

NON-INTENTIONAL PERFORMANCE PRACTICE IN JOHN CAGE'S *SOLO FOR  
SLIDING TROMBONE*

by

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## ABSTRACT

This dissertation provides a study guide to aid trombonists in understanding and appreciating the *Solo for Sliding Trombone* (1957-58), one of the many solo parts from the *Concert for Piano and Orchestra* (1957-58) by John Cage (1912-1992). This seldom-performed piece of contemporary music is often misunderstood and is overlooked as an important part of the trombone repertoire. This document aims to help trombonists seeking to perform unaccompanied trombone music to develop an understanding of Cage's aesthetic of non-intentional performance and a greater interest in learning this work. In particular, this dissertation addresses the question of how one can perform the *Solo* with non-intention in spite of the fact that practicing and rehearsing are required to play the work. The *Solo* score presents new challenges for the trombonist in terms of using all parts of the trombone, as well as a wide selection of mutes, to produce various sounds and timbres in ways never before conceived for the instrument. To approach this work, the trombonist must also reconsider his or her performance practice; they must learn to maintain extreme patience in performance and must transform the way they listen to and treat "silence." This work was the first indeterminate solo composition for the instrument. This document considers the context and compositional process for this piece, provides guidelines for performing the *Solo*, examines recordings of the work, and discusses its influence on later compositions for trombone. Thus, this dissertation presents the first extensive scholarly study of Cage's *Solo for Sliding Trombone*.

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## DEDICATION

This document is dedicated to John McPherson, my trombone teacher at the University of Alberta, who encouraged me to learn the *Solo for Sliding Trombone* and sparked my interest in John Cage. Without his inspirational tutelage while I first studied this work, this dissertation would certainly never have been written.

Thank you John.

## CHAPTER I

### Introduction

Above all, composer John Cage (1912-92) is associated with the approach to musical composition and performance that he called "indeterminacy." This term forces us to make some important terminological and conceptual distinctions, because it is associated with seemingly related terms that Cage frequently used, but which have very different meanings. Throughout this document the term "non-intention" is used to characterize a performance that avoids adding any preconceived methods or ideas, or specific intentions, to the execution of the performance directives given by the score. Many authors, including Cage, use this term interchangeably with the word "unintentional," which also is sometimes used to refer to an unintended result occurring during a performance. This distinction associates the term "unintentional" with an accidental result, rather than the disciplined avoidance of the performer's intent during performance. The problem of terminology is compounded in the presence of other terms associated with Cage, such as "chance." The element of "chance" that occurs in Cage's music is not associated with performance, but rather with the act of composition. An indeterminate composition is created using "chance operations," and should be distinguished from a non-intentional performance, which is the act of performing an indeterminate work without intention. Discussing Cage's musical aesthetic can be challenging because of the various different manners in which authors have used these terms. One of my aims with this document is to clarify these issues.

Cage's famous indeterminate works of the 1950's established him as an innovator and leader of the avant-garde movement of the mid-twentieth century. In particular, *4'33"* (1952) brought him worldwide notoriety and is still considered his most influential composition. Although indeterminacy first emerged clearly in his compositions in the 1950's, the development of Cage's aesthetic began two decades earlier, when he commenced composition studies with Arnold Schoenberg in 1935.

Already during his early years of composing, Cage valued duration over harmony and used this concept to introduce silence into his compositions. He adopted duration as his principal structural element by explaining that:

Sound has four characteristics: pitch, timbre, loudness, and duration. The opposite and necessary coexistent of sound is silence. Of the four characteristics of sound, only duration involves both sound and silence. Therefore, a structure based on durations (rhythmic: phrase, time lengths) is correct (corresponds with the nature of the material). (Cage 1973 [1961], 63)

Cage did not believe that other structures were valid, adding that "harmonic structure is incorrect (derived from pitch, which has no being in silence)" (Cage 1973 [1961], 63). In his book, *Silencing the Sounded Self*, Christopher Shultis questions the conclusions Cage draws from these statements: "At this point, one could very well question Cage's logic. If duration, by nature, includes silence, while harmony, in and of itself, does not, does it



follow that duration is the only possible approach to structuring music? Obviously not" (Shultis 1998, 87). Schoenberg also rejected this view, as Cage would later recall:

After I had been studying with him for two years, Schoenberg said, "In order to write music, you must have a feeling for harmony." I explained to him that I had no feeling for harmony. He then said that I would always encounter an obstacle, that it would be as though I came to a wall through which I could not pass. I said, "In that case I will devote my life to beating my head against that wall." (Cage 1973 [1961], 261)

Cage soon found a means to express an emphasis on duration by writing music for percussion instruments, a new concept introduced in Varese's *Ionization* (1929-31).

In 1938, Cage started working at the Cornish School in Seattle, as pianist and composer-in-residence for dance classes. Here he wrote his first works for percussion using his newly formed aesthetic. In 1939 he wrote *First Construction (in Metal)* for percussion sextet, using a sixteen-measure pattern consisting of 4+3+2+3+4 bar phrase-lengths. This rhythmic structure was repeated sixteen times in total, organized according to the same of 4+3+2+3+4 pattern. Therefore, the rhythmic structure of the whole iterates the rhythmic structure of its parts. This form, invented by Cage and known as "square-root form," allowed him to create a temporal structure independent of the rest of its musical content, and it became the basis for many of his compositions up to the 1950's (Shultis 1998, 89). This was a first means to create music not based on harmonic

structure. Cage writes, "The rhythmic structure could be expressed with any sounds including noise... or as stillness" (Quoted in Rich 1995, 148).

In a 1939 article entitled "Percussion Music and Its Relation to the Modern Dance," Cage wrote:

At the present stage of revolution, a healthy lawlessness is warranted.

Experiment must necessarily be carried on by hitting anything—tin pans, rice bowls, iron pipes—anything we can lay our hands on. Not only hitting, but rubbing, smashing, making sound in every possible way. In short, we must explore the materials of music. (Cage 1973 [1961], 87)

This view was manifested in Cage's music for prepared piano. In 1940, Cage was asked to provide music for a dance piece at the Cornish School. To create a variety of timbres with only a single piano, Cage placed small foreign objects, such as nails, screws, and other hard objects, on and between the strings of the grand piano; these altered the pitch of each string and often produced inexact, non-pitched percussive sounds (Rich 1995, 149). *Bacchanale* (1940) was Cage's first prepared-piano work. He later wrote, "The prepared piano led me to the enjoyment of things as they come, rather than as they are kept, or possessed, or forced to be" (Rich 1995, 152). This notion of not "possessing" sounds would play a fundamental role in Cage's compositional development into the 1950's, guided by his study of Zen.

In 1945, Cage began attending lectures on Zen Buddhism given at Columbia University by the philosopher Daisetz Teitaro Suzuki. Suzuki was admittedly not a Zen

master. He had received no "direct dharma transmission" from an established master, and was therefore not a true *roshi* (Leonard 1994, 154). Suzuki's family belonged to the abolished samurai class and the *Rinzai* Zen sect (Leonard 1994, 153). Thus Suzuki taught only the *Rinzai* sect of Zen and not the *Soto* stream (Leonard 1994, 148). Many Americans who converted to Buddhism following Suzuki's lectures later traveled to Japan and discovered a substantial difference between Japanese Zen and Suzuki's teachings. Masao Abe, a disciple of Suzuki, defended his teacher after his death, but conceded to American Buddhists that Suzuki's scholarship was "'unscholarly,' 'subjective,' 'not based on careful historical and textual studies.' Reading Suzuki had converted many of these people. Now they were denouncing him as an inaccurate 'popularizer'" (Leonard 1994, 148). In any case, Suzuki had a profound impact on Cage, who approached Suzuki's teachings in the same selective way Suzuki approached Zen. Referring to Suzuki's lectures, Cage recalled, "I couldn't for the life of me figure out what he was saying. It was a week or so later, while I was walking in the woods looking for mushrooms, that it all dawned on me" (Quoted in Rich 1995, 148). Cage did not live as a devout Buddhist, but instead took only those ideas from Zen that served his compositional interests. Cage remarked, "The taste of Zen for me comes from the admixture of humour, intransigence and detachment. I have never practiced sitting cross-legged, nor do I meditate. My work is what I do" (Quoted in Rich 1995, 155). Indeed, the study of Zen forced Cage to rethink his understanding of music. Cage stated, "Since the forties and through study with D.T. Suzuki of the philosophy of Zen Buddhism, I've thought of music as a means of changing the mind ... an activity of sounds in which the artist found a way to let the sounds be themselves" (Leonard 1994, 147). Cage's

encounters with Suzuki and Zen would ultimately lead to the creation of *4'33"*, a piece whose abandonment of intentional sound production has drawn both high praise and strong criticism from many who debate the theory behind it. One supporter, George J. Leonard, defends Suzuki's presentation of Zen teachings and Cage's interpretation of them in his book, *Into the Light of Things*:

Rather than write off Suzuki as a "subjective" popularizer, making "unscholarly" mistakes, a contemporary literary critic immediately wonders if he has encountered a "strong" poet creatively misreading some text to breathe new life in it. (Leonard 1994, 151)

Leonard also comments, "Suzuki's '*satori* Zen,' the Zen of Cage's *4'33"*, has been far more important to American spiritual life than the purist, but still microscopic, Zen congregations" (Leonard 1994, 149). Both Suzuki and Cage present simplified versions of Zen teachings, each in his own way. While the more complex, "purist," ideals of Zen Buddhism might be compromised, Suzuki provided, and Cage applied, an accessible, and thus more popular, approach to the fundamental tenets of the philosophy.

In 1946, Cage met a twenty-five-year-old musician from India, Gita Sarabhai, who became his pupil. Concerned that western music was posing an ever-increasing threat to traditional Indian music, she traveled to New York after studying Hindustani singing, drumming and music theory for eight years. Leonard notes that the relationship with Sarabhai had a deep impact on Cage's aesthetic concepts of sound and silence:

Searching, personally and professionally, for some kind of direction, he asked her what her teacher in India had said music's "purpose" was. She replied that he had said the function of music was "to sober and quiet the mind, thus rendering it susceptible to divine influences." (Leonard 1994, 146)

Cage believed that musical art should "let the sounds be themselves," and "change the mind" so that it opens to "experience, which inevitably is interesting" (Leonard 1994, 147). Sarabhai's association with Cage would further alter his aesthetic of music and the compositions that would follow. Cage's works after this period began to use silence ever more prominently.

In a 1946 article entitled, "The East in the West," Cage makes reference to Dr. Ananda K. Coomaraswamy, whose 1934 publication, *The Transformation of Nature in Art*, derived a theory of art from Indian and Chinese treatises, and also from the writings of a fourteenth-century German mystic, Meister Eckhart (Patterson 2002, 44). Cage often quoted Coomaraswamy's maxim, "Art is the imitation of nature in her manner of operation" (Cage 1973 [1961], 100). This statement convinced Cage of the value of listening to naturally occurring sounds.

In 1949, Cage wrote two important texts: his *Lecture on Nothing* and *Lecture on Something*. These texts were a radical new development in Cage's aesthetic of silence. Each text was notated in a highly organized manner, to affect the reader's control over it. In *Lecture on Nothing*, Cage divided each line of text into four measures, and each group of twelve lines formed a unit of rhythmic structure. Despite the unusual spacing and

position of the words in four columns, Cage indicated the text should be read across the page in a normal fashion, and that the reader should adhere approximately to the written lengths of silences while avoiding a rigid approach. Cage explains in the following instructions:

Each line is to be read across the page from left to right, not down the columns in sequence. This should not be done in an artificial manner (which might result from an attempt to be too strictly faithful to the position of the words on the page), but with the rubato which one uses in everyday speech. (Cage 1973 [1961], 109)

Cage spoke of silence in a new, positive manner. In a 1991 essay, Eric De Visscher comments on Cage's new approach to silence: "In order to acknowledge the fully positive character of silence, it is not sufficient to recognize its important role in the creation of structure. One should also be able to think of silence without considering it negatively, i.e., as an absence of sounds" (De Visscher 1993, 120). Essentially, Cage proposes silence as a presence that can fill an acoustic space. He declared his new aesthetic of silence in the opening section of *Lecture on Nothing* by saying:

I am here, and there is nothing to say. Those who wish to get somewhere, let them leave at any moment. What we require is silence; but what silence requires is that I go on talking.

[...]

