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Planar Refrains

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Fine Arts at Virginia Commonwealth University.

by

Stephen Nunes Bachelor of Science, Drexel University 2008

> Director: Heath Matysek-Snyder Professor, Craft/Material Studies

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ABSTRACT:

My practice explores phenomenal poetic truths within the fissures between the sensual and physical qualities of material constructs. Magnifying this confounding interspace, my work activates specific instruments within mutable, relational systems of installation, movement, and documentation. The tools I fabricate function within variable orientations and are implemented as both physical barriers and thresholds into alternate, virtual domains. Intersecting fragments of sound and moving image build a nexus of superimposed spatialities, while material constructions are enveloped in ephemeral intensities. Within this compounded environment, both mind and body are charged as active sites through which durational, contemplative experiences can pass.

Reverberation, the ghostly refrain of a sound calling back to our ears from a distant plane, can intensify our emotional experience of place. My project *Planar Refrains* utilizes four electro-mechanical reverb plates, analog audio filters designed to simulate expansive acoustic arenas. Historically these devices have provided emotive voicings to popular studio recordings, dislocating the performer from the commercial studio and into a simulated reverberant territory of mythic proportions. The material resonance of steel is used to filter a recorded signal, shaping the sound of a human performance into something more transformative, a sound embodying otherworldly dynamics. In subverting the designed utility of reverb plates, I am exploring their value as active surfaces extending across different spatial realities. The background of ephemeral sonic residue is collapsed into the foreground, a filter becomes sculpture, and this sculpture becomes an instrument in an evolving soundscape.

QUESTIONING THE OBJECT



At Sotheby's we used to store extra moving blankets and shrink wrap inside the ancient marble sarcophagus outside the freight elevator on the fourth floor. The flesh-eating stone vessel with questionable provenance stood amidst recycling bins, material lifts, and hand trucks.

When we installed the Felix Gonzalez Torres paper stack for the contemporary auction viewing, the original papers were replaced by freshly pressed reams to make the stack more precise. In a sense the work never actually existed at Sotheby's, its call for action nullified by management's desire to prevent the audience interaction the piece requires.

When I went on to work for AG, we used a crated Carl Andre sculpture as a coffee table and bench for several weeks when we were taking breaks or awaiting a new task from Saul. The crate, filled with Andre's carefully cut stone cubes that I had wrapped in soft flannel fabric, was the perfect height for resting your legs for a few moments.

Gago hired us to fabricate expensive climate controlled cases for a Dash Snow assemblage of a dead plant with a filthy Santa Claus jacket. I wonder if they understood the poeticism in futilely protecting such rapidly decaying objects.

I grew sick of building those enormous, costly wooden crates for factory produced Dan Colen paintings, of assisting the crane riggers every time we needed to drop a new Damien Hirst in through the 72nd floor skylight of that hedge fund leech's Columbus Circle apartment, and of driving out to Greenwich Connecticut every few months to the Cohen estate to swap his Francis Bacon for the De Kooning in preparation for his next dinner party. Most of the works I handled were owned or would soon be owned by likely criminals, individuals who had been indicted for insider trading and responsible for much of the economic disparity in this country. I refuse to believe they had any "taste" for art, their collections were nothing more than prudent financial investments. All those investments I handled are sarcophagi, flesh eating material constructions that have devoured a previous life. Can any individual own a Francis Bacon? The work left the object with his last brush stroke.

I began my graduate school career at the age of 30, nearly eight years removed from academia. The majority of those years were devoted to my artistic practice, a pursuit that carried me from Philadelphia to Boston and then New York. In the four years I lived in New York, I supported myself working as an art-handler while maintaining a steady studio practice. For reasons I cannot elucidate, I had stopped making noise and was trying to make things that could be shown in galleries. I had conformed to the system around me, laboring in my studio to create decaying objects that occupied space and could later be sold, divorced from the conceptual value they held in my studio. I sold some work, but I know the buyers didn't care to understand my thoughts. I made things that looked nice on walls. Graduate school presented an opportunity to take a necessary risk, a departure from the pervasive art economy that had leaked into my practice. I chose Grad School over New York to step away, to experiment with tactics that could convolute commodity value.

My experience at Virginia Commonwealth University has been one of persistent criticality and gradual re-alignment of sensibilities through focused research. Over the past two years I have taken an intentional departure from my previous methodology of working through cohesive, logical series. I have worked in large leaps while embracing failed experimentations and unlikely discoveries, and I have supported my experiments with focused inquiries into the ontology of art-making. My efforts have been guided by frameworks established by post-structuralist theorists and contemporary practitioners within the fields of Sound Art, Performance, Architecture, and Social Practice. I have discovered new ways of understanding the world within these domains, and methodologies I can employ to make my voice contribute to larger conversations. As a result, I have completely redefined the way I choose to make work.

It arises most often from my own uncertainty, insecurity, and self doubt that I force myself into productive transgressions within my own thought. I embrace this as a strength in my process, that moments of uncertainty become fulcrum points over which I can shift momentum by following a directed force of insight to new ideological territory. In moving laterally from the mode of living I maintained prior to graduate school, I have chosen to look away from the gallery economy as a necessary part of my success and have considered alternative ways of pursuing a studio practice. Quality and authenticity of thought are now valued above frequency of execution, and the only process I will commit to upholding is an unfettered interrogation of my environment. My curiosities guide me to the questions I find most crucial, pursuits that may illuminate alternate ways of navigating reality, of identifying avenues towards meaningful contemplation within the convoluted dynamics of today. If this pursuit leads me to spending my life constructing one work, an earthship filled with the residue of constructed instruments, writings, and recordings, I will be satisfied knowing that my labor will have an impact on the lives I hold closest to me. If I do find success within a gallery art world by pursuing a dynamic practice that endeavors to contemplate my most sincere concerns, I will be satisfied that my sincerity has found an entry point into an economic system, and will be cautious to always challenge and disrupt the commodity value I put forth.

Any attempt at delineating the trajectories between my projects into fully logical and clearly defined avenues would be a tremendous disservice to my creative practice. My process and execution revels in the ambiguities and paradoxes that captivate my attention when observing the world around me. The nature of my work is simultaneously considered through philosophical investigation and the immediate reactive making I have carried with me from my past as a musician and an image maker. While I will proceed by outlining major theoretical advancements within recent projects, it must be understood that all of my works are intended as open, experiential offerings that can be approached and accessed through any number of focal points. As a maker, I am able to discuss the ideologies that have influenced my execution as well as some of the reactive formal decisions I make when manipulating material, but it is not within my authority to define what narratives the works may hold in any exclusivity. I embrace fragmented and disjointed connections between material and sensual assemblage in the rhizomatic fashion of Deleuzian analysis. In this vein, the proceeding text will present fragments of my work paralleled by fragments of theory, prose, and personal histories, in an attempt to come closer to an intelligible mapping of my processes, research, and vision. I will maintain different voices of research based writing, storytelling, and critical analysis throughout the text and welcome the reader to approach the following pages in a nonlinear fashion. There are many ways of reading and processing this document, and I include graphs, images, icons, and typographical treatments as a way of offering alternate navigations through my thought.



Figure 1: *Beat Case.* Steel, Plexiglass, bass-guitar pickups and electronics in found suitcase. *2011*

EMBRACING UTILITY AND CONSIDERATIONS TOWARDS MANIPULATED SPACE

Her work was a complete anomaly, but the few times we handled Taryn Simon's photographs for Gago, the gallery demanded we destroy and document the framed prints after the exhibition closing. Denny would take the battery powered Makita to the images, their frames, the plexiglass, and the mounting board while Elkin filmed the destruction on his Iphone. All the materials had to be cut into 8 pieces, ensuring no part of those objects could be picked out of the garbage and repurposed, and the gallery required video documentation of every cut. The aluminum-mounted archival prints and their polished maple frames were always predestined for the dumpster. In some way, it seemed as though Taryn Simon was weary of the material value within these objects. There was value in the high print quality, the archival materials, and the professional framing, and she needed to make sure it was all put to death, that these props could decompose in some landfill. We were destroying a stage facade installed for a gallery audience, the true ghosts lived on in her digital files and printed reproductions in catalogues.

