# THE MUSICAL COMPLICATION OF OBJECTS AND [/-/], A SERIES OF ORIGINAL COMPOSITIONS AND ACCOMPANYING OBJECTS 

by

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# THE MUSICAL COMPLICATION OF OBJECTS AND [/-/], A SERIES OF ORIGINAL COMPOSITIONS AND ACCOMPANYING OBJECTS 

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University of Pittsburgh, 2023

This dissertation examines the restructured role of objects in the New Discipline through affect studies, media studies, and thing theory. Composer Jennifer Walshe describes the New Discipline as a way of "making and critiquing compositions where physical, theatrical and visual elements are as important as the sonic." In the New Discipline, quotidian objects frequently subvert their traditional functional purpose through sound and sight. I refer to this process in which sound and sight are used (in tandem) to transform an object from object to "thing" (an object that is elevated through personal, emotional, or visual connection) as "the musical complication of objects." Through this lens, I analyze Jennifer Walshe's Physics for the Girl in the Street, a piece that provides excellent examples of many elements crucial to Walshe's oeuvre, the New Discipline, and the incorporation of traditionally non-musical objects in a musical setting. This analysis provides an alternative to traditional analyses that would not be capable of addressing the most critical components of interdisciplinary composition.

My series of original compositions titled " $/ /-/]$ " is a series of interlinking compositions with newly created accompanying extramusical elements. In this series, the extramusical objects are quotidian creations that connect to the programmatic material of the piece. The series includes entry in diary I don't keep for string quartet with accompanying retro video game serving as a program note, everywhere all ways for clarinet, violin, violoncello, piano, and electronics with
accompanying video scrapbook, Garrulous; Cut $U p$ for solo speaking double bass with accompanying augmented reality Instagram filter, $\$ 9$ Hallmark Card for violin duo with accompanying anniversary card, $D O N T B E S C A R E D$ for three blindfolded performers and writing tools with accompanying postcards, and pause/so]It's[ ]no[FUN for oboe, harp, and percussion with accompanying posters. Each extramusical element's unique process of production is mirrored through my treatment of form, texture, quotation, or other connections to the original object. I situate these objects alongside the compositions to enable myself, performers, and audiences to find new potential interactions between the objects, the music, and themselves.

## Table of Contents

Acknowledgements. .....
1.0 The Musical Complication of Objects, Introduction. ..... 1
1.1 Sound as Object ..... 5
1.2 Sound in an Environment ..... 9
1.3 Sound as Thing ..... 10
1.4 The Musical Complication of Objects, Conclusion ..... 12
2.0 Physics for the Girl in the Street. ..... 14
2.1 Setting the Scene ..... 14
2.2 Synchresis, Activation, and Assimilation ..... 21
2.3 An Object Made Thing ..... 36
2.4 Conclusion ..... 44
3.0 [/-/] a series of original compositions and accompanying objects ..... 46
3.1 entry in diary I don't keep ..... 47
3.2 everywhere all ways ..... 59
3.3 Garrulous; Cut Up ..... 72
3.4 \$9 Hallmark Card. ..... 88
3.5 DONTBESCARED ..... 95
3.6 pause/solIt's/ ]no[FUN ..... 112

Bibliography.................................................................................................... 119

## List of Tables

Table 1: Jennifer Walshes' list of objects for Physics for the Girl in the Street................. 24
Table 2: Event list for $\mathbf{1}^{\prime} 00$ " through $1^{\prime} 01 "$ in Physics for the Girl in the Street................ 29

Table 3: Event list for $1^{\prime} 59 "$ through 2'05" in Physics for the Girl in the Street................ 30

Table 4: Event list for $\mathbf{7}^{\prime} \mathbf{1 0 " ~}^{\prime \prime}$ through $\mathbf{7}^{\prime} \mathbf{3 4 "}$ in Physics for the Girl in the Street................ 32

Table 5: Event list for 9'35" through 9'52" in Physics for the Girl in the Street................ 33

## List of Figures

Figure 1: Crystal glass events at $\mathbf{2 4}^{\prime} \mathbf{1 6 " \prime}^{\prime \prime}$ and $\mathbf{2 4}^{\prime}{ }^{\prime} \mathbf{2 3 \prime \prime}$ in Physics for the Girl in the Street.... 38
Figure 2: Harmonic reduction of crystal glass and bowed marimba events from 33'16" through 36'21" in Physics for the Girl in the Street..................................................... 41

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### 1.0 The Musical Complication of Objects, Introduction

Composer Jennifer Walshe's composition Physics for the Girl in the Street (2007), for voice and percussion quartet, treats the concert space as a dramaturgical space. Walshe adds quotidian objects to the instrumental/vocal ensemble and uses them and the traditional instruments as choreographic stages for sound, silence, and gesture. The visual and auditory performance of these objects evokes the ominous environment of a city street at night, and this seeps into the immediate environment of the concert hall, creating a provocative and incongruous mixture.

Quotidian objects cohabitating with musical objects in traditional musical spaces is a common feature of Walshe's music, as it is for many other contemporary interdisciplinary composers who identify as being part of what Walshe has called "The New Discipline." Walshe, in her 2016 manifesto written for the Borealis Festival, describes the New Discipline as not necessarily a shared aesthetic ${ }^{1}$, but more specifically a way of "making and critiquing compositions where physical, theatrical and visual elements are as important as the sonic., ${ }^{2}$

People have written about the New Discipline's links to the internet ${ }^{3}$ and the Uncanny Valley ${ }^{4}$, and about its performance practice and refocus of the inclusion on the body. The most frequent takeaway quote from the manifesto is the final sentence: "That it's not too late for us to have bodies." ${ }^{5}$ Physics certainly engages and explores bodily presence, but the piece's connection to technology is limited and low-tech. The piece arguably has much more to do with text and object interaction. As a result, Physics serves as a focused body/object-oriented composition to

[^0]apply analytical principles present in the musical complication of objects. In the New Discipline, bodies are at the forefront, but this analysis will sift through how this shift in focus enhances and redefines the objects those bodies interact with.

In her manifesto, Walshe includes "how to notate tiny head movements alongside complex bow manoeuvers" and "how to make and maintain sexualised eye contact with audience members whilst manipulating electronics" as examples of unique concerns of the New Discipline. These examples are included because they highlight that, within the New Discipline, the body takes on an elevated ${ }^{6}$ role of meaning-carrier within the composition. (It is interesting to note, however, that the manifesto's examples are attached to interactions with conventional music-making procedures. Why are conventional music-making procedures included at all?)

One of the goals of the Fluxus movement starting in the 1960s was to dissolve the line between art and life. While the New Discipline also references the quotidian, I argue that the New Discipline creates a purposeful degree of separation for the audience by situating their work more firmly within a concert music setting than Fluxus consistently employed. Whether intentional or not, I believe that this separation affords the composer, performers, and the audience an important medial space to examine our relationship to objects. The New Discipline does not necessarily attempt to mirror daily (non-musical) life, but it often creates a temporary extension of daily life to be contended with.

The complication of sound's function and relationship to its present object within a limited environment is anticipated by previous styles of composition such as musique concrète's detachment of sound from the previously required synchronous presence of objects. During Physics for the Girl in the Street, each item endures a similar unfastening as it is placed in this

[^1]temporarily incompatible territory, resulting in lasting repercussions to the formerly settled purpose of the object.

In this chapter, I will focus on the musical complication of objects, in which I argue that the presentation of each item is shaped by listeners' preconceived and changing impressions of various objects and experiences, specifically, how each item evokes its prior typical function while simultaneously shifting the listener's attention to the object's current novel utilities and sonic properties. The musical complication of objects seeks to understand the "thingness" in each object's expected and actual functions through their visible and sonic characteristics.
"That's not a thing" is a colloquial phrase used in reference to something that is materially or situationally possible, but that the speaker does not believe is naturally connective or resonant. When something is a "thing" it means that there is some connective tissue present, whether personal, emotional, visual, or otherwise. For example, although the intended use of a cup or mug is to hold liquid, when someone keeps a mug on their office desk to hold pencils, this is not remarkable or uncommon. The mug continues to function as an object that keeps another object that would otherwise be unorganized in one place. The repetition of repurposing the mug for this novel function makes it a thing. Identifying these connections is difficult and often inexhaustive. Using one sense at a time for comparison often makes the task easier, such as identifying objects of the same color or similar instrument timbres. In the rest of this chapter, I explore how comparisons and connections are made when these sensory identifications cross.

In English-speaking cultures (among many others) ${ }^{7}$, sight and sound are the senses most comfortably used to describe and evaluate the environment around us, particularly in the artistic sphere. While both senses are continuously assessing material things, there are important

[^2]distinctions between the visible appearance of objects and the invisible sounds those objects produce. Instead of isolating these two senses, this chapter will demonstrate how the artistic and the quotidian object can be more richly understood by using both to uncover its thingness.

Heidegger claims that an object becomes a thing when it can no longer only serve its common function. ${ }^{8}$ Building from Heidegger's definition of object and thing, thing theory is a branch of critical theory in which human-object interactions in literature and culture are analyzed. ${ }^{9}$ The distinction between object and thing is slippery. At its most basic, an object is a physical entity without a metaphysical connection. The "thingness" (as it is commonly referred to in thing theory) of an object comes from personal experience or relation to the object. French philosopher Michel Serres states, "The subject gives birth to the object" ${ }^{10}$ and additionally the thing, but paradoxically, thingness also appears when we look at an object more closely to find something human.

Bill Brown, who is widely credited as the creator of thing theory, explains:
I understand objects to be in some sense what we don't notice. You pick up a glass of water. Do you notice the glass? Probably not. Do you notice the water in the glass? Probably not. ...But I would say that the thingness of objects becomes palpable or visible or in some sense knowable where there's an interruption in that circuit. The circuit whereby we float, as we do, through objects. It's when objects become excessive one way or another. I think one way, certainly, is that they break. You go to pick up the glass and it breaks in your hand. Suddenly you notice it. You notice lots about it. ... If you're using a glass and you suddenly recognize this is a glass that your Grandmother owned and so it has a certain kind of value because of the genealogy of its use. On the one hand, something that's very physical, on the other hand, something that's very metaphysical, but in both instances a real retardation of our interaction with the object. We're stopping. $\ldots$ We're stopping because the glass has in some sense broken our habits of use. ${ }^{11}$

[^3]In this example, Bill Brown focuses on objects that possess concrete and visible material in the world. He asks if "you notice the glass," and gives examples of what it means to notice the glass in a visible and contextual way. Now it is time to pose the question, what (and when) does it mean to notice a sound? What does it mean for a sound to have a genealogy? How does sound functionally break?

To understand how sound plays a role in an object's "thingness," this chapter will investigate sound through the following categories:

1. Sound as object
2. Sound in an environment
3. Sound as thing

These categories will help give deeper insight into the "making and critiquing" of the New Discipline that Walshe calls for in her manifesto. It provides an alternative to traditional analyses that would not be capable of addressing the most critical components of interdisciplinary composition and will prove to be imperative to the following analysis of Walshe's Physics for the Girl in the Street.

### 1.1 Sound as Object

In the broadest sense, an object is anything that can be imagined or talked about that is not the subject. What belongs to or defines this category has been extensively debated ${ }^{12}$, but for this chapter, I will be working with the idea that an object is an item with a physical presence in the

[^4]world. A less inclusive definition of "the object" might be anything that a subject can see/touch or be seen/touched by that does not possess subjectivity.

Sound poses many issues when identifying its objectness. In Pierre Schaeffer's description of musique concrète, he identified the "sound object" (objet sonoré) as a primary unit of sound material as distinct from written musical material. ${ }^{13}$ Schaeffer's own use of and fixation on the word "object" changed drastically within his lifetime, ${ }^{14}$ shifting from "object" being used to describe the physical matter which produced the sounds to eventually the sounds themselves.

Discovering the "sound object" allowed Schaeffer to focus on what he called "reduced listening," which is the process of listening to a sound apart from its source. This gives the listener another way of attending to sound, but it also highlights that this mode of listening expands the capability of sound as being understood beyond the "physical-causal source of linguistic meaning." ${ }^{15}$

For electronic music composer Curtis Roads, the sound object is "generalizing the traditional concept of note to include complex and mutating sound events on a time scale ranging from a fraction of a second to several seconds. ${ }^{[16}$ English composer Trevor Wishart adds depth and materiality to the conception of sound objects:

Given that we have established a coherent aural image of a real acoustic space, we may then begin to position sound-objects within the space. Imagine for a moment that we have established the acoustic space of a forest (width represented by the spread across a pair of stereo speakers, depth represented by decreasing amplitude and high-frequency components and increasing reverberation) then position the sounds of various birds and animals within this space. ${ }^{17}$

[^5]The objects of sound can be as rudimentary as a single short-duration sine tone, chord, or hum. The objects of sight are also both natural and material culturally produced, such as twigs or pans. The objects of sound are described by their loudness, timbre, pitch, and rhythm while visual objects are analogously described by their color, contour, function, and scale. Both sonic and visual objects can be described in terms of their spatial orientation. Like simple machines, sounds can be put together to create more complex objects that make up sounding ecologies, soundscapes, and music. The overall construction along with learned and contextual information communicates details about the objects' function and significance such as affect or physical distance.

Unlike many objects, while material, sound is invisible. It may be produced by visible objects that are visible, but the visible presence of these objects is not required to experience or notice sound in our daily lives. A visible object invites a series of physically interactive affordances. Cultural historian Robin Bernstein understands the process of material affordances in dialogue with learned interactions as scripts: " $[\mathrm{R}]$ eading material things as scripts aims to discover not what any individual actually did but rather what a thing invited its users to do. ${ }^{18} \mathrm{~A}$ coffee mug likely has a functionally average hand-sized handle to make it easier to carry when the rest of the mug is hot. Although this is a manufactured interaction, the handle's visible presence serves as an invitation to enact a learned behavior: grip the handle with your hand. Sound also invites you to assess qualities such as physical distance and/or potential threat, but these assessments are invisible and non-tactile.

Sound is, of course, always material. Attention may be diverted to the visible object that is producing the sound (once located) as being the (sole) material representation of the sound's

[^6]materiality. This may seem like a moment where sound is slighted and sight has the upper hand, but even non-sighted people will swivel their heads in response to the presence of sound to engage the auditory directional system. The remainder of this chapter is built upon the conflation of the visible/invisible source and representation of sound.

It is difficult to completely isolate and disentangle visible from invisible objects. When a percussionist repeatedly moves their arm at a periodic interval to cause a mallet to strike a drumhead, is this a purely sonic consideration? When a dancer repeatedly moves their arm at a periodic interval to prepare "third position," is this a purely visual consideration? When a conveyer belt silently and repeatedly shuttles boxes down the line at a periodic interval, is this a purely visible consideration? Visual rhythm, a "rhythm you receive through your eyes rather than your ears, ${ }^{19}$ uses spatial orientation and repetition to produce cross-sensorial processing. The eyes cause the spectator to imagine a sonic characteristic (rhythm) that is not audible. Likewise, a sound without visual presence can trigger the spectator's visual imagination of locale (despite what Schaeffer says).

