

CHAPTER 1: Introduction

“Play whatever you want, as long as it’s there.”
--Pianist/Composer Anthony Coleman to me before
a concert in New York (Summer 2009)

This advice, given by improviser Anthony Coleman, speaks volumes to the state of improvised music and graphic notation. The following thesis seeks to address the relationship between graphic notation and musical gesture, and will argue that graphic notation became necessary in order to adequately represent the composer’s gestural intent. Graphic notation has been around for hundreds of years, first in the form of visual art, as found in Baude Cordier’s chanson *Belle, bonne, sage*.¹ This heart-shaped score, with specks of red, depicts the love that is found within the musical composition and subject matter itself. Guido de’ Arezzo’s landmark *Micrologus* (c.1025) directly changed the notation of music by writing neumes (an antiquated form of block notation) on a system of lines that in turn, were offset by a third. This resulted in a line or subsequent space for each tone.² The two main lines, the C line and the F line due to the semi-tones falling below, were further denoted by yellow ink for the former and red ink for the latter.³ This development allowed for music to be more definitely notated.

One could make the argument that Guido’s contribution to the musical staff, and the subsequent development of western notation in the Middle Ages through Johannes de Garlandia, Franco of Cologne, and Petrus de Cruce, was in fact just one type of graphic notation. While an

¹ Sylvia and Stuart Smith, "Music Notation as Visual Art," *Percussionist* 18. No. 2 (1981), 8.

² Claude V. Palisca. "Guido of Arezzo." *Grove Music Online*. (2011). Accessed 16 Aug. 2011
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/11968>>.

³ Ibid.

interesting debate worth further exploration, graphic notation referred to in this document is a compositional tool that grew out of the experimental music scene of the 1950s.

In the late 1950s, some artists, among them John Cage, argued that music composition required extensive training in science and mathematics. While this argument was not made in response to any one composer, the work of Milton Babbitt best epitomizes this correlation between music and mathematics. Babbitt's professional life feeds the connection between mathematics and music. While primarily known as a composer, Babbitt served as a mathematics researcher in Washington D.C., and was on the mathematics faculty at Princeton University from 1943-1945.⁴ These years were pivotal years for Babbitt's development as a thinker and theorist, as he published *The Function of Set Structure in the Twelve-Tone System*, or the first article that examines the set structures found in the music of Arnold Schoenberg.⁵ As a result, Babbitt came to define and codify many of Schoenberg's techniques. Babbitt was fascinated with the strict constructs of 12-tone theory, and took the concept to new extremes, which can be seen through numerous musical constructs, among them maximal diversity, aggregate, and all-combinatorial hexachords.

The concept of maximal diversity is one that seeks to include every possible combination of a set or perceived parameter. Andrew Mead, in his discussion of Babbitt's music, says, "Babbitt has extended this idea [maximal diversity] to virtually every conceivable dimension... All sorts of aspects of Babbitt's music involve the disposition of all possible ways of doing something within certain constraints."⁶ Babbitt applied elements of maximal diversity to aspects of the tone row, which allowed for his music to be highly derived and interconnected. This

⁴ Elaine Barkin and Martin Brody. "Babbitt, Milton." *Grove Music Online*. (2011). Accessed 15 Oct. 2011 <www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/01645>.

⁵ Ibid.

⁶ Andrew Mead. *An Introduction to the Music of Milton Babbitt* (Princeton: Princeton University Press, 1994), 20.

principle is more commonly referred to as all-combinatoriality, a term coined by Babbitt himself, and a process that allows the pairing of a hexachord with any transformation of itself.⁷ Babbitt discovered that there were a finite number of these rows (six) that could be transformed by various operations to form the overall aggregate.⁸ These strict compositional processes resulted in music that was tightly controlled and highly derived.

In contrast, and in response to the aforementioned strict compositional processes, John Cage worked with the *I-Ching*, or a system of calculated randomness otherwise known as chance music or aleatoric music derived from ancient Chinese philosophy. An early example of this is heard in Cage's *Music for Changes* (1951). Working with the I-Ching resulted in musical flattening and equalizing, or a condition of taking prescribed parameters of music, such as melody, harmony, form, texture, tempo, dynamics, tone, and rhythm, and assigning equal values.⁹ Eventually, Cage found his way to indeterminacy, or a system of composition that grants the performers free choice. Each realization of the composition resulted in a unique performance based on the choices made by the performer. The score was simply a set of instructions to create a sonic map, one that the artist was in charge of reading and realizing.

Cage was interested in the natural world and how to listen to the sounds that occur within it.¹⁰ As a result, silence became vital in his compositions because Cage found it did not exist in the natural world, a belief similar to Eric Satie and Jean Cocteau's desire for more space and silence. The notion of time and space is directly seen in Cage's "silent" piece, *4'33"*. This issue of silence and space is one that will come up throughout the analyses section of this paper. Satie,

⁷ Elaine Barkin and Martin Brody. "Babbitt, Milton." *Grove Music Online*. (2011). Accessed 15 Oct. 2011 <www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/01645>.

⁸ Ibid.

⁹ Henry Flynt, "Cage and Fluxus," *Writings About John Cage*, ed. Richard Kostelanetz (Ann Arbor: The University of Michigan Press, 1990), 279.

¹⁰ Ibid, 280.

Cocteau and other members of the Dada art movement had considerable influence on Cage and the Fluxus art movement.¹¹

The Fluxus movement itself was a direct response to the influential lectures given by Cage at the New School for Social Research from 1957 to 1959.¹² In these lectures, Cage called for a liberation of the ear, so that the ear could be retuned to new facets of perception. He also called for a breakdown of structure, while at the same time maintaining the sense of compositional purpose. The issue of compositional purpose is an important one in a movement that railed against the aforementioned strict serialism, while at the same time pushing the boundaries of the avant-garde.¹³ Fluxus members lauded the necessity of audience participation during performances. Audience participation did not mean bringing someone up on stage to interact with the performance; rather, it meant using the audience's senses to aid in the overall performance. One way that artists advocated audience participation was through the concept of *gesture*.

Gesture has taken on numerous definitions throughout art history. It is imperative at this point to provide a brief discussion of musical gesture in order to set a framework for a discussion of graphic notation as means of musical gesture. Before delving into musical gesture, it is important to include a brief background on semiotics and musical signs.

In his *Playing with Signs*, Kofi Agawu asks the directed question of *how* a piece means.¹⁴ While the scope of his research focuses on the classical period (works by Haydn, Mozart, and Beethoven), this question gets to the root of listener-oriented music. It points to the classical

¹¹ Francis M. Naumann, "Man Ray and the Ferrer Center: Art and Anarchy in the Pre-Dada Period," *New York Dada*, ed. Rudolf E. Kuenzli (New York: Willis Locker and Owens, 1986), 12.

¹² Daniel Herwitz, "John Cage," *Encyclopedia of Aesthetics*, ed. Michael Kelly (New York: Oxford University Press, 1998), 1.

¹³ *Ibid.*, 3.

¹⁴ Kofi Agawu, *Playing with Signs: A Semiotic Interpretation of Classical Music* (New Jersey: Princeton University Press, 1991), 5.

style as a possible language that was spoken by the aforementioned composers. Agawu goes on to quote Charles Sanders Peirce: “We think only in signs.”¹⁵ The result is a new system of thinking, whereas music is redefined as a system of signs that are introversive or extroversive. Introversive signs reference sonic elements to other sonic elements that appear within the composition. Extroversive signs reference sonic elements from the outside world to the composition.¹⁶ These extroversive musical signs can be grouped as topics. Topics can be broken down in two parts, a *signifier*, something found within a parameter of music, and a *signified*, a stylistic unit that is normally referential in nature.¹⁷ To clarify, the signifier carries the meaning and the signified is the mental concept that is the meaning. Together they make up the associative total, which is the sign.

Signifier + Signified = Sign

This can be explained linguistically through the word elephant. The word *elephant* in English, which is *zilonis* in Lithuanian for example, is the signifier (the signifier will be different in every language). The large creature with a long trunk is the signified (the signified will be fact in any language). Together they make up the associative total for the sign elephant. Both the signifier and the signified play an equally important role in determining the meaning of the overall sign. Agawu’s discussion of musical signs is fascinating, but semiotics and musical signs simply provide a springboard for this thesis, which, as mentioned above, seeks to examine graphic notation *as* musical gesture.

¹⁵ Ibid, 10.

¹⁶ Ibid, 23.

¹⁷ Ibid, 49.

Music theorist Robert Hatten brings the concept of musical sign into the world of musical gesture. He writes that gesture is movement that can be interpreted in turn as sign, and can be classified according to Peirce's categories: Firstness, Secondness, and Thirdness, which to Peirce represented a quality of feeling, a reaction, and a representation.¹⁸ Firstness is qualitative and is concerned with the attitude of the gesturer. Secondness focuses on goals of the gesturer. Thirdness relies on extra-conventional wisdom and referential thought to add symbolic knowledge.¹⁹ Hatten describes a musical performance as synthesizing musical parameters to one gesture that conveys a great deal of information.²⁰ He goes on to point out the clear shortcomings in standard notation to clearly represent the elements of gesture.²¹ Essentially, gestures are a synthesis of the various parameters of music, defined herein as melody, harmony, form, tone, dynamics, texture, tempo, and rhythm.

One argument of this paper is that standard Western Classical notation cannot accurately represent and portray all of these elements. As such, and as mentioned earlier, there existed a need in the 1950s for a new system of notation to adequately measure and represent the more performance-art-based scores that were being composed.²² A single gesture full of information, along with shortcomings in standard notation to represent the gesture, points to a need for a new system of notation. Graphic notation fills this need by allowing the composer to detail musical gestures to the performer. The musical gestures, defined in detail as noted by Hatten's request for all gestures to be defined, are as follows: *introductory gesture*, *ascending gesture*, *descending*

¹⁸ Robert S. Hatten, "Musical Gesture," *Semiotic Institute Online* (2001), Lecture 2. Accessed 17 October 2009 <<http://www.chass.utoronto.ca/epc/srb/cyber/cyber.html>>.

¹⁹ Ibid.

²⁰ Robert S. Hatten, "Musical Gesture," *Semiotic Institute Online* (2001), Lecture 1. Accessed 17 October 2009 <<http://www.chass.utoronto.ca/epc/srb/cyber/cyber.html>>.

²¹ Ibid.

²² Smith, "Music Notation as Visual Art, 1."

gesture, static gesture, and cadential gesture. In addition, in the Globokar chapter, *physical gestures*, such as the *concurrent gesture* and *independent gesture*, are also present and defined.

At this point it is necessary to provide definitions of the terms used throughout the paper, which are introductory gesture, ascending gesture, descending gesture, static gesture, concurrent physical gesture, and independent physical gesture. These gestures have roots in Wallace Berry's progression, recession, and stasis from his *Structural Functions in Music*.²³ Progression is a structural function consisting of increasing intensity while regression is a structural function consisting of decreasing or subsiding intensity. Stasis is a state of unchanging degrees of intensity.²⁴ Berry goes on to apply these different structural functions across parameters of music, including tonality, texture, and rhythm and meter. In tonality, progression is defined as movement away from tonic, whereas recession is defined as movement back toward tonic.²⁵ In texture, progression is defined as increased density through the emergence of polyphony whereas recession is defined as the stabilization of textures through cadential formations.²⁶ In rhythm and meter, progression is defined as an increase in the rate of motion of space and attack as well as metric instability, whereas recession is defined as having larger rhythmic units and symmetrical unit relations.²⁷ Two central facets of Berry's procession and recession are reproduced below.

1. ...progressive fluctuation in the direction of intensifying conditions expecting resolution (dissonance, complexity, ambiguity, instability, distance, acceleration, etc.).
2. ...recessive fluctuation in the direction of conditions achieving or tending toward resolution (consonance, simplicity, clarity, stability, proximity, deceleration, etc.).²⁸

As indicated above, Berry chose to focus on tonality, texture, and rhythm and meter in his discussion of structural functions. In the current paper, these functions will be expounded upon

²³ Wallace Berry, *Structural Functions in Music* (Mineola: Dover Publications, 1987), 7.

²⁴ Berry, *Structural Functions in Music*, 7.

²⁵ *Ibid*, 11.

²⁶ *Ibid*, 201.

²⁷ *Ibid*, 331.

²⁸ Berry, *Structural Functions in Music*, 84.

in regards to musical gesture, thus changing their names and definitions slightly, all while adhering to Berry's aforementioned central facets. In addition, as the following analyses focus in great detail on motivic development, the gestures will be discussed in regards to motives. Definitions of the different gestures will be followed by score examples of each gesture.

Introductory Gesture

An introductory gesture is pre-gestural motion, acting before an ascending or descending gesture. The introductory gesture serves to provide the first hearing of motivic material, but without development, essentially thrusting the musical phrase into motion. Sparse textures, minimal density, and minimal rhythmic and metric rate or motion are all characteristics of an introductory gesture.

Ascending Gesture

An ascending gesture functions essentially as procession, where intensity creates a sense of tension, which requires release. Characteristics of ascending gestures center on accelerated rhythmic and metric motion and increased density. In an ascending gesture, there is an increase in surface level motives. As discussed throughout this paper, an ascending gesture is associated with tension. This musical tension can be achieved in various ways and depends on the context. Examples of tension include a buildup of density, rhythmic complexity and density, and silence.

Descending Gesture

A descending gesture functions essentially as recession, where musical movement tends toward resolution. There are still surface level motives in a descending gesture, but the motives are

fewer and more focused as the intent is to release the tension created from the ascending gesture. Characteristics of a descending gesture center on increased space, a decrease in surface level rhythms, a deceleration of metric motion, and silence.

