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# A Series of Quiet Decisions

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# A SERIES OF QUIET DECISIONS

by

AARON ARTRIP

Under the Direction of Pamela Longobardi

## ABSTRACT

*A Series of Quiet Decisions* is a set of prints and an installation documenting my examination of sound. A center piece containing a modified television set and a set of pedestal speakers acts as a physical manifestation of my proximity between two interests: listening and viewing. The three surrounding walls contain numerous individual cyanotypes drawn with sound, providing an indexical mark to my listening sessions. Considering printmaking as a form of recording, the cyanotypes are a visual playback of sonic vibrations. *A Series of Quiet Decisions* serves as an examination of sound in both viewing and listening opportunities.

INDEX WORDS: Sound, Vibration, Drawing, Cyanotype, Listening, Viewing, Hacking

A SERIES OF QUIET DECISIONS

by

AARON ARTRIP

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Fine Arts

in the College of the Arts

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2019

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2019

A SERIES OF QUIET DECISIONS

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## **DEDICATION**

I would like to dedicate this thesis to my parents, Angela Lively and Chris Artrip and to my sister, Sheen Artrip. I would especially like to thank my girlfriend, Morgan Nelson for her support though the insanity of my last year. They have been supportive through my entire journey. Thank you and I love you all very much.

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## 1 INTRODUCTION

The chance encounters of sound from everyday life are rooted in subtle vibrations, creating an auditory invitation that my ears cannot ignore. A 1996 Toyota Corolla's engine traveling at ~56 mi/hr. hums at a near perfect B flat. Construction workers next door pound nails into pinewood beams, producing a semi random rhythm of clicks and taps. The pitch of an air conditioning unit and the wax and wane of a drill become harmonically in tune with each other. These everyday interactions with movement and collision provide an auditory experience, which is then translated into a form of rhythm, pitch, and timbre. David Toop recalls the power of sound in a conversation with musician and composer Sun Ra. In *Ocean of Sound*, Ra tells Toop of his vision of sound as fuel, specifically a way of driving cars: "You'd have to have the proper type of music. Like you take two sticks, put 'em together, make fire. You take some notes and rub 'em together – dum, dum, dum, dum – fire, cosmic fire."<sup>1</sup> Using Sun Ra's example of rubbing two sticks together, I aim to create a series of audio-visual presentations by rubbing together two or more forms of instrumentation in order to create work. *A Series of Quiet Decisions* is a presentation of my experiments with sound, printmaking, and object making as I search for new methods of igniting my own "cosmic fire." For the duration of this essay, I will refer to 'cosmic fire' as the exotic and sultry force of energy that draws me into my work and exists in others work whom I reference. My intentions as an artist are to explore the realm between listening and looking.

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<sup>1</sup> David Toop, *Ocean of Sound*, 0005-edition ed. (London: Serpent's Tail, 2001), 25.

## 2 SOUND AS MEDIUM

In 6th grade, during my first class of band, the instructor asked everyone to play their “middle C” tuning note on their respective instruments. I took a deep breath in and blew into the trumpet while, at the same time, I experienced a full body sensation, causing all other thoughts to vanish. The sheer power of 37 instruments all playing simultaneously was an experience I had not yet been a part of. The hair on the back of my neck stood straight up, my awareness of my own instrument vanished, and my sensitivity to vibration was, once again, engaged and enthralled. This would be one of many occurrences that would lead me to believe my medium is sound and now I am currently looking for new ways to raise the hair on my neck through a combination of analog and digital technologies in search of ‘cosmic fire.’

During my day to day practice, I find myself stopping to tap repeatedly on a metal pipe or run my finger along a ridge just so see what sort of sounds come from this interaction. In *Stockhausen On Music*, Karlheinz Stockhausen describes his relationship to sound in a bidirectional manner of communication, a notion I am all too familiar with: “I respond to sounds. Directly. Sound is my air. Whenever I deal with sounds, they organize themselves, so to speak. They respond very well and I to them.”<sup>2</sup> Stockhausen’s appreciation for sounds as a medium speaks directly to my studio practice because of the sonic potentials in applying sound to artworks.