The materiality of sound is an ever-growing topic. Understanding that sound and physical vibration holds a "dynamic, material relationship to both the so-called external world and each other ${ }^{220}$ is to understand that, while invisible, sound has a noticeable impact on the shape of our physical world-but it also complicates what it means to interact with, attend to, and to notice sound in our daily and artistic lives. As I will discuss further later in this chapter, how the subject encounters sound is highly indicative of the peculiar way in which sound shapes our physical world.

[^7]
### 1.2 Sound in an Environment

In thing theory, special focus is paid to the context or the environment as a significant factor toward understanding an object. Media historian John Durham Peters notes that "The elemental legacy of the media concept is fully relevant in a time when our most pervasive surrounding environment is technological in nature. ${ }^{,{ }^{21} \text { In our anthropocentric understanding of the world, the }}$ environment consists of both the natural and the material cultural.

The Western classical concert hall is an environment that communicates a series of implicit expectations through experience and physical limitations. From a visible material standpoint, Disney Concert Hall is able to physically accommodate the Los Angeles Philharmonic in a way that a college basement is not. At the same time, it is able to physically accommodate a local college rock band, but it might not situationally seem appropriate. Spaces are designed to support different affective musical experiences.

In addition to developed material expectations, the western classical concert hall also communicates a series of invisible likelihoods. Although not always the case, before the performance, an audience customarily sits in the concert hall with at least a partial stage setup already in place. There may be music stands, a podium, or some instruments on stage. Prior to any performers joining these traditionally musical objects on stage, the audience will already consciously or subconsciously develop a series of likelihoods for what might happen during the concert. Like the handle on the coffee mug, the presence of the objects and expectations they raise engage the sonic imagination.

As per Schaeffer's reductive listening, many sounds have the capability of being

[^8]ambiguous in physical representation. Many sounds have been assigned meanings through their cultural and experiential contexts. Humans are constantly proposing associations through performance and attempted communication (music, video, warning); those that resonate continue to be performed and communicated.

The synchronous interaction between the visual and the invisible is crucial:
...the figurative value of a sound in itself is usually quite nonspecific. Depending on the dramatic and visual context, a single sound can convey very diverse things. For the spectator, it is not acoustical realism so much as synchrony above all, and secondarily the factor of verisimilitude (verisimilitude arising not from truth but from convention), that will lead him or her to connect a sound with an event or detail. ${ }^{22}$

Interactions between visible and invisible material produce an ever-growing series of likelihoods and connections built in tandem with the artist and the audience in a palimpsest of current context and prior experience.

Invisible sounds and unheard visible objects transcend the other's individual limitations, shifting chameleonically through simple interaction. Bernstein defines the transcendence from object to thing as "An object becomes a thing when it invites a person to dance." ${ }^{23}$ The process of thing-making is not one-sided. It is interactive and playful. Sound and object perform a similar dance when they coincide in an unexpected way.

### 1.3 Sound as Thing

Returning to Bill Brown's example of the thing (p. 3), the challenge in perceiving his "functional break ${ }^{י 24}$ in music is that, despite the many attempts to objectify sound, the materiality of sound is too extensive to find any distinction between break and extension or continuation. As Seth Kim-

[^9]Cohen reminds us, there is no equivalent "blink" or "earlid" ${ }^{25}$ to interrupt the reception of sonic information. Binaural hearing is four-dimensional and ever-present. Sound possesses a unique quality of fluidity; even similar sounds are able to be recontextualized and repurposed, particularly when its visible counterpart is changed.

In Physics for the Girl on the Street, the fixedness of visible objects is repeatedly challenged. The rolling pin that silently rolls along the drumhead demonstrates how the novel performance of an object with an established expected function does not eliminate the imagination or memory of the expected function. The silence of the rolling pin complicates the expectation of sound for the rolling pin as well as the drum. This, however, does not necessarily require the audience member to view this action as a replacement or a completely new action to catalog in their understanding of actions. It does not require the spectator to view the action as the expected function minus its sound or its typical grouping of other visible objects. The rolling pin creates an expectation of being used with an object that should be flattened, the drumhead creates an expectation of being struck or interacted with in a traditional way (beater, hand, brush, etc.). Both the expected and novel functions of the rolling pin and the drumhead continue to fluidly develop and extend the potential within the thingness of one another in both visibility and sound. Both objects experience a perpetual motion of imaginative expected performance that uses its novel function to further extend its thingness. Can the object only be broken and not, instead, experience transformation? Can the object experience both?

Posing the question, "How does sound break?" with regard to its functional purpose might simply feel like a thought exercise. By posing this question in application to the unique materiality of sound, however, it can be understood that neither the visible nor the invisible

[^10]object necessarily possesses a break in the sense that there is an endpoint to the meaning that is integral to their thingness. The thingness of sound is constantly reinventing itself, individually, culturally, and generationally. The thingness of sound is a collaborative effort of endless experimentation, association, and resonance.

### 1.4 The Musical Complication of Objects, Conclusion

The incorporation of traditionally non-musical objects into the musical environment is not new. Particularly in the case of percussion, the presence of found objects in a musical context is not remarkable even to a mainstream audience; performing groups such as STOMP or the Blue Man Group make a habit of it. The extent to which found objects are used purely for sonic purposes, however, is rapidly expanding.

The listening experience continues to undergo new forms of meaning-making as music frequently engages with quotidian objects and scenes. As the objects of audiences' daily and musical lives continue to blur into one another, analyzing how composers write for quotidian objects sheds light on how audiences might experience them from a sonic, visual, and functional perspective.

As in thing theory, describing the effect of the coordination between visible object and sound is challenging, as it's difficult to pinpoint what and when subjects notice an object to the point that it may be rendered a thing. The process is always interactive and to a certain extent subjective. In this introductory chapter, it has not been my goal to locate the moment of noticing, but to display the structures of this process and the ways sound plays a unique role in the understanding of the thing.

In Physics for the Girl in the Street, Walshe plays with the visibility of typically musical and non-musical objects. The sound of voices shifts from being a visible person on stage to mysteriously multiplying into many previously unheard voices hidden within the confines of visible tape recorders. Glow-sticks, which would typically be limited to providing light or celebratory amusement, are rhythmically swung silently, implying grooves and frantic tempo changes. In any New Discipline performance, sound and sight cling to one another. Physics for the Girl in the Street highlights this to an extreme in even its smallest objects and events.

Physics for the Girl in the Street quickly reveals the extent to which traditional analytical frameworks fail in understanding the core elements of interdisciplinary art. In my second chapter, I will demonstrate how the structures of thing-making are present and relevant in Physics for the Girl on the Street in order to point to a more holistic analysis of the piece. Through these investigations, I will demonstrate how applying thing theory to sound teaches us about meaning-making in contemporary musical landscapes and has further implications for thing theory itself.

### 2.0 Physics for the Girl in the Street

### 2.1 Setting the Scene

In 1974, Jennifer Walshe was born in Dublin, Ireland. From a young age, Walshe's creative interests foreshadowed the multidisciplinary career she would create for herself experimenting with writing poetry, mimicking voices she heard on television, playing trumpet, and composing. Walshe considers her Irish heritage to be an integral component of her identity. She has even developed fictional musical histories for the Irish Avant-Garde (Aisteach) ${ }^{26}$ has created installations, graphic scores, films, photographs, sculptures, and costumes as Grúpat ${ }^{27}$, an arts collective comprised of her twelve alter egos centered in Tallaght County, Dublin, Ireland.

Walshe studied composition at the Royal Scottish Conservatoire with John Maxwell Geddes and Kevin Volans before completing her doctorate at the Northwestern University in Chicago where she studied with Amnon Wolman and Michael Pisaro. She regularly performs as a vocalist and improviser, often for her own pieces. Walshe's work engages with the Internet; Twitter, Snapchat, and YouTube are integral components of past compositions. Additionally, technology has been a huge source of exploration as Walshe has spent many years working on creating an AI version of herself in collaboration with Dadabots (a duo comprised of CJ Carr and Zack Zukowski who use machine learning to create what they call artificial artists) to effectively improvise with herself. She has composed for concert music ensembles such as string quartet, orchestra, and wind ensemble. These works often incorporates many traditionally nonmusical elements such as video, the internet, and quotidian objects.

[^11]Regardless of the extent of the multidisciplinarity incorporated in any piece of hers,
Walshe says that sound is always the primary focus:
I like to use a wide range of different sounds, and I'm often particularly taken with «dirty» sounds - sounds we might commonly regard as flawed, or as by-products of normal techniques of playing an instrument, or even as by-products of life, rather than objects worthy of attention. I use a lot of extended techniques in my work, and so I really enjoy digging around on an instrument to find things I haven't heard before, whether it's blowing into the soundhole of a violin, using different types of pressure on a drum head, or using an instrument like the trumpet as a resonator/amplifier rather than in the normal way. I am also interested in whatever sounds I can find outside of the vocal/instrumental world - the crunch of porridge in a plastic bag, the creak and split of ice in a puddle, as well as field recordings, found sounds and old recordings. This often means that performers of my music find themselves having to play, for example, bags, stones, taperecorders, and wool as well as their instrument. ${ }^{28}$

Following this quote description of her varied approaches in attending to sound, Walshe notes that she had recently completed a piece for voice and percussion quartet called Physics for the Girl in the Street that she particularly enjoyed because percussionists' training makes them more readily equipped to interact with traditionally musical and traditionally non-musical objects in a variety of ways.

Commissioned by the Maerzmuzik Festival in 2007, Jennifer Walshe composed Physics for the Girl in the Street ${ }^{29}$ (referred to in this chapter as "Physics") for voice (Walshe herself performed the voice part in the premiere) and percussion quartet (Schlagquartett Köln in the premiere). While this piece predates Walshe's New Discipline manifesto by seven years, Physics provides excellent examples of many elements crucial to Walshe's oeuvre, the New Discipline, and the incorporation of traditionally non-musical objects in a musical setting.

Little has been written about Physics to date. As previously described, Walshe mentions it fondly and briefly in a few interviews and articles as an example of her love of working with

[^12]percussionists ${ }^{30}$, or the importance of staging. ${ }^{31}$ On her website, the entry for Physics includes only original commission and premiere information, and, though it has been subsequently performed, ${ }^{32}$ a list of performances is not provided. The score itself lacks a program note of any kind.

Instead, most of the textual information available to the audience during a performance of Physics comes from the voice itself. The voice as the expected messenger of the piece produces a variety of contextual clues that can be broadly categorized in the following ways:

1. Pushing sound from the body
2. Mimicking objects through sound
3. Identifying characters textually
4. Establishing a coexistence of positive/negative emotional states

Category Item 1 refers to non-verbal sounds made from the body that sound as if they are forcibly escaping through intense pressure in the throat (such as the voice's first "KI"), and Category Item 2 refers to sections where the voice performs object-sourced prompts such as "Pulling sounds out of the knifed toms." ${ }^{33}$ I would like to focus on Category Item 3 and 4 as they relate to setting the scene for Physics.

The voice identifies the following characters and subsets of characters:

1. "You" (eventually becoming "We," and briefly becoming "I")
2. "Her" (eventually becoming "sister")
3. "He" (lacking a definite connection, but potentially linking to a:
a) "Friend" [who is described as "false" and/or "intimate"] or

[^13]b) "Person" [who is described as "treacherous" and/or "deceitful" and/or "redhaired" and/or "black-moustach[ed]."])
4. "Family" (which is identified as something "You" will make "proud" and/or "raise")
5. "Physician" (who will be "consult[ed]"). ${ }^{34}$

Category Item 4 helps provide short illustrative bits of information regarding what the narrative environment may look like. ${ }^{35}$ Additionally, it is important because while there are (more often) concrete and lengthier indications of something eerie or sinister occurring within the piece, it is more accurate to point out that positive or even comforting words are used in frantic and off-putting cadences or vocal deliveries. For example, at $8^{\prime} 14^{\prime \prime 36}$, the voice quietly mutters, "Many battles against ill fate, but you will be-Will meet with great success in all of your-Circumstances that will convert your joy, much annoyance, and humil-". The balance of specificity and vagueness in the text resembles a horoscope, and, similarly, this balance invites the audience to make connections; personal, within the piece, or otherwise. Based on this text alone, the context and situation is uncertain.

While it is not explicitly indicated who the author of the text is, Walshe has been writing texts throughout her career. Receiving encouragement from her mother (also a writer), she began writing at a young age, "When I was a kid, if I wrote things she really gave me rigorous feedback... a lot of my first creative endeavors were writing, so for me to go back to writing and to be using text in my pieces a lot now seems very natural. ${ }^{,{ }^{37}}$ Her treatment of text, however, is unique in its anonymized collage aesthetic:

[^14]When I was a kid I used to keep all these notebooks. I had a diary, but then separate to that I had a notebook where I wrote down any text that I thought was interesting. And it's only now that I'm connecting that thread back. For the last year what I've been doing is just like stockpiling text either that I've written, misheard, overheard, that I've taken from a website, whether it's a fragment or a whole, and what I've started doing is making these big PDF files. Then I get them printed out [she holds up a thick A4 book] and ring bound, very specifically. Because then, when I open them up, I have text. When I am looking for a text-when I'm playing around with ideas-I just open this and flick through it. Or if I go to an improv gig I have these books, and I call them all "BOOK IS BOOK," and I just have them on a stand. I can flick through them, pull text out, and then improvise. It's like a DJ with records, you know, looking for the right sound. ${ }^{38}$

In Physics, the text is likely a collage of many untraceable connections but in addition to this text, Walshe also further relinquishes control of the text by outsourcing it to the ensemble members. Text or gibberish is improvised by the Voice, books to be read by the percussionists during the performance are selected by the percussionists, and tapes to be played on the tape recorders are selected by the Voice. Walshe specifies in the performance notes that "At certain points in the score the performers are instructed to write, read, or shout text. Most of the time, this text is specifically taken from the book each performer chooses. When the type of text is not specified, the performer may take it from their book, freely improvise it in a language of their choice, or use the text on the cards shown below." The cards that Walshe provides contain fragments of phrases similar to those in the score.

As previously defined ${ }^{39}$, an object is something that "a subject can see/touch or be seen/touched by that does not possess subjectivity." Having the text presented and amplified through objects that are also visibly present in the piece concretely brings the text into the objectsphere of Physics. For example, the tape recorder amplifies text, but the Voice visibly switches the cassettes throughout the piece making the cassettes and the tape recorders objects of text. The text in the books selected by the percussionists is transcribed onto chalkboards making the books

[^15]and the chalkboard objects of text. In both of these examples, there is a tension between the text as being something that carries a semiotic message in itself versus serving a functional facilitator of an action. The audience never sees the text that is being transcribed on the chalkboards. Audience members only hear and see the process of it being transcribed. Is the sound of this action then also an object of text?

The text, the frantic performance of the text, and the object-oriented presentation of the text provide a vague general sense of conflict and contradiction. Ill fate and success, joy and annoyance. It is my belief that Walshe uses the objects within Physics to help extend the resonance of both the positive and negative emotional states experienced at any given moment within the trajectory of the piece.