Static Gesture

A static gesture functions as a moment of little to no structural change and also of little to no motivic development. A static gesture is infrequently used in the following analyses, but by no means is meant to disregard Berry's definition of stasis. As this paper focuses on musical gesture, moments of stasis are rare and infrequent, and the argument will be made that the musical gestures are in a constant state of motion.

Cadential Gesture

A cadential gesture acts as an end to the musical phrase or musical motion. To clarify, and as Caplin states, a cadence is marked at the initial place of the cadence, not the final note.²⁹ Thus, the material that follows the marked cadence is the cadential extension, which is part of the overall cadential function. A cadential gesture, in comparison, contains all the cadential material within, marking the end of the musical motion. Minimal motivic development, minimal rhythmic or metric motion, and silence are all characteristics of a cadential gesture.

Concurrent Physical Gesture

Physical gestures are discussed in Chapter 3: *ζCorporel* by Vinko Globokar, as this is the only piece discussed with prescribed physical movements. A concurrent physical gesture is one where

²⁹ William Caplin, "The Classical Cadence: Conceptions and Misconceptions," *Journal of the American Musicological Society* 57.No.1 (2004), 56.

the musical and physical components run parallel to each other. But as discussed during Chapter 3, a concurrent physical gesture itself can be ascending or descending or introductory or cadential. Thus, the previously discussed characteristics for the musical gestures are still applied within a concurrent physical gesture.

Independent Physical Gesture

An independent physical gesture is essentially the opposite of a concurrent gesture, where the musical and physical components are unique lines, running with little regard to one another. As just mentioned, an independent physical gesture can function as either an introductory, ascending, descending, or cadential gesture.

The following example, from *Composed Improvisation* by John Cage illustrates examples of both an ascending and descending gesture. The ascending gesture is much denser than the descending gesture. In addition, there is a rhythmic acceleration leading to a silent pause before the descending gesture begins. This silence creates a great deal of tension, as the build-up of density and rhythmic motion necessitates resolution. The silence prolongs the resolution and thus, creates tension. The tension is released through the descending gesture, beginning on the single quarter notes. The quarter notes are followed by silence, a soft figure, more silence, and then a final soft four-stroke ruff. The decrease in density and in rhythmic motion results in the descending gesture. The silence that is present here is different than the silence from the ascending gesture. The silence during the descending gesture stretches out the resolution, and additionally creates an even sparser texture as the resolution continues.

Example 1: Ascending and Descending Gestures in *Composed Improvisation*

Segment 1: Retrograde of diminution of Part 2a

Ascending Gesture

Segment 2

Descending Gesture

Cadential Gesture

The next example, from *The King of Denmark* by Morton Feldman, details both an introductory and ascending gesture. Density is a marked difference between the two, as is the amount of rhythmic complexity and motivic development. The additive motive is a common feature of an introductory gesture, when the initial motive is embellished before transitioning to either an ascending or descending gesture. This is opposite in a cadential gesture when a subtractive process is more common as the motives have already been previously developed.

Example 2: Introductory and Ascending Gestures in *The King of Denmark*

Introductory Gesture (18:20)	Ascending Gesture (30:15)	Cadential Gesture (6:14)
Additive motive		Subtractive Motive
<p>GONGS</p>		

The following shows a static gesture from *The King of Denmark*. The section with specifically notated instruments is simply one ictus after another for 22 grids. There is no motivic development; rather, it is a state of unchanging musical material and motion.

Example 3: Static Gesture in *The King of Denmark*

The diagram illustrates two musical gestures. The first, 'Static Gesture (43:22)', is characterized by 'specifically notated instruments' and consists of a sequence of 22 grids. The second, 'Descending Gesture (74:62)', includes an 'interruption' and 'increased sustain'. Below these, a section labeled 'increase in resonance' shows a large number '5' and a dashed box labeled 'BELL LIKE SOUNDS'. The final part of the diagram is labeled 'dispelled tension'.

An example from *Corporel* by Vinko Globokar illustrates the use of both kinds of physical gestures, a concurrent physical gesture and an independent physical gesture. The concurrent physical gesture shows a direct parallel movement between musical and physical components. In this example, the physical movements on the face switches directions at the precise moment the vocal line changes from open-mouthed to closed-mouthed “H” sounds. In contrast, the independent physical gesture shows the hands moving on the face indirectly of the vocal line. They do come together to change halfway through (phrase 1 to phrase 2) at the “s” sound, but within the phrases themselves, the lines work independently of one another.

Example 4: Concurrent Physical and Independent Physical Gestures in *ζCorporel*

The image displays a graphic notation score for the piece *ζCorporel*. It is organized into several sections:

- Concurrent Gesture:** The top section, labeled with a circled 2, shows a horizontal line for 'Voix' (voice) with four distinct gestures: 'Introductory Gesture', 'Ascending Gesture', 'Descending Gesture', and 'Cadential Gesture'. Below this, three lines represent 'crâne' (head), 'face', and 'cou' (neck), with corresponding physical gesture diagrams.
- Concurrent Ascending Gesture:** The middle section, labeled with a circled 3, features 'Voix' with 'Phrase 1' and 'Phrase 2'. Below are 'crâne', 'face', and 'cou' lines with physical gesture diagrams. Labels include 'Fragmentation', 'Rhythmic Motive', and 'Retrograde of Introduction'.
- Concurrent Cadential Gesture:** A section on the right side of the middle section, labeled 'Concurrent Cadential Gesture', with a circled 4 and 'main courante le visage'.
- Transition:** The bottom section, labeled with a circled 5, includes a 'Transition' title and a rhythmic notation: 'elaquer des dents en découvrant le visage, ouvrir de plus en plus la bouche.' Below this is a musical score for 'voix', 'côte', and 'poitrine' with a tempo of $\text{♩} = 44$ and $\text{♩} = 52$.

What follows are three separate analyses, *Composed Improvisation* for snare drum alone by John Cage (1987), *The King of Denmark* by Morton Feldman (1964), and *ζCorporel* by Vinko Globokar. As a theorist-performer (percussionist), I have performed each one of these compositions, and wanted the focus of the graphically notated pieces to remain firmly fixed on percussion scores as opposed to other instrumental scores. In addition, each of the composers has ties to the Fluxus arts movement of the late 1950s as well as other visual arts movements of the latter half of the 20th century. A copy of each score is found in the Appendix. Furthermore, a CD recording of Cage's *Composed Improvisation* for snare drum alone is included. As Cage provided a text-based score that I realized per his instructions only to use as the basis of my analysis, I have included the recording for readers.

Each piece is analyzed in relation to the previously outlined musical gestures. The resulting analyses will then be used to develop a theory of the composer's intent for use of graphic notation. Why did the composer choose to notate this way? It is my belief that the

composers used graphic notation as musical gesture, in order to convey musical concepts that would not have been possible through standard notation.

CHAPTER 2: *Composed Improvisation* for snare drum alone by John Cage

Although officially composed in 1987 for a series of snare drum solos entitled *The Noble Snare* (Smith Publications),¹ *Composed Improvisation* for snare drum alone by John Cage is an example of Cage's early use of aleatoric music and indeterminacy. Cage initially began experimenting with aleatoric music during the late 1950s and early 1960s after a lecture series at the New School for Social Research from 1957-1959 resulted in an art movement known as Fluxus.² In these lectures, Cage essentially called for a liberation of the ear, so that the ear could be retuned to new facets of perception. He also discussed the need for a breakdown of structure, while at the same time maintaining the sense of compositional purpose.³ This experimentation led Cage to the I Ching, an ancient Taoist and Confucian document known as the *Book of Changes*. The I Ching is a system of devising order among randomness, initially intended as a philosophical gaze into the meaning of life, but more recently used in the creation of art through chance operations.⁴

The score for *Composed Improvisation* is a text-based event score, a term taken from Fluxus member Dick Higgins. Event scores are characterized by the use of reduction, repetition, improvisation, and chance.⁵ A text-based score is classified as graphic notation, as the prose takes the place of notated music. In order to dig deeper into the relationship between the graphic notation and the gestures associated with the music, one must go through numerous processes to realize the text-based score. As a result, it is more useful to think of the original text-based score

¹ John Cage, "Composed Improvisation," *The Noble Snare*, ed. Sylvia Smith (Baltimore: Smith Publications, 1987), vol. 2, 24.

² Daniel Herwitz, "John Cage," *Encyclopedia of Aesthetics*, ed. Michael Kelly (New York: Oxford University Press, 1998), 1.

³ Ibid, 2.

⁴ James Pritchett, "John Cage," *Oxford Music Online* ed. by Deane Root (2009). Accessed 8 February 2009 <<http://www.oxfordmusiconline.com/subscriber/article/grove/music/49908>>.

⁵ Simon Shaw-Miller, "A Chorus of Voices: Seeing Music in Cage and Fluxus, the Birth of Postmodern," *Visible Deeds of Music*, ed. Simon Shaw-Miller (New Haven: Yale University Press, 2002), 208.

of *Composed Improvisation* as a map that provides the necessary instructions to realize a sonic event.

In order to more clearly examine the piece, I realized Cage’s score (**Appendix A**) through a series of chance operations. I placed 64 sheets of paper into a hat, numbered from 1 to 64, and completed each one of Cage’s instructions for different parameters. In lieu of detailing this process in drawn-out prose form, I have opted to include in **Appendix B**, a page indicating complete results of the chance selection of pieces of paper. In short, the piece was divided into three parts based on 15 second intervals between 0’00” and 8’00.”

Table 1: Formal Breakdown of *Composed Improvisation*

Part 1: 0” to 45”	Part 2: 1’00” to 4’45”	Part 3: 5’00” to 8’00”
Event a: 15 icti	Event a: 51 icti	Event a: 12 icti
Event b: 24 icti	Event b: 17 icti	Event b: 21 icti
Event c: 28 icti	Event c: 27 icti	
Event d: 1 icti	Event d: 31 icti	
	Event e: 59 icti	
	Event f: 52 icti	

As indicated above, each part consisted of a set number of events, which themselves consisted of a set number of icti, or unique sonic occurrences. Snare drum technique utilizes a great deal of embellishments, such as flams, buzzes, drags, rim clicks, and dead strokes. Cage makes special mention of extended techniques by stating that any embellishment counts as one icti. For example, a flam, which is a small grace-note figure that is tied to a rhythmic note value, would only constitute one ictus. Similarly, a buzz, which is made up of three to seven notes, would be considered one ictus.

Different pairings of sticks and beaters were chosen at random in order to create sonic variance within each event. Cage dictates ten different pairs of beaters: eight pairs of standard

percussion beaters, one pair of hands, and one pair of nothing. Cage does not specify the type of beaters, so I selected the following: regular drum sticks, brushes, medium rubber mallets, blasticks, soft yarn mallets, hard yarn mallets, hard plastic mallets, and medium timpani mallets. As a result, the breakdown of beater by event is shown in the following table.

Table 2: Stick and Mallet Use by Event

Event 1		Event 2		Event 3	
a	Blastick, hard yarn	a	Hand, timpani	a	Nothing, nothing
b	Rubber, soft yarn	b	Hard yarn, hard yarn	b	Hard yarn, timpani
c	Hand, plastic	c	Hand, hard yarn		
d	Stick, plastic	d	Hand, hand		
		e	Rubber, timpani		
		f	Brush, brush		

While not specified in the score, I made the decision that the first stick in a pairing would be for my left hand, while the second stick would be for my right. For example, in Event 1a, I would hold a blastick in my left hand and a hard yarn mallet in my right.

A misconception about this piece, as well as other text-based scores by Cage and other avant-garde composers, is that a text-based graphic score is not music. It is possible to view this composition as non-musical randomness, meaning that Cage simply wrote down a series of numbers and instructions and called it art. This is a similar held belief that my college art teacher harbored against abstract-expressionist Mark Rothko, resulting in the common classroom statement, “I could have done that.” While not seeking to tell people how to think, the following analysis of my sonic realization of *Composed Improvisation* seeks to dispel these beliefs by

relating the text-based graphic score to the element of musical gesture, as previously defined in the first section of this paper.

Part 1

Part 1 of *Composed Improvisation* is 45 seconds long and consists of four unique events totaling 68 icti. In contrast to Jason Baker's realization and analysis of this piece that breaks down each event into a set length, I did not set a time length for each event that makes up Part 1; rather, I chose to focus on Part 1 as an overall phrase consisting of 68 icti in 45 seconds with a variety of different beaters.⁶ This choice allows for more freedom within an event, as well as a continuity of structure and motivic development.

Part 1a serves as a presentation of initial motives that will be developed throughout the entire composition (**Note:** dynamics only apply to the note or grouping they appear under; unmarked notes or groupings are assumed to have a dynamic of *mf*). It should be noted that all rhythmic transcriptions are approximate and are not intended to show metric relationships; rather, they are intended to show motivic development and gesture.

Example 1: Score of Part 1a

The image shows a musical score for Part 1a. It consists of a single staff with a treble clef. The score is divided into several sections by brackets above the staff: Motive A, Motive B, and Augmentation Motive A. Below the staff, there are two larger brackets labeled 'Clause 1: Descending Gesture' and 'Clause 2: Ascending Gesture'. The score includes various rhythmic markings, including wavy lines and specific note values. Dynamics are indicated below the staff: 'mf' under Motive A, 'p' under Motive B, and 'pp' under Augmentation Motive A. The score ends with a double bar line.

⁶ Jason Baker, "The Snare Drum as a Solo Concert Instrument," *UNT Digital Library*, dissertation (2004). Accessed 3 November 2008 <<http://digital.library.unt.edu/ark:/67531/metadc4721/>>.