But now there are silences and the words help make the silences. I have nothing to say and I am saying it and that is poetry as I need it. This space of time is organized. We need not fear these silences. (Cage 1973 [1961], 109)

Cage is referring to the dichotomy of sound and silence. Sounds may occur within silences, but the sounds in turn "help make the silences" (De Visscher 1993, 121). De Visscher explains, "Each element contains one part of the opposing element, so that silence may contain sounds, as much as sound must include silence. Each Nothing is a Something and each Something is a Nothing" (De Visscher 1993, 121). De Visscher notes the *Lecture on Nothing* alluded to the idea that all sounds are music, an idea which dominated Cage's thinking in his next compositions. He explains:

In order to establish a fully positive concept of silence, the composer—and the theorist—has to make a (strictly speaking) radical revolution: he must first turn his attention towards all sounds. He must be able to listen and accept all sounds he is encountering before making any preconceptions, before formulating, in Cage's own words, any "intention." (De Visscher 1993, 121)

Cage made this revolution in his theory and composition through his adoption of elements of Zen theory, and his new understanding of the presence of silence. The final

element of Cage's revolution was the incorporation of what he referred to as "chance operations."

The 1950's were a period of intense creativity in which Cage started to experiment with these chance operations. In 1951, a friend and fellow composer, Christian Wolff, exposed Cage to the *I Ching (Book of Changes)* (Rich 1995, 159). This ancient Chinese oracle text expressed the notion that the universe is organized according to two basic qualities, the *Yin*, represented by a broken line symbolizing the "female" as passive and nurturing, and the *Yang*, represented by a solid line symbolizing the "male" as active and dominant. The *I Ching* sets up a system of sixty-four hexagrams, each consisting of six lines, some solid and some broken; each hexagram is interpreted as an oracle that expresses the metaphorical meaning of the particular combination and ordering of the *Yin* and *Yang* principles. A hexagram oracle is obtained by tossing three coins, six times. Tossing two heads and a tail corresponds to a solid line, two tails and a head give a broken line, three tails give a solid line moving to a broken line and three heads give a broken line moving to a solid line. Hexagrams are generated by six tosses in order to foretell the future (Bernstein 2002, 201). Cage borrowed this idea of tossing coins to create sonorities in his compositions. The objective of using chance operations was to create a compositional environment in which randomness formed the structure of the music. The musical events in succession were unconnected to each other by traditional melodic techniques, and what preceded one idea was not necessarily intended by the composer to have anything to do with the event that followed (Grout and Palisca 1996 [1960], 794-5).



In 1950, Cage completed his first work using chance operations. The *Concerto for prepared piano and chamber orchestra* (1950-51) used this new technique in the third movement. In the *Concerto*, the *yin* and *yang* elements were represented by the opposition and interplay between the orchestra and the prepared piano (Bernstein 2001, 201). Cage constructed the third movement by combining the two charts from the second movement. He used the *I Ching* to select sounds from the orchestra chart and sounds from the prepared piano chart. He was able to combine the material from the second movement using chance operations to create a randomly constructed form for the third movement. Cage would continue to use the *I Ching* in his compositional processes for the rest of his life.

Throughout the next decade several more works were created using chance operations, most notably *Music of Changes* (1951), *4'33"* (1952), and the *Concert for Piano and Orchestra* (1957-58). *Music of Changes* was Cage's first work composed entirely using chance operations. The work involved eight charts containing sounds and silences, eight charts indicating durations, eight charts indicating amplitudes, and single charts for determining tempi and the number of contrapuntal layers. The format of the charts corresponded to the sixty-four hexagrams of the *I Ching*, with each chart containing eight rows and eight columns of cells. Only the thirty-two odd-numbered cells, which contained the sounds, appeared in each chart because the other thirty-two even-numbered cells represented the silences and were therefore not visually present in the score (Bernstein 2001, 203). Although in many ways *Music of Changes* satisfied Cage's new aesthetic of random use of silence and sound, he found that because the piece used a conventionally-notated score as well as many traditional features of composition,

this method would ultimately not suffice as an embodiment of this aesthetic. Christopher Shultis explains, "The usual score, even one where chance procedures determine it, is fixed. Once printed, the notation, by nature, is unchanged. This procedure produces an object and Cage fully realized that" (Shultis 1998, 99). Cage also admittedly took measures to alter his own chance operations in his compositional process of *Music of Changes*, by shortening, lengthening, or segmenting the duration of the sounds, by manipulating the dynamics, and by using pedaling to alter the results to obtain a more musically-pleasing composition (Bernstein 2001, 208). In 1952, Cage's concept of non-intentional sounds would ultimately be realized in his piece *4'33"*.

*4'33"* was premiered by pianist and Cage-collaborator David Tudor in Woodstock, New York, on August 29, 1952. The work comprises three movements, all marked "Tacet." Tudor sat on the piano bench and did not play a single note; he merely raised and lowered the keyboard cover to indicate the beginning and ending of each movement. The idea was that the music existed in the ambient sounds in and around the concert hall. The noises made by audience members and by the performer on stage became equal parts in the music. In this way, Cage blurred the distinction between musical silence and actual silence. Cage had actually conceived the idea of a "silent piece" several years earlier, noting it should be three or four and a half minutes long, the standard length for "canned" music. The title at that time was *Silent Prayer* (Shultis 1998, 95).

Cage constructed *4'33"* using the *I Ching*. The use of chance operations created a formal design in which silences could exist as part of the structure. Shultis compares this structure to Coomaraswamy's doctrine of art imitating nature, described earlier: "It was

Cage's use of chance operations that made possible a formal design to place the silence in. And when one listens to the silence of *4'33"*, one hears nature" (Shultis 1998, 95). Cage encountered a further problem with *4'33"*, in that he was still providing a framework for the piece. Although the piece consisted of non-intended sounds, and the length of the piece was chosen non-intentionally through chance operations, the act of constructing a fixed frame of *4'33"* resulted in the creation of an intended object, which was contradictory to the notion of the piece as arising through non-intentional processes (Shultis 1998, 95). Shultis addresses this problem and explains how the two elements of sound and silence can function together in *4'33"*:

*4'33"* allows the unintentional into music. The performer simply sits and listens as the audience listens. As such, this piece exemplifies a movement toward the silence of "nothing" and the acceptance of non-intentional sounds. But what about intentional sounds? Are these accepted? At what point in *4'33"* does Cage allow the performer (or the composer, for that matter) to produce the "something" of intentional sounds? How can something and nothing be unopposed if only "nothing" is allowed? These are, of course, rhetorical questions, and as such their answers are obvious. Something and nothing can be unopposed only if both intention and non-intention equally coexist. (Shultis 1998, 95)

In playing John Cage's indeterminate music, one can sometimes perceive an unintended continuity in the work. When this occurs, it would seem to contradict his goal of non-

intention. In an interview with the composer, Daniel Charles asks Cage how he deals with this issue. Cage responds:

I simply notice what happens. I used to talk about a "continuity of discontinuity." I wanted to avoid the melodic aspect, because as soon as there is melody there is a will and desire to bend sounds to that will.

However, I do not refuse melody. I refuse it even less when it produces itself. But it must not begin through imposition. I do not want to force sounds to follow me. (Charles 1981, 87)

Cage achieved total indeterminacy by creating the *Concert for Piano and Orchestra*, a work that was free from the determinate elements of 4'33".

The *Concert for Piano and Orchestra* (1957-58) was Cage's first completely indeterminate work for a large ensemble, and it used new compositional processes in which control over the decisions concerning all aspects of the music was given to the performers. For the first time, creative control lay more with the performer than with the composer. Every performance would sound completely different, and each could be of any length. Cage referred to this compositional process as "Indeterminacy." With the *Concert*, his concept of silence was extended. Cage's chance operations evolved to mix both ambient sounds with stricter compositional devices. James Pritchett has recently described how Cage's concept of silence had to change to lead him to the creation of the *Concert*:

Where before he had seen silence as impassiveness, flatness or aimlessness, he now saw it as a complete negation of the composer's will, tastes and desires. Silence had nothing to do with the acoustic surface of events, but instead was a function of the inner forces that prompted the sounds. Acoustic silence changed from being an absence of sound to being an absence of intended sound. (New Grove Online, s.v. "Cage, John," accessed 20/12/2007)

Traditionally, the concept of intention in a musical process is inherent in the act of composition and is demonstrated in every musical idea. For Cage's indeterminate works, intention takes on a new level of meaning and importance, in both the creation of the musical idea and in the performance process that brings the work to fruition. When performing the *Concert* or any of Cage's other indeterminate works, the problem of playing with intention will arise. Cage felt that the successful performance of his indeterminate works could only occur when they were performed without the preconceived musical ideas that are inherently conditioned into all classically-trained musicians. In Richard Kostelanetz's collection of interviews, *Conversing with Cage*, he mentions a 1970 interview with Genevieve Marcus in which Cage discusses the problems that arise when the ego becomes involved with the performance of the *Concert*. Marcus asks:

[Marcus:] *Last night you told a student that he should not have any ego involvement in the performance of your compositions, but rather should*

*perform it in the spirit of the piece. But I feel that, in your music especially, there is a necessity for ego involvement because you leave so much for the performer to decide.* [Cage:] No. The performer can use similar methods to make the determinations that I have left free, and will if he's in the spirit of the thing. When I have a number of musicians, some of them decide that because I've given them this freedom they will do whatever they please, and generally, in order to make my work appear foolish, they turn themselves into clowns. Actually, they've succeeded in showing how foolish they are. I've given them freedom and I would hope they would use that freedom to change themselves rather than to continue being foolish. Have you heard that Town Hall recording of my *Concert for Piano and Orchestra*? [Marcus:] Yes... [Cage:] At one point one of the woodwind instruments quotes from Stravinsky. I think it's *Le Sacre*. You could look at the part I had given him and you'd never find anything like that in it. He was just going wild—not playing what was in front of him, but rather whatever came into his head. I have tried in my work to free myself from my own head. I would hope that people would take the opportunity to do likewise. (Cited in Kostelanetz 2003 [1987], 72-3)

Given a performer's subconscious musical conditioning, how does one perform the *Concert* without intention in spite of the fact that practicing and rehearsing are required to play the work? In a 1965 interview from *Conversing with Cage*, Cage speaks to Michael Kirby and Richard Schechner, and attempts to address this concern:

[Cage:] If you have a number of people, then a "non-knowledge" on the part of each of what the other is going to do would be useful. Even if one of them was full of intention, if none of them knew what the others' intentions were, (they) tend in a non-intentional, unstructured direction, and would resemble what I referred to as daily life. If you go down the street in the city you can see that people are moving about with intention but you don't know what those intentions are. Many, many things happen which can be viewed in purposeless ways. (Cited in Kostelanetz 2003 [1987], 76-7)

When examining the instrumental solos from the *Concert*, two kinds of elements are encountered. The solos include notes, but these are all separated (before and after) by silence. Both the silences and the notes are to be performed without intention; however, the notes are in part based on a system of notation conceived with intention by Cage. The question then arises: if the silences between the notes can be played without intention, can they also be mixed effectively with written notation that is based on a concept of intention?

For Cage, silence took on different meanings throughout his life. At first Cage developed a structural concept of silence, considering it as an absence of sound helping to structure the music through its alternation with sound. Cage believed the silence between the notes gave the work its cohesion. Cage then adopted a spatial concept of silence, in which silence was made up of all the ambient sounds that taken together formed a

musical structure. Finally, Cage's aesthetic of silence evolved into a view of silence as non-intention. Both silence and sound would possess no direction or personal meaning and would exist only in the non-intentional manner of nature (De Visscher 1993, 129-30). In the *Concert*, we see the results of this evolution, and we must recognize the problems that the piece poses for performers struggling to perform the work without intention.



## CHAPTER II

### *The Concert for Piano and Orchestra (1957-58)*

The *Concert for Piano and Orchestra* (1957-58) was Cage's first composition for a large ensemble to use ambiguous notation on a significant scale. Cage used an abundance of varied notations to create the *Concert*, rather than using a single specific notational approach, as in most of his previous compositions (Revill 1992, 189). The decisions concerning the selection of pages to play, as well as the pacing of the notes, were left to the discretion of the individual musicians playing each solo. The blank space on each page was another important factor in the overall creation of the piece, for the possibilities for each performance increased dramatically through the indeterminate lengths of silence indicated between notes. In each solo part of the ensemble, the silences not only serve to isolate each musical event, but also to enhance the unpredictability of each note. The notes are spaced at random distances across the page, giving a general indication of how long each silence might last, as no defined measures or tempi are specified.

In the *Concert*, Cage employed a method for achieving indeterminate performance that he had previously used in *Music for Piano* (1952-56). Richard Kostelanetz explains how Cage created indeterminacy by minimizing the number of notes in his composition:

The principal of indeterminacy allows each performer to work apart from the other, indeed in this case unaware of each other, each with scores

designed to minimize habit. If a reader is required to speak only fifteen words in sixty seconds, he or she cannot resort to pet ways of phrasing.