I have seen countless artworks that the gallery world has deemed successful and valuable pieces rest in coffins in storage warehouses for years. I have been forced to deconstruct the romanticized sentimentality attached to art objects, as possessing sacred transitive qualities within their materiality, translated through the hands of a singular artistic genius. I don't believe in any of that. In pondering the paradoxical nature of a multi-million dollar Cy Twombly resting in a crate in a warehouse until its owner finally decided to hang it in their home, I had the realization that the work was still functioning, yet its performance was entirely divorced from the object inside the crate. It lived and breathed in the interspaces between physical and sensual space. It lived in the collective consciousnesses of an art audience fortunate enough to have seen the object prior to its death, and it lived through the photographic reproductions that disseminated its aura through various publications.

A central concern tying all of my studio and research efforts has revolved around the politics of occupying space through the manipulation of material into discrete art objects. My experiences as an art handler and the trepidation I began to feel towards the economics of art had shifted the way I began to think about object based practices. The contingency of material to concept within the art-object creates a paradox that is easily overlooked. While a painting might be an offering for the potential of meaningful contemplation, it is always grounded in its physical makeup. This is not to say that the art itself is only material, but that the object that the art emanates from performs the utility of presentation. Considering the art object as an active instrument in generating opportunity, I have chosen to amplify the tenuous relationship between objects and transitive aesthetic experience by exploring the poetics within utility. In producing tools that maintain a variable use-value, I am engaged in the manipulation of space far beyond the bodily membrane of the object I employ. Considering Heidegger's theory of de-severance as a way of

establishing conscious and unconscious spatial awareness, the tenuous instrument is active in drawing a being closer or driving them away, of eliminating lapses in perceptual voids, and of extending its reaches to distant territories.

The Craft and Material Studies graduate program at VCU has forced me to be more conscientious of the material choices I make. The challenging material considerations I have identified over the past two years have allowed me to confront particular ethical and aesthetic problematics within my practice; I have reconciled my trepidations around commodity value with a more tactful justification of material expenditure. David Joselit's analysis into the art economy, Graham Harman's Object Oriented Ontology, and Bruno Latour's Actor Network Theory have provided valuable theoretical frameworks for reconsidering the ways art can function as a subversive commodity through the creation and manipulation of objects. I have arrived on a trajectory that embraces the utility of material, and celebrates the underlying pragmatic function within all works of art. I see a painting and a reverb plate as similar apparati, both instruments perform simultaneous functions of sensorial transmission and reception and offer the potential for an invented transitive experience. While many art movements have identified the paradoxical nature of the art object and stepped entirely away from materiality, I have chosen to employ material as actors, the aesthetic experience manifesting itself in a fluid smooth space¹ passing through instrument, architecture, environment, document, and body alike.

My background in visual art is within the worlds of image and symbol manipulation; painting, design, typography. I still consider visual communications as one of my primary roles, but my experiences as a woodworker as well as my history as a musician have complicated my dedication to any particular medium, or of feeling that I now have any authority or ownership within a specific discipline. I fell into working with wood not as a Craft, but more so as a trade. I have no formal training as a woodworker, but have amassed a broad set of skills through years of working with the material in different capacities. Nevertheless, I am utterly fascinated by the pursuit of material studies, scrupulously interrogating the material nature of my environment by careful and persistent observation. I have pondered the limits of material, and have become fascinated by the tangible physicality of sound waves. As part of my material research and investigation, I have embraced sound as another physical presence that can activate the body and converse with other, disparate material entities.

Ultimately, mediums lead to objects, and thus reification, but formats are nodal connections and differential fields; they channel an unpredictable array of ephemeral currents and charges. They are configurations of force rather than discrete objects. (Joselit, pg 55)

¹ I use "smooth space" here as a derivative of Deleuzian Theory. A more thorough investigation into this theory will be covered in Chapter 8, pg 35 of this text.

The manipulation /occupation of space is a politicized gesture.

It creates hierarchical value systems much like the spatial occupation of text on this page; occupying space reinforces the distinction between author and audience, a dynamic that limits the potential for truly free and open transitive, aesthetic experience.

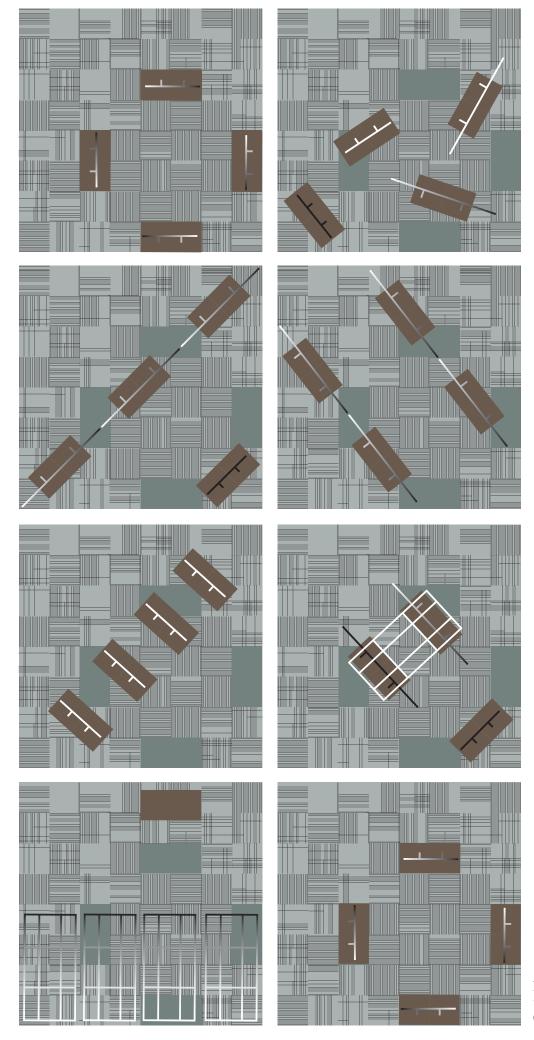


Figure 2:

Planar Refrains.

Graphic Event Score

Movement #1 - Contain

Input: 4 reverb plates on independent channels

Output: 2 amplifiers each powering 2 of the reverb panels as speakers

Max Function: Fade in and fade out of output volumes over a 10 minute cycle. Gradual increase for first minute, slight oscillation of volume over next 8 minutes, gradual fade out for final minute

Movement #2 - Confuse

Collaborative live performance with Travis Austin

Max Function

Real time recording of 30 minutes of Plate Movement (Inputs # 1-4) Loop playback indefinitely into Outputs #1,#2, and #3 until performance begins

Independent digital effects filters for each input channel

Movement #3 - Divide

Oscillating Fan exciting provisional materials affixed to the surfaces of 3 reverb plates.

Input: 3 reverb plates Output: 2 stereo amplifiers

3 reverb plates function exclusively as microphones

I reverb plate functions as both microphone and speaker

Max Function Part 1: Record physical movement of plates into new physical orientation over a 10-30 minute period. Loop playback of recorded sounds indefinitely to Output #1

Max Function Part 2: Live Active signals from Plate #1 and Plate #2 are routed as Left and Right Channel outputs to Output #2 (amplifier powering Plate #3 and Plate #4 as stereo speakers)

Max Function Part 3: Mechanically filtered signals from Plate #3 and Plate #4 are routed as Left and Right Channel outputs to Output #3 (amplifier powering independent satellite speakers)

Movement #4 - Channel

Oscillating Fan exciting provisional materials affixed to the surfaces of 4 reverb plates.