This 15-note event played with a blastick and hard yarn mallet consists of two dependent clauses that serve as a model for the rest of the improvisation. The first clause contains two motives, a simple struck quarter note of any embellishment, Motive A, and a three-note figure of two sixteenth notes followed by an eighth, Motive B (although the order is not as important as the grouping of three notes). The second part of the first clause consists of an augmentation of the original motive (two eighth notes followed by a quarter note). The buzz effectively acts as a cadential arrival, but is not strong enough to dictate an actual end to the event. In comparison, the second clause, which contains both Motives A and B, ends on an emphatic two-note accented figure. This marks the end to Part 1a and the transition to Part 1b.

In regards to gesture, the first clause is made up of two independent phrases, each of which, as previously mentioned, are made up of Motives A and B. The Motive A echo produced from the first note at *mf* to the next figure at *p* to the next one at *pp* signifies a prolongation of the initial motive, and as a result, I have labeled this type of musical gesture a *Descending Gesture*. The second half is made up of only one independent phrase, which helps it to serve as a closing function and subsequent arrival at the end of the event. I have labeled this type of musical gesture an *Ascending Gesture*.

The strict analysis of the Part 1a raises some significant questions about the intent of the composer and the role of the performer. While it is true that I am an accomplished improviser with extensive training on percussion instruments, I recorded my realization of *Composed Improvisation* in one take. I did not have enough time to compose-out a version of the piece, as I was too busy following the strict time parameters, mallet changes, and other directions laid out by Cage. While one could argue that this element of gesture and motivic development is

circumstantial, further study of the rest of the improvisation yields far too many structural relationships as to be labeled coincidental.

Part 1b consists of 24 icti played with a medium rubber mallet and soft yarn mallet. The 24-icti take place over 15 seconds, marking an increase in sonic activity. The first four icti of Part 1b, stemming from the accented eighth notes at the end of Part 1a, function as a transition to the real start of the phrase, which begins on the fifth ictus, a grouping of four sixteenth notes. Sonically, Part 1b introduces two new sounds into the improvisation, the flam and the rim click. In addition, one new motive is introduced and is represented by the flourish of five sixteenth notes in a row starting on the 9th ictus (following the sixteenth rest). Discussion of later events will follow up on the presence of five-note units in the improvisation.

Example 2: Score of Part 1b

The musical score for Part 1b is presented on two staves. The first staff contains the following elements from left to right: a 'Transitory' section with four rhythmic groupings marked with dynamics *f*, *p*, *f*, and *pp*; a 'Clause 1: Descending Gesture' section starting with a *ff* dynamic, featuring a flourish of five sixteenth notes labeled 'Motive C' and ending with a *pp* dynamic; and a final section with dynamics *mp*, *p*, and *pp*. The second staff shows 'Clause 2: Ascending Gesture' starting with a flam (marked with an 'x') and continuing with a series of rhythmic patterns that increase in density towards the end.

Similar to Part 1a, Part 1b can be broken down into two separate clauses, the first ending on the 15th ictus and the second beginning with the first flam of the improvisation. The first clause has a distinct echo effect that results in a large-scale decrescendo to the end of the clause. Each of the four rhythmic groupings represented on the score above get progressively softer until the silence is interrupted by the first flam, which starts the second clause. In stark contrast, the second clause grows to the end due to the rim click and diminution of the opening motive of the second clause. This creates tension that leads to the last ictus, a flam, followed by a great deal of

silence. As in Part 1a, the first clause is a descending gesture, while the second clause is an ascending gesture.

Of particular interest is the amount of time and number of icti each clause takes up. Clause 1 consists of 11 icti that take place over 10 seconds. Clause 2 consists of 9 icti that take place over 5 seconds. While not statistically significant, the almost two to one relationship between the changes of densities over time between the two clauses is curious. Comparing this data to that of the clauses in Part 1a, one finds similar results. The first clause of 1a consists of 9 icti over 11 seconds, while the second clause consists of 6 icti over 4 seconds. Combined with the aforementioned decay of clause 1 and growth of clause 2, this comparison to Part 1a further supports labeling the first clause as descending and the second as ascending.

Part 1c is the densest phrase of Part 1, consisting of 28 icti in 20 seconds. No new motives are introduced in this phrase; rather, the material develops from various augmentations and diminutions of previous motives. While a noticeable meter is absent from this improvisation, I have tried to indicate a metric relationship between the various rhythmic figures. This results in Part 1a centering on quarter and eighth notes, Part 1b centering on eighth and sixteenth notes, and Part 1c centering on sixteenth, sixteenth note triplets, and 32nd notes. This large-scale, rhythmic *accelerando* culminates at the high point of the entire part, the accented four-stroke drag that is the 11th icti of the event. What follows is effectively the denouement. This period attempts to re-reach the high point, but fails to reach the four-stroke drag until all but sputtering out. The final *pp* gesture is Motive B, in its original form.

Example 3: Score of Part 1c

The image shows a musical score for Part 1c, consisting of two staves. The top staff begins with a triplet of eighth notes, followed by a series of sixteenth notes that rise in pitch, marked as an 'Ascending Gesture'. A 'High Point' is indicated above a specific note. This is followed by another triplet of eighth notes and some rests. The bottom staff starts with a series of notes marked 'p' (piano), which then transitions into a section marked 'Clause 2' containing a 'Motive B' (a triplet of eighth notes). A long horizontal line below the bottom staff spans the entire duration and is labeled 'Denouement: Cadential Gesture'.

The form of this phrase is different than the previous ones in that the first of two clauses, which ends with the aforementioned 11th ictus high point, is the ascending gesture. There is no descending gesture in the phrase since the material that follows the 11th ictus functions like a cadential extension, causing me to label it a *Cadential Gesture*.

Example 4: Score of Part 1d

The image shows a musical score for Part 1d, consisting of a single staff. It begins with a note marked 'mp' (mezzo-piano) under the label 'Motive A'. This is followed by a long, continuous, wavy line representing a sustained sound or 'buzz'. A horizontal line below the staff is labeled 'Final icti tied over from 1c', indicating that this final note is part of a gesture that began in the previous part.

The cadential gesture carries over into Part 1d, which consists of only one note, a buzz, indicating in this instance that the final ictus in Part 1d is actually still part of the cadential gesture started at the end of Part 1c. This final arrival point is followed by a silence until the start of Part 2a.

Part 2

Part 2 is 3'45" long and consists of six events totaling 238 icti. In general, Part 2 functions as a development section, whether intended or not, effectively taking previous motives and composing them out. The only additional features include different sounds, such as the addition of a dead stroke, an extended roll, and a rim shot and greater use of embellishments, accents, and crescendos. Combining all of these elements together results in Part 2 being the most active section of the piece, in regards to both rhythmic variety and density.

Part 2a consists of 51 icti that take place over 52 seconds. This near 1:1 relationship of ictus to unit of time, especially in relation to the denseness of Part 1c, results in more sonic space. The notion of space is important for the function of Part 2a, which is to introduce new sounds on the drum. First, the snares are off for all of Part 2, meaning a resonant tom sound becomes the new timbre. Second, the aforementioned dead strokes are clearly audible, as they raise the pitch of the purely pitched tom.

Part 2a can be broken down into two distinct clauses: the beginning up to, but not including, the first quintuplet, and the quintuplet to the end. In contrast to the phrases in Part 1, these two clauses are not dependent on one another. The first clause itself is made up of two segments, consisting of ten icti each. The initial segment repeats the beginning of Part 1b with the single sound of Motive A. In addition, the final note of the grouping is the first dead stroke of the piece, an extremely audible moment. The final two gestures of the first segment are both exact versions of Motive B, with the second one consisting of all dead strokes. This segment contains only previous material, acting like a review of the gestures used in Part 1. With the rise in tension, the first segment plays the role of ascending gesture, while the second segment is a

descending gesture. This second segment eventually leads to a pair of *p* dead strokes that mark the completion of the first clause.

Example 5: Score of Part 2a

The musical score for Part 2a consists of three staves. The first staff is labeled 'Repeat of Part 1b: Segment 1 of Clause 1' and contains an 'Ascending Gesture' with dynamics *ppp*, *mp*, and *mf*, followed by 'Segment 2 of Clause 1'. The second staff shows a 'Descending Gesture' with dynamics *mp*, *p*, and *p*, followed by a 'Clause 2 initial statement' featuring a quintuplet. The third staff shows a 'Clause 2 repeat by diminution' with a quintuplet, followed by a 'Cadential Gesture' with a dynamic of *p* and a 'Rim Shot'.

The lack of activity in the first clause is compensated for in the second clause, which consists of 30 icti in 18 seconds. The first half of the clause features a repeated phrase of a quintuplet followed by a syncopated five-note unit. The repeat is not literal, as the repeated version features a dead stroke version of the quintuplet and a diminution of the five-note unit. The importance of the number five is one that can be debated in theoretical terms; however, it is interesting to note my personal obsession with the number five. This obsession seems to have worked its way into the improvisation as the entire Part 2 of the piece is saturated with quintuplets and various five-note groupings. In addition, it should be noted that a future analysis would consist of other percussionists performing the composition as to relieve any bias from my version.

After a brief interjection of a dead stroke Motive B, the second segment spins into a cadential gesture, a progression of Motive A that crescendos to the one and only rim shot in the

composition, as dictated by Cage. The fact that this is only the first of six events in Part 2 seems to signify that a plethora of activity might follow.

Indeed, Parts 2b-2d follow in the same direction as Part 2a. I have chosen to group these three events together for purposes of analysis as they are less independent phrases, and more a long unit that culminates in the four-stroke drag, or the last icti of Part 2d. These three events combined consist of 77 icti over 79 seconds, a near 1:1 relationship that is found in Part 2a.

Part 2b features two extended buzzes, each of which occur at the end of its respective clause. The two clauses are relatively simple in motivic scope, consisting of direct use of Motives A and B. The extended buzz marks the first time in the improvisation that a single ictus has been sustained for longer than a single one-handed buzz. On its own, Part 2b lacks any gestural element as the event essentially ends exactly where it began. This cyclic feel to Part 2b becomes important only in relation to its place as an introduction to Parts 2c and 2d, which will be discussed below.

Example 6: Score of Part 2b

Part 2c features two clauses of quintuplets and five-note units. The initial segment of Part 2c is the retrograde of the *Clause 2 repeat by diminution* found in the score example of Part 2a. Combined with the two note dead-stroke unit attached to the end of this segment, this segment functions as an ascending gesture. The second segment of Part 2c features a gradual decline in

scope on motives A and B, until a final four-stroke drag, the softest unit of the segment. This second segment functions as a clear descending gesture as sonic space increases and the dynamic range decreases. The final quintuplet unit at the end of Part 2c functions as a cadential gesture as it looks back to the quintuplet in Segment 1 while playing at a higher dynamic level. What is most striking about all three gestures in Part 2c is that they feature, what I would like to call (as adapted from Caplin), *limited gestural scope*. While they clearly function in the ways previously described, within the larger form of Part 2b, 2c, and 2d, the gestural strength becomes somewhat muted. The concept of limited gestural scope will be discussed further below.

Example 7: Score of Part 2c

The image displays two staves of musical notation for Part 2c. The first staff is labeled 'Segment 1: Retrograde of diminution of Part 2a' and contains an 'Ascending Gesture' marked with a slur and a '5' above it, followed by a wavy line and a final note. The second staff is labeled 'Segment 2' and contains a 'Descending Gesture' marked with a slur and a 'p' below it, followed by a wavy line and a 'Cadential Gesture' marked with a slur, a '5' above it, and an 'f' below it. Brackets and vertical lines connect these annotations to the corresponding musical phrases.

Part 2d marks the end to this three-part grouping, and seems to combine various aspects of Parts 2b and 2c. There is a quintuplet, an augmentation of a five-note grouping, and even a quotation of the cadential gesture (featuring Motive A) that leads to the rim shot in Part 2a. The four-stroke drag that ends the section after a long period of silence refers to the end of the descending gesture that ends the second segment of Part 2c.

Example 8: Score of Part 2d

The image displays a musical score for Part 2d, consisting of two staves. The top staff features several motifs: Motive A (a group of four notes), Motive B (a group of four notes), Motive C (a group of five notes), and Additive Motive C (a group of six notes). The bottom staff includes a section labeled 'Five-note unit augmentation' and a section labeled 'Quotation from Part 2c'. The score is written in a standard musical notation with a treble clef and a key signature of one flat.

The plethora of motivic repetition in Part 2d, combined with the introductory feel of Part 2b causes me to see each of these parts as its own gesture. Part 2b would introduce the section, while Part 2c consists of an ascending gesture and a descending gesture, and Part 2d is one long cadential gesture. This relates back to a previous statement made about the limited gestural scope of segments of Part 2c. As such, the cadential gesture at the end of Part 2c would not be a gesture, and the ascending and descending gestures are made stronger by the introductory feel of Part 2b and the cadential gesture of Part 2d.

Part 2e consists of 59 sounds in 54 seconds, the first time in all of Part 2 that an event has greater than a 1 to 1 ratio of icti to units of time. In fact, as we will discover soon about the final section of Part 2, Part 2f, the ratio becomes even greater as the section comes to a close. The two most unique aspects of Part 2e are the introductory accelerando and crescendo culminating in Motive A, as well as the four consecutive five-note groupings that make up the majority of the second clause. The first clause consists of the aforementioned accelerando/crescendo, which is immediately followed by a quick decrease in motion and volume. As a result, the arch-like structure of this clause functions as an introduction.