Pierre Schaeffer in *In Search of a Concrete Music* describes his desire to investigate the ‘musical object,’ a criticism evolved as a reaction to the historical habits of musicologists. His

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<sup>2</sup> Karlheinz Stockhausen, and Robin Maconie. 1989. *Stockhausen on Music : Lectures and Interviews*. London ; New York : M. Boyars ; New York : Distributed in the U.S. by Kampmann, 1989., 25.

objection lies in the lack of interest in an instrument's potential for future musical works, compared to its normal consideration of reproducing what the composer demands:

“The concept of object is not mentioned at all in the theory of music, whether in musicianship, harmony, composition, or criticism. The facture of this work, with the symbolism of notation, the structure of forms, and the effect produced, forms a perfectly enclosed whole, sufficient to itself, a closed system.”<sup>3</sup>

Schaeffer's use of the word “Object” I can relate to, specifically with Cathode Ray Tube (CRT) Television sets. A Cathode-Ray Tube is a ‘large glass vacuum tube, the front covered with a phosphorescent substance that glows when struck by electrons, via the electron gun.’<sup>4</sup> His declaration of the ‘object’ falls in line with my studio practice as it reflects my consideration of the consumer electronics and their potential for a future visual and instrumental experiences of sound through the examination of their core structure, form, and application. My use of a CRT television in my work was the first time where I began to consider sound as a visual medium, specifically in terms of a drawing medium. The use of CRT sets in my work begins the conversation around the investigation of the visualization of sound.

### 3 SOUND AS IMAGE

Wassily Kandinsky describes the simple form of observing a street scene through a glass window in *Point and Line to Plane* in an investigative and curious manner, describing “The street itself, as seen through the transparent (yet hard and firm) pane seems set apart, existing and pulsating as if “beyond.”<sup>5</sup> I apply Kandinsky's use of the word “beyond” in my work to describe

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<sup>3</sup> Pierre Schaeffer, 2012. *In Search of a Concrete Music*. California Studies in 20th-Century Music ; 15. Berkeley: University of California Press, 132.

<sup>4</sup> Robert L. Hartwig, *Basic TV Technology: Digital and Analog*, 3rd ed., Media Manuals (Boston: Focal Press, 2000), 14.

<sup>5</sup> Wassily Kandinsky. 1979. *Point and Line to Plane*. New York: Dover Publications, 24.

a location where the ‘cosmic fire’ exists, through the experiments and investigations into sounds and their application in imagery generation. I am interested in building forms of instrumentation, providing me the ability to use sound to activate a space, both visually and aurally.

Another artist whose work reflects a deep connection to the fusing of sound and imagery is experimental film maker, Harry Smith. Smith's interests range from folk music to the Cabala to anthropology and his films are a collaboration of these life experiences, combining these artifacts of knowledge and observation into his own form of ‘cosmic fire.’ In the late 1940’s, Smith produced a sequence of experimental handmade films in a series titled *Early Abstractions*. These films provide a sound-image experience that reminds one of watching the earth's first organisms form and evolve. The aggressive textures with transparent colors have a microscopic visual presence that gives the viewer a sense of wonder and curiosity. These films are constantly moving alongside musical accompaniments. *Film No. 3* specifically is paired with *Guarachi Guaro* by Dizzy Gillespie, providing a fun and inviting film of a light-hearted manner and playful approach to the moving image. In *Motion Painting: 'Abstract' Animation as an Art Form*, Loretann Devlin Gascard defends the notion of kinetic movement:

“It still remains, however, that certain 'abstract' animations, sometimes only moments of such, offer an expression which captivates us... the element of movement continues to function by defining, formulating and articulating space, and yet we find little or no narrative being implied. For example, in Harry Smith's 'Early Abstraction No. 3' [ 11] (see Fig. 2), soft-edged squares and circles move in and out of space, exchange position and overlap within a quivering expressionist composition. We experience movement without performance.”<sup>6</sup>

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<sup>6</sup> Loretann Devlin Gascard, “Motion Painting: ‘Abstract Animation as an Art Form,” no. 4 (2017): 294.

Gascard's description of this film, specifically "the element of movement continues to function by defining, formulating and articulating space,"<sup>7</sup> is a similar connection in my work *Man in the Machine* (Fig. 1).



