vaporizer.

⁵ Official library documentation: <https://processing.org/reference/libraries/sound/index.html>

⁶ Fast Fourier Transform is a computational tool, allowing to obtain frequency domain representation of a signal.

The data mapping between the speech and the mechanical movement is based on the theory of speech synthesis⁷. The FFT analyzer in Processing interprets the whisper as an array of numbers, which is a series of amplitudes at different frequency ranges (see Figure 2.1.2-2).

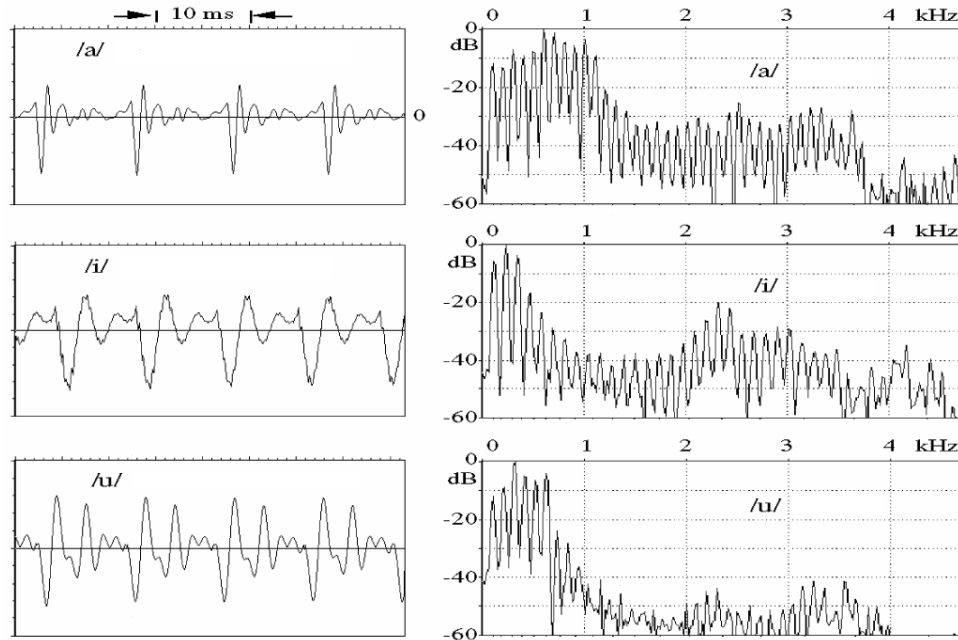


Figure 2.1.2-2 The time and frequency domain presentation of vowels /a/, /i/, and /u/ 10.

This data analysis is not pure scientific research. Some manual sensor calibration is necessary depending on different test subjects. This array of numbers is then analyzed by a series of conditional statements⁸ in the software. The code decides the “on” or “off” states of the muscle wire and the ultrasonic vaporizer controlled by Arduino. The *Firmata*⁹ library is used to facilitate the communication between Processing and Arduino.

⁷ An artificial production of human speech generated through computational processes.

⁸ In a computer programming environment, conditional statements are used to determine different actions or functions.

⁹ For more information on the *Firmata* library refer to:
<https://www.arduino.cc/en/reference/firmata>

2.1.3 *Her Finger: Objects as Narrators*

This project explores the idea of *objects as narrators*. *Her Finger* consists of a series of kinetic accessories hybridizing two eras of finger-related wearables: an ancient Chinese jewelry - nail guard and a modern female stimulator (see Figure 2.1.3-1).



Figure 2.1.3-1 Photo of *Her Finger*.

Photography by the author.

Ancient Chinese nail guards originated during the Ming dynasty¹⁰ (see Fig 2.1.3-2). Having extreme long fingernails and wearing nail guards was a sign of power and beauty for ancient Chinese women. The nail guard is a piece of jewelry (usually made of gold and gemstones) worn to protect fingernails. It limits women's ability to touch and feel things through their fingertips.

¹⁰ The Ming dynasty was dated between 1368 and 1644.



Figure 2.1.3-2 Close-up photo of fingernail guards (Xun) 36.

Nowadays, finger stimulators are wearable devices for women to enjoy sexual pleasure. The appearance of the object is designed to enhance the experience of touch and facilitate the exploration of the internal. The differences and similarities between these two represent an evolution of women's liberation over time. In amalgamating the visual characteristics of the two, the project references the history of Chinese women in terms of the repression of their sexual freedom. It reflects the relationship between external and internal, decorative and prosthetic, restrictive and pleasure-seeking.

The main goal of this project is to revive ancient Chinese nail guards through a hybridized hand crafting technique. *Her Finger* combines various kinds of traditional crafting methods with electronic textile practices. The resulting objects are mainly made out of silicone fabric that is shaped by diverse techniques of fabric manipulation. By combining static beading with

electronic actuators, it gives form to a tactile and organically moving texture. This amalgam between the digital and the traditional resulted in a series of mysterious looking artifacts.

- Process of making

- 1) Creating silicone fabric

This series of objects are mainly made out of silicone fabric. It is a combined form of material mixing liquid silicone with organza fabrics. A piece of organza fabric is used as a base structure to hold the liquid silicone. After an air-dry process, the silicone is fully integrated with the organza. This transforms the liquid silicone into a sewable fabric-like surface, which is then molded into different shapes through fabric manipulation. In addition, the silicone mixing process allows further modification of colors and textures. Below is a list of materials and pigments in relation to their visual effects demonstrated by close-up images (see Figure 2.1.3-3 to Figure 2.1.3-6).



Figure 2.1.3-3 Original color of liquid silicone. Photography by the author.

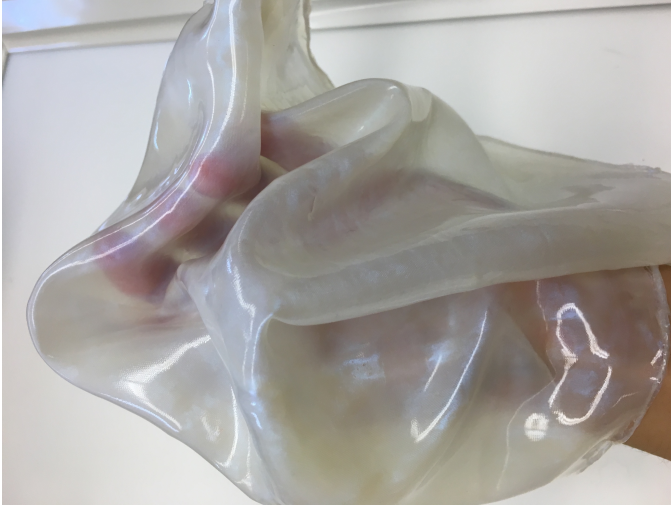


Figure 2.1.3-4 Pearl powdered pigments effect. Photography by the author.



Figure 2.1.3-5 Glass microbeads effect. Photography by the author.



Figure 2.1.3-6 Sequins effect. Photography by the author.

In terms of the color, it is inspired by a collection of still life paintings by Giorgio Morandi¹¹ (see Figure 2.1.3-7). The use of subdued colors transforms household objects to human like figures. By imitating Morandi's color compositions, the work refers to a skin-like color pallet that blurs the boundary between bodyhood and objecthood¹².

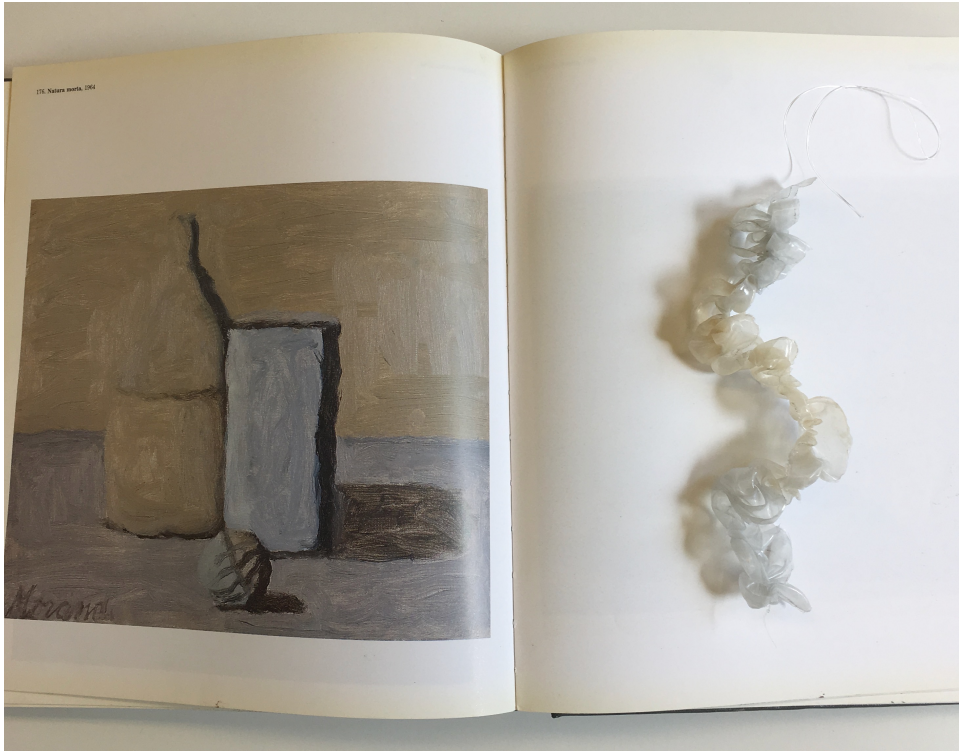


Figure 2.1.3-7 Comparing a color testing silicone sample with one of the still life paintings, *Natura morta*, 1964, by Morandi 20 .

Photography by the author.

¹¹ Giorgio Morandi (July 20, 1890 – June 18, 1964) was an Italian painter and printmaker who specialized in still life.

¹² “The condition of being an object, or the object condition.” (Gibart)

2) Sculpting the fabric with fabric manipulation techniques

By applying gathering stitches with a spiral shape (Figure 2.1.3-8 and Figure 2.1.3-9), a piece of circle-shaped silicone fabric is sculpted into a cone object resembling a nail guard.

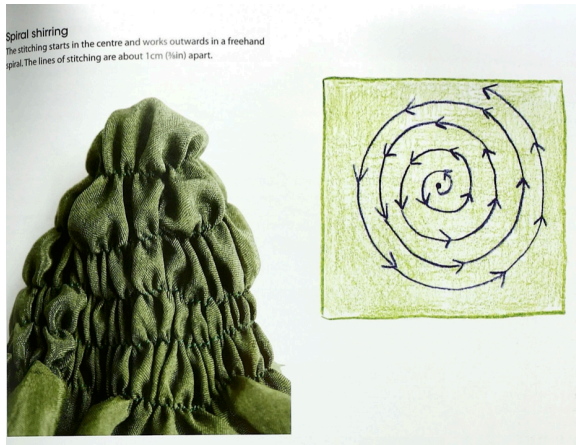


Figure 2.1-13 Spiral shape sewing pattern (Singer 93) 25.


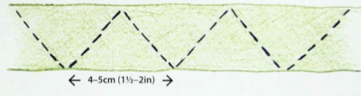


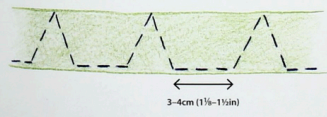



Figure 2.1.3-9 Process of sewing the silicone fabric.

Photography by the author.

Different stitching patterns result to different textures (see Table 2.1.3-1).

Table 2.1.3-1 Various kinds of stitching patterns (Singer) resulting in different textures.

Stitching patterns	Resulting textures
<p data-bbox="267 436 462 464">Zigzag-stitched ribbon ruffle</p>  <p data-bbox="267 724 625 819"> ← 4-5cm (1½-2in) →</p> <p data-bbox="259 850 446 892">(Singer 82) 25</p>	 <p data-bbox="747 850 1039 892">Finger accessory No. 1</p>
<p data-bbox="259 966 430 993">Peaks-stitched ribbon ruffle</p>  <p data-bbox="259 1260 584 1375"> 3-4cm (1½-1½in)</p> <p data-bbox="251 1375 438 1417">(Singer 83) 25</p>	 <p data-bbox="747 1375 1047 1417">Finger accessory No. 2</p>



3) Developing kinetic textures



Figure 2.1.3-10 A group of kinetic finger accessories.
Photography by the author.

a. Combining electronic actuators with the finger accessories

After the exploration of stitch-manipulated textures, the resulting objects obtain a tactile quality. To explore the performativity of these artifacts, the project hybridizes static ruffles and pleats with electronic actuators to create organically moving textures. Mini-sized DC motors and vibration motors are sewn into the existing structures (see Figure 2.1.3-11 to Figure 2.1.3-13). The mechanical parts are programmed (by Arduino) to rotate and shake in a rhythmic manner (with changes of speed and intensity of vibration).

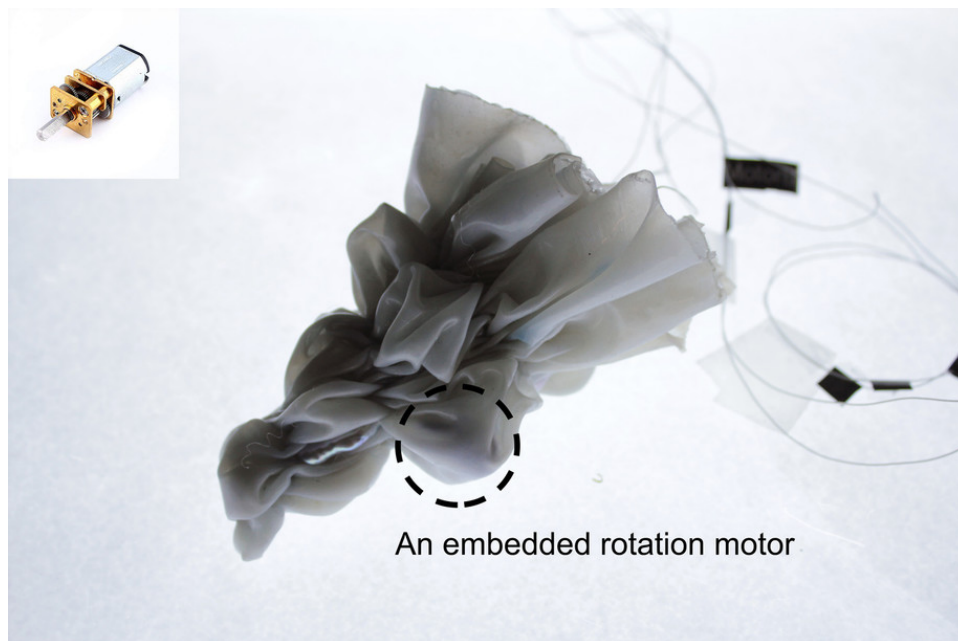


Figure 2.1.3-11 Rotation motor embedded finger accessory.

Photography by the author.