Example 9: Score of Part 2e

The image displays a musical score for Part 2e, consisting of three staves. The first staff is labeled 'Clause 1: Introductory Gesture' and contains a series of notes with dynamic markings *mp* and *p*. A bracket above the staff identifies 'Motive C' as a specific five-note sequence. The second staff begins with a *mf* dynamic marking and features several instances of 'Motive C' separated by wavy lines representing sustained sounds. A bracket below this staff identifies the entire section as 'Clause 2: Long Ascending Gesture'. The third staff continues the notation with wavy lines and notes, also featuring a bracketed 'Motive C'.

The second clause features the aforementioned five-note groupings, which seem to characterize Part 2. In general, this clause, while containing a great amount of silence and taking up a lot of time, gradually ascends due to its increased dynamic level, marking the whole clause as an ascending gesture.

The final phrase of Part 2, Part 2f consists of 52 icti in 40 seconds. In addition, Part 2f features the only exclusive use of brushes in the improvisation. The brushes add a different timbre as well as new possibilities for sustain. Part 2f begins with fragmentation of the five-note unit found at the beginning of Part 2c. Motive C appears six times in Part 2f, accounting for 30 of the 52 icti. This marks the most intense event of motivic development and also corresponds to the end of Part 2. Specifically, Part 2f begins with an introductory gesture that leads to an ascending gesture, which itself contains a weak cadential gesture. The sustained roll, the longest sustain in the piece, is a descending gesture, which is immediately followed by a strong cadential gesture for Part 2f.

Example 10: Score of Part 2f

The image shows a musical score for Part 2f, divided into three systems. The first system is labeled 'Introductory Gesture' and includes 'Five-note unit fragmentation', a 'Five-note unit' with a triplet, and a 'Transitory' section. The second system is labeled 'Ascending Gesture' and includes two 'Five-note unit' sections, with dynamics *f* and *fp*. The third system is labeled 'Descending Gesture' and includes a 'Five-note unit' with 'accel.' and 'rit.' markings, and a 'Final five-note unit' with dynamics *f* and *fp*. The overall structure is framed by 'Cadential within ascending' and 'Cadential Gesture' brackets.

The end of Part 2f, at 4'45", is nearly 60 percent of the way through the entire improvisation, or close to the Golden Mean. Coupled with the intense motivic development and repetition, and the longest sustained note of the improvisation, Part 2f plays an important hierarchical and structural role in the improvisation. It seems to indicate that the development of material is now complete and the improvisation is going to begin winding down. And as we will soon find out, this is exactly what happens. In regards to the aforementioned hierarchical structure, Part 2f serves as the cadential gesture for the entirety of Part 2.

Part 3

Part 3 of *Composed Improvisation* features 33 icti over 3 minutes. This large decrease in rhythmic activity marks the denouement of the improvisation. In addition, part 3a is the only event that uses neither sticks nor beaters. I had to create unique icti without using hands. The twelve icti created feature blowing into the drum, saying "Too" into the drum, grinding my beard on the drum, and striking the drum with my nose. Even with these new icti, the element of

musical gesture is present. The ascending gesture occurs up to, but not including the beard scrape, which is transitory. The remainder of the material constitutes a descending gesture, ending with a cadential “Too.”

Example 11: Score of Part 3a

The image shows a musical score for Part 3a, consisting of two staves. The first staff is divided into several sections: 'Blow', '"Too"', 'Blow', '2 "Too's"', 'Beard scrape', 'Long blow', and 'Long blow'. Below the staff, there are brackets indicating 'Ascending Gesture' (covering the first four sections), 'Transitory' (covering the 'Beard scrape' section), and two sections of 'Long blow' marked with dynamics *f* and *p*. The second staff is divided into 'Three nose strikes' and 'Quick "Too"'. Below this staff, brackets indicate 'Descending Gesture' (covering the first section) and 'Cadential Gesture' (covering the second section).

The final event of the piece, Part 3b, consists of 21 icti over 88 seconds, and features the use of increased texture for the first time in the piece. The increase in texture is heard as a mallet that is dragged around the drum while other single icti are played. This added sonic element aids in the cadential aspect of the entire event, although, as seen in the score example, Part 3b is made up of musical gestures, albeit weak ones. The ascending gesture is comprised of a large-scale augmentation of Motive C, the five-note unit. However, in this context it is meant to comprise five unique sonic entrances that are preceded and followed by space. The descending gesture is comprised of the material that takes place during the textural drag. A final cadential gesture is heard on the last icti of the piece, a sustained drag across the drum.

Example 12: Score of Part 3b

The image displays a musical score for Part 3b, consisting of two staves. The top staff is annotated with 'Augmentation of five-note unit based on unique entrances' at the beginning, 'Final Motive B' in the middle, and 'Drag begins' towards the end. Below this staff, a bracket labeled 'Ascending Gesture' spans the entire length. The bottom staff is annotated with 'Motive B augmentation' in the middle, 'Drag ends' towards the end, and 'Final note drag' at the very end. Below this staff, a bracket labeled 'Descending Gesture' spans the entire length, and a smaller bracket labeled 'Cadential Gesture' is positioned under the final notes. Dynamic markings include *mf* and *mp* on the top staff, and *pp* on the bottom staff. The score uses various note values, including eighth and sixteenth notes, and rests.

As evident in the previous analysis of my realization of Cage's *Composed Improvisation*, a hierarchical structure of musical gesture permeates the surface of the music. The idea of limited gestural scope can be applied on the clausal, phrase, and section-level. As a result, a particular event can consist of introductory, ascending, descending, and cadential gestures while functioning, on the larger level, as a descending gesture. As transitory sections merely serve to link the aforementioned gestures, I have opted to leave transitory functions out of the hierarchical table.

Table 2: Gestural Hierarchy in Cage's *Composed Improvisation*

Event	Internal Event-Level Gestural Functions	Event-Level Gestural Function	Part-Level Gestural Function
1a	Descending, ascending	Introductory	
1b	Descending, ascending	Ascending	Introductory, ascending
1c	Ascending, cadential	Descending, cadential	
1d	Cadential (from 1c)	Cadential	
2a	Ascending, descending, cadential	Ascending	
2b	n/a	Introductory	
2c	Ascending, descending, cadential	Ascending, descending	
2d	n/a	Cadential	Ascending, descending
2e	Introductory, ascending	Ascending	
2f	Introductory, ascending, cadential, descending, cadential	Descending, cadential	
3a	Ascending, descending, cadential	Ascending	
3b	Ascending, descending, cadential	Descending	Cadential

Table 2 details this gestural hierarchy on the internal event-level, the event-level, and the part level. The result is a smooth formal structure: introductory, ascending that transitions from Part1 into Part 2, descending, and cadential.

One might ask what part of this analysis is coincidence, and what part Cage intends.

While the former question is intriguing, it would require further study as well as a comparison of

dozens of different sonically-realized versions of *Composed Improvisation*. However, the present analysis yields interesting results as to Cage's intent. Why did Cage choose to notate the piece as he did, in textual form with no standard notational characters? I argue, and the previous analysis supports the notion, that Cage found that the most effective way to encompass the idea of musical gesture in this piece was to notate it as prose. Due to elements of chance, the only way for Cage to notate the piece with formal elements as well as chance elements was to create a set of instructions. As Cage said himself in his lectures, he desired to breakdown the structural element of music, while at the same time maintaining his sense of compositional and musical purpose. It seems that chance was simply Cage's method to breakdown the musical structure, but as evident in the previous analysis of this particular musical realization, Cage maintained a strict adherence to the compositional process through the use of musical gesture.

CHAPTER 3: *The King of Denmark* (Solo Percussionist) by Morton Feldman

Morton Feldman's *The King of Denmark* was composed in 1964, when Feldman was an active member of the Fluxus art movement and a downstairs neighbor to John Cage.¹ Feldman was a staunch advocate of visual art, and in his later career, joined the abstract-expressionist art movement, working closely with Mark Rothko.² As a member of Fluxus, Feldman composed works that centered on space and duration, and he often employed aleatoric devices in addition to pure improvisation. *The King of Denmark* is an example of a technique referred to as musical flattening—a process that treats all notes equally on a timbral playing field.³ It features a grid-like score, with each graphic space or grid corresponding to one unit of time at a metronomic marking of 66-92 beats per minute. The piece is composed in three distinct timbral places: high, medium, and low; with corresponding metal and wood sounds. Numbers that appear in each grid correspond to how many sonic events are to occur in each unit of time and in which register these sounds are to occur. Feldman employs one compositional restraint, as the performer must initiate each sonic event with only his or her hands, fingers, or arms (no stick or beater is allowed). This results in a mono-timbral plane with registral and sonic shifts that follow the graphic layout of the score.

Feldman's instructions for the performance of the piece, which are included in **Appendix A**, indicate a strong desire to level the sonic playing field, thus rendering the sounds as equal as possible. In addition to various metal and skin instruments (themselves of various levels of sustain), Feldman specifically writes for cymbals, gongs, timpani, a triangle, a vibraphone, and a

¹ Matthew Sansom, "Imaging Music: Abstract Expressionism and Free Improvisation," *Leonardo Music Journal* 11 (2001), 29.

² Amy C. Beal, "Time Canvasses: Morton Feldman and the Painters of the New York School," *Music and Modern Art*, ed. James Leggio (New York: Routledge, 2002), 227.

³ Sansom, "Imaging Music: Abstract Expressionism and Free Improvisation", 30.

single crotale. All other sounds are left to the discretion of the performer. The piece itself is notated as a series of numbers found within the various grids. A single number represents the quantity of icti to be played in that particular grid. Roman numerals represent simultaneous sounds, and each of the simultaneous sounds are counted as unique icti. For example, the Roman numeral V will count as five icti, even though the icti occur simultaneously, as a vertical sonority. The Roman numerals are not to be confused with clusters, which are represented by thick horizontal lines. Numbers that fill up more than one grid represent single sounds that are played in any register at any time. Finally, broken lines and ties represent sustained sounds.

Author and musician John Welsh published a study of *The King of Denmark* in 2008 that seeks to uncover the secret structure of the composition.⁴ While this analysis is interesting in its attempt to show density as the link to form, it falls short in addressing silence as another parameter that influences the structure. In addition, Welsh's definition of density ends at the grid level, while my analysis will seek to go one step further, into the icti-level that is found within each grid.

It is necessary to explain some decisions made at the point of analysis. First, Feldman makes frequent use of a tie to an empty grid, as seen between grids 19 and 20. The ties indicate a sustained sound, which limits the type of instrument to be used. Feldman does not always use a tie, indicating the presence of a tie as important. As a result, I decided to count the empty grid following a tie as at least one ictus. For purposes of analysis, and since instrumentation will vary from realization to realization, I assert that a number such as 7, with a tie, would result in one ictus in the following grid. While it is plausible that all 7 icti could sustain over, because it is impossible to say for certain, the presence of a tie results in only one guaranteed icti. I make

⁴ John Welsh, "The Secret Structure in Morton Feldman's King of Denmark Part 2." *Percussive Notes* June, (2008), 32.

special mention of this procedure because it will lead to a great deal of discrepancy between my analysis and Welsh's analysis, and also leads to a plethora of new information about the structure of the piece.

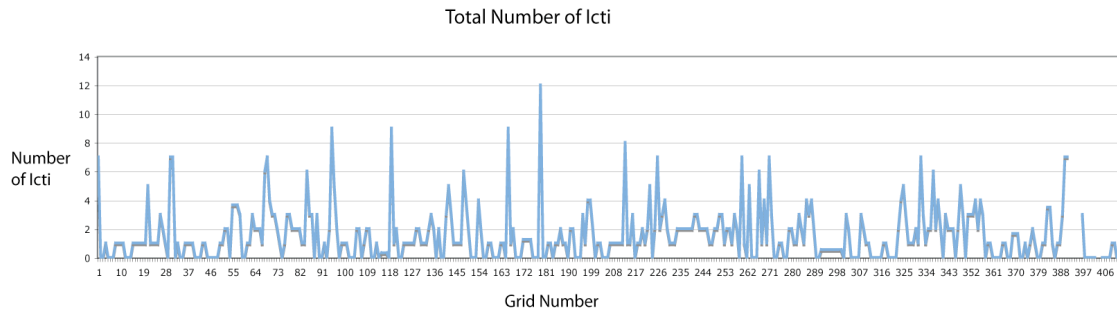
The second decision relates to how to split up the large numbers found in grids, which as discussed above, indicate single sounds to be played in all registers at any time. For example, with the large number 3, it is possible that one performance could feature three high sounds or three low sounds or two high sounds and one medium sound. In order to take the average, I assumed that an even split would occur, so I assigned a value of 1 to each of the high, medium, and low sounds categories. And if these three icti were to occur over two grids, then I simply divided the value in two. The formula used for this process is $\text{Value} = (X/Y)/3$, where x =notated number, and y =number of grids.

The final decision relates to the aforementioned large numbers. When these occur on the score, they take up a certain amount of grid space, although the grid lines are not drawn. I have drawn in these grid lines in order to understand that they take up that particular unit of time, while also understanding that they do not constitute a unique grid. This results in the total number of grids being 414, but will not affect the total number of silent icti, which will be discussed in much greater detail below. The drawn in lines will not appear on the score examples, but will appear on the score itself of *The King of Denmark*, found in **Appendix A**.