Input: 4 reverb plates

Output: 2 stereo amplifiers

4 reverb plates alternate between microphone and speaker functions Max Function Part 1: Record physical movement of plates into new physical orientation over a 10-30 minute period. Loop playback of recorded sounds indefinitely to Output #1

Max Function Part 2: Live Active signals from Plate #1 and Plate #2 are routed as Left and Right Channel outputs to Output #2 Max Function Part 3: Mechanically filtered signals from Plate #3 and Plate #4 are routed as Left and Right Channel outputs to Output #3 (amplifier powering independent satellite speakers)

Movement #5 -Discipline

Oscillating Fan exciting provisional materials affixed to the surfaces of 4 reverb plates.

Input: 2 reverb plates Output: 2 stereo amplifiers

2 reverb plates function exclusively as microphones

2 reverb plate function as both microphones and speakers

Max Function Part 1: Record physical movement of plates into new physical orientation over a 10-30 minute period. Loop playback of recorded sounds indefinitely to Output #1

Max Function Part 2: Live Active signals from Plate #1 and Plate #2 are routed as Left and Right Channel outputs to Output #2 (amplifier powering Plate #3 and Plate #4 as stereo speakers)

Max Function Part 3: Mechanically filtered signals from Plate #3 and Plate #4 are routed as Left and Right Channel outputs to Output #3 (amplifier powering independent satellite speakers)

Movement #6 - Construct

Live collaborative performance with David Moré

Construction of Worktable station with 3 reverb plates for David's experimentations throughout the day.

Max Function

Real time recording of 30 minutes of Plate Movement

Loop playback indefinitely into Outputs #1,#2, and #3 until performance begins

Independent Equalizer and Delay filters for each Output Channel

Movement #7 - Collapse

Input: 4 reverb plates on independent channels

Output: 2 amplifiers each powering 2 of the reverb panels as speakers $% \left(1\right) =\left(1\right) \left(1$

Max Function: Fade in and fade out of output volumes over a 10 minute cycle. Gradual increase for first minute, slight oscillation of volume over next 8 minutes, gradual fade out for final minute

Movement #8 - Contain

Input: 4 reverb plates on independent channels Output: 2 amplifiers each powering 2 of the reverb panels

as speakers

Max Function: Fade in and fade out of output volumes over a 10 minute cycle. Gradual increase for first minute, slight oscillation of volume over next 8 minutes, gradual fade out for final minute

PLANAR REFRAINS

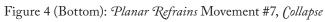
Acoustic reverberation can be understood as the elongation of a particular sound after it is generated, returning to a listener after being filtered by the spatial dynamics of the surrounding environment. In highly reverberant structures such as a cathedral or a cave, a sound is redirected off the physical barriers of the space, allowing an individual within the environment to hear a layered effect of refracted sounds temporally removed from their origin.² Throughout the history of popular music recordings, the power of a vocal performance was often augmented by the added filtering of reverb sounds. Prior to the 1950's, reverb tones were added to a recording by the clever placement of microphones within a large recording space to capture sound-waves that had been reflected off of architectural boundaries away from the performer. In lower budget studios that did not have the capacity of a recording booth with massive architectural volume, a separate and smaller "echo-chamber" was often used to process a recorded signal. Within the echo chamber, a loudspeaker would amplify a performance and it would be re-captured by an opposing microphone recording the room tone of this designed, reverberant enclosure.

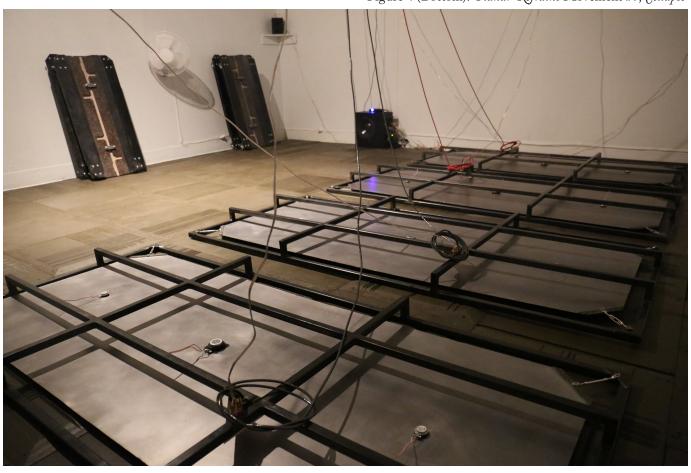
The EMT 140 Plate Reverb was introduced in 1957 by the German company Electromesstechnik as an alternative to audio engineering natural reverb sounds in audio recording studios. In the early 1950's, smaller electro-mechanical reverb simulation devices were produced that utilized groupings of metal springs to filter the sounds of a recorded performance, the resonating springs adding a sonic layer akin to natural reverb onto a raw signal. While spring reverbs produced a noticeably artificial sound effect that referenced a similar sensorial dynamic to natural reverb, the plate reverb was both a more compact solution to an independent echo chamber and more realistic sounding than the spring. EMT plate devices can be heard on countless pop music recordings from the 1960's and are still used today. The devices allowed recording engineers to filter performances through a tensioned sheet of steel; the signature tonal qualities of plate reverb were a formative part of the expansive psychedelic sound of the 1960's and 1970's, and were used aggressively on Pink Floyd's *Dark Side of the Moon* and the Beatles' *Abbey Road*. ³

- Reverberation and Echo are two acoustic phenomena that are shaped by the movement of soundwaves within a physical environment. A thorough mathematical comparison of the two phenomena can show how the distinction between an echo and a reverberation are determined. In essence, reverberation is perceived when a soundwave returns to a listener before their aural memory can transition from the processing of an original sound, the reverberated soundwaves layering on top of the original. In the case of an echo, there is a greater delay in the time it takes for a soundwave to return to a listener, their aural memory has transitioned from the original sound and the second, distinct, spatially informed sound of an echo is perceived. (Doyle, *Echo and Reverb*)
- 3 Several other companies fabricated plate reverb devices with similar designs. Much of my knowledge of the structural design of reverb plates has come simply from photographic evidence collected over the internet and in-person exposure to a number of plate reverb apparati. Scholarly research into the history of electro-mechanical reverb devices was collected primarily from Doyle, *Echo and Reverb*.



Figure 3 (Top): Planar Refrains Movement #1, Contain





While other reverb simulation processes could have been employed within *Planar Refrains*, the plate reverb was chosen specifically for its formal kinship to the stretched-canvas painting. The painting is a structure whose textile echoes the rectilinear construction of its stretcher, and projects a grid onto any composition forced upon its surface. It is a tool that is actively responding to itself while transmitting a simulated spatiality from its membrane. The formal structural kinship between the reverb plate and a canvas painting is fairly apparent, the reverb plate's steel sheet is tensioned to an external rigid stretcher-like frame while the canvas is tensioned over a supporting wooden structure. On an aesthetic level, the reverb plate can provide a deterritorialization of sounds by augmenting tones into a vastly removed aural space, while the painting can present a transitive space through its optical offering.

Planar Refrains borrows the structure of the EMT plate reverb device, yet the original design was modified to suite the intentions of the overall project. EMT plates were permanently housed within a wooden crate (much like the Cy Twombly painting that rests in climate controlled storage) that contained an amplifier and isolated the plate from the potential activation of ambient room sounds, and the plate structures within this installation cycle were left exposed to welcome and amplify the potential bleeding of uncontrollable vibrations into the mechanical filter system. The four plates used throughout the work are remarkably resonant and are almost always active, vibrating with the movement of air from an HVAC system or responding to the bang of a closing door. This engineering decision was made to emphasise the sociality within vocalization, to amplify the way a wall of any variety dictates both communication and perception. The walls that surround us have a powerful effect on how we project our voices and how are voices are received. This is not only limited to the acoustics of a projected voice, but undoubtedly bleeds through and informs the content and purpose within our signals.