(Kostelanetz 1996, 82)

Cage titled the work a "concert" rather than a "concerto" because all members of the orchestra, as well as the pianist, had solo parts that were completely independent of one another. The instrumentation consists of separate solos for three violins, two violas, one cello, one contrabass, flute (playing flute, alto flute and piccolo), clarinet, bassoon (doubling on saxophone), trumpet, trombone, and tuba. The conductor's part is also separate and contains a table of timings (using clock time) to establish a performance time for the soloists. The conductor leads with a broad sweeping motion of his arms, resembling the second hand of a stop watch. The aim is to create a performance that fills the entire duration of the concert (Pritchett 1993, 112-3).

The sixty-three page piano solo, written for David Tudor, contains eighty-four different composition fragments. The compositions are separate from each other and appear as isolated examples on each page of the *Solo*. Some notations appear vertically and may be superimposed upon horizontal systems (Duckworth 1972, 105-6). Each fragment is one of three types: 1) a completely new method of composition, 2) an existing method of composition, or 3) a variation on an existing method. The musical fragments were selected for inclusion using the *I Ching* and are lettered A to Z for the first twenty-six, then AA to ZZ, BA to BZ and CA to CF (see Figure 2.1 for Fragment R). The piano solo is the most extensive of the parts of the *Concert* and contains detailed

instructions for interpreting the numerous types of compositions Cage created (Pritchett 1993, 113).

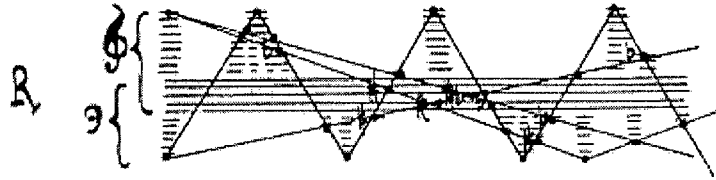


Figure 2.1: Fragment *R* from the *Concert for Piano and Orchestra* by John Cage.

The *Concert's* twelve-page trombone solo (pages 173-184 of the orchestra parts) may be played with or without the other parts for the orchestra. Therefore, it is both a trombone solo and a part within an ensemble. The trombone part was written for Frank Rehak, a prominent jazz trombonist from the 1940's through 1960's (a heroin addiction brought an early end to his performing career). Rehak met with Cage in early 1958 to discuss the capabilities of the instrument. Cage was interested in creating maximum diversity in the sounds, using the trombone in any manner to produce them. In a letter written in 1977, Rehak recalled the time he spent with Cage experimenting with possibilities for the *Solo for Sliding Trombone*:

John Cage came to my house in mid-town Manhattan one afternoon after having called me to ask if I were able to play the sliding trombone without having the notes written out in front of me. I more or less assumed that he was referring to the articulation of a jazz solo with a chordal reference and assured him that that was part of the business I was in and asked for a few

more details. I had never heard of him at this time. About 10 minutes later, my doorbell rang and I met John for the first time. We spent much of the afternoon discussing many aspects of music, with my being critical of some of his theories and enthusiastic of others. I have long since learned that I had spent that afternoon wisely. I remember that we spent a long time with the instrument, taking it apart, playing without slide, without mouthpiece, adding various mutes, glass on the slide section, minus tuning slide, with spit valve open, and any other possibilities of producing a sound by either inhaling or exhaling air through a piece of metal tubing. We also discussed double stops, circular breathing, playing without moving slides, and on and on. I recall having mixed feelings as to whether I was working with a genius or someone of a slightly different bent. From these ideas we gathered together, we put forth a part that would be playable as a solo or in conjunction with a group of other players. (Cited in Dempster 1979, 97)

The first performance of the *Concert* took place at Town Hall, New York, on May 15, 1958. Three of Cage's friends and professional associates, Robert Rauschenberg, Jasper Johns, and Emile de Antonio, decided to present a concert of Cage's music that would give his chance techniques wider exposure. The program, selected by David Tudor, contained a selection of Cage's works since 1934 and was titled a *25-Year Retrospective Concert of the Music of John Cage* (Holzaepfel 1994, 201). The *Concert* was Cage's most recent work: the piano solo had been completed in 1957, and the

ensemble parts were composed in 1958, in the weeks prior to the concert. For every solo part, Cage met with each player to discover the possibilities of their instrument (Duckworth 1972, 106). In an interview about the notational process for the solo parts, Cage recalls:

[Cage:] I developed that notation with the players themselves, so the notation was not strange to them, but arose out of our conversations.

[Duckworth:] *But you worked with people who were in some way interested in and dedicated to new music. When that piece is handed to orchestra musicians, who are more dedicated to music of the past, it becomes very confusing for them.* [Cage:] The people I wrote it for were the first ones. The subsequent ones are a result of circumstances over which I have no control. But when I made the notation, it was made with people who knew its meaning. Since then, the ambiguity that you speak of is certainly present. (Cited in Duckworth 1995, 18)

Scheduled as the last piece on the program, the first performance of the *Concert* was less than favourable for Cage. The entire concert was recorded by George Avakian on three LP's that captured both the audience's applause and the protests that accompanied most of the works. Cage's close friend and collaborator, Merce Cunningham conducted the ensemble for the *Concert*, and recalled having only one rehearsal the day of the performance. Nevertheless, the reaction to the work left much to be desired. Cage recalls unprofessional behaviour from certain members of the

ensemble, as well as continuous disruptions from groups of people in the audience. Cage recounts:

After a general rehearsal, during which the musicians heard the result of their several actions, some of them—not all—introduced into the actual performance sounds of a nature not found in my notations, characterized for the most part by their intentions which had become foolish and unprofessional. (Cited in Holzaepfel 1994, 121)

This response was perhaps the unfortunate result of the numerous solo parts performing simultaneously, which left little silence amidst the cacophony of the performing ensemble. The resulting broad wash of continuous sound likely contributed to some of the audience's disapproval. Some of the unconventional sounds created by each instrument were not heard by the audience, but were instead lost in the collective sound of the ensemble. This was one factor that probably contributed to the polarized reaction of both the ensemble and audience. However, it remains surprising that some performers abandoned the written notation, especially as Cage had developed it in collaboration with them.

Nevertheless, Frank Rehak recalls a general improvement in subsequent performances:

The performance that evening was good, but I personally felt that some of the players were having trouble realizing some of John's concepts about

sound. We did two more performances later in the months to come and the players' response was absolutely thrilling. The idea of breaking with the traditional drill and beginning to make some hitherto unheard of sounds on the instruments was very appealing to me. I remember running up to John after the third performance and lamenting the fact that we had not recorded it, since it was so much better than the first. (Cited in Dempster 1979, 97)

The first trombonist to perform the *Solo for Sliding Trombone* regularly as a solo independent of the concert ensemble was American avant-garde trombonist Stuart Dempster. Dempster viewed the *Solo* with high regard, and wrote later in his career:

It should go without saying that the *Solo* is one of the most important trombone works of our time, and should be acquired for careful study.

[...]

[O]ne can choose to make it simple or elaborate, and in my approach I tend to make a rather involved philosophical statement coupled with lighthearted buoyancy. To me the *Solo* is a meditation with particular attention to breathing patterns and theatrical considerations. It is a constant source of food for thought, and every time I work with the piece it seems to say something new. It is this factor that makes the *Solo* one of the most difficult works I have ever performed. (Dempster 1979, 96)

In March 1966, Dempster performed a landmark trombone recital at the San Francisco Tape Music Centre, in which the *Solo* was performed along with premieres of Luciano Berio's *Sequenza V*, Robert Erickson's *Ricercar for Five Trombones*, and Pauline Oliveros's *Theatre Piece*. Reviews of the recital were positive, with the exception of the Cage piece. Many reviewers questioned its appropriateness on the program. Paul Hertelendy from the Oakland Tribune wrote:

Composer John Cage, that high priest of avant-garde inanities, made the bill, somehow. Hearing his 15-minute ordeal of one note episodes for trombone, one was reminded of a proverb, "Ask not what you can do for music; ask what music can do for you." For Cage, musical sensationalism has done a great deal. Concert Piece: Cage's *Solo for Sliding Trombone* with its barks, scratches and underwater trombone bubblings, has our impassioned vote so far for this year's most artless concert piece. Before the year is out, however, it may well be rivalled by other splendid attempts to attract the maximum audience with a minimum of talent, Caged or un-Caged. (Cited in Baker 1974, 472)

Carl Cunningham of the San Francisco Chronicle wrote:

John Cage's *Solo for Sliding Trombone* was a tasteless inventory of all available trombone sounds, visceral and otherwise, including the gurgling of the instrument, with its bell under water. Dempster avoided the stigma



of total trickery by presenting this program as a serious survey of current trombone technique. Skeptics who doubt the eventual acceptance of all or part of it into musical literature should not forget the precedent set by Bartok in exploring new means of producing string tone some forty years ago. The only question is whether the management should have replaced the intermission wine with a roll of Tums. (Cited in Baker 1974, 473)

These remarks indicate how writers and music critics typically responded to Cage's music at the time. Reviewers often saw Cage's apparent lack of concern for the audience's entertainment as a means of inflating the composer's ego, and as a result many audience members often felt insulted. The irony of these statements is that Cage, a self-proclaimed egoless composer, created the *Concert* as a means to remove ego from the art of performance. The act of removing intention from his compositions and their performance was an attempt to present the sounds as nothing more than sounds—a concept the audience often did not accept or understand.

In the *Concert*, Cage attempted to create an environment in which all sounds would be equal. When the sounds are considered individually, and are not compared or associated with those that precede or follow, then the concept of a "good" sound is abandoned. Cage describes listening to these unconventional sounds without evaluating them:

Some people, for instance, develop ideas about what are good sounds and what are bad sounds. And they don't want to hear the bad ones. I had a

composer friend who was that way. The result was that he couldn't stand the sounds of traffic, which I love. He had to put cotton in his ears to keep them out. Many people in our society now go around the streets and in buses and so forth playing radios with earphones on and they don't hear the world around them. They hear only the music that they've chosen to hear, or whatever it is they've chosen to hear. I can't understand why they cut themselves off from that rich experience which is free. (Cited in Kostelanetz 2003 [1987], 251)

Placing value on the music becomes irrelevant when each musical event is allowed to exist on its own and for itself.

Ultimately, the *Concert* reveals and characterizes the value of the performance. Sam Richards explains this with reference to the Caucus-race from Lewis Carroll's *Alice's Adventures in Wonderland*, in which Alice and a party of animals become drenched in a pool of tears and propose a race to dry off. The race begins and ends at no particular time and continues until the Dodo declares the race to be over and everyone asks who has won. The Dodo announces that everyone has won, and for a prize Alice is asked to accept the thimble from her own pocket. Richards explains:

Of course, nobody wins in a performance of music, unless it happens to be an actual competition. Yet there is a sense in which performers seek reward. This may take the form of a personal challenge surmounted, the feeling of mutuality with a group of other performers, an audience's

applause, payment, and so on from the noblest to the basest of motives. In a Cage performance "Everyone has won, and all must have prizes." But the prize, in the end, turns out to be the last thing in your pocket: the thimble, the apparently insignificant thing that was there all the time. Or, in other words, looking beyond one's own sense of integrity and authenticity for approval is ultimately a doomed exercise. The performance, like the Dodo's presentation of Alice's thimble, gives back to the performer something presumed lost but actually never absent—the ability to participate and by so doing to refine one's sense of audition.

(Richards 1996, 31)

The value in a performance of the *Concert* lies simply in listening to the sounds produced, without placing value on them or attempting to connect them together. With the *Concert*, Cage achieved "purposeful purposelessness."

## CHAPTER III

### *The Solo for Sliding Trombone (1957-58)*

The performer who approaches the *Solo for Sliding Trombone* must first take many factors into consideration. Even today, the *Solo for Sliding Trombone* is unique in the demands it places on the trombonist. To perform the *Solo*, the trombonist must acquire new techniques for the instrument. These techniques also raise issues for consideration. In his book, *The Modern Trombone: A Definition of its Idioms*, Stuart Dempster comments, "The piece demands much of the performer. The performer may take the role of composer or improviser as well as the role of music reader; silence must also be dealt with. These choices must be made, and then within that more choices will be necessary" (Dempster 1979, 96). Each performance choice affects the aesthetic of the work. Above all, the performer must find performance techniques that maintain Cage's discipline of non-intention. These performance techniques affect the relationship between audience and performer, and how each of these parties relates to the music. To understand these techniques, one must first carefully study Cage's performance instructions included with the music for the *Solo*. Cage writes: "Though there are 12 pages, any amount of them may be played (including none)" (Cage 1960j). Therefore, the first issue to consider is the selection of pages to be performed. One must first decide whether or not to select pages in advance or during the performance. If pages are selected before the performance, a suitable program-length can be predetermined. This conforms to Cage's instructions in paragraph two, which state, "Each page has 5 systems. The time-length of each system is free. Given a total performance time-length, the player

may make a program (including additional silences or not) that will fill it" (Cage 1960j). By pre-selecting pages, the performer can also omit specific techniques and sounds that he or she finds problematic or cumbersome, and can carefully rehearse the page order beforehand. However, this decision may contradict Cage's aesthetic of non-intention. When selecting pages during the performance, the choices become indeterminate—or at least less determinate—and can potentially create a performance more free of intention for both audience and performer.