The following analysis seeks to provide a detailed formal structure of *The King of Denmark*, which will provide the necessary framework to explain the use of gesture as it relates to Feldman's use of graphic notation. In order to develop a macro-level structure, I prepared a spreadsheet featuring all 414 grids of the composition (see **Appendix C: Spreadsheet Data of Icti by Grid in King of Denmark**). In each of these grids I counted the total number of icti and the

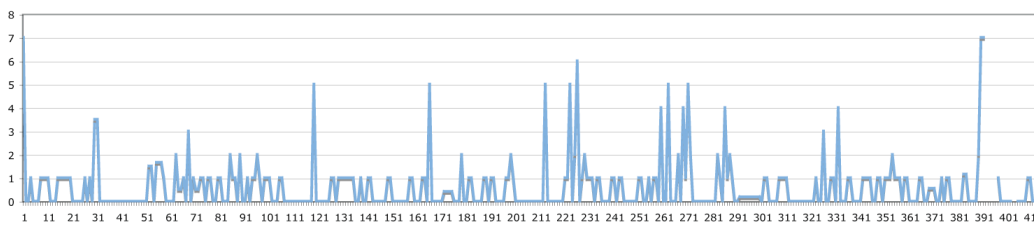
total number of high, middle, and low sounds that make up the total number of icti. This data was graphed, yielding Graph 1: Total Number of Icti, Graph 2A: Total Number of High Icti, Graph 2B: Total Number of Medium Icti, and Graph 2C: Total Number of Low Icti.

Graph 1: Total Number of Icti in *The King of Denmark*

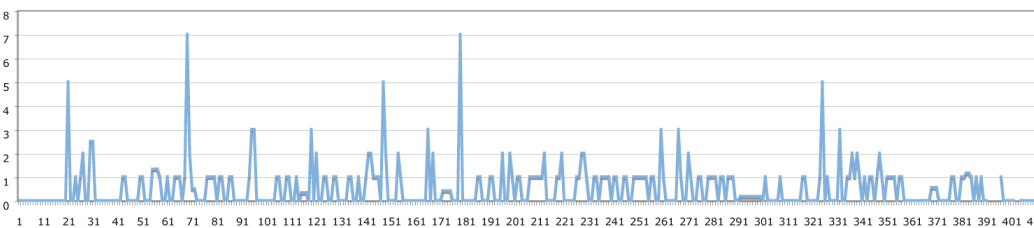


Graph 2A: Number of High Icti, 2B: Number of Medium Icti, 2C: Number of Low Icti
(X axis=Grid number; Y axis=Number of Icti)

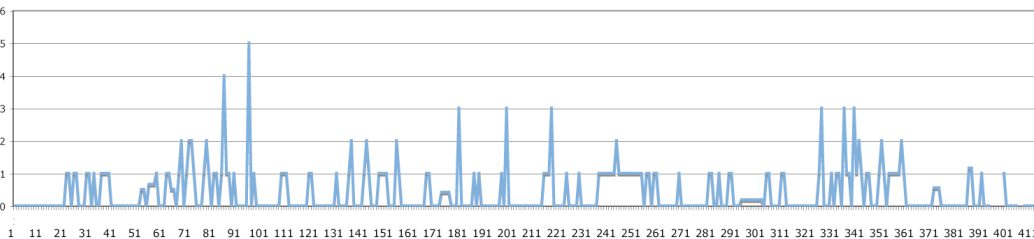
A.



B.



C.



While these graphs are interesting and show a clear progression of density throughout the piece, they do little to shed light on the micro-level form. As a result, I calculated the mode, sum, mean, and proportion of each of the aforementioned categories (number of sounds and number of high, medium, and low sounds).

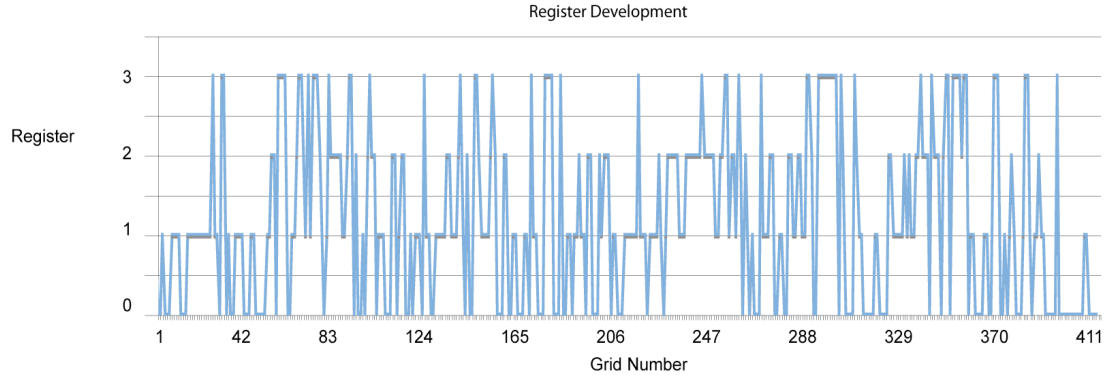
Table 1: Density Data from *The King of Denmark*

	Total Number of Sounds	Total number of High Sounds	Total Number of Medium Sounds	Total Number of Low Sounds
Mode	0	0	0	0
Sum	628	245.33	221.33	161.33
Mean	1.54	.6	.54	.4
Proportion		.39	.35	.26

The first item of interest from the table was a mode of zero. While unclear at this point as to its function, I believe that zero, or silence as it manifests itself sonically, will play a significant role in the structure of the piece. The second item of interest was the decrease in density from the densest high sounds to the least dense low sounds. This proportion will be an excellent source of comparison to micro-level structures. In addition to density, register plays an important role in *King of Denmark*. As such, it is necessary to graph the density of register throughout the piece. I assigned the following values to each grid, the results of which can be seen in Graph 3:

- 1 = zero icti
- 2 = at least one ictus in one of the registers
- 3 = at least one ictus in two of the registers
- 4 = at least one ictus in all three registers

Graph 3: Registrational Density in *The King of Denmark*



It became clear that there was a large amount of data with little direction. After crunching numbers and applying algebraic formulae to find the hidden answer, I came to the conclusion that there was no magical mathematical or statistical equation that holds together *The King of Denmark*. Instead, the form is organized in silence, as mentioned above as being an important parameter in the composition. Feldman makes extensive use of silence, at seemingly random times. In conjunction with my statistical data, I counted the number of silent grids, 20, and compared back with the total number of sounds and mean, mode, sum, and proportion. I discovered that the quantity of silent grids in large structural sections were all multiples of five. After searching back and forth between the density graphs to the register graph to the silent grids, I was able to ascertain a tentative macro-level form of the piece, which follows. It should be noted that shifts in the form will result in an even shift of multiples of five silent grids.

Section 1- 1 to 153 with 45 silent grids

Section 2- 154 to 322 with 50 silent grids

Section 3- 323 to 414 with 30 silent grids

Section 1

Section 1 of *The King of Denmark* consists of 153 boxes and 237 icti, of which 87 are high sounds, 86 are medium sounds, and 64 are low sounds. Section 1 contains 35 silent grids. Based on the placement of these grids, and the motivic development, Section 1 can be split into three sections, 1a, from 1 to 49, 1b, from 50 to 99, and 1c, from 100 to 153.

Section 1a serves as a general introduction to the piece. It is the first time a majority of the sounds are heard and sets the tone for the remainder of the composition. Section 1a consists of 54 icti, of which 27 are high sounds, 16 are medium sounds, and 11 are low sounds (Note: the relationship between number of icti and number of grids will be represented on all score examples as X:X; the grayed out sections on score examples refers to material that is not discussed in that example). The first clause of Section 1a is 20 grids in duration and contains 18 icti, all of which take place in the high register. The large amount of silence in this clause, 8 grids in all, allows for a longer development of icti. The initial motivic material, coupled with the long period of silence, allows for the clause to be labeled an *introductory gesture*. The 1----- in grid 8 that is followed by three silent grids becomes longer with the addition of a single ictus and the final sustained icti of the clause. The sustained single icti in grid 19 and 20 functions as a type of half cadence as it partially closes the previous phrase, while anticipating another phrase to develop the ideas from the first clause and provide a sense of closure.

Example 1: Score of Section 1a

The image shows a musical score for Section 1a, divided into three sections: Introductory Gesture (18:20), Ascending Gesture (30:15), and Cadential Gesture (6:14). The score is presented on a grid with various musical notations including numbers, arrows, and letters (R, S, 2, 3, 4, 5, 7). A dashed box labeled 'GONGS' is present in the lower section.

The second clause of Section 1a features a much denser texture with 30 icti occurring over 15 grids. In addition to this increase in density, the register shifts from high sounds to predominantly medium sounds. The lack of ties in this clause indicates a move from sustained sounds or metals to the drier skin sounds. This clause also features the high point of the entire section, grids 30 and 31, each of which contains seven icti in all three registers. A tension-building silent grid immediately follows this high point, which in turn is expectantly resolved with a single ictus in the low register. The density of this clause, coupled with the shift in register, allows me to label it an *ascending gesture*.

The third and final clause of Section 1a consists of only six icti over fourteen grids. This sudden change in density also features a minor shift in register to low and medium sounds. The clause features the reverse of the additive process described above. The 1--- in grid 36 that lasts for three grids leads to an R--- that lasts for only two grids, which is followed by five silent grids, marking the end of the entire section and providing a sense of balance, hence constituting a *cadential gesture*.

Section 1b consists of grids 50 to 153 and can be broken up into two clauses, the first from grids 50 to 99 and the second from grids 100 to 153. Section 1b features an increase in density and a decrease in silent grids. There are 25 silent grids in Part 1b, as compared to the 20 found in Section 1a, but Section 1b is twice as long in duration as 1a. The increase in density can be seen in the average number of icti per grid. Section 1a has a 1.1 average, while 1b has a 1.76 average. This increase further strengthens the claim that 1a functions as an introduction to the piece. Section 1a, being less dense, features less development of motivic material, which is another reason for it being an introduction.

Section 1b commences with an introductory gesture for 11 grids, which consists of 20 icti and three silent grids. The introductory gesture is seen most clearly during icti 6 to 8, where 5 high, 4 medium, and 2 low sounds are sustained over two silent grids. This extra space creates a sense of anticipation for the silence to be resolved. The resolution occurs in the form of an ascending gesture for 12 grids, which consist of 34 icti. There are no silent grids in this gesture, and the predominant register is medium, following a similar pattern found in the first ascending gesture in Section 1a. The first Roman numeral motive appears during this clause, representing the first moment in the piece where vertical sonorities are heard. What follows is a unique phrase in the piece. I have labeled grids 72 (just the pickup in the low gong) to 83 as an interruption. Feldman, for the first time, indicates exactly what type of instrument is to sound. Feldman's choices of gongs for the interruption creates an entire phrase that is one long sustain. Sonically, there is no way to stop the resonance from all of the gongs, thus ensuring a consistent wall of sound.

Example 2: Score of Clause 1 of Section 1b

The diagram illustrates the musical score for Clause 1 of Section 1b, divided into four distinct sections:

- Introductory Gesture (20:11):** The first section, starting with a vertical sonority.
- Ascending Gesture (34:12):** The second section, characterized by an ascending gesture and a first vertical sonority.
- Interruption:** A section marked with a dashed line and labeled "GONGS", indicating a break in the musical flow.
- Continuation of Ascending Gesture (35:15):** The final section, which continues the ascending gesture and features a first cluster and a descending cluster.

The next phrase marks another ascending gesture that features 35 icti over 15 grids. In conjunction with the previous interruption, I believe that this gesture is merely a continuation of the first ascending gesture of Section 1b rather than a new ascending gesture. The continuation, as in the first ascending gesture, features an increase in density, as well as the presentation of a new motive. The new motive is the cluster, seen in grid 84, which represents a quick succession of an indeterminate amount of icti (as such, a cluster itself counts as only one distinct icti). The continuation of the ascending gesture features a balanced organization, similar to that seen in Section 1a. The opening cluster, the first icti of the phrase, is ascending in register while the final icti, also a cluster, is descending in register. It would be easy to call this latter part of the continuation a descending gesture; however, I find this misleading because the overall *function* of the phrase is of an ascending gesture, due to the descending gesture being part of an ictus (in this case, a cluster) rather than a phrase, thus weakening its overall appeal as a descending gesture.

Grid 100 marks the beginning of Section 1c. This clause opens with an introductory gesture that features a nine-grid fragmentation of motives from the opening introductory gesture of Section 1a. The remainder of the introductory gesture features a synthesis of motives from Section 1a and Section 1b, as well as an increased number of silent grids. Out of 25 grids, twelve of them, or nearly half, are silent. The main build up of tension is felt in grid 121, when two icti that follow nine icti lead to two silent grids. The nine icti in grid 119 mark the densest grid of the piece to this point.

Example 3: Score of Section 1c

The image displays a musical score for Section 1c, consisting of two staves of notation. The top staff is divided into two sections: 'Introductory Gesture (26:25)' and 'Descending Gesture (47:30)'. The 'Introductory Gesture' section includes a 'Fragmentation from 1a' and a 'silent grid cadence'. The 'Descending Gesture' section includes 'first specific instrumentation'. The bottom staff shows an 'increase in sustained sounds' and a large number '5' in a grid. The notation includes various symbols such as 'I', 'II', 'III', 'R', 'S', '3', '2', 'TR', and 'A', along with arrows and other musical notations.

The tension created at the end of the introductory gesture is relieved starting on the sustained roll in grid 124. What follows is a long *descending gesture* that features 47 icti over 30 grids, culminating in three silent grids (bringing the total to 45) that mark the end of Section 1. While the descending gesture does not feature any new motives, it does feature the first use of notated instruments (the gongs used in 1b was a suggested sound for an extended number of icti; in this case, however, Feldman actually notates that a high triangle is to be played in one icti). Feldman calls for a triangle hit and timpani roll in grids 129 and 130 respectively. It is interesting

to note that these two instruments represent two of the extremes in register in the percussion repertoire; the triangle is one of the highest registral sounds, while the timpani is one of the lowest registral sounds. Similar to the first descending gesture found at the end of Section 1a, this descending gesture features a plethora of resonant icti. As previously mentioned, a notated sustained ictus creates an extra amount of silence, which, in conjunction with the increase in silent grids, aids in the overall perception of a descending gesture. It should be noted that this descent is not cadential in nature, although an argument could be made for the final three silent grids as being a cadential gesture within the overarching descending gesture. This limited gestural strength indicates that a weak cadential gesture exists within the larger, more functional framework of 1c as a descending gesture.

