Object Dialogues

by

Benjamin Wylie

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Name:	**Benjamin Wylie**
Degree:	**Master of Fine Arts (Interdisciplinary Studies)**
Title:	**Object Dialogues**
Examining Committee:	**Chair:** Arne Eigenfeldt Professor
	Owen Underhill Senior Supervisor Professor
	Steven Hill Supervisor Associate Professor
	Christopher Butterfield External Examiner Associate Professor School of Music University of Victoria
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Abstract

Object Dialogues is a composition for 13 performers that consists of a series of composed actions and events that explore the musicality of non-musical actions, the perception of space, the visualization/sonification of natural cycles such as heart beats or breathing, the objectification of instruments, and the instrumentalization of objects. Throughout the piece, the performers interact with a number of objects, ranging from the exotic to the banal, revealing the performative potential of the things that surround us. The performance venue is continuously shaped and re-shaped through shifting light, moving sound, mobile performers, and both vertical and horizontal spatialization. The intended result resembles a living space, changing and reacting to external factors imposed upon it. This examination of how light and sound interact with space, blurs the lines between theatre, performance art, and contemporary music; as compositional material is expanded to include actions beyond those traditionally considered to be "musical".

Keywords: music composition; microtonal music; contemporary theatre

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Chapter 1.

Defence Statement

Overview

In many ways, *Object Dialogues* can be thought of as a petri dish of ideas. By placing these diffuse and varied ideas into a container and creating a situation in which they interact with one another, unexpected connections and relationships are created. Many of these ideas have deep and complex structures underpinning them and it is within this dialogue of sound, light, objects, space, and performers that these structures coalesce into a complete perceptual experience. The process of composition reflects this idea of the 'petri dish', as multiple test pieces were written in order to develop material and test out particular ways of working with light, space, and sound. The result of this process was that each individual concept began to develop its own structural complexity that was further compounded when brought into contact with the other aspects of the composition. This stacking of structures creates a situation that is not dissimilar to a living thing, in which processes and cycles both seen and unseen interact to create a whole.

The varied approach to composing with sound, light, and space creates a new kind of perceptual hierarchy that does not fit into either the sound-focus of the concert or the visual-focus that is generally found in theatre. The goal of *Object Dialogues* was to create an experience that goes beyond the standard boundaries of music or theatre, towards a kind of performance that embraces a pure and multisensory experience of space. The audience is not required to engage in any way other than their own immediate perception. No meaning is intentionally communicated, no narrative is included, nothing but the processes and structures are provided by the composer. The associations one inevitably brings to the performance inform this experience, but this aspect is left entirely to the audience. The experience is analogous to a walk through a forest on a well-maintained pathway. You are being guided through a landscape shaped by numerous visible and invisible processes, but the path through this environment is not under your control and the perceptual connections made between the various elements are shaped not by the land itself but rather the walker's personal experience of it.

In this statement, each of the main ideas of the piece is broken down into their constituent parts and examined, in order to shine some light on the visible and invisible processes contained within. By exploring some of the structures that create the complete experience, it becomes possible to see this performance not as a series of interlocking parts. It is also useful to set up some basic parameters and terms with which to think about these various concepts. The piece is separated very roughly into three 'movements' with an extended coda. These movements will be referenced throughout this statement. The first movement is between 10:00 and roughly 26:00 in the score, the second movement is from 26:00 until 39:00, the third movement is between 39:00 and 50:00, and the coda begins at 50:00 and continues until the end of the piece. Each of these movements explores a different set of ideas and concepts that inform one another.

Harmony

The harmonic structure of this piece relies on the use of just intonation to organize the pitch material. Large scale harmonic momentum is created through both gradual and sudden movement between different fundamentals as well as smaller gestures that move between simple ratios and more complex harmonic relationships. These approaches to harmonic activity do not differ tremendously from traditional concepts of key areas, tension, and release. The use of more complex harmonic ratios results in more dissonance that contrasts with the consonance of simpler ratios, creating an analogous relationship with the tension and release of traditional harmonic progression. Exploring this aspect of the piece provides some insight into one of the structures that form the backbone of *Object Dialogues*.

The basic harmonic structure of *Object Dialogues* can be summed up in a simple series of notes: C-D-F-D-A-G-F-Bb. These notes constitute the generating pitches that are used to create the large scale tonal areas explored throughout the piece. It is potentially illuminating to explore one of these tonal areas in detail and explore how harmonic motion is created on a microscopic, moment-to-moment level before exploring how this concept is dealt with on a larger scale. The first harmonic area in the piece is based on C, and is first presented to the audience through sine tones recorded onto tape loops which are played through each of the 9 tape recorders involved in the piece. The audience walks into a space which is already activated by these pitches, subtly introducing them to the harmonies that will dominate the first five minutes of the

performance. The pitches recorded onto the tapes are C, D +4, E -14, F +51, G +2, and Bb -31[1]. These pitches can be explained either as partials of C, in which case they would be the 1st, 9th, 5th, 11th, 3rd, and 7th partials or to state the same concept in a different way, they could be explained via ratios in which case they would be 1/1 (C), 9/8 (D), 5/4 (E), 11/8 (F), 3/2 (G), and 7/4 (Bb). These pitches are then reinforced via the clarinets performing timbre trills on the same notes. At 11:00 in the score, the clarinets are joined by the saxophone and trombone, who play F +50 (~11/8), G (3/2), D (9/8), Bb -31 (7/4), F -31 (~21/16), and E -14 (5/4). While the sax and trombone continue to reinforce the simpler ratios, the clarinets begin to venture away from them into more complex relationships. Through their ascending and descending scalar gestures, the clarinets add the pitches A -50 (~13/8), B (~15/8), C# (17/16), Eb (19/16), A (27/16), B +50 (31/16), C +50 (33/32), and D +50 (37/32) to the collective harmonic field. This results in a growing tonal complexity, pushing the music forward by moving away from the simpler harmonies while maintaining a gestural similarity that results in a kind of harmonically active but gesturally static texture. This is followed at 11:30 in the score by the addition of the players on the lower floor blowing over bottles, which are tuned to the same pitches as the tapes, but in a lower octave. The winds then have their pitches reduced to E (~5/4), Bb (~7/4), B (~15/8), D (9/8), C +50 (33/32), and A (27/16) in the clarinets and F +50 (11/8), D (9/8), and G (3/2) in the sax and trombone. This continues until the winds fade out by 13:00 in the score, leaving the bottles alone. This completes a movement back towards simple ratios that have a much closer relationship to the generating tone. The final section of this tonal area is triggered by the guitars, who fade in on C and A and then move up the respective harmonic series of those notes. This can be viewed either as a mixture between the harmonic areas of C and A or as one guitar playing the higher partials of C while the other plays the lower partials. This is all played with an extremely slow delay on the guitars, resulting in a wash of harmonic material that moves from rather simple harmonic relationships into very complex ones that eliminate any perceptual connection to the generating pitch. This texture melts into the first truly random section of the piece at 14:30, in which the pianist creates feedback with transducers on the inside of the piano, concluding the opening section and ending the C tonal area. When the gestures of this section are discussed generally, it is possible to

1 Whenever a number is included alongside a pitch, it refers to the difference from equal temperament in cents

describe the movement as starting with simple harmonic relationships, moving to more complex ones, then returning to simple relationships before again becoming more complex until the harmony essentially 'explodes' into the random tones created by feedback. It would be impossible to discuss the harmonic minutiae of every section in the piece, but the same forces that drive the harmonic motion in this opening section dictate the approach which is taken in every other part of the piece. Throughout *Object Dialogues* the transformations between simple and complex harmonic relationships define the small-scale momentum.

The large scale shifts between harmonic areas are comparatively simple when evaluated next to the microscopic harmonic changes. There are only a few of these large scale changes, and the transitions between them vary from instantaneous to almost imperceptible. Similarly to the examination of microscopic harmonic changes, it is possible to gain a greater understanding of one of the structural cores of the piece by examining how some of these harmonic developments occur. The first transition is a very subtle shift from the tonal area of C to D, this occurs between 13:30 and 16:00 in the score. This change is disguised by one of the few places in the piece which cannot be analyzed harmonically: the section from 14:30 to 15:30 where the pianist is creating feedback. This texture serves as a bridge between these two tonal fields, and when the D area begins to reveal itself, it is through relatively simple harmonic relationships that disguise themselves by being orchestrated onto high, noisy string harmonics, further blurred by harmonicas and random high harmonics on monochords. In fact there is no obvious relationship to a fundamental revealed in this section until 17:30 in the score, in which D is heard only briefly before the next large harmonic shift occurs. This transition happens at 18:00 in the score, moving from the tonal area of D into F. This change is very sudden, as all of the players except for the winds and the piano stop playing, being cut off by the abrupt entrance of ordinary piano notes for the first time in the piece. This move is anticipated at 17:50 by the winds joining the rest of the ensemble on F while the rest of the players continues to reinforce D. This new harmonic area is continued through the piano, winds, and eventually electric guitar until the next transformation takes place between 19:30 and 20:00. The final large scale harmonic transition that will be discussed is the shift that signals the end of the first 'movement', in between 25:50 and 26:30. This transition is rather simple, after a final, cadential crescendo with the entire ensemble on D, the tapes are left alone. The tapes are playing the same timbral

variations on D that characterize the section between 24:30 and 25:50, before transitioning to the next harmonic area: A. The tapes begin this transition by switching from those timbral variations to a recorded string figure on A as well as random melodies built on the harmonics of A. This typifies another type of large-scale transition that is used throughout the piece, the use of pivot notes or pitches that can function in both of the harmonic areas that surround them. Because the relationship between D and A is that of a perfect fifth, or a 3/2 ratio, many of the pitches in the harmonic series of A can be understood as higher partials of D[2]. So when the tapes begin to play material from the latter tonal area, it does not become immediately apparent that a harmonic transition has occurred. This change is only solidified when the tape recorders join the texture, reinforcing the new tonal area through sine tones tuned to the 3rd, 5th, 7th, 9th, and 11th partials of A. The rest of the large scale harmonic transitions do not function all that differently from those described here, and one could use the information presented above to analyze those transitions using similar ideas of sudden changes, pivot notes, and the use of 'masking' material such as noise to blur the lines between harmonic areas.

Rhythm

There are a number of parallels that can be drawn from a comparison between how harmony and rhythm are used in *Object Dialogues*. One of the main interests in using just intonation as an organizer of pitch material is that it relies on the 'natural' intervals of the harmonic series. That interest in the 'natural' vs. the 'artificial' is one of the main concerns in this piece and manifests itself through harmony, rhythm, and the general philosophy of the composition. One notices when examining the score that there is not a single traditional rhythm; no eighth notes, quarter notes, half notes, etc. All of the rhythmic energy in the piece is derived from the players' inherent musicality, subtle notational suggestions, or through what will be referred to as 'embodied rhythms'. What is meant by an embodied rhythm is rhythmic material that is derived from natural, cyclical processes in the body such as heartbeats, breathing, or walking. These are treated as generators of rhythmic content, as the players use these cycles to trigger sonic or visual events. These processes tend to fall into fast rhythms like the heartbeat

2 i.e. the 9th partial of D (E +4) can be understood as the 3rd partial of A. Another example is the 21st partial of D (G -29) can be understood as the 7th partial of A, and so on

or comparatively slow rhythms such as breathing, allowing for rhythmic variety. Of course there is no way to predict the exact rhythms that these processes will result in, but by using the performers bodies as the source of rhythmic material the audience is invited to view these performers as not just conduits for sound but also as people projecting the hidden processes of their bodies into the space through both sound and light. These different approaches to rhythm are often not separated from one another, but rather interact to create a space that is excited by many of these different rhythmic identities simultaneously.

During the first 'movement', from the beginning up until 26:00 in the score, most of the rhythmic material comes from a combination between subtle rhythmic suggestions provided by the notation, filtered through the performers' musical inclinations. In this part of the piece, the players are generally provided either with one gesture to repeat or a selection of gestures that they are encouraged to switch between randomly. The result of this type of rhythmic practice is that the players improvise the minute rhythmic details, often changing and modifying their approach to the gestures from moment to moment. This idea is similar to Horatiu Radulescu's concept of 'sound plasma', in which all musical elements are constantly in flux. However, where Radulescu used this concept to refer to all elements of performance (timbre, rhythm, melody, harmony, etc), in *Object Dialogues* this fluidity tends to focus on rhythm and timbre, with pitch remaining mostly fixed. This part of the piece also includes embodied rhythms that are well hidden, as the guitarists and auxiliary performers use their breath to determine the speed of volume adjustments on their tape recorders[3]. Embodied rhythms are also naturally a part of sections in which the performers are instructed to use their breath, such as when the performers are blowing over bottles or performing on a wind instrument. These rhythms are controlled entirely by how big of a breath each performer takes and necessarily changes according to their lung capacity.

The second 'movement' in the piece, from roughly 25:50 to 39:00 in the score, relies almost entirely on embodied rhythms for the rhythmic vocabulary. Throughout this section of the piece, the performers use their heartbeats or their breath to trigger visual events, such as the turning on/off of lamps or flashlights, as well as sonic events such as tapping their heartbeat on a table or playing certain notes based on their heartbeat.

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3 20:00 – 24:00 in the score

There is also an interesting dialogue between the visually recognizable gesture of putting one's finger on their pulse to count their heartbeat versus the invisibility of breath as a generator of rhythmic events. When one sees someone counting their heartbeat and notices that actions are being undertaken according to this, there is a relationship created between that formerly invisible process and the result. It is also interesting to bring up the use of artificial rhythms in this section of the piece, as can be found in the beeping sine tones from roughly 32:23 – 33:30. Up until this point in the movement the performers are using their embodied rhythms to create visual events, but when the performers begin to use their pulse to trigger sonic events such as the piano at 32:45, these artificial rhythms create a dialogue between predetermined, static rhythms and the blurry, unsteady rhythms of the heartbeat.

The third 'movement' of the piece, from 39:00 – roughly 50:00, returns to a combination between notational suggestion of rhythm, the players' musicality, and embodied rhythms. The difference in this section of the piece is that while the first movement focused entirely on sound, the second movement focused largely on light. The third movement makes no distinction between these two elements, freely combining embodied rhythms that trigger sound or light as well as musical gestures that surround and envelop these hidden processes. This leads into the final section, from 50:00 until the end in which the players footsteps, and improvisatory inclinations control the rhythmic elements.

Light

The use of light in *Object Dialogues* is concerned with a few different aspects of this medium, the 'object-ness' of lighting instruments such as lamps or flashlights, the interaction between light and an observer's perception of space, and the use of light as a means to visualize the aforementioned embodied rhythms. In most instances, when one goes to a theatre performance or any other situation in which lighting is done by a professional or which otherwise involves the use of light in the service of performance, it is extremely common to take the lights themselves for granted. One does not spend much mental energy thinking about the lights themselves, the attention is instead focused on the lights' effects and how they serve the action on stage. *Object Dialogues* seeks to upend that relationship, by making the audience aware of both the effects of the lighting instruments as well as the rather simple instruments themselves. When one

sees a pattern of colored light, it is not a mystery how this effect is created. The audience member can simply look at the violin or viola and see that they are pointing a flashlight through another object in order to refract the light. This creates a relationship between the observer and the performer in which no suspension of disbelief is required, all of the visual effects are practical and can be easily deciphered, allowing the audience member to contemplate both the method and the result. Another aspect of how light is used in this performance is to effect the audience's experience of the space itself. When the performers first begin to interact with the lamps as instruments (27:00), they are counting their heartbeats and turning the lamps on or off accordingly. What happens perceptually in these instances is that the space begins to morph visually, whereas previously it had only been changed sonically. As parts of the room are illuminated or covered in darkness it becomes more difficult to visually perceive the size of the room. The semi-random nature of these first introductions to light as an element of the composition are contrasted later in the piece (namely 32:00 – 32:23 and 37:00 – 38:30) where specific times are provided to turn the lamps on or off, resulting in coordinated changes in the visual architecture. Finally, the use of light to visualize the aforementioned embodied rhythms initially is done to make those cycles rise to the surface of the piece, as the audience first encounters a perceptible version of these rhythms when the performers begin to interact with the lamps at 27:00. This can be thought of as a way to visualize the 'natural' (heartbeats) through the 'artificial' (lamps). This continues throughout the piece, by using both heartbeats and breath to control the flashlights, prisms, colored bottles, and lamps; resulting in a visual space influenced by natural cycles but created through wholly artificial means. Another aspect of this relationship between the embodied rhythms and the lights is the ability to create musical gestures that function entirely in the visual realm. A good example of this is between 37:25 and 38:30 in the score. This gesture consists of the performers turning their lamps off with each heartbeat, then every second, then every third, fourth and eventually fifth heartbeat. The result of this is a ritardando of light, as the space between each action grows longer, resulting in a compositional gesture that exists almost entirely in the visual realm but can be thought of as coming from a strictly musical way of thinking.