In his instructions, Cage further states: "All notes are separate from one another in time, preceded and followed by a silence (if only a short one)" (Cage 1960j). In the *Solo*, the silence between notes not only isolates each musical event but also enhances the indeterminacy of each note. The notes are spaced at random distances across the page to give an approximate suggestion of how long each silence might last. The trombonist can reduce the intention to play notes at specific times by simply not paying careful attention to the duration of each silence, but he or she must also be careful not to inadvertently fall into a regular or predictable pattern of entries. This approach supports Cage's free notation of time-length but creates new problems. If the silences become too long, it can be difficult to fit the music into the time allotted, and to create an appropriate kind of aesthetic disinterest in the audience. In a recent interview, Stuart Dempster warned me of these dangers, commenting, "At the pace you were going here, everybody is asleep by the time you end off the first page" (Dempster 2006). Dempster recommended choosing a cadence at which to count the tempo of the silences. He further suggested, "I think you should consider using a more proportional [...] notation approach to it. So you pick a speed that you are going to go, and then keep that flow [...] which means a lot [...] when

you've got these big long spaces" (Dempster 2006). Like the matter of pre-selecting pages, the concept of choosing a cadence makes the piece easier to practice and perform, and helps to determine a program length. This decision may also allow the audience to follow the performance more easily, as the silences are better controlled. Dempster said, "It does indicate [...] that each note should exist in its own space, but that can happen fast too [...] then suddenly a big silence makes some sense and you can take thirty seconds, which would seem like an eternity" (Dempster 2006). However, this performance strategy may also produce a sense of intention on the part of the performer, and as a result, may connect the notes through a consistent flow of silence. The importance of pleasing the audience must be weighed against Cage's concept of indeterminacy.

The use of indeterminate material in the *Solo* is most prominent in the treatment of the notes themselves. With regards to the dynamics and note lengths Cage wrote in his instructions:

Notes are of three sizes: small, medium, and large. A small note is either ppp, pp, p in the dynamic range or short in duration or both. A medium note is either mp, mf in the dynamic range or medium in length or both. A large note is either f, ff, fff in the dynamic range or long in duration or both. The possible interpretations are many: thus, a large note may be long in length but of any amplitude; or it may be loud, but of any duration in time. Also, a small note may be short in length but of any amplitude, or it may be soft, but of any duration in time (Cage 1960j).

These instructions become increasingly problematic when one considers that no tempo marking is indicated. Choosing to play the notes as part of a continuous flowing cadence presents problems for choosing a note length based on Cage's directions. For example, on the last line of page 181, the third note is marked as large but is also spaced closely together with the following note (see Figure 3.1).

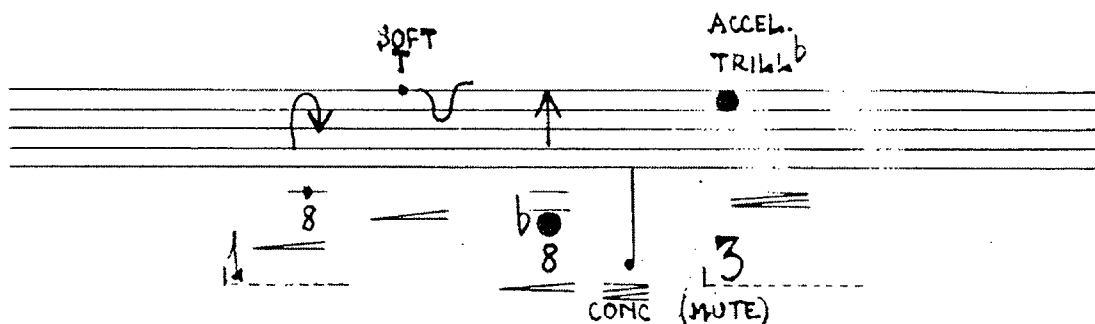


Figure 3.1: Excerpt from page 181 of the *Solo for Sliding Trombone* by John Cage.

Since each note is to be separated by a silence, there is little room for the note to sound. Following an underlying tempo through this group of notes forces the trombonist to play the third note short. Since a large note is either loud, or long, or both, then it must be played loud and short, as there is not enough room for it to be both loud and long. This problem might be solved by adjusting the pacing for these situations, but that strategy can create its own problems. By changing speed for certain sections, the performer creates continuity between the notes because they become related by sharing the new tempo. This problem is amplified when one considers that any note regardless of its size can be any length as long as it corresponds to the indicated dynamic marking ("long OR loud OR both"). Making conscious choices to alter the music in order to achieve a seemingly

more random result during the performance can be both effective and problematic with regard to tempo and duration, and in the treatment of dynamics.

The *Solo* presents additional challenges in terms of pitch choice and the use of the various parts of the instrument. The trombonist is required to remove the bell section and play only with the slide, and to play on the mouthpiece in the bell without the slide. A variety of tones are also produced by actions such as playing with the spit valve open and the tuning slide removed, as well as playing into a variety of mutes and even a jar. The player must also blow into a conch shell, which typically has an aperture similar in size to a trombone mouthpiece. Cage included the instructions:

Curves following notes are sliding tones (gliss.). Arrows going up or down or down and up are smaller (microtonal) slides. All tones are to be played with vibrato (slide *or* lip *or* slide *and* lip) unless accompanied by the indication 'N.V.'. FLUTT. means fluttertongue. SP. means spit valve open (used only on overtone series of B flat). // and /// mean double and triple tongue; when preceded or followed by a curve, preceded or followed by a sustained tone. These and trills have speed indications. T. means tongue (hard, soft). BREATH means breathy attack. Where the indications are made to play without bell, or without bell into jar, with tuning slide out or slide disconnected, make the action, not necessarily producing the pitch notated, but attempting to make simply a sound of that general range. Accidentals and indications apply only to the note they accompany. (Cage 1960j)



With regard to pitch, Cage writes, "Notes below a staff and attached to it by a stem are extremely high sounds (above E flat)" (Cage 1960j). This use of unconventional notation is disruptive to a performer's preconceived notion of associating high-pitched notes with notes that are written high on the staff. Cage also includes the number 8 over certain notes, without mentioning it in the performance instructions (see Figure 3.2). The most common interpretation of this symbol is to play the note in an alternate octave. However, since there is no clef indicated anywhere in the music it is up to the performer to interpret and decide what pitches should actually be played. These notational devices serve to impede the performer's control over the notes by disrupting his or her expectations and understanding of the score. Cage viewed the loss of control as one way to combat the problem of intention (Kostelanetz 2003 [1987], 238).

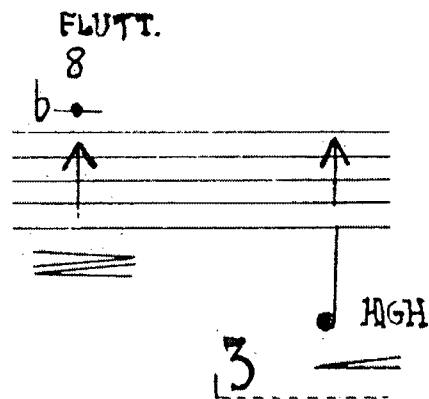


Figure 3.2: Excerpt from page 180 of the *Solo for Sliding Trombone* by John Cage.

When following Cage's instructions, "Mouth Piece in Bell," the performer must make several decisions. Dempster explains two possible interpretations for executing this manoeuvre. He writes:

This last presumably involves removing the mouthpiece from the instrument and turning the bell around so that the performer plays on the mouthpiece facing right into the bell. However, this instruction could also mean to remove the bell section and insert the mouthpiece, as described above, for the ram's horn effect. (Dempster 1979, 49)

However, the latter interpretation would involve an extra step of first removing the slide section from the instrument, which is not indicated in the instructions. Both interpretations create very different sounds and dynamic levels, with the bell section only acting as an echo chamber for the mouth piece in the one case, while serving as an amplifier in the other. On page 175, an additional problem is created (see Figure 3.3) because the instructions indicate to play with "Mouth Piece in Bell," while at the same time using a mute. This is contradictory in that the mouthpiece cannot be played into the end of the bell while a mute is in the way.

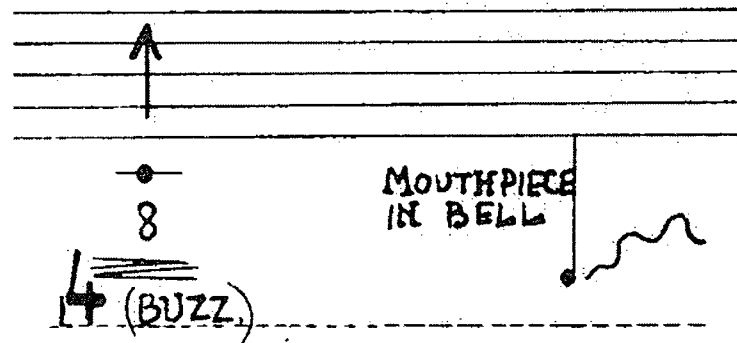


Figure 3.3: Excerpt from page 175 of the *Solo for Sliding Trombone* by John Cage.

The uses of mutes in the *Solo* present additional opportunities for indeterminacy. Cage's instructions for mutes include, "A dotted line under a note or notes means *consordino*. 5 are used. #2 is a plunger to be sometimes opened and closed during the tone production. #4 produces a buzz. #5 is a hat. #1 and #3 may be freely chosen by the player" (Cage 1960j). In selecting a plunger, one may choose a traditional rubber toilet plunger or a metal one, such as is called for in Luciano Berio's *Sequenza V*. Dempster offers suggestions for creating a "buzz" mute. He writes:

When, in 1964, I first encountered the Cage *Solo*, I was confronted with the term "buzz" mute. The "buzziest" sound that was to be found was the wa-wa mute held backwards gently against the bell, which produces a terrific rattling. Similar effects, since discovered, can be achieved with aluminum pie plates held over the bell. They can even be controlled by putting a finger in various places on the plate, like producing harmonics on cymbals—and these "harmonics" can be changed quickly by putting

different fingers down. Quite a variation can be achieved by using different sizes of plates. For that matter, one can simply buzz with the lips through the wa-wa. (Dempster 1979, 61)

The use of a hat mute traditionally refers to a derby hat. However, as this is not specifically mentioned, any type of hat may serve. For mutes one and three, many possibilities may be considered and any number of mutes may be selected and exchanged randomly during a performance. Placing unconventional items in the bell, such as pop bottles, may also serve to create an even broader range of timbres.

The use of vibrato presents some interesting problems for the trombonist. Since it is indicated to be used on all tones unless otherwise notated, the majority of notes are to be played with vibrato. This can result in a feeling of monotony in the sounds, so it may be advisable to alter the vibrato between slide and lip. This will be easier on certain notes and impossible on others. For example, all notes that have the indication "SP." (spit valve open) must be played in first position, because the majority of players cannot reach the spit valve while the slide is extended. In this case, a lip vibrato would be the only option available, unless the trombonist had particularly long arms. The slide vibrato is also cumbersome in longer positions and can be less favourable on notes that are notated with a glissando, as the slide is already constantly moving. The use of vibrato is impossible on notes that are to be played with a continuous double or triple tongue, as the articulation occurs far more quickly than the trombonist can oscillate the pitch to produce vibrato.

Other instructions, like playing with the spit valve open, present additional challenges in choreography with the instrument. For example, on page 179 a note is indicated "SP." but also with the buzz mute in (see Figure 3.4). Since the performer must use the left hand to hold the mute in the bell, the trombonist must first hold the trombone vertically resting it on the ground before inserting the mute with the left hand. The performer must then grasp the spit valve with the right hand, and lift the trombone in this way, bringing the mouthpiece to his or her lips. This is a visually interesting movement that requires practice to avoid dropping anything.

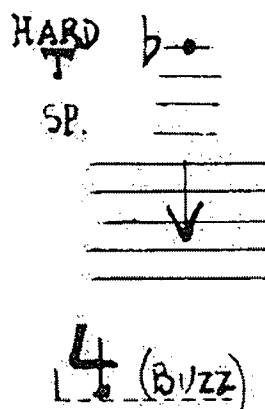


Figure 3.4: Excerpt from page 179 of the *Solo for Sliding Trombone* by John Cage.