In both the Introduction and the Coda (both of which I will describe in more detail momentarily), the Voice speaks shards of confusing and conflicting text in a rushed pace. In the Introduction, the text is spoken in a harsh whisper contrasting with the consistent shouting experienced in the Coda. Both speaking qualities possess an eerie quality as the vocal timbres respectively connected intimately with danger. Sounds made by objects typically match the volume and quality of the voice in any given passage, but the visual nature of the objects contextually gives further shape to the effect of each section as well as occasionally disrupting the interpretation of one section being read as more dangerous seeming than the other.

In the opening section of Physics, the sound of objects and the patterns of their use are difficult to anticipate. Silence is never absolute. During the Introduction, candles ${ }^{40}$, flashlights ${ }^{41}$, and flags fill moments that would otherwise be calm. The silences are followed by unpredictable bombastic percussion interjections always played with different objects both traditionally

[^16]musical and non-musical. In contrast, through the final six minutes of Physics, the instrumental members huddle around the marimba and remain there. When they finally play the marimba, it is the loudest and most frenetic moment of the Coda, but the group's restriction to the marimba for those final six minutes is also the most settled and consistent passage of the entire piece. Similarly, although chaotic, the fragmented nature of the text (along with much of the text itself) is very familiar to the audience by this point in Physics tempering its surprise.

During a performance of Physics, the non-linear sentence fragments of the Coda are when the most concrete textual information is presented to the audience, and, as previously mentioned, there is no program note for the audience to read prior to the performance. However, the score does include multiple pages rigorously detailing how each object is to be used during the performance. Many of these procedures resemble the typical use of each object (such as writing on a chalkboard or striking matches), but many do not (such as dropping styrofoam peanuts onto the cymbal or using sleight of hand to simulate a paper streamer magically being pulled out of the Voice's mouth). To Walshe, how the objects are used is crucial to the core of the piece.

The atypical use of an object in Physics explicitly invites the audience to question their understanding of each object, but it also tempers the shock of repetition of unfamiliar actions. In the Introduction, the percussion quartet drags glasses across a tom-tom in irregularly paced circles. The abnormality of the action might not unequivocally shock the audience, but the friction causes a quiet continuous scratching, like a quiet unidentifiable rustle in a dark alley. As the piece continues, however, the repetition of this action paired with different visible objects (such as sparklers, flags, and flashlights) clarifies the image of the street even if the street is
never fully in focus. Physics is a piece where danger evolves into refuge through its objects, structure, and narrative.

As previously stated, Physics is not an exhaustive or comprehensive look into the New Discipline as a movement. It is, however, a piece that provides a clear focal point to tease through the affect theory and media studies influenced scholarship I used to theorize on the musical complication of objects. During this analysis, I will be primarily focusing on two objects used in Physics that highlight unique applications of this scholarship: the knallteufel (which will illustrate the activation and reception performance of senses) and the crystal glass (which will illustrate the transformative process of thing-making). By doing so, it is my goal to provide one possible framework of analysis that might be more largely indicative of how body/objectoriented art and elements of body/object-oriented composition might be constructed or understood. ${ }^{42}$ As the New Discipline is especially keen on using the audience as a "co-creative entity" ${ }^{43}$ this analysis should be seen as a demonstration of an informed analytical model with (potentially) creative and insightful results.

### 2.2 Synchresis, Activation, and Assimilation

While most of the score is highly determined, to maintain a continual reference point for the interpretative and improvisational aspects of the piece, I will be referring to the recording of the live performance by the premiering group of Jennifer Walshe (referred to in the score and this

[^17]chapter as "the Voice") and the Schlagquartett Köln (referred to in the score and in this chapter as Perc. 1, Perc. 2, Perc. 3, and Perc. 4)

The score for Physics includes a mixture of standard and temporal notation. Ensemble members are equipped with stopwatches to facilitate vertical coordination and monitor duration ${ }^{44}$ throughout the score. The coordination points are often accompanied by additional metronomic markings or coordination information indicating which performers share tempi or especially crucial simultaneities. Combining these time strategies allows Walshe to quickly fluctuate between different types of temporal freedom and coordination integral to the variety of sonic and visual connections being made across the ensemble.

I have identified four large sections within the score: the first section (Introduction) $1^{\prime} 00^{\prime \prime}-11^{\prime} 52^{\prime \prime}$, the second section (BLUR) 11'52"-20'36", the third section (MEMBRANE) $20^{\prime} 36^{\prime}-30^{\prime} 08^{\prime}$, and final section (Coda) as $30^{\prime} 08^{\prime}-36^{\prime} 36$." "BLUR" and "MEMBRANE" are labeled as such because they refer to the improvisational sections in the score titled "BLUR" and "MEMBRANE" respectively. While the labels "Introduction" and "Coda" are not named as such in the score, I identify them as bookends that are structurally related.

The Introduction is characterized by the entire percussion quartet synchronously creating and breaking silence by rubbing different objects (glass, rolling pins) over drumheads. Similarly, the Coda is characterized by the percussion quartet's return to rhythmic homogeneity and eventual tutti use of the marimba. The second and third sections are characterized by the percussion quartet performing independent stochastic rhythmic gestures and drones that culminate in the improvisational section BLUR (expansion of "pushing sound from the body")

[^18]and MEMBRANE (voice mimics objects, percussionists attempt to cause objects to mimic the voice) respectively.

BLUR and MEMBRANE are sections that both end with a single page filled with improvisational prompts. BLUR lists "Constant frenetic finger/lip vibrato" and "All air; violating, whirring, pluming, whipping in and out of focus" (among many others) as directions for the Voice to re-present the static rubbing and blowing sounds from the Introduction. MEMBRANE tasks the entire ensemble with "gearing and firing up, flashing, sparking, snapping, whipping into gargantuan roiling waves" like an aggregate of the previous two sections' stochastic rhythmic gestures. Both pages serve as a summation of previous sections. Like the audience, Walshe is requiring the ensemble to develop familiarity with the unfamiliar to create novel understanding and facility with the objects. I conceive of each section as a temporary world created by the proximity of each section's objects, text, and methods of activation. While each section contains a multitude of disparate events, the characteristics that bind them help focus on how the actions surrounding the objects connect and build upon one another as the piece progresses.

In the score, Walshe organizes the list of objects by performer and in order of appearance for each respective performer:

Table 1: Jennifer Walshes' list of objects for Physics for the Girl in the Street.

| Voice | Perc. 1 | Perc. 2 | Perc. 3 | Perc. 4 |
| :---: | :---: | :---: | :---: | :---: |
| Packet of knallteufel, pair of buzzer magnets, various pyrotechnic effects, chalk, paper streamer**5, book, film canister, two or three pen lids of various sizes, two tape recorders and four cassette tapes, karaoke mic, two frog clickers, comb and baking parchment, kazoo and six crystal glasses (tuned to D5, E-flat5, F\#5, G5, A5, B5) | Tom-tom (floor tom, 16 " head), superball, packet of knallteufel, large glass bowl, three glasses $(a, b, c)^{46}$, <br> styrofoam ball, sugar bottle, lighter* (to light sparkler), sparkler, book, pair of glow-sticks*, two pen lids (one small, one large), balloon*, wool* (to rub balloon on), debris* (to pick up with balloon), piece of thin cloth large enough to drape over tom-tom*, two frog clickers, two knives, crystal glass | Cymbal (Chinese, with sizzle chain), flag*, silk*, tambourine, water bottle, large glass bowl, plastic bag, lighter*, <br> matches*, torch*, glitter/glitter stars* (to throw into torchlight), pair of glowsticks*, styrofoam ball, styrofoam peanuts, book, chalk, chalkboard, balloon*, wool* (to rub balloon on), debris* (to pick up with balloon), crystal glass, two knives, two frog clickers, two stones, plastic sheet | Snare drum, battery-operated candle*, flag*, silk*, packet of knallteufel, pair of glow-sticks*, glass, a large glass bowl, water bottle, chalk, chalkboard, piece of cloth* (to clean chalkboard), lighter* (to light sparkler), sparkler, Tibetan singing bowl, styrofoam ball, book, kazoo, superball, two frog clickers, scissors, two knives, pack of playing cards* | Tom-tom (floor tom, 16 " head), battery-operated candle*, roller*, pair of glowsticks*, packet of knallteufel, water bottle, three glasses (a,b,c), large glass bowl, plastic bag, styrofoam ball, stirrer, two pen lids (one small, one large), kazoo, two frog clickers, two knives |

[^19]Although not included in the list, Physics also includes a marimba that is eventually shared by the percussion quartet and played with traditional marimba mallets. The Voice also uses their hands and feet to tap and stomp.

The extensive list of objects in Physics is difficult to organize into a thematic unitary set. The knallteufel, glow-sticks, and party streamer may signal celebration; the books and chalkboards suggest an educational setting. The broadness of the categories might cause a spectator to embed their own more specific memory, or they might imagine absurd stories such as a young student daydreaming about a traumatic accident or a seminar on safely using party favors. ${ }^{47}$ Further, the consistent inconsistency with which the objects are used in traditional and non-traditional ways may discourage viewing each object or group of objects as evoking a legibly specific context at all. It may be easier to view this eclectic array of items as being supported by the traditional percussion instruments, almost as if the traditionally musical instruments in the percussion quartet are a figurative (and physically literal) stage for the traditionally non-musical objects to dance across.

Thus, in addition to grouping these objects in terms of categories, it will prove more useful to develop categories related to the synchresis ${ }^{48}$ and methods of activation toward objects carried out by the bodies. In Physics when objects are activated, they are either:
a. visible or hidden
b. sounding, silent, or audible only to the performer ${ }^{49}$

[^20]Additionally, objects are sonically or gesturally activated through three possible combinations:

1. a traditionally musical entity (object/body) activating a traditionally musical object (a yarn mallet striking a marimba)
2. a traditionally non-musical entity activating a traditionally non-musical object (a performer activating the knallteufel by throwing the object to the floor)
3. a traditionally musical entity interacting with a traditionally non-musical object (a cup rubbing against a tom-tom ${ }^{50}$ )

Tracking how the objects in Physics transform or not through the lens of these two sets of criteria helps pin down how the objects relate to one another as well as to the bodies who negotiate the interactions.

The tom-toms, snare drums, and marimba are rarely activated through traditional implements such as mallets or brushes. When the traditionally non-musical objects (playing cards, rolling pins, styrofoam peanuts) are used to activate the percussion instruments instead, Walshe enacts a confluence of art and daily (non-musical) life, situating Physics within a murky center. This encourages the audience to welcome traditionally non-musical objects as items that can be sonically informative, instead of limiting the objects to their expected conventional uses and signals. Each object used in this way can be deconstructed to reveal how their quotidian and sonic uses meld into one another to create a third conjoined use. For example, the percussion quartet furiously transcribes text from a randomly chosen book onto a chalkboard. The spectator can imagine what is being written as they hear the chalk repeatedly strike the chalkboard, but

[^21]what is being written is kept hidden from the audience. Instead, the quotidian act of writing is stripped of the visual consequence of reading and replaced by listening. ${ }^{51}$

As we have seen, the objects required to perform Physics are primarily quotidian. This does not mean that the objects are blank canvases void of audience pre-interpretation, but instead that it is likely that the majority of audiences have individual (albeit probably unremarkable) experiences with each of the individual objects. For example, based on my personal experiences with knallteufel, the presence of their sound is visceral and distinct. The isolated sound causes me to remember a time when, as a child, I overreacted to a handful of them popping when I stepped on them accidentally. The shock of the event likely accentuated the perceived pain (as the actual pain inflicted by the poppers is minor), but when I hear this sound, I still cannot help but wince and protectively curl my toes.

Despite the distinct possibility that other audience participants may share similar associations with the knallteufel, others might have little to no personal associations with them at all. The latter group's reactions might be as diverse as "Firecrackers remind me of celebrating," or "I hate sudden loud sounds." Walshe cannot reliably anticipate whether or not audiences will consciously or subconsciously use these previous experiences in their evaluation of what Physics is communicating on a moment-to-moment or sectional basis. There are sound events that commonly produce surprise, regardless of person-specific affective baggage, such as a sudden shriek or an unseen explosion. These types of events are useful in creating shock for the audience, but the individual sonic characteristics of each are not always reliable in developing new forms of surprise. Therefore, one could question the usefulness of analyzing Physics strictly

[^22]through this lens. Instead, I offer four criteria to help determine how and when thing-making occurs:

1. Is the object being used in a way that subverts its expected use, and if so, how?
2. Does this subversion of expected use:
a. propagate the untraditional use of additional objects?
b. facilitate the traditional use of additional objects?
3. What objects or signifiers immediately surround this object's action?
4. Does the use of the object evoke a path of recognition outside of its immediate use and context ${ }^{52}$

The path of recognition outside of its immediate use and context is mystifying and difficult to navigate. The path is unfamiliar, and often complicates the practical tethers of thing-making like utility and material scriptiveness. In Physics, these questions show how objects' postperformance perception and thingness might inform and substantiate the musical complication of objects.

Physics begins with the Voice stomping their feet five times. The stomps increase in speed and volume, resembling someone running toward the audience and coming into the visual frame. The Voice, however, does not move along the stage as they stomp. If the audience imagines a similar running-oriented interpretation of this sound, it is solely based on the gesture's sonic resemblance to a person running toward them. Throughout Physics, it becomes increasingly obvious that visual choreography and representation is an available communicative tool, but at this moment Walshe omits an intuitive visual representation. Instead, she opts for a purely sonic representation, leaving the audience to imagine the scene. Why is the Voice

[^23]running? What is the Voice running from? What is the Voice running to? At present, with the audience's context being limited to the title, even this short moment is loaded with potential fear. Just as abruptly as it starts, the running stops when a single knallteufel snaps.

Knallteufel is a German brand of firecracker. Like many other noise makers of this kind, knallteufel are constructed by wrapping a harmless, though startling, pyrotechnic mixture in a hard paper. The enclosure of the paper forms a tail extended from the ball where the mixture resides. It resembles a miniature bomb, but instead of lighting the fuse, the knallteufel detonates by being thrown against a surface. The knallteufel's explosion creates a loud snapping sound. It is not visually spectacular. At most, the knallteufel leaves behind a small residual smoke or powder and scattered shards of the surviving wrapping paper.

Throughout Physics, the knallteufel are only used in four discrete moments, all in the introduction of the piece. Each event is contextualized by the presence and activation of the objects immediately preceding and following the knalltefuel. For example, the opening of Physics includes the following:

Table 2: Event list for $1^{\prime} 00$ " through 1'01" in Physics for the Girl in the Street.

| Before (1'00") | During (1'01") | After (1'01" cont.) |
| :--- | :--- | :--- |
| -Five footsteps increasing in <br> volume and speed | -Single knallteufel snap that is <br> hidden from the audience <br> -Two candles are lit <br> -The Voice sustains a quiet <br> and compressed "KI" sound <br> -Perc. 1 drags the rim of a <br> small glass across the tom- <br> tom head in uneven circles | -All but the knallteufel <br> continues <br> -Flags are (silently) swung <br> and silk is (silently) tossed in <br> the air |

None of these passages last longer than six seconds, but, in the following paragraphs, I would like to zoom in and stretch these moments out for a closer examination of how they progress. In the grand scheme of the piece, this is just one of many fleeting, and potentially dramatic actions, but the internal and external meaning becomes easier to assess, once it is removed from its performance context.