Objects

As the title might suggest, an important idea in this piece is the relationship that objects have with the world, people, and each other. The objects chosen in this piece are deliberately low tech and are often effectively obsolete, such as the reel to reel tape recorder or the large ensemble of cassettes. The initial idea of using objects as instruments in this piece was formed while thinking about the differences between the practice of so-called 'western art music' and popular music. One of the main divergent points was what seemed to be the idea of the 'final product'. To generalize, it seemed that a majority of popular music practices viewed the recording as final product, whereas 'art music' tended to view the concert as the best way to experience the music. There are many differences between these two approaches but the most salient point is that a recording is capable of being a purely sonic experience, whereas the performance is inherently visual as well as sonic. When one attends a concert of classical music, it is not only the music that is being experienced but also the interaction between the performers, their instruments, the space, the light, and the audience. It quickly becomes an experience not capable of being recreated through sound alone, and there is much to be gained from watching a performance of classical music and examining the subtle language of cues between chamber musicians or the techniques being used on the instruments or the reactions of fellow audience members and so on. The concert experience is one that is extremely multidimensional and it is from that experience that the idea to use objects as instruments was born. The aforementioned experience of lights in a theatre creates an analogue for the use of cassette tapes as well. Take for example, a concert of electroacoustic music. In a concert such as this, one does not pay attention to the speakers themselves; they become conduits for sound, blank canvasses upon which the electronic composer paints their sonic picture. The audience pays no mind to the mesh covering the speaker cone, or the shade of black which they've been painted, we merely accept them as the creators of sound and put it out of our mind in order to focus on the composition itself. In *Object Dialogues*, this idea is again subverted. Cassette tape recorders do not offer the 'blank-ness' of ordinary speakers, one does not look at a cassette tape in 2016 and ignore the fact that this technology has long been surpassed. The object cannot escape its associations via removal from the world and placement within a concert hall performance setting. Due to this, the audience is immediately aware of both the sound being produced and the object producing it. This

is compounded by the use of timbrally simple material on the cassettes themselves. For a large section of the piece, the tapes only play either sine tones or overtone melodies. The result of using this extremely simple sonic material is that the small speakers of the recorders as well as the unavoidable noise of recording onto tape massively affect the timbre of the sonic material. In a sense, when listening to a sine tone recorded on tape and played through an old portable tape recorder, you are not only hearing the original tone but also all of the sonic detritus that the recording process adds. So the object-ness of the tapes affect both the visual and sonic relationship the audience has with the material being presented.

It would also be potentially illuminating to discuss the final gesture of the piece, and how it brings all of the concepts explored into a single audio-visual gesture. The piece concludes with all of the players placing prisms on the reels of a reel to reel tape recorder, with flashlights pointing through them, before pressing play and creating a kind of rotating “dream machine” not far removed from the mobiles used to put babies to sleep or make children feel less afraid of the dark. This gesture brings the three main concepts of *Object Dialogues* together: light, sound, and objects. Similarly to the relationship created with the cassettes, the audience's experience of an even deader technology immediately makes them aware of the object-ness of the sonic material, alongside the bringing together of all of the light producing objects (save for the lamps). The same idea of hearing the tape detritus that informed the use of sine tones also informs the musical material here. The sound is simply a music box recorded onto a 1/4” reel but played at 1/3 of the original speed, resulting in a dreamy, almost gong-like sound. This is the only point in the piece in which light, sound, and object are in dialogue with each other in such a close way.

Space

The final major concept to be explored in this breakdown of *Object Dialogues* is the usage of space, both sonic and visual. This piece was written with a very unique venue in mind: the Fei and Milton Wong Experimental Theatre at Simon Fraser University. This is an extremely large performance space (approximately 5,000 sq. ft.), encompassing three levels and a very wide performance area. Vertical spatialization of sound and light as well as the more familiar horizontal spatialization are used throughout the piece to exploit all the possible spatial possibilities of this unique space.

Spatialization was one of the main concerns when crafting the gestures in the piece and due to the setup of the performers, these concerns are intimately tied into every orchestrational decision. In order to explore how this aspect of the piece manifests itself, it can be useful to examine a couple of gestures to see this idea in practice.

The use of spatialization in *Object Dialogues*, similarly to how the large scale harmonic transitions occur, can be generally separated into two categories: subtle and sudden. The space is either suddenly shifted and changed or subtly filled out or reduced until the audience's attention is focused on a small part of the venue. One example that illustrates the latter approach can be found in the first five minutes of the piece. The performance starts, as mentioned previously, with the nine tape players playing tape loops. The result of this is that the audience enters a space that is largely static. It is perceptible that the different tones are coming from different places in the room but there is no change in the locations of the sounds. This changes when the clarinets first enter. These instruments are placed on opposite sides of the third floor (a techinical level at the top of the room above the audience), and when they begin to play the attention is immediately directed towards both the verticality of the space. This is then filled out from behind and above the audience by the saxophone and trombone. The next major spatial shift occurs when the players with bottles begin to sound, first from underneath the audience and then, as they walk to their playing positions, they fill the space in front of, behind, and around the audience with moving sources of sound. This then melts into the guitars, who introduce the corners in front of the audience as a spatial location. This gesture concludes with the pianist entering and creating feedback inside the piano, which could be thought of as a tiny room of its own. So the opening gesture first introduces the audience to the height of the space, then fills out all of the other basic spatial possibilities, before coalescing into a single small space directly in front of them. This is a perfect example of how the space is subtly changed through the placement of performers, movement of sound and instruments, as well as the slicing up of the space through orchestration. An example of a sudden spatial change can be heard at 18:00 in the score, in which all of the players on the lower levels of the room, with the exception of the piano, suddenly stop and the space is separated into the very low (piano) and the very high (winds).

The ending also provides an interesting example of how space is treated as a compositional element, as it essentially reverses the spatial gesture that begins the

work. At the end, each of the performers walks from their playing position to the space underneath the seats, at which point they begin to treat the seating supports as percussion instruments. The result of this is that the audience is made aware, for the first time since the piece begun, of the space beneath them as a potential performance area. This gesture is accompanied by the very slow descent of the clarinets from the third floor down to the space underneath the seats, re-introducing the mobile sounds that characterized the beginning.

It is also interesting to note how light is used as a spatial concern as well, aside from the previously discussed use of lamps. The sections in which the violinist, violist, as well as the sax player and trombonist are playing with prisms, colored bottles, and flashlights introduce a kind of random approach to visual perception of space. When the prisms are first introduced at 32:23 it is not by the violist and violinist, who are visible to the audience, it is from the saxophonist and trombonist, who direct their light through the prisms from above the audience. This introduces the audience to the possibility of light coming from above as well as a kind of transformed light that had not yet been seen. This also corresponds to the type of sudden spatial shift that is seen throughout the piece sonically, as the performers on the lower levels simultaneously turn their lamps off the players on the third floor introduce their lights for the first time, resulting in a sudden shift of visual awareness. Another way in which the light encourages the audience to explore the space is from 36:00 – 37:25 in the score. During this section, the violist and violinist direct their flashlight through their colored bottles and are encouraged to point in random directions around the room. As they do this, the audience invariably follows these interesting lights around the room, directing their eyes to parts of the space that perhaps had not been seen before. There are great deal of parallels between the use of spatial sound as well as spatial light, and the constant sense of discovery that these elements provide the audience mean that the room is never spatially static, it is always in flux and always changing.

Conclusion

In conclusion, by examining some of the constituent parts of this composition, it is possible to look once again on the complete experience and begin to recognize the deep and complex root system that lies beneath the surface of that initial perception. *Object Dialogues* seeks to create a situation in which no knowledge of these structures

is necessary but an understanding of their presence allows for a greater appreciation of the world created in performance. The hidden rivers of information that flow beneath the the audiences' perception reflect those hidden cycles, structures, and processes that surround our lives.

Chapter 2.

Object Dialogues

A meditation on light, sound, and space for 13 musicians (2016)

Performance Notes

List of Materials

Each player has a unique collection of objects that they interact with throughout the performance. The following section provides a list of the required objects with suggestions for the best possible re-creation of the original performance. All of this is in addition to the performers' main instrument, however the Aux performers have their list of instruments included here. All players need stopwatches. All players except for the two performers on auxiliary instruments will likely require music stands equipped with stand lights in the original performance. All of these objects can be provided by the composer.

Clarinets
- 1 whirly tube (with fundamentals of A and B +51¢)

Saxophone and Trombone
- 1 flashlight
- 1 prism (preferably a "teardrop" prism)

Aux I
- Lamp (preferably a table lamp)
- Large bottle tuned to G2
- Cassette tape recorder (preferably a "shoebox" recorder)
- Cassette tape loop
- Standard cassette tape
- Monochord tuned to G2
- Contact microphone with ¼" output
- Honeytone amp (or any other mini guitar amp)
- Wine glass tuned to G5 -31¢
- Small flashlight with light covered by blue or red gel (to move safely at the end)

Aux II
- Lamp (preferably a table lamp)
- Large bottle tuned to C2
- Cassette tape recorder (preferably a "shoebox" recorder)
- Cassette tape loop
- Standard cassette tape
- Monochord tuned to A2
- Contact microphone with ¼" output
- Honeytone amp (or any other mini guitar amp)
- Wine glass tuned to D5 +51¢
- Small flashlight with light covered by blue or red gel (to move safely at the end)

Electric Guitars
- Lamp (preferably an adjustable standing lamp with a switch on the cord)
- Delay pedal
- C harmonica
- Cassette tape recorder (preferably a "shoebox" recorder)
- Cassette tape loop
- Standard cassette tape
- Small flashlight with light covered by blue or red gel (to move safely at the end)
- Whirly tube (with fundamentals of F and G)
- Extra music stand with felt to hold these objects

Violin
- Lamp (preferably a small table lamp)
- Large bottle tuned to E2 -14¢
- Flashlight
- Prism (preferably a "ball" prism)
- Clear wine bottle filled with water with a green gel taped around it
- Cassette tape recorder (preferably a small handheld recorder)
- Cassette tape loop
- Standard cassette tape
- Small flashlight with light covered by blue or red gel (to move safely at the end)
- Small table to hold all these objects

Viola
- Lamp (preferably a small table lamp)
- Large bottle tuned to Bb3 -31¢
- Flashlight
- Prism (preferably a "ball" prism)
- Clear wine bottle filled with water that has been died pink
- Cassette tape recorder (preferably a small handheld recorder)
- Cassette tape loop
- Standard cassette tape
- Small flashlight with light covered by blue or red gel (to move safely at the end)
- Small table to hold all of these objects

Cello

- Lamp (preferably a standing lamp with a footswitch)
- Large bottle tuned to D2
- Cassette tape recorder (preferably a “shoebox” recorder)
- Cassette tape loop
- Standard cassette tape
- Chime tuned to G4
- Soft mallet
- Small flashlight with light covered by blue or red gel (to move safely at the end)
- Extra music stand with felt to hold these objects

Bass

- Lamp (preferably a standing lamp with a footswitch)
- Large bottle tuned to F2 +51¢
- Cassette tape recorder (preferably a “shoebox” recorder)
- Cassette tape loop
- Standard cassette tape
- Chime tuned to A4
- Soft mallet
- Small flashlight with light covered by blue or red gel (to move safely at the end)
- Extra music stand with felt to hold these objects

Piano

- Lamp (preferably a standing lamp with a switch on the cord)
- Harmonium (preferably a hand-pumped Indian harmonium tuned to A435)
- Cassette tape recorder (preferably a large handheld recorder)
- Standard cassette tape
- Mixer
- Small amplifier
- 2 transducer speakers
- 1 XLR cable, 1 TRS cable, 2 lengths of speaker wire
- 2 electric toothbrushes
- Large table to hold all of these objects

Extra Materials

- Reel to reel tape recorder
- 2 powered speakers
- Pyramid prism

These objects are used only at the end of the piece and are not included in any other player's setup.

The details of each of these setups are described on the following pages.

Notation

General

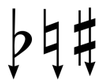
Time is organized in *Object Dialogues* through coordinated stopwatches. All players should gather together when the audience is being let into the space to start their stopwatches together before beginning the piece. The players should start their stopwatches a minute or two before the concert is to begin. From there, all of the cues are written according to this collective timer. The players should follow their stopwatches as accurately as possible, many of the cues provided will be simultaneous if this is done correctly.

Musical gestures and other actions are provided either as traditional notation or text instructions. Throughout the piece, when a gesture or action is meant to continue it is represented via an arrow. The original action is meant to continue either until the arrow ends or until another instruction is provided. When more than two gestures are available to a musician, the gestures are contained within boxes, the player should switch between these randomly. When two options are provided, the gestures are separated by a double-sided arrow, the player should alternate between these gestures randomly, never repeating the same gesture twice in a row. When the player is provided with a single gesture to continuously repeat, the gesture is contained within repeat barlines.

There are no traditional rhythms in *Object Dialogues*. All of the rhythmic material is created either through the speed of a performer's heartbeat, breath, or through suggestions in notation. When rhythm is suggested notationally it is separated into either long notes, represented by open noteheads, or relatively short notes, represented by closed noteheads. In many other cases, rhythm is created either through the technique called for (such as trills or phase bowing) or through bowing, breath, or fingering suggestions.

Due to layout concerns it was not possible to accurately represent the length of measures with proportional length on the page. When following the score it is advised that one pays more attention to the time markers rather than the proportional size of the measure.


- Quarter tones (-50/+50 cents)

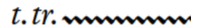

- Sixth tones (-31 cents), these accidentals are used to indicate the 7th partial or the node to produce the 7th partial, which is a little smaller than a minor 3rd above the open string


- Twelfth tones (-14 cents), these accidentals are used exclusively to indicate the 5th partial, and generally are only attached to harmonics


- Crescendo from silence


- Decrescendo into silence

Winds



- Timbre trill, the player should rapidly alternate between different fingerings for the same pitch, preferably with some microtonal variation between them

 - Plunger closed/open (trombone)

There is occasional use of natural harmonics on the trombone. These pitches are indicated by giving the slide position in roman numerals, accompanied by the partial number in arabic numerals (i.e. I - 5º). When the F attachment is engaged, an F is attached to the beginning of the slide information (i.e. FVI – 7º) The player should not make slide adjustments when playing these pitches.

Strings

 - Bow with extreme pressure, the result should be an extremely noisy, tone-less sound

molto sul tasto / sul tasto / ord / sul pont / molto sul pont – bow position indications (sometimes shortened to mst/st or sp/msp)

Phase Bow – Light bow pressure, random rhythm, moving the bow randomly between sul tasto and sul ponticello. The result should be a sound that brings out different harmonics of the open string/stopped pitch.