Another problematic choreographic move, also involving holding the spit valve open, occurs at the first note of the fourth line on page 184, where Cage indicates "Without Bell in Jar" as well as "SP." (see Figure 3.5). This instruction produces another complicated move, as the player must detach the slide section from the instrument, then play into the mouthpiece and hold the spit valve open with the right hand, while also holding a jar over the end of the open connective tube with the left hand. Cage's "N.V."

notation eliminates the question of vibrato in this case. Dempster offers an alternative approach, reinterpreting Cage's instruction "Without Bell in Jar," which is somewhat vague. He suggests, "Playing without bell in jar, presumably means to remove the [outer] slide and put the top tube into a jar. [...] I also found that putting water in the jar is a nice effect" (Dempster 1979, 49). This interpretation would involve removing the outer portion of the slide only, while keeping the trombone together. This still supports the notion of "Without Bell," as the sound does not travel through the bell but instead comes out entirely through the top tube into the jar, which may be filled with water.

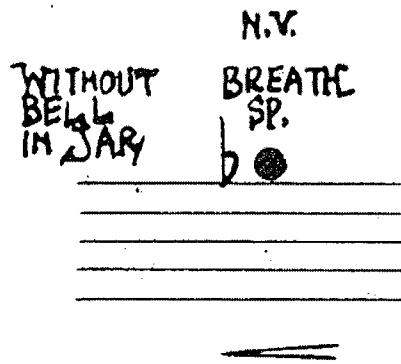


Figure 3.5: Excerpt from page 184 of the *Solo for Sliding Trombone* by John Cage.

Cage manipulates the instrument in a variety of other ways to substantially increase the qualities of sound the trombonist can produce. For example, he indicates the trombonist should play some notes with the tuning slide out, thereby creating additional timbres. The performer may take one of two approaches to this, depending on the design of trombone used in performance. The trombonist may use an instrument without an F change valve system, like that originally used by trombonist Frank Rehak. Creating this

sound simply involves removing the tuning slide from the instrument and playing normally, which would cause the note to sound through the open tube and not through the bell. This method creates a visual interest for the audience, as well as an expectation of the type of sound that may be produced. Alternatively, the performer could use a trombone with a trigger valve system, removing the F tuning slide prior to the performance. This would enable the trombonist to change very quickly between pitches that are notated with or without tuning slide. Depressing the trigger would also be relatively unnoticeable to the audience and would thus serve to remove any expectation of the sound to be heard. In addition, the removal of the tuning slide creates an interesting visual effect at the opening of the *Solo* on page 173, when the first two notes are marked *con sordino* using mute three. With the tuning slide removed, the sound is not heard through the bell, and the use of a mute is purely a visual effect. Occurring in the opening notes of the *Solo*, this deliberately creates an expectation that is not satisfied for the audience members, thereby providing them with an indeterminate experience.

A similar effect occurs on page 176, where the penultimate note of the fourth line is marked "Slide Disconnected," while also indicating the use of mute three (see Figure 3.6).

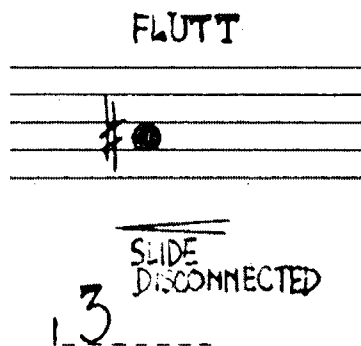


Figure 3.6: Excerpt from page 176 of the *Solo for Sliding Trombone* by John Cage.

"Slide Disconnected" could mean that the outer slide is disconnected on the bottom tube, or that the outer slide is removed entirely from the instrument. While these options each produce a different sound, in either case, the sound does not reach the bell; therefore, the use of the mute produces no change in timbre. Meanwhile, for notes marked with a glissando, disconnecting only part of the slide is the more viable option, as the pitch can still be altered with the slide half connected.

When the *Solo* was written, none of these techniques for the trombone had been used before. Moreover, the score was composed for a "sliding trombone," which for Cage was the tenor trombone Rehak used. Theoretically, a performer could also choose to use an alto or bass trombone. This presents additional opportunities for indeterminacy, as the score can be interpreted for each. Interpreting the *Solo* for the alto, in particular, would require a complete reconsideration of the piece because of the difference in instrument key. In any case, Cage's innovations greatly extended the trombone's range of sound production. A number of different sounds can be achieved by eliminating the



resonance produced by the bell, allowing a performer to enhance the musical possibilities for each note and for the silences between each note.

Despite his success in achieving indeterminacy through his performance instructions, on at least one occasion, Cage's notation actually works to indicate a definite pitch. This unusual situation arises on page 182, where the first note on the fifth line is notated "S.P," which requires that it be played in first position. The note, interpreted in any clef, cannot be played in first position without the use of a trigger (see Figure 3.7). Since the note is also marked with an "8," it can only be interpreted as sounding one octave higher in bass clef as C5. This lends credence to the theory that the notated "8" requires the performer to displace the note one octave. This is a rare example in the music where the exact pitch is determined by the other notations surrounding it, and it is likely a result of Cage's unfamiliarity with the trombone.

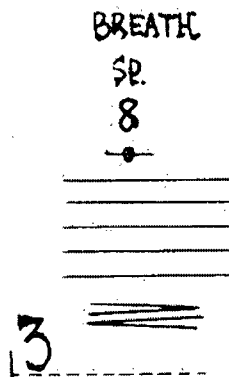


Figure 3.7: Excerpt from page 182 from the *Solo for Sliding Trombone* by John Cage.

To create a broad palate of sounds and timbres for the audience, a performer can make predetermined decisions that will result in maximum variation in the music. For

example, the performer may select certain notes to play as loud as he or she can, while other notes may be played as softly as possible. A performer may identify a particular note to play for the shortest possible duration, while choosing another to play for the longest possible duration, or he or she might focus on producing the highest and lowest notes possible. Producing certain notes at the extreme ends of the performer's ability allows one to ensure that a wide variety of sounds will be heard in the performance.

Although these techniques require intention on the part of the performer, this intention should not be perceptible to the audience. The audience should hear a seemingly indeterminate performance, even if the performer in fact creates only a partially indeterminate one. In considering Cage's music, this raises an important question regarding the value of pleasing the audience. One might remark that a performance of his music could exist without an audience at all, except for the trombonist listening to the sounds and silences he or she produces. The importance of the audience should be weighed heavily prior to the performance, and ultimately, the trombonist must make his or her own decision as to an appropriate way to proceed.

Nonetheless, the audience can play a role in the performance of the *Solo*, as it does in *4'33"*. The engagement of an audience in a performance also contributes to the audience's ability to focus. Dempster says:

Everything thing that you are doing, [...] all these movements should be interesting. You should be involved, as it's part of the performance. [...] I think that helps the audience a lot when you are involved, when you are just as committed to playing this in a way that can come across as it would

[in] any other piece you would play. [...] You want to give them things to do, [...] and one of the things you can give them to do is to listen, and you can do that by listening yourself. (Dempster 2006)

He further asks, "What would I like to share with an audience? [...] You want to keep the audience interested. [...] The audience deserves a good, rich experience" (Dempster 2006). Ultimately, there are many things that the performer can do on stage, both to help engage the audience and to serve the ideas of non-intention and unpredictability. For instance, breathing can convey the intention to play a note before it actually sounds. The trombonist can use this correlation to disrupt the audience's expectations for the sounds they will hear. Long, slow breaths can make it difficult to anticipate the beginning of each note. Taking false breaths and delaying the beginning of each note can also be effective. The performer might also make unexpected, incidental noises throughout the choreography of the performance, such as clanking mutes and thumping heavier items like the conch shell as they are picked up, used, and replaced. These apparently incidental and accidental noises then become part of the general soundscape, as with *4'33"*. In the case of the conch shell, placing it down in a loud manner sometimes, and placing it down silently other times disrupts the audience's expectations. This disruption of expectations sometimes produces imagined sounds in the minds of attentive audience members; they expect to hear a sound, and when they do not, their minds work to fill in the blank. With regard to this phenomenon, Dempster notes there is, "[a] playfulness you can have with that whole idea of the imagined sounds; and are they any less valid, if [the audience] imagined a thump at that point?" (Dempster 2006). Dempster takes this idea a

step further and suggests the trombonist randomly play certain passages of the *Solo* by only blowing air through the trombone, without actually vibrating the embouchure to produce the sounds. The simulation of a specific note or notes, using only air, can also provoke audience members to imagine the simulated sound when they expect to hear it. Audience members may imagine it as similar to a sound they have already heard, or if the sound is actually produced and heard later in the performance, it may confirm the audience's first, imagined sound. Dempster asks, "Does it make the sound any less valid when you hear something else later and you are doing the same thing, or does it confirm the sound they [thought they] heard before? Either way, that earlier imagined sound, to me, seems perfectly valid" (Dempster 2006).

Beyond the challenges of interpreting the written score, a common performance problem is deciding how to begin and end the performance. The *Solo* itself has no recognizable beginning or ending, as the page selection is variable, while the silences before and after notes make it difficult for the audience to determine whether the performance has begun or is paused for a silence, or as it progresses, whether the performer is observing silence or has completed the piece. Therefore, the performer must work out a solution that will be reasonably obvious to the audience. One option is to use lighting to emphasize the beginning and ending of the performance. This can be achieved by raising and dimming the lights to indicate the start and finish. However, to execute this effectively, coordination with a lighting technician is necessary. This approach also requires a certain amount of predetermined action, either through an obvious signal to the lighting technician to change the lights, through an agreed-upon duration for the piece where the technician will dim the lights regardless of what the

performer may still intend to play, or through an agreed-upon page order and final note. A simpler approach suggested by Dempster, might be to use a see-through wire stand and simply open the music to the first desired page so that it is obvious to the audience that the music has commenced. An added visual bonus of this strategy is that the large print of the composer's name on the title page becomes visible through the stand, and remains in view throughout the performance until the final page is concluded and the score is closed. The performer must decide on an appropriate strategy for their particular performance environment. He or she must also decide whether to sit or stand, and where to place items such as mutes and other objects.

When first approaching the *Solo*, a performer must make several decisions in order to produce an indeterminate performance for the audience, and ultimately for himself or herself as well. Each of these decisions will present unique problems that either support or contradict Cage's aesthetic of non-intention. The trombonist must interpret the music to create a performance that is fundamentally indeterminate in nature, while engaging an audience prone to skepticism. Dempster warns of the dangers of approaching the piece without sincerity. He says:

You can let the piece have its own humour, or you can overdo it, and sometimes overdoing it has the reverse effect. [...] This piece offers a lot just in trying to execute anything that's indicated. There is a heck of a lot of stuff to do, and if you can do that really eloquently, and thoughtfully, and interestingly, and [become] involved in performance mode, I think you'd be quite surprised how it seems. (Dempster 2006)

Ultimately, performing a work of such a grand scale involves careful study and contemplation. Dempster also points out, "You have to practice. [Laughs.] Who would have thought with a piece like this that you have to practice?" (Dempster 2006).

## CHAPTER IV

### Other Indeterminate Works

The *Concert for Piano and Orchestra* (1957-58) was a landmark in Cage's development of "indeterminacy." In partnership with each performer, Cage created a score that would produce completely different results with every performance. Cage began working toward achieving varied performances in the years following *Music of Changes* (1951). His use of unconventional notation in *Music for Carillon No. 1* (1952) made it more difficult for performers to impose intention on his pieces. In the mid-1950's, he produced *Music for Piano Nos. 1-84* (1953-56), indeterminate piano works that featured many elements of notation later used in the *Concert*.

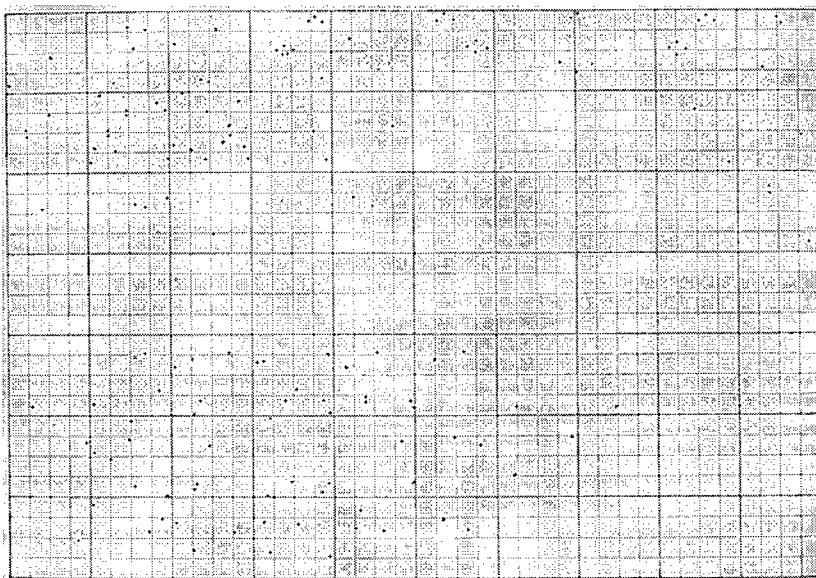
A comparison of the relative or intended lengths of these works with other pieces, in which some durations are strictly fixed while others are left to the performer's discretion, will demonstrate how Cage's instructions allow willing performers to discover the non-intentional spirit of the piece, rather than imparting to it their own personal direction. In fact, an apparent lack of structure and direction in the music creates structure through the absence of material. However, it must be noted that the very nature of a critical analysis of this written music is ultimately irrelevant to Cage's philosophy of non-intention.