The installation constructs an extended sound cycle in seven movements, defined by the choreographed repositioning of sound generating sculptures and the redirection of signal paths between pickups, drivers, digital filters, amplifiers, and performers. *Planar Refrains* engages an oscillation of audio and visual stimuli, exercising the tension between the domineering physicality of large steel instruments and the contrasting ephemeral sonic matter they generate. The steel structures are appropriated designs informed by the EMT 140 plate reverb devices. Four identical plate structures were fabricated, scaled to the dimensions of a standard door frame to reference a familiar physical threshold. The modular installation activates these steel instruments as physical barriers within the gallery space that are repositioned daily, always actively responding to haptic feedback received through vibrational forces in their tensioned, resonant surfaces. The gallery floor is tiled with prismatic reliefs that extend the formal language of sound diffusion surfaces as an augmented terrain in conversation with the castor wheels on each plate's utility cart platform. When repositioned, the rhythmic chatter of each reverb plate's deterritorialization is recorded and played back for the duration of that movement. The unique resonance of the thin sheet of steel suspended within a rigid frame is captured through two contact microphones and transmitted as

electronic audio signals. These structures are activated by the subtlest of forces, and are also constantly transmitting the energy of wind generated by a series of oscillating fans.

In the first movement of the installation cycle, the four plates are connected to each other through a system of cables and build a wave of pulsing sonic feedback; the signals from one plate are amplified to another and its signal is in turn amplified back into itself. This hermeneutic cycle of the feedback loop is an archetype of the poetics within various communication systems. The competing gestures of transmission/expression and reception/listening build a convolution of oscillating tonalities and overtones that confront the body as an immersive sound field. Analyzing this component of the work through the lense of physics, the concepts of constructive and destructive wave forms can illuminate some of the poetic potentials within this sonic experience. The oscillating frequency and amplitude of the immersive sound is generated by the overlapping of different resonant frequencies from each independent steel plate. Because they are all tensioned/tuned to different degrees, the steel plates vibrate at different intensities. The signal from one plate's vibrations is amplified through an opposing plate with a different tension, which in turn is sending a signal to another uniquely tensioned plate. This process of transmission > reception > processing > filtering > transmission perpetuates itself by the unending vibrations that arise out of each reverb plate's simultaneous function as both receivers of vibrational forces and transmitters of audio signals. The unique tonal character of each instrument body builds a sonic intensity that encloses the visitor in a claustrophobic sequence of pulsing overtones. In bringing the spatial dynamics of a virtual acoustic space to the forefront, the work collapses different spatialities; background becomes foreground, virtual becomes physical, filter becomes instrument, and an interspace is charged with augmented potentialities.

In the remaining movements of *Planar Refrains*, the reverb plates and the amplification systems they are connected to are engaged as actors within a choreographed progression of movement and signal processing. They are able to function in any combination of transmission and reception, and can perform either task independently or both tasks simultaneously, depending on how they are connected to the auxiliary amplification system. In some of the movements, the reception function is emphasized by implements affixed to the surface of the steel plates that respond kinetically to the wind currents flowing through the exhibition space. Drum skins clipped to springs and magnets were provisionally attached to the steel plates, allowing the skins to flutter against the surface of the reverb plate like sails catching a gust of wind. This kinetic action is manipulated through digital signal processing, an opportunity to insert a virtual spatial dimension to each independent reverb plate and allow a compounded acoustic dynamic of digital and analog intensities to infiltrate the exhibition space.

Two of the movements involve collaborations with sound artists invited to interpret the spatial organization of the plates defined by a carefully considered event score. Collaboration was welcomed within this work as a way of reinforcing the independent utility of these instruments, as embodying potentials that are beyond any dogmatic control. Each collaborator was asked to interpret the instruments and their positioning within the installation cycle as liberally as they chose. While the feedback loops inherently build off of the chance accumulations of subtle ambient vibrations setting off a perpetually shifting oscillation of frequencies, the collaborators are a more calculated approach to introducing chance occurrences outside the sensibilities of a singular author.

The implementation of the oscillating fans as a removed percussion implement references the history of the Aeolian Harp in Greek mythology.⁴ These wind powered harps were thought to play the "music of the spheres," sounds formed by a type of divine intervention. Reverb plates are a decidedly utilitarian apparatus with a practical history in maximizing the efficiency of reverb filtering in popular music recordings, yet the poetics of reverb extend far beyond its studio application. A phenomenological analysis into the transitive qualities of reverb can allow for a better understanding of additional motivations and concerns within this project.

⁴ My interest into how Ancient Greece regarded acoustic phenomena such as reverb comes from the text, "Spaces Speak, Are You Listening?" Not only were the Aeolian harps a fascinating piece of evidence into how ancient Greece considered acoustic phenomena as a sort of metaphysical presence, but their ingenuity regarding architectural design to amplify acoustics in performance spaces is a valuable history that reinforces humanities relationship to the transitive qualities of sound.



Figure 5: Planar Refrains Movement #6, Construct (performance with David Moré)



Figure 6: Planar Refrains Movement #4, Channel



Figure 7: Planar Refrains Movement #3, Divide

Speaking of Nirvana, it was there

Rare as the feathers on my dash from a phoenix

There with my crooked teeth and companion sleeping

Dreaming a thought that could dream about a thought

That could think of the dreamer that thought

That could think of dreaming and getting a glimmer of God

(In the dark, in the dark)

[Frank Ocean, Siegfried]

The closing refrain in Frank Ocean's song Siegfried fades away into an expanse of reverb drenched arpeggios delicately played on a piano while he sings "I'd do anything for you," in a rich falsetto. In a more spoken lyrical style, his voice echoes the response "In the dark" originating from a distinctly different physical space. While Ocean delivers his prose, the listener is allowed to float away in the ethereal atmosphere of his art, feeling the alternate gravity of a disembodied perspective. The space his voice inhabits is a complete virtual fabrication, there is no physical environment that can generate the compounded and contrasting reverb times evident in the alternating vocalizations of "in the dark," and "I'd do anything for you." Ocean's voice feels within intimate proximity when he calls, "In the dark," while his falsetto, "I'd do anything for you," seems much more distant, feasibly in another galaxy. Fortunately Jacques Ranciere saves us from Baudrillard's nihilism, this fabrication of fictions through works of art is actually the creation of new, valuable realities. The fabrication of studio reverb through masterful production techniques allows a listener to inhabit a space independent of their actual geospatial proximity. The immediate physicality of listening to Frank Ocean through headphones on a subway car while simultaneously inhabiting an otherworldly domain of compounded spatialities is a profound experience that is as real as the subway car itself.

My interest in reverb extends beyond its application and fabrication in popular music. I am fascinated in the mythologies evoked through reverberant spaces, and how a voice is dramatized and augmented by the structure of a physical space. Within this relationship, the human fascination with metaphysical entities is given something sonically tangible to latch onto. The field of Speculative Acoustic Anthropology examines the correlations between acoustic phenomena and the cultural tendencies towards sound, and how different cultures may have evolved a certain musicality informed by a regional environment including the wildlife, weather patterns, geological landscape, and proximity to water. These anthropologists have studied the placement of particular cave paintings and the varying degrees of reverberation times within caves, and have posited a theory that the perception of echo and reverb within a cave had an influence on the pictographs applied to cave walls. Their findings support that the most reverberant sections of caves tend to be scribed with images of stampeding animals, while the most sonically dead sections of the caves tend to be scribed with images of more docile animals such as felines⁶. While it is impossible to prove with concrete evidence that the placement of paintings was decided by the observation of reverb, it is difficult to question that the artist's perception of reverb indeed had some impact on their emotional state. The value of such speculative endeavors can allow us to understand the elemental aspect of wonder that exists within the acoustic phenomena of reverb. The sense of awe evoked when hearing the physicality of a sound returning to us has perhaps always captivated and confused the human ear.