Shortly after the opening of Physics, at $2^{\prime} 00^{\prime \prime}$, the knallteufel make a second appearance in the score. Suddenly all action stops as a quick thumb roll on the tambourine ushers in the cracking sounds of firecrackers thrown rhythmically by the Voice, Perc. 1, and Perc. 3. Although the audience can hear them, the knallteufel, at this moment, are hidden from sight.

Table 3: Event list for 1'59" through 2'05" in Physics for the Girl in the Street.

| Before (1'59") | During (2’00") | After (2'05" cont.) |
| :--- | :--- | :--- |
| -Short thumb roll on the <br> tambourine | -Ten knallteufel are thrown in <br> a precise rhythmic pattern <br> -Voice and tom-tom stop their <br> sustain from previous <br> section's "during" <br> -Candles are extinguished from the audience | -Perc. 3 and 4 air drum a <br> "techno" groove with glow- <br> sticks at q=140. |

Prior to this event, flashlights are lit while tom-toms are ambiently murmuring the frictions produced from contact with a rolling pin and a glass. Flags take turns being swung in the air, as if delivering a semaphore signal to the audience, while silk is thrown upwards and gently floats back to the performers.

The performance landscape is highly visible. The sounds straddle musical and nonmusical modes of activation. But when the tambourine thumb roll enters, the flashlights are instantly shut off, the flags stop, and the ambient drone abruptly ends. The breakneck switch in
focus is amplified by the activation methods. The sound is produced in a traditionally nonmusical way (Voice, Perc. 1, and Perc. 3 throwing objects), activating a traditionally non-musical object (the knallteufel). The rhythmic presentation and the tambourine thumb roll's rapid snapping bear a resemblance to rhythmic and affective characteristics of how the knallteufel are presented. This suddenly tips the scale toward evoking a non-musical moment barely tethered to a musical realization.

Immediately after this measure, ${ }^{53}$ the ensemble drastically shifts the focus from sonic to visual once again. The percussion quartet begins to air drum with glow-sticks while the Voice speaks, adding sound to a silent but seen instrumental environment. This encounter with the knallteufel is short but framing the event with visible sounds and visible rhythmicized silence invites the imagination to fill the gap.

The knallteufel events feel threatening. The thumb roll amplifies and extends the presence of the firecracker, and the aggression of rupturing the previous texture and activation methods is palpable. The aural presence of the firecracker leaves much to the visual and semiotic imagination. It produces no real threat, but it does carry a simultaneous connotation of innocence and danger in its dual resemblance to children's fireworks and lethal explosives.

Prefaced by a cascade of firing snare and tambourine rolls, the next knallteufel interruption occurs at 7'30".

[^24]Table 4: Event list for $7^{\prime} 10^{\prime \prime}$ through $7{ }^{\prime} 34^{\prime \prime}$ in Physics for the Girl in the Street.

| Before (7, 10") | During (7'30") | After (7’34" cont.) |
| :--- | :--- | :--- |
| -Erratic call and response <br> from tambourine thumb rolls <br> and snare rolls | -Two handfuls of knallteufel <br> thrown that are visible to the <br> audience | -Voice and knallteufel stops <br> -All but the voice and <br> knallteufel continue to sustain <br> -Tape recorder voices barely <br> audible in the background |
| -Voice quietly taps while <br> vocalizing a choked "mm" <br> -Perc. 1 drags the rim of a <br> small glass across the tom- <br> tom head in uneven circles <br> -Perc. 3 blows over bottle |  |  |

"Throw one handful of knalleufel at the floor and immediately following throw a few to your left." The knallteufel are no longer hidden, but are only dispersed by one player, Perc. 4. Adding the snare drum to the alert mutes the impact of what would otherwise have been a momentous visual and sonic arrival. The penetrating sound of the snare distracts the audience from focusing solely on the visual arrival of the knallteufel. But, unlike its last appearance, it is now followed by the background droning texture of Perc. 1 slowly sliding a glass over the head of a tom-tom, Perc. 2 blowing over a bottle, and quiet tapping along with a choked "mm" from the Voice. The silence that accompanied the visual rhythms of the silk flags that previously followed the knallteufel is now replaced by continuous sound.

The knallteufel makes one final appearance at $9^{\prime} 46^{\prime \prime}$, but many of the features of this event hold an inverse relationship to the second knallteufel event almost 8 minutes prior. Previously, the hidden knallteufel were juxtaposed with the silent but visible glow-stick air drumming. Now, glitter quickly flies through the flashlight beam with a quick-barely audiblewhisper from the Voice. Previously, the knallteufel came after the tambourine thumb roll which was eventually reinforced by the snare drum roll. Now, the only thing the knallteufel interrupts is silence. Before, the knallteufel was hidden. Now, Perc. 1 and Perc. 4 "throw knallteufel all
around stage in a constant stream." The knallteufel create both a sonic and visual crescendo, but their coordination with traditional instruments has slowly transformed the affective association of the snare drum and tambourine as well, as we will see.

Table 5: Event list for $9^{\prime} 35^{\prime \prime}$ through $9^{\prime} 52^{\prime \prime}$ in Physics for the Girl in the Street.

| Before (9'35") | During (9'46") | After (9'52") |
| :---: | :---: | :---: |
| -All sound abruptly stops -Perc. 2 drops handfuls of glitter through light of flashlight that was already on, then turns torch off -(Cont. from "a treacherous") Voice whispers "-person is seeking your-" | -Major barrage of knallteufel from the Voice, Perc. 1, and Perc. 4 being thrown all over the stage <br> -Perc. 2 violently and unevenly rolls on cymbal with snare sticks <br> -Perc. 3 repeatedly plays frog clicker as loudly as possible | -Knallteufel stops <br> -Voice whispers "-hold fast your friend who will be grossly your-" -Perc. 1 and 4 drag glasses on tom-tom head -Perc. 2 rolls styrofoam ball on cymbal -Perc. 3 quietly taps fingertips on bottle "like rain" |

Through repetition, Walshe has developed an expectation for a traditionally musical sonic action before the arrival of each knallteufel event. Since the tambourine and snare rolls serve as a warning each time, they effectively diminish the impact of surprise with their loudness, but they also underline the snapping knallteufel's timbral similarity to gunshots and larger explosions. Through juxtaposition and superposition, both the traditionally non-musical knallteufel and typically musical percussion have taken on characteristics of the other. If the snare drum or tambourine is heard without knallteufel, the spectator is primed to remember the knalltefuel. If a single knallteufel is tossed and snaps, the spectator is primed to brace for the sonic impact of the snare and tambourine. Both the traditionally non-musical knallteufel and typically musical percussion are armed with the potency of threat through its greatest strength: invisibility.

Three of the four knallteufel events are accompanied by moments of silent but rhythmic action that include light. In the first event, the flags and silks are calmly swung and thrown while candles are lit. In the second event, glow-sticks aggressively swing as if playing a fast techno groove. In the final event, glitter is quickly thrown into the beam of a flashlight before the first moment of simultaneous visual stillness and sonic silence. In the context of the concert hall, the audience is primed to expect sound. Although the flags, silks, candles, glow-sticks, flashlights, and glitter are not typically associated with sound-making, each is clearly used to imply sound by often being accompanied by music or through their visual rhythm resembling musical organization.

The air drumming with glow-sticks is the most heavily featured of these light-oriented objects, first appearing at $2^{\prime} 05^{\prime \prime}$ and for the last time at $25^{\prime} 14^{\prime \prime}$. In the performance notes, Walshe indicates that the percussionists should "use glo-sticks to air drum, as if you are playing the drum part to an imaginary pop song in $4 / 4$, the tempo and style of which are given." Over the course of those twenty minutes, the air drumming ranges from a BPM of 50-180 and uses drum groove descriptors such as "techno," "techno in short bursts of irregular length," "rock," "hard rock," "rock, very active, loads of fills," and "slow, loose jazz." The air drumming yields an interesting connection to the activation criterion. It is consistently visible, silent throughout, and it is linked to traditionally non-musical object, but what is it interacting with? From the performers’ standpoint, the glow-sticks are having an implied interaction with a (albeit imaginary) traditionally musical drum kit, but this is not the only possible interpretation. Despite being a piece for four percussionists, there is no actual drum kit on stage for the glow-sticks. In a piece for four percussionists, having an additional hi-hat and snare available even if only to serve as a reference for pantomime is hardly outside the realm of possibility.

Instead, like timbral similarity, pantomiming these air drumming events allows the audience to associate similar visual actions. In this case, the air drumming requires that the performer to swing the glow-sticks in a variety of directions dependent on the style of groove and how they imagine the drum-kit would be set up. The silent gesture of drumming detached from the sound of drumming intensifies the aggressiveness of this action. By tracking the visual rhythm of pantomimed "slow, loose jazz" at 50 BPM versus the "rock, very active, loads of fills" at 180 BPM is not only tracking shifts in speed, but shifts in danger and threat. The association of danger that is developed in the exploration of visual rhythm then primes the audience to view other similar gestures that would normally be deemed innocuous (such as the rapid striking of the marimba at the end of the piece) as potentially harmful.

The silent visual events interweave with the gradual reveal of the knallteufel. Walshe demonstrates that, like the stomping feet without the expected visual representation, the silent presentation of visual rhythm in combination with these traditionally non-musical objects is uncanny and contributes to a growing sense of danger waiting to burst; light is waiting for sound.

The audience's perception of how traditionally musical and non-musical objects do or do not interact with one another over time can very quickly dull. ${ }^{54}$ There are, however, plenty of similarly overt progressions through activation and presentation that mirror the kind of conflation of life and art in Physics. For example, text from performer-chosen books progresses from being silently read to being noisily transcribed on chalkboards, while the semaphore flag gestures are replicated against the different membrane surfaces of the drumheads. There are also more subtle tethers that are explored, like the negotiation between the Voice and the tape recorder; both share

[^25]similar roles as textual messengers, but the Voice is visibly present in the room while the tape recorder introduces new distorted voices.

All of these moments and progressions contribute to a repetition of the processes they undergo to make the unfamiliar familiar and the familiar unfamiliar. Instead of viewing music as a line between art and life, Walshe may have developed a more unsettling reality in which music is not a buffer nor a dissolve, but a messy bleed-through of the two which is foundational to the musical complication of objects.

### 2.3 An Object Made Thing

The instances when the knallteufel are present, while all in the same formal section, are spread out and not easily perceivable. However, I do believe that the process described in 2.1 is indicative of a prevalent and real-time observable process of thing-making that Walshe uses to create a sense of progression throughout the piece.

My analysis does not propose a definitive interpretation of the overarching narrative; instead, it posits that the process of thing-making and surprise are crucial to the fabric of Physics. Walshe acknowledges that audience members will gravitate toward different objects depending on a variety of factors including their unique prior experiences

We forget that listeners are also human beings, and (similar to performers) the way they hear a piece will be affected by their mood, their back, their knees, the temperature of the hall, the day, what they had for dinner, whether they had dinner, whether the person they came to the concert with is their long-lost childhood sweetheart who they found on the internet and are trying to impress by bringing them to a contemporary music concert on their first date in 25 years. My mother has tinnitus and is deaf in one ear, and so she always has a different impression of concerts than other people do; the same goes for where somebody is sitting. And there's no way you can control this unless you had a masseuse, chef, psychiatrist, hearing specialist etc. on call before a concert. What you can do is, where possible, frame the piece well, pick a great space for the concert,
programme it interestingly, use the seating imaginatively, so that the odds are with you. ${ }^{55}$ Audience members will all assemble different constellations of objects and perceive their thingness at different rates, but Physics (like many other New Discipline ${ }^{56}$ pieces) invites audiences to participate in a dialogic arena of thing-making that will inform their own personal understanding of (the sight and sound of) objects going forward.

As already described, the knallteufel subvert their manufacturer's intended use insofar as they are being used musically in a concert hall and hiding them during use is not intended.

Through their sonic similarity, the subversion of the knallteufel also propagates the untraditional use of the tambourine and snare drum as being signifiers of danger through their sonic resemblance to the knallteufel and furthermore facilitates the traditional use of the tambourine and snare drum as musical instruments used in a musical composition in a traditional musical space. In my four criteria of thing-making, it is the third question, "What objects or signifiers immediately surround this object's action?" that brings the knallteufel from object to thing during a performance of Physics. The intro section includes very few complete textual statements. Walshe favors whispered fragments and confusing mutterings. "You": brings the audience in. "A treacherous person" is a (somewhat literary) threat. The myriad of light sources (sparklers, flashlights) implies an evening setting. Walshe has not explicitly depicted a specific threat in the night, but she has provided a toolkit for the audience to conjure their own.

The ringing crystal glass passages at $24^{\prime} 16^{\prime \prime}$ and $24^{\prime} 23^{\prime \prime}$ may seem like odd events to focus on. Like the knallteufel, the crystal glasses' presence within Physics is relatively brief, and furthermore, it is used in a fairly conventional way. Crystal glass in quotidian use is a vessel

[^26]containing liquid, and the sustained friction along the rim of the glass causing it to vibrate is not an uncommon party trick or musical practice. ${ }^{57}$ Thus the crystal glass does not pass through the subversion of habitual practice criterion. However, the object may be in line with its expected use, but in Physics, the expected use is not necessarily in line with the object.


Figure 1: Transcription of crystal glass events at $24^{\prime} 16^{\prime \prime}$ and $24^{\prime} 23^{\prime \prime}$ in Physics for the Girl in the Street.

Prior to the ringing of the crystal glass, the Voice is recalling a story where the vocal persona and their sister are lost in the middle of the night. The story is told in a drifting creaky

[^27]old voice as if told by an elderly person slowly piecing memories together. The recollection of getting lost in their immediate surroundings is periodically interrupted by urgent interjections describing an attack that left the sister wounded. Shortly after, the Voice notices, "Coming over a rise, I saw a light." The crystal glass now rings a quiet waning F\# as a finger rubs around the rim of the glass. After confirming, "faint, but clear through the trees," the crystal glass rings again. The sound of the crystal glass is representative of light in a fairly traditional signification. ${ }^{58}$

The signification in question, however, has already been evoked through less abstract and immediate representations earlier in the piece. Flashlights have been used to spotlight glitter falling and to emphasize sectional change; sparklers have been lit; glow-sticks have been swung. Not only has Walshe created an environment where the representation of light (a visual phenomenon) could be literal, she has made it literal on numerous occasions. Why then does Walshe choose to represent this moment sonically? What does the visual stimulus of light not afford Walshe in this context? Or, rather, what power does sound hold in the process of thingmaking?