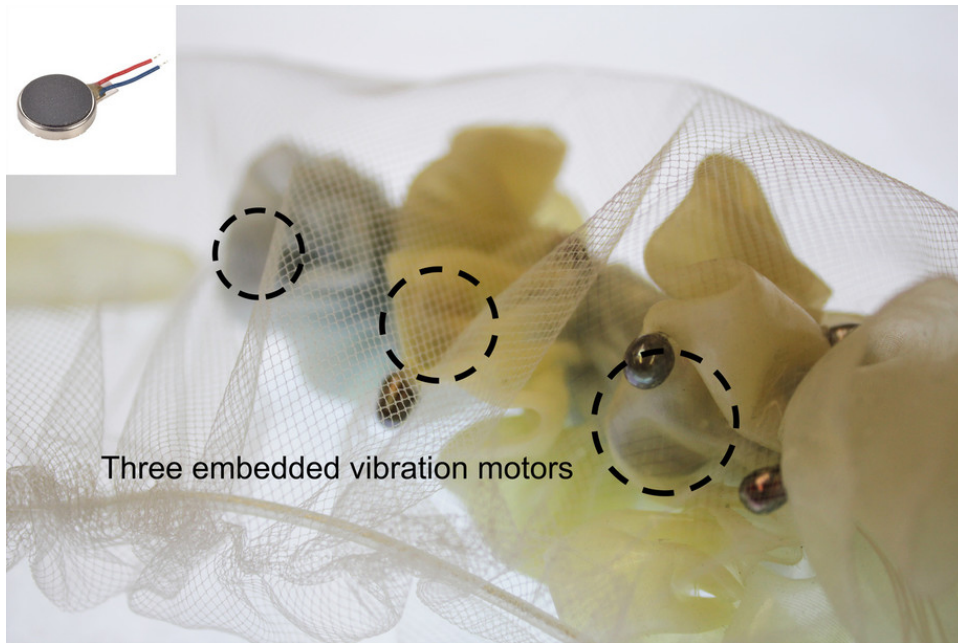


Figure 2.1.3-12 Flat vibration motors embedded in the finger accessory.
Photography by the author.

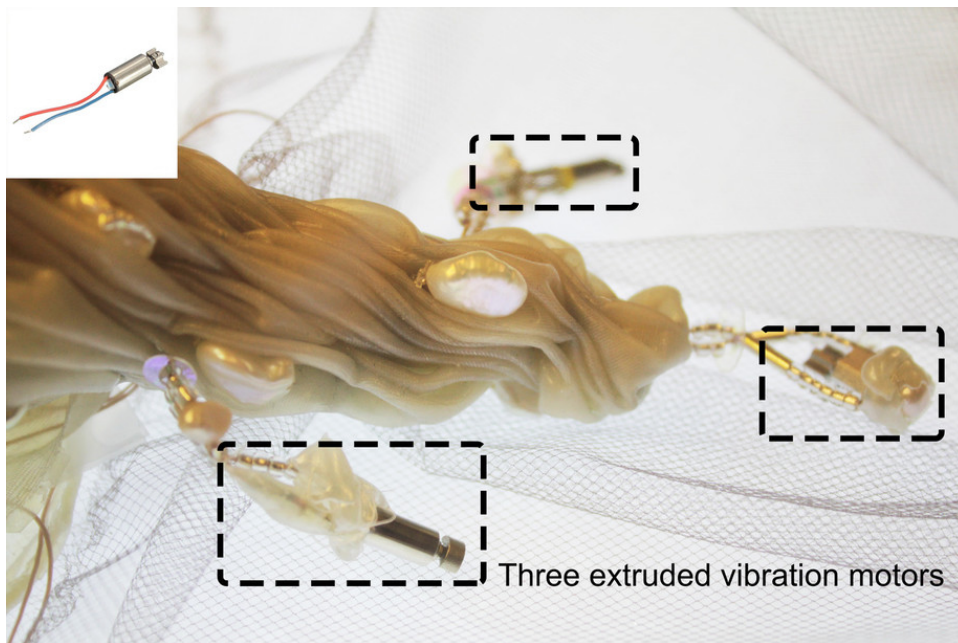


Figure 2.1.3-13 Extruded vibration motors embedded in the finger accessory.

b. Sculpting and programming the electronic circuits

To reduce the size of the microcontrollers, an Attiny85 chip is used to control the actuators (see Figure 2.1.3-14 to Figure 2.1.3-17).



Figure 2.1.3-14 Circuit with vibration motors (Attiny85 only).
Photography by the author.

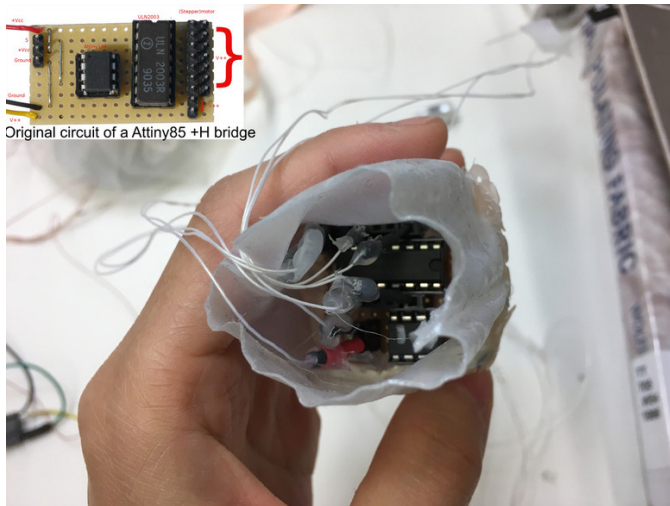


Figure 2.1.3-15 Circuit with DC motors (Attiny85 + H bridge).
This is the rare side of the circuit board.
Photography by the author.



Figure 2.1.3-16 Circuit with DC motors (Attiny85 + H bridge).
This is the front side of the circuit board.
Photography by the author.



Figure 2.1.3-17 Embroidered circuit with DC motors (Attiny85 + H bridge).
Photography by the author.

- c. Redesigning the power supply for the circuits: Lithium ion polymer battery + Silicone fabric (see Figure 2.1.3-18).

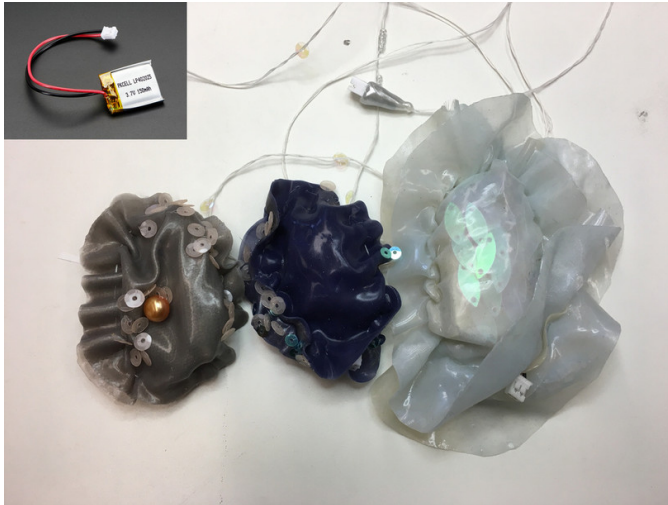


Figure 2.1.3-18 Modified batteries.
Photography by the author.

- Conclusion

This project is created with less consideration of spatial displacement, which could potentially establish a context for viewing the artifacts. Managing the relationship between space and objects becomes a major subject in the next work, *Silicone Love - Intro*. It is discussed in the following part.

Finally, this project establishes three main research topics leading up to the dissertation work: 1) field research of cultural heritage in relation to contemporary technologies 2) technical research of electronic textiles 3) experimentation of non-linear narrative structures.

2.2 GENERAL EXAM INSTALLATION: SILICONE LOVE – INTRO

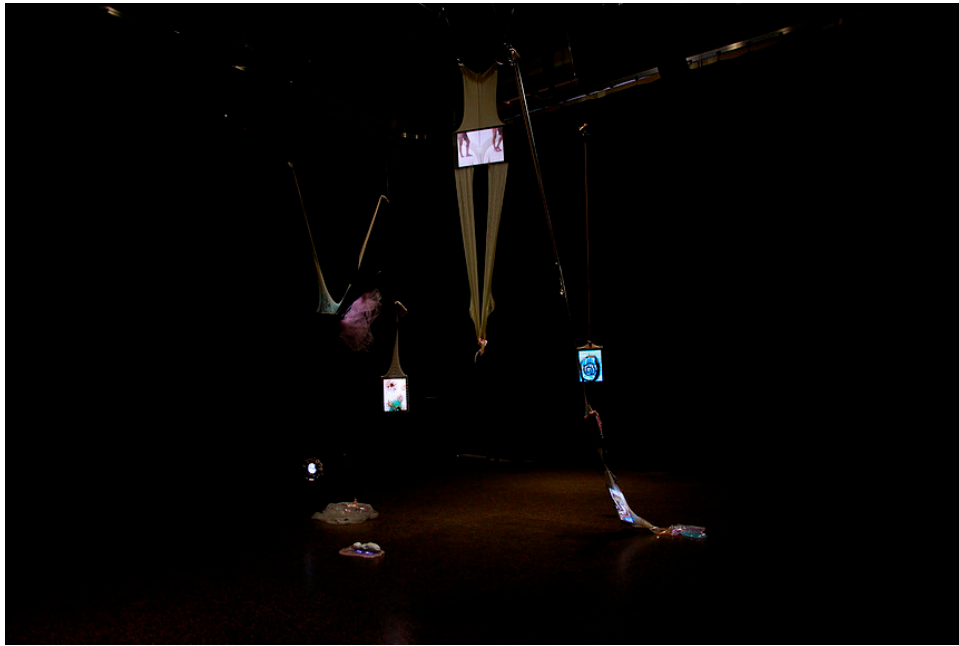


Figure 2.2-1 *Silicone Love – Intro* installation view.

Photography by the author.

This work was created in the context of the general exam¹³, which requires the students to complete a project responding to a given prompt. The project was restricted to a timeline of five working days.

General exam prompt by Prof. Afroditi Psarra:

“Resemblance has a “model” , an original element that orders and hierarchies the increasingly less faithful copies that can be struck from it. Resemblance presupposes a primary reference that prescribes and classes. The similar develops in series that have

¹³ A general examination is an admission to the candidacy of doctoral degree.

neither beginning nor end, that can be followed in one direction as easily as in another, that obey no hierarchy, but propagate themselves from small differences among small differences. Resemblance serves representation, which rules over it; similitude serves repetition, which ranges across it. Resemblance predicated itself upon a model it must return to and reveal; similitude circulates the simulacrum as an indefinite and reversible relation to the similar.

- Michel Foucault, This Is Not a Pipe, translated and edited by James Harkness (Berkeley: University of California Press, 1982), p. 32.

Taking as a starting point the differences between *resemblance* and *similitude* expressed by Foucault and combining it with the idea of metadata - as a hidden layer of *similitude* that exists in digital objects, you are required to create an artwork of physical objects in series. You are required to exhibit the work in a formal sense and your aim should be to create "a unified experience" that unveils a hidden aspect in a poetic and meaningful manner to the audience.”

In order to create “a unified experience” , this project utilizes the medium of installation that consists of a series of sculptures. They are a mixture of tablet screens, tights, silicone made segments, water bags, mini vibration motors, and abstract clay pieces (see Figure 2.2-2).



Figure 2.2-2 Sculptural segments from the installation.

Photography by the author.

Responding to “a hidden layer of metadata” , requested in the prompt, a series of re-edited found footage (see Figure 2.2-3), screen-recorded from Instagram¹⁴, was looping endlessly on

¹⁴ A social media cellphone application designed for sharing photos and up to 15-second videos.

the screens. To resonate with the motifs of the moving images – water and body parts, the physical sculptural elements represent a distorted and fragmented image of the human body.

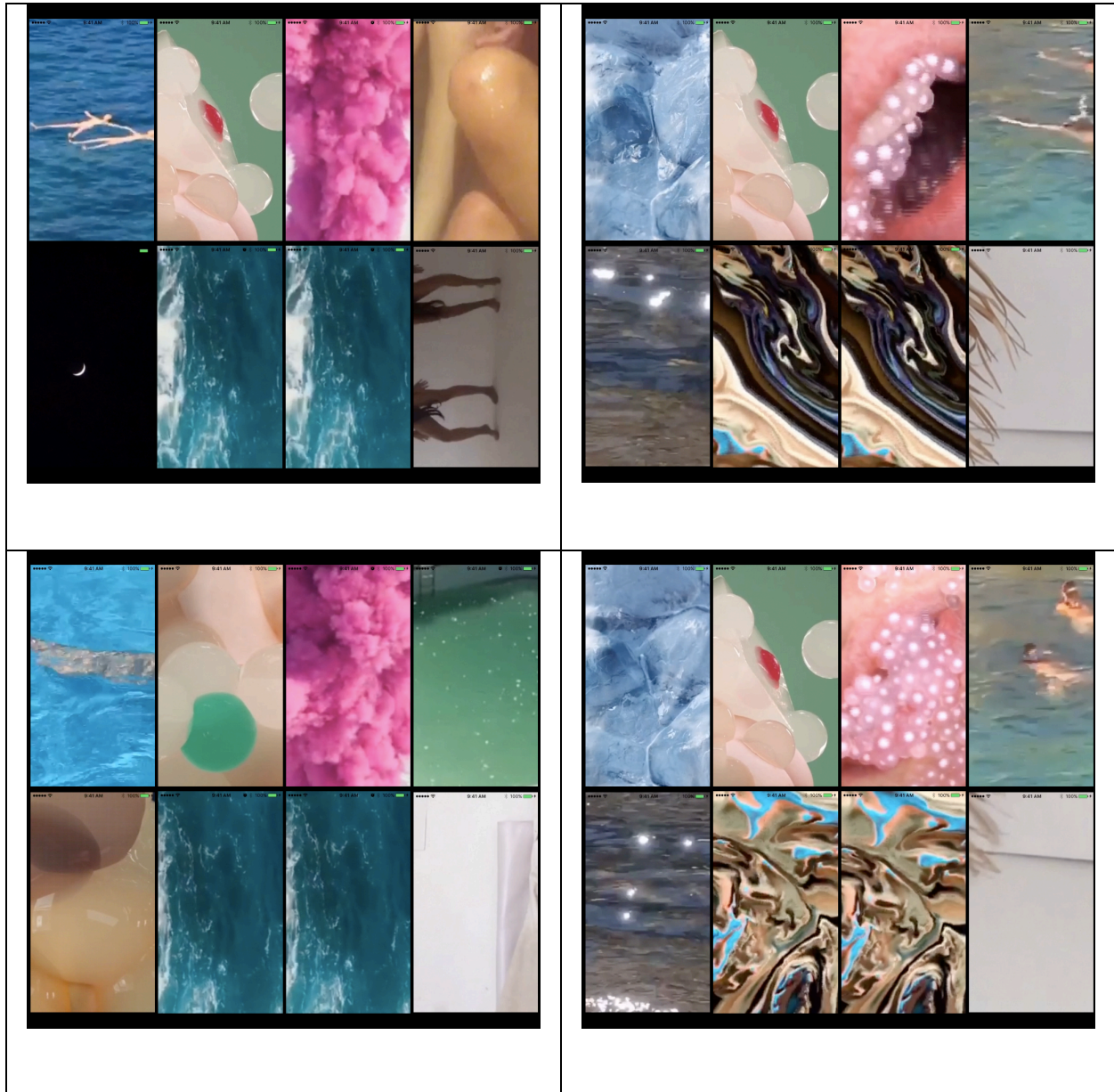


Figure 2.2-3 Screen shots of eight videos at different times displayed in the installation.

Screen recorded by the author.

This piece becomes an introduction for the concept of the “Internet ghost” as a core metaphor in the dissertation work. Exploring the aesthetic properties of online videos, the moving images are

multi-channeled through seven screens rendering a non-linear viewing experience. These fragments of looping clips are networked to create a storytelling structure in the space. In addition, the luminosity of the screens is extended through the materiality of the tights and the tulle fabrics (see Figure 2.2-4). This generates a three dimensional effect: the flat videos are “moving out from” the screens and become ghost-like beings. The amalgamation between lights and fabrics is explored more in the dissertation project in terms of creating a larger scale sculpture containing moving images.