Harmonics are notated with a diamond notehead for the fingered node, occasionally accompanied by an ordinary note in parentheses indicating the sounding pitch. High harmonics on the bass are notated with a diamond notehead on the sounding pitch.

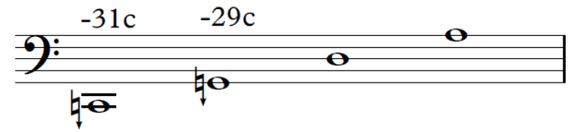
“X” noteheads indicate that the player should mute the string with their entire hand.

Multiphonics are indicated with a bolded **M** above an open string in parentheses. The performers are encouraged to find a multiphonic that works best for their instrument. String multiphonics are performed by placing a finger in-between two harmonic nodes and applying a bit of overpressure and using a very slow bow. The result should be a noisy sound that contains a few different perceptible pitches.

Occasionally, bowing instructions such as “slow bowing” or “fast bowing” are given, these indicate that the player should change bows either very slowly or very quickly. When “fast bowing”, the player should accent each bow change, vice-versa when “slow bowing” is requested the bow changes should be almost imperceptible

All stopped pitches should be performed without vibrato.

The cellist needs to tune their C string and G string down a sixth tone. This results in the following:



Guitars

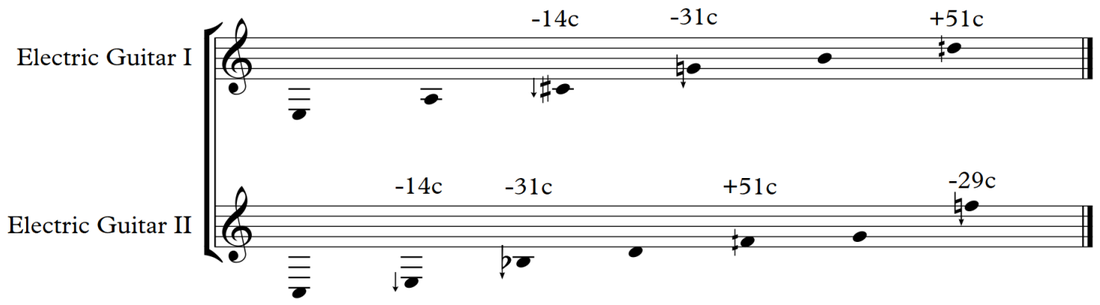
Guitar I will need a standard 6 string guitar, Guitar II will need a 7 string. Each player will also need a delay pedal (preferably a Boss DD-7). The settings should be roughly 75% e. level, 75% feedback, and an echo roughly 2 seconds long.

All of the guitar parts involve the players plucking a given note and then fading in with either a volume pedal or with the volume knob. This action is represented with the crescendo/decrescendo to/from silence hairpin. The size of the hairpins indicate roughly how long the fade should be. Throughout this piece, the sound of an ordinary plucked guitar should NEVER be heard.

Harmonics are notated with the fingered node shown as a diamond notehead and the sounding pitch as a in parentheses. Due to the complex scordatura, additional assistance finding the harmonic has been provided by including the string number and harmonic partial with every harmonic. Most of the guitar parts consist of harmonics so the few times that the player is not playing harmonics, the string is either open or stopped. Open strings are notated with an open notehead with the string number and no harmonic partial, stopped strings are notated with the string number and roman numerals indicating what fret should be fingered (i.e. VII = 7th fret).

In a few instances, the players are asked to produce right hand harmonics. In these cases, the system for notating harmonics is reversed, with the fingered pitch represented as a normal notehead and the node (always an octave above the fingered note) represented as a diamond. When this technique is required, it is also accompanied by “r.h.”.

Tuning:



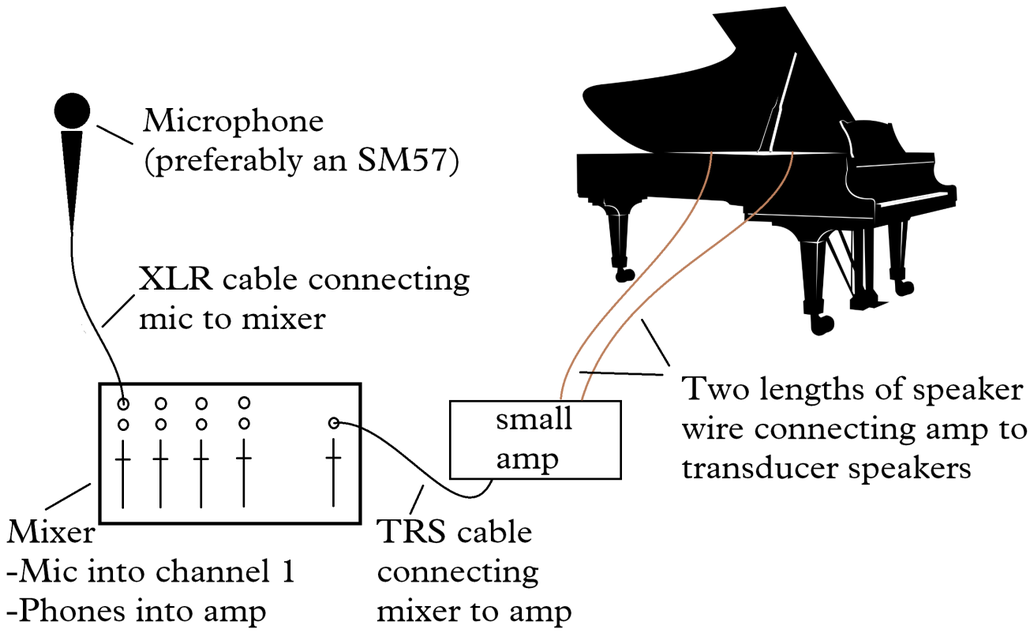
Aux Performers

The monochords should be amplified by attaching a contact mic to the bridge and sending the signal to a miniature amplifier, the model used in the original performance was the Honeytone N10. The volume should be set at roughly 60% on the master volume, tone at 100%, and overdrive at 0%.

All of the pitches produced on the monochords are produced via harmonics. The player should bow with the right hand and use the left hand to produce the pitches. Harmonic pressure should always be used, too much left hand pressure will distort the sound. Partials 1 through 13 are marked on the instrument. Whenever pitches other than the open string are called for they are always accompanied by the partial number to assist in finding the position.The player should use bow pressure to create dynamic variety, rather than the amplifier.

Piano

Setup for the transducer, speakers, and microphone:



The transducers should be attached to the soundboard of the piano with electrical tape. Try to attach them as snugly as possible but it is expected that the speakers will buzz a little bit. The original locations of the speakers are indicated with asterisks in the graphic below.

Outside of the first gesture with feedback, the microphone should always be on the mic stand, directed towards the harmonium. Whenever the harmonium is going to be played, the player needs to turn the main fader up on the mixer. When the harmonium is not being played, the player needs to turn the fader all the way down.

A1 and E2 need to be prepared with small pieces of eraser. A2 needs to be stopped with a small piece of eraser at the 7th partial (resulting in G4 -31). E2 needs to be stopped with a piece of eraser at the 3rd partial (resulting in B3). If there are three strings on E2, use two pieces of eraser.

It is strongly recommended that the player marks the dampers for Bb1 and Bb0 in order to aid in finding them when playing with the toothbrushes from 44:30 – 49:00.

The sustain pedal must be down for the entire performance, this can be done by placing a heavy weight on the pedal.

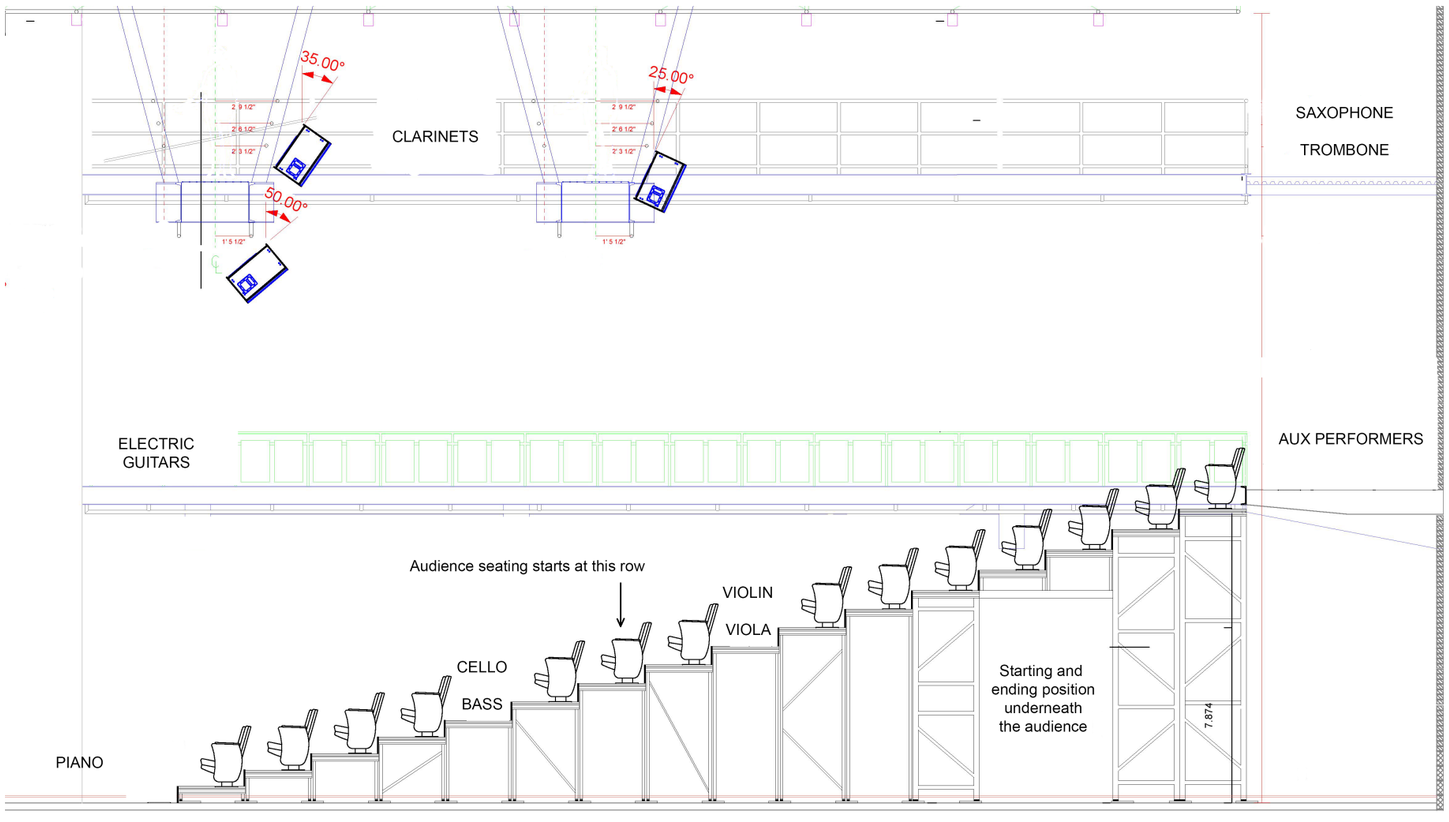
ANY SPECIAL TECHNIQUES NOT MENTIONED IN THESE NOTES ARE EXPLAINED WITHIN THE SCORE

Spatial Arrangement

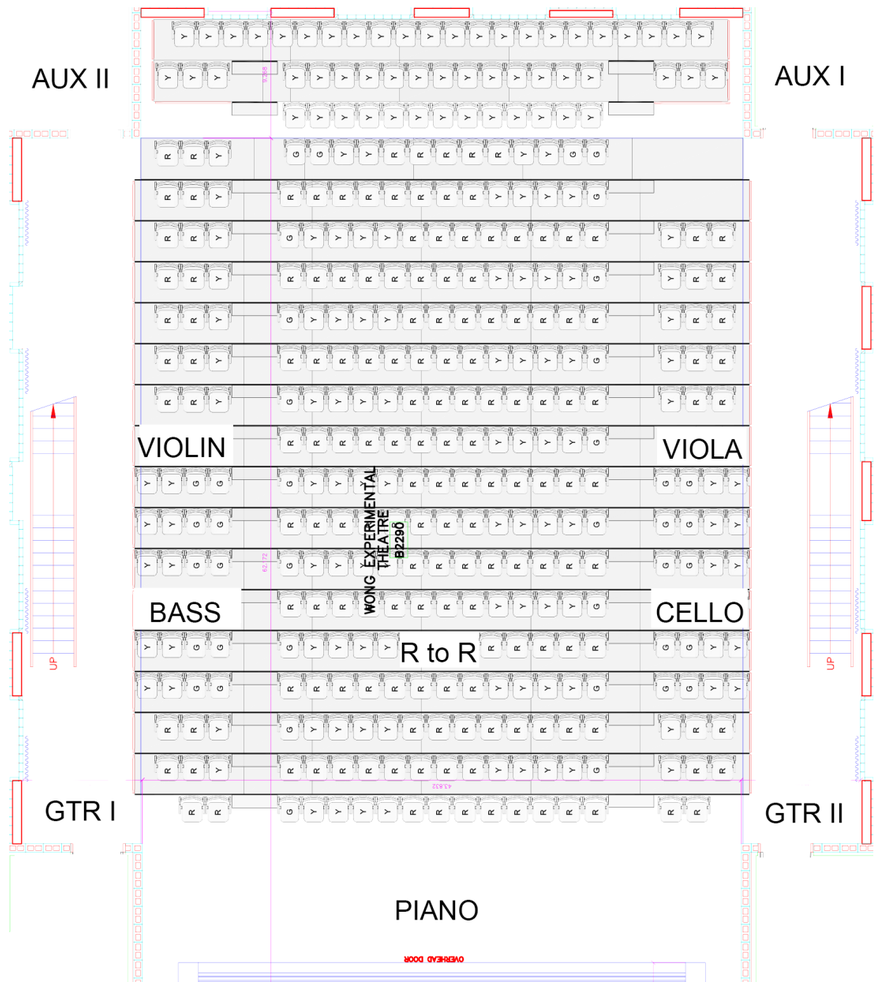
The use of space is at the heart of *Object Dialogues*. It is vital that the performers are separated spatially. In the original performance, the performers were located across three levels in a very wide performance area. Essentially the performers can be separated into three consecutively more distant groups: near, far, and very far. The performers in the 'near' positions are the strings. The performers in the 'far' positions are the guitars, aux players, and the piano. Finally, the performers in the 'very far' positions are the winds. These spatial designations are intentionally vague, as this piece was written for a very specific performance venue and subsequent performances will most likely not be able to re-create the dimensions of the original venue. If this piece is to be performed again, some discussion between the presenting organization and the composer will be required to adapt the piece to the spatial arrangement available.

The following graphics detail the setup for the original performance. This, alongside the documentation of this performance can provide some inspiration for alternate setups.

SIDE VIEW:



TOP VIEW:



Ben Wylie
benwylie55@gmail.com
www.benwyliemusic.com

OBJECT DIALOGUES

by Ben Wylie
(b.1992)

Score in C

0:00

(Audience Enters)

Clarinet in B♭
Start stopwatch with the rest of the ensemble
Move to starting position onstage

Clarinet in B♭
Start stopwatch with the rest of the ensemble
Move to starting position onstage

Alto Saxophone
Start stopwatch with the rest of the ensemble
Move to starting position onstage

Trombone
Start stopwatch with the rest of the ensemble
Move to starting position onstage

Aux I
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Aux II
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Electric Guitar I
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Electric Guitar II
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Violin
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Viola
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Violoncello
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Contrabass
Press play on tape recorder
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

Piano
Start stopwatch with the rest of the ensemble
Move to starting position offstage
(offstage)

(Ped.) ⟶

10:00

Play gestures in any order, each gesure should be equal to one breath

Cl.

fast t. tr. slow t. tr. fp

Play gestures in any order, each gesture should be equal to one breath

Cl.

fast t. tr. slow t. tr. fp

Alto Sax.