*Figure 1. Man in The Machine. (2018). Variable Dimensions. Mixed Electronic Media.*

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<sup>7</sup> Loretann Devlin Gascard, "Motion Painting: 'Abstract Animation as an Art Form,'" no. 4 (2017): 294.

The vertical line glowing from the television creates a sense of stasis that is not unlike the feeling of a broken computer screen or a dead VCR. The TV's screen acts as a visual interpretation of my audio manipulations, the audio being analog drone sounds engaged via electromagnetic pickups, similar to a guitar pickup. By manipulating audio signals sent into the TV, the line jumps and bends to the left and right, presenting a conversation around drawing, physical space, and time. This discussion develops into an intermediary place of performance and presentation, a place existing between what is seen and what is heard.

Daphne Oram is an electronic musician whose pioneering work with her homespun 'Oramics Machine' was never fully realized. The Oramics Machine is a device that uses rotating optical discs and light to create sound in a mechanical form. Her work on this machine was done in her home studio. In *Rediscovering Daphne Oram's Home-Studio*, Laurie Waller shares an email exchange with one of the curators:

“Was the Oramics Machine important as an invention? Maybe not,...I think museums should talk about dead-ends quirks and failures a lot more. They are part of the history of Science, Technology, Engineering and Medicine and can help us see the big stories in a different, more diverse and balanced light.”<sup>8</sup>

Waller discusses Oram's work in terms she wishes to be more popular—that of risk and failure, a component that exists in much of my work. The discovery of musically harmonious tones in a VCR was from the accidental placement of an electromagnetic pickup. Much of my work exists on a plane of the unknown and the unpredictable, often providing results beyond my original intentions of 'cosmic fire' generation.

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<sup>8</sup> Tim Boon, Merel van der Vaart, and Katy Price, “Oramics to Electronica: Investigating Lay Understandings of the History of Technology through a Participatory Project,” *Science Museum Group Journal* 2, no. 2 (May 2, 2018), <https://doi.org/10.15180/140206>.

Mary Ellen Bute's *Rhythm in Light* is a mid 20th century experimental film, in which Bute uses various household items and surfaces to produce an engaging and thorough examination of the audio-visual experience. Before the animations set in, we are presented with an artists' keyframe of text, citing "It is a modern artist's impression of what goes on in the mind while listening to music." Throughout the film we are presented with many different environments; some feel like microscopic dissections of organic life, while others feel monumental, as if we are being thrust by a large city inside a flying vehicle providing a curious, yet hesitant interaction with light, sound, and form. With her use of shape and form, I am constantly reminded of *Rhythm in Light* when I am performing with *Man in the Machine* (Fig. 1) as the symmetrical forms dance from left to right, implying a sense of space within the TV set. I often find myself being entranced by the visuals and I make considerate decisions to alter these shapes and configurations. Becoming seduced by visual flickers ignites a conversation much about my involvement as performer with his instrument as it organically evolves into a two-way conversation between myself and the hand-crafted instrument. Through my investigations of discarded consumer electronics, much like Daphne's Oramics Machine, I have found that my formal considerations on the presentation of my work bring to light the method by which I arrived at this format. The incidental discoveries are just as much a part of the work as is the end result.

#### 4 TECHNOLOGICAL EMBRACE AND DECAY

In Roy Ascott's *Telematic Embrace*, Edward A. Shanken introduces an overview of Ascott's ideas concerning Art, Pedagogy, and Theory in terms of a 'Synthetic Vision.' Roy Ascott's vision lies within the collaboration of technology and artists in hope for a more connected and



forward-thinking society by way of the ‘Telematic Embrace.’ Shanken goes to describe the ‘complementarity of technological and ritualistic methods of expanding consciousness and creating meaning’: “Ascott’s theories propose personal and social growth through technically mediated, collaborative interaction. They can be interpreted as aesthetic models for recording cultural values and recreating the world.”<sup>9</sup> James Connolly and Kyle Evens promote similar ideas to Ascott’s vision of the future of art being re-contextualized and revised in *Cracking Ray Tubes: Remaining Analog Video in a Digital Context* with a thorough examination of ‘aesthetic potentials of analog and digital hybridized systems’<sup>10</sup>: “As new media and sound artists, we investigate the cathode ray tube not as a dead object of the past, but rather as a culturally valuable, emblematic product of our current materials culture of obsolescence...”<sup>11</sup> This ‘culture of obsolescence’ is evident while perusing through various thrift stores and junk shops as I consider the potential for these discarded electronics as a form of intention and expression:

“A device that is capable of being revived and hybridized with advanced digital tools to generate new aesthetic experiences of latent musicality, whilst simultaneously revealing repressed realities and rich potentials within contemporary technology that are often lost in the fetishization of the “new” within media studies and production.”<sup>12</sup>

The habit of discarding older technology is a direct result of contemporary consumption, establishing priority on the new and fresh. The fetishization of new technology is an inherent part of nostalgic marketing, poised with the potential of making something new and exciting.

Alternatively, Jeffrey Sconce critiques the “postmodern” discussion around the ‘transmutability

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<sup>9</sup> Roy Ascott, *Telematic Embrace: Visionary Theories of Art, Technology, and Consciousness* (Berkeley ; Los Angeles ; London: University of California Press, 2003), 7.

<sup>10</sup> Connolly, James and Kyle Evens, “Cracking Ray Tubes: Reanimating Analog Video in a Digital Context,” *Leonardo Music Journal* 24 (n.d.): 53.

<sup>11</sup> *Ibid.*, 53.

<sup>12</sup> *Ibid.*, 53.

and media presence' in *Haunted Media: Electronic Presence from Telegraphy to Television*. In Sconce's writings, he argues the inevitable habits of humans consistently approaching newly presented technological innovations with futuristic and utopian ideals but are ultimately left with similar results: "In the end we are always left with a material machine at the heart of such supernatural speculation, a device mechanically assembled, socially deployed, and culturally received within a specific historical moment."<sup>13</sup> Considering Ascott's vision of the future and Sconce's critical analysis of the predictable habits of association, I find myself in between these two ideologies in my current artist's practice. Being self-critical in my studio practice, I am often looking for new ways of combatting the fetishization of new technological materials and bridging a more personal and genuine art practice with the use of older technology as a form of audio-visual expression.

A notable contemporary example of using obsolete technology in new and expressive ways is Ei Wada and The Open Reel Orchestra. In 2009, Wada started the Open Reel Ensemble, a group focusing on the real time manipulation of reel-to-reel tape recorders, recycled oscillating fans, and overhead projectors. The Open Reel Ensemble and Wada both produce work that wholeheartedly speaks to my intentions as an artist who is considering the relationship of technology to themselves. In "Ventilator Fan Sizer | Exhaust Fancillitator" Wada uses exhaust fans as sound sources and old school overhead projectors as a visual light accompaniment. It is a beautiful and captivating performance that brought tears to my eyes upon first witness. The beautifully lit stage sets and positioning of Wada and other ensemble members directly reflects their intentions as a group to provide a new way of experiencing outdated and obsolete media

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<sup>13</sup> Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television*, Console-Ing Passions (Durham, NC: Duke University Press, 2000), 20.

and technology. Their futuristic attitude and implementation of creative applications is Wada's process "as way to give a new voice to the souls of machines abandoned by people."<sup>14</sup> This form of presenting new 'cosmic fire' shows a fruitful and meaningful approach.

The final result of my experiments is a series of discrete and individual, ever evolving performances and presentations. The results of my studio experiments come from a place of pure musical and technological curiosity while searching for new ways of presenting the liminal space between listening and viewing.

## 5 STUDIO EXPERIMENTS

The most engaging part my practice is the playful unknown and the freedom of my intentions. Although mostly frustrating and discouraging, I have moments of extreme ecstasy when I am able to adapt a rough idea into an even rougher prototype. Influenced by the Musique Concrete experiments of Pierre Schaffer and the chance ideologies of John Cage, my objects of instrumentation function as a larger conversation of intervention, embracing decaying technological systems of entertainment and complacency. My materials comprise a wide range, from discarded consumer electronics to contact microphones, speakers, magnets, electromagnetic pickups, solenoids, and servo motors. These instrumentation devices pulled from the Electro-Acoustic and Musique Concrete era of sound performance focus on the raw material of sound as a medium, rather than sounds processed and manipulated to emulate other more common sounds.