Section 2

Section 2 consists of 169 grids totaling 253 icti, of which 50 grids are silent. The icti can be broken up into 102.3 high sounds, 92.3 medium sounds, and 58.3 low sounds. Section 2 features a prominent amount of motivic development and repetition. The section itself is broken up into two large clauses, grids 154 to 230 and grids 231 to 322.

Section 2a, grids 154 to 230, consists of 117 icti over 77 grids with 25 silent grids. Section 2a begins with an introductory gesture from grid 154 to 165. The opening vertical sonority heard in grid 154 pulls on previous material from the end of Section 1. What follows are two high resonant icti, each of which are followed by silent grids. These icti represent the highest register thus far in the piece. The register, coupled with the surrounding silence, creates a great deal of tension, thus defending the label of an introductory gesture. The tension is quickly dispelled with the onset of an ascending gesture in grid 166. The ascent takes a long time to

develop, in part due to the vertical interjection in grid 172. The gesture continues to ascend even after the third high register strike in grid 188, which creates even more tension as it is followed by more silence.

Example 4: Score of Section 2a

The image shows a musical score for Section 2a, divided into two main sections: 'Introductory Gesture (10:12)' and 'A- Ascending Gesture (42:30)'. The score is written on a grid with various musical notations, including notes, rests, and dynamic markings. Annotations include 'sustained tension' pointing to a long note in the first section, and 'vertical motive', 'motivic repetition', 'sustained tension', and 'fragmentation' pointing to various elements in the second section. A 'SKIN interruption' is also marked in the second section.

The second part of this phrase is merely a figurative repeat of the first, thus enabling me to label the entire section as one long ascending gesture. The two vertical sonorities in grid 199 refer to the opening icti of the phrase, while the two sustained rolls, one of which is 6 grids long, creates a great amount of tension. The tension is dispelled with a 10-icti motive, virtually identical to the one found in grid 166. After a brief interruption on skin instruments (specifically notated by Feldman, which reminds one of the gong interruption in Section 1), the ascent continues with another near identical repeat. The 14-icti motive that finishes Section 2a are similar to the 14-icti motive found in grid 179.

The smooth and balanced form created by this motivic repetition allows me to label the first half A, and the second half A1. The commonalities found between A and A1 help allow for all of Section 2a to be labeled a long ascending gesture. The 25 silent grids, a strong multiple of

five, also strengthen this case. In addition, as seen in previous ascending gestures, new motives have only appeared in ascending gestures. In Section 2a, there is one additional added motive, that of the large numeral 5 that occurs over 4 grids (starting in grid 172). As briefly explained earlier, the large numerals indicate icti to be played in any register at any time over the course of the grid space the numeral takes up. In this case, five icti are to be played over four grids in any register at any time.

Section 2b, beginning in grid 231, proves to be more difficult to analyze. The opening gesture of Section 2b is neither introductory nor ascending nor descending nor cadential and marks the most specific instrumental control Feldman has employed throughout the piece. Every single icti is specified. As a result, the phrase has a very static musical feel to it, one that fails to move anywhere at all. I have labeled this type of gesture a *static gesture*. The remainder of Section 2b constitutes a long descending gesture, almost mirroring the long ascent found in Section 2a.

The descending gesture begins with an interruption on the cymbals (similar to the aforementioned interruption on gongs in Section 1 and skins in Section 2a), marking a smooth transition from the static gesture of sustained sounds into the descending gesture. What follows, is a gradual decrease in texture and an increase in silent grids. In addition, this phrase of Section 2b features the most extreme of registers. There are numerous icti notated above the highest register line as in grid 269, and below the lowest register line as in grid 287. The motivic content of the descending gesture is a mix of specifically notated instruments, such as those found in the static gesture, and single grid icti groupings, such as those found in Section 2a. The fight between notated and non-notated icti continues to the final two icti of Section 2, each of which occur on the triangle and are followed by silent grids. These measures are a direct reference back

to the introductory gesture at the beginning of Section 2, which presented two very high, sustained sounds that are also followed by silent grids. The overall arch-like structure to Section 2 further strengthens the argument for Section 2a to function as an ascending gesture, and for Section 2b to function as a descending gesture.

Example 5: Score of Section 2b

The image shows a musical score for Section 2b, divided into two parts: 'Static Gesture (43:22)' and 'Descending Gesture (74:62)'. The score is written on a grid with various symbols and annotations. The 'Static Gesture' part includes 'specifically notated instruments' and features a sequence of notes and rests. The 'Descending Gesture' part includes an 'interruption' and 'increased sustain'. Annotations include 'increase in resonance' and 'dispelled tension'. The score also includes 'CYMBALS' and 'BELL LINE SOUNDS'.

Of great importance in the descending gesture is the prominence of sustainable icti. Upon closer examination of the icti in Section 2a and the icti in Section 2b, one immediately notices a much greater amount of ties and sustained icti in Section 2b. One might expect this increase in sustained sounds to be followed by an increase in silent grids to balance the amount of sound, but this is not the case. There are 25 silent grids in Section 2a and 25 silent grids in Section 2b. However, if you were to remove the static gesture found at the beginning of Section 2b, the density of the section reveals interesting results. While Section 2a consists of 117 icti in 77 grids, Section 2b (after the static gesture) consists of 83 icti in 69 grids. This difference in .32 icti per grid (Section 2a has an average of 1.52 icti per grid and Section 2a has an average of 1.2 icti per grid) further supports the notion of Section 2b being a long descending gesture.

Section 3

Section 3 of *The King of Denmark* consists of 138 icti in 85 grids, of which 56 are high sounds, 43 are medium sounds, and 39 are low sounds. There are 30 silent grids. Based on motivic material and placement of silent grids, Section 3 can be broken up into two distinct clauses. The first clause is from grid 323 to 368 and the second clause is from grid 369 to 414.

Section 3a is an interesting moment in the composition. Overall, it consists of 91 icti over 46 grids, or a near 2 to 1 relationship. This density might refer back to the various ascending gestures found throughout the piece. However, upon closer examination, the clause is made up of motivic fragments from various gestures in Section 1 and Section 2.

The first fragment (323 to 337) consists of 41 icti over 15 grids. This near 3 to 1 ratio is one of the densest moments in the composition. The only other place with a density level this high is the ascending gesture found in Section 1b with 34 icti over 12 grids. In addition to being very dense, the icti are mainly dry sounds, similar to that found in Section 1b. Going one step further, the dry sounds in this fragment are interrupted by resonant sounds twice, a clear reference to the interruption that occurs after the ascending gesture in Section 1b, which in turn leads to a continuation of that same ascending gesture. In the end, the dry sounds lose out to the resonant sounds, and the next motivic fragment begins.

This second fragment consists only of clusters, which are resonant sounds. The five clusters in this phrase follow a registral rise and fall before leading into the next fragment. This fragment of clusters refers back to the end of Section 1. The descending gesture in Section 1c contains five such clusters that appear towards the end of the gesture and help slow down the motion.

Example 6: Score of Section 3a

The third fragment is a reference to the static gesture found at the beginning of Section 2b. Section 2b is the most specifically notated phrase of the piece in regards to instrumentation. The final fragment consists of two high resonant icti over 10 grids, 6 of which are silent. The high resonant quality followed by silence refers back to the final two icti of Section 2. These two triangle sounds, found in Section 2b, are the final icti of a long descending gesture that ends all of Section 2 and transitions into Section 3. The fragment functions similarly as the two icti followed by silent grids help to dispel some of the tension from the previous fragments, and leads into the second clause of Section 3.

Section 3b consists of $41+x$ icti in 46 grids, 20 of which are silent. The $41+x$ refers to grid 392, which instructs the performer to play as many different sounds as possible over the course of 5 grids. As every realization of *The King of Denmark* will be different, this moment proves difficult to analyze. I chose to represent the number of icti as x , as it is possible that one performance will consist of 100 icti and another of 40 (there is no limit).

Example 7: Score of Section 3b

Cadential Gesture (41:46) 20 silent grids refers back to introduction

5

7

fight between dry and resonant sounds

AS MANY DIFFERENT SOUNDS AS POSSIBLE

reverse of 1a introductory gesture

VIB. (PEDAL RIGHT AFTER ATTACK)

GLOCKENSPANT CYPRI

Regardless of how to interpret these grids, the ratio of icti to grids is almost 1 to 1, which is similar to Section 1a. In fact, there are more similarities between these two clauses. Not only are the ratios about the same (41+x: 46 and 54:49), the length of the clauses is almost the same. In addition, each clause contains 20 silent grids. The final two icti of Section 3 are two resonant icti, one a four-note cluster on the vibraphone and the other a single icti on a crotale, both of which are surrounded by silent grids. This is similar to the final two sustained icti found at the end of Section 1a, which are also surrounded by silent grids. This balanced structural organization allows me to label Section 3b as a long cadential gesture, effectively a retrograde of the introductory gesture at the beginning of the piece.

As discussed in detail in the chapter analyzing Cage's *Composed Improvisation*, a gestural hierarchy can manifest itself through limited gestural strength. Table 2: Gestural Hierarchy in *The King of Denmark* shows three different levels of gestures. The first column shows internal gestures at the clausal level, the second column shows external gestures at the clausal level, and the third column shows gestural function at the section level.

Table 2: Gestural Hierarchy in *The King of Denmark*

Section	Internal Clause-level gestural functions	External clause-level gestural functions	Section-level gestural functions
1a	Introductory, ascending, cadential	Introductory	
1b	Introductory, ascending	Ascending	Introductory, ascending
1c	Introductory, descending	Descending	
2a	Introductory, ascending	Ascending	
2b	Static, descending	Descending	Ascending, descending
3a	Ascending, descending, static, cadential	n/a	
3b	Cadential	Cadential	Cadential

As seen in the table, Section 1a of *The King of Denmark* functions as a strong introductory gesture, even though it is made up of an introductory gesture, an ascending gesture, and a cadential gesture. The same can be said about Sections 1b, 1c, 2a, 2b, and 3a. Each of these sections contains numerous gestures of limited strength within a larger gestural function. The exception to this is Section 3b, in which an internal cadential gesture functions externally as a larger cadential gesture. The result is a smooth structural organization, where an introductory gesture leads to an ascending gesture that contains the bulk of motivic material, which in turn leads to the denouement that characterizes a descending gesture, ending with a cadential gesture.

The next question centers on Feldman's choice of graphic notation for *The King of Denmark*. Why did he choose to notate it the way he did, with numbers instead of standard note heads? I believe, and the current analysis supports the premise, that Feldman desired to create a

previously unattained soundscape. He desired an equal-timbral sonic field, or one that features musical flattening. Feldman creates this flattened sonic environment by controlling the mood and tone of the composition. This control is reminiscent of the influence visual art played on Feldman's development as a composer. While Feldman did study under Cage and was a prominent member of Fluxus, he worked more with members of the later Abstract-Expressionist movement. Specifically, Feldman worked with painter Mark Rothko, who embodied a spirit of visual flattening. In relation to this, it is plausible that Feldman's notation in *The King of Denmark* fits the notion of musical flattening on two levels. First, the visual representation of a grid-like score lends itself to a two-dimensional reading. All scores are, of course, two-dimensional. In *The King of Denmark*, Feldman creates a visually flat score, essentially numbers on graph paper, which mimics the sonic environment he desires to create. Second, Feldman's choice and style of graphic notation lends itself to a clear interpretation of musical gesture, from a completely linear perspective. As just mentioned, the score is two-dimensional, but what is unique is how the grid-like notation style allows musical gestures to pop out of the score, which in turn creates a new sense of depth.

This new sense of depth allows Feldman to create a soundscape that features extreme registral shifts, a diversity of texture, and an amorphous style of density that flows throughout the composition. Feldman used graphic notation to convey this to the performer. If he did not, I believe the piece would exhibit musical flattening of a different variety, or one where not only the sounds are mono-timbral, but the motivic material is as well. Instead, through graphic notation, Feldman is able to create a new compositional possibility that allows for musical flattening of sounds that coexist with rich motivic development. In a sense, it seems as if

Feldman has created a three-dimensional motivic world, through musical gesture, within a two-dimensional sonic world.

CHAPTER 4: *ζCorporel*, for a percussion player and his body, by Vinko Globokar

ζCorporel by Vinko Globokar was composed in 1985. Globokar is known as an avant-garde trombonist, having premiered works by Luciano Berio and Karlheinz Stockhausen, both of whom he later studied composition.¹ As a composer, Globokar has roots in jazz, especially in free improvisation. The element of free improvisation found its way into his music by means of aleatoric devices. In addition, Globokar combines aspects of the physical with elements of the musical, creating unique soundscapes that are reminiscent of musical theatre.² This aspect of theatre leads to the use of speech in many of Globokar's compositions. *ζCorporel* is an example of all of the aforementioned qualities; it features a unique musical soundscape that mixes vocal and body sounds with specific physical and theatrical movements.

Globokar composed *ζCorporel* as a response against what he called *Badabum*, a subject he takes up directly in a 1992 essay entitled *Anti-Badabum*.³ This essay rails against what Globokar called the latest trend in percussion writing, or a method of composing that results in one instrument creating one sound. If a composer wanted another sound, then he or she needed to write for another instrument.⁴ As evident in the essay, this compositional approach greatly angered Globokar, and he argued that each instrument was capable of producing numerous sounds even if these sounds were against the nature of the instrument. *ζCorporel* takes up this issue by limiting the soundscape to only sounds that the body and voice can produce. As a result, Globokar reduces the performer to his or her most naked form; both literally and figuratively as the performer should be naked or wearing a pair of canvas shorts.