Tbn.

+mute

11:00

sim.

Cl.

t. tr. mf

sim.

Cl.

t. tr. mf

Play gestures in any order, each gesture should be equal to one breath

Alto Sax.

mf

Play gestures in any order, each gesture should be equal to one breath

Tbn.

FVI - 7º

p mf p

V - 7º

p mf p

FVI - 5º

p mf p

11:30

12:00

Cl.

Cl.

Alto Sax.

Tbn.

Aux I

Walk out from underneath the seats on the left side, first in the line
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Aux II

Walk out from underneath the seats on the right side, first in the line
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Vln.

Walk out from underneath the seats on the left side (behind Aux I)
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Vla.

Walk out from underneath the seats on the right side (behind Aux II)
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Vc.

Walk out from underneath the seats on the left side (behind Vln)
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Cb.

Walk out from underneath the seats on the right side (behind Vla)
Walk to your position while blowing over the bottle (20-30")
Sit down when you reach your playing position, continue to blow over the bottle

Bottle

Bottle

Bottle

Bottle

Bottle

Bottle

12:30

13:00

Cl.

(continue previous gesture, slowly fade to silence)

Cl.

(continue previous gesture, slowly fade to silence)

Alto Sax.

(continue previous gesture, slowly fade to silence)

Tbn.

(continue previous gesture, slowly fade to silence)

Aux I

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

Aux II

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

E. Gtr. I

Enter through the door nearest to your position
Slowly turn the volume down to 0% on the tape player (over ca. 20")
When the volume is all the way down press STOP

E. Gtr. II

Enter through the door nearest to your position
Slowly turn the volume down to 0% on the tape player (over ca. 20")
When the volume is all the way down press STOP

Vln.

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

Vla.

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

Vc.

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

Cb.

Continue blowing over the bottle
Slowly turn the volume down to nothing on the tape player (over ca. 30")
When the volume is all the way down press STOP

Continue blowing over bottle

13:30

Aux I — decrescendo over 15-20"

Aux II — decrescendo over 15-20"

E. Gtr. — Delay ON

⑤ ⑥ 2º ⑤ 2º ④ 2º ⑤ 3º ③ 2º | repeat if necessary ⑤ 4º ② 2º ④ 2º ① 2º

p p mp mp mf mf | f f f f

E. Gtr. — Delay ON

⑦ 2º ⑥ 2º ② ⑤ 2º ⑦ 4º ④ 2º | repeat if necessary ⑥ 4º ③ 2º ② 2º ⑤ 4º

p p mp mp mf mf | f f f f

Vln. — decrescendo over 15-20"

Vla. — decrescendo over 15-20"

Vc. — decrescendo over 15-20"

Cb. — decrescendo over 15-20"

Pno.

Enter at 14:00
Walk to your position, turn the lamp on, and take the microphone out of the stand
Turn the volume up on the mixer and walk to the crook of the piano
Keep the microphone pointed away from the inside of the instrument

14:30

Pno.

Point the microphone into the inside of the piano, creating feedback with the transducers
Move the microphone around fluidly, bringing out different tones
Some of the tones will be soft, while others will be quite loud
If you happen upon a "hot spot" that creates loud feedback, move the microphone away quickly to avoid damage to the speakers
Try moving the microphone both slowly and quickly to create different types of feedback
The tones produced will resonante on the piano strings

15:30 **15:35** **15:40** **15:45**

Vln.

(II/7°) II/7° molto sul pont.
(III/5°) III/5° slow bowing
p

Vla.

(I/5°) I/5° molto sul pont.
(II/4°) II/4° slow bowing
p

Vc.

(I/6°) I/6° molto sul pont.
II/7° slow bowing
p

Cb.

I/9°
II/11° molto sul pont.
slow bowing
p

Pno.

Continue to create feedback in the piano
Try to match the dynamics of the rest of the ensemble as best as you can

16:00 **16:15** **16:20**

Aux I

Monochord

Randomly move finger around nodes above the 13th partial

etc.

p

Aux II

Monochord

Randomly move finger around nodes above the 13th partial

etc.

p

E. Gtr.

Harmonica

blow/draw on the highest hole (10)
use long, deep breaths

p

E. Gtr.

Harmonica

blow/draw on the highest hole (10)
use long, deep breaths

p

Vln.

gliss randomly between given nodes on II
fast bowing

ff

II/7° move in and out of overpressure randomly
III/5° slow bowing

pp

Vla.

gliss randomly between given nodes on I
fast bowing

ff

I/5° move in and out of overpressure randomly
II/4° slow bowing

pp

Vc.

gliss randomly between given nodes on I
fast bowing

ff

I/6° move in and out of overpressure randomly
II/7° slow bowing

pp

Cb.

gliss randomly on both strings, do not go below starting position
fast bowing

etc.

ff

I/9°
II/11° move in and out of overpressure randomly
slow bowing

pp

Pno.

Continue feedback
More loud sounds!

Continue feedback
More quiet sounds

16:30

17:30

Aux I

slowly move from 13º down to 7º
randomly lift your finger to allow the open string to sound
switch randomly
continue randomly lifting your finger
7º
6º
(p)
f

Aux II

slowly move from 13º down to 7º
randomly lift your finger to allow the open string to sound
switch randomly
continue randomly lifting your finger
7º
6º
(p)
f

E. Gtr.

blow into harmonica, accenting each new breath (do not draw)
add a lower hole with each breath until you reach 7
p
ff

E. Gtr.

blow into harmonica, accenting each new breath (do not draw)
add a lower hole with each new breath until you reach 7
p
ff

Vln.

randomly lift fingers to allow open string to sound
f

Vla.

randomly lift fingers to allow open string to sound
f

Vc.

randomly lift fingers to allow open string to sound
f

Cb.

gliss from 11º to 2º on II
gliss.
(ord. transposition)
randomly lift finger to allow open string to sound
f

Pno.

(l.v.)

Continue feedback

Turn fader all the way down on the mixer and return mic to the stand
Sit down at the piano

17:50 **18:00**

Cl.

change speed of tremolos randomly

mf ff mp - mf

repeat gestures in any order

Cl.

change speed of tremolos randomly

mf ff mp - mf

repeat gestures in any order

Alto Sax.

mf ff mp - mf

repeat gestures in any order

Tbn.

plunger

plunger ad lib
VI

plunger ad lib
FVI

mf ff mp - mf

repeat gestures in any order

Aux I

(open)

ff

(l.v.) Remove tape loop from recorder, place 2nd tape in

Aux II

2°

ff

(l.v.) Remove tape loop from recorder, place 2nd tape in

E. Gtr.

E. Gtr.

Vln.

ff

Vla.

ff

Vc.

ff

Cb.

ff

Pno.

rit.

ff p

8vb

alternate randomly
ff the first time
mf on subsequent repetitions

rit.

ff mf p

8vb

18:45

19:00

Cl.

Cl.

Alto Sax.

Tbn.

Delay
ON

E. Gtr.

fade in one note at a time (in any order)
use long, slow swells

Delay
ON

E. Gtr.

fade in one note at a time (in any order)
use long, slow swells

Pno.

rit.

19:30

19:54

Cl.

Cl.

Alto Sax.

mp *pp*

close plunger as slowly as possible

Tbn.

mp *pp*

Aux I

Press PLAY on tape recorder (volume all the way down)

Aux II

Press PLAY on tape recorder (volume all the way down)

E. Gtr.

E. Gtr.

Press PLAY on tape recorder (volume all the way down)

Press PLAY on tape recorder (volume all the way down)

bow as fast as possible

Vln.

decrescendo and crescendo randomly between ***pp*** *-* ***mp***

bow as fast as possible

Vla.

decrescendo and crescendo randomly between ***pp*** *-* ***mp***

bow as fast as possible

Vc.

decrescendo and crescendo randomly between ***pp*** *-* ***mp***

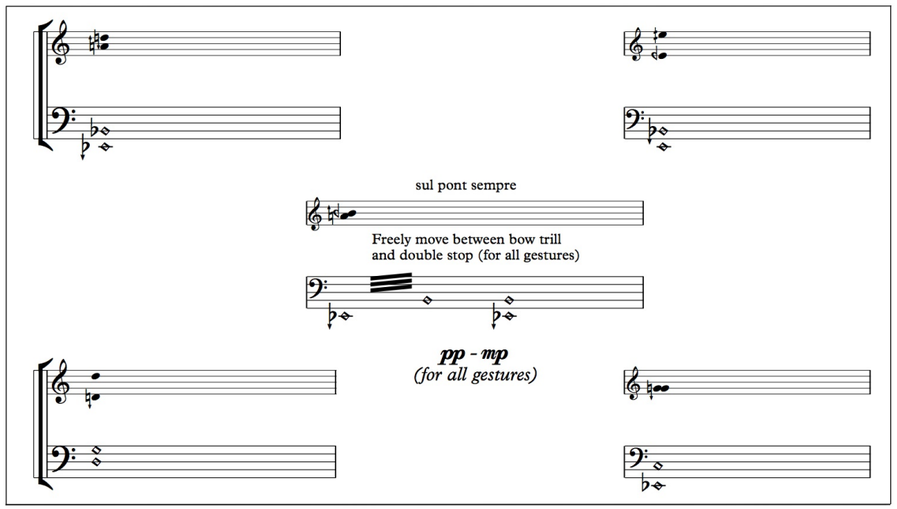
bow as fast as possible

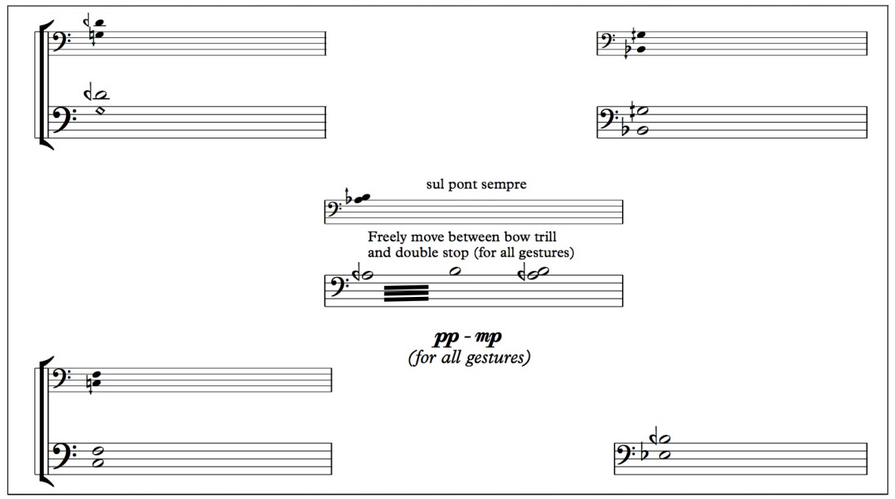
Cb.

decrescendo and crescendo randomly between ***pp*** *-* ***mp***

TAPE
+1/2/3/4

20:00 - 22:00 (Vc.)





20:00 (Altri)

Aux I — Turn volume up to ca. 25%
Breathe slowly and deeply
With each inhale, turn the volume up
With each exhale, turn the volume down
Keep the volume between 25% and 75%

Aux II — Turn volume up to ca. 25%
Breathe slowly and deeply
With each inhale, turn the volume up
With each exhale, turn the volume down
Keep the volume between 25% and 75%

E. Gtr. — Turn volume up to ca. 25%
Breathe slowly and deeply
With each inhale, turn the volume up
With each exhale, turn the volume down
Keep the volume between 25% and 75%

E. Gtr. — Turn volume up to ca. 25%
Breathe slowly and deeply
With each inhale, turn the volume up
With each exhale, turn the volume down
Keep the volume between 25% and 75%

Vln.
continue bow pattern
transition to harmonic l.h. pressure
slowly settle on 5° on all strings
mp
continue bow pattern
slowly decrescendo to nothing over ca. 10"

Vla.
continue bow pattern
transition to harmonic l.h. pressure
slowly settle on 5° on all strings
mp
continue bow pattern
slowly decrescendo to nothing over ca. 10"

Cb.
continue bow pattern
transition to harmonic l.h. pressure
slowly settle on 5° on all strings
mp
continue bow pattern
slowly decrescendo to nothing over ca. 10"

TAPE
1/2/3/4

20:15 **20:30** **20:35** **20:40**

Aux I

Aux II

E. Gtr.

E. Gtr.

Vln.

play continuously
switch between gestures randomly

pp - mp

Vla.

play continuously
switch between gestures randomly

IV/7° IV/6°

pp - mp

Cb.

play continuously
switch between gestures randomly

III IV/7° III/5° II/7° I/6°

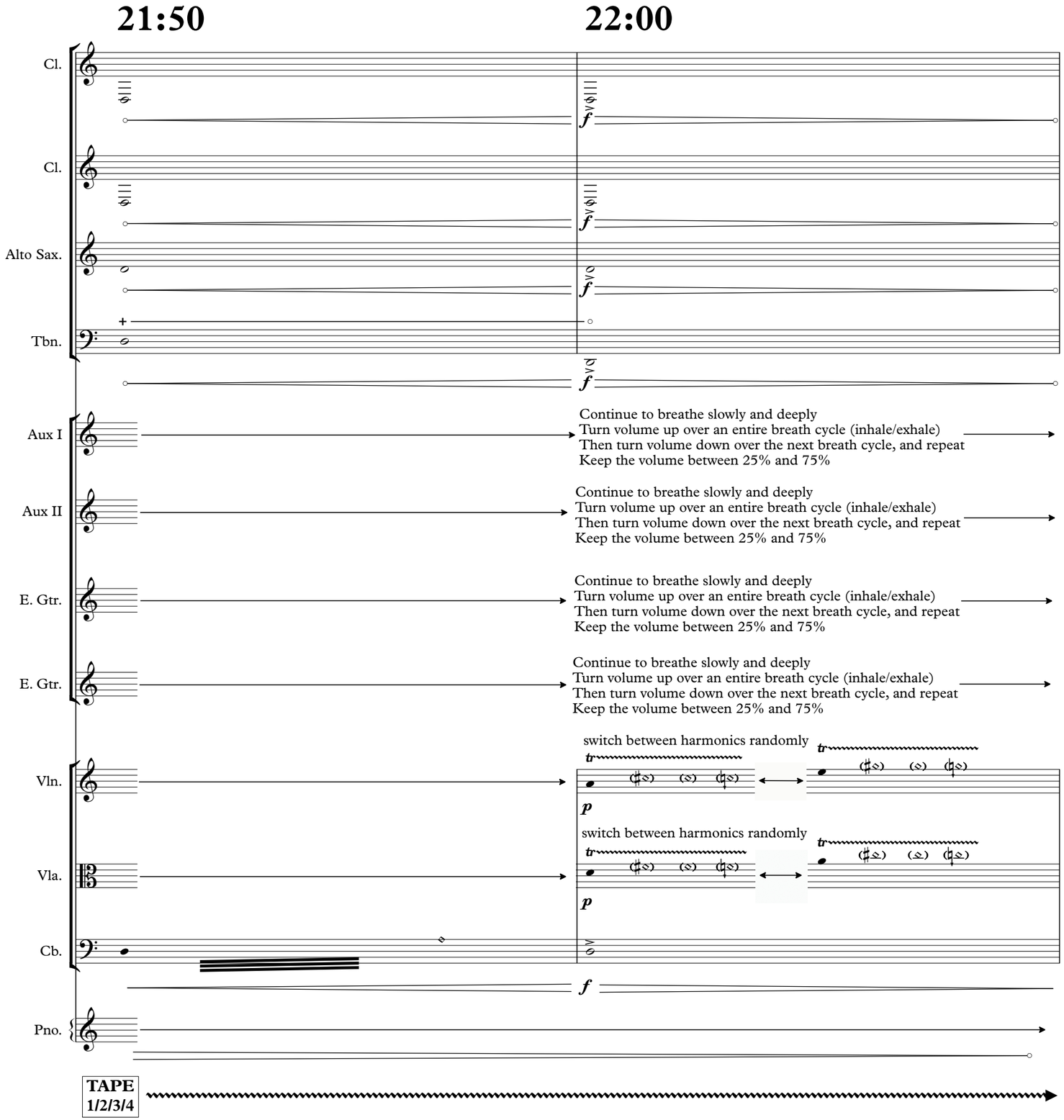
pp - mp

Pno.