Following *Music of Changes*, Cage sought to further limit the performer's control during performance. He simplified his compositional methods to create *Music for Carillon No. 1*. Whereas *Music of Changes* required numerous coin tosses for each of the thousands of sound events, including durations and dynamics (Pritchett 1993, 92), in

composing *Music for Carillon*, Cage simply folded scraps of paper and poked holes at the points of intersection created by the folds. He used the paper as a template and laid it over quarter-inch graph paper, then marked the points on the graph paper. Cage explains the discovery of his method, saying:

The process of composition was fairly complex. On first studying the sound of a carillon, I realized that the duration of a given bell's resonance could not be strictly delimited. For the first time, I decided not to specify duration. Whole notes appear in a space, which takes the place of a time indication. (Cited in Kostelanetz 1970, 129)

The notes that were to be used were marked on three vertical inches of the graph (Pritchett 1993, 92). Each horizontal inch of the graph represents one second of time. Each point on the graph represents the beginning of a note in time, without a specific duration, imitating the gradual decay of the sound of a carillon (see Figure 4.1).



**Figure 4.1:** Page 4 from *Music for Carillon No. 1* by John Cage.



This method allowed both the onset and duration of sounds to be more indeterminate than in his previous works, in which Cage had used chart methods derived from the *I Ching*. James Pritchett describes the advantage of this new method over that of *Music of Changes*. He says:

The new method was an improvement over the chart technique, which had only dealt with sounds that sprang from Cage's imagination, and not directly from the tonality of acoustic possibilities. In the *Music for Carillon*, Cage was working within a space bounded by sonic parameters of pitch and time; in the chart pieces, the space was one of prefabricated sonorities and rhythms. (Pritchett 1993, 92)

By using a graphically-notated score, Cage eliminated many aspects of his own control. As in the *Concert for Piano and Orchestra*, the durations and specific pitches of each sound would be determined by the performer, but without intention. *Music for Carillon* achieved indeterminacy in one of its simplest forms.

In the same year, Cage found additional means of removing control from his compositions, with *4'33"*. This work involved detailed calculations using the *I Ching* to decide the composition's duration and form. Although the published score simply indicates to the performer to remain "Tacet" for each of three movements, totalling *4'33"*, the original score David Tudor used for the premiere contained several time durations determined by *I Ching* methods. In a 1987 interview with Peter Dickinson, Tudor talks about using the original score:

[Tudor:] Since the procedure for *Music of Changes* was that out of 64 possibilities 32 were silence, he simply arranged his chart so it only dealt with the 32 numbers that would produce silence. Then another interesting fact—which has completely disappeared because the score has disappeared—is that the original manuscript was notated in the style of *Music of Changes*. So when I performed it I was looking at sheets of music paper scored for piano—two staves—with measures of four beats and the structural delineations given by the constant tempo. (Dickinson 2006, 86)

*4'33"* removed control from the composer and performer, creating performances that were as much a product of the audience as of the performer on stage. The published score may be seen simply as performance instructions indicating not to play. However, if the score is read during a performance, and the silences are treated properly and not ignored, then the words on the page take on new meaning, becoming the notation of the score. The word "Tacet" becomes a means of notating the performance of and attention to silence. Therefore, *4'33"* is Cage's simplest graphically-notated score (see Figure 4.2). A comparable notation exists on page 178 of the *Solo for Sliding Trombone* (see Figure 4.3). In the *Solo*, the blank page is between pages with notated sounds. Page 178 produces the same effect for both audience and performer as *4'33"*, letting the sounds of the concert hall become the sounds of the performance.

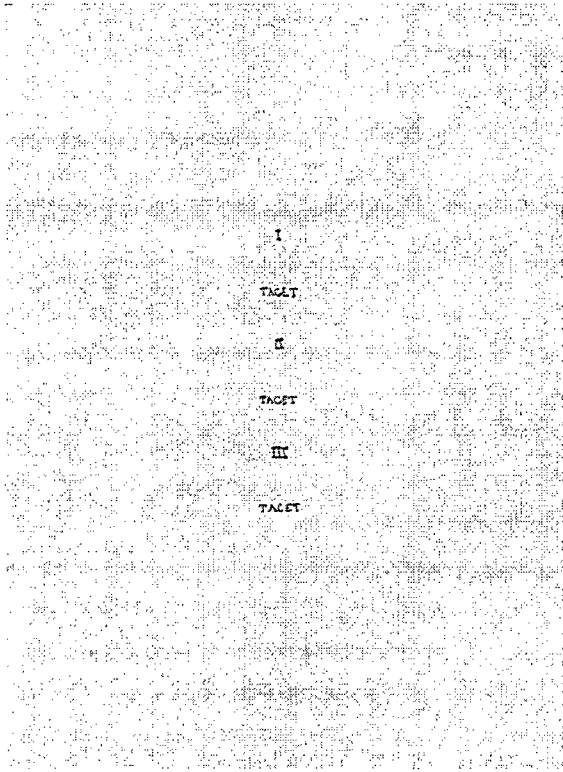
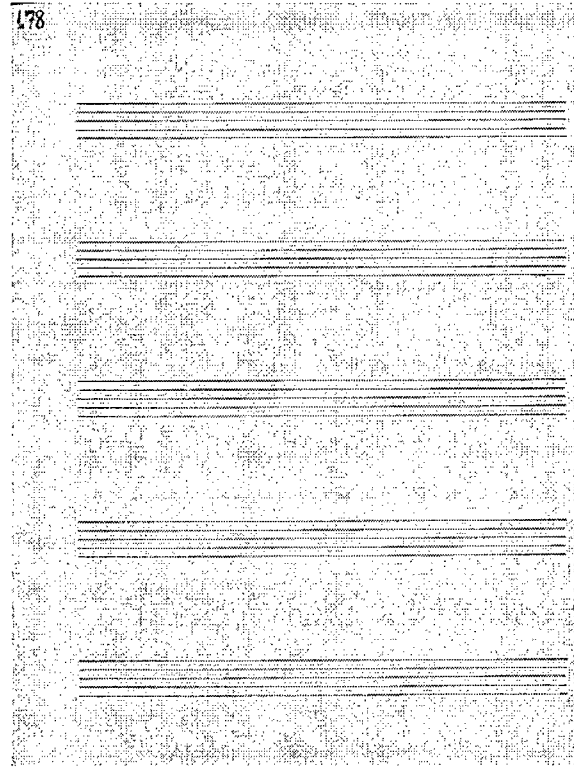


Figure 4.3: Page 178 from the *Solo for Sliding Trombone* by John Cage.

Figure 4.2: '4'33"' by John Cage.



From 1952 to 1956, Cage wrote a series of indeterminate works entitled *Music for Piano*. In a manner similar to *Music for Carillon*, Cage used small imperfections in manuscript paper to mark points on the page. He then added musical staves to the sheet, creating notes from the points on the paper. Cage used the *I Ching* to determine clefs, accidentals, and additional elements of the music, such as indications for plucked and muted strings. *Music for Piano* consisted of 84 different compositions, grouped as Nos. 1, 2, 3, 4-19, 20, 21-36, 37-52, 53-68, and 69-84. The pieces collected in groups of sixteen (4-19, 21-36, 53-68, and 69-84) are one-page compositions that can be played separately or together as a series. *Music for Piano* was similar to *Music for Carillon* in

that duration was not indicated but was determined by the performer. Cage altered and developed his performance instructions with each set of compositions. With *Music for Piano No. 1*, Cage limited the tempo to seven seconds per system and specified dynamics through the *I Ching*. Then with *Nos. 4-19* and *20*, he added directions for strings to be either plucked or muted but made the dynamics and tempo free. With *Nos. 21-52*, Cage added a new element of indeterminacy by composing two staves: one to be played on the interior of the piano, and the other to be simultaneously played on the exterior (see Figure 4.4). In *Music for Piano*, Cage included instructions that he would later also use in the *Concert for Piano and Orchestra*: "Given a programmed time length, the pianist may make a calculation such that their concert will fill it" (Cage 1960g).

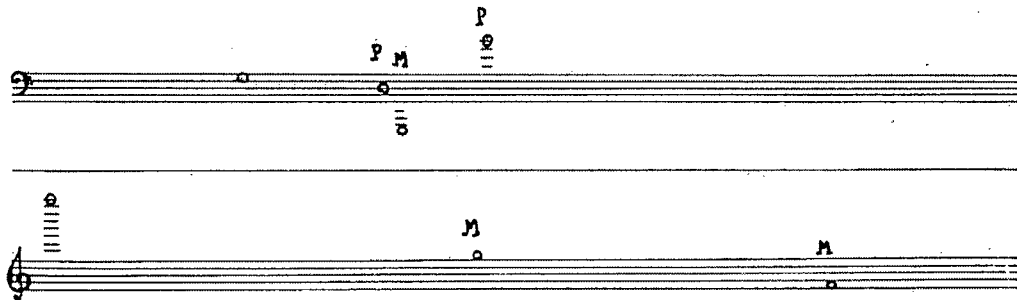


Figure 4.4: Excerpt from Page 45 from *Music for Piano Nos. 21-36/37-52* by John Cage.

*Music for Piano* used another means to achieve indeterminate results through its notation. Pianist Sam Richards discusses the difficulties of performing *Music for Piano*, and how they help achieve non-intention from the performer, claiming that Cage sometimes "deliberately wrote impossible music and called on performers to master it somehow" (Richards 1996, 128). He further states:

To cite an example, not untypical: how does a pianist play selected notes throughout the range of the keyboard while simultaneously locating specified pitches on the piano strings, plucking them with a fingernail, or finger—muting them as well as playing the appropriate key with the other hand? According to the timing scheme selected by the performer, such complexes of actions may need to be accomplished within a second or two. (Richards 1996, 128)

Using chance operations and notations, Cage sometimes created compositions that were virtually unplayable. This would ensure, incidentally, that no two realizations of the work would be identical.

In his instructions, Cage commented on performing several of the compositions in *Music for Piano* together, "There may or may not be silence between them or they may be overlapped" (Cage 1960g). This instruction creates a very different result from the *Concert*, as it potentially gives a performer an opportunity to relate notes of different compositions together, even through inadvertent intention. Cage later avoided this problem in the *Concert* with the instruction that all notes are to be preceded and followed by a silence.

Following *Music for Piano*, Cage abandoned his point-notation methods, deciding that they were flawed. Although they gave him greater speed in composing, he realized that they reduced diversity in the music. James Pritchett explains:

In the *Music for Carillon* and *Music for Piano*, on the other hand, the forms are all identical and of the simplest type: the single point. Hence their beauty is not as complex and rich, but is akin to that of a starry night sky: not an unsatisfactory result, but a limited one. The superimposition of multiple pieces changes only the density of points, but not the overall effect. (Pritchett 1993, 95)

Throughout the 1950's and in the decades following, Cage composed works using numerous types of notation aimed at creating an indeterminate performance. The works preceding the *Concert* were partially successful at achieving this goal, and in their own way contributed to the rich variety of notation seen in the work. Cage used whatever means necessary to remove his own intentions, and ultimately the intentions of the performer, from performances of his works.

## CHAPTER V

### Recordings of the *Solo for Sliding Trombone* (1957-58)

Much has been written about the *Concert for Piano and Orchestra*, but since it is seldom performed or recorded, little is known about the individual solo parts that form the orchestral ensemble. The *Solo for Sliding Trombone* is no exception, and for this reason, it has failed to become a standard part of the trombone repertoire and is infrequently recorded. Three commercial recordings of the *Solo* have been made in recent decades, and as a result of the work's indeterminate design, all three recordings bear little resemblance to one another. Thus any comparison of these recordings, by trombonists Christian Lindberg, Bob Gillespie, and James Fulkerson, must be based on Cage's perspective. It is essential to consider how these individuals approach the *Solo*, and the issues their interpretations raise with regard to Cage's aesthetic of non-intention and his views on audio recordings.

In 1988, the *Solo* was included on *The Solitary Trombone*, an album exclusively featuring contemporary unaccompanied works for trombone performed by the Swedish trombone virtuoso Christian Lindberg. For this recording, Lindberg performs pages 174, 175, 177, 178, and 179 of the *Solo*. This is an interesting selection of pages for a recording, as page 177 contains only one note and page 178 is blank, suggesting a long pause before the single note on page 177 and an even longer pause after that note, corresponding to the silence indicated on page 178. On the recording, Lindberg adheres to these guidelines and leaves a three-minute silence before the single note, with another

nearly five-minute silence after the note. This is a bold approach for a commercial recording, and it represents a musical gesture in keeping with Cage's instructions.