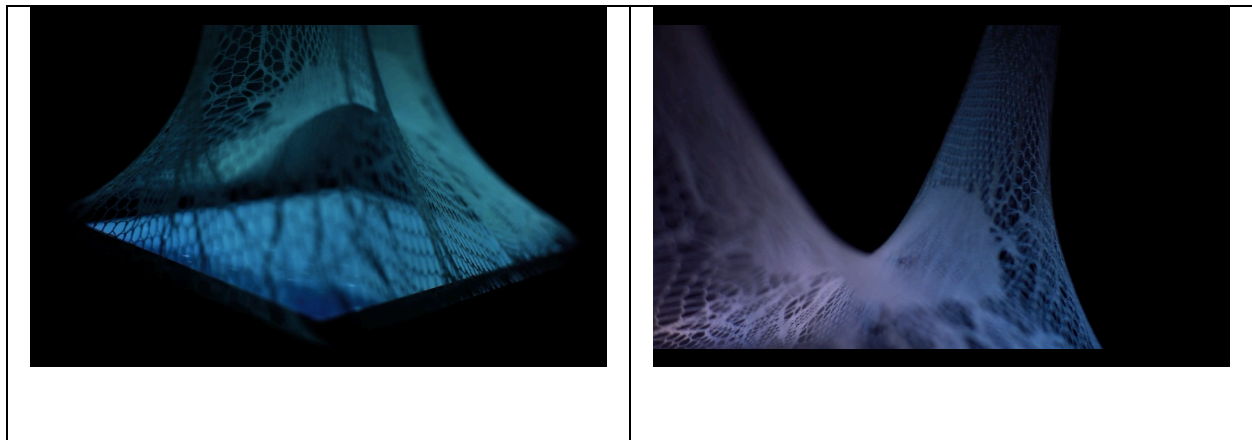


Figure 2.2-4 Illumination effects created using screen light on lace tights.

Filmed by Adam Hogan.

In conclusion, this piece allowed me to establish a spatial prototype for working with mixed media installation. It integrates video with light-conductive materials to create a hybridized form of sculpture. As an early project exploring online video aesthetics, it led me to experiment with non-linear video editing techniques in regard to masking, layering, mapping and animation. Through a studio-based practice, these topics are explored further in the dissertation work, *Silicone Love - Her Garden*, documented in Chapter 4.

3 Chapter 3. LITERATURE REVIEW

This chapter outlines three research topics leading up to the dissertation work: *Silicone Love – Her Garden*. The theoretical subjects and referenced artwork provide a framework for the artistic intention and critical issues explored in the thesis project. They are categorized into three topics.

1. Post-Internet Art: aesthetics of online visual culture.
2. Non-linear narrative structures presented through different mediums of art practices.
3. Hand-crafted practices in contemporary art.

3.1 AESTHETICS OF ONLINE VISUAL CULTURE

3.1.1 *Post-Internet Art*

Through the rapid development of telecommunication networks and ubiquitous computing, we experience a complex conversation between the reality and the Internet. *Postinternet* is a term used to describe this living condition, which reflects the impact of the Internet on art, culture and society. This is expressed through artworks and critical writings regarding *Post-Internet Art* or *Internet Aware Art*. These art practices are related with *Internet Art* or *net.art*¹⁵, exploring cultures that are originate in the use of web-based mediums.

Unlike Internet Art, Post-Internet Art is more inclined to produce physical objects displaying at galleries and museums. Critical discussions and art practices emphasize the representation and

¹⁵ *net.art* uses the Internet as its primary material, which is an art movement since 1994. To see net.art projects, please refer to an online archive website – NET ART ANTHOLOGY (presented by RIZONE).

circulation of online material (including images, footage, texts, audio, etc.) in terms of their aesthetic properties, cultural effects and social ramifications.

Image objects is a term developed in Artie Vierkant's work. In his sculptural works, Vierkant transforms computational images into a series of physical objects (see Figure 3.1.1-1).

Furthermore, he posts images of these physical objects online. Vierkant emphasizes the in-flux nature of Post-Internet Art by presenting his works through both websites and in gallery settings.

The work engages with a dual-viewership online and offline.



Figure 3.1.1-1 Gallery view of *Image Object* (Vierkant) 34.

In his writing, *The Image Object Post-Internet*, Vierkant argues that the source material is no longer greater than its representational art objects or images. In other words, the “copies” possess

their own meanings and viewing-value rather than maintaining a hierarchical relationship with the “original”. Thus, it underscores the independence of “copies”.

In terms of online photos, Marisa Olson’s essay, *Lost Not Found: The Circulation of Images in Digital Visual Culture*, analyses found photography as a circulating visual material on the Internet (uploaded on social media). To discover the aesthetics of web-based photos, Olson refers to Post-Internet artists as pro-surfers who devote themselves to intensive web-browsing as a research method. Through collecting and re-organizing downloaded images, the artists attempt to generate an autonomous narrative separated from the original source.

The writing also introduces montage film-making techniques and avant-garde collage-based strategies as powerful tools to create Internet aware works. Olsen argues that the copy-and-paste practice of net-based artists shall not be dismissed as derivative. Instead, the collage-based experimentation with found material innovates meaningful and critical perspectives on the current visual culture reshaped by the Internet.

3.1.2 *Online Videos – From “Photographic Seeing” to “Photographic Living”*

Many of us participate in the collective process of constructing a big “image” of the Internet: taking selfies¹⁶, making food photographs, circulating popular memes¹⁷, or becoming a professional video blogger¹⁸. The camera is embodied as a person’s second nature. Producing photos or videos turns into an instinctive behavior. Our sight is limited by the camera’s lens. Every moment of seeing is evaluated and judged by a mental apparatus – a frame of an image. Susan Sontag’s book, *On Photography*, predicts this current visual experience by naming it as “photographic seeing”.

Extending this notion to “photographic living”, the phenomenon of video blogging re-packages mundane routines as video diaries. These stories blur the boundaries between private and public, meaningful and trivial, factual and fictional. Online videos can be watched and uploaded at any time and under any circumstance. Unlike films, they form a video atmosphere rather than a single visual object (Treske). An online video sharing platform becomes a virtual site that hosts an ever-growing database of videos. Within this infrastructure of “living” footage, we experience an otherworldly ecology generated by an interlaced algorithmic structure.

Artists utilize online videos as material to create new kinds of aesthetic experiences. For

¹⁶ A selfie is a self-portrait photography typically taken by a smartphone camera.

¹⁷ An Internet Meme is usually a collage of a still image with texts. It is often related with a sense of humor or cynic.

¹⁸ On social media, a person who films various kinds of videos and organize them into a diary-like structure.

example, *Mass Ornament*, by Natalia Bookchin, is a video installation recomposing a series of dance footage downloaded from YouTube. The collection of these clips is organized based on different types movement. By multiplying and composing the “sub-screens” of dancers in a single frame (see Figure 3.1.2-1), Bookchin discusses the idea of a dance machine which implies capitalist profit formation.

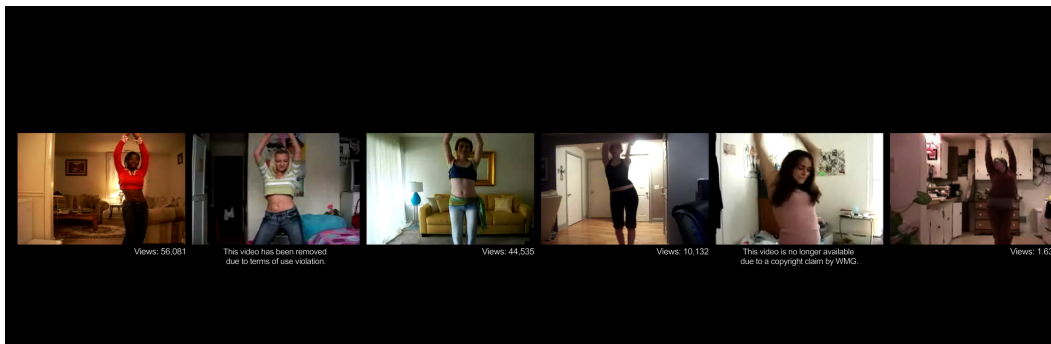


Figure 3.1.2-1 A screen shot from *Mass Ornament* (Bookchin) 2.

“Workers in a factory, like dancers in a stadium, labored to produce surplus value that existed for its own sake. (Kane)” The Internet-hosted clips reveal a collective self-identify reinforced by an individualized self-generated and self-replicating system. New kinds of cultural machines are embedded in the structure of a networked video-sharing platform.


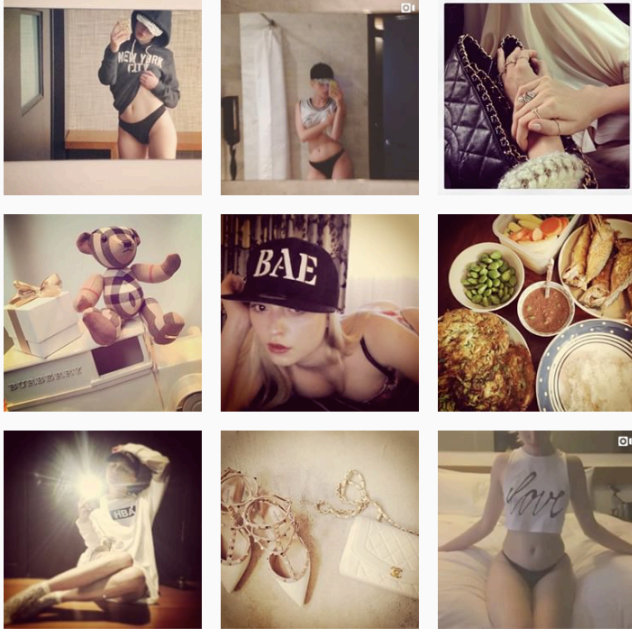
An artistic exploration of web-based footage requires new sets of methodologies and structures to generate meaningful experiences. According to Olsen (in the second part of this chapter – 3.2), non-linear narrative structures should be explored further in order to provide an alternative viewing logic.

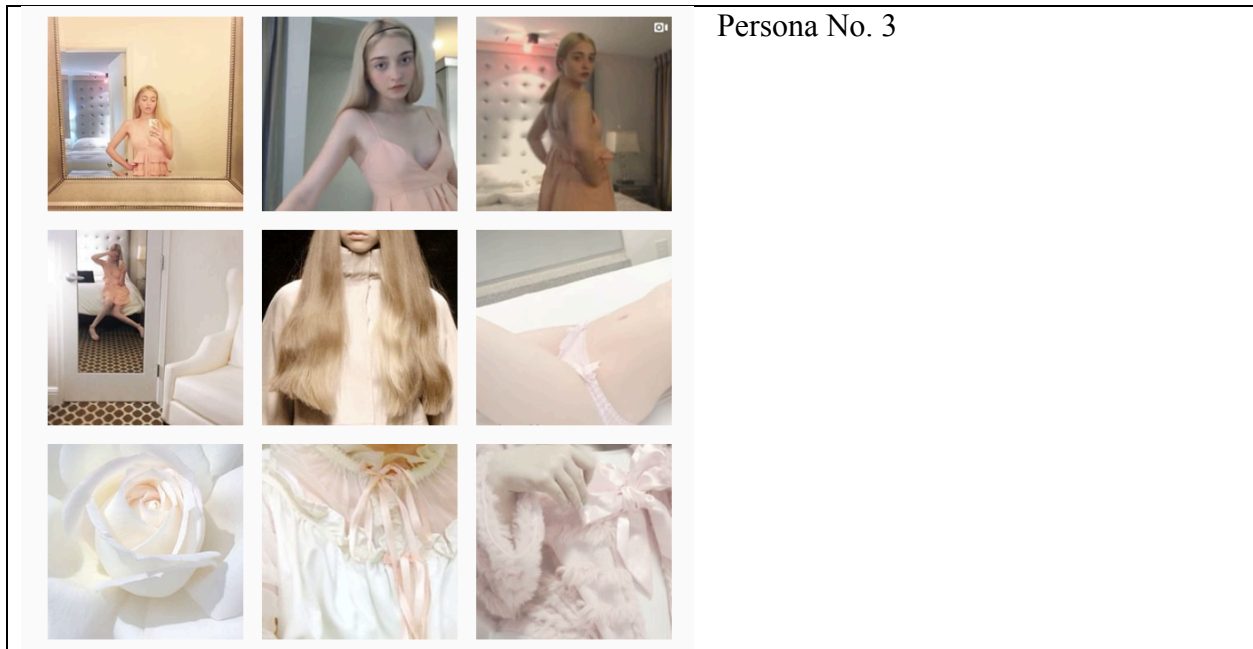
3.1.3 *The Camera as Predator*

To operating a camera is to see through a “peep hole” and observe scenes from a distance. It is voyeuristic and predatory. With the simplest clicking action, people can capture things. The observed becomes a victim of the camera. “A camera is sold as a predatory weapon ... To photography people is to violate them, by seeing them as they never see themselves” written by Sontag. However, the culture of selfie and video blogging has complicated the relationship between the observed and the observer. It promotes a mode of life - “photographic living”, which daily activities are recorded, edited, and curated into lifelike video “stories”.

Vloggers are virtuosic in performing their daily routines to attract followers. Ironically, the camera remains predatory, but it captures the observers rather than the observed subject. For example, Amalia Ulman’s Instagram performance plays with stereotypes of online celebrities. Her photo posts are organized to develop several personas exploring female stereotypes and how they are depicted on the Internet (see Table 3.1.3-1).

Table 3.1.3-1 Screen shots from Amalia Ulman's Instagram account (Ulman) 32.

	<p>Persona No.1</p>
	<p>Persona No. 2</p>



The power structure of this “peeping game” is reversed, in which the observed – the “performer” is in control of the viewers’ attention. The camera is turned into a self-image enhancing or editing tool rather than a recording device.

3.2 NON-LINEAR NARRATIVE STRUCTURES IN DIFFERENT FIELDS OF ART PRACTICE

Space is a medium for storytelling. This section focuses on analyzing non-linear narrative structures existing in Chinese gardens and Louise Bourgeois’s sculptural works. The study of these works provides compositional models for the dissertation project, which depicts a fictional figure through the spatial relationship between sculptures, moving images and sounds.

3.2.1 Chinese Garden Research: An Architectural Composition of the Viewing Experience

Chinese gardens are centered research subject for this dissertation project. The asymmetrical arrangement between ornate buildings and natural elements frames a pleasurable and photographic seeing experience. Viewing is directed through a combination of human-made space (pavilions, bridges, corridors, etc.) and natural elements (scholar rocks, ponds, plants, etc.) Below is a list of four gardening principals illustrating this concept.

I. 框景 (Kuangjing), Framed Scenery

This is a viewing experience created by various kinds of doorways and window frames that parallel the framing of a photographic image with a camera. Doorways are often circular, called 月门 (Yuemen) , which means moon gates (see Figure 3.2.1-1). These moon gates symbolize praying for a happy family.



Figure 3.2.1-1 A moon gate at the Couple's garden / 偶园, Suzhou, China (river2014 大河) 23.

Window frames are embedded in a long wall, termed 廊 (Lang) . By walking through a *Lang*, the viewer enjoys a series of “live paintings” framed by the windows (see Figure 3.2.1-2). These shapes are applied to highlight certain areas of the garden and are experienced as sequential images.