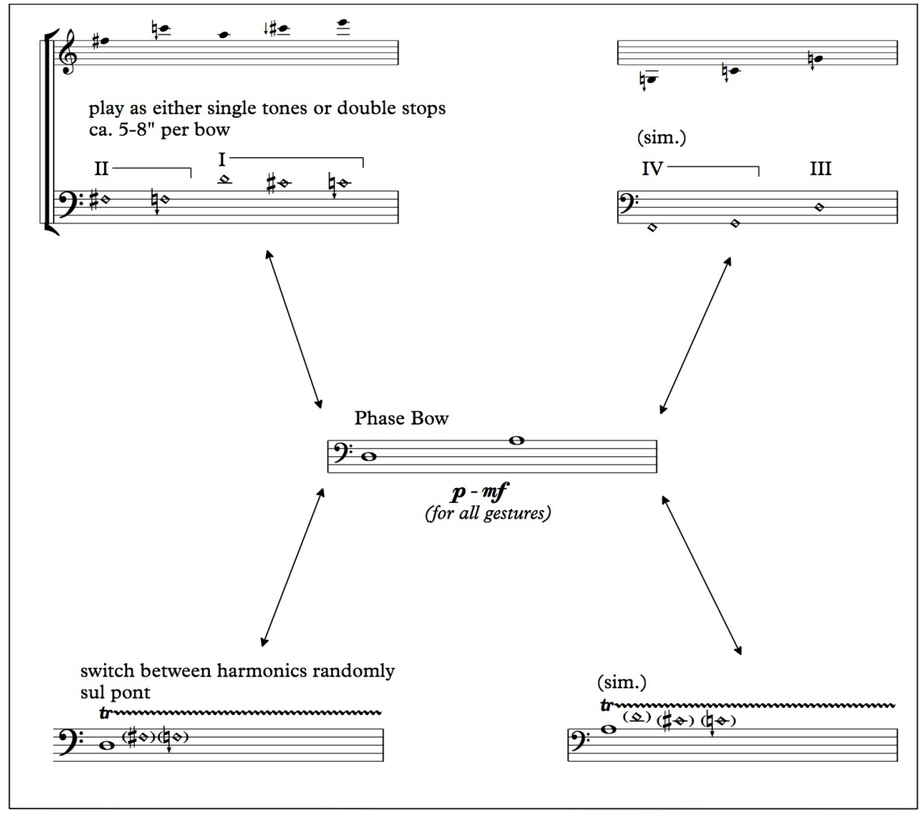
Harmonium
hold D continuously
slowly add/take away any of the given notes
play no more than 3 notes at a time

pp - mp

TAPE
1/2/3/4


21:50
22:00
Cl.
Cl.
Alto Sax.
Tbn.
Aux I
Aux II
E. Gtr.
E. Gtr.
Vln.
Vla.
Cb.
Pno.
TAPE
1/2/3/4
Continue to breathe slowly and deeply
Turn volume up over an entire breath cycle (inhale/exhale)
Then turn volume down over the next breath cycle, and repeat
Keep the volume between 25% and 75%
switch between harmonics randomly
p
f

22:00 - 24:00 (Vc.)


play as either single tones or double stops
ca. 5-8" per bow
II
I
(sim.)
IV
III
Phase Bow
p - mf
(for all gestures)
switch between harmonics randomly
sul pont
(sim.)

22:10

23:00

Aux I

Aux II

E. Gtr.

E. Gtr.

Vln.

switch between gestures randomly

Phase Bow

Vla.

switch between gestures randomly

Phase Bow

play slow harmonic melodies on III and II above 7º
occasionally play random harmonic double stops on these strings

Cb.

TAPE
1/2/3/4

24:00

Tape volume:

Aux I 0% 100%

Tape volume:

Aux II 0% 100%

Tape volume:

E. Gtr. 0% 100%

Tape volume:

E. Gtr. 0% 100%

Vln.

Vla.

Vc.

slowly gliss to 2º on III

gliss.

Cb.

TAPE
1/2/3/4

24:30

Vln.
Repeat gestures in any order
ord.
f - ff
sul pont. ↔ sul tasto
sul pont. ↔ sul tasto
sul pont. ↔ sul tasto
Phase Bow
Random harmonic gliss

Vla.
Repeat gestures in any order
sul pont. ↔ sul tasto
f - ff
sul pont. ↔ sul tasto
Random harmonic gliss
Phase Bow
sul pont. ↔ sul tasto
ord.

Vc.
Repeat gestures in any order
Phase Bow
f - ff
sul pont. ↔ sul tasto
sul pont. ↔ sul tasto
ord.
Random harmonic gliss
sul pont. ↔ sul tasto

Cb.
Repeat gestures in any order
Random harmonic gliss
f - ff
Phase Bow
ord.
sul pont. ↔ sul tasto
sul pont. ↔ sul tasto
sul pont. ↔ sul tasto

Pno.
Harmonium - Pull 8vb stop
f

TAPE
1/2/3/4

25:00

Cl.
occasionally split tone
re-attack as necessary, always with an accent

Cl.
occasionally split tone
re-attack as necessary, always with an accent

Alto Sax.
bring out 2nd, 3rd, and 4th partials randomly, maintain the fundamental
re-attack as necessary, always with an accent

Tbn.
plunger ad lib.
re-attack as necessary, always with an accent

Vln.

Vla.

Vc.

Cb.

Pno.

TAPE
1/2/3/4

25:40 25:50 26:24 26:30

Cl.
Cl.
Alto Sax.
Tbn.
Aux I
Aux II
E. Gtr.
E. Gtr.
Vln.
Vla.
Vc.
Cb.
Pno.

fp ff

blow air through the instrument
change fingering randomly

mp

blow air through the instrument
plunger ad lib.

Tape volume: 50%

Put instrument down

Press PLAY on tape recorder (volume all the way down)

Slowly turn volume up to ca. 50%

TAPE 1/2/3/4

TAPE 1/2/3/4 +5/6/7/8/9

27:00

Cl. — decrescendo over ca. 15" → *ppp*

Cl. — decrescendo over ca. 15" → *ppp*

Alto Sax. — decrescendo over ca. 15" → *ppp*

Tbn. — decrescendo over ca. 15" → *ppp*

Aux I

Aux II

E. Gtr.

E. Gtr.

Vln.

Vla.

Vc.

Cb.

Pno.

TAPE 1 - 9

28:00

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

Find your pulse
Count your heartbeat up to 10
Turn lamp on/off with each repeat →

29:00

Aux I	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Aux II	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
E. Gtr.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
E. Gtr.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Vln.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Vla.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Vc.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Cb.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF
Pno.	Count your heartbeat descending from 15 Speak the number aloud each time you restart the count	**15**, 14, 13...1 **14**, 13, 12...1 until **3**, 2, 1 **2**, 1 1 (do not speak any more)	Continue to turn lamp on/off with each heartbeat until the next cue	Lamp OFF

31:00

TAPE 1 - 9

31:30 | **32:00** | **32:03**

E. Gtr.
E. Gtr.
Vln.
Vla.
Vc.
Cb.
Pno.

Lamp ON
Lamp ON
Lamp OFF
Lamp OFF

Keep your finger on your pulse
Flashlight:
Point the light through the colored bottle, towards the wall
Turn the flashlight on/off with every 5th heartbeat

Keep your finger on your pulse
Flashlight:
Point the light through the colored bottle, towards the wall
Turn the flashlight on/off with every 5th heartbeat

Lamp ON
Lamp ON

TAPE 1 - 9

32:05 | **32:08** | **32:10** | **32:12** | **32:14** | **32:15** | **32:20**

Aux I
Aux II
E. Gtr.
E. Gtr.
Vln.
Vla.
Vc.
Cb.
Pno.

Lamp ON
Lamp ON
Lamp ON
Lamp ON
Lamp OFF
Lamp OFF
Lamp ON
Lamp ON
Lamp OFF
Lamp OFF
Lamp ON
Lamp ON
Flashlight OFF
Flashlight OFF
Lamp OFF
Lamp OFF
Lamp ON
Lamp ON
Lamp OFF
Lamp OFF
Lamp ON
Lamp ON
Lamp ON
Lamp OFF
Lamp ON
Lamp OFF
Lamp ON

TAPE 1 - 9

32:23

32:45

33:15

Alto Sax.

Flashlight ON
Point light through the prism
Direct light over the ledge
Slowly move the prism around in your hand

Contniue previous gesture, add the following:
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)

Tbn.

Flashlight ON
Point light through the prism
Direct light over the ledge
Slowly move the prism around in your hand

Contniue previous gesture, add the following:
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)

Aux I

Lamp OFF

Slowly turn tape volume down to 0%

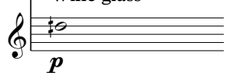
Wine glass

Aux II

Lamp OFF

Slowly turn tape volume down to 0%

Wine glass

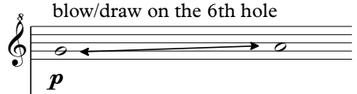


E. Gtr.

Lamp OFF

Slowly turn tape volume down to 0%

Harmonica
blow/draw on the 6th hole

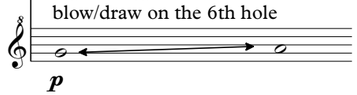


E. Gtr.

Lamp OFF

Slowly turn tape volume down to 0%

Harmonica
blow/draw on the 6th hole



Vln.

Lamp OFF

Vla.

Lamp OFF

Vc.

Lamp OFF

Cb.

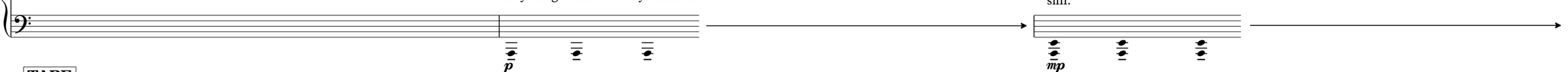
Lamp OFF

Pno.

Lamp OFF
Slowly turn tape volume to 0%

Find your pulse
Play the given note every 7th heartbeat

sim.



TAPE
1 - 9

33:30 **34:00** **34:10** **34:30**

Alto Sax. — Flashlight OFF

Tbn. — Flashlight OFF

Aux I

Aux II

E. Gtr. — (blow) (p)

E. Gtr. — (blow) (p)

Vln. — Slowly turn tape volume down to 0% — Find your pulse, Tap your knuckles against the table with each heart beat *p*

Vla. — Slowly turn tape volume down to 0% — Find your pulse, Tap your knuckles against the table with each heart beat *p*

Vc. — Slowly turn tape volume down to 0% — Find your pulse, Hit the mallet against the table with each heart beat *p*

Cb. — Slowly turn tape volume down to 0% — Find your pulse, Hit the mallet against the table with each heart beat *p*

Pno. — Play the given note every 4th heartbeat

TAPE 1 - 9

34:45 **35:00** **35:15** **35:20** **35:25**

Aux I

(wine glass)
randomly apply pressure to the glass, creating intermittent "distortion"

Aux II

(wine glass)
randomly apply pressure to the glass, creating intermittent "distortion"

E. Gtr.

Slowly turn tape volume up to ca. 25%

E. Gtr.

Slowly turn tape volume up to ca. 25%

Vln.

Slowly turn tape volume up to ca. 25%

Vla.

Slowly turn tape volume up to ca. 25%

Vc.

Slowly turn tape volume up to ca. 25%

Cb.

Slowly turn tape volume up to ca. 25%

Pno.

mp

Harmonium:
Hold G-D continuously

p

Occasionally add A tremolo

TAPE
1 - 9

36:00 **36:15** **37:00** **37:02** **37:04** **37:05**

Aux I — normal pressure, no more distortion
decrescendo over ca. 15"

Aux II — normal pressure, no more distortion
decrescendo over ca. 15"

E. Gtr. — Slowly turn tape volume up to ca. 25%

E. Gtr. — Slowly turn tape volume up to ca. 25%

Vln. — Lamp ON — Lamp OFF

Vla. — Lamp ON — Lamp OFF

Vc. — Take flashlight and colored bottle
Stand up and point the light through the bottle, towards the wall
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)
While doing this, slowly move the light/bottle side to side as if "scanning" the room

Cb. — Take flashlight and colored bottle
Stand up and point the light through the bottle, towards the wall
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)
While doing this, slowly move the light/bottle side to side as if "scanning" the room

Pno. — decrescendo over ca. 15" — Lamp ON — Lamp OFF

TAPE 1 - 9

37:15

Aux I — Lamp ON

Aux II — Lamp ON

E. Gtr. —

E. Gtr. —

Vln. —

Vla. —

Vc. —

Cb. —

Pno. —

37:16

Aux I —

Aux II —

E. Gtr. — Lamp ON

E. Gtr. — Lamp ON

Vln. —

Vla. —

Vc. —

Cb. —

Pno. —

37:17

Aux I —

Aux II —

E. Gtr. —

E. Gtr. —

Vln. —

Vla. —

Vc. — Lamp ON

Cb. — Lamp ON

Pno. —

37:18

Aux I —

Aux II —

E. Gtr. —

E. Gtr. —

Vln. —

Vla. —

Vc. —

Cb. —

Pno. — Lamp ON

37:25

Aux I — Find your pulse
Turn lamp ON / OFF with each heartbeat

Aux II — Find your pulse
Turn lamp ON / OFF with each heartbeat

E. Gtr. — Find your pulse
Turn lamp ON / OFF with each heartbeat

E. Gtr. — Find your pulse
Turn lamp ON / OFF with each heartbeat

Vln. — Flashlight OFF
Place bottle and flashlight down

Vla. — Flashlight OFF
Place bottle and flashlight down

Vc. — Find your pulse
Turn lamp ON / OFF with each heartbeat

Cb. — Find your pulse
Turn lamp ON / OFF with each heartbeat

Pno. — Find your pulse
Turn lamp ON / OFF with each heartbeat

TAPE 1 - 9

37:30

Aux I — Lamp ON / OFF every 2nd heartbeat

Aux II — Lamp ON / OFF every 2nd heartbeat

E. Gtr. — Lamp ON / OFF every 2nd heartbeat

E. Gtr. — Lamp ON / OFF every 2nd heartbeat

Vc. — Lamp ON / OFF every 2nd heartbeat

Cb. — Lamp ON / OFF every 2nd heartbeat

Pno. — Lamp ON / OFF every 2nd heartbeat

37:40

Aux I — Lamp ON / OFF every 3rd heartbeat

Aux II — Lamp ON / OFF every 3rd heartbeat

E. Gtr. — Lamp ON / OFF every 3rd heartbeat

E. Gtr. — Lamp ON / OFF every 3rd heartbeat

Vc. — Lamp ON / OFF every 3rd heartbeat

Cb. — Lamp ON / OFF every 3rd heartbeat

Pno. — Lamp ON / OFF every 3rd heartbeat

37:55

Aux I — Lamp ON / OFF every 4th heartbeat

Aux II — Lamp ON / OFF every 4th heartbeat

E. Gtr. — Lamp ON / OFF every 4th heartbeat

E. Gtr. — Lamp ON / OFF every 4th heartbeat

Vc. — Lamp ON / OFF every 4th heartbeat

Cb. — Lamp ON / OFF every 4th heartbeat

Pno. — Lamp ON / OFF every 4th heartbeat

38:10

Aux I — Lamp ON / OFF every 5th heartbeat

Aux II — Lamp ON / OFF every 5th heartbeat

E. Gtr. — Lamp ON / OFF every 5th heartbeat

E. Gtr. — Lamp ON / OFF every 5th heartbeat

Vc. — Lamp ON / OFF every 5th heartbeat

Cb. — Lamp ON / OFF every 5th heartbeat

Pno. — Lamp ON / OFF every 5th heartbeat

TAPE 1 - 9

38:30

39:00

Cl.

vary trill speed randomly
t. tr.
p - mf

mf

mf

repeat gestures in any order

Cl.

vary trill speed randomly
t. tr.
p - mf

mf

mf

repeat gestures in any order

Alto Sax.

vary trill speed randomly
t. tr.
p - mf

mf

mf

repeat gestures in any order

Tbn.

plunger ad lib.

p

occasionally gliss within a 1/4 tone sharp or flat

Aux I

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Aux II

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

E. Gtr.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

E. Gtr.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Vln.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Vla.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Vc.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Cb.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

Pno.