Baudrillard left us with nothing but the nihilistic vision of the hyperreal, where the simulation and the original are equally illusory and indistinguishable, Jacques Ranciere's analysis of the aesthetic regime of art allows for the consideration of invented fictions as emancipating new realities with a powerful role in shaping society at large. Simulated fictions have the potential for profound transitive experiences that are real and tangible

⁶ Blesser and Salter write about the anthropologist Steven J. Waller. In addition identifying the possibility that pictographs within the Lascaux caves were informed by the cave's variable reverb qualities, he also posits a theory that the cave artists perceived reverb as a supernatural phenomenon that gave life to images, and that pictographs were part of a multisensory artform that included the dancing and chanting of hunting rituals that would echo in concert with the pictographs inside the caves. Speak are you Listening

SOUND AS MATERIAL

In the past two years, sound has become a more significant part of my material language, re-entering my practice after years of exclusive object-centric making. While I do have a background as a practicing musician, I had always treated sound and visual art as separate but reciprocally engaged compartments of my creative output. Ideas would transfer across the different outlets of visual art and music, but I had never approached sound as a material for manipulation within my studio practice. My renewed interest with sound comes from my fascination with the poetics of acoustics, the unique ways reverberation, amplification, and frequency can become metaphors for cultural and social exchanges outside of the musical or sonic realm. I am interested in the physicality of sound and how it is influenced by the architecture of resonant chambers of any scale; the body of a lute, speaker cabinets, and large concert halls or natural spaces are all structures that shape specific acoustic profiles. I also find a poignant poetics within the electrical engineering of amplification systems where the laws of impedance dictate the flow of a current from an input signal to a n electromagnetic driver that pushes air through a physical space as soundwaves. Within my recent work, I have considered how material, spatial volume, and architecture dictate the way sound waves reach the human ear, and how an acoustic experience can affect the emotional experience of the physical present.

Sounds are shaped by the physical spaces they emanate within. An audio driver requires a specific cabinet volume in order to push optimal amounts of air and maintain accurate frequency response. Similarly, the volume and contents of a room dictates how sound will move through space. When amplifying a live signal from a microphone or instrument within the same physical space, the potential for feedback frequencies between receiver and transmitter is imminent. Depending on the spatial proximity of the receiver to its transmitter, different frequencies and amplitudes of feedback can be produced. When an inexperienced orator speaks at podium, their first words are often delivered too aggressively for the microphone, piercing the audience with the shrill hum of that microphone receiving its own output signal through the overdriven P.A. system. The orator's first message is convoluted through the apparati projecting their voice, and this flawed transmission reinforces the contingency of the podium, microphone, cables, and speakers on validating their speech.

Recent projects have expanded the material language of sound diffusion surfaces as paintings, sculptures, animated videos, and architectural dividers. These exercises are again interrogations into the inherent utility within the art-object; by directly referencing a certain capacity to dampen or redirect sound, these works playfully flirt with tool-being. None of the sound diffusers I created have any calculated performance towards capturing or dampening specific frequencies, but the materials chosen, their structural designs, and the sheer occupation of space make them socialized entities engaged with sound. My experimentations with porous expanding foam and plywood has yielded a series of strata-cut animation objects that are physically decentralized through their input into a separate video animation of sequenced slides. The objects themselves take the form of a stacked series of images, a folding screen, and a painting, and and their porous materiality allows them to function as absorbent sound baffles in space. Other sound diffusion surfaces have evolved from a similarly playful use of materials, utilizing faux-stone plastic laminate, rebonded carpet foam, and plywood to create sculptural objects that become paradoxical embodiments of aesthetic engagement and acoustic utility.



Figure 8: $\mathcal{DFF_}\mathit{Use},$ Variable Sound Diffusion Surfaces. 2016



Figure 9: Techne Shift, Variable Sound Diffusion Surfaces and Reverb Plate Painting. 2016

Trading one Lucille for the next

Every time they grow weary of calloused hands

Of careless lovers

Yet there were always many Lucille's

For even the love who first defined her

The King that retrieved the One from a blaze

Such mythologies will have their ways with history

There never was a first, a singular body

Lucille's are branded and mass produced

They sing any song their King commands the harmony of silenced multiplicities hard fought scars and buckle rashes

And how many of them now rest Signed with sharpie and on display On the walls of every hard rock cafe

INSTRUMENT BODIES, TOOL BEING, AND DE-SEVERANCE

Human beings have a tendency to gender certain objects of utility. While I was never one to name my instrument, the electric guitar has been a particularly complicated material presence throughout my life. This symbol of the Rock and Roll super-phallus, of which B.B. King's many different Lucilles share court, embodies the legacies of disparate cultural and musical histories. We can follow the trajectory of the instrument from the ancient lute towards its relative plateau with Jimi Hendrix, stroking the neck of his Fender Stratocaster when he violated the *Star Spangled Banner*. Within western music it was never anything other than a super-phallus. Licked, set afire, and strung backwards, the guitar is an extension of the body that offers a site of experimental releases of emotional and artistic intensities. It took many years for me to feel I had some authority over that instrument; boredom set in as soon as that feeling settled, and I looked for ways to make the instrument resist.

Certainly the instrument-body of the electric guitar has more pragmatic characteristics, there are many schools of thought regarding its proper tuning. Most practitioners prefer the standard EADGBE tunings, while others insist upon a calculated just intonation of mathematically ideal frequency ratios or alternate fretting systems that allow for microtonal playing. I always took a different approach when tuning the 1970's Aria I saved from a dumpster, whose voice I grew to love over the more expensive instruments I have owned. This particular resonant body prefers its own tuning, which I discovered through many failed attempts to reduce that annoying rattling sound of nylon strings bouncing off a slightly warped neck. It is an instrument I have known closely for the majority of my life, and at times has completely defined my identity. I began playing at the age of nine and continued obsessively for the next fifteen years, only lapsing from daily practice when my visual art began to present creative avenues I could not follow through music. As I played with more musicians I also learned drums and keyboards, gaining an expanded capacity to extend musical expressions beyond my internal self. I had difficulty finding like-minded musical collaborators after leaving Philadelphia in 2010, and introduced forms of extended technique into my playing to allow for more complex tonal experimentations that kept solo playing exciting. These preparations obstructed any tendencies toward virtuosic playing, adding a provisional bridge to my guitar, playing it with a steel palette knife, or pulling duct tape across a drum head and scratching a threaded rod across the metal rim, I complicated the instrument body into something more resistant to dexterity. Such exercises developed into a complete departure from authoritative playing in exchange for free explorations into chance sound collage and the generation of noise as tactile material.

The role that music and sound have played in my life and within my recent studio work have complicated my relationship to material forms. I know the visceral emotions that can be accessed through acoustically resonant bodies, yet I have also always been fascinated by rendering thought into image and form; my background crafting images and material things is equally important to

my current work as my sonic experiences. In any regard, there are no objects that can embody the emotional and aesthetic experiences accessed through the perception of music or sound. The ecstasy experienced through an instrument is not dependent on its specific construction, but instead it is relative to the nuances of expression and language discovered from interacting with that body. Observation, contemplation, and listening are powerful actions that give agency to the material entities we are most deeply involved with. ⁷

Around the time I first abandoned my instrument, I had realized the complexity of the instrumentbody as one of paradoxical multiplicities. It is at once a tremendous limitation of its player's inner voice, while simultaneously functioning as a refined tool engendered with specific structural laws that allow it to translate a sort of athleticism into creative expression. In this light, the theories within Graham Harman's Object Oriented Ontology allow for a more structured analysis of the complexities within instruments, and by extension, all material entities. Where the instrument body has a more intimate history to my growth as a person, we can apply Harman's theory of the fourfold nature of objects to all constructed things. In particular, I find in OOO a potent methodology for interrogating the value of material within the visual arts. Harman's fourfold nature of objects asserts that all material entities embody a structure that is simultaneously real and sensual, yet to fully define anything by either its real qualities (its molecular structure) or its sensual qualities (its social tendencies) is a reductive oversight. The fourfold nature of objects allows for an understanding of the objective world to be in a constant flux between real objects with sensual qualities, sensual objects with real qualities, real objects with real qualities, and sensual objects with sensual qualities depending on the proximity of the subjective body. In this sense, I approach all instruments and objects as embodiments of potentials always beyond my complete comprehension, and am excited by these potentialities as sites of inquiry where the value of perception and contemplation can lead to unique, personal discovery. Upon first glance, a drum can be intuited as embodying a likely function; experiential knowledge of what those objects look like, sound like, and feel like predetermines our understanding of their nature. Through subversive use or observation, it is also possible to come to realizations of alternate pragmatic and sensual functions within that object. The thing is as much defined by its environment and its use as it is by its material makeup.