Crystal glasses are only played at $24^{\prime} 16^{\prime \prime}, 24^{\prime} 23^{\prime \prime}$, and during the Coda at $31^{\prime} 46^{\prime \prime}$ until the end of the piece. ${ }^{59}$ In this last passage, the percussion quartet huddles around a shared marimba. Perc. 3 and Perc. 4 begins to clap erratically as Perc. 1 and Perc. 2 tilt their crystal glasses while rubbing the rim as before. The snapping claps are reminiscent of the knallteufel of the introduction. The clapping slows as Perc. 1 and Perc. 2 continue rubbing while righting the glasses, causing the pitch to bend. Throughout this sequence, the Voice improvises "desperate pleading rhythms, text or no; vocal perc. pounding, trying to break through."

[^28]Performing the vocal part in this recording, Walshe chooses to avoid any recognizable words during the "PLEAD" indication, but the pleading tone itself is distinctly clear. What the pleading is connected to is less clear. Within the sound world of Physics, the (knallteufel adjacent) clapping has developed into a danger signal while the crystal glass is a source of light and respite from nocturnal danger. There is a conflict between the two identified things in this analysis. Referring back to the criteria of this section of the analysis, it can be identified that in this new context both the clapping and the crystal glasses might be undergoing an additional layer of unexpected use, and, as a result, might be propagating each other's unexpected uses. Further, it is the combination of their sound that is instigating this connection, not the physical presence of the knallteufel or light, as neither are present in this moment.

This passage at 31 ' 46 " raises the question "Why does Walshe choose to exclusively represent this moment sonically?" As discussed with the knallteufel, when presented with the sound of a thing without its visual representation, the audience is left to imagine the image of what the sound might represent. Throughout Physics, Walshe presents many events which suggest a sonic experience, without providing an explicit one (i.e. glitter silently falling through the flashlight, glow-sticks silently swinging). Walshe here is, once again, implying a visual experience through sonic representation and inviting the audience to create an image.

The idea of encouraging a spectator to participate imaginatively in identifying connections is not exclusive to quotidian sound or music. Beethoven's Pastoral Symphony encourages the audience to aurally imagine a brook, countryside, and storm. However, in a piece where both sound and image are simultaneously encouraging connection, the possibilities and processes for those connections are inherently different and offer unique avenues to be explored. Visually, there is little tethering knallteufel to clapping hands or to a tape recorder. The sonic
connection, however, between the crack of the firecrackers and the erratic staccato of the clapping is much closer, and the fireworks quietly bursting in the background of the tape are heard as a sonic culmination. Compared to knallteufel (an object frequently handled by a child), the fireworks are more threatening. They have more explosive power, require care in handling, and they can cause physical harm. The signal of danger in the night, however, is now coming from a small tape recorder where the fireworks are not only hidden, but their sound appears to be distant, a distance much further than the hidden knallteufel. The threat is fading away.

Visually there is little tethering a crystal glass to a marimba, but the sustain of the singing vibrating glass and the bowed wood bar melt into one another. Despite their visual material difference, the sound produced by rubbing and bowing respectively form a sonic connection. The crystal glasses are sonically connected (timbrally, but also all crystal glasses play the same two pitches), but they are not physically linked. Although made of many individual wooden bars that are sonically connected, the marimba secures them all into one shared surface. The sonic tether of the crystal glasses and the marimba serve as a bond for the percussion quartet to visually pivot from four individuals to one unit. The marimba is the final meeting point for the percussion quartet. Perc. 2 deals playing cards on the top half of the marimba as if starting a game at a card table.


Figure 2: Harmonic reduction of crystal glass and bowed marimba events from 33 ' 16 " through 36 ' 21 " in Physics for the Girl in the Street.

Prior to the Coda, there are only two brief moments of notated harmony (two kazoos playing dyads at $21^{\prime} 41^{\prime \prime}$ and $\left.22^{\prime} 07^{\prime \prime}\right)$. At the beginning of the Coda, the percussionists create swirling clusters that go in and out of phase with one another as the voice spirals into an improvisation labeled "WORDY." ${ }^{60}$ As previously mentioned, the final section of the Coda highlights timbral similarities between rubbed crystal glasses and bowed marimba. This section also extends the dialogue between those glasses and marimba through harmonic interplay between the two.

Of the first thirteen marimba chords that occur during the first four crystal glass pitches, eight of the chords include the pitch being played by the crystal glass (indicated by a check mark above the chord). Of the final nine marimba chords, only two of the chords include the pitch being played by the crystal glass. The melody of the crystal glass suggests a G pitch center destination. The final note of the crystal glass melody being G could also be interpreted as a final resolution of the previous F\# "light" crystal glass ( 24 ' 16 ") serving as a leading tone, but the harmony of the marimba disrupts the stability of the final conclusive G with a Gb add6 chord (a half step away from a resolution). Alternatively, the final harmony could be interpreted as a compromise of the major $7^{\text {th }}$ and minor $9^{\text {th }}$ intervals that persist throughout the phrase creating an Eb7 major chord resolution over a Gb in the bass (this Gb being a resolution of half step contrary motion from the previous F and A dyad in the bass voice). Walshe mirrors the ambiguity of the text through the harmonic push and pull of the marimba and crystal glass. The final chord of the piece is sounds ethereal but is harmonically clashing before suddenly ending without resolution.

[^29]In the Introduction, invisible sounds created fear that latched itself to visible objects that would otherwise not be associated with danger. The knallteufel and the silent visual rhythms introduce and obscure the typical connection of sight and sound, especially within the context of the concert hall. Mirroring this introduction, the danger of visual connection fades away in favor of the safety of sonic connection. If the crystal glass signals light, as the Voice seems to indicate, this sound of the remaining percussionists bowing alternating chords on the marimba is the light enhancing the effort and presence of the unified group. A group that has, up until this point, been sonically and physically divided now comes together to provide increasingly abundant light and to push the danger away or at least settle within it.

The narrative progression in Physics utilizes a common archetype: darkness vs. light. ${ }^{61}$ Darkness (or invisibility) implies the unknown. Walshe represents this through hidden knallteufel, the atypical use of traditionally musical and non-musical objects, and conflicting text fragments. Light (or visibility) implies hope. Walshe represents this through flashlights, candles, and glow-sticks. She represents light through the shimmering sound of crystal glass and the choreography of the percussion quartet finally finding common ground in the marimba. All the invisibility elements in the Introduction find the light either by literally becoming visible or developing familiarity through repetition. Visibility in Physics, however, is not immediately and definitively hopeful. Silent visible rhythms performed in a concert hall thwart the audience's expectation of sound by emphasizing its absence.

Physics does not simply progress from invisibility to visibility but, more importantly, invisibility and visibility progress from being detached to being interdependent. In the Introduction, sight and sound take turns to create surprise and provide mystifying. In the Coda,

[^30]the traditionally musical marimba and the traditionally non-musical crystal glasses bridges the gap between sight and sound. The story does not become definite but becomes more settled. Physics begins in invisible and visible danger and finally finds refuge in their safe connection.

Sound provides a layer of meaning. Initially, imagining the titular girl on the street might cause the spectator to imagine the scenario visually. Like many pieces of the New Discipline, Physics welcomes this assumption, but it also expands how an audience might confront and extend their understanding of the world around them through sonic means. Through the musical complication of objects, bodies may develop and reorient the strategies they use in assessing objects. The depth that sonic thing-making provides is not just an additional layer of information, but one with substantial emotional depth; an indication that there is much to be explored in the execution of thing-making.

### 2.4 Conclusion

Physics is a piece full of interpretative and analytical problems that are unique to the music of the New Discipline. Quotidian objects are brought into the concert hall and used in both conventional and unconventional ways. The characteristics of sight and sound most crucial to meaning-making are amplified, and the strategies of thing-making belonging to each are intertwined. Through these lenses, this analysis demonstrates a path in which the knallteufel and the crystal glasses could be understood within the context of the piece, but it does not claim that these are definitive interpretations. Instead, this analysis has served as an exercise on how an audience might internally reconcile themselves with the musical presentation of familiar objects. It invites the interpretive process to continue.

I argue that Walshe's greatest power is how she perpetuates and maintains openness to interpretation for an audience. Physics serves as a prime example of how the New Discipline can generate an environment in which a highly particular type of productive ambiguity can take place, one where the piece is not so vague or internally contradictory that it could point to absolutely anything, but an environment that provides just enough ambiguity that meaning requires active participation. Walshe has created an impressionistic representation of an experience that relies on the audience to find what resonates and to fill in the gaps.

Through the musical complication of objects, audiences must consider that their prior experiences are more malleable than they might have expected initially. The objects that they encounter might have uses beyond those most obviously found in visual, tactile, and functional interactions. The musical complication of objects demonstrates that simply adding an additional sense to the critical process of perception can extend and confuse, anchor and dislodge. Physics demonstrates how we might look through or beyond objects to understand something human. Physics and its place within the musical complication of objects demonstrate that it's not too late for objects, too, to have bodies.

## 3.0 [/-/] a series of original compositions and accompanying objects

My series of original compositions titled "[/-/]" is a series of interlinking compositions with newly created accompanying extramusical elements. In this series, the extramusical objects are quotidian creations that connect to the programmatic material of the piece. The series includes entry in diary I don't keep for string quartet with accompanying retro video game serving as a program note, everywhere all ways for clarinet, violin, violoncello, piano, and electronics with accompanying video scrapbook, Garrulous; Cut $U p$ for solo speaking double bass with accompanying augmented reality Instagram filter, \$9 Hallmark Card for violin duo with accompanying anniversary card, DONTBESCARED for three blindfolded performers and writing tools with accompanying postcards, and pause/solIt's $[$ ]no[FUN for oboe, harp, and percussion with accompanying posters. Each extramusical element's unique process of production is mirrored through my treatment of form, texture, quotation, or other connections to the original object. I situate these objects alongside the compositions to enable myself, performers, and audiences to find new potential interactions between the objects, the music, and themselves.

## 3.1 entry in diary I don't keep

# entry in diary I don't keep <br> a frantically nostalgic interaction for string quartet 

Cullyn D. Murphy
(2020-2021)

## Composer Information

Cullyn D. Murphy (b.1993) is a composer, conductor, vocalist, and educator from Champaign, Illinois. His music has been performed and commissioned by the Longleash Trio, Fifth House Ensemble, Line Upon Line Percussion, the Thompson Street Opera Company, New Music Gathering, New Music On the Point Festival, Illinois State University's Symphonic Wind Ensemble, Louisville University Symphony Orchestra, Orchestra Enigmatic, Wm. Riley Leitch, and many others. Murphy's music has been described as "theatrical," "riveting and inventive," and "push[ing] the idea of what music and musical organization is." (Composer's Toolbox) His music draws from his experiences of playing in rock bands, participating in theatre, and reluctantly singing in choir. Recently, Murphy has been focused on amplifying the already existent musical components of sight, taste, touch, and smell in order to gain access to different modes of storytelling through music.

Murphy received his B.M.E. in Music Education-Choral and his B.M. in Theory/Composition from Illinois State University, M.M. in Music Composition at the University of Louisville where he was a recipient of the Bomhard Fellowship, and is currently pursuing his doctorate at the University of Pittsburgh where he received the Dietrich School of Arts and Sciences Fellowship. In the fall of 2017, he co-founded AmiEnsemble (an experimental trio/composer collective) for whom he regularly composes, directs, and performs. His private studies include Roy Magnuson, Carl Schimmel, Martha C. Horst, Steve Rouse, Krzysztof Wolek, Eric Moe, Mathew Rosenblum, and Amy Williams.

## Performance Information

Original performance: JACK quartet
Instrumentation: violin, violin, viola, violoncello
Duration: c. $7^{\prime} 30^{\prime \prime}$
Contact: cullynmurphy@gmail.com

## Program Note

When we are together, my brother, my sister, and I are loud. We wildly dance around, incessantly speak over one another, and instantly become an enigma to any spectators. Now that my siblings and I live further apart than we ever have before, our ability to all be loud in the same place at the same time is less often than I would prefer. This year has, of course, only magnified that wish to be geographically closer, but luckily despite our individual busyness, we have slowly settled into our new ways of keeping in touch. Our connections are made in small periodic text exchanges of music, forwarding the occasional funny tweet, and calling to share a life update or two. entry in diary I don't keep attempts to capture these imprints of interaction with my siblings through a warped theme and variations observing both the bombastic and the introspective moments we've created together. Each gesture functions as either a distillation of a collective memory with them or as a placeholder for a future one.

## Cullyn D. Murphy

Pittsburgh, Pennsylvania 2021

## Performance Index

All glissandi begin immediately and are continuous.
Arrows indicate a gradual change from one technique to another (i.e. ord -->> mSP)

A square notehead indicates a crushed bow achieved through overpressure for that rhythmic duration.

Tildes indicate an uneven fluctuation or tremolo. A single tilde is slow and three stacked tildes are fast.
All accidentals (including microtones) hold through the bar, only cancelled by a barline or another accidental.
All cent deviations for any microtones are included upon their first appearance. All microtones in this piece are gestual and therefore precision of deviation is not absolutely crucial.

Wedges indicate a gradual increase or decrease in distortion.

Circles indicate circular bowing. Bow continuously in circles moving from SP to ST and back. Do not lose contact when moving between locations. Creates a pulsing tone with intermittent airy bow noise. Each individual circle should take place over the specified rhythmic duration unless specified otherwise.

Stems with irregular wavy beaming indicate a constant fluctuation of speed; like the bow is sputtering out.

LHtr indicates a left hand trill without bowing. Result should be a quiet tapping with small shades of pitch indeterminently popping out.

## Meas. 65-End:

Ticks indicate beats to keep ensemble together while allowing flexibility in vertical alignment. Pitch changes are indicated by small half notes, rhythmic information (such as tremolo or sustain) is continuous until specified otherwise. Result should be a chaotic group smear of these gestures.

## Abbreviations:

(m/p)SP - (molto/poco) sul ponticello
(m/p)ST- (molto/poco) sul tasto
ord. - ordinario; cancels previous playing instruction, for both bow position and pressure

# entry in diary I don't keep 







Ticks indicate beats to keep ensemble together while allowing flexibility in vertical alignment.
65 Volatile; incessant $\left(\delta_{0}=70\right)^{\text {Pitch changes are indicated by small half notes, thythmic information (such as tremolo or sustain) is continuous until specified otherwise. }}$






## 3.2 everywhere all ways

# everywhere all ways 

a moving place
for clarinet, violin, violoncello, piano, and electronics

Cullyn D. Murphy
(2021)

## Composer Information

Cullyn D. Murphy (b.1993) is a composer, conductor, vocalist, and educator from Champaign, Illinois. His music has been performed and commissioned by the Longleash Trio, Fifth House Ensemble, Line Upon Line Percussion, the Thompson Street Opera Company, New Music Gathering, New Music On the Point Festival, Illinois State University's Symphonic Wind Ensemble, Louisville University Symphony Orchestra, Orchestra Enigmatic, Wm. Riley Leitch, and many others. Murphy's music has been described as "theatrical," "riveting and inventive," and "push[ing] the idea of what music and musical organization is." (Composer's Toolbox) His music draws from his experiences of playing in rock bands, participating in theatre, and reluctantly singing in choir. Recently, Murphy has been focused on amplifying the already existent musical components of sight, taste, touch, and smell in orde to gain access to different modes of storytelling through music.