Figure 3.2.1-2 A *Lang* section at the Surging Wave Pavilion / 沧浪亭, Suzhou, China (Tangshi) 28.

II. 漏景 (Loujing) / Aperture Scenery

Loujing or aperture scenery is a variation of framed scenery. It uses repetitive patterns carved into window frames. These are not only applied in outdoor areas, but are also used in indoor living spaces (see Figure 3.2.1-3).



Figure 3.2.1-3 Aperture windows/Louchuang used in a living room area (Gudianshucheng) 9 .

Natural light shines through the patterns, sculpted into a shadowy palette in the air and on the floor (see Figure 3.2.1-4).



Figure 3.2.1-4 Aperture windows /Louchuang applied at a Lang section (Gudianshucheng) 9.

III. Miniature Scenery: 缩景 (Suojing) and 盆景 (Penjing),

Mimicking the nature of the world is a crucial intention in building Chinese gardens. Scholar rocks are symbolic artifacts that represent mountains. The aesthetic of the rocks obeys the principal entitled “皱，瘦，漏，透” (Zhou, Shou, Lou, Tou) , which means the beauty of wrinkle, thin, and hollow. Based on different scales, the stones are displayed in a pond, in-between bushes, or on a table stand, which creates repeated patterns of seeing (see Table 3.2.1-1).

Table 3.2.1-1 Different sized Scholar rocks in different gardens in Suzhou, China
(Suzhouchufa) 27.



a. Scholar rocks at the Lion Grove / 狮子林.



b. Scholar rocks at the Master of the Nets Garden / 网狮园.



c. A scholar rock (in the red square) at the Garden of Cultivation / 艺圃.

Penjing is another type of artifact found in *Miniature Scenery*. It allows for a portable garden, which can be enjoyed in a viewer's hands (see Figure 3.2.1-5).



Figure 3.2.1-5 *Joyous Tunes Before Sunset*, Chinese Sweet Plum with Turtle Shell Rock. Container length 120 cm (47-1/4"), tree height 65 cm (25-1/2") (Chao 12) 5.

By applying different planting techniques, a tree branch can look like a thousand-year-old tree (see Figure 3.2.1-6). With proper maintenance, a Pengjing will bloom and bear fruit depending on the season. This ancient gardening technique incorporates growth cycles as a part of its aesthetic (see Figure 3.2.1-7).

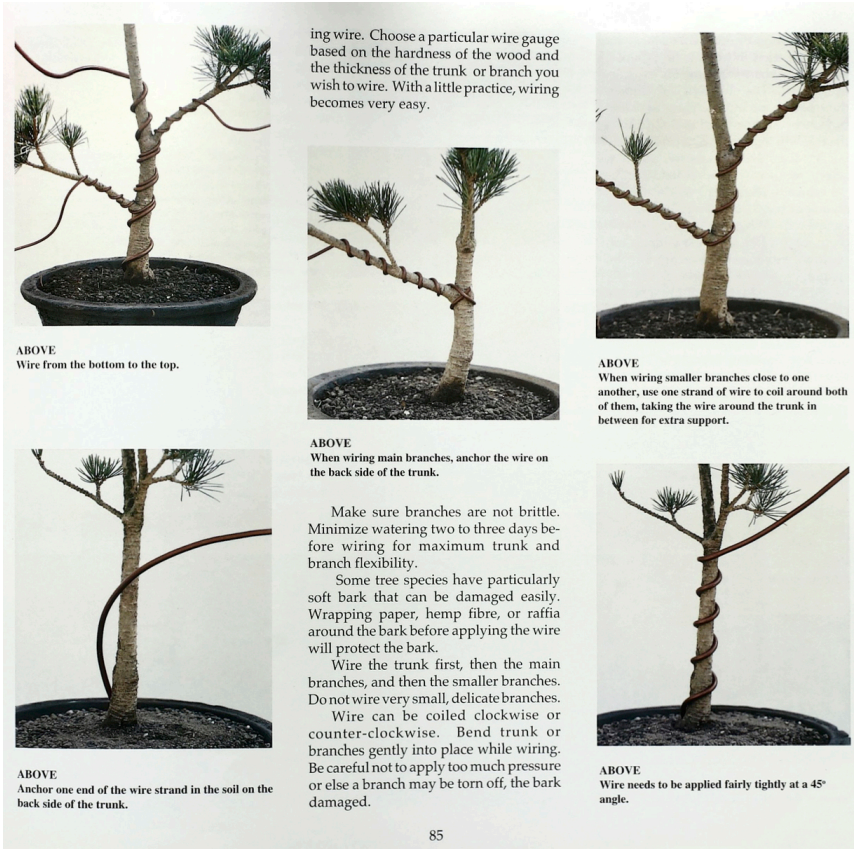


Figure 3.2.1-6 Steps of sculpting the tree branch to create an aged tree effect (Chao 85) 5.



Figure 3.2.1-7 *Autumn Abundance*,
Persimmon, Tree high 55 cm (21-1/2”),
age 70 years (Chao 14) 5.

IV. 障景 (Zhangjing), Obstructive Scenery

Obstructive Scenery expresses an essential aesthetic style in ancient Chinese culture – the beauty of subtlety. Trees, rocks, living spaces, and walls divide the garden into smaller sections. Often a significant garden scene is hidden behind a door or revealed after walking through a zig-zag path way. Architectural structures introduce different viewing angles, heights, and distances. Vision is directed to convey a sense of rhythm and melody: a scene is narrowed by a door way; or highlighted and broadened by stepping up to a Ting, 亭 (see Figure 3.2.1-8).



Figure 3.2.1-8 Obstructive scenery created by standing at a Ting in the Master of the Nets Garden / 网狮园 (Mafengwo sales) 17.

3.2.2 *Sculptures by Louise Bourgeois*

Bourgeois's work is another important influence on my art practice. Her sculpture provides a methodology for composing objects into fictional space. Bourgeois's body of work is a complex archive of emotions, memories and stories. These are structured into relationships between materials, spatial interventions, and repetitive forms.

“I organize a sculpture the way we organize a treatment for the sick. You'd better know what you're doing. You have to have a strategy to get the wanted results. My sculptures are infallible equations. Equations have to be tasted. Dose the tension go down, is the compulsion eliminated, is the pain gone? Either it works or it doesn't work.” (Bourgeois, Louise Bourgeois : structures of existence: the Cells)

In the early years of her practice, her sculptures can be classified according to medium such as fabric, metal, wood, marble, glass, and found household objects. Depending on the work, they




can be read as the fragmented bodies, spiders, clothes, tapestries, houses, emotions and memories. At a later stage of her practice, the cell room series creates object-oriented narratives managing the relationship between sculptures and spaces. Below is my approximation of the cell rooms as equations:

- Spatial interventions = Cage-like rooms + Door-made boundaries + Glass domes
- Dramatic emotions = Repetitions + Contrasting materials + Twisted body forms + Suspended objects and bodies
- Memories = Antique objects / clothes + Fragments of tapestries + Collaged sculptures (between the human body, little houses, and animals) + Spiders + Texts

In each cell, the equation elements are alternated and mixed together to create emotionally charged sites. The installations are collections of Bourgeois's early single sculptures.

Cell room examples:

1. *Passage Dangereux*, Mixed media, 104 * 140 * 345 inches, 1997 (Bourgeois, Louise Bourgeois : structures of existence: the Cells 167-169) 4.

	<p>Cage rooms</p>
	<p>Animal parts + Repetition of ladder-formed fabrics + Texts</p>
	<p>Repetition: A hanging mirror creating the reflection of the sculptures.</p>

2. *Spider*, Mixed media, 177 * 262 * 204 inches, 1997 (Bourgeois, Louise Bourgeois : structures of existence: the Cells 160 & 165) 4.



Spider + A cage cell



Found objects collection +

Fragments of tapestries



3. *Cell XV (For Turner)*, Mixed media, 108 * 120 * 68 inches, 2000 (Bourgeois, Louise Bourgeois : structures of existence: the Cells 201 & 203) 4.



Repetitions of blue glass balls and jars + Mirror effects



These are early individual spiral sculpture iterated as a theme in the cell rooms. (Bourgeois, Louise Bourgeois : Skulpturen und Installationen 58 & 59) 3.

3.3 HAND-CRAFTED PRACTICES IN CONTEMPORARY ART

3.3.1 *Electronic Textile Practices – A Hybrid Form of Materials and Tools*

The field of electronic textiles focuses on developing smart fabrics, handmade sensors and hybrid crafting tools. It explores the intersection between traditional craft and computational media. Developing a combination of digital and hand-crafted artifacts is an essential part of my art practice and research.

The example projects listed below demonstrate the practice of computational craft

- *Crochet/Knit pressure sensors*, by Kobakant (see Figure 3.3.1-1)



Figure 3.3.1-1 Crochet pressure sensors (Kobakant) 16.

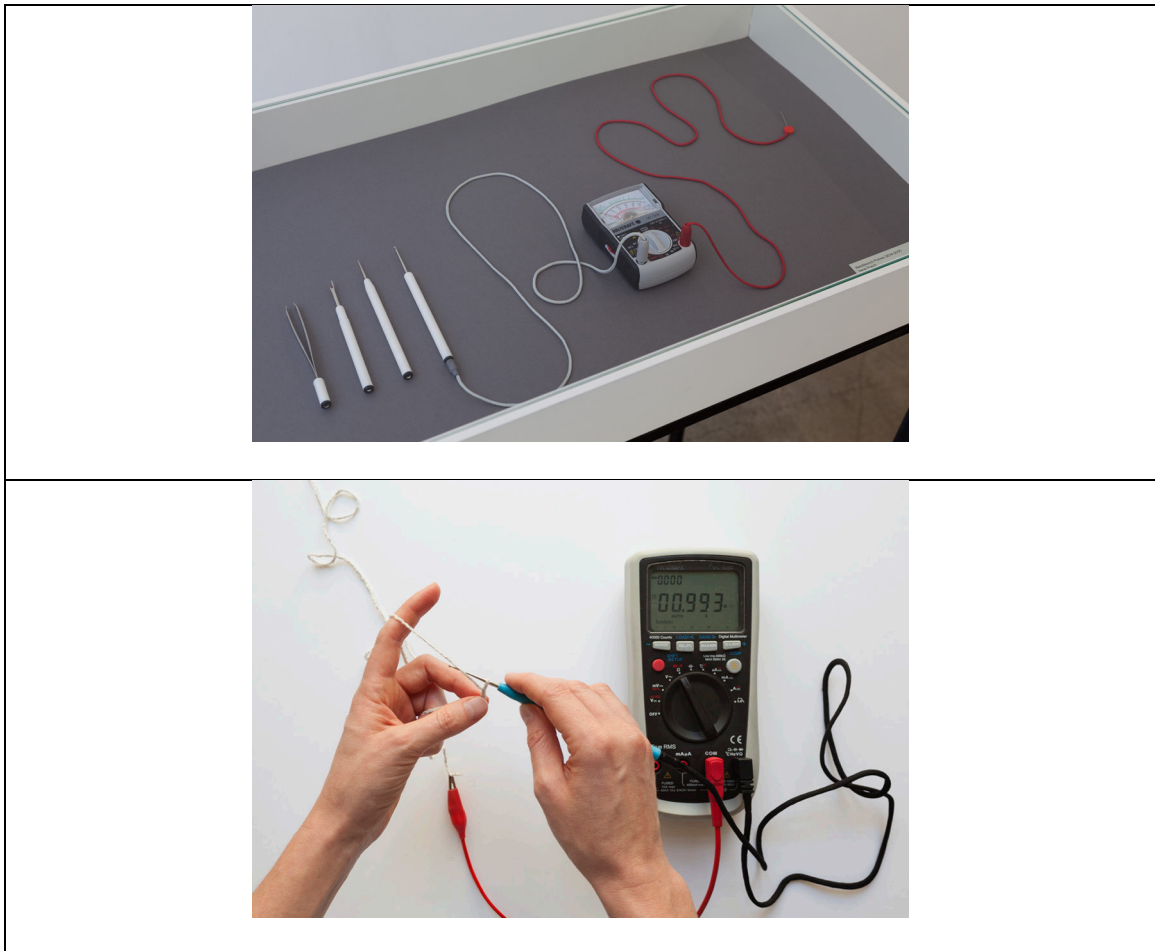
Here, pressure sensors are used to detect human touch. By applying the technique of crochet, handmade sensors are created by stretchy structure between conductive yarns and wool (non-conductive) yarns. When pressed, the knitted pad increases in conductivity allowing for more electric current to flow. This technique can be further

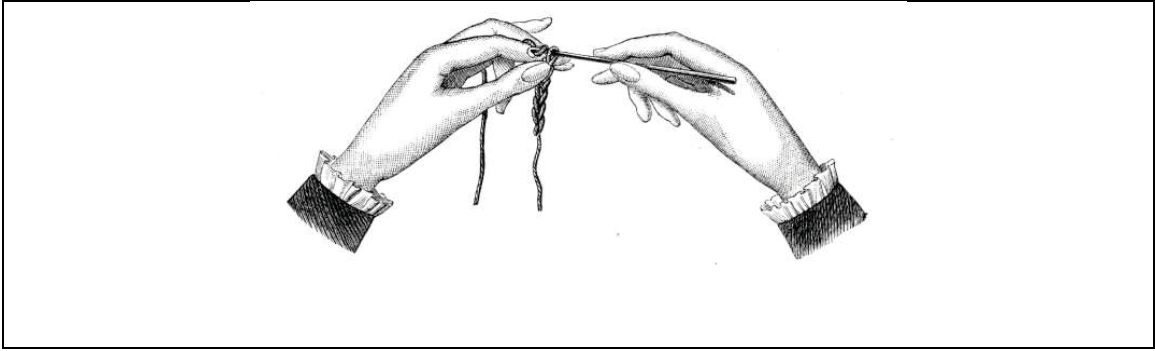
explored to create interactive textiles. It not only inherits the aesthetic appearance of fiber-based art practice, but also extends its potential for interactivity.

- *Tooling (in progress)*, by Irene Posch

This project exhibits a set of tools dedicated to the practice of e-textiles. To better test or measure a soft circuit, the tools combine the function of conventional electronic measuring devices with the design of sewing-based crafting tools. Below is a pair of crochet needles transformed into a multimeter's probes (see Table 3.3.1-1). It is designed to test the current electrical value according to the changing size of a crochet stripe.

Table 3.3.1-1 Photos of *Tooling* (Posch) 22.





The practice of t-textiles has developed tools and materials to promote an emerging form of art. It bridges the omnipresence of computers with the tradition of hand crafting.

Artists can seamlessly integrate fiber-based smart materials with traditional disciplines such as painting, sculpture, and textiles. The programmable capacity of this hybrid media may stimulate new kinds of aesthetic languages in terms of performativity, algorithmic composition and databased narratives.

3.3.2 *Craft as Methodologies for Research-based Studio Art*

The concept of craft is rooted in the intersection of professional skill, material, and physical labor. Hand-crafted objects often yield interesting and fascinating visual expressions. These features create “vehicles” to convey emotion and meaning. Moreover, craft as a social and cultural activity represents historical events encoded in manmade artifacts. Mastering a hands-on technique can restore a piece of memory associated with a particular time period, a group of people, or a specific place.

Ann Hamilton’s work utilizes hand crafting as a translator reinterpreting texts as tactile sculptures or a series of video events. For example, *Untitled*, is a lined collar sewn by alphabet

letters using filaments of horsehair (see Figure 3.3.2-1). The threads become the extension of the letters, which decompose meanings into sensuous effects.