¹ Niall O'Loughlin, "Vinko Globokar," *Grove Music Online* ed. Deane Root (2009). Accessed 28 January 2010 <<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/11283>>.

² Ibid.

³ Vinko Globokar, "Anti-Badabum," *Percussive Notes*, October (1992), 77.

⁴ Ibid, 77.

The resultant soundscape features a variety of innovative techniques for the body and voice, part of which help create the shocking quality that many audience members experience during a performance of *ζCorporel*. The sounds can be grouped into two main categories, sounds created from the voice and sounds created from the body. Globokar scores for guttural vocal sounds, consonant syllables, and a range of extended vocal techniques. The vocal sounds called for in *ζCorporel* can be seen in the following table.

Table 1: Vocal sounds found in *ζCorporel* (in order of appearance)

Breathing Sounds (said while breathing)	Consonant Sounds (produced while inhaling)	Extended Sounds	Miscellaneous Sounds
H	T	Kiss	Teeth chatter
F	P	Cluck tongue (low)	Hum
S	K	Tongue drawn back on palate (high)	Snore
Sch (pronounced shh)	G	Say ts while inhaling	Scream ‘AH’
R (rolled r)	D	Sudden open throat inhale	Recite passage

The percussive sounds called for in *ζCorporel* can be broken down into two main categories, one for struck icti with fingers and one for icti slides produced with the palm of the hand. These sounds can be seen in the following table.

Table 2: Percussive sounds found in *ζCorporel*

Strike Sounds	Slide Sounds	Miscellaneous Sounds
Soft body icti	Groping with hands over body	Clap
Bony body icti	Rubbing with hands over the body (fast and slow)	Snap

The following sounds take place all over the body and are either fleshy or bony depending upon Globokar’s instructions.

Table 3: Body sounds found in *ζCorporel*

Body parts (from high to low)
Skull
Head
Forehead
Face
Chin
Neck
Chest
Stomach
Abdomen
Leg
Thigh
Shin
Foot

As seen in the above list, some body parts such as the skull (bony) or stomach (fleshy) create sounds based on anatomy. However, for some other body parts, the performer must get creative in order to create both fleshy and bony sounds. For example, Globokar calls for fleshy and bony sounds on the face. This could result in use of cheeks for fleshy sounds or use of the cheekbones for bony sounds. It could also result in the use of lips for fleshy sounds and the

bridge of the nose for bony sounds. Regardless, these decisions are left up to the performer as long as a clear sonic distinction can be heard between fleshy and bony sounds.

The creation of the aforementioned sounds requires one element not discussed in the previous two chapters: the element of *physical* gesture. Globokar details specific instructions for how sounds are to be created in addition to detailing numerous generalities about how the body is to be positioned as the piece progresses. This attention to physical detail will allow the following analysis of *¿Corporel* to focus not only on musical gestures obtained through the use of graphic notation, but also focus on the synthesis of musical and physical gestures.

¿Corporel is composed as a series of six sections that are separated by fermatas. The overall macro-level form is not extremely important in addressing the issue of gesture, as each phrase contains clear motivic development. Each section is separated by one fermata, one transition section, and a second final fermata that leads to the next section.

Section 1

For purposes of analysis, the circled numbers on the score (provided by Globokar to correspond to the key of instructions) will be referred to as formal markers. As such, Section 1 begins at circle 2 and ends at the fermata that follows the teeth chattering at circle 5. As indicated on the instructions, score space with hand slides are represented as one centimeter per unit of time, which is defined as one second. Following this formula, there are 60 centimeters in this phrase, resulting in one minute. The 60-second phrase can be split into a two clauses, each of which contains musical and physical gestures.

Clause 1 is 30 seconds long and contains three phrases of sound and two phrases of silence. The first phrase is five seconds long and features the consonant “H” spoken first with a

closed mouth and then gradually leading to an open mouth. This process is mirrored by the physical motion, which calls for hands to slide over the face, first from a covered position and then gradually moving to an uncovered position. The second phrase begins with an open “H” sound that closes, opens, closes, and opens again. This process is mimicked again in the physical movements of the hands on the face. 6 seconds of silence are followed by phrase 3, which is 4 seconds long and features an open “H” sound that closes, opens, and closes again, similar to the physical motion.

Example 1: Score of Section 1 from *çCorporel*

The score is divided into three main sections:

- Section 2:** Labeled "Début : mains couvrant le visage" and "dcm = 4". It features a "Concurrent Gesture" for the voice, with sub-phases: "Introductory Gesture", "Ascending Gesture", "Descending Gesture", and "Cadential Gesture". Physical gestures for "crâne", "face", and "cou" are shown as lines that rise and then fall.
- Section 3:** Labeled "Ectonner". It features "Concurrent Ascending Gesture" and "Concurrent Cadential Gesture". It includes "Phrase 1" and "Phrase 2" with rhythmic notation. Physical gestures for "crâne", "face", and "cou" are shown as lines that rise and then fall. Other elements include "Fragmentation" and "Retrograde of Introduction".
- Section 5:** Labeled "Transition" and "claquer des dents en découvrant le visage, ouvrir de plus en plus la bouche." It features a "Transition" section with rhythmic notation and a "Rhythmic Motive" section with musical notation for "voix", "tête", and "poitrine".

As seen in Clause 1, parallel motion seems to occur between the musical and physical gestures. The notion of physical motion paralleling vocal sounds results in what I label a *concurrent gesture*, where the physical gesture works concurrently with the musical gesture. Concurrent gestures can be introductory, ascending, descending, or cadential, depending on the function of the overall phrase. As such, Clause 1 consists of a clear introductory gesture that is

followed by an ascending and descending gesture, ending ultimately with a cadential gesture (the cadential gesture consists of a closed “H” sound and the hands covering the face).

Clause 2 acts in much the same way as Clause 1 with the addition of struck icti on bony parts of the skull and face. Additional sounds are also introduced, such as “F,” “S,” “SCH,” and “R.” Clause 2 is also 30 seconds long and consists of two phrases and two moments of silence. The first phrase occurs after a 5 second moment of silence. This phrase is 15 seconds long and features an increase in activity that can be divided into two repeated ideas. Vocally, the syllables “F” and “S” are pronounced with varying degrees of openness. Physically, hands are groping and sliding over the face in a more intense fashion, creating a sense of tension. It is interesting to note that the struck icti take the place of the hand movements from Clause 1 in that they correspond to the open and closed sounds of the syllables. Thus, the concurrent gesture in Clause 2 is between the vocal syllables and the struck bony icti. The rhythmic unit that comprises the struck bony icti is an extremely important motive that will develop in each section throughout the piece. The hand slides gradually move from the neck to the face and finally to the skull. The independent nature of the hand slides allows me to label it an *independent physical gesture* as the slides do not follow the vocal part or vice versa. Overall, this phrase functions as an ascending gesture that itself contains a concurrent ascending gesture and an independent physical gesture.

A two-second moment of silence is followed by fragmentation of material from the previous phrase (the “F” to the “SCH”). Two, struck icti then appear as the only sounds in the piece thus far that occur by themselves. This important sonic moment is followed a retrograde of the introductory gesture in Clause 1, with a rolled “R” closing as the hands cover the face. A fermata freezes this position, completing Section 1. This end of phrase, aided in the balance between it and the introductory gesture, allow it to be labeled a concurrent cadential gesture. The

transitory phrase for Section 1 consists of chattering or clicking of the teeth, which is followed by a second smaller fermata. The fermata is interesting to examine, as the score is entirely hand drawn. It will become apparent as the piece progresses that large fermatas are placed at the ends of major phrases, while smaller fermatas are placed at the ends of transitions between the larger phrases. Overall, Section 1 functions as a concurrent introductory gesture, as musical gestures and physical gestures work simultaneously while motivic material is presented for the first time.

Section 2

Section 2 of *¿Corporel* introduces percussive use of the consonants “T,” “P,” “K,” “D,” and “G,” which are all pronounced while inhaling. In general Section 2 consists of strict meters that are interrupted by hand slides in similar delineated time to that found in Section 1. This creates an effective transition of motivic material from Section 1 into Section 2 as the hand slides eventually lose out to the new percussive consonant sounds. It should be noted that the struck bony icti remain, although they shift throughout the section from bony to fleshy. Section 2 can be broken up into 5 clauses and one transition (circle 6 to circle 9). Each of the clauses increases in intensity and tempo until the 5th clause, which does not contain any hand slides.

Each of the clauses increases in tempo by eight quarter notes per minute, starting at 44 and ending at 76. The first four clauses feature a similar layout. The consonants are spoken in fragmented units of the rhythmic motive, which work contrary to the struck bony icti. Hand slides interrupt the motion before transitioning to the next clause, which is 8 beats faster. This process is repeated until the 5th clause, which finally breaks free of the hand slide interruptions. The 5th clause is 8 measures of 3/4 time at a quarter note equaling 76 beats per minute. The vocal sounds repeat the rhythmic motive at the beginning of every measure (3 beat pattern), resulting

in 7 times through the motive (the last measure is partial). The physical struck icti follow its own pattern (4 beat pattern), resulting in 5.5 times through the pattern. The physical pattern also features a movement from the chest, shifting to the stomach by the end of the phrase.

Example 2: Score of Section 2 from *Corporel*

The score for Section 2 of *Corporel* is divided into several systems with detailed annotations:

- System 1:** Features a tempo of $\text{♩} = 44$. It includes a vocal line and physical parts for 'tête' (head) and 'poitrine' (chest). A circled 5 indicates the instruction: "claquer des dents en décollant le visage, ouvrir de plus en plus la bouche." (clapping teeth while lifting the face, opening the mouth more and more). A circled 7 indicates a "7-measure" section. A circled 8 indicates an "Additive process for struck icti (transition from bony to fleshy)" with a tempo of $\text{♩} = 68$. A circled 9 indicates a "Rhythmic Motive" with a tempo of $\text{♩} = 52$. Annotations include "Interruption" and "Half-pattern creates tension".
- System 2:** Features a tempo of $\text{♩} = 60$. It includes a vocal line and physical parts for 'tête', 'poitrine', and 'estomac' (stomach). Annotations include "Interruption" and "Additive process for struck icti (transition from bony to fleshy)".
- System 3:** Features a tempo of $\text{♩} = 76$. It includes a vocal line and physical parts for 'poitrine' and 'estomac'. Annotations include "Vocal pattern repeats every 3 beats (7 times total); Independent Gesture (both vocal and struck icti)", "Half-pattern creates tension", and "Struck icti pattern repeats every 4 beats (5.5 times total) and descends down the body".
- System 4:** Features a tempo of $\text{♩} = 76$. It includes a vocal line and physical parts for 'voix' (voice), 'tête', 'poitrine', 'ventre' (belly), and 'jambe' (leg). Annotations include "X = frapper des mains devant soi." (clapping hands in front of oneself), "O = claquer des doigts en tendant les bras (en croix). Transition (dissipels tension)" (clapping fingers with arms extended in a cross, transition (dissipels tension)), and "Rhythmic Motive".
- System 5:** Features a tempo of $\text{♩} = 76$. It includes a vocal line and physical parts for 'voix', 'tête', 'poitrine', 'ventre', and 'jambe'. Annotations include "Vivo + -o ad lib." and "10".

The most unique aspect of Section 2 is not the micro-level material, although it is interesting to discover the pattern of syllables being used by Globokar. If you were to take a step back from the page, you would notice a clear and gradual development of motivic ideas throughout this section, from the elongation of the vocal rhythmic motive, to the additive process used to develop the rhythmic cell that makes up the struck fleshy motive in Clause 5. There are no concurrent moments in this section, as the musical and physical gestures seem to develop. As a result of the musical gestures and physical gestures developing without reference to each other,

I have labeled this a long-developing independent gesture. Circle 9 represents the transition from the end of Section 2 into the beginning of Section 3. This transition consists of an alternation of snaps and claps that follow the original rhythmic motive. I have decided to label the whole of Section 2 as an independent ascending gesture, as the vocal and physical sounds do not occur simultaneously and each of the phrases builds in motivic development until reaching the climax in Clause 5.

Section 3

Section 3 (circle 10 to circle 14) features a denser landscape, both musically and physically. The tempo increases greatly, from 76 at the end of Section 2, to the *vivo* marked at the beginning of Section 3. It can be broken down into clauses consisting of rhythmic material interrupted by ametric hand glides. In contrast to Section 2, Section 3 consists of a greater musical and physical texture as represented by the string of vocal syllables that does not stop the entire section. The structure of Section 3 is determined by the Fibonacci sequence, which can be seen in the following table.

Table 4: Fibonacci series found in Section 3 of *ζ Corporel*

Metered length (in beats)	Non-metered length(in seconds)	Fibonacci series
13	--	1
8	1	2
5	2	3
3	3	5
2	5	8
1	8	13

This structural organization creates a strong symmetric and balanced feel to the section. In addition, new motives are introduced in the form of the extended vocal techniques described in Table 1. These five sounds are the kiss, clucked tongue, drawn-back tongue, sound of disapproval, and open-mouthed gasp. Musically, the rhythmic motive from Section 1 and Section 2 continues to be developed. In Section 3, this motive appears in both hands, the first time that both the right and left hand play different ideas at the same time. In addition, a new textural line of rolled “R’s” is added above the rhythmic motive, of which an alternation between open and closed mouth sounds are to be ad-libbed. In subsequent clauses, in order of the Fibonacci series, syllables are added to the rolled “R” as follows: “R,” “F,” “SCH,” “H,” and “S,” ending ultimately on a one beat utterance of “SCHRFSH.” As each of these rhythmic motives progress, they become shorter and shorter as the interruption on the extended vocal sounds becomes longer. The kiss, the first extended vocal sound, is one second long and occurs concurrently with an intense rubbing of the hands over the head and chest. This process continues with each new extended vocal sound (duration increases according to Fibonacci), at which time the rubbing of hands increases in intensity as the hands move from the head to the chest to the abdomen to the leg.