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<sup>14</sup>Anne Ferrero. "Making Music + Art From Old Appliances, With Ei Wada." *Synthtopia*, June 22, 2017. <https://www.synthtopia.com/content/2017/06/22/making-music-art-from-old-appliances-with-ei-wada/>.

Similarly, employing simple methods of scientific examinations, such as with my cyanotypes provides me with a concrete and manageable form of studio practice.

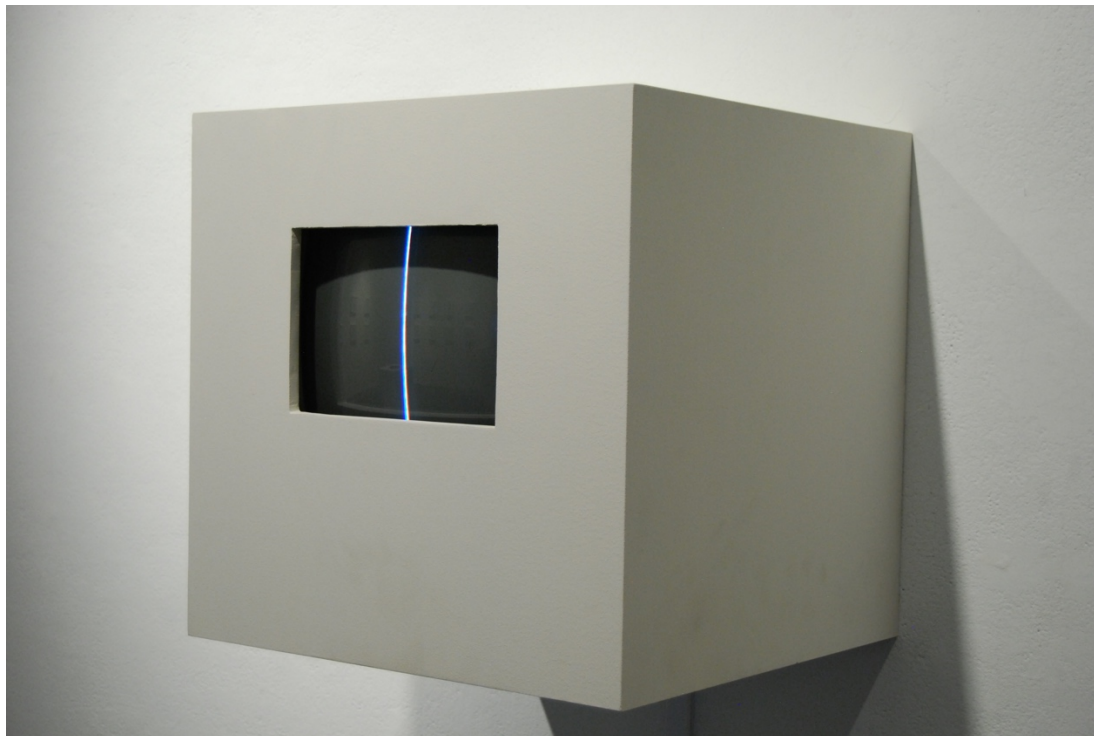
Through many performance sessions of *Man in The Machine* (Fig. 1), I found myself looking for ways to document these visual oscillations. The obvious would be to use a video camera, which seemed too direct of a documentation. My experience with modifying CRT televisions into graphic visualizers often brought me to a point of frustration. Without a proper understanding of how to fully manipulate the vertical or horizontal lines, I thought ‘*This is essentially a beam of light guided onto a light sensitive surface. How could I replicate this in real time, without using a television set?*’ At this point in my studio practice, I had not been doing much printmaking work; however, my printmaking practice led me to the use of cyanotypes as my preferred method record keeping are functioning as an impression of light. The collection of works presented in *A Series of Quiet Decisions* are a result of investigating the connection between sound and image through quasi-scientific study, the cannibalization of consumer electronics, and record keeping methods of drawing and printmaking.