Murphy received his B.M.E. in Music Education-Choral and his B.M. in Theory/Composition from Illinois State University, M.M. in Music Composition at the University of Louisville where he was a recipient of the Bomhard Fellowship, and is currently pursuing his doctorate at the University of Pittsburgh where he received the Dietrich School of Arts and Sciences Fellowship. In the fall of 2017, he co-founded AmiEnsemble (an experimental trio/composer collective) for whom he regularly composes, directs, and performs. His private studies include Roy Magnuson, Carl Schimmel, Martha C. Horst, Steve Rouse, Krzysztof Wolek, Eric Moe, Mathew Rosenblum, and Amy Williams.

Performance Information
Original performance: Unheard-of//Ensemble
Instrumentation: clarinet (in B ), violin, violoncello, piano, and electronics
Duration: c. 15'30"
Contact: cullynmurphy@gmail.com

## Program Note

The longer I have spent further away from these people the more difficult it is. everywhere all ways takes an empty room and a fills it.
Cullyn D. Murphy
Austin, Texas 2021

## Performance Index

## General Information

```
-All glissandi begin immediately and are continuous.
Arrows indicate a gradual change from one technique to another (i.e. ord \(-\gg \mathrm{mSP}\) )
Tildes indicate an uneven fluctuation or tremolo. A single tilde is slow and three stacked tildes are fast
accidentas hold hrough e bar, only cancelled by a barline or another accidental.
ar
Feathered beaming indicates an independent ritardando (beams flaring into a single beam) or accelerando (beams flaring into three beams)
Molto crescendi/decrescendi are indicated by a flared hairpin.
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## Abbreviations