⁷ This concept is integral not only to the perception of the object's potentialities, but as I will write in Chapter 8 of this text, it is also integral to how a being perceives spatial realities. The intentionality of movement toward objects of utility shapes the understanding of our environment.

Aside from musical instruments, it is also valuable to analyze how any object, including the material components of works of art, are embodiments of the fourfold structure. Too often we valorize the art object and see it only for its sensual qualities; without properly grounded perspective it is upheld as something purely sensual. Not only is this a disservice to the full potentials of the art object, but it completely negates the very real significance of that material entity as a decaying body of expended natural resources. Space was manipulated and altered to construct that object, and it is forced into the collective environment to transmit an ethereal command. We cannot isolate its sensuality from its reality, the two poles of the object are in constant flux, and this is what makes material constructs so incredibly exciting.



Figure 10: Rudiments of Labor, Maple Bass Drum with Iron Crowbar. 2015

RUDIMENTS OF LABOR

Rudiments of Labor utilizes sculpture, performance, and video to deconstruct the utility within the familial grouping of a snare drum, bass drum, and floor tom. Different subversions are enacted upon the drums to explore how voice responds to physical and sensual deterritorialization. The drum inherently beckons the violence of a strike, it can insight the rhythm of a march, gathering a mass of bodies united by a common meter. Drums are used to measure time and build rhythmic phrasings that control the cadence of an ensemble. As discrete objects in themselves, drums are sensitive structures that respond to a force and transform its impression into a projected voicing, an activated batter skin transfers its energy through the interior sound chamber and onto the opposing resonant skin. Drums of all varieties are based on the structure of a skin tensioned over a rigid frame, and in this way they are complementary extensions to the human body. Drums are optimized to amplify the rhythm of a human aggression.

In one component of this work, the grouping of active acoustic bodies are connected by a single thread that is wound onto the bobbin of a sewing machine. The tensioned skins are activated by the winding of the thread onto the bobbin, and oscillating waves of sound fill the performance space. The sewing machine is employed as a preparation with a specific meter, one that measures time through the cadence of the needle and the density of its stitch.

In performing this work, I operated the sewing machine and monitored the movement of the thread onto the bobbin, my back to the drums and the audience. In this sense I placed myself in a fissure between the labor of fabrication and the potential of play. It was a gesture representative of that particular time in my life; I had become immersed in the scholarly pursuit of my graduate studies and cognisant of the void that music had once fulfilled. My daily routine revolved around physical labor in the studio and theoretical pursuits in the library, I had forgotten the value of play and enacted this performance as a way to reintroduce play and chance into my work.

This particular performance was only one implementation of these particular bodies in an extended project of exploring familial relationships through time in different environments. Their alliance in space is never shattered and they are redefined in the succession of performances. Their existence as material forms is altered by these performances and their documents; the drums become something more than tools for measuring time, always part of the sensorial documentation they are connected to.

The objects also become documents in themselves. As the skin on my body tells the story of scars I have accumulated, the skins of the drums retain the piercings and indentations of the violences enacted on them. In another subversion of the drums, they are rendered impotent by the insertion of a hammer, a crow-bar, and a c-clamp tensioned between the batter and resonator skins on each drum. These sculptural modifications of the drums prohibit the strike of a human hand, and the inserted tools forced permanent indentations into the interior of the skins. Through this process, the utility of the drums and the tools are nullified, and the extended capabilities of the skins forever retain the ghostly imprint of a failed, internalized utility.







Figures 11-13: Rudiments of Labor, stills from 5 minute HD video. 2015

LIFEBLOOD MAPPINGS

Lifeblood Mappings is an expansion of previous interrogations into tool-being and the performance of utility. Within this work, a project-based inquiry into central themes within Deleuzian theory was devised to traverse multiple formats and mediums. The project's central form is the life of a particular vessel, a carefully constructed cedar canoe. The cedar strip canoe is a uniquely western navigational tool, a design equally informed by european ships and the pre-colonial Native American canoes. While the canoe is indeed part of Lifeblood Mappings, it is never exhibited as a work in itself; instead the canoe is referenced as a presence through ghostly video footage, collected river detritus, and used canvas skins.

The project endeavored to build experiential mappings of urban environments. The James River in Richmond, Virginia and the Gowanus Canal in Brooklyn, New York were two waterways chosen as sites for exploration and collection. The constructed vessel functioned as a tool to navigate these waterways, and it was prepared with removable canvas skins designed to absorb pollutants and sediment as the vessel traversed an urban environment from an alternate perspective. The canvas skins were removed after each use and preserved as documents of a specific journey in time.

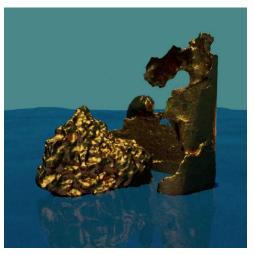
In addition to the map generating process, a video document was produced that filmed a first person view of the canoe navigating the city streets of Richmond, Virginia. This silent film shows the vessel wandering aimlessly for twenty minutes, circling blocks and turning without intention; the vessel seems lost in the dynamics of the modern city. A city designed and established for its proximity to the James' amazing strengths, Richmond is presented in this video as an unsuitable environment for the canoe.

A third component of this work entailed an ongoing collection and curation of river detritus into a totem-like sculpture with additional extensions of 3d animated video loops that convolute the perception of the staged material fragments. Every journey the vessel undertook also functioned to gather discarded material waste from the waterways, the vessel became a trash receptacle and navigational tool at the same time. The collected objects were set inside the striated rib structure of the canoe strongback, the structural spine used in the fabrication of the vessel's hull. The resulting sculpture becomes a utilitarian skeletal form filled with eroded fragments of car parts, styrofoam cups, iron slag, garments, and oddities from unknown histories staged in front of their own revolving 3d animations.

The three components of the absurdist video, the canvas mappings, and the utilitarian sculpture work in conjunction within a variable installation that places the viewer in a compounded spatiality that ponders the lack of the vessel's presence. The audience is never afforded a full glimpse at the vessel, yet they are made aware of its scale through the fourteen foot long skins, the tall skeletal totem, and the front half of the canoe that meanders through city streets in the video documentation. In this sense the vessel is preserved as overtly utilitarian and its aesthetic beauty is preserved for the enjoyment of its owner; any potential for audience consideration into the formal qualities of the vessel itself is completely negated.