Figure 3.3.2-1 *Untitled* (Hamilton, *Untitled*) 12.

The gestures of sewing, drawing and writing are often amplified by video and audio recordings in Hamilton's installations. *Ghost...a border act* uses projected footage performing the action of drawing a line, which also becomes the boundary of the installation (see Figure 3.3.2-2).



Figure 3.3.2-2 Installation view of *Ghost...a border act* (Hamilton, *ghost . . . a border act*) 11.

Traditional hand crafting can also embody a historical event or a social condition. *Sunflower Seeds* by Ai Weiwei, is an installation involving large quantity of labor, which presents millions of individually handcrafted porcelain sunflower seeds (see Figure 3.3.2-3). “The work has a volume of nearly ten cubic meters, weighting approximately ten tons” according to the Tate. Ai takes the role of a director who manages a stage for questioning the relationship between labor, political force and misplaced cultural identity.



Figure 3.3.2-3 Installation view of *Sunflower Seeds* taken at Tate Modern Museum, London (Debin) 7.

The work is produced by a group of sunflower seeds’ makers living in a town called Jingdezhen¹⁹ (景德镇). This town is believed as the origin of porcelain making during the Han

¹⁹ Jingdezhen is a town in northeastern Jiangxi province, China.

dynasty²⁰. By working with and interviewing inhabitants in the town, Ai underscores the current condition of this crafting technique in China after the *Cultural Revolution*²¹ (1966-1976). This sociopolitical movement destroyed the heritage of pre-1940s arts and crafts. After the violent removal of imperial culture, the town is commodified to produce copies of ancient vases without regard for the history of porcelain in China. The work proposes a critique of contemporary Chinese culture, has failed to inherit ancient artistic knowledge.

²⁰ The Han dynasty was the second imperial dynasty of China (206 BC – 220 AD).

²¹ The Cultural Revolution was launched by Mao Zedong. The main goal of this movement was to preserve Chinese Communism and re-impose Mao Zedong Thought, also known as Maoism.

4 Chapter 4. SILICONE LOVE – HER GARDEN

This chapter focuses on documenting the process of completing *Silicone Love – Her Garden* (see Figure 4-1). The work depicts a fictional figure - an Internet ghost. It refers to a conceptual framework exploring aesthetic properties of online footage. The installation consists of three parts: 1) eight human-sized hanging sculptures made from stretchy and semi-transparent fabrics, 2) a series of video mapped collages composed of Internet-found images of Chinese gardens and footage of female dancers' body parts, 3) a multichannel sound system comprised of recordings of whispers and footsteps.

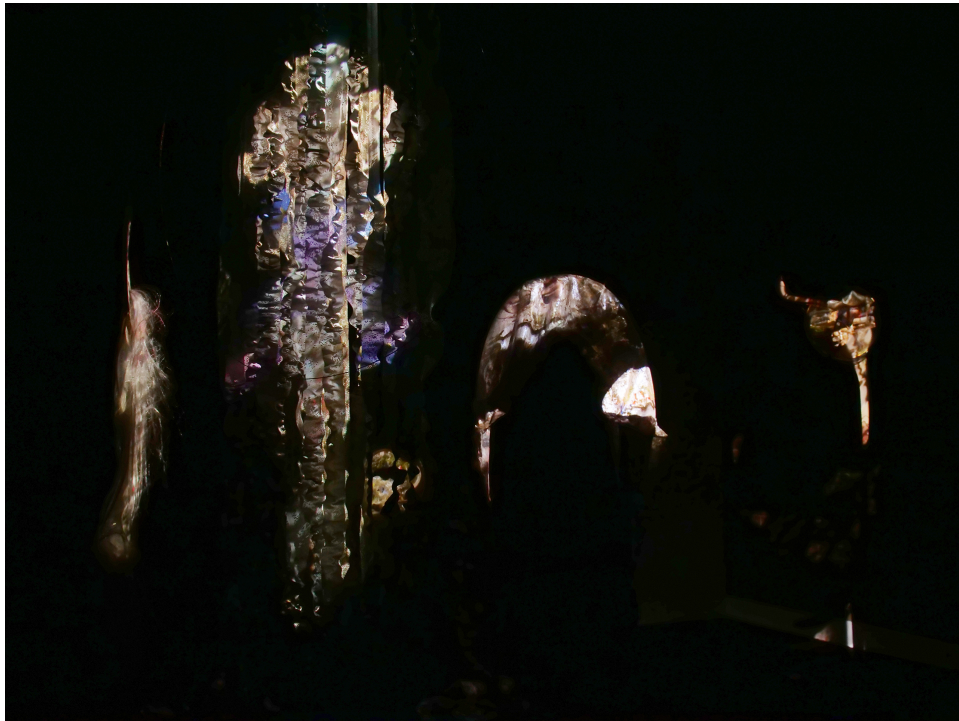


Figure 4-1 Installation view of *Silicone Love – Her Garden*.

Photography by the author.

To further examine the process of making, this chapter is divided into two parts: 1) process, 2) gallery installation notes. The first section lists the steps required to make the physical sculptures

and to compose the video objects. The second section is devoted to document the setup process at the Jack Straw New Media Gallery in Seattle.

4.1 PROCESS

The dissertation work started from an attempt to solve two problems in my art practice: 1) how to incorporate space as a narrative structure, 2) how to seamlessly blend moving images with physical sculptures and use them as a lighting source. The first question resulted in a study of Chinese garden culture. It became an essential aesthetic motif in the composition of the installation. The second question was resolved by applying a multi-channel projection mapping technique manipulating video objects into organically moving lights and sculptural textures.

Below is a detailed documentation of the making process.

4.1.1 A Ghostly Garden: Tulle Sculptures

To picture the installation as a garden, I drew inspiration from the architectural system of Chinese gardens. As a starting point, a series of tulle-made sculptures were created based on the ancient Chinese artifacts traditionally found in a garden.

The research references are collected from three resources: 1) web-based search of touristic photos taken in Chinese gardens, 2) books of traditional paintings, 国画 (Guohua) (see Figure 4.1.1-1), 3) erotic painting collections (online and books) depicting the interior design of Chinese gardens (see Figure 4.1.1-2).

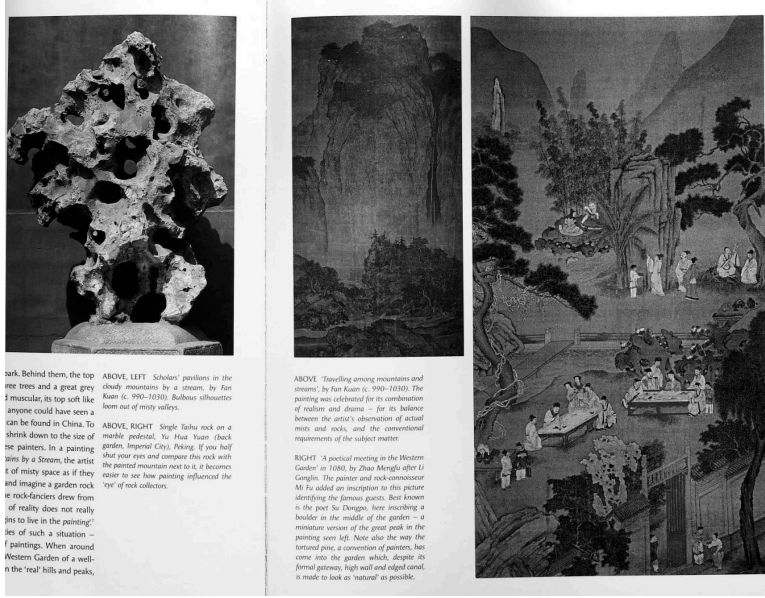


Figure 4.1.1-1 Scholar rocks in Chinese painting (Keswick, Jencks and Hardie 113) 15.

dark. Behind them, the top of trees and a great grey mass of clouds seem out of misty valleys. In a painting by a Shuang, the artist of misty space as if they and imagine a garden rock rock-fanciers drew from of reality does not really fits to live in the painting? of such a situation - F paintings. When around Western Garden of a well in the 'real' hills and peaks,

ABOVE LEFT Scholars' pavilions in the cloudy mountains by a stream, by Fan Kuan (c. 990-1030). Bulbous silhouettes seem out of misty valleys. ABOVE RIGHT Single Taihu rock on a marble pedestal, Yu Hua Yuan (back garden, Imperial City, Peking). If you half shut your eyes and compare this rock with the painted mountain next to it, it becomes easier to see how painting influenced the 'eye' of rock collectors.

ABOVE 'Travelling among mountains and streams', by Fan Kuan (c. 990-1030). The painting was celebrated for its combination of nature and drama - for its balance between the artist's observation of actual mist and rocks, and the conventional requirements of the subject matter.

RIGHT 'A pictorial meeting in the Western Garden' in 1080, by Zhao Mengfu after Li Gonglin. The painter and rock-collector Mi Fu added an inscription to this picture identifying the famous garden. Best known to the poet Su Dongpo, here inscribing a holder in the middle of the garden - a miniature version of the great peak in the painting seen left. Note also the way the tortured pine, a convention of painters, has come into the garden which, despite its formal gateway, high wall and edged canal, is made to look as 'natural' as possible.

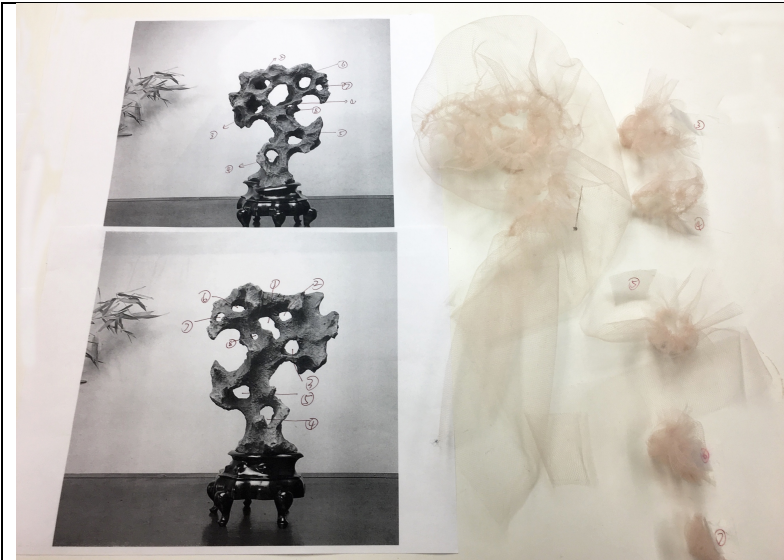


Figure 4.1.1-2 A corner of the bedroom in the Chinese garden painted by Yefo Hu / 胡也佛 (1908-1980) (Yufan) 37.

The research outcomes are concluded as a list of artifacts referencing Chinese gardens. The tables below present a series of tulle fabric sculptures, hand-crafted to resemble the referenced artifacts.

Table 4.1.1-1 A scholar rock-shaped tulle sculpture.

Photography by the author.



a. Process of sewing the tulle sculpture.



b. The completed tulle sculpture.

Table 4.1.1-2 Vase-shaped tulle sculptures

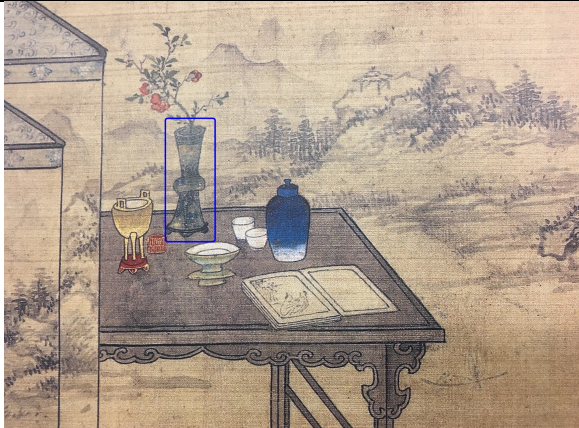


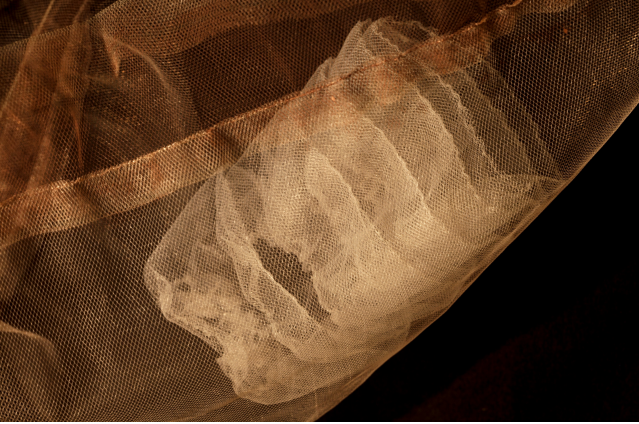
Referenced artifacts	Tulle sculptures
 <p data-bbox="203 751 349 787">(Bertholet)</p>	
 <p data-bbox="203 1255 755 1438">The No. 5 scene of a handscroll – <i>Pictures of Ancient Playthings</i> (The British Museum, Collection online, Handscroll).</p>	

Table 4.1.1-3 A table-shaped tulle sculpture




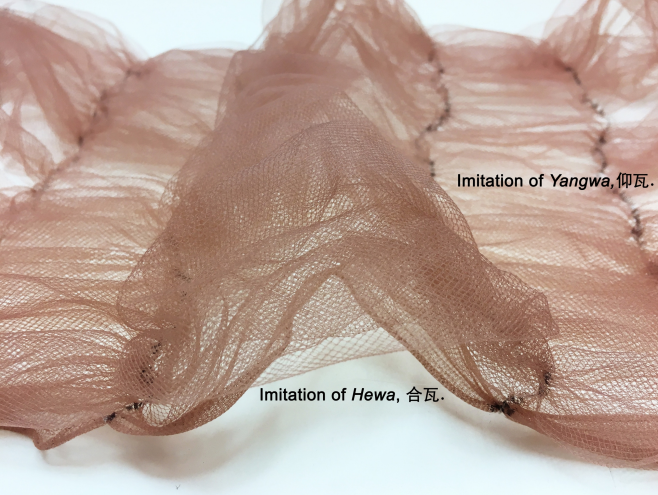


Referenced artifact	Tulle sculpture
 <p data-bbox="224 653 354 722">870 868 Waistless corner-leg table with humpbacked stretchers and apron 870 Long narrow table with wrap-around humpbacked stretchers and three spindles at each leg</p> <p data-bbox="201 753 753 863">A long narrow table made during the Ming dynasty (Wang and Yuan).</p>	

Table 4.1.1-4 A tile roof-shaped tulle sculpture

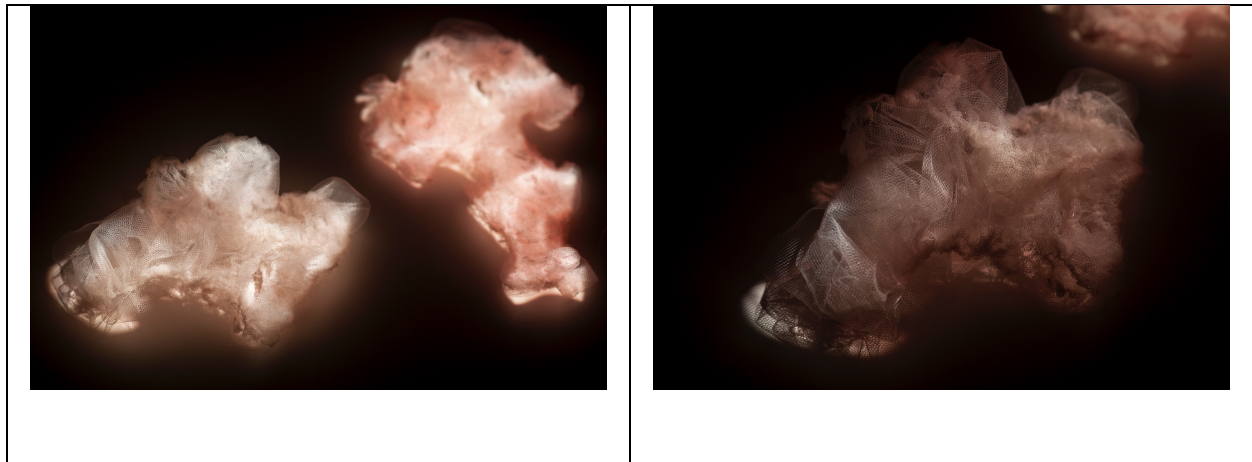
Referenced artifact	Tulle sculpture
	 <p>Imitation of <i>Yangwa</i>, 仰瓦.</p> <p>Imitation of <i>Hewa</i>, 合瓦.</p>
<p>A top view photo of the tile roof (Zinianye).</p>	<p>To imitate a tile roof, the fabric sculpture is composed by two parts, entitled <i>Yangwa</i> and <i>Hewa</i>.</p>
	
<p>A close-up photo of the tile roof (Zinianye).</p>	<p>The zig-zag thread is sewed and slightly pulled to form a curvy shape, which represents <i>Hewa</i>.</p>

4.1.2 *Illuminating Sprits: Projection Mapping Moving Images*

During this stage of making, the main purpose was to experiment with the technique of projection mapping. Since tulle is semi-transparent, the density of the fabric can change the clarity of a projected video. The “rock” sculptures capture the video and transform it into a volume of organically moving lights (see Table 4.1.2-1). The combination between projected videos and sculptures creates an illusion of a ghost’s body.