Lamp ON
Slowly turn tape volume up to 100%

Lamp OFF
Press STOP on tape player

TAPE
1 - 9

39:30 40:00 40:30

Cl.

Cl.

Alto Sax.

Tbn.

Aux I

Aux II

E. Gtr.

E. Gtr.

Vln.

Vla.

Double trill

p - mf

f pp

Double trill

p - mf

f pp

mp

mp

plunger ad lib.

pp mp pp

Lamp ON

11° 10° 9° 8° 7° 6°

Play slow melodies with the given harmonics

Lamp ON

11° 10° 9° 8° 7° 6°

Play slow melodies with the given harmonics

Delay ON

Lamp ON

① 3° ① 2° ② 3° ③ 3° ③ 2°

mf

Fade in 1 or 2 notes at a time
Use long, slow swells

Delay ON

Lamp ON

① 2° ② 3° ② 2° ③ 4° ④ 4° ④ 3°

mf

Fade in 1 or 2 notes at a time
Use long, slow swells

pick up instrument

pick up instrument

Lamp ON
Multiphonic on IV

M

p

Occasionally let open string sound
in short, staccato "blips"

Lamp ON
Multiphonic on III

M

p

Occasionally let open string sound
in short, staccato "blips"

41:00 41:15 41:30 41:45

Cl. tr p - mf fp fp switch between gestures randomly

Cl. tr p - mf fp fp switch between gestures randomly

Alto Sax. p

Tbn. (plunger ad lib.) p

Aux I 2° (p) decrescendo over ca. 15" slow down the trill as you get quieter

Aux II 2° (p) decrescendo over ca. 15" slow down the trill as you get quieter

E. Gtr. Lamp OFF Delay OFF Put guitar down

E. Gtr. Lamp OFF Delay OFF Put guitar down

Vln. sul tasto ⟷ sul pont p

Vla. sul tasto ⟷ sul pont p

Vc. Lamp ON Slowly move fingers between given nodes Randomly lift fingers to allow open strings to sound p

Cb. Lamp ON Slowly move fingers between given nodes Randomly lift fingers to allow open strings to sound p

42:00 **42:15** **42:30** **42:40**

Cl.

switch between gestures randomly

1 breath

put clarinet down

pick up tube and move to spinning position

Cl.

switch between gestures randomly

1 breath

put clarinet down

pick up tube and move to spinning position

Alto Sax.

1 breath

Tbn.

1 breath

E. Gtr.

Pick up tube and move to spinning position

Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

E. Gtr.

Pick up tube and move to spinning position

Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

Vln.

molto sul tasto

pp - p

switch between gestures randomly

Vla.

molto sul tasto

pp - p

switch between gestures randomly

Vc.

molto sul pont
II/7°
III/7°

pp - p

switch between gestures randomly

Cb.

molto sul pont
I/7°
II/7°

pp - p

switch between gestures randomly

43:00 **43:15** **43:30** **43:45**

Cl. Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

Cl. Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

E. Gtr.

E. Gtr.

Vln. molto sul tasto → molto sul pont
p
Lamp OFF

Vla. molto sul tasto → molto sul pont
p
Lamp OFF

Vc. molto sul pont → molto sul tasto
p
Lamp OFF

Cb. molto sul pont → molto sul tasto
p
Lamp OFF

44:30 **45:00** **45:30**

Cl. slow down the spinning over ca. 30"

Cl. slow down the spinning over ca. 30"

Aux I — Lamp ON — Take slow, deep breaths / Bow the monochord while breathing in / Blow over the bottle while breathing out — Monochord Bottle — *p*

Aux II — quietly tune string one half step sharp to Bb (amp off) — return amp to original volume (50%) — Lamp ON — Take slow, deep breaths / Bow the monochord while breathing in / Blow over the bottle while breathing out — Monochord Bottle — *p*

E. Gtr. slow down the spinning over ca. 30" — Put tube down, return to guitar position

E. Gtr. slow down the spinning over ca. 30" — Put tube down, return to guitar position

Pno. Lamp ON — Piano: take toothbrush 1 lightly touch bristles to the string — occasionally play one of these figures (in any order) — *p* — (left hand continue with toothbrush) — *p - mf*

46:00 **46:50**

Aux I

Aux II

Lamp ON
Delay ON

E. Gtr.

r.h. ⑥ I r.h. ⑤ I ③

p

fade in one note at a time
use long, slow swells

Lamp ON
Delay ON

E. Gtr.

⑤ 2° ④ 2° ③

p

fade in one note at a time
use long, slow swells

Vln.

Lamp ON
Phase bowing

pp - p

Vla.

Lamp ON
Phase Bowing

pp - p

Pno.

continuously play these gestures (in any order)

p

f

f

turn on toothbrush 2

push bristles into the string
(F should begin to sound)

l.h. switch toothbrush to lower octave Bb

mf - f

47:00 47:30 47:45

Alto Sax.

Tbn.

+mute

I

continuously play gestures in any order

continuously play gestures in any order

Aux I

blow over bottle

Aux I

blow over bottle

E. Gtr.

⑥ I

sim.

E. Gtr.

⑦ V

sim.

Vln.

Vla.

Lamp ON
Phase bowing

Vc.

Lamp ON
Phase bowing

Cb.

(toothbrush 2)

Pno.

both hands:
move between lightly touching the bristles to the string and pushing them into the string

(toothbrush 1)

48:00 **48:10** **48:20** **48:30**

Cl. Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

Cl. Start spinning the tube
Mostly slow spins, occasionally do some fast spins for 5-7"

Alto Sax. 1 breath — Put instrument down

Tbn. 1 breath — Put instrument down

Aux I 1 breath — Put bottle down

Aux II 1 breath — Put bottle down

E. Gtr. Delay OFF

E. Gtr. Delay OFF

Vln. 1 bow — Put instrument down

Vla. 1 bow — Put instrument down

Vc. 1 bow — Put instrument down — Take chime and mallet

Cb. 1 bow — Put instrument down — Take chime and mallet

Pno.

Lamp OFF
Take flashlight and prism

Lamp OFF
Take flashlight and prism

49:00

49:15

49:30

Cl.

slow down the spinning over ca. 15"

Put tube down and pick clarinet up

Cl.

slow down the spinning over ca. 15"

Put tube down and pick clarinet up

Aux I

Monochord

7°

pp

Aux II

Monochord

6°

pp

E. Gtr.

Lamp OFF

Harmonica

p

Stand up and slowly walk from your playing position to the position underneath the seats

Blow on lowest hole of the harmonica continuously (do not draw)

E. Gtr.

Lamp OFF

Harmonica

p

Stand up and slowly walk from your playing position to the position underneath the seats

Blow on lowest hole of the harmonica continuously (do not draw)

Vln.

Flashlight and prism:
Point the light through the prism, directed at the wall
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)
While doing this, slowly move the prism around in your hand

Vla.

Flashlight and prism:
Point the light through the prism, directed at the wall
Take slow, deep breaths
Breathe in, click the button
Breathe out, click the button (and repeat)
While doing this, slowly move the prism around in your hand

Vc.

Lamp OFF

Chime

p

Stand up and slowly walk from your playing position to the position underneath the seats

Strike the chime every few seconds

Cb.

Lamp OFF

Chime

p

Stand up and slowly walk from your playing position to the position underneath the seats

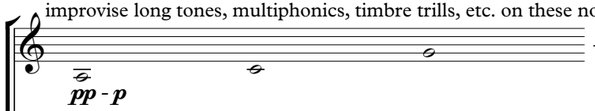
Strike the chime every few seconds

Pno.

turn both toothbrushes off

50:00 - ca. 58:00

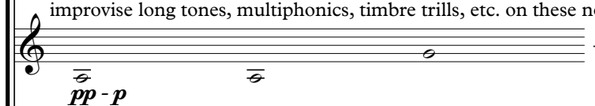
Cl.



improvise long tones, multiphonics, timbre trills, etc. on these notes

Slowly walk behind the Alto Sax player
When they turn to walk down the main seating area, continue down the side stairs to the position underneath the seats
Continuously play while walking

Cl.



improvise long tones, multiphonics, timbre trills, etc. on these notes

Slowly walk behind the Alto Sax player
When they turn to walk down the main seating area, continue down the side stairs to the position underneath the seats
Continuously play while walking

Alto Sax.

Take flashlight and prism, make sure the light is on the "high" setting
Point the light through the prism, direct it in front of you so you can see where you are walking
Slowly walk down the first set of stairs, then walk down the seating area and place the prism and flashlight on the reel to reel tape recorder
After doing so, continue to walk to the position under the seats with the rest of the players

Tbn.

Take flashlight and prism, make sure the light is on the "high" setting
Point the light through the prism, direct it in front of you so you can see where you are walking
Slowly walk down the first set of stairs, then walk down the seating area and place the prism and flashlight on the reel to reel tape recorder
After doing so, continue to walk to the position under the seats with the rest of the players

Aux I

Lamp OFF (coordinate with Aux II)

Aux II

Lamp OFF (coordinate with Aux I)

Vln.

Continue the previous gesture while the winds walk down the stairs
Once the Sax/Trombone players place their prims and flashlights on the reel to reel,
Stand up with your flashlight and prism and walk to the reel to reel
Make sure your flashlight is left on the "high" setting
Place your prism and flashlight on the machine
Press play and turn the volume up
Then continue to walk to the position underneath the seats

Vla.

Continue the previous gesture while the winds walk down the stairs
Once the Sax/Trombone players place their prims and flashlights on the reel to reel,
Stand up with your flashlight and pirsm and walk to the reel to reel
Make sure that your flashlight is left on the "high" setting
Place your prism and flashlight on the machine
The violinist will press play and turn the volume up
Then continue to walk to the position underneath the seats

Pno.

Lamp OFF

Slowly walk from your playing position to the position under the seats

Players under the seats:

Clarinets - Continue to improvise with the given notes

Vc. + Cb. - Randomly strike the chime with soft part of the mallet, occasionally do a little tremolo with stick, occasionally strike/tremolo the seating supports for the seats with the mallet

Gtrs. - Blow/draw on the lowest hole and the highest hole, switch between the two randomly

Alto Sax + Tbn. + Pno. - Randomly tap/tremolo on the seating supports for the seats with your fingernails

Vln + Vla - Tacet

All players should never be louder than ***p***

Ending;

Once you hear the reel to reel start, take about 15" to decrescendo to nothing (note: this can be done with a light cue)

Aux I

(onstage)
Once the violinist presses play on the reel to reel, wait for about 3 minutes

Ending:
After waiting for about 3 minutes, slowly walk to the reel to reel machine
Coordinate with Aux I to turn off the flashlights
Turn off the first flashlight
Hit STOP on the reel to reel at the same time that you turn off the second flashlight

Aux II

(onstage)
Once the violinist presses play on the reel to reel, wait for about 3 minutes

Ending:
After waiting for about 3 minutes, slowly walk to the reel to reel machine
Coordinate with Aux I to turn off the flashlights
Turn off the first flashlight
Aux I will press STOP on the reel to reel at the same time that you turn off the second flashlight

Chapter 3.

Theatricalized Music: History, Context, and Analysis

There has long been a relationship between the theater and music. Their shared medium of live performance has instigated a number of dialogues between these two mediums. As a composer of music in the western art music tradition, it is of particular interest to me to examine the myriad ways in which this music has re-analyzed, re-contextualized, and re-considered its relationship to narrative, visual performance, and text throughout its development. The history of the interaction between these worlds stretches back to the very beginnings of notated music, in works such as Hildegard von Bingen's liturgical morality play *Ordo Virtutum* in the 12th century to the contemporary, post-dramatic work of composers such as Jennifer Walshe, Rick Burkhardt, and Georges Aperghis. Throughout history, the theater has consistently engaged composers, inspiring new ways of thinking about the organization of elements in a performance. By examining the history of this dialogue between theater and music it will become possible to identify commonalities in thought and practice among composers who have undertaken these concerns, think critically about these developments to discern which practices deserve further exploration, as well as to seek out new possibilities not yet fully investigated. It is also of vital necessity to explore this history in order to contextualize my own work via the language used in relationship with other composers who have worked in this field.

In order to properly discuss these relationships it will also become necessary to come up with definitions for some specific terms, namely “composition” and “theater”. One could argue that these terms conjure up more associations then they do specific definitions, and by identifying a personal explanation for these terms it will become possible to place my own work in the proper context. Through an examination of these terms, I will also be forced to carve out a more specific taxonomy of artists working in this interdisciplinary field. The method used to obtain these definitions will involve an examination of possible definitions for these words provided by thinkers and artists who have attempted to examine the implications of these terms while simultaneously blurring the lines between the two in either their artistic or theoretical practice. By examining a

limited set of these definitions, it will become possible to define exactly where my practice can be situated in relationship to the terms “composition” and “theater”.

This examination of the history of theatricality in music and the exploration of the terms will culminate in an in-depth analysis of Jennifer Walshe's work *HYGIENE* for ten performers and DVD. This work from 2010 represents a well-polished approach to the combination of theater and music through a holistic, compositional approach to all the elements of performance rather than a more classical division between the musical and the theatrical. Through a detailed analysis of Walshe's compositional treatment of her material and a contextualization of this work in terms of her own thought it will be possible to explore the inner workings of a piece that accomplishes many of the things that I find interesting and wish to engage with in my own work. This analysis will open up a dialogue about how this composer has dealt with her materials, with a particular emphasis on the roles context, information, development, and composition plays in her work. This will illuminate not only the thinking of a contemporary artist but also provide an opportunity to tie together the different strands of thought present in the rest of the paper, treating *HYGIENE* as an example of a contemporary addition to the history of theatrical music as well as a piece that exemplifies the discussed definitions of “composition” and “theater”.

On Theater

It would not be possible to discuss the intersection of music and theater without first examining the word theater and deciding upon a definition for the term. The word itself evokes numerous associations, the theater as a physical space, as a format for storytelling, even as a description of military activity. As in all art being made today, theater has evolved far beyond its origins as an art of storytelling while retaining its essential elements, namely the usage of live performers and the creation of a new (often temporary) space. By examining some contemporary definitions of theater, with a focus on so-called “composed theater”, it will become possible to create a map of thought on the role of theater in the current artistic climate.