## **6 A SERIES OF QUIET DECISIONS THESIS EXHIBITION**

*A Series of Quiet Decisions* is a set of prints and an installation discussing my examination of sound. The origin of the title stems from my intention to present a conversation about sound, without directly using sound. Aware of the tropes of sound artists, I opted for a visual presentation of sound, as opposed to a collection of speakers producing barely audible sound recordings. This form of presentation allows the work to exist in an approachable and curious visual manner and engages the viewer to wonder about the source of these images and how they were created.

### ONE INSTANCE OF THE PRESENT

Upon first entering the gallery space you are presented with two white museum style pedestals and one floating wall mounted case (Fig. 2).



*Figure 2. One Instance of the Present (detail). (2019). Variable Dimensions. Mixed Electronic Media.*

Inside the wall mounted case is a CRT television set with a single vertical line floating in the middle. The television is set up to act as a visual feedback device for the presence of sound. In center of the space is a pair of pedestals with speakers mounted horizontally to point the speaker cone towards the ceiling (Fig. 3).

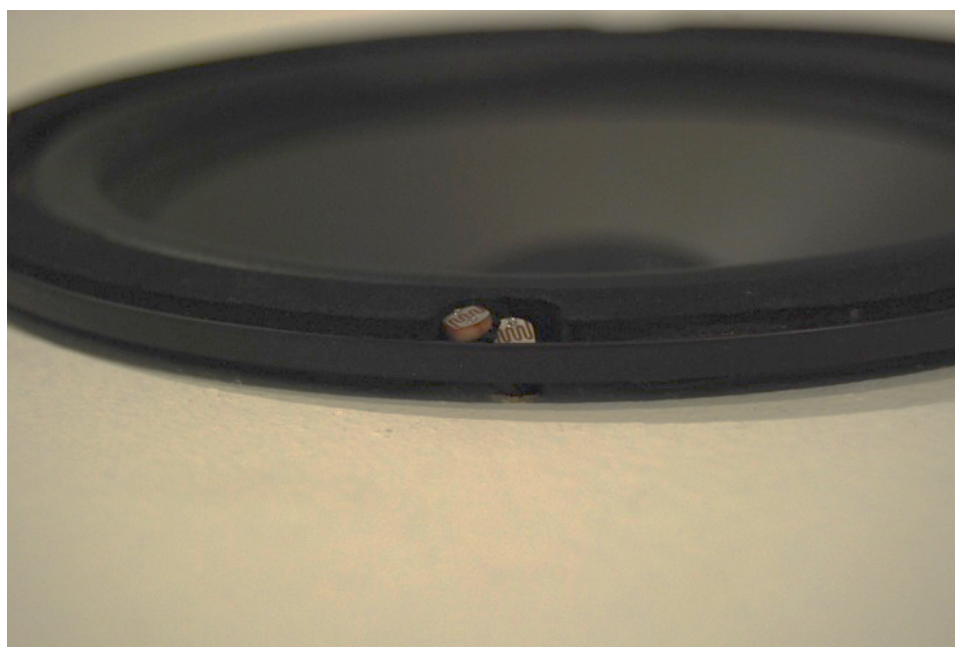


*Figure 3. One Instance of the Present (detail). (2019). Variable Dimensions. Mixed Electronic Media.*

The speaker pedestals are fitted with light dependent resistors (Fig. 4, 5) that detect light (or lack thereof) and animate the vertical line and active the space, rewarding the viewer for their temporary consideration of sound.



*Figure 4. One Instance of the Present (detail). (2019). Variable Dimensions. Mixed Electronic Media.*



*Figure 5. One Instance of the Present (detail). (2019). Variable Dimensions. Mixed Electronic Media.*

The speakers are presented in a manner to engage the viewer with the visual object in which sound is traditionally presented and additionally will prompt the viewer into a mode of aural consideration within the presence of speakers inside the four white walls of a gallery setting. The lack of an immediately recognizable or discernable sound may encourage the viewer to place their ear closer to the speaker, thus triggering the light resistor, moving the speaker at an 8 hertz rate and animating the CRT Television set. The frequency of audio is below human hearing, as this installation is about the visual presence of sound, rather than the sonic presence of sound. The visual presentation was inspired by Carsten Nicolai's *CRT MGN*, a silent installation about our lack of visual and audible awareness of electromagnetic fields and the conceptual presentation driving *One Instance of the Present* is influenced by John Cage's *4'33''*, a silent performance by David Tudor in which the environment of a performance hall promoted concert goers to sit in silence as they await the sounds potentially presented. This installation is my preference to presenting work about sound, not directly presenting sound as the medium, but presenting sound as a tool for visual expression.