Table 4.1.2-1 Fabric sculptures projected by moving images.

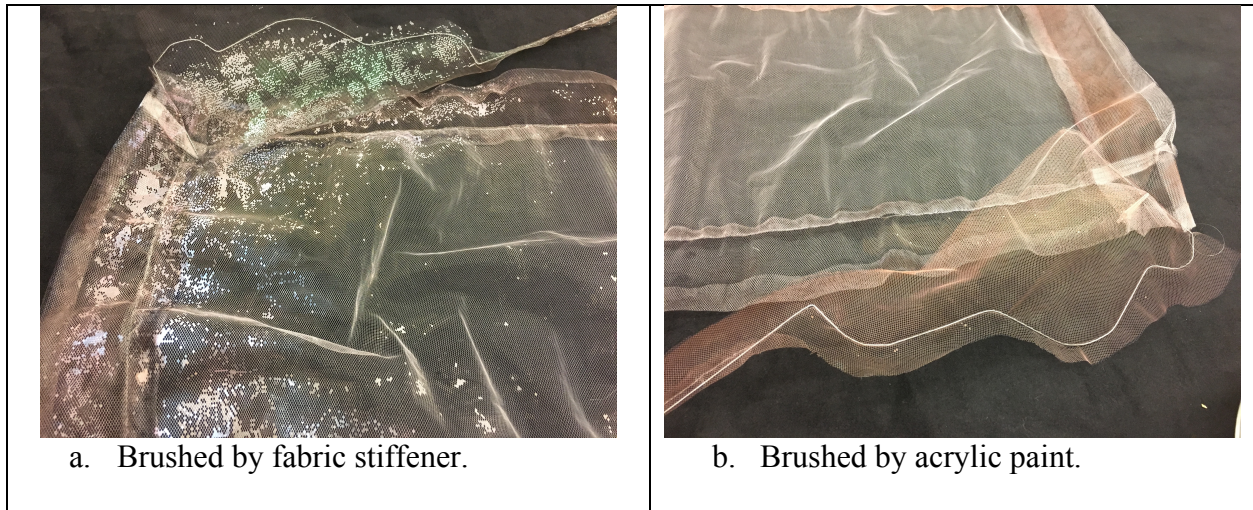
Photography by the author.



The tulle fabric is also used as a projection surface in the work. By brushing on a fabric stiffener, the liquid fills and flattens the gap parts (see Table 4.1.2-2). The tulle is also dyed to resemble a skin-like membrane.

Table 4.1.2-2 The tulle-made sculpture brushed by acrylic paint and fabric stiffener.

Photography by the author.



4.1.3 Video Wallpaper

By experimenting with the projection mapping, a flat video can be transformed to a three-dimensional object, creating an interesting visual effect. Thus, the project enters the third stage, focusing on creating video collages that implicate the figure of an Internet ghost.

Continuing an interest in reviving the tradition of Chinese gardens, the video collage began with researching the *Chinoiserie*²². This design-based trend is a European interpretation of ancient Chinese aesthetics. The impression of gardens is transformed into the design of wallpapers, furniture, porcelain vases, and architectural spaces (see Figure 4.1.3-1).

²² Chinoiserie is a design style originating during the 17th century in Europe. William Chambers and Jean Pillement are the most significant figures relating to this style. Please refer to a guide of Chinoiserie published on the website of Victoria and Albert Museum to see more details: <http://www.vam.ac.uk/content/articles/s/style-guide-chinoiserie/>



Figure 4.1.3-1 A Chinoiserie style dining room (Saeks 42-43) 24.

This research uncovers templates for representing Chinese gardens on a two-dimensional surface. Jean Pillement was one of the major designers involved in the practice of the Chinoiserie decorative arts. He published two influential books – 1) *A New Book of Chinese Ornaments*, 2) *One Hundred and Thirty Figures, Ornaments and Some Flowers in the Chinese Style of 1767* (see Figure 4.1.3-2).



Figure 4.1.3-2 A Chinoiserie style print from *A New Book of Chinese Ornaments Invented & Engraved* by Jean Pillement. Published in London, 1755 (Pillement) 21.

Pillement's prints of Chinese figures, gardens, and plants were adopted for all kinds of objects including ceramics, wallpapers, furniture and most especially textiles (see Figure 4.1.3-3).

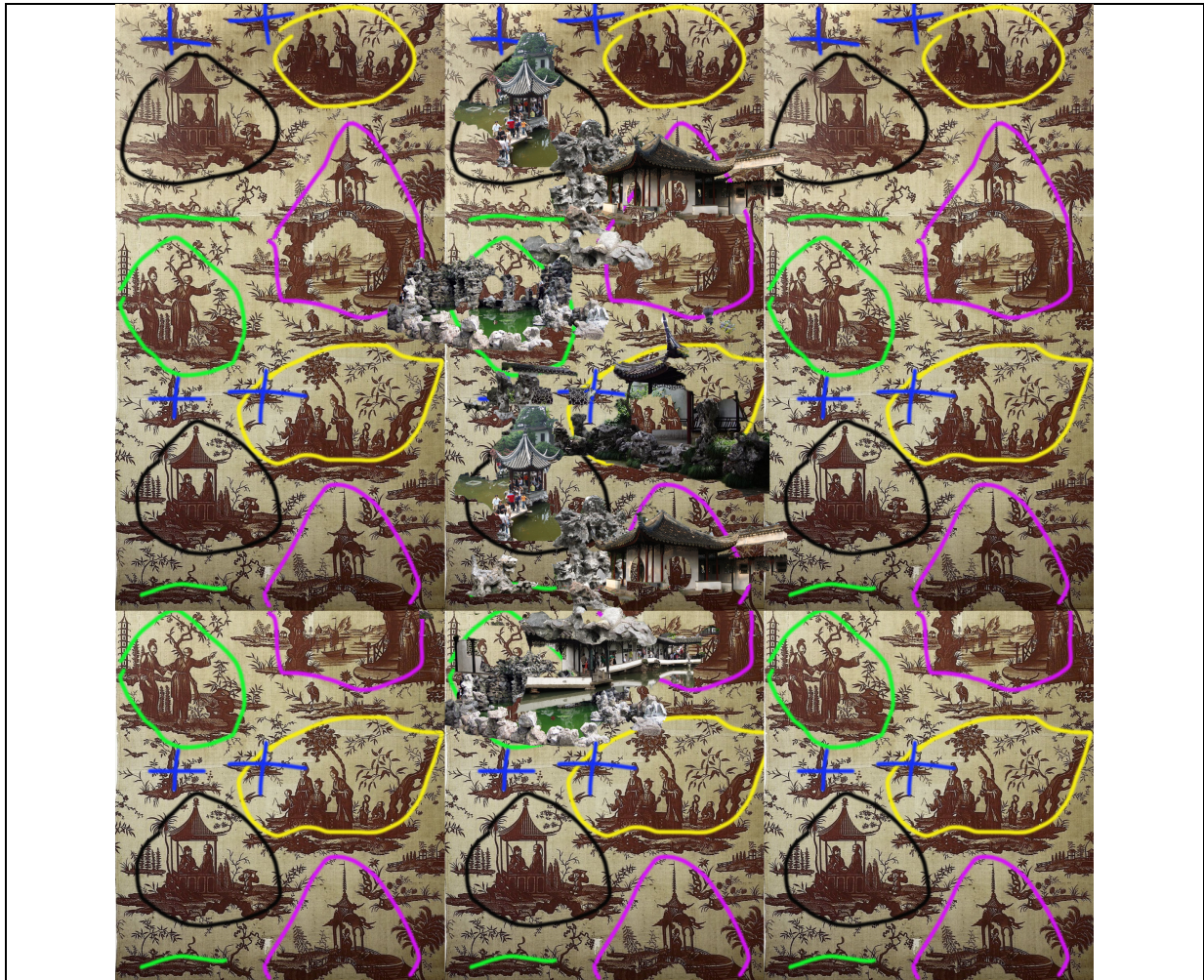


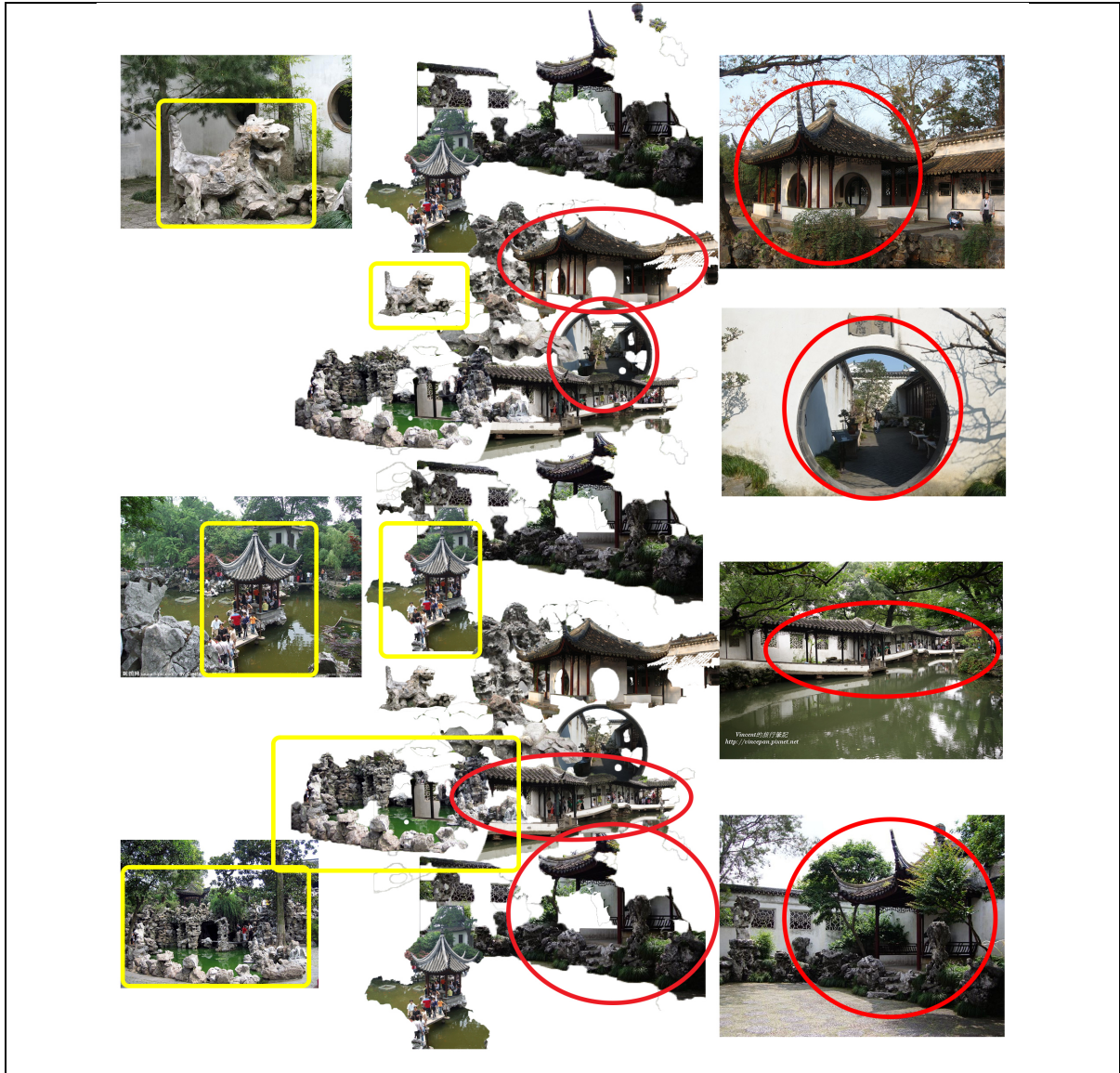
Figure 4.1.3-3 Pair of quilted panels, ca. 1765. British, Contton, a: L. 88 x W. 27 inches (223.5 x 68.6 cm) b: L. 89 1/2 x W. 47 inches (227.3 x 119.4 cm), Metropolitan Museum of Art, New York (Metropolitan Museum of Art, collection) 19.