Figure 14: Lifeblood Mappings, Canoe Strongback with found objects and HD video players. 2016



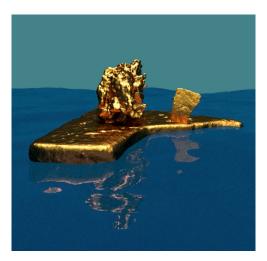


Figure 15-16: Lifeblood Mappings, stills from 20 second 3D animation loops of found river detritus. 2016



Figure 17: Lifeblood Mappings, canvas skins with residue from the Gowanus Canal (top) and the James River (bottom). 2016

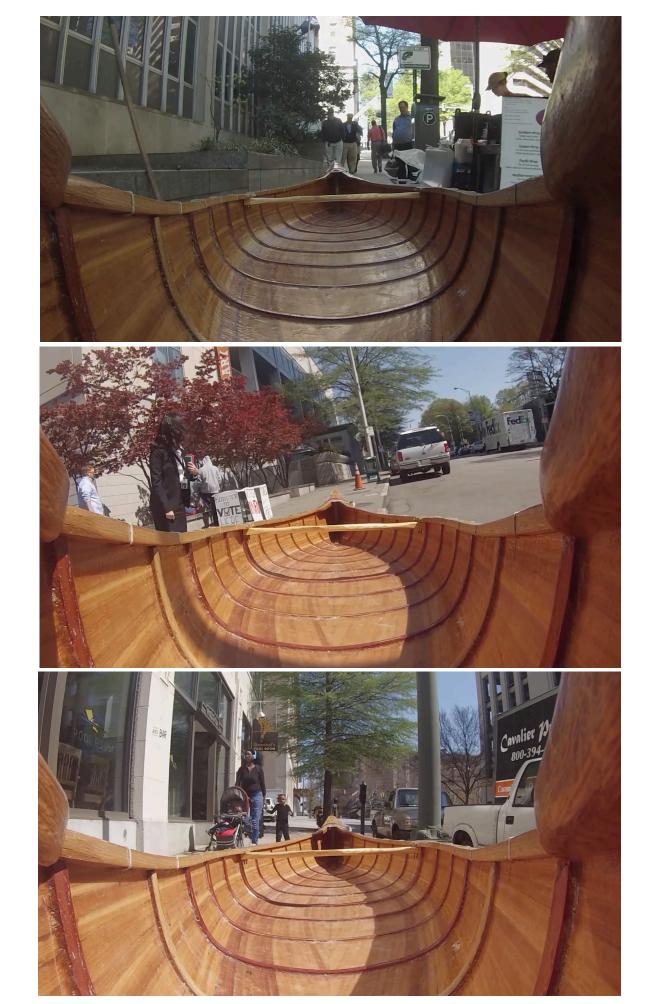


Figure 18-20: Lifeblood Mappings, stills from 20 minute HD video. 2016

Following a line from the apex of Giza

Two thousand feet southwest

We find a well-hydrated tourist in SPF fifty

Right arm outstretched,

Extended perpendicular to torso

Digits converge and point towards the soil

While a camera ten feet farther along
Eliminates foreground from background
Great Giza is lifted, as though a bundle of grapes

COMPOUND SPATIALITY

In my project *Rudiments of Labor*, I explored a more explicit relationship between the body and its environment. I was fascinated by the anthropomorphic qualities of the drum, with its skin stretched over a shell and its ability to convert the physical violence of a strike into a reactionary voice. I had deliberately left the drums in a minimal state, using only bare essential hardware to make them function. It was after this work that I began to question ways in which I can use the body in my work without directly including either my body or bodily surrogates. With this shift in perspective, I began to ask myself how aesthetic experiences can engage a viewer's body and how these experiences might be convoluted or complicated by a work. In asking myself these questions, I looked to phenomenological theories developed by Maurice Merleau Ponty and Martin Heidegger, and post-structuralist theories from Deleuze and Guattari to identify how the body encounters alternate spaces.

Understanding how physical entities exceed their bodily membranes can allow for the traversing of multiple and simultaneous spatialities. The manifold content of material in our observable world is engaged directly with spaces beyond our physical domain, and there are many different spaces that are intersecting and overlapping through and around us. In pursuing a greater socialization of the objects I create, I asked myself if a body could have an active role as a site for alternate spatial truths beyond the calculable Euclidean realm. Answering this question required a restructuring of theoretical approaches that define space in absolute terms and a reexamining of proximal relationships between the individual and the perceivable world. It may seem against any pragmatic cause to assert that a human body can extend beyond the boundaries of its skin, but this question was central to the advancements I made in my practice over the last two years. In considering the instrument-body and the human body as complementary forms, I began to treat material constructions as experiential and socialized offerings for the visiting body. In this context, a revaluation of how any body encounters alternate and simultaneous spaces through both material and sensual stimuli has opened new potentials for my efforts in employing art objects, extending their aesthetic space through an audience.

Space may be one of the most difficult worldly characteristics to define, bearing a degree of ambiguity that results in requisite specifications of a preceding modifier. We can discuss physical space, ideological space, spiritual space, and psychological space among countless other variants as specific spatial domains within themselves. In any regard, all modified notions of space share a similar elemental history within the evolution of philosophical and mathematical thought. Theories of an absolute space as container, conceived through the application of human intuitions onto the world in the act of perception, have limited the ways in which we think about any spatial relationship. This spatial model privileges calculable distances and separations between entities sought through scientific methods over alternate spatial relationships that can be harder to locate within physical, geometrical coordinates. Geometrically centered models of space overlook the perspectival bias of perception in judging the proximity of the self to the external environment; and as a result these models fall short in considering aspects of reality that exceed containment within physical territories, especially the transitive capacities of art objects.

BEING AND SPATIALITY

Martin Heidegger challenges the sovereignty of the cognitive mind in his text, *Being and Time*, defining a contingency of the mind bound to a physical body. His theories empower the active role of a moving, observing, cognisant body in formulating conceptions of reality, and they have had an immense impact on the ways I think about an audience interacting with my works. The most important conclusions of Heidegger's analysis of space to my artistic practice are precisely the points in which he pivots against the widely favored geometric theories of space. Heidegger asserts that in passing over the active role of the body, Cartesian space falls short in providing any full ontological understanding of a being's proximity to the perceivable world. He extrapolates the concept of "insideness" to illustrate the spatial distribution of both contained and opened entities. The preposition "inside," applied to many observable things, connotes the essence of an absolute space essential to Being. Heidegger defines varying degrees of insideness, with the "environment" as one specific, rounded-out enclosure of space that contains a concentration of specific utility within a broader, absolute space. (pg 132)

Discussing "spatiality of the ready-to-hand within-the-world," Heidegger explores a relationship between the body and space that affords greater faculties to the individual in shaping spatial realities through active concern. Equipmental entities are those experienced in closest proximity to human employment and this degree of closeness commands our understanding of space. (pg 136-138) Equipment exists for a purpose and establishes a place for itself by, in a sense, carving out an opportunity for use. When such opportunities are identified and intention established, a more specific "region" within space becomes defined by the fulfillment of a utilitarian need. Regions of the home and our performance within such regions are defined by their utilitarian design; bathroom, living room, bedroom, guest room, gallery. The conceptualization of space around objective utility empowers the action of the human body, and by extension also empowers objects as embodiments of attractive force. Without the action of the body drawn to utility, only approximations of spatial reality can be formed.

In Heidegger's theory, a "being in space" navigates reality through the processes of de-severance and directionality. De-severance refers to the active elimination of distance through bringing some-thing closer and directionality refers to the intention and purpose of such movements. Things in space are identified, and through deliberate action are assigned a directionality that motivates a being to eliminate the distance separating them from the utility offered. More importantly, spatial distances are not strictly geometrically calculable separations between entities, but more relative to an object's proximity-to-use. (pg 138) A challenging painting can be ideologically farther away from us than a simple illustration, regardless of either works physical location. In this conception of space, objects become active sites in defining our understanding of reality. They are sources of opportunity that direct beings throughout their environment and they are socialized entities engaged in building realities beyond their discrete, physical qualities. Heidegger's thought has provided a framework for me to explore processes where objects can function beyond themselves in building alternate, virtual fictions engaged with new realities.