### **MANY INSTANCES OF THE PAST**

The surrounding walls contain numerous individual cyanotypes titled *Many Instances of the Past*. The cyanotypes are drawn with sound providing an indexical mark to my listening sessions. Considering printmaking as a form of recording, these cyanotypes are a visual playback of sonic vibrations (Fig. 6-9).





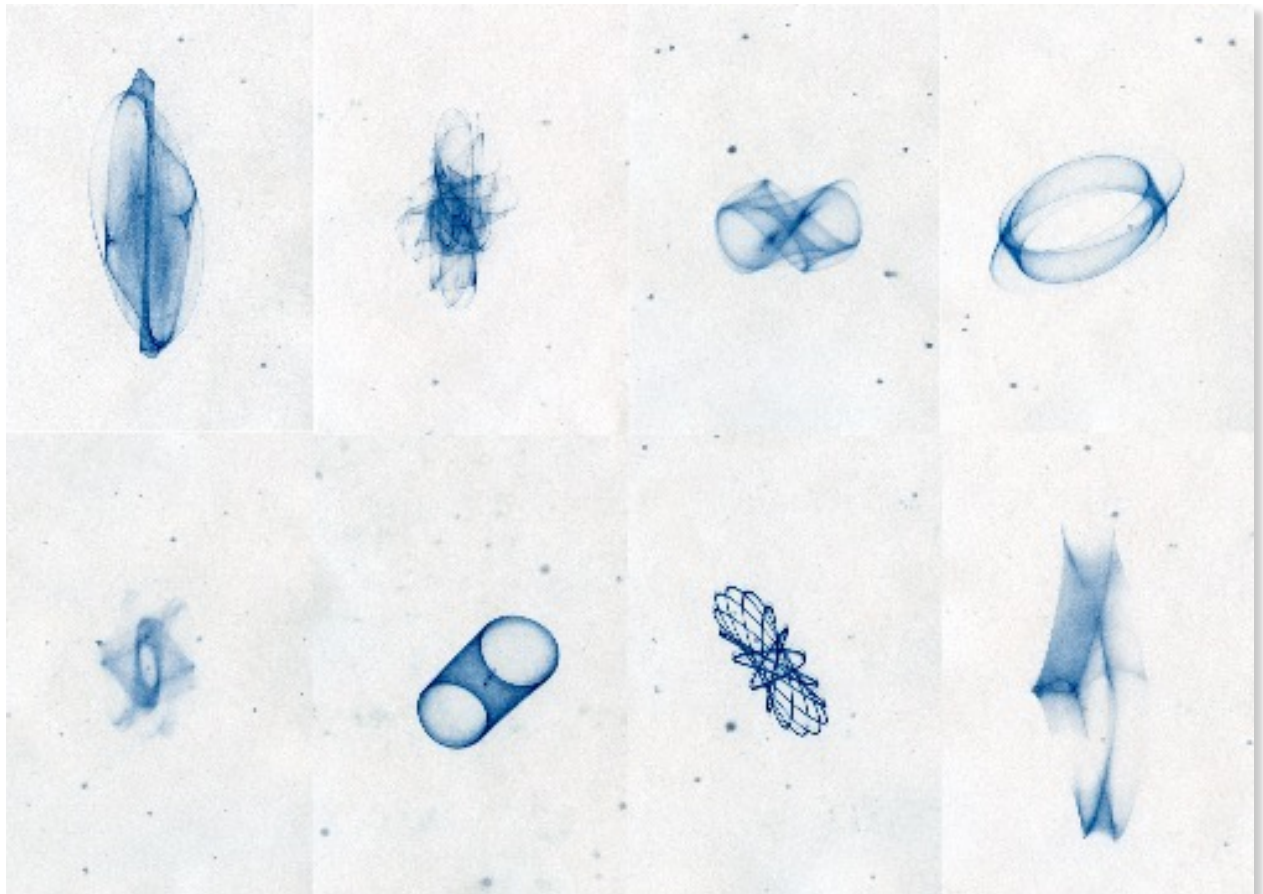
*Figure 6. Many Instances of the Past. (2019). 5" x7". Cyanotype.*