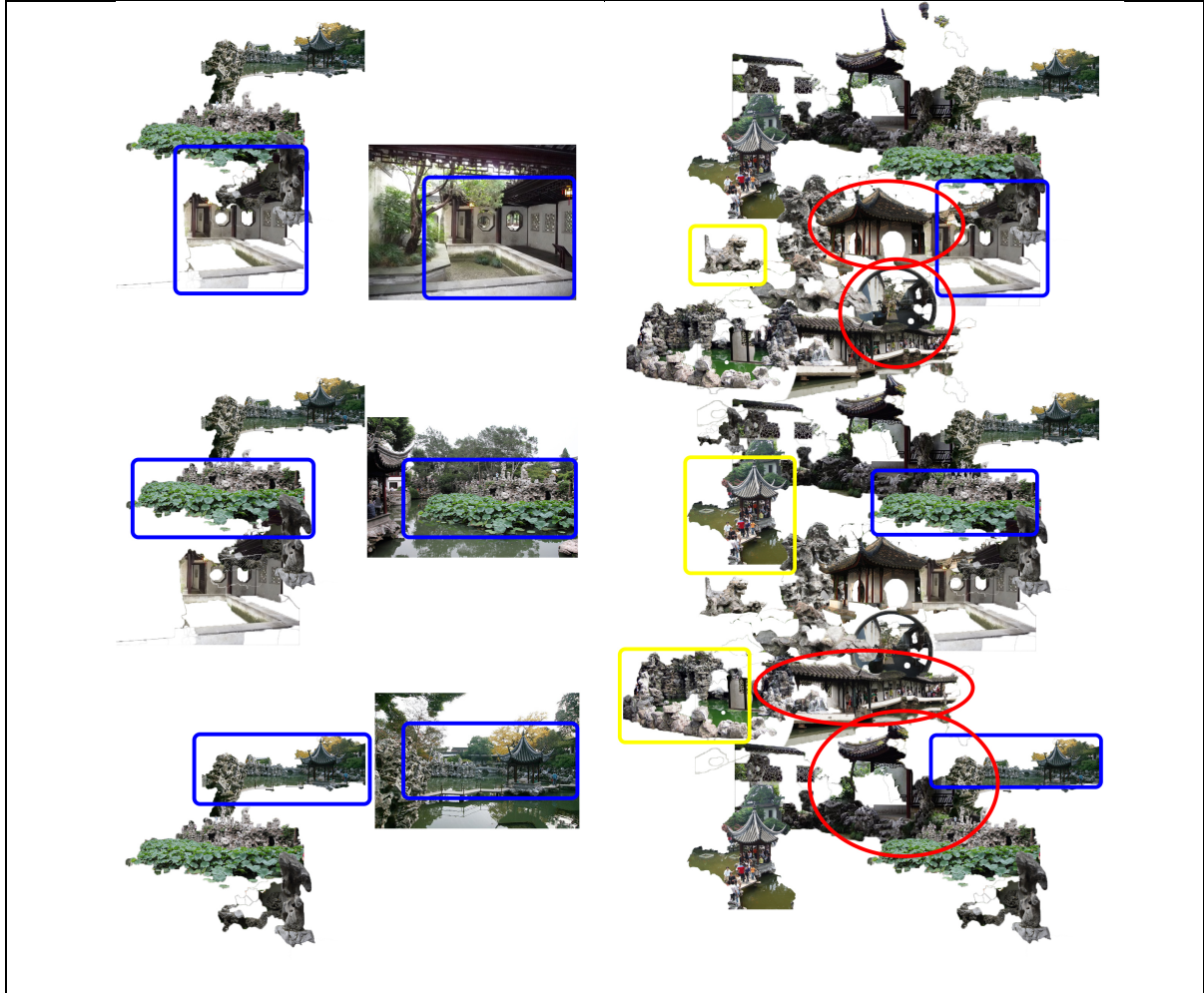
The research of Chinoiserie wallpapers provides a drawing-based archetype to reconstruct gardens as a flat surface. Expanding this compositional method, the video collage was initiated from the making of a video mask wallpaper. This mask becomes an assemblage of Internet found footage of gardens, mostly made available by tourists. Below is a list of images exhibiting the process of creating this garden-themed video mask (see Table 4.1.3-1).

Table 4.1.3-1 Creating the wallpaper-like video mask.

Documented by the author.



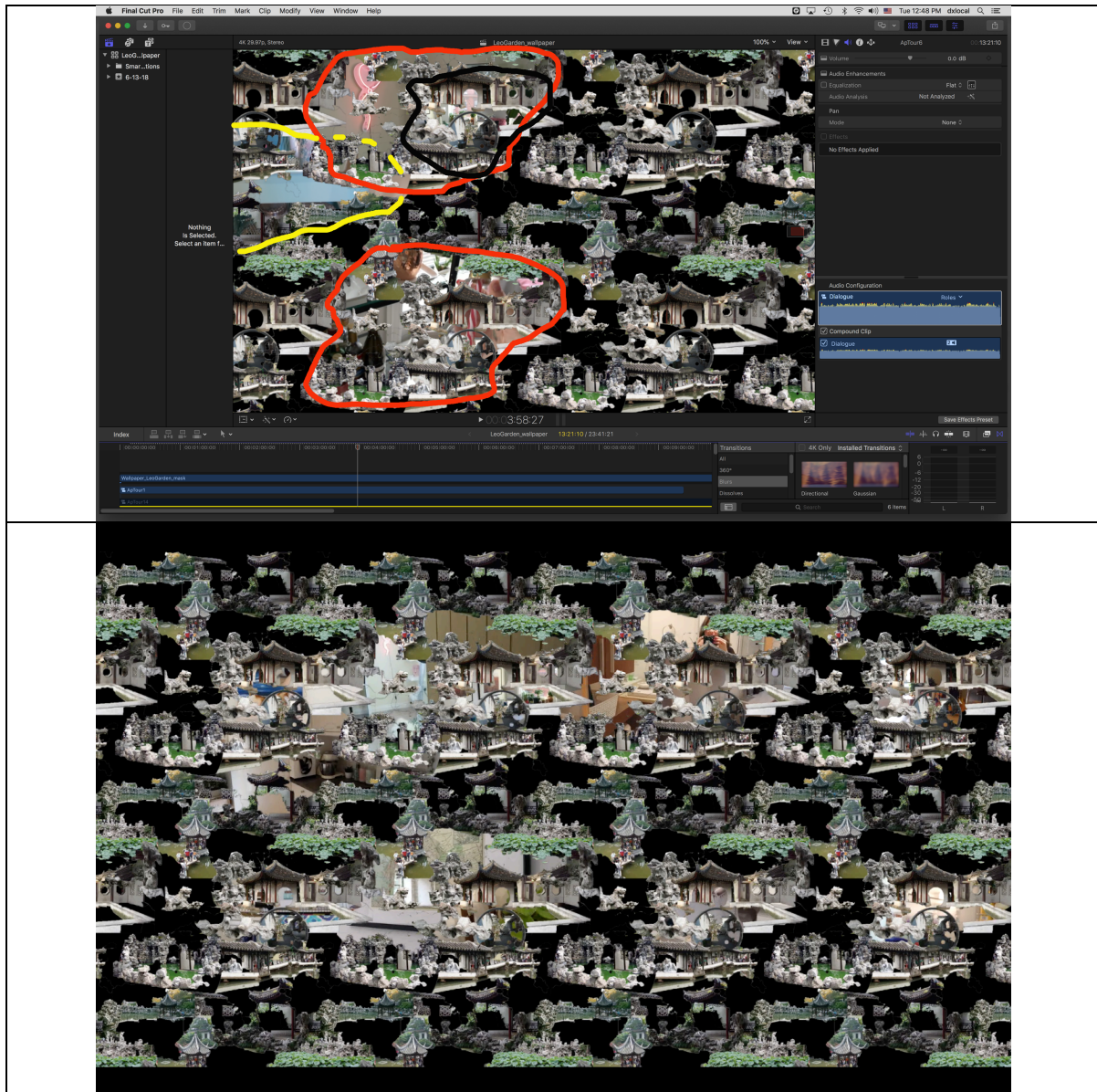




This video layer is then inserted as a mask on top of a collection of found footage (resulting from a web search of the key words “room tour video” on YouTube). The collage of these two elements reconstructs the experience of watching online videos. Below is the table illustrating the process of making the video wallpaper (see Table 4.1.3-2).

Table 4.1.3-2 Process of combing the video mask with the found footage.
Documented by the author.





4.1.4 Video Tapestry: A Blueprint Hidden in The Installation

When experimenting with the projection of the video wallpaper, the visual effect seemed too chaotic and overwhelming to match the delicate nature of the tulle fabrics (the projection surface). However, this process revealed an embroidery-like visual effect created by the pixelated resolution of the projector imprinted on the fabric. This inspired an exploration of videos/moving images as a layer of virtual textile, which led me to research traditional tapestries

(see Figure 4.1.4-1). This ancient art form provided a compositional structure for assembling a digital tapestry made out of looping videos and masked by a collage of still images (see Figure 4.1.4-2 and Figure 4.1.4-3).



Figure 4.1.4-1 A Chinoiserie tapestry (Connolly) 6.



Figure 4.1.4-2 A screen shot from the video tapestry.
Created by the author.

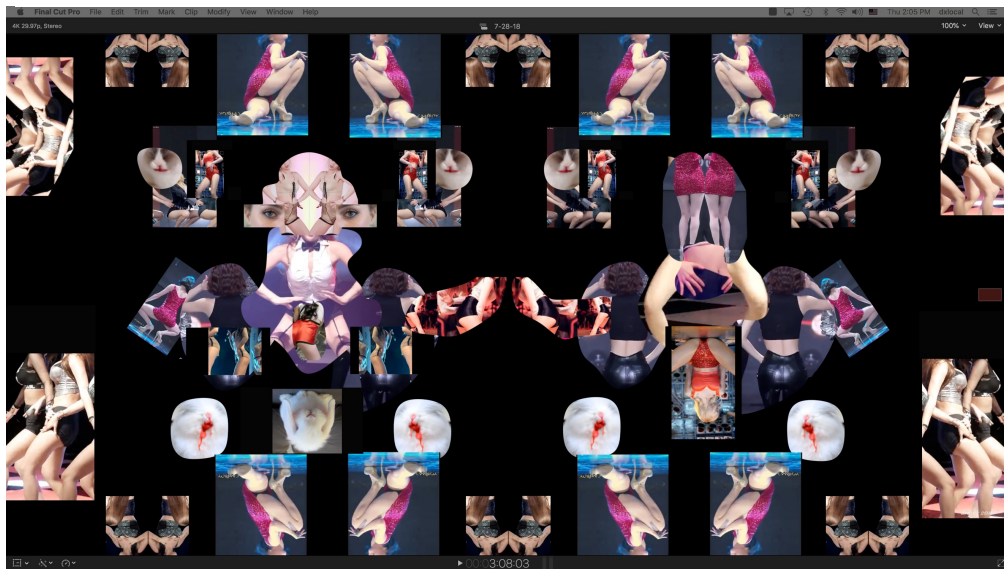


Figure 4.1.4-3 The video tapestry without the mask.
Created by the author.

The content of this video tapestry was inspired by a collection of Chinese erotic paintings, dated to the Ming and Qing dynasties (17th and 19th centuries). The paintings suggest a unique type of

voyeurism embodied by the viewing structure of the garden window frames (see Figure 4.1.4-4 and Figure 4.1.4-5).



Figure 4.1.4-4 An erotic painting by Yefo Hu (Yufan) 37.

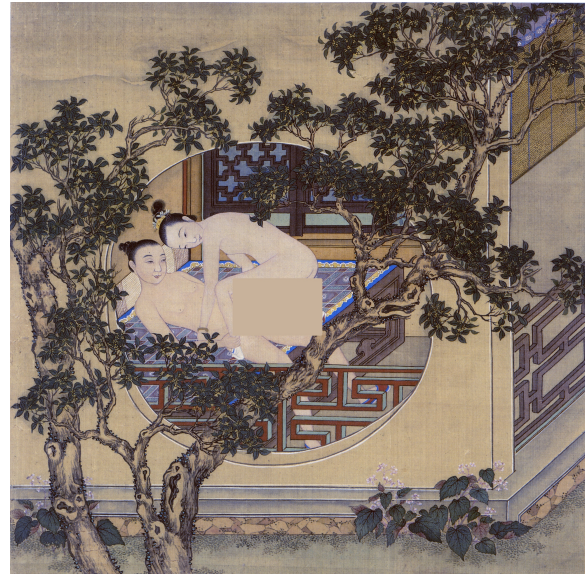


Figure 4.1.4-5 A section from an erotic painting (Bertholet 182) 1.

To aestheticize the voyeurism found in online videos, images of Chinese Gardens were collaged to re-frame a collection of footage of girls dancing to Korean pop music (see Figure 4.1.4-6 and Figure 4.1.4-7). The original videos were the result of a YouTube search using the key words “fan cam kpop girls.”

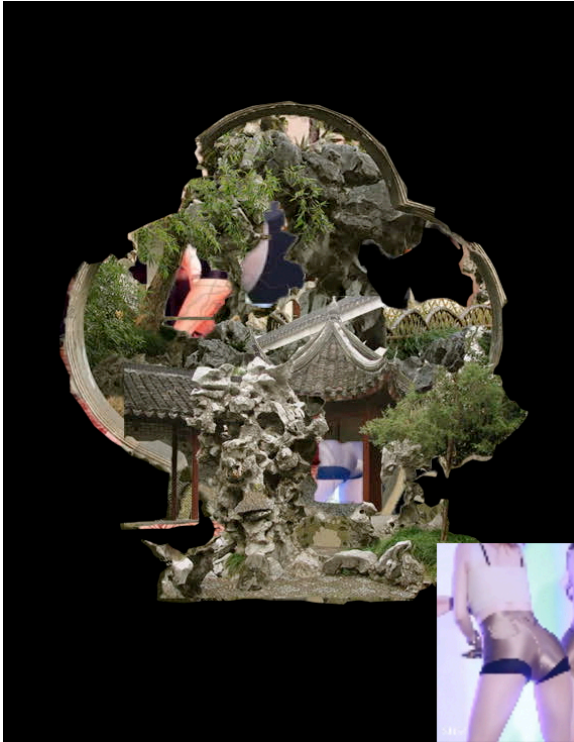


Figure 4.1.4-6 Collage of dancing girls with a doorway and a pavilion.
Created by the author.



Figure 4.1.4-7 Collage of dancing girls with a pavilion.
Created by the author.

4.1.5 *Space “Rehearsal” of The Sculptures: Riddles of Seeing*

By completing the composition of the video tapestry, the project entered the final phase, where it needed to address the relationship between the sculptures and the tapestry. This process involved a series of modifications focused on the video content. The steps are documented below:

- 1) Cutting the tapestry into video objects

Before testing the work in the physical space, the paper model was created of the exhibition space (see Figure 4.1.5-1). The video tapestry was printed at different sizes as still images on paper. Through positioning them in the paper model, the process helped to visualizing the relationship between the space and image.



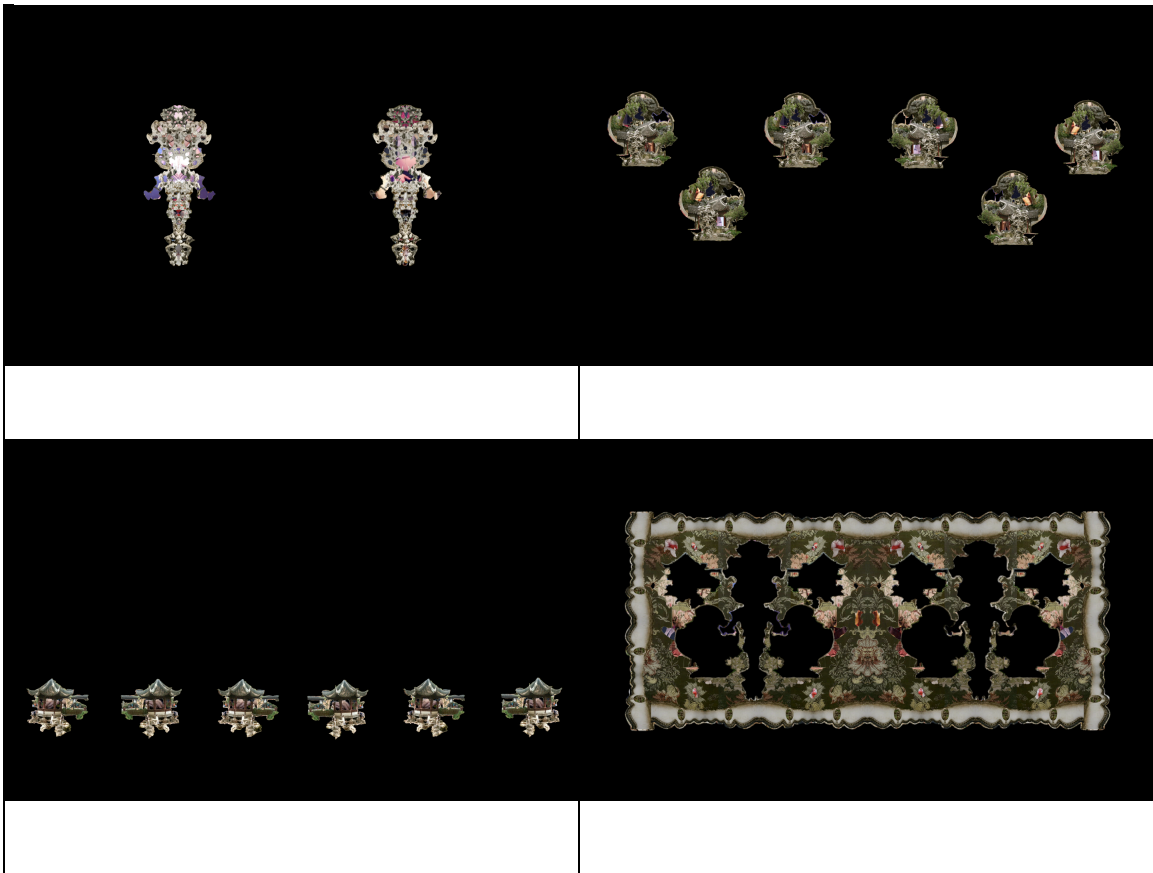
Figure 4.1.5-1 Paper-made gallery model.