```
-(m/p)SP- (molto/poco) sul ponticello
-(m/p)ST- (molto/poco) sul tasto
-ord. - ordinario; cancels previous playing instruction, for both bow position and pressure
-harm. harmonic
-flaut. flautando
```

Clarinet
-A square notehead indicates a spectral multiphonic achieved through overblowing. The thick attached line to the stem indicates a general shape for overtones. Multiple concurrent thick lines indicate optional shapes.
-An X notehead indicates a mostly breathy sound with pitch still present.
-A trill with a " +10 " above it indicates a bisbigliando trill.
-All multiphonics and dyad fingerings can be found within the score.

## Choice Operations

-Repeat Signs with a thick horizontal line attached and an "out of time" designations indicate a repetition of the material with rhythmic flexibility maintaining the general written shape based on dynami, length of phrase, or character of the section. Parentheticals indicate optional pitch event or gestural material that can be incorporated into the phrase. Players have freedom to combine these in any way they believe fits into the texture or character of the section. Players may also omit pitch events. Brackets around musical material indicate material that must be played or incorporated in a flexible way that is designated above the first bracket
brackets around dynamics indicate a range of free almost constant fluctuation between those two dynamics.
Thick horizontal lines attach Repeat Sign, Parenthetical, and Bracket material to either "in time" or "defautt" material to create a phrase of possible choices. A thick vertical line at the end indicates when that phrase (and those options) have ended. Small noteheads with a slash through them indicate an array or gesture of pitches that may be chosen within Repeat Sign, Parenthetical, or Bracket material. Ordinary noteheads should be favored while optional noteheads should be used as additional color. Not all pitches must be played.
A vertical squiggly line with arrows on the top and bottom indicates an ad lib. ongoing acciaccatura rhythm with the provided pitch collection

## Electronics

-There should be at least one microphone capturing the live sound of the ensemble throughout the performance. The audio from this microphone should be sent to the Max/MSP patch provided by the composer.
-The pianist (or any other designated ensemble member) should have three pedals corresponding to the three lines of the Electronics staff. These pedals trigger three different processing functions in the patch as follows:
Low-White Noise Swell
Middle-Amplitude Tracking Ech
High-Distorted Recordings and White Noise Arpeggiator
-Any additional descriptions or changes in these electronics are noted in the score when they occur.





4
52 Buoyantly smearing





8




### 3.3 Garrulous; Cut Up

# Garrulous; Cut Up <br> for solo speaking doublebass 

Cullyn D. Murphy
(2018-2020)

## Composer Information

Cullyn D. Murphy (b.1993) is a composer, conductor, vocalist, and educator from Champaign, Illinois. His music has been performed and commissioned by the JACK Quartet, Concrete Timbre Series, Atlantic Music Festival, New Music On the Point Festival, the Longleash Trio, the Thompson Street Opera Company, New Music Gathering, Illinois State University's Symphonic Wind Ensemble, Louisville University Symphony Orchestra, Wm. Riley Leitch, and many others. Murphy's music has been described as "theatrical," "riveting and inventive," and "push[ing] the idea of what music and musical organization is." (Composer's Toolbox) His music draws from his experiences in absurdity, theater, education, and current events.

Murphy received his B.M.E. in Music Education-Choral and his B.M. in Theory/Composition from Illinois State University, M.M. in Music Composition at the University of Louisville where he was a recipient of the Bomhard Fellowship, and this fall will be pursuing his doctorate at the University of Pittsburgh where he received the Dietrich School of Arts and Sciences Fellowship. In the fall of 2017, he co-founded AmiEnsemble (an experimental trio) for whom he regularly composes, directs, and performs. Murphy has been invited to lecture at Illinois State University and Parkland Community College. He has participated in master classes with Joan Tower, Lee Hyla, Steven Stucky, Carlos Sanchez-Gutierrez, George Lewis, Ted Hearne, Kate Soper, and Andrew Norman. His private studies include Roy Magnuson, Carl Schimmel, Martha C. Horst, Steve Rouse, and Krzysztof Wolek.

# Performance Information 

Commissioned: Will Yager
Instrumentation: Solo speaking doublebass
Duration: c. $8^{\prime} 00{ }^{\prime \prime}$
Contact: cullynmurphy@gmail.com

Program Note

Honestly, I'd rather not say.

Cullyn D. Murphy
Pittsburgh, Pennsylvania 2019 (and still in 2020)

Garrulous; Cut Up features five made up characters from archetypical situations where an audience is forced or chooses to listen to one person. Each character and situation is assigned a number and one word to assist in the performer rapidly switching from scene to scene. The performer should strive to make characters as identifably different as possible in whatever ways are manageable(i.e. voice, posture, etc.). A successful transition from character to character should have a sharp change, but with a fluid presentational sense of phrase and surface.

Cast
1-E-mail
a nervous teenager writing an email to a doctor's office. This e-mail should have been sent thirty minutes ago. It will not be sent today.
2-Party
an unneccesarily drunk man at a party. Loud and obnoxious. No sense of others. Others describe him as "he's usually not like this."

## 3-Commercial

advertisement for a pill. Her voice is uncomfortably pleasant. She suspects her sound engineer does not like her. It is Thursday.
4-Club
comedian who is mildly successful after two well-received comedy specials on Netflix. They are "edgy." Not a huge fan of Demi Lovato.

## 5-Sermon

a priest delivering a sermon. He lost his brother last Thursday.
Besides the last two pages, there are no time signatures present throughout the score. This is to help facilitate/highlight that a successful performance is not necessarily rhythmically accurate. Rather, rhythmic devices such as rhythmic units, barlines, vertical alignment, etc. should be viewed as suggestive and tools used to facilitate a series of concurring and exchanging events happening in an array of environments.

Unless specified, tempo should shift to fit the mood and sharp transition of each individual scene. Strive to make tempo similar across the same scenes/characters in an attempt to assist in making each scene and character distinct and distant.

Dashes after or before text indicate the text sounding as if it suddenly "turned on" or "turned off." "These should not sound like complete thoughts, but thoughts that have been going on or would have gone on. Like a tape player switching between tracks.

A line with a hollow triangle at the end indicates a continued out of time repetition while a wiggly line indicates out of time repetition that can be improvisatorily explored using the repeated material.


# Garrulous: Cut Up 



E-mail is slightly slow, laborious All others should be fast; just short of being frantic















# \$9 Hallmark Card an unnecessarily ornate purchase for violin duo 

Cullyn D. Murphy
(2020-2021)

## Composer Information

Cullyn D. Murphy (b.1993) is a composer, conductor, vocalist, and educator from Champaign, Illinois. His music has been performed and commissioned by the Longleash Trio, Fifth House Ensemble, Line Upon Line Percussion, the Thompson Street Opera Company, New Music Gathering, New Music On the Point Festival, Illinois State University's Symphonic Wind Ensemble, Louisville University Symphony Orchestra, Orchestra Enigmatic, Wm. Riley Leitch, and many others. Murphy's music has been described as "theatrical," "riveting and inventive," and "push[ing] the idea of what music and musical organization is." (Composer's Toolbox) His music draws from his experiences of playing in rock bands, participating in theatre, and reluctantly singing in choir. Recently, Murphy has been focused on amplifying the already existent musical components of sight, taste, touch, and smell in order to gain access to different modes of storytelling through music.

Murphy received his B.M.E. in Music Education-Choral and his B.M. in Theory/Composition from Illinois State University, M.M. in Music Composition at the University of Louisville where he was a recipient of the Bomhard Fellowship, and is currently pursuing his doctorate at the University of Pittsburgh where he received the Dietrich School of Arts and Sciences Fellowship. In the fall of 2017, he co-founded AmiEnsemble (an experimental trio/composer collective) for whom he regularly composes, directs, and performs. His private studies include Roy Magnuson, Carl Schimmel, Martha C. Horst, Steve Rouse, Krzysztof Wolek, Eric Moe, Mathew Rosenblum, and Amy Williams.

## Performance Information

Original performance: Ola Głuch and Yona Hemery
Instrumentation: violin, violin
Duration: c. $4^{\prime} 30^{\prime \prime}$
Contact: cullynmurphy@gmail.com

## Program Note

I hate buying cards. Typically I buy a $\$ 1$ card and cross out whatever it says to write what I want it to say. I'Il turn a "Happy Birthday!" card into a "Get Well Soon" card. Or a "Congrats on the baby!" card into a graduation card. But once, I tried to buy a sincere card. And unintentionally spent $\$ 9$ on it. It's a nice card, but it shouldn't have been $\$ 9$

## Cullyn D. Murphy

Champaign, Illinois 2022

## Performance Index

All glissandi begin immediately and are continuous.

Arrows indicate a gradual change from one technique to another (i.e. ord ---> mSP)

All accidentals hold through the bar, only cancelled by a barline or another accidental.
Repeat Signs with a thick horizontal line attached indicate a repetition of the material with rhythmic flexibility maintaining the general written shape based on dynamic, length of phrase, or character of the section.

Any material occuring within the thick horizontal line BEFORE the ending thick vertical line at the end indicate events that should happen within or superimposed onto that repeating phrase.

## Thoughts on the score more generally:

The score should be seen as an incredibly flexible roadmap. Performers may approach issues such as coordination, tempo, and interpretation of phrasing or gesture as loosely or strictly as is satisfying to the duo. For example, dashed vertical lines are provided to offer some suggested moments of coordination, but their precise execution are not crucial to the success of the piece.

Like time, pitch is viewed as a residual byproduct of the piece rather than something to be perfectly executed. Tapping "pitches" on strings is not written with the intention of clear melodies being produced. Not all harmonics will ring. The piece, instead, should be seen as an extreme brush stroke of fingers, bow, and violin crashing into one another.

## Abbreviations:

OB - on bridge
(m/p)SP - (molto/poco) sul ponticello
(m/p)ST- (molto/poco) sul tasto
ord - ordinario

# \$9 Hallmark Card 

Cullyn D. Murphy (2021)
. $=86-98$ Free and expressive; always energetic




3.5 DONTBESCARED

| DONTBESCARED |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Player 1 | Player 2 | Player 3 | Composite drawing |
|  | for three performers |  |  | by Cullyn D. Murphy (2019 rev. 2021) |
|  |  |  |  |  |
|  |  | Performance | Information |  |
|  | Written for: | Instrumentation: | Duration: | Contact: |
|  | Dinner Party Ensemble | White/chalkboard, drawing | 9'00" | cullynmurphy@gmail. com |
|  |  | and erasing utensils, |  |  |
|  |  | blindfolds |  |  |
|  |  |  |  |  |
|  |  | Program | Note |  |
|  | Once I was a story. | And told a different story. | Concurrently happening, | and both true. |
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|  |  |  |  |  |
|  |  | Performance | Index |  |
| Time | Drawing | Erasing | behaviors/placement | Introductory information |
|  | When standing things done | above you to be seen | When standing things done | in front of you to not be seen |
|  | Your drawing should line up | above your head with others | Your body should | cover your drawing |
|  |  |  |  |  |
|  | II/-Things done in a set time | III-Things done in a set time | III-Things done in a set time | /I/-Things done in a set time |
|  |  |  |  |  |
|  | IT IS IMPORTANT THAT | EVERYONE WILL DRAW | THE FOLLOWING ITEMS | THE SAME WAY |


$\left.\begin{array}{|c|c|c|c|c|}\hline & \text { Player 1 } & \text { Player 2 } & \text { Player 3 } & \begin{array}{c}\text { Composite } \\ \text { drawing }\end{array} \\ \hline & & \text { A bandaid } & \text { Two bicycles } & \\ \hline & & \text { A labcoat }\end{array}\right]$


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 0:13 | III | III | III |  |
| 0:14 | III | III | III |  |
| 0:15 | Erase Everything | Erase Everything | Erase Everything |  |
| 0:16 |  |  |  |  |
| 0:17 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 0:18 | III | III | III |  |
| 0:19 | Erase Everything | III | III |  |
| 0:20 |  | III | III |  |
| 0:21 | Vertical line | III | Erase Everything |  |
| 0:22 | III | I/I |  |  |
| 0:23 | III | Erase Everything | Vertical line |  |
| 0:24 | III |  | III |  |
| 0:25 | III | Vertical dashes | III |  |
| 0:26 | III | III | III |  |
| 0:27 | III | III | III |  |
| 0:28 | III | III | III |  |
| 0:29 | III | III | III |  |
| 0:30 | Erase Everything | Erase Everything | Erase Everything |  |
| 0:31 |  |  |  |  |
| 0:32 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 0:33 | III | III | III |  |
| 0:34 | To the left: Tree | I/I | I/I |  |
| 0:35 | III | III | III |  |
| 0:36 | III | III | To the right: Mile Marker |  |
| 0:37 | III | III | III |  |
| 0:38 | III | III | III |  |
| 0:39 | Erase Everything | Erase Everything | Erase Everything |  |
| 0:40 |  |  |  |  |
| 0:41 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 0:42 | III | I/I | III |  |
| 0:43 | Erase Everything | Erase Everything | Erase Everything |  |
| 0:44 |  |  |  |  |
| 0:45 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 0:46 | III | III | III |  |
| 0:47 | To the left: Cell tower | III | III |  |
| 0:48 | III | I/I | I/I |  |
| 0:49 | III | III | To the right: Tree |  |
| 0:50 | Erase Everything | III | III |  |
| 0:51 | Vertical line | I/I | III |  |
| 0:52 | III | Erase Everything | III |  |
| 0:53 | III | Vertical dashes | III |  |
| 0:54 | III | I/I | Erase Everything |  |
| 0:55 | To the left: Tree | III | Vertical line | [Making a road] |
| 0:56 | III | III | III |  |
| 0:57 | III | III | III |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 0:58 | III | III | To the right: Billboard |  |
| 0:59 | III | III | III |  |
| 1:00 | III | III | III |  |
| 1:01 | III | III | III |  |
| 1:02 | Erase Everything | Erase Everything | Erase Everything |  |
| 1:03 |  |  |  |  |
| 1:04 |  |  |  |  |
| 1:05 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 1:06 | III | III | III |  |
| 1:07 | To the left: Tree | III | To the right: Exit sign |  |
| 1:08 | I/I | I/I | III |  |
| 1:09 | Erase Everything | Erase Everything | Erase Everything |  |
| 1:10 |  |  |  |  |
| 1:11 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 1:12 | I/I | III | I/I |  |
| 1:13 | To the left: Tree | III | To the right: Stop sign |  |
| 1:14 | III | Erase Everything | III |  |
| 1:15 | III | Vertical dashes | I/I |  |
| 1:16 | III | III | Erase Everything |  |
| 1:17 | Erase Everything | III | Vertical line |  |
| 1:18 | Vertical line | III | III |  |
| 1:19 | III | III | To the right: Stop sign | [Making a road] |
| 1:20 | III | III | I/I |  |
| 1:21 | To the left: Tree | III | III |  |
| 1:22 | III | III | III |  |
| 1:23 | Erase Everything | Erase Everything | Erase Everything |  |
| $1: 24$ |  |  |  |  |
| 1:25 |  |  |  |  |
| 1:26 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 1:27 | III | III | I/I |  |
| 1:28 | To the left: Tree | III | To the right: Stop sign |  |
| 1:29 | III | In center: Waves | III |  |
| 1:30 | III | III | III |  |
| 1:31 | III | III | III |  |
| 1:32 | Dots | III | III |  |
| 1:33 | III | III | III |  |
| 1:34 | Vertical line | Vertical dashes | Vertical line | [Making a road] |
| 1:35 | III | III | III |  |
| 1:36 | To the left: Tree | III | To the right: Stop sign |  |
| 1:37 | III | In center: Waves | III |  |
| 1:38 | To the left: Waves | III | III |  |
| 1:39 | III | III | III |  |
| 1:40 | Dots | III | Dots |  |
| 1:41 | I/I | III | III |  |
| 1:42 | Vertical line | Vertical dashes | Vertical line | [Making a road] |


|  | Player 1 | Player 2 |  | Player 3 | Composite |
| ---: | :---: | :---: | :---: | :---: | :---: |
| drawing |  |  |  |  |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 2:27 | III |  | III |  |
| 2:28 | III | EraseDraw | III |  |
| 2:29 | above you draw | A tree | III |  |
| 2:30 | A car | III | Erase Everything |  |
| 2:31 | III | III |  |  |
| 2:32 | III | III | above you draw |  |
| 2:33 | I/I | above you draw | A house | [Car arriving at house two people getting out of car] |
| 2:34 | Erase Everything | A car | III |  |
| 2:35 | above you draw | III | III |  |
| 2:36 | A small stick figure next to a taller stick figure with long hair | III | III |  |
| 2:37 | III | III | III |  |
| 2:38 | III | [pause] | III |  |
| 2:39 | III |  | III |  |
| 2:40 | I/I |  | [pause] |  |
| 2:41 | III |  |  |  |
| 2:42 | [pause] |  |  |  |
| 2:43 |  |  |  |  |
| 2:44 | stand up | stand up | stand up |  |
| 2:45 | above you, ERASEDRAW repeatedly | in front of you, repeatedly | in front of you, repeatedly |  |
| 2:46 | DONT | A plus sign inside a circle | A clipboard, with a note | [blurry representations of each item, think doctor's office] |
| 2:47 | III |  |  |  |
| 2:48 | III |  |  |  |
| 2:49 | III |  |  |  |
| 2:50 | III |  |  |  |
| 2:51 | III | above you, ERASEDRAW repeatedly |  |  |
| 2:52 | III | BESC |  |  |
| 2:53 | III | III |  |  |
| 2:54 | III | III |  |  |
| 2:55 | in front of you, repeatedly | III |  |  |
| 2:56 | A stethoscope | III | above you, ERASEDRAW repeatedly |  |
| 2:57 |  | III | ARED |  |
| 2:58 |  | III | III |  |
| 2:59 |  | III | III |  |
| 3:00 |  | III | III |  |
| 3:01 |  | in front of you, repeatedly | III |  |
| 3:02 |  | A plus sign inside a circle | III |  |
| 3:03 |  |  | III |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 3:04 |  |  | III |  |
| 3:05 |  |  | III |  |
| 3:06 | pause | pause | pause |  |
| 3:07 |  |  |  |  |
| 3:08 |  |  |  |  |
| 3:09 | sit down | sit down | sit down |  |
| 3:10 |  | above you |  |  |
| 3:11 |  | Erase a horizontal line |  |  |
| 3:12 |  | III |  |  |
| 3:13 | above you | I/I | above you |  |
| 3:14 | Erase a medium circle | III | Erase a medium circle |  |
| 3:15 | I/I | III | III |  |
| 3:16 | III | III | III |  |
| 3:17 | III | III | III |  |
| 3:18 | [pause] | [pause] | [pause] |  |
| 3:19 |  |  |  |  |
| 3:20 | Erase Everything | Erase Everything | Erase Everything |  |
| 3:21 |  |  |  |  |
| 3:22 | above you | above you | above you |  |
| 3:23 | A small stick figure next to a taller stick figure with long hair | Two bicycles | Waves | [Riding two bicycles along a beach] |
| 3:24 | III | III | III |  |
| 3:25 | III | III | III |  |
| 3:26 | III | III | III |  |
| 3:27 | I/I | I/I | III |  |
| 3:28 | Erase Everything | Erase Everything | Erase Everything |  |
| 3:29 |  |  |  |  |
| 3:30 | An extended hand, wrist to the left, fingers to the right | A large rectangle with a pack of cards and playing cards inside | An extended hand, wrist to the right, fingers to the left | [Above shot of card table] |
| 3:31 | III | III | III |  |
| 3:32 | III | III | III |  |
| 3:33 | III | III | III |  |
| 3:34 | III | III | repeatedly draw |  |
| 3:35 | III | III | To the right: playing cards |  |
| 3:36 | repeatedly draw | III | III |  |
| 3:37 | To the right: playing cards | III | III |  |
| 3:38 | III | A scalpel | III |  |
| 3:39 | III | I/I | III |  |
| 3:40 | III | III | III |  |
| 3:41 | Erase Everything | Erase Everything | Erase Everything |  |
| 3:42 |  |  |  |  |