*Figure 7. Many Instances of the Past. (2019). 5" x7". Cyanotype.*



*Figure 8. Many Instances of the Past. (detail). (2019). 5" x7". Cyanotype.*



*Figure 9. Many Instances of the Past. (set). (2019). 5" x7". Cyanotype.*

I arrived at making these sound driven cyanotypes after taking a step back from hacking televisions into visualizers and deciding that the TV is essentially a beam of light directed onto a light sensitive surface. Bearing that in mind, *Many Instances of the Past* is a series of audio recordings driven by laser light and documented by projecting that light onto light sensitive paper.

*Many Instances of the Past* is a research-based project using sound as a driver for the UV exposure of cyanotype paper. Anna Atkins, a notable female photographer from middle nineteenth century studied under the creator of the cyanotype, Sir John Herschel. In *Anna Atkins: Photographs of British Algae*, Anna refers to her collection of algae cyanotypes as “impressions of the plants themselves.”<sup>15</sup> Her approach to documentation of these algae species promoted the use of light as a form of documentative recording, as opposed to the use of hand in drawing, which seemed to be a more popular form for botanical illustrations at the time. If I consider Atkins approach to her research, I will present these *Many Instances of the Past* as impressions of the sounds themselves.

These cyanotypes are created by using a speaker fitted with a balloon over its speaker cone, with a small piece of mirror on the outside center of the balloon membrane. As a UV laser is pointed at the mirror atop the balloon membrane, the laser is reflected onto a wall, fitted with cyanotype paper. As sound is sent through the speaker, the balloon membrane vibrates up and down, and thus a visual is presented via laser and is exposed onto the cyanotype paper. The imagery presented is delicate and concrete, balanced and dynamic in form. Curved lines with

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<sup>15</sup> Saska, Hope. “Anna Atkins: Photographs of British Algae,” *Bulletin of the Detroit Institute of Arts* 84, no. 1/4 (2010): 13.

varying thicknesses speak to the analog nature of the equipment of which they were produced (*Fig. 3-5*). The process of discovering a shape that is suited to expose is a performance unto itself. The act of dialing in the appropriate frequency with the laser is a balancing act between my own amusement and the allure of its' 'cosmic fire' to record this shape. This project is an ongoing examination into the potentials and constraints of my sound guided drawing system.

Jules Antoine Lissajous was the first to discover the use of light to consider the properties of sound as it pertains to visualizations: "Lissajous first reflected a light beam from a mirror attached to a vibrating object such as a tuning fork to another mirror that rotated. The light was then reflected onto a screen, where the spot traced out a curve whose shape depended on the amplitude and frequency of the vibration."<sup>16</sup> Although my cyanotypes are based in Lissajous patterns, their end results are becoming more about the potentials of drawing with sound and less about scientific accuracy. The intentions behind this body of work are twofold. In one case, my intentions are to develop an oscillation between the static and kinetic. The other intention is to present the conversation between what is seen and what is heard. In both cases, the oscillation between both sides allows the work to have many entry points. Like most works of art, viewers can expect to find visual associations within the cyanotypes, providing an ever evolving and contextual resonance between themselves and the work.

## 7 CONCLUSION

These works all stem from a fascination with the connection between how our eyes see the world and what our ears tell us, utilizing hybrid systems, and reimagined forms of

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<sup>16</sup> "Jules Antoine Lissajous..." *Hutchinson's Biography Database*, July 2011, 1.

instrumentation as it relates to the ever-evolving landscape of consumer media culture, live performances, and formal presentation. These works unveil hidden structures of sound generated through the manipulation of readily available and low-cost consumer electronics. They provide results of quasi-scientific research and contribute to the reincorporation of analog and digital devices toward future forms of expression within art, music, and technology. This current time period of technology is of crucial importance for critical investigation as it pertains to our exponentially changing relationship to technology and as analog systems are being pushed out in favor of the digital integrations into everyday life. The resulting bodies of work range from aesthetically pleasing to thoughtfully cumbersome and invite an interaction from the viewer as a way of entering my world.

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