In 2001, American trombonist Bob Gillespie released a recording of the *Solo* on his live album, *A Walk on the Wild Side: Perpetual Horizons*. He includes pages 173, 174, the second half of 183, and 184. Gillespie makes several choices in his performance that conflict with Cage's aesthetic. His choice of pages shows a conscious decision to adhere to a traditional approach to the work, beginning the performance with the first and second pages before making a cut in the music to the middle of page 183, to finish at the end of the *Solo* on page 184. Although this does not oppose Cage's instructions, it demonstrates a definite intention to follow traditional notions of starting at the beginning and finishing at the end, thereby representing the notated structure of the piece.

However, Gillespie makes several other choices that seem to oppose Cage's instructions. Most notably he chooses to ignore the indications of approximate durations between notes. All notes are played with nearly even pacing. This decision creates a relationship between sounds, adding surface rhythm to the notes, since they occur at regular intervals in time. Essentially, Gillespie imposes a form of intention or expectation upon the silences, and therefore changes the listener's perception of the piece. Gillespie also connects several notes together, completely eliminating the space between them. For example, on the second system of page 174, he connects the F to the subsequent E flat, to show the contrast between the timbres of the first, muted note, and the second note without tuning slide. This contrast is musically interesting, but it creates a brief two-note melody that eliminates the feeling of randomness (see Figure 5.1).



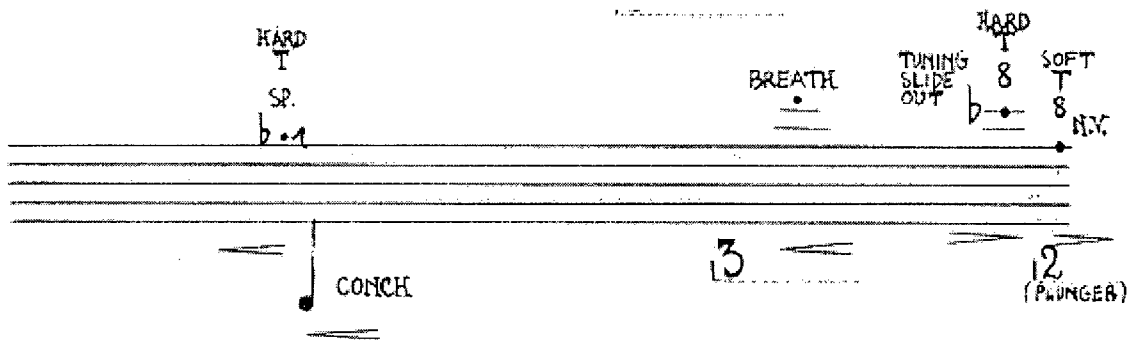


Figure 5.1: Excerpt from page 174 of the *Solo for Sliding Trombone* by John Cage.

Gillespie admits his performance choices on this recording are a response to the perceived impatience of audience members:

SOLO was extremely difficult to organize from the staging point of view. The built-in rests are easily augmented to the point that one loses an audience's attention. Also, I used one extra bell section so that I would not have to put too many things together during the performance. (Gillespie 2007)

Using an extra bell facilitates sometimes cumbersome changes during performance, and also allows Gillespie to play notes with minimal silence between them. However, eliminating elaborate staging movements can also diminish the visual interest of these various manoeuvres, which was certainly among Cage's considerations in composing this piece. Moreover, in an interview with Richard Kostelanetz, Cage discusses the unimportance of creating a performance pleasing to the audience. He says:

Why do you speak of holding an audience? I think that these notions imply dropping the idea of controlling the audience, for one thing. We have spoken of wanting to turn each person into an artist, have we not? We've spoken of individual anarchy, etc. So, in the case of a performance, we would think of it, wouldn't we, as a celebration of some kind; and we would certainly not think of holding those people to us. If somehow they weren't enjoying the situation or consuming it, then would we be more pleased if they left? (Cited in Kostelanetz 1970, 29)

As noted earlier, audiences frequently resented Cage's unwillingness to entertain them with his compositions. While Gillespie, or any performer for that matter, clearly has a vested interest in keeping his audience's attention, this interest runs counter to Cage's aims with this piece.

In 1992, American trombonist James Fulkerson recorded the *Solo* overlaid with *Fontana Mix*, Cage's piece for magnetic tape composed in 1958, just after the *Concert for Piano and Orchestra*. *Fontana Mix* was derived from the notation "CC," from the *Solo for Piano*, which represents four acoustic variables, including frequency, timbre, amplitude, and duration. Cage indicated in the score, "The use of this material is not limited to tape music, but may be used freely for instrumental, vocal, and theatrical purposes," and he noted it could be performed with any part of the *Concert for Piano and Orchestra*, including the *Solo for Sliding Trombone* (Pritchett 1993, 130-2). Fulkerson comments on his selection of *Fontana Mix* for the recording, remarking, "It is one of the options for the piece. Since Cage gave me a copy of his original version, I use that—

which has become an 'old-favorite'. At one time they were noises, now one hears it like a favorite song" (Fulkerson 2007).

Fulkerson further differs from Lindberg and Gillespie in his page selection. He begins with the final page, 184, and then proceeds in reverse order with pages 183, 182, the blank page 178, and 174, before ending halfway through page 175. This does not oppose the performance instructions, as Cage does not indicate an order in which the pages are to be played. Fulkerson says:

I don't think about the ordering in such terms per se (beginning at the front or the end and working forwards—in fact, most often I jump around in terms of the ordering of pages/systems). I simply choose a period of time to fill and then make a selection of systems to be played in order to fill that up. (Fulkerson 2007)

Fulkerson adopts the conductor's method of using a stop watch to maintain various tempi throughout the piece. This allows him to approximate Cage's spatial indications of sound and silence, and to give a performance that fills the time required for a program or recording. He says:

I make a schedule of the time per system (it can vary from system to system) and then use a stop watch to control how I am doing with that requirement.

[...]

Basically the note or silence is just something to be performed. I follow my stop watch and an approximate space = time value within this time scheme. (Fulkerson 2007)

This method is not indeterminate since it requires that the time lengths for each system be planned ahead of the performance, but changing tempo in each system prevents the audience from perceiving any consistency, thereby ensuring an indeterminate experience for them.

The most obvious difference between Fulkerson and Lindberg's recordings, as compared to Gillespie's, is their duration. The Lindberg and Fulkerson recordings are both just over seventeen minutes long, while Gillespie's recording lasts only seven minutes. This shorter duration results primarily from Gillespie's consistent shortening of the silences between notes. Another noticeable difference between these recordings is the use of the conch shell, which may be substituted by other noise elements, as per Cage's instructions. This presents an opportunity for varied performance, as the performer is free to produce any sound. Rather than play a conch shell, Lindberg makes a variety of replacement sounds, such as groans and barks. Fulkerson remarks, "I don't use a conch shell but usually use another sound for this ([a] tenor sax mouthpiece)" (Fulkerson 2007), which enables him to produce a wide range of squeaks and glissandi. Gillespie is the only performer of the three to play an actual conch shell; however, he creates yet another instance of unwanted consistency in the performance by producing the same pitch every time. The reoccurring pitch and timbre punctuates the music and disrupts its randomness. This decision also belies a definite intention in his performance.

Despite their different approaches, each trombonist succeeds in creating a multiplicity of interesting sounds that reinforce the indeterminate nature of the *Solo*. Cage used the conch shell to force improvisation, assuming the performer would lack the ability to play it with any great consistency. He hoped this loss of control would help combat the problem of intention (Kostelanetz 2003 [1987], 238).

Because Cage worked to create music that would be different in each performance, he viewed recordings as objects of distaste. In *Silence*, a volume of his collected writings, Cage condemns the use of recordings, stating:

Records, too, are available. But it would be an act of charity even to oneself to smash them whenever they are discovered. They are useless except for that and for the royalties which the composer, dead now some thirty-odd years, can no longer pick up. (Cage 1973 [1961], 76-7)

Cage believed recording a performance was the lowest form of music production, because each playing was identical and therefore eliminated the factor of indeterminacy entirely. He also recognized the tendency in people to listen to recordings to eliminate silence from their environment. In *Silence*, he further asserts, "It is better to make a piece of music than to perform one, better to perform one than to listen to one, better to listen to one than to misuse it as a means of distraction, entertainment, or acquisition of 'culture'" (Cage 1973 [1961], 64).

Therefore, it is most unlikely that Cage would have appreciated any of these three trombone recordings. Nonetheless, each honours his aesthetic in different ways. Each

performer makes compromises in order to present a performance that follows Cage's instructions in certain ways, while ignoring them in others. Understood as a fixed record of an original, variable performance, recordings can be useful for any trombonist studying the *Solo*; however, every idea presented in these recordings must also be taken with a grain of salt. One must always ask whether or not each sound on the recording serves Cage's aesthetic of indeterminacy, and whether each sound arises in a manner that supports the concepts of indeterminacy and non-intention.

## CHAPTER VI

### The *Solo's* Influence

Despite its minimal notoriety, the *Solo for Sliding Trombone* has had a great influence on avant-garde trombone works from the 1960's onward. Some trombonists have acknowledged the significance of the work. For instance, Stuart Dempster notes, "[it] has become a classic in its own time. The *Solo* may be the first truly avant-garde piece for trombone; certainly it is the first piece for trombone of an avant-garde nature to receive any sort of fame" (Dempster 1979, 96). Bob Gillespie remarks, "There is no doubt that *SOLO* is 50 years ahead of its time. Hsiao and Berio are the only composers to have explored trombone technique as thoroughly as John Cage" (Gillespie 2007). This is high praise when considering that the *Solo for Sliding Trombone* is the only solo work Cage wrote for trombone, and only one of a few pieces he composed that included the instrument.

Despite this praise, the *Solo's* influence has yet to be formally recognized through scholarly research. In this chapter, an examination of several later trombone works reveals two aspects of the *Solo's* influence on the trombone repertoire. First, there is the question of how later works have further explored the aesthetic problems raised by the work, or the performance issues associated with its unique notational features. Luciano Berio's *Sequenza V* (1966), Vinko Globokar's *Discours II* (1969), and Ernst Krenek's *Five Pieces for Trombone and Piano* (1969) are all works that effectively use unconventional notation inspired by the *Cage Solo*. The second influence involves a comparison of Cage's compositional methods with those of Iannis Xenakis in *Linaia-Agon* (1972), of

Roger Reynolds in ...*From Behind the Unreasoning Mask* (1974-75), and of Christian Wolff in *Dark as a Dungeon* (1977), especially with regard to the use of indeterminacy and chance operations.

Berio's *Sequenza V* is the first theatre piece for solo trombone to achieve international recognition. Cage's *Solo for Sliding Trombone* is not, strictly speaking, a theatre piece; there are no physical actions notated in the *Solo* that are not also necessary to perform the work. The type of theatre that occurs in a performance of the *Solo* is an incidental result of Cage's instructions, while Berio's work features carefully notated theatrics superfluous to the performance of the music (Dempster 1979, 76). Although *Sequenza V* is not an indeterminate work, Berio adopts Cage's concept of durations measured in real time to control the tempo of various sections of the piece. This method, also used in the *Concert*, dictates the tempo in the opening measures of *Sequenza V*, with five centimetres of the notated music corresponding to six seconds of temporal flow (see Figure 6.1).

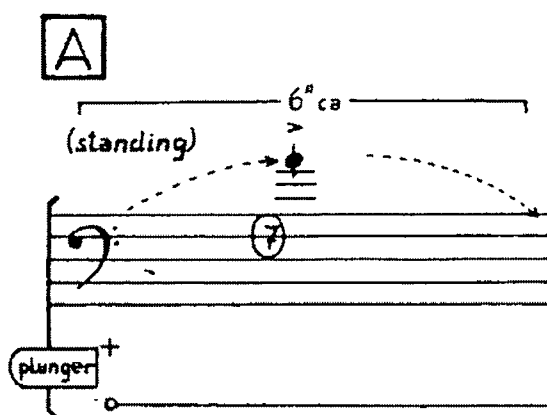


Figure 6.1: Measure 1 from *Sequenza V* (1966) by Luciano Berio.



Berio indicates that only one note sounds in this time span. However, for the third system, he makes a temporal shift, specifying that a five-centimetre measure corresponds to a three-second time span; moreover, he writes in nineteen notes instead of one, thereby placing great technical demands on the performer. The first measure of *Section B* is to occur in a maximum of twelve seconds; by not specifying the exact duration, Berio adds a true element of indeterminacy to the piece. On account of the individual trombonist's breath control, Berio's notation necessarily achieves varying results in performance. Like *Sequenza V*, other trombone works that followed the *Solo for Sliding Trombone* also used distance measurements to indicate tempo. Although this was a common compositional method in many of Cage's indeterminate works, the *Solo* was the first trombone work to use this concept.