| 3:43 | Same hand, holding a fork | A large rectangle with two plates of food | Same hand holding a knife | [Above shot of dinner] |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 3:44 | III | III | III |  |
| 3:45 | III | III | III |  |
| 3:46 | III | III | III |  |
| 3:47 | III | III | A window above the hand |  |
| 3:48 | III | III | III |  |
| 3:49 | A window above the hand | Napkins next to the plates | A moon in the window |  |
| 3:50 | I/I | III | III |  |
| 3:51 | Dots | III | III |  |
| 3:52 | III | III | III |  |
| 3:53 | III | III | Dots |  |
| 3:54 | III | repeatedly draw | III |  |
| 3:55 | III | A cell tower | III |  |
| 3:56 | repeatedly draw | III | III |  |
| 3:57 | A cell tower | III |  |  |
| 3:58 | III | III | repeatedly draw |  |
| 3:59 | III | III | A cell tower |  |
| 4:00 | III | I/I | I/I |  |
| 4:01 | III | III | III |  |
| 4:02 | I/I | III | III |  |
| 4:03 | Erase Everything | Erase Everything | Erase Everything |  |
| 4:04 |  |  |  |  |
| 4:05 | Same hand, extended (no fork) | An ice cream cone with ice cream | Same hand, extended (no knife) | [Sharing Ice cream] |
| 4:06 | III | III | III |  |
| 4:07 | III | I/I | III |  |
| 4:08 | III | III | III |  |
| 4:09 | [pause] | [pause] | [pause] |  |
| 4:10 |  |  |  |  |
| 4:11 |  | above the ice cream |  |  |
| 4:12 | [player 2 draws] | An EKG line | [player 2 draws] |  |
| 4:13 |  | III |  |  |
| 4:14 |  | III |  |  |
| 4:15 |  | III |  |  |
| 4:16 |  | [pause] |  |  |
| 4:17 |  |  |  |  |
| 4:18 | Erase Everything | Erase Everything | Erase Everything |  |
| 4:19 |  |  |  |  |
| 4:20 | The stars | The stars | The moon | [Beach at evening] |
| 4:21 | III | I/I | III |  |
| 4:22 | III | III | III |  |
| 4:23 | below stars | III | below moon |  |
| 4:24 | Beach sand | Add a shooting star | Beach sand |  |
| 4:25 | III | III | III |  |
| 4:26 | I/I | below stars | III |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 4:27 | III | Water | I/I |  |
| 4:28 | on the beach | III | on the beach |  |
| 4:29 | EraseDraw | III | EraseDraw |  |
| 4:30 | Tall stick figure with long hair | III | Small stick figure |  |
| 4:31 | III | Add waves | III |  |
| 4:32 | III | III | III |  |
| 4:33 | I/I | I/I | I/I |  |
| 4:34 | between beach and stars | EraseDraw | between beach and stars |  |
| 4:35 | Waves | A horizontal line | Waves |  |
| 4:36 | III | III | III |  |
| 4:37 | III | III | III |  |
| 4:38 | III | I/I | III |  |
| 4:39 | repeatedly, EraseDraw | EraseDraw | III |  |
| 4:40 | Tall stick figure with long hair | A pill bottle | III |  |
| 4:41 | III | III | III |  |
| 4:42 | III | III | III |  |
| 4:43 | III | III | III |  |
| 4:44 | III | EraseDraw | repeatedly, EraseDraw |  |
| 4:45 | Dots | A cell tower | Stick figure |  |
| 4:46 | III | III | III |  |
| 4:47 | III | III | III |  |
| 4:48 | III | III | III |  |
| 4:49 | Waves everywhere | A line connecting all the stars | Dots |  |
| 4:50 | III | I/I | III |  |
| 4:51 | III | III | III |  |
| 4:52 | III | III | III |  |
| 4:53 | More frantic, waves cover everything | III | Waves everywhere |  |
| 4:54 | III | III | III |  |
| 4:55 | III | III | III |  |
| 4:56 | III | III | III |  |
| 4:57 | III | Waves everywhere | More frantic, waves cover everything |  |
| 4:58 | III | III | III |  |
| 4:59 | III | III | III |  |
| 5:00 | III | III | III |  |
| 5:01 | [pause] | [pause] | [pause] |  |
| 5:02 |  |  |  |  |
| 5:03 | Erase Everything | Erase Everything | Erase Everything |  |
| 5:04 |  |  |  |  |
| 5:05 |  |  |  |  |
| 5:06 |  |  |  |  |
| 5:07 | stand up | stand up | stand up |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 5:08 | above you, repeatedly | in front of you, repeatedly | in front of you, repeatedly |  |
| 5:09 | DONT | Horizontal line that starts straight, but wavers off | A doctor with a clipboard | [a blurry representation of a "missed" connection (the wavering lines) between doctor and other stick figure] |
| 5:10 | III | III | III |  |
| 5:11 | III | III | III |  |
| 5:12 | III | III | III |  |
| 5:13 | III | III | III |  |
| 5:14 | III | above you, repeatedly | III |  |
| 5:15 | III | BESC | III |  |
| 5:16 | III | III | III |  |
| 5:17 | III | III | III |  |
| 5:18 | in front of you, repeatedly | III | III |  |
| 5:19 | A tall stick figure with long hair | III | above you, repeatedly |  |
| 5:20 | III | III | ARED |  |
| 5:21 | III | III | III |  |
| 5:22 | III | III | III |  |
| 5:23 | above you, repeatedly | III | III |  |
| 5:24 | DONT | in front of you, repeatedly | III |  |
| 5:25 | III | Horizontal line that starts straight, but wavers off | III |  |
| 5:26 | III | III | III |  |
| 5:27 | III | III | III |  |
| 5:28 | III | III | III |  |
| 5:29 | III | above you, repeatedly | in front of you, repeatedly |  |
| 5:30 | III | BESC | A doctor with a clipboard |  |
| 5:31 | III | III | III |  |
| 5:32 | III | III | III |  |
| 5:33 | in front of you, repeatedly | III | III |  |
| 5:34 | A tall stick figure with long hair | III | above you, repeatedly |  |
| 5:35 | III | III | ARED |  |
| 5:36 | III | III | III |  |
| 5:37 | III | III | III |  |
| 5:38 | above you, repeatedly | III | III |  |
| 5:39 | DONT | III | III |  |
| 5:40 | III | III | III |  |
| 5:41 | III | III | III |  |
| 5:42 | III | III | III |  |
| 5:43 | sit down | sit down | sit down |  |
| 5:44 |  |  |  |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 5:45 | repeatedly, Erase |  | repeatedly, Erase |  |
| 5:46 | A medium circle around the stick figure |  | A medium circle around the doctor |  |
| 5:47 | III | above you | III |  |
| 5:48 | III | Horizontal dashes (do not waver off) | III |  |
| 5:49 | III | III | III |  |
| 5:50 | III | III | III |  |
| 5:51 | III | III | III |  |
| 5:52 | III | III | III |  |
| 5:53 | III | III | III |  |
| 5:54 | [pause] | [pause] | [pause] |  |
| 5:55 |  |  |  |  |
| 5:56 |  |  |  |  |
| 5:57 | Erase Everything | Erase Everything | Erase Everything |  |
| 5:58 |  |  |  |  |
| 5:59 | stand up | stand up | stand up |  |
| 6:00 | above you | above you | above you |  |
| 6:01 | Erase Everything | Erase Everything | Erase Everything |  |
| 6:02 | above you | above you | above you |  |
| 6:03 | draw | draw | draw |  |
| 6:04 | DONT | BESC | ARED |  |
| 6:05 | III | III | III |  |
| 6:06 | III | III | III |  |
| 6:07 | III | III | III |  |
| 6:08 | [pause] | [pause] | [pause] |  |
| 6:09 |  |  |  |  |
| 6:10 | DONT | BESC | ARED |  |
| 6:11 | III | III | III |  |
| 6:12 | III | III | III |  |
| 6:13 | III | III | III |  |
| 6:14 | [pause] | [pause] | [pause] |  |
| 6:15 |  |  |  |  |
| 6:16 |  |  |  |  |
| 6:17 |  |  |  |  |
| 6:18 | EVER | YTHI | NGWI |  |
| 6:19 | III | III | III |  |
| 6:20 | III | III | III |  |
| 6:21 | LLBE | FINE | INMY |  |
| 6:22 | III | III | III |  |
| 6:23 | III | III | III |  |
| 6:24 | LIVE | RORM | YKID |  |
| 6:25 | III | III | III |  |
| 6:26 | NEYN | NOON | EISG |  |
| 6:27 | III | III | III |  |
| 6:28 | OING | ANYW | HERE |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 6:29 | III | III | III |  |
| 6:30 | sit down | AYEA | sit down |  |
| 6:31 |  | III |  |  |
| 6:32 | above you | RAGO | above you |  |
| 6:33 | EraseDraw | III | EraseDraw |  |
| 6:34 | Tall stick figure with long hair | ITWI | A stick figure |  |
| 6:35 | III | III | III |  |
| 6:36 | III | LLBE | III |  |
| 6:37 | III | III | III |  |
| 6:38 | EraseDraw | FINE | EraseDraw |  |
| 6:39 | Tall stick figure with long hair | III | A stick figure |  |
| 6:40 | III | DONT | III |  |
| 6:41 | III | III | III |  |
| 6:42 | III | BESC | III |  |
| 6:43 | EraseDraw | III | EraseDraw |  |
| 6:44 | Tall stick figure with long hair | ARED | A stick figure |  |
| 6:45 | I/I | III | III |  |
| 6:46 | III | DONT | III |  |
| 6:47 | III | III | III |  |
| 6:48 | in all different locations draw, as fast as possible | BESC | in all different locations draw, as fast as possible |  |
| 6:49 | A tree | III | A car |  |
| 6:50 |  | ARED |  |  |
| 6:51 |  | III |  |  |
| 6:52 | A cell tower | DONT | A billboard |  |
| 6:53 |  | III |  |  |
| 6:54 |  | BESC |  |  |
| 6:55 | A wave | III | A cell tower |  |
| 6:56 |  | ARED |  |  |
| 6:57 |  | III |  |  |
| 6:58 | A cell tower | sit down | An exit sign |  |
| 6:59 |  | everything very big |  |  |
| 7:00 |  | A bandaid |  |  |
| 7:01 | A car |  | A stop sign |  |
| 7:02 |  |  |  |  |
| 7:03 | A wave | A labcoat | A wave |  |
| 7:04 |  |  |  |  |
| 7:05 | A cell tower |  | A cell tower |  |
| 7:06 |  | A stethoscope |  |  |
| 7:07 | A house |  | A house |  |
| 7:08 |  |  |  |  |
| 7:09 | A small stick figure next to a taller stick figure with long hair | A plus sign with a circle around it | Two bicycles |  |


|  | Player 1 | Player 2 |  | Player 3 |
| ---: | :---: | :---: | :---: | :---: | :---: |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 7:51 | III | III | III |  |
| 7:52 | III | III | III |  |
| 7:53 | III | III |  |  |
| 7:54 | [pause] | [pause] | [pause] | [at this point, the whole board should be covered with chalk/ ink] |
| 7:55 |  |  |  |  |
| 7:56 |  |  |  |  |
| 7:57 |  |  |  |  |
| 7:58 | Erase Hole In Center | Erase Hole In Center | Erase Hole In Center |  |
| 7:59 |  |  |  |  |
| 8:00 |  |  |  |  |
| 8:01 | in the center | in the center | in the center |  |
| 8:02 | Tall stick figure with hair | A horizontal line | Stick figure |  |
| 8:03 | III | III | III |  |
| 8:04 | III | III | III |  |
| 8:05 | III | III | I/I |  |
| 8:06 | III | III | III |  |
| 8:07 | III | III | I/I |  |
| 8:08 | [pause] | [pause] | [pause] |  |
| 8:09 |  |  |  |  |
| 8:10 |  |  |  |  |
| 8:11 |  | remove blindfold |  |  |
| 8:12 |  |  |  |  |
| 8:13 |  |  |  |  |
| 8:14 | [player 2 is erasing, pause continue for ten seconds] | Erase stick figure to the left | [player 2 is erasing] |  |
| 8:15 |  |  |  |  |
| 8:16 |  |  |  |  |
| 8:17 |  |  |  |  |
| 8:18 |  | Slowly Erase Everything | remove blindfold |  |
| 8:19 |  | III |  |  |
| 8:20 |  | III |  |  |
| 8:21 |  | III |  |  |
| 8:22 |  | III |  |  |
| 8:23 | remove blindfold | I/I |  |  |
| 8:24 |  | III |  |  |
| 8:25 |  | III |  |  |
| 8:26 |  | III |  |  |
| 8:27 |  | I/I |  |  |
| 8:28 |  | III |  |  |
| 8:29 |  | III | Slowly Erase Everything |  |
| 8:30 |  | III | III |  |


|  | Player 1 | Player 2 | Player 3 | Composite drawing |
| :---: | :---: | :---: | :---: | :---: |
| 8:31 |  | III | III |  |
| 8:32 | Slowly Erase Everything | III | III |  |
| 8:33 | III | III | III |  |
| 8:34 | III | III | III |  |
| 8:35 | III | III | III |  |
| 8:36 | III | III | III |  |
| 8:37 | III | III | III |  |
| 8:38 | III | III | III |  |
| 8:39 | III | III | III |  |
| 8:40 | III | III | III |  |
| 8:41 | III | III | III |  |
| 8:42 | [piece ends] | [piece ends] | [piece ends] |  |









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"Visual Rhythm." Sacramento: CCSESA Arts Initiative, 2015.


[^0]:    ${ }^{1}$ Although Walshe does admit many New Discipline pieces do share similar themes and topics.
    ${ }^{2}$ Walshe, Jennifer. "The New Discipline." MILKER CORPORATION, 2013. http://milker.org/the-new-discipline.
    ${ }^{3}$ Walshe, Jennifer. "Ghosts of the Hidden Layer." Web log. MILKER CORPORATION (blog), 2018. http://milker.org/ghosts-of-the-hidden-layer.
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    ${ }^{5}$ Walshe, Jennifer. "The New Discipline." MILKER CORPORATION, 2013. http://milker.org/the-new-discipline.

[^1]:    ${ }^{6}$ Elevated in this case, because I believe Walshe would like us to also acknowledge that this has always in some way been the case even for earlier musics.

[^2]:    ${ }^{7}$ University of York. "Is there a universal hierarchy of human senses?." ScienceDaily, 2018. www.sciencedaily.com/releases/2018/11/181105160852.html.

[^3]:    ${ }^{8}$ Heidegger, Martin. The Question Concerning the Thing: On Kant's Doctrine of the Transcendental Principles. London, England: Rowman \& Littlefield, 2018.
    ${ }^{9}$ Brown, Bill. "Thing Theory." Critical Inquiry 28, no. 1 (2001): 1-22. http://www.jstor.org/stable/1344258. ${ }^{10}$ Serres, Michel. Statues: Le Second Livre Des Fondations. Paris, France: Francois Bourin, 1987.
    ${ }^{11}$ Brown, Bill. Big Think Interview with Bill Brown. Other. Big Think, 2012. https://www.youtube.com/watch?v=W41fUUbPnOw.

[^4]:    ${ }^{12}$ Rettler, Bradley, and Andrew M. Bailey. "Object." Stanford Encyclopedia of Philosophy. Stanford University, October 26, 2017. https://plato.stanford .edu/entries/object/.

[^5]:    ${ }^{13}$ Schaeffer, Pierre. Traité Des Objets Musicaux: Essai Interdisciplines. Paris, France: Éditions du Seuil, 2002.
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    ${ }^{16}$ Roads, Curtis. Microsound. Cambridge, MA: MIT Press, 2004.
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[^6]:    ${ }^{18}$ Bernstein, Robin. Racial Innocence: Performing American Childhood and Race from Slavery to Civil Rights. New York, NY: NYU Press, 2011.

[^7]:    19 "Visual Rhythm." Sacramento: CCSESA Arts Initiative, 2015.
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[^8]:    ${ }^{21}$ Peters, John Durham. The Marvelous Clouds: Toward a Philosophy of Elemental Media. Chicago, IL: The University of Chicago Press, 2016.

[^9]:    ${ }^{22}$ Chion, Michel. L'audio-Vision: Son Et Image Au cinéma. Malakoff, France: Armand Colin, 2021.
    ${ }^{23}$ Bernstein, Robin. Racial Innocence: Performing American Childhood and Race from Slavery to Civil Rights. New York, NY: NYU Press, 2011.
    ${ }^{24}$ Not to be confused with the absence of sound or interruption of motivic material, etc.

[^10]:    ${ }^{25}$ Kim-Cohen, Seth. In the Blink of an Ear: Toward a Non-Cochlear Sonic Art. New York, NY: Bloomsbury Academic \& Professional, 2014.

[^11]:    ${ }^{26}$ Walshe, Jennifer. "Aisteach." MILKER CORPORATION. Accessed March 7, 2023. http://milker.org/aisteach. ${ }^{27}$ Walshe, Jennifer. "An Introduction to Grúpat." MILKER CORPORATION. Accessed March 7, 2023. http://milker.org/anintroductiontogrupat.

[^12]:    ${ }^{28}$ Saunders, James, and Jennifer Walshe. Interview with Jennifer Walshe. Other. James Saunders, 2009. https://www.james-saunders.com/interview-with-jennifer-walshe/.
    ${ }^{29}$ Walshe, Jennifer. Physics for the Girl in the Street. Dublin: 2007.

[^13]:    ${ }^{30}$ Saunders, James, and Jennifer Walshe. Interview with Jennifer Walshe. Other. James Saunders, 2009. https://www.james-saunders.com/interview-with-jennifer-walshe/.
    ${ }^{31}$ Ibid.
    ${ }^{32}$ As can be found through additional recordings uploaded on YouTube.
    ${ }^{33}$ This and many other prompts in Physics ask the voice to listen to the percussion (and vice versa) and recreate the sounds they hear produced by those specified actions using their own instrument.

[^14]:    ${ }^{34}$ In the score it is also indicated that the tape recordings feature characters named Caro, Grandad, Emily, Mum, and Hester. Also, a tempo indication at $15^{\prime} 03^{\prime \prime}$ indicates that the voice should emulate a Swiss shepherd.
    ${ }^{35}$ Which may or may not resemble the performance environment.
    ${ }^{36}$ More on this timing notation later.
    ${ }^{37}$ Cagney, Liam. "The Texture of Being Alive." VAN Magazine, December 12, 2022. https://van-magazine.com/mag/jennifer-walshe/.

[^15]:    ${ }^{38}$ Ibid.
    ${ }^{39} \mathrm{Pg} .12$.

[^16]:    ${ }^{40}$ Walshe requests that electric candles be used.
    ${ }^{41}$ In the score, Walshe refers to flashlights as torches as is common in the UK.

[^17]:    ${ }^{42}$ While further analysis of this is outside of the scope of this project, it will also eventually be my goal to provide a framework detailing how this in turn effects our understanding and interaction with typical musical objects as well. ${ }^{43}$ Voithofer, Monika. "‘That It's Not Too Late for Us to Have Bodies' Notes on Extended Performance Practices in Contemporary Music." Music and Practice, 2018. https://www.musicandpractice.org/volume-6/notes-on-extended-performance-practices-in-contemporary-music/.

[^18]:    ${ }^{44}$ These timestamps are indicated through a standard sexagesimal counting system where 7 ' 45 " would indicate when 6 minutes and 45 seconds have passed (accounting for the fact that the piece starts when the stopwatch reaches at $1^{\prime} 00$ ").

[^19]:    45 *Asterisks my own to indicate objects that are silent, or audible only to the performer.
    ${ }^{46}$ Walshe indicates that the "Three glasses ( $\mathrm{a}, \mathrm{b}, \mathrm{c}$ )" are to be three different sizes of glass.

[^20]:    ${ }^{47}$ In Walshe's piece $X X X$ _LIVE_NUDE_GIRLS!!!!, Walshe uses the stories young girls tell when playing with their Barbies as a way of exploring memory and absurdity. In her program notes for the piece, Walshe describes a series of disorienting recollections told by children and adults such as, when playing with their Barbie, "she may become pregnant 'without knowing it' and leave the baby to die on the kitchen table after she gives birth because 'she wants to go dancing.'"
    ${ }^{48}$ Synchresis is a term developed by Michel Chion to decribe the effect of incongruous audio with video. In his book AudioVision, Chion primarily focuses on how this plays out in film.

[^21]:    ${ }^{49}$ Such as the rolling pin on the drumhead. It is important to make this distinction from "silent" as these are also sounds that the audience may experientially know are possible to hear, and may inform the improvisational sections for those performers who can hear these sounds.
    ${ }^{50}$ For simplicity's sake, a traditionally musical object may also include the musicians as "performers" more generally. For example, in this analysis I also view the moment in Physics where the vocalist seemingly pulls a streamer out of her mouth as an instance of a traditionally musical body activating a traditionally non-musical object.

[^22]:    ${ }^{51}$ Chion would refer to this type of listening as Causal Listening, meaning listening to a sound in order to gain information about its cause.

[^23]:    ${ }^{52}$ Such as the synchresis and subsequent assimilation of the snare and tambourine rolls lining up with the visual appearance of the knallteufel.

[^24]:    ${ }^{53}$ Measure is to be referred to any general vertical alignment of barlines. Although, in Physics, these barlines rarely start and end simultaneously, and are never numbered in any conventional way.

[^25]:    ${ }^{54}$ Especially in a percussion-heavy piece where even the less experienced audience member will likely be more comfortable seeing traditionally non-musical objects being used in musical situations, and the logic of Physics itself tempers the potential surprise of glow-stick drumming or dealing playing cards onto a marimba.

[^26]:    ${ }^{55}$ Saunders, James, and Jennifer Walshe. Interview with Jennifer Walshe. Other. James Saunders, 2009. https://www.james-saunders.com/interview-with-jennifer-walshe/.
    ${ }^{56}$ Voithofer, Monika. "'That It's Not Too Late for Us to Have Bodies' Notes on Extended Performance Practices in Contemporary Music." Music and Practice, 2018. https://www.musicandpractice.org/volume-6/notes-on-extended-performance-practices-in-contemporary-music/.

[^27]:    ${ }^{57}$ See George Crumbs' Black Angels, Eriks Esenvalds Stars, or David Maslaka's A Child's Garden of Dreams among many others.

[^28]:    ${ }^{58}$ Similar sine-tone like sounds have been historically used to represent light such as Ligeti's opening setting of the word "lux" (meaning light) in his Lux Aeterna.
    ${ }^{59}$ There is an indication for crystal glasses to be used at $12 \prime 59^{\prime \prime}$ as well, but in the recording, it appears that this has been substituted for whistling of the same written pitches.

[^29]:    ${ }^{60}$ Not only is this Walshe's first inclusion of harmony in Physics, but it is also her first inclusion of time signatures. By avoiding these two traditionally musical elements for the first thirty minutes of the piece, Walshe has made these traditional features of a musical composition surprising.

[^30]:    61 "Light and Darkness ." Encyclopedia of Religion. Encyclopedia.com. (November 29, 2022). https://www.encyclopedia.com/environment/encyclopedias-almanacs-transcripts-and-maps/light-and-darkness