Photography by the author.

Testing led me to alter the video tapestry, which was re-edited and transformed into a series of video objects (see Table 4.1.5-1). These were then mapped onto the tulle sculptures as a layer of virtual textiles.

Table 4.1.5-1 Screens shots of the video objects.

Created by the author.



2) Mapping the videos objects onto the physical sculptures

After re-rendering the series of video objects into looping clips, I experimented with three short throw projectors in DXARTS sound lab as it has similar dimensions to the gallery space. The projectors were angled to simulate a sphere of video objects in the space (see Figure 4.1.5-2 and Figure 4.1.5-3).



Figure 4.1.5-2 Installation test at the sound lab.
Photography by the author.



Figure 4.1.5-3 Mapping the video objects with the sculptures.
Photography by the author.

By arranging the sculptures with the projected images in a circle, I created the floor plan for the installation. At this point, the work reached its complete structure which consisted of eight video-mapped sculptures (see Figure 4.1.5-4).

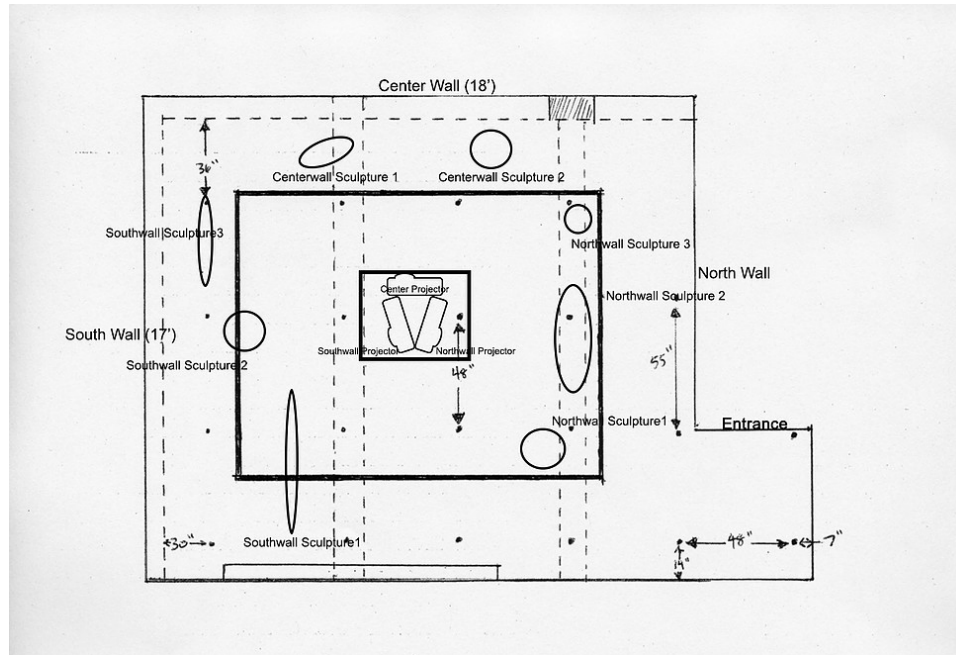


Figure 4.1.5-4 Floor plan of the installation.

Created by the author.

4.2 GALLERY INSTALLATION SETUP NOTES

Silicone Love – Her Garden was presented at the Jack Straw New Media Gallery, from September 7th to November 9th, 2019. Before the show's opening, there was a three-week long artist residency dedicated to composing the sculptures in relation to the surrounding sound. The residency resulted in a new spatial configuration including refining the animated video mapping, adding new sculptures, and composing the ambient sound. This process is described below:

- 1) Installing projectors and sculptures (see Figure 4.2-1)



Figure 4.2-1 Process of hanging the sculptures at the gallery.

Photography by the author.

2) Adding two new sculptures (see Figure 4.2-2)



Figure 4.2-2 South wall sculpture 3 (left) and North wall sculpture 1 (right).

Photography by the author.

3) Refining video mapping on the sculptures

Please see the mapping result documented in Figure 4.2-3.



Figure 4.2-3 The list of sculptures indicating dimensions and positions in the space.

Photography by the author.

4) Animating the background moving circle images:

The moving circles were animated video maps created through Final Cut pro editing software. There were six round shapes masked onto the three projected images (two circles on each). The visual result is demonstrated through Figure 4.2-4 to Figure 4.2-6.

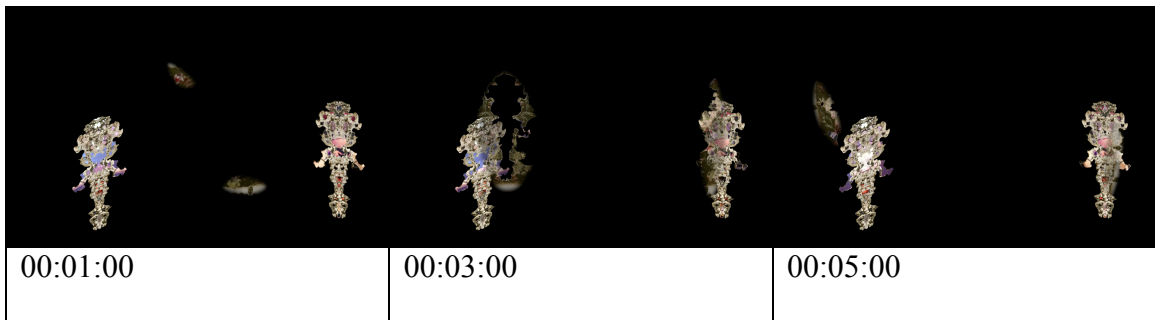


Figure 4.2-4 Center wall projector images.

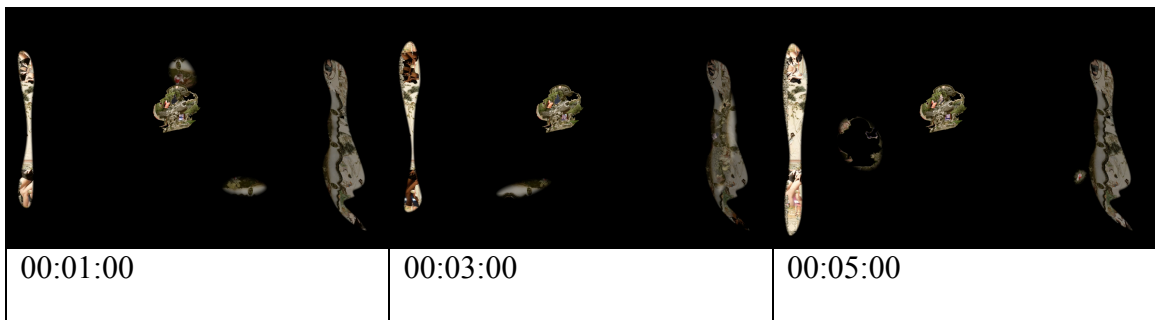


Figure 4.2-5 South wall projector images.

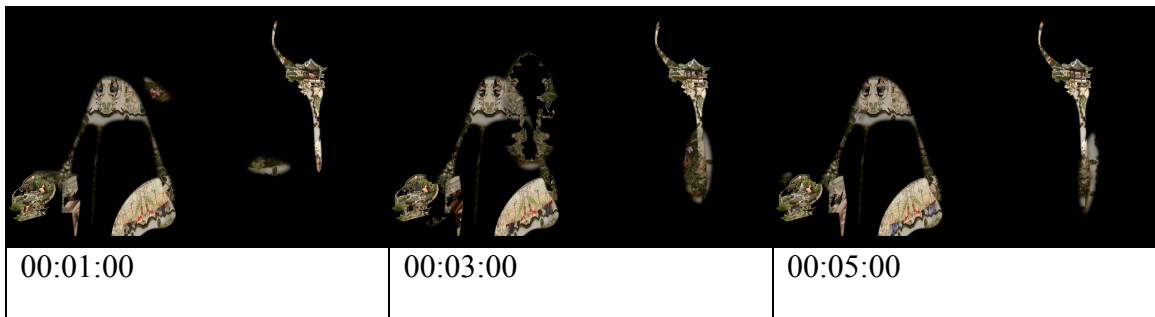


Figure 4.2-6 North wall projector images.

By defining a virtual boundary in the dark space, these circles moved slowly, blending in and out from the video sculptures like “alive” shadows creating a physical manifestation

of the ghost figure. In addition, the brightness of the moving circles was adjusted to become dimmer than the video sculptures in order to create an illusion of depth.

5) Composing the surrounding ambient sound

After installing the sculptures, the visual part of the work was completed. The composition of sounds was based on the concept of the Internet ghost. To create an intimate experience of the space, an online search of found audio was focused on the subjects of footsteps and whispering sounds. Through researching the ASMR (autonomous sensory meridian response) video trend²³ on YouTube, the topics of room tours and nature/garden walks were selected to generate a listening environment representing the movement of the ghost. The source videos were downloaded from YouTube based on these chosen topics. The videos were then exported as audio files, which were re-composed to create a surrounding sound system in the installation.

The sound editing of these files was based on a polyphonic structure commonly used in music composition. Different layers of audio were compressed in time generating a texture of ghostly sounds (see Figure 4.2-7).

²³ ASMR video on YouTube is a recent visual trend that people film various kinds of daily routings in combination with their whispers.

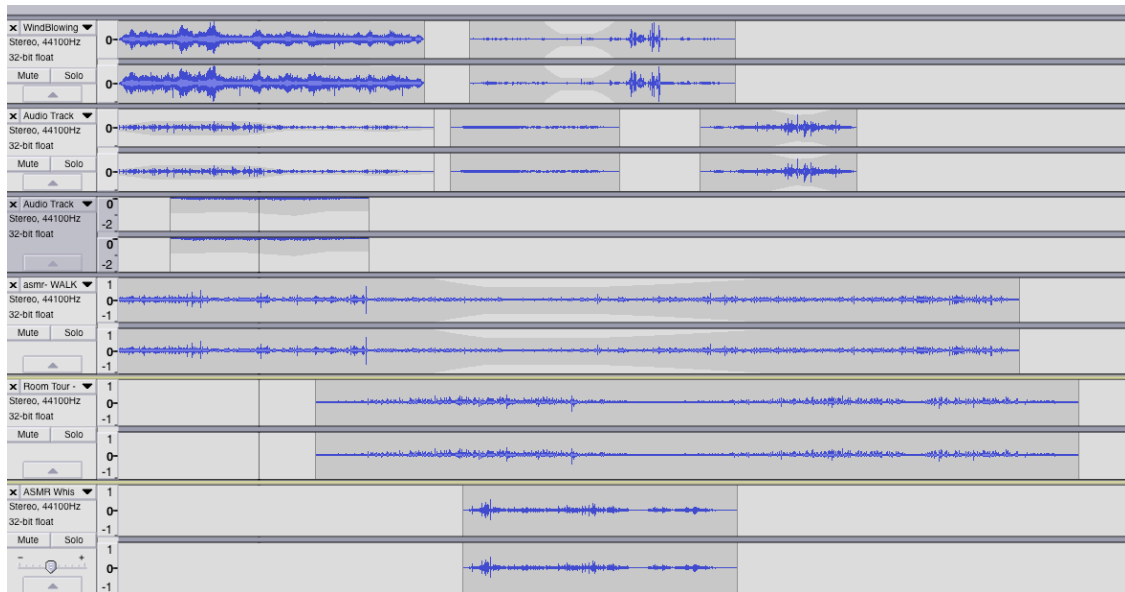


Figure 4.2-7 A screen shot of the sound editing process.

Documented by the author.

There were four mp3 players (equipped with an 8-ohm speaker in each) located on the three walls behind the sculptures. Each device looped a different sound track (between 10 to 15mins). By spatializing these sounds, I wanted to create the simulation of a garden through listening.

5 Chapter 5. CONCLUSION AND FUTURE WORKS

5.1 CONCLUSION FOR SILICONE LOVE – HER GARDEN

This installation is constructed to create a sculptural fiction, narrating an imaginary figure – the Internet ghost. Inheriting viewing structures from Chinese Garden culture, the work creates visual tempos revealing the ghost as a series of enigmatic sculptures. Although the project does not use direct symbols related to the original source – the Internet, it uncovers the aesthetics of web-based video as a spatial form of seeing. The main goal of this work is to make something out of the Internet, not about the Internet.

In terms technical application, projection mapping is the main technology involved in the piece. The work develops methods of composing hand-crafted video textures in order to create visual narratives. In addition, the material experimentation of tulle fabrics as a projection surface, conducts moving lights onto multi-dimensional objects. By applying fabric manipulation techniques as sculpting gestures, the flat images from the screen are transformed to tangible volume of lights. Thus, the sculptures embody the idea of the Internet ghost.

5.2 FUTURE WORKS

My future work will mainly take the form of mixed media installations. The reconstructed space will consist of collections of enigmatic artifacts, exploring the relationship between mediated forms of human bodies, emerging technologies and cultural heritage. Continuing an interest in

online visual culture, installation provides a critical perspective to discuss the impact of the Internet.

Ongoing research of found footage will focus on experimenting with data-driven narratives. Looping clips will combine with sculptural elements to create new forms of architectural space. An algorithmic-based video searching and editing system will be developed to further explore the aesthetic of networked culture, which will be an amalgamation between programming logic and storytelling narratives.

Material-wise, my practice will continue to develop hybrid media combining the computational with the traditional. To extend my current research on liquid silicone, the next step will focus on bio-chemistry and developing eco-friendly sculpting materials.

By applying computational techniques, I will continue to revive ancient objects with digital tools, to reconnect ancestral knowledge to new media art. The study and training in traditional hand crafting techniques are essential to re-discover the charm of ancient artistries. Combined with e-textile practices, I would like to open an aesthetically intriguing and culturally diverse conversation between craft and experimental media art.

In conclusion, my future research will progress in the following three directions: 1) technical research on self- generative narratives through an algorithmic system, 2) experimentation in novel materials through a hybridized hand crafting model, 3) exploration in retro-futuristic aesthetic through a multi-disciplinary research method. I am looking forward to connecting with

different institutions, such as museums and material science research groups, in order to form a sustainable art practice inside and beyond my academic training.

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