The *Solo* was also the first piece for trombone to use an extensive array of newly invented notational devices written specifically for the work. Many of the avant-garde trombone works composed after the *Solo*, such as *Sequenza V*, Globokar's *Discours II*, and Krenek's *Five Pieces for Trombone and Piano*, contained original symbols to notate vocal sounds and slide manoeuvres. In particular, Krenek's work included an instruction taken directly from the *Solo*, an indication for the trombonist to "bark." Globokar uses a symbol that combines two different notations found in the *Solo*. His notation of a downward pointing arrow below the staff indicates the trombonist should play the note as low as possible (see Figure 6.2). This is comparable to the *Solo*, where a downward pointing arrow was first used to indicate small microtonal glissandi. Also in the *Solo*, note heads below the staff and attached to it by a stem indicate that the trombonist should play very high notes in these places. The various notations in these trombone works that

indicate numerous types of glissandi and other slide oscillations owe their conception to the *Solo for Sliding Trombone*.

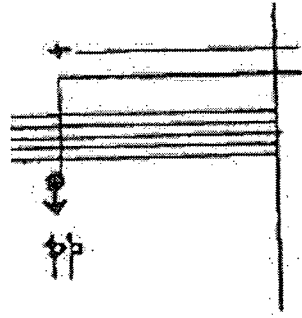


Figure 6.2: Excerpt from Page 4 of *Discours II* (1969) by Vinko Globokar.

Cage's notions regarding indeterminacy also influenced many trombone works from the 1960's onward, but these often treated indeterminacy very differently than Cage does in the *Solo*, blending this concept with determinate compositional elements. This can be seen in Xenakis's *Linaia-Agon*. This piece is based on the legend of the celebrated musician Linos, who provokes Apollo and is struck down. Xenakis explains, "Here the legend is incarnated by a musical game between two adversaries; Linos = the trombone, Apollo = the French horn or the tuba. Contrary to the legend, this game gives Linos a chance to extricate himself. This actual chance is mathematically provided by decision matrices" (Xenakis 1972, 2). The game is created by one instrument choosing a note corresponding to a number in the matrix, which awards the player a certain number of points. The opponent must respond with a note in the matrix that intersects with the previous note, according to the varying rules of each matrix throughout each section of the piece (see Figure 6.3). The performers freely choose certain elements of each musical

event, such as dynamics and duration; however, the general structure of the piece is decided through a cause and effect relationship between the two opponents. This treatment of indeterminacy differs greatly from the *Concert for Piano and Orchestra*, as the actions of each performer in the *Concert* do not affect one another. More specifically, the individual notes of the *Solo for Sliding Trombone* do not affect one another either. Furthermore, in *Linaia-Agon*, the element of chance only occurs during the performance of the matrices of the game, while the notes of the *Solo for Sliding Trombone* were originally conceived of using chance operations, and are thus inherent to the construction of the work.

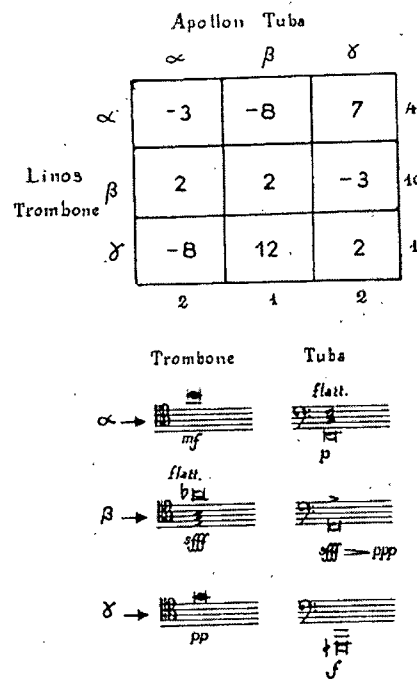


Figure 6.3: Excerpt from Page 4 of *Linaia-Agon* (1972) by Iannis Xenakis.

In ...*From Behind the Unreasoning Mask for Trombone, Percussion, and Tape*, Roger Reynolds creates indeterminacy through methods similar to those used by Cage. By composing music that is largely unplayable, he is able to achieve unpredictable variations in its performance. In his article, "Contemporary Notation and Limited Indeterminacy: Roger Reynolds' ...*From Behind the Unreasoning Mask*," David Loucky explains, "Using standard notational technique for the most part, he composes 'events too complex for practical control or phenomena which maintain a significant independence in spite of the performer's positive efforts'" (Loucky 1996, 39). For instance, the trombonist is asked to play for almost one minute without a break in sound. The flow of sound is maintained by alternately playing and singing while inhaling through the instrument; this technique was in fact first used for trombone in Berio's *Sequenza V*. Loucky explains how this procedure ensures an indeterminate result:

Reynolds specifies time durations for each note, whether played, sung or ingressively sung, but actual time durations for these notes must necessarily be determined by the lung capacity and breath control of the individual player. It is exceedingly difficult to sing ingressively for five seconds at a loud dynamic. The lungs inflate quickly. Thus a player with greater lung capacity has the potential to sing such a note for a longer time span and at a louder dynamic than a player with smaller lung capacity.

(Loucky 1996, 40)

Finally, Christian Wolff, a colleague of Cage and fellow innovator of indeterminacy, composed *Dark as a Dungeon* in 1977, which is a duet for trombone and double bass that follows Cage's aesthetics more closely than other avant-garde pieces written for the trombone. Wolff's approach to indeterminacy is similar to Cage's in that he dictates as few elements of the music as possible. Although the two instruments are meant to blend together through precisely notated melodies, Wolff is careful to allow certain elements of the music to be freely chosen. In his performance instructions for *Dark as a Dungeon*, Wolff states, "Whole notes (in bass part) are of free duration (don't count). On page 2, second system from the bottom, second phrase trombone is free to come in any time after the bass's low F. Ways of playing, colors and dynamics are free and variable, though the balance of the two instruments should always be a point of reference" (Wolff 1977). Thus Wolff created a piece featuring interplay between the parts and with unpredictable aspects of its performance. The trombone and bass form an ensemble that collectively produces an indeterminate result.

The greatest difference between the *Solo for Sliding Trombone* and the other works discussed here lies in the grand scope of the indeterminate factors Cage used. From its initial formation to many aspects of its performance, the *Solo* exhibits indeterminacy in every dimension of its composition. No other trombone work has been as thorough in its indeterminacy, and many subsequent compositions have employed fewer elements of chance. In most cases, indeterminacy is introduced by giving the performer freedom to make personal choices throughout performance. Consequently, these works often demonstrate the intention of performers, even though the results may

vary with each performance. This is not indeterminacy as Cage understood it, even though his influence on these works is undeniable.

## CHAPTER VII

### Conclusion

To discuss the musical value of the *Solo for Sliding Trombone*, one must first define the work, and then its context and frame of reference. Each performance of the *Solo* yields unpredictable results, and this makes it difficult to define the work, at least in conventional ways. The score does not define the music: it is only a partial indication of the possibilities that a performance might include. When Cage wrote the *Solo* for Frank Rehak, he created a composition that could be followed as a guide, similar to a jazz lead sheet, which does not contain the exact notes to be performed, but only certain indicators of the possibilities. In this sense, the music of the *Solo* does not exist in the notation of the score but rather through each performance. However, if the music exists only in its indeterminate performance, how can it be evaluated when it differs with each realization? This question of evaluation is impossible to answer without considering the fundamental problem of non-intentional performance practice proposed earlier for the *Solo for Sliding Trombone*: How can one maintain non-intention in a rehearsed performance?

Throughout this document, I have examined the evolution of Cage's compositional aesthetic, his philosophy of intention, and the development of indeterminacy that culminated in the creation of the *Concert for Piano and Orchestra*. Throughout, I have attempted to provide insight into appropriate performance practices for the *Solo for Sliding Trombone* and other works like it. Cage's early works show his preference for rhythm over harmony, and how this led him to explore the possibilities of non-pitched percussive sounds. Through the study of Zen, he developed an interest in

silence as a musical concept and began incorporating this idea into his compositions in many different ways. At first, he viewed silence as an aimless absence of sound that was passive and offered no direction to a particular composition, providing an opportunity to abandon traditional harmony. In the 1950's, the *I Ching* altered his view of silence. Chance operations allowed Cage to use silence to relieve his compositions of intention. This theory was realized through his most controversial work, *4'33"* (1952). For the remainder of the decade, he explored new compositional methods aimed at achieving his concept of "indeterminacy." This was achieved in the *Concert for Piano and Orchestra* (1957-58), in which all instruments were free to perform independently in various indeterminate ways.

Cage had been developing the notational methods used in the *Concert* throughout the 1950's, creating original compositional systems based on chance operations. The point-drawing system used in *Music for Carillon* achieved a simple form of indeterminacy. He used this method again in *Music for Piano*, but later abandoned it because it limited the randomness of events.

The *Concert* used newly-developed forms of notation for each instrument and produced various important solo works. Among these is the *Solo for Sliding Trombone*, which Cage created using the *I Ching*. The *Solo* explored new techniques for the trombone and fully incorporated Cage's aesthetic of indeterminacy throughout. Though it received mixed reviews, the *Solo* proved an important part of the trombone repertoire, and influenced many avant-garde trombone works that followed.

However, the *Solo for Sliding Trombone* raises many problems for those attempting to perform the work in an indeterminate fashion, in keeping with Cage's



aesthetic. Every decision will have positive and negative consequences. The *Solo* may be presented as an exploration of trombone timbres or as a study of sound and silence founded on Cage's ideas of non-intention. Numerous approaches are possible and vary with each player.

Recordings of the *Solo* demonstrate this variety of interpretations, and explore possible solutions for performance. Each trombonist offers new ideas to support Cage's aesthetic and others to contradict it. Nevertheless, one must also understand the problematic nature of recording an indeterminate event, and how Cage would view such an effort unfavourably.

The *Solo* broadened the repertoire of contemporary trombone techniques, expanding the possibilities for future composers using the instrument. Since then, numerous compositions have drawn inspiration from Cage's notational ideas, resulting in a significant growth of trombone sounds and techniques. Cage's influence is still seen today in unaccompanied trombone works that continue to build upon his concepts. These considerations point to several general conclusions regarding the questions of evaluating the *Solo for Sliding Trombone*, and of practicing the music non-intentionally.

Cage created indeterminate works as a means to imitate nature. He created an environment where all sounds were considered equal and immune from value judgments. Sounds were no longer a means to express intentions but were simply allowed to be nothing more than sounds without purpose. Since the *Solo for Sliding Trombone* exists only as sounds without purpose, placing value on them becomes problematic, especially as each performance differs.

The difficulty of evaluating his work is probably a major cause for the disdain that Cage's music has sometimes received. Audiences have reacted unfavourably to performances of the *Solo for Sliding Trombone*, not understanding its lack of purpose. They seek traditional means of evaluating the sounds through harmonic and rhythmic connections, while forgetting to simply listen. Other trombone works that contain elements of indeterminacy do not face these criticisms because they are ultimately constructed on a framework that is predetermined by the composer. Audiences are more willing to accept unpredictable music when they perceive it as an improvised expression of the performer's intentions or feelings. Improvisation exists within a predetermined form, and requires the intention of the performer to convey his or her interpretation of composer's musical concepts. An audience can then evaluate the performance in terms of its execution, and also in terms of the quality of the composition itself. They do not come to listen, but instead to place value on what they hear. Cage sought to combat this problem by composing music that transcended value judgments and only existed during a unique performance.

When approaching the *Solo for Sliding Trombone*, rehearsal and practice are essential elements for a conscientious performance, but must always be disciplined to conform to Cage's aesthetic of non-intention. The performer must make thoughtful, intentional decisions prior to the performance, as well as spontaneous, non-intentional decisions before each note is played. Thus the value in a performance of this work lies in whether each performance decision is in keeping with Cage's instructions or not. Moreover, the performer uses intention and non-intention together to create a soundscape that allows the audience to listen without intention. The performer's need to prepare for a

performance requires a compromise between non-intention and planning (or preparedness). The result should be a performance that elicits from the audience attentive listening without intention, even if the performer cannot entirely avoid intent or directed action. Ultimately, and somewhat paradoxically, non-intention can only be achieved through the performer's self-disciplined intention to create it.

Finally, while this document represents a step toward understanding Cage's works, and the *Solo for Sliding Trombone* in particular, it is also an important starting point for future research regarding other indeterminate works. Much has been written about the structure and concept behind Cage's music; however, very little has been said about the execution of these works. If one considers that indeterminate music comes into existence during its performance, then research into the performance practice of indeterminate music should be of utmost importance.

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