The first definition that I would like to explore is also the most open-ended. In his seminal text *The Future of Music: Credo*, John Cage radically challenged the divide between noise and music. In doing so, he created a new definition of music that opened

the doors for any sound to be heard and appreciated as music. This idea is illustrated by the very first sentence of *The Future of Music:* “Wherever we are, what we hear is mostly noise. When we ignore it, it disturbs us. When we listen to it, we find it fascinating.” (Cage 1961: 3) This puts the act of listening in the forefront, that our decision to *listen* is the barrier between music and noise, not the material itself. Cage goes on to present a new term for this new paradigm of sonic appreciation, replacing the word “music” with the term “organized sound”. (Cage 1961: 3) This then places another area of emphasis on the idea of organization, that music is defined by both the act of organizing material as well as active, musical listening. I would like to define Cage's conception of music at this point in his life as “sounds heard”. Splitting this term into two separate, but related ideas: the word “sounds” in this context may mean both organized, curated sounds (as in his idea of “organized sound”) as well as the random noises that can be heard as musical if one listens attentively. While “heard” in this concept requires that the listener be prepared to appreciate the sounds in a musical way and ultimately to draw a personal frame around the sounds, to decide for themselves which sounds are part of the organization and which sounds exists outside of this structure. The question becomes: what does this have to do with theater? Well I would like to propose a theatrical equivalent to this idea of music as “sounds heard”. Applying this mode of thought to the visual language of the theater, it is possible to define theater extremely broadly as “things seen”. This presupposes that one can view anything as theater, if the looker is applying theatrical principles to their subject, but it also includes the necessity of organization that Cage includes in his conception of music. In thinking about theater in this way, one is allowed to bring any kind of material into the frame of the work. This thought also introduces the idea that the work is defined by it's interrelations, what one decides not to do, how the elements interact with one another, and re-examining the contexts of the materials in their new form. Cage himself supports this idea in his essay *Experimental Music,* written 20 years after the *The Future of Music: Credo*. This is Cage post *4'33”* and post Black Mountain College, while he was teaching his radical, highly influential class on experimental composition at the New School. He ends this essay with the declaration: “Where do we go from here? Towards theater. That art more than music resembles nature. We have eyes as well as ears, and it is our business while we are alive to use them.” (Cage 1961: 12)

A unique aspect of the theater is its necessary usage of nearly every medium of art to produce a piece. Many theater productions will not only require the regular theater-makers such as actors, a director, and a dramaturg, but also (in the most basic of lists) a composer, a set designer, a lighting designer, and occasionally even a choreographer. Simply through an examination of the personnel required to create a theatrical work, it becomes apparent that the theatrical experience is inherently interdisciplinary and that it is ripe for experimentation through the application of forms and processes from other art forms to theatrical material. An auxiliary definition of theater I would like to examine is its role as an amalgamation of the arts, with a particular interest to examine the role of organization in the theatrical work. Laszlo Moholy-Nagy described an idea of a “theatre of totality” which is applicable to the aforementioned way of thinking, Moholy-Nagy defined this idea thusly: “an organization of precise form and movement, controllable down to the last detail, that should be the synthesis of dynamically contrasting phenomena (of space, form, movement, sound, and light)”. (Moholoy-Nagy 1925: 53) In this quote, Moholy-Nagy is describing an ideal version of the theatrical experience in which the various elements involved in a performance are organized in a highly precise way. This early theory can be re-evaluated in the context of Cage's later thoughts and in doing so, a similar thread is found. Each thinker makes no comment upon the material of the work but rather the form in which it is presented. A potential commonality between these two theories is that an aesthetic work can be made from any materials, drawn from any contexts but it is the relationships created via the organization of the materials that creates the art work. Moholy-Nagy also represents an interesting point in the history of theater, along with his Bauhaus colleagues he is on the cusp of modernist thought and the liberation of the theater from the tyranny of narrative. It is useful to supplement his thought with that of a later theorist in order to gain a more modern idea of the role of organization in theater. Georges Aperghis is a French composer who has had a long and fruitful career in the world of contemporary music theater, his music will be discussed in greater detail in subsequent paragraphs but I would like to examine his thinking as a composer who theatricalizes his music. Aperghis often discusses his treatment of the elements of his work as “independent and self-sufficient of one another” (Rebstock & Roesner 2012: 230) and that through this organization a polyphonic stream of information is created in which the various elements of the work, be they sound, light, gesture, text, etc. all function on their own terms but create a new work through their interactions. This treatment of theater as a result of organization also places Aperghis in

the context of post-dramatic theater as described by the coiner of the term, Hans-Thies Lehmann. This relationship is further illustrated by the following quote:

> “Aperghis structures his musical theater at a level that has nothing to do with the content or the dimension of meaning. It does not revolve around the question – a typical one for (traditional theater) – of 'what should be narrated', a question that provides orientation for material and structure, but rather the reverse: to build up a complex structure that is so loaded with potential meanings that the viewer can – and must – distil his own stories from it.” (Rebstock & Roesner 2012: 231)

Aperghis then provides another element to the definition of theater, if we have begun to think about this art form as “organized things seen” then perhaps Aperghis' contribution is the denial of meaning in favor of the organization. This allows the composer or playwright to produce a work that exists only on its own terms, the audience is invited to find their own stories within the work and they are certainly welcome to bring their associations but that the work itself exists only through its inner workings, rather than through continuous external reference. So perhaps now with this expanded and yet specific view of the theatrical practice, it is possible to examine further the intersections between music, theater, and composition.

On Composition

Up to this point, I have deliberately avoided using the words “composition” or “composed”. The emphasis placed on organization in my discussion of theater has approached these terms but through a more detailed analysis of that organizational impulse, it will become possible to define the role of composition in theater and in a larger sense, its role in defining the boundaries of an artwork. The term is most often referred to in relation to music, and the central role that composition has played in music throughout its history will shape my application of the term to other artistic disciplines. There is one particular definition of composition that I would like to engage with, taken from Roland Quitt's essay *Composition and Theater*. Quitt proposes the following definition: “What composition means, then, is a staging of discrete individual elements within an artefact, all of which refer semiotically to each other in such a way that together they form an ordered system of some complexity.” (Rebstock & Roesner 2012: 59) This definition is necessarily broad, one can apply it equally to the relationship between voices in a Bach fugue, the coordination of set, actor, sound, and light in the theater, the

forms created by moving bodies in choreography, as well as the placement of elements within a painting (as indeed Quitt does in an analysis of Rubens' *Rape of the Daughters of Leucippus*). This definition, similarly to the earlier examination of theater, makes no comment upon the individual elements themselves but rather stresses that the artwork arises from the interaction of elements within a structure and the creation of a dynamic system through that organizational impulse. The material itself will inevitably bring its own contexts and materiality to the structure but the role of the composer, if we are to follow Quitt's definition, is not to deal with referentiality of the individual elements but rather to collect those elements and to create a structure in which those external references inherent in the material are bounced off of one another through the creation of internal, compositional relationships. The composer, according to Quitt, creates a situation in which the audience is tasked with the consolidation of the internal and external references contained within in a work. The organization of material creates the internal references, justifying the various elements through their formal relationships within the system. This does not deny the reference that the material contains within itself but rather places that aspect of the work in a supplemental role to the composition itself.

Despite the freedom that Quitt allows the composer in thinking about material it would be useful to add a secondary definition to his in order to understand more thoroughly the role of material within a composition. The idea that I would like to explore is that the various material elements of a composition, be they visual, sonic, or something in between, should all exist upon an equal plane, that no element should be considered more important then any other. Within the system of a composition, the relationships created between the materials should all be in the service of the whole rather than in support of any individual part. This idea has rather surprising roots, expressed in an early form in the writings of Richard Wagner. In his writing, Wagner professed a vision of the music theater of the future that would contain different elements which would “consume and obliterate each other as devices in favor of the achievement of a unified purpose of all”. (Wagner 1976: IX 17) Wagner's own operas fail wildly in this regard: music, text, and drama always sit on the top of the hierarchy in his work, greatly eclipsing the other elements such as set design, staging, lighting, and other concerns. But the idea of eliminating the hierarchy of elements has vast repercussions for music that confronts theatricality or attempts to bring visual elements into the work. A

composer of music who uses elements from outside of traditional musical practice will inevitably tempted to create a situation in which the various non-musical elements are secondary to the sound. This immediately creates a dangerous power dynamic where parts of the composition may exist only in the service of other elements. I believe that to create a truly dynamic system in the sense of Roland Quitt's aforementioned definition, relationships between the elements must be egalitarian, allowing the composer to create a system in which there are formal relationships on every level of the piece and between every element. The elimination of hierarchy within a composition will play an important role in the discussion of the history of theatrical music, as this idea appears again and again, from Wagner to Walshe.

With a better understanding of the terms theater and composition, it is now possible to attempt to synthesize these two elements into an ideal concept of theatrical music. None of the pieces that will be discussed as examples of this tradition will live up to this idea completely, but it presents an interesting way to think about what sort of compositional concerns must be in the mind of the artist when developing a work that sits at the intersection of theater and music. According to the discussed definitions, an ideal work would be made up of elements from any discipline, in which no material is more important than any other, all of which would be organized through a composed system that would create internal relationships between the elements, not ignoring their contexts outside of the composition but rather subsuming those contexts through formal organization.

A Brief History

In order to understand my contextual position as an artist producing work that essentially theatricalizes the concert situation, it is necessary to understand how other artists have dealt with these ideas, to identify any commonalities between their practices, and to analyze their work in terms of the previously discussed definitions of theater and composition. Rather than a general approach to the history of the interaction between theater and music, which would necessarily include opera, incidental music, oratorio, and other genres of dramatic music I would like to focus on three composers, John Cage, Mauricio Kagel, and Georges Aperghis, who work to make the concert theatrical not through the use of drama or narrative but through an engagement with the various rituals and expectations that come with the western classical concert experience. I will

provide a snapshot of this history by looking at individual pieces from these composers at particular points in their careers, moving through time chronologically and ideologically.

Before moving into the discussion of Cage, Kagel, and Aperghis, it would be useful to identify some roots of their thought in both the history of Western art music as well as early pieces that point to later developments in theatrical music. The concert has changed form fairly dramatically through its development. Classical music, similar to many art forms, served almost exclusively as “functional” art throughout much of its history, most notably in the service of liturgy and as entertainment for nobility. It was only in the Romantic period did this idea begin to change and people began to see music as a means to make *l'art pour l'art*. This development is mirrored with a change in the concert experience as well as in the construction of concert halls themselves, going from small chamber groups arranged in a circle in the corner of a room to massive orchestras fanned out in front of a conductor placed at the very center of the audience's attention. What this change emphasizes is the shift in thinking about musical performance from a solely aural experience to something that is meant to be watched and heard. (Shaw-Miller 2013: 102-106) This allowed virtuosi of the latter 19th century who fully embraced the visuality of performance (such as Niccolo Pagannini and Franz Liszt) to explode in popularity, emphasizing the importance of visual spectacle in the concert situation at the time. Some interesting examples of later developments in this idea of “visual music” come from composers such as Alexander Scriabin and Georges Antheil; each of whom explored this concept in their own ways. Scriabin is perhaps one of the earliest people to work explicitly with this idea, requesting that uniquely colored lights be triggered by a light organ in his piece *Prometheus: The Poem of Fire* (1910). In this work, Scriabin attempted to reflect his synesthetic conception of this vaguely programmatic work, however the composer's avoidance of narrative makes this work a potential early example of the relationship between theatricality and the abstract concert experience. Antheil represents an entirely different way of thinking about the visual performance of music, relying not on additional elements such as lights but rather on the visual characteristics of the instruments themselves. In his work *Ballet Mécanique* (1924), Antheil used sound-producing devices that have significant visual presence. Using airplane propellers, electric bells, sirens, player pianos, as well as an array of percussion instruments and two live piano players, Antheil uses the visual nature of his instruments

to comment not only upon man's recent embrace of the mechanical but also (perhaps inadvertantly) upon the relationship an audience has with live musicians. By using player pianos as well as live pianists, he creates a situation in which the visual content of the performance is occaionally undermined by the sonic. It becomes difficult to discern between the automatic pianos and the live musicians, and the overwhelming presence of the airplane propellers in relation to the ordinary musicians creates yet another dynamic between what is seen and what is heard. Both Scriabin and Antheil offer the very beginnings of ideas that will become more important as time wears on and the ideas surrounding theatricalized music become more advanced.

I will fast forward through World War II and into the 1950s to examine another highly important development in this tradition. During this time period John Cage began to think about music in a radically new way, embracing interdiciplinarity, chance, and experimentalism to a degree that he hadn't in previous years. This shift in his thought resulted in a number of pieces that challenged held views about the definition of music and the role that the composer plays in their compositions. His famous silent piece *4'33"* (1952) challenged the idea that the sounds of a piece had to be controlled by their composer, instead letting the random sounds of an audience in a concert hall create the sound-world of the piece. But it is his work with happenings and theatrical music that are of interest to this particular history, although one could easily argue that *4'33"* is a theatrical piece. Cage was also teaching at the Black Mountain College during the early 1950s and through this interaction with other forward thinking figures such as Robert Rauschenberg, Willem de Kooning, and Buckminster Fuller his work opened up to contain material outside of sounds. The most pertinent work to come from Cage's Black Mountain days was his *Black Mountain Piece* (1952), in which the composer produced a score that contained nothing more than “directions for periods of time that prescribe to the actors when they act (or can act) and when they cannot.” (Rebstock & Roesner 2012: 34) The actions themselves were determined by the performers and involved the hanging of paintings, multiple readings of text, the projection of a film, dancing while being chased by a dog, and the serving of coffee (among many other actions). This piece is perhaps the most radical and the most exacting example of the aforementioned combined definition of theater and composition. Cage uses material from everywhere, with no hierarchical relationship between the elements, allowing their contexts to mix freely, justified only by their relationship to one another within a controlled system.

It is useful to examine a similar but more determinate theater piece by Cage. His work *Water Walk* (1959), made famous by a number of appearances on Italian and American television shows in 1959 and 1960, exemplifies a more controlled approach to a similar kind of material found in *Black Mountain Piece*. In *Water Walk*, Cage asks the performer to do a number of actions according to a stop watch. Most of the actions create sounds while many of them do not and they range from the seemingly normal, such as playing some notes on a grand piano, to the completely absurd, such as dipping a duck call into a glass of water or pouring a glass of seltzer water. Cage's instruments in this work do not resemble the specially built tools that one has become familiar with, instead of violins and clarinets the performer works with a bathtub, a mechanical fish, boiling water, a vase with flowers, radios, and other unusual items. What this re-imagining of instrumentality does is create a theatrical gesture simply through the performance of the piece. The performer is doing only what is asked of them in the time allotted, but the unusal nature of their instruments forces the viewer to consider them not simply as tools for sound, as one would with a traditional instrument, but rather as objects with their own connotations, contexts, and uses outside of the piece. By repurposing these objects as instruments, Cage makes the audience aware of not only the sound produced by the work but also the nature of it's production. One could also argue that Cage's selection of material for this work has less to do with sound and more to do with the theatricality of the performance. The visual quality of the instruments harkens back to Antheil's *Ballet Mecanique*, and points to a common thread between a number of these works, engaging with the visual aspect of performance through the use of unusal instruments.