Mapping and Deterritorialization in the Modern World

The French philosopher, Gilles Deleuze, along with psychologist Felix Guattari, offer perhaps the most extreme expansion of spatial relations in their formulation of one absolute "smooth" space. Smooth space encompasses more complex, chaotic, and intertwined relationships than any abstraction of space that can be decoded through human calculation. They argue that the processes of observation, identification, classification and measurement that we use to define certain abstractions also create striations in space that limit the understanding of ephemeral, deterritorialized realities. They posit smooth space versus striated space as different poles of reality relative to human cognition. (pgs 474 -476) This idea of a more complicated "smooth" space that exceeds the capacities of any measurement may not seem revolutionary, but it does open up room for a new understanding of how a body encounters the world. In addition, embracing the concept of smooth space within system based art practices can help identify how aesthetic, material, and sensual qualities extend between and throughout discrete objects.

In most conceptions of space, the polarization of subject versus object remains constant. The dominant understandings of space rely on an active subject observing an objective reality external to their own being. Deleuze and Guattari identify the limitations of this subject/object dualism and explore alternative configurations that might allow understandings of how we can be proximally related to beings, objects, places, and spaces beyond our observable limits. In their text, *A Thousand Plateaus: Capitalism and Schizophrenia*, the theories of multiplicity and rhizomatic relationships are presented as subversions of the subject/object dualism. (pgs 14-16) In seeking a more expansive understanding of reality, the authors consider all perceivable entities as multiplicities in themselves, complex assemblages that defy distinction of either subject or object. All entities transcend both smooth and striated spaces, and they posit the rhizome as a model for mapping indirect relationships between any number of constructs in the world. (pgs 23-25)

The concepts of the multiplicity and the rhizome are abstractions of worldly relationships presented as alternatives to the dominant models of understanding separations, differences, and distances. Deleuze and Guittari deliberately avoid establishing or claiming these abstractions as a refined science and avoid both signifying and objectifying their findings. In return, we are presented with a network of interconnected assemblages of all forms of being in the world. Adhering to such non-directional models allows for an easier understanding of how a being can come to encounter multiple spatial domains simultaneously. .

Fully dismantling the subject-object notion of spatial awareness, Deleuze and Guattari interrogate the singularity of the body by identifying its inherent multiplicities. The body's singular form can transcend into expanded fields beyond the measured striated space and into the expansive smooth space. Deleuze and Guattari define this expanded field as a plateau, an expanse of intensities without beginning or end. (pgs 506-507) In the chapter titled, How Do You Make Yourself a Body Without Organs?, Deleuze and

Guattari define the Body Without Organs (BwO) as a particularly augmented body that becomes more vulnerable to receiving waves of localized intensities, alternate sensory spaces. The domain of the intensity plateau overcomes the body when augmentations or restrictions are forced upon the normative functions of the body. Much like instrument preparations that obstruct dexterity and virtuosic playing, the masochist imposes deliberate restrictions on themselves, becoming a BwO that, "can no longer be populated by anything but intensities of pain." (pg 152)

The BwO causes intensities to pass; it produces and distributes them in a spatium that is itself intensive, lacking extension. It is not space, nor is it in space; it is matter that occupies space to a given degree - to the degree corresponding to the intensities produced. It is non stratified, unformed, intense matter, the matrix of intensity...

The BwO opens one's perception to the multiplicities within sensation; neither subject or object, it cannot be located within a Euclidean orientation of matter. (pg 162-163) Considering the altered states of consciousness that can be attained by the paranoid schizophrenic, the junkie, and the masochist, we can understand the body as a tenuous site with an active role in formulating spatial realities. The Euclidian positioning of the BwO in physical space bears no impact on the expanses of alternate intensities that pass through its being.

Through the investigation of historically canonized models of space and the reconsideration of the active body as a site of spatial realities, we can understand space as a complexity of matter and perspectival intentions. While the striations of Cartesian space allow for scientific problem solving and pragmatic abstractions, an embracing of a smooth space of multiplicities and non-directional relations can expand our grasp of reality beyond the seeable dimensions. Indisputable truths can be accessed through artistic expression and the contingency of our mind bound to body affords greater faculties to perspectival engagement. Situated within a spatium of distributed matter, we are embodied minds with unique perspectives that are actively engaged in redefining reality. The tenuous membrane of the body makes it an active site that contains, occupies, and opens into alternate spaces, and this can empower the production of relational works that increase awareness of the body's proximity within space. As embodied minds, human perceptions depend on the performance of the body, and when normative bodily functions are augmented or altered, we can encounter spatial relationships that extend beyond any measurable locality. My work with instrument-bodies has culminated in the thesis exhibition of *Planar Refrains*, a system based work that aims at providing a dynamic interspace for the body to become more aware of its proximity within physical and ephemeral boundaries.

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BIBLIOGRAPHY

Heidegger, Martin, John Macquarrie, and Edward S. Robinson. Being and Time. New York: Harper, 1962. Print.

Merleau-Ponty, Maurice. The World of Perception. London: Routledge, 2004. Print.

Kant, Immanuel, J. M. D. Meiklejohn, Thomas Kingsmill Abbott, and James Creed Meredith. The Critique of Pure Reason. Chicago: Encyclopedia Britannica, 1955. Print.

Deleuze, Gilles, and FeÌ lix Guattari. A Thousand Plateaus: Capitalism and Schizophrenia. Minneapolis: U of Minnesota, 1987. Print.

Lippard, Lucy R. On the Beaten Track: Tourism, Art and Place. New York: New, 1999. Print.

Baudrillard, Jean, and Sheila Faria. Glaser. Simulacra and Simulation. Ann Arbor: U of Michigan, 2014. Print.

Blesser, Barry, and Linda-Ruth Salter. Spaces Speak, Are You Listening?: Experiencing Aural Architecture. Cambridge, MA: MIT, 2009. Print.

Doyle, Peter. Echo and Reverb: Fabricating Space in Popular Music, 1900-1960. Middletown, CT: Wesleyan UP, 2005. Print.

Goodman, Steve. Sonic Warfare: Sound, Affect, and the Ecology of Fear. Cambridge, MA: MIT, 2012. Print.

EDUCATION

Drexel University. Bachelor of Science, 2008 Virginia Commonwealth University. Master of Fine Arts, 2017

EXHIBITIONS

2017:	Planar Refrains.	Anderson	Gallery	Richmond	VA April 2	017
2017.	i iaiiai itcii aiiis.	/ 1114613011	Canci y.	i ticililiona,	*/ \\ / \pi ii, 2	-01/

2016: /Material FAB Gallery. Richmond Va. November 2016Practice. Art Space. Richmond, VA. April-May, 2016

2015: This Just In. Depot Gallery. Richmond, VA. September, 2015Expansion. Pop-Up show in Maspeth Queens, NY July 2015

2014: AC Small Works Show. Greenpoint, Brooklyn. July 27, 2014

2013: AC Truck Show. Bushwick Open Studios. June 1, 2013

2012: Resin Net Flesh. Lilypad, Cambridge, MA. February 18- March 15, 2012

2011: Trickle Down: Cambridge YMCA Theatre. August 14, 2011Relief: YesOiSi, Boston, MA. April, 2011:

2008-11: Sound performances at Zeitgeist Gallery in Cambridge, MA, Pageant Soloveev in Philadelphia, PA, PIFAS in Philadelphia PA, Dad City in Easthampton, MA, The Silent Barn in Brooklyn, NY, The Whitehaus in Boston, MA, Copy Gallery in Philadelphia, PA, and The Tritone in Philadelphia, PA

AWARDS

VCU Graduate Thesis Research Grant: Spring 2017
VCU Graduate Teaching Assistantship: Fall 2015-Spring 2017
Mildred's Lane Fellowship: Summer 2016

WEBSITE

www.stephennunes.com