Mauricio Kagel is undeniably one of the most important composers of theatrical music, his consistent engagement with theatricality throughout his career explored new territory in the relationship between theater and music, resulting in an extremely individualistic style. One of Kagel's largest and most intriguing works is *Acustica* (1968-70), written for “experimental sound-producers and loudspeakers”. This work exists on two nearly separate plains, one being a fixed, four channel electronic piece while the other consists of 2-5 musicians creating sound by selecting instruments and gestures from an enormous list of possibilities, allowing the live component of the work to change from performance to performance. Continuing the tradition laid out by Antheil and Cage, the theatricality of this work comes from the instruments themselves and the methods

used to play them. Some of the instruments and techniques involved in this work include megaphones, yelling into wax paper, blowing pressurized air into the resonantors of a marimba, clapper-sandals, nail violin, and many others. These unusual instruments have a distinctive visual presence, unique to this work. Unlike the Cage and Antheil pieces discussed previously, Kagel's sound-producers have no use outside the concert hall. They are uniquely purposeless devices, produced exclusively to make sounds for this single piece. This results in the interactions between the musicians and their tools which are characterized by an abusrdity that permeates much of Kagel's work, as the performers embrace this purposeful purposelessness the audience is invited to embrace the strange ritual occuring in front of them. The composer claims that his use of theatricality in his work is to privilege the live experience, as a reaction against recording technology; he states: “my music is a direct exaggerated protest against the mechanical production of music. My goal: a rehumanization of music-making.”[4] While I agree with Kagel's reasoning in regards to the mechanicial reproduction of music, I believe that *Acustica* also makes its viewer acutely aware of the rituals at place in the typical concert situation. By confronting his audience with instruments that embrace their purposelessness, Kagel asks the listener to then place these unsual sound-producers in context with what is normally seen on stage and the question then becomes: what separates these devices from the standard instruments? Are the really different at all? They are all purposely built to make sound and thus they are all instruments, but by making one aware of the uselessness of a concert situation in the first place Kagel is able to ask interesting questions about the role of acting bodies upon the stage.

The final composer I would like to discuss in this section is Georges Aperghis, another composer who has made theatrical music the main focus of his output. In contrast to the works by Cage and Kagel discussed thus far, Aperghis usually does not create theatricality through the instruments used but rather through a polyphonic approach to visual, sonic, and semiotic information. This can be seen in practice through two remarkably different pieces: Les guetteurs de sons (1981) for percussion trio and Machinations (2000) for four female vocalists and computer. These two pieces explore this idea of polyphonic information in divergent ways, both works use the standard format of performers with instruments placed in front of the audience but it is in the

4 Willi Worthmuller. Interview with Mauricio Kagel. *Nurnberger Nachrichten*8 June 1970, n.p.

interaction between gesture, sound, and language that Aperghis plays with expectation and denial. In Les guetteurs de sons, which translates roughly to “The watchmen of sounds”, each musician is equipped with a kick drum and a tom, the dominant gesture in the piece is a playful handling of the relationship between what is seen and what is heard. Every action done by the performers is written into the score, and consists of hitting the tom, hitting the kick drum, making the action of hitting the tom without actually hitting it, mimicking the action of hitting the tom with their heads, and speaking. What happens throughout the piece is that the visual information will often contradict the sonic information, i.e. the performers will be completely static but percussive hits from the kick drum will be heard, which does not require any movement above the waist. Occasionally the performers will make the actions of hitting the tom but either no sound will occur or it will occur in the “wrong” place, via the kick drum. This creates a polyphonic relationship between what is seen and what is heard, each element develops on its own and has its own characteristics, occasionally supporting and occasionally subverting each other. This idea can be seen in a much more complex way in his work Machinations. In this piece the performers are arranged very similarly, four female vocalists in a line behind their instruments. However in this case, their tools involve only their voices and a small camera, alongside the assistant who manipulates their voices through computer processing and 4 projections which correspond to the four cameras placed in front of the women. The performers manipulate small objects in front of their camera, make hand gestures, as well as place their faces in view, they also make a number of vocal noises that often approach language without ever achieving the semiotic detail by which language is defined. The computer then manipulates these vocal fragments further, creating a visual and sonic texture that continuously bumps up against meaning continuously without ever fully embracing it. This embodies further the aforementioned idea of a polyphonic approach to information, by creating a number of suggestions of meaning on multiple levels of the work, Aperghis makes it impossible to state what is truly happening in the work. This forces the audience to pick and choose which information to retain and which information to let go, creating an experience of the work that is unique for each individual.

By looking at these three composers it is possible to see that certain ideas permeate throughout the history of theatrical music. The visual impact of a performance of music, the semiotic contexts that the instruments themselves can create, and a

polyphonic approach to information contained within the differing layers of the work. All of these functions can be tacked on to our current understanding of the interaction between composition and theater. These works provide specific examples of how one can create a singular work through the combination of multiple disciplines and material from differing contexts in a composed system. However, it must be stated that these are merely surface level descriptions of these works and it would be of benefit to examine them in greater detail. In order to gain a more through understanding of the ways in which these various elements can function in a single piece, I will present an analysis of a recent work by the composer Jennifer Walshe, in order to observe a more contemporary application of these ideas.

Jennifer Walshe – *HYGIENE*

Jennifer Walshe represents something of a culmination of the history represented by Cage, Kagel, and Aperghis. Her work exists in the realm of contemporary classical music but her consistent engagement with theatricality, absurdity, and physical materials places her at an intersection between the discussed definition of theater as “organized things seen” and composition as a system of interrelated semiotic material. Her 2010 work *HYGIENE,* for 10 performers and DVD, does not represent every thread present in her work but it does exemplify the idea of a work that utilizes material from many disciplines (in this case film, choreography, literature, music, and theater), without any apparent hierarchy between the elements, organized in a complex system that creates new relationships between the materials without denying their original contexts. I have completed a thorough analysis of this work, and by examining the moment-to-moment details, it became possible to gain a greater understanding of the ways in which Walshe works with her material, and how she creates a unified language despite the disparities inherent in her mixing of disciplines.

One of the most effective concepts that structures *HYGIENE* is a limited economy of material. Walshe creates a distinctive and cohesive language for herself in this work by limiting her vocabulary of gesture, movement, light, sound, text, and video. It would be useful to briefly describe each of the individual elements in order to understand their organization. Movement in this work is made up of calisthenics, flag semaphore (performed with pom-poms and glow sticks), bowing a violin and cello without touching the strings, and a recurring scuffle between performers 5 and 6. The

silent DVD uses a limited number of visuals including multiple scenes of wind-up toys and colored lights, toy soldiers, a photograph with superimposed bubbles, out-of-focus circles of light, a toy sheep, coiling film or wires, and crumpling foil, all of which appear at multiple points in the piece. The sonic vocabulary, consistent with Walshe's training as a composer, is the most diverse but can be categorized into continuous sounds such as drumming fingers, dropping rice into a tin, sul pont bowing on the violin and cello, or rolling a chestnut around a glass (among many, many other sounds) or more brief, staccato sounds such as the ripping of cardboard, counting one's heartbeat, or tapping stones together, among others. One of the most important things that Walshe does with her material is create a gestural language that unifies the varying elements. The most important gesture in this work is the use of a “trigger”, many of the sections in this work have their beginnings or endings marked by a sudden burst of either sound, light, or image. This can be seen most commonly through the ripping of cardboard that occurs throughout the piece, such as the very beginning, in which this action triggers the lights to come on or at 1:50[5], where this gesture is used to suddenly cut off the actions of the other performers in the ensemble. This gesture happens frequently in the DVD as well, acting less as a trigger for sections then a burst of association, such as at 4:00 where performers 5 and 6 are slowly dropping rice into a metal tin and the DVD shows a short burst of what appears to be crinkling foil or mylar, immediately changing the viewer's association with the sound of the rice. By applying similar gestures to materials gathered from different mediums, Walshe eliminates any hierarchy between them by subjecting them all to the same processes.

Walshe also deals with this dissimilar material by applying musical principles to non musical material. Development in musical terms has rather specific connotations, it consists of taking a germinal idea or gesture and building upon it through addition, variation, re-statement, and other ways of effecting the material throughout the course of a work. Walshe often develops the material in *HYGIENE* through the use of canonic gestures. As can be seen in the section from 4:20 to 4:50, in which there is a small canon created by performers counting their heartbeats. She also uses a gesture of stacking material until a sudden cut or change that is not dissimilar to how Beethoven will build up to a subito piano, however Walshe often creates this gesture not only

5 All timings correspond to timings listed in the score.

through sound but also through a visual development. An example of this type of visual gesture can be found from 1:10 to 1:50, in which the composer stacks (mostly) silent visual gestures until nearly the entire ensemble is in movement, culminating in a rip of cardboard, the turning off of the lights, and the freezing in place of the performers. She also uses this gesture to combine both sonic and visual material, such as in the section from 7:15 to 8:20, where there is an accumulation of both sonic and visual gestures, culminating in nearly the exact same trigger gesture that ended the section from 1:10 to 1:50, cardboard ripping and a sudden freeze of all the performers. This further illustrates how Walshe is dismantling any sort of hierarchy of material and it also exemplifies the idea of composition as an organized system of elements related to one another via organization rather than more overt semiotic relationships. By organizing the material into a form, filled with interconnected gestural relationships, she creates compositional development between the elements, not ignoring the connotations and contexts that the various images, movements, and sounds bring but relating them to one another through their organization in a system.

The role that information plays in *HYGIENE* is particularly interesting, and shows some relationships to the idea of a polyphonic approach to information discussed in the work of Georges Aperghis. There is often a discrepancy between the information contained in the score given to the performers and the information made available to the viewer. By examining a specific section of the work in detail it will be possible to see how Walshe has dealt with these different levels of information, that which is given to the performers, that which is made available to the audience, and that which is only available to the composer. The section in question is from 1:10 to 1:50. In this section, performers one and two are bowing their instruments just above the string creating an expectation of sound without the sonic content normally associated with that action, performers seven and eight are mouthing slightly mis-quoted and reorganized bits of text from *Inferno* by August Strindberg[6], while player ten spells out NATURALY ACCTYALWAYSVCBRATESTOSOMEETEN in semaphore with pom-poms.[7] All of these visual gestures carries with them an underlying current of information, whether it be musical information (the “air bowing”), text that the audience doesn't get to hear, or gibberish being spelled out with semaphore. Walshe allows these signifying systems to

6 Determined by searching a digital version of *Inferno.*

7 Determined by comparing the semaphore in the score to an online semaphore dictionary

co-exist and create new contexts for one another. It is not necessary to understand all of the systems in play, as even when one analyzes their inner workings, their relationship to one another remains mystifying and the content itself denies understanding. This was a particularly unusual experience, as analysis of a work usually illuminates the relationships between the materials but with *HYGIENE*, deeper understanding of the original contexts of the material only obfuscated the reasoning behind their inclusion. What was found then, was that the relationships between the materials existed compositionally, supporting the aforementioned justification of the elements through their organization.

It may be helpful to briefly examine Jennifer Walshe's own opinions on the role that this hidden information plays in her work. Her thoughts on this topic are well summarized in the following quote:

> I don't want to leave all the information out there. Part of the process involves stripping away old contexts and building new ones around the sounds. You can take a sound from a Britney Spears song, where she does a glottal groan moving into a throaty note, something which in context is highly-sexualized and provocative, and get rid of everything except the glottal groan, string it out for minutes at a time, and surround it with banal answering machine messages about getting rid of flies and the sound of ice cubes plonking and cracking into glasses of water.
>
> Of course, everyone listens to the sounds and hears completely different things, depending on how 'stripped-down' the sounds are, and what sounds are next to them, and also on the listener themselves, what music they like, how sound has played a role in their life, what they had for breakfast, whether they are in a good mood. I strip the sounds down as much as I can because it is impossible to be able to get them to the point where they are semiotically neutral – instead, I just want to confuse things a bit and make things less clear.[8]

This quote explains in some detail how Walshe views the role of cultural and semiotic information in her work. She often has visual and sonic material that can be quite charged but by placing it in a new context, she encourages the audience to reconsider their own role in the work. It seems that the ideal listener is not one who understands and is able to break down all of the various systems of signification at work in her pieces but rather one who allows their own experience of life to influence their engagement with

8 "Interview with Jennifer Walshe." Interview by James Saunders. *Ashgate Research Companion to Experimental Music* Sept. 2009: 343-51. Print.

her material. She invites interpretation and personal analysis, denying the mode of listening that often comes with classical music, where one is always working to understand the deeply codified “words from the master”. While the above quote speaks mostly about sound, one could apply this same mode of thinking to her approach to visual content. Walshe has spoken about the role of the visual in her work as an extension of her thoughts on sound, as illustrated by the following quote:

> I think my philosophy of how music should be now is changing in that for me, it's almost like theatre. It's not just that you sit on stage and play the notes -- there's a mindset that goes with it. My approach is encompassing more elements of performance. [...] To me, the gestures they make have sounds; even if you're not hearing a sound, there's a rhythm to the gestures people make.[9]

What *HYGIENE* represents in relation to the history of theatrical music is a culmination of the various strands apparent in the work of composers such as Scriabin, Antheil, Cage, Kagel, and Aperghis. It is a work that engages with the theatricality of musical performance, the visual presence of instruments, and a polyphonic approach to information. It is also a work that exemplifies the discussed ideas of composition and theater, encompassing this definition almost as fully as Cage's *Black Mountain Piece*. It is a work that makes no distinction hierarchically between its various elements, creating new contexts through a compositional approach to its materials, bringing together what previously existed in a dispersed state. The discussion around the terms of “theater” and “composition” may need to provide a new term for this form, perhaps performance, perhaps composition, perhaps an entirely new invented term. But what has become apparent through this engagement with a history of theatricalized music is that this tradition represents a way of thinking about performance as a holistic experience no matter what tradition the creator may claim to be a member of. The lines between forms become so blurry that what we are left with is a feeling of having experienced *something*, that we may not be able to fully understand the elements involved but by having an organized system of materials presented, one becomes aware of how each element of a performance plays a role in the experience of a work. Thus, every element must be considered in the composition and the composer must be intentional about all things

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9 "An Interview with Jennifer Walshe." Interview by Jonathan Grimes. *Contemporary Music Centre Ireland* 9 Aug. 2004

seen and heard, this lesson will prove important to the development of a practice that intends to blur the boundaries between disciplines and grammars.

Bibliography

Cage, John. *Silence: Lectures and Writings*. Middletown, Conn.: Wesleyan UP, 1961. Print.

Schlemmer, Oskar, and Moholy-Nagy, Laszlo. “Theater, Circus, Variety.” *The Theater of the Bauhaus*. Middletown, Conn.: Wesleyan UP, 1961. 49-72. Print.

Rebstock, Matthias and Roesner, David. *Composed Theatre: Aesthetics, Practices, Processes*. Bristol, UK: Intellect, 2012. Print.

Lehmann, Hans. *Postdramatic Theatre*. London, UK: Routledge, 2006. Print.

Wagner, Richard, and Wolfgang Golther. *Gesammelte Schriften Und Dichtungen*. Berlin: Bong, 1913/1976. Print.

Shaw-Miller, Simon. *Eye HEar: the Visual in Music*. Burlington: Ashgate, 2013. Print.

Scriabin, Alexander. *Prometheus: The Poem of Fire.* Leipzig: Ernst Eulenberg, 1910. Print.

Antheil, George. *Ballet Mecanique*. New York: Templeton, 1924. Print.

Fetterman, William. *John Cage's Theatre Pieces: Notations and Performance*. New York: Routledge, 1996. Print.

Cage, John. *Water Walk*. New York: Henmar Press, 1961. Print.

Kagel, Mauricio. *Acustica.* Vienna: Universal Edition, 1971. Print

Aperghis, Georges. *Les guetteurs de sons.* Paris: Self-published, 2006. Print

Aperghis, Georges. *Machinations*. Paris: Self-published, 2001. Print.

Walshe, Jennifer. *HYGIENE*. Dublin: Self-published, 2010. Print.

Appendix:

Video Documentation

Description

A video of the premiere performance of “Object Dialogues”. Performed September 13, 2016 at the Fei and Milton Wong Experimental Theatre at the Goldcorp Centre for the Arts.

Performed by

Clarinets: Alexandra Spence, Liam Hockley

Saxophone: Mia Gazley

Trombone: Janine King

Electric Guitars: Matt Ariaratnam, Alex Mah

Auxiliary Instruments: Martin Reisle, Matt Horrigan

Violin: Tegan Wahlgren

Viola: Elliot Vaughn

Cello: Marina Hasselberg

Double Bass: Dave Chokroun

Piano/Harmonium: Alanna Ho

Technical Director: Celeste English

Production Assistant: David Cowling

Filenames

Object Dialogues.mp4