The balanced structure to this section creates difficulty in labeling it as a type of gesture on a macro level. On a micro level, however, different breakdowns can be made. The interruptions that increase in duration collectively represent a concurrent ascending gesture as the physical hand slides correspond to the different extended vocal sounds. In contrast, the rhythmic material with ad-libbed vocal syllables represents a descending gesture as they diminish in length and intensity at each sequence of the Fibonacci series. The argument is made that each of the lines, the rhythmic line and the vocal line, are independent gestures (the former musical and the

latter physical). These lines do not seem to be working with each other, although they work at the same time. This results in a kind of gestural counterpoint. In the confines of Section 3 of *Corporel*, we find a resemblance to first species counterpoint, note against note, except in this case it is gesture against gesture. On one level it appears as if the two aforementioned lines are completely unique and independent on one another. However, after closer examination, we find that while the lines are independent, and thus function on their own, they both contribute equally to the macro-level gestural function of Section 3, an ascending gesture.

Example 3: Score of Section 3 from *Corporel*

The image displays a musical score for Section 3 of *Corporel*, featuring vocal and instrumental parts with various annotations. At the top left, a legend defines symbols: 'X = frapper des mains devant soi.' and 'O = claquer des doigts en tendant les bras (en croix)'. The score is divided into several sections:

- Development of Rhythmic Motive in balanced structure:** A section titled 'Vivo + a ad lib.' showing the vocal line and instrumental parts (tête, poitrine, ventre, jambe) with rhythmic notation.
- Interruption:** Four instances of 'Interruption' are marked, showing the vocal line (Voix) and instrumental parts (tête, poitrine, ventre, cuisse) with specific rhythmic and gestural notations.
- Additive process of vocal syllables:** A section showing the vocal line (Voix) and instrumental parts (tête, poitrine, ventre, cuisse) with the text 'Additive process of vocal syllables' and 'tibia'.
- Transition:** A section titled 'Transition' showing the vocal line (Voix) and instrumental parts (tête, poitrine, ventre, jambe, pied) with the text '(chantonner restant courbé)' and 'courbé'.
- Final Section:** A section showing the vocal line (Voix) and instrumental parts (ventre, cuisse, tibia) with the text '(se redresser progressivement) buste droit'.

The transition (circle 14) is an interesting addendum as it is a hummed melody that is roughly notated. I use the word roughly because there is no clef provided on the staff, although there is a clear pitch differential. Why did Globokar choose to include this transition here and

why is it notated this way? The first question proves easier to answer as, up to this point, each transition consists of new sound or physical act. In Section 1, the teeth chattered while in Section 2, the hands alternated between claps and snaps. Thus, the presence of a transition of humming is not out of character for the composition. The notational style proves to be much more difficult to analyze. I believe that in conjunction with the notation of hand glides over the body, Globokar notates this way to maintain contour, but still allow freedom for the performer, such as glissing between the notated pitches. The hand glides are all drawn as gradual shifts among different body parts, as seen in the introductory gesture of Section 1. Using Globokar's graphic notation as a guide, it is possible to understand where he wants the performer to begin (in this case hands covering the face) and end (in this case hands not covering the face). However, Globokar does not choose to control the physical movements that take place in between. I would compare this style to reading a jazz chart, as the chord progression is provided along with the head and possible hits. However, the specifics of what the musician plays is not present; instead, similar to the Cage instructions, a map is supplied in order to complete a sonic realization. This concept greatly contributes to the aleatoric elements found in *ζCorporel*.

Section 4

Section 4 (circle 15 to Circle 20) of *ζCorporel* is a gradual subtraction of musical and physical material until the performer literally falls asleep on stage and snores (circle 20). The subtraction of material parallels a rise in physical motion from the legs back to the face. As such, the entire section has a diminishing quality to it. The rhythmic motive generated from Section 3 loses one note starting the 5th measure from the outside in (the first note disappears first then the last and so forth). The physical motions of the hands fit inside the gaps of the rhythmic passage.

This creates a continuous wall of sound that lasts until the 5th measure, where the subtractive process begins. The vocal material provides the consonants in retrograde from their original order, which was “T,” “P,” “K,” “D,” “G.” The other vocal sounds are the open to closed mouth syllables, which each appear once. One other notable characteristic of this section is Globokar’s instructions for the performer to gradually lie down as the section progresses. This ultimately leads to the performer sleeping and snoring on stage.

Example 4: Score of Section 4 from *Corporel*

The score for Section 4 of *Corporel* is divided into several systems with detailed performance instructions:

- System 1:** Shows vocal parts (voix, tête, poitrine, ventre, jambe, pied) and a graphic of a curved line representing the body's position. Annotations include "8''", "Vivo", "k sch", "14 (chantonner restant courbé)", and "15".
- System 2:** Features vocal parts (voix, crâne, front, menton, poitrine, ventre) and a graphic of a line moving up the body. Annotations include "♩ = 96 minimum", "Hand slides in between struck icti", "Subtractive process in struck icti", "16 (se couche progressivement sur le dos)", and "Consonants appear in retrograde".
- System 3:** Shows vocal parts (voix, crâne, front, menton) and a graphic of a line moving up the body. Annotations include "Struck icti move up the body as the body lies down", "Cadential Gesture", "Transition", "20 ronflements", "21", "22 frapper des mains et des pieds contre le plancher LENTO", "main gauche", "main droite", "pied gauche", "pied droit", "accél. molto", and "19 couché sur le dos les bras en croix les jambes allongées et écartées".

The overall texture of Section 4 lightens, especially in relation to the very dense Section 3 that featured, at times, three voices moving at once. The linear dominance of Section 4, the lying

down of the body, and the subtractive rhythmic process allows me to call it a long, independent descending gesture. There are no concurrent moments between the voice and the body in Section 4, with the exception of the last icti, causing me to label it a cadential gesture.

Section 5

Section 5 (circle 23 to circle 25) of *ζCorporel* literally begins with a primal scream and does not let up from there. The structure of Section 5 is different from the previous sections in that the transitional fermata begins the section rather than ends it. Regardless, the loud yell of the open mouthed word “AH” leads directly into a phrase of immense density and motivic development.

Rhythmically, Section 5 consists of one long hoquet, where musical and physical elements combine to form one meta-line. The first seven measures contain fast hand glides, a direct reference to Section 4. However, in similar fashion to Section 4, the hand glides disappear, giving way to the interplay between the vocal syllables and the struck icti. The vocal syllables alternate with extended vocal sounds, creating an ametric pattern that repeats 4 times before ending abruptly part way through the fifth repeat. The order for the vocal syllables and the extended vocal sounds is the same order that they appear in the instructions as well as the order the first time they appear in the score. Of particular interest is the development of the struck icti, which start as bony icti, but gradually incorporate fleshy icti as well. In contrast to previous sections, the two sounds work together. This creates another two-hand texture, reminiscent of that found in Section 3. The movement of these icti is one of static motion for the bony icti and perpetual motion for the fleshy icti. The bony icti stays on the head the entire section, while the fleshy icti starts on the leg and works up the body until joining the bony icti on the final two icti

of the section. Curiously, these two icti are two extra icti, if one were to continue the pattern, which ends abruptly creating a great deal of tension.

Example 5: Score of Section 5 from *Corporel*

The image shows a musical score for Section 5 from *Corporel*. It consists of two systems of staves. The top system is labeled 'Vivo' and includes an 'Introductory Gesture (reverse transition)' with lyrics: 'Changer à pleine voix très fort. Ce faisant lever les deux jambes pour faire contrepoids afin de se retrouver assis les jambes croisées'. This is followed by an 'Ascending Gesture in hocket' and 'Syllables (4.5 repeats)'. The bottom system is labeled 'Fleshy struck icti move up the body to meet the bony icti' and includes a 'Half-pattern creates tension' section. The score is annotated with various physical gestures: 'voix', 'crâne', 'poitrine', 'visage', 'ventre', 'gambe', 'mains croisées au dessus de la tête (comme un prisonnier)'. Circled numbers 23 and 24 are present.

As the musical and physical gestures are of increasing density and activity, Section 5 as a whole represents an ascending gesture. While the musical and physical gestures are not working concurrently with each other, they also are not independent of one another, causing me to label the section as an ascending gesture in hocket.

Section 6

Section 6 (circle 26 to circle 32) is the final section of the piece and contains many deviations from the other sections. The section starts with the most jarring moment of the composition, spoken text with cohesive grammar. The text follows:

I recently read this remark: The history of mankind is a long succession of synonyms for the same word. It is a duty to disprove this.

In a piece of guttural utterances nonsense syllables, a moment of grammatical clarity stands out as a special event.

Following the speech, the guttural sounds return, marking a phrase of great tension and intensity. The extended vocal sounds occur one by one for extended lengths of time. The kiss rallentandos, while the cluck accelerandos and rallentandos. The drawn back tongue stays regular, the “TS” sound is irregular, and gasps are as dense as possible. These vocal sounds take place over a constant sound of hand glides rubbing and scratching all over the head as fast as possible until an abrupt end to the phrase. The result is an immense build up of tension that is only enhanced by what follows. Instead of dispelling the tension, Globokar instead opts for more of it by asking the performer to hold his or her arms up, stretch and yawn loudly before reaching the penultimate fermata.

Example 6: Score of Section 6 from *Corporel*

Independent musical and physical gestures (ascending gesture)

26 Moment of vocal clarity
 Tout en gardant les mains croisées sur la tête basculer afin d'aboutir sur les genoux face au public. Ce faisant dire le texte:
 " J'AI RÉCÉMENT CETTE PHRASE : L'HISTOIRE DES HOMMES EST LA LONGUE SUCCESSION DES SYNONYMES D'UN MÊME VOCABLE, CONTREDIRE EST UN DEVOIR. "

27 Frotter les cheveux d'abord lentement puis de plus en plus vite pour aboutir à un frotement "hystérique". Ce faisant se lever lentement.

Extended vocal sounds appear in original order

28 *debut*
 (les mains sur la tête)

29 Yawn creates tension
 Bailler et élever les bras au dessus de la tête.

30 Frapper avec les deux mains alternées violemment sur toutes les parties du corps, comme si on frappait quelqu'un d'autre.
 Development of rhythmic motive (cadential gesture)

Concurrent Gesture

31 Ah (cri de douleur et d'étonnement)

32 coup de poing final dans le creux de l'estomac. Rester recroquevillé les yeux exorbités.

Subtractive process (outside in)

Vinko Globokar
 Paris 1985

At this point, there is a great deal of uncertainty and uneasiness, as the tension needs to be released. This extra build up of tension is finally released in the most violent phrase of the piece (circle 30). In this phrase, Globokar asks the performer to beat up himself or herself on stage. Rhythmically, the struck body icti follow a similar subtractive process akin to Section 4. In this case, the outside in process refers to rhythmic values at the beginning and end of the measure. Each repetition results in a new value being subtracted from the original from the beginning or end of the measure until finally reaching one final note. This entire last phrase is without vocal sounds, with the exception of the final icti, which strikes the stomach while the performer yells “AH”.

This crashing finale to the piece represents a strong cadential gesture, although other micro-level gestures appear. The extended vocal sounds that are followed by the yawn represent an ascending gesture with independent musical and physical lines. The violent phrase represents a cadential gesture within the scope of Section 6 as one long cadential gesture.

As in previous chapters of this thesis, a hierarchy exists among the different gestures in *¿Corporel*. This hierarchy can be seen in the following table.

Table 5: Gestural Hierarchy in *ζCorporel*

Section	Musical Gestural Function	Physical Gestural Function	Section-Level Gestural Function	Macro-level Gestural Function
1	Introductory, ascending, descending, cadential	Concurrent, independent	Concurrent introductory	Introductory
2	Ascending	Independent	Independent ascending	Ascending
3	Ascending, descending	Independent		
4	Introductory, descending, cadential	Independent	Independent descending	Descending
5	Introductory, ascending	n/a	Ascending in hocket	Cadential
6	Ascending, cadential	Independent	Independent Cadential	

As seen in the table, a section of the piece can function as an introductory, ascending, descending, or cadential gesture while at the same time functioning as a different physical gesture. This can be seen in Section 1, where a series of musical gestures that function as a macro-level musical gesture, occurs alongside a concurrent physical gesture (the concurrent gesture aids in the overall section being labeled as introductory). This is important to note, as it emphasizes the importance of the synthesis of musical and physical gestures. Apart, each section can function as different musical and physical gestures; however, together the overall function of the sections becomes more clearly defined.

The next question: why did Globokar decide to notate *ζCorporel* graphically? It is true that there is a greater amount of standard notation in *ζCorporel* as compared to the previous examples by Cage and Feldman (this can be seen in the rhythmic writing, which is in standard rhythmic notation). As previously mentioned in the sections of this chapter, I believe that

Globokar wanted to create the feeling of a free improvisation, a genre that he was very familiar with as a performer. The feeling of free improvisation allows for a synthesis to occur between the musical requirements and the physical requirements. And as previously stated, this synthesis is the vital backbone of *ζCorporel*, a piece that seeks to reduce the performer to his or her bare form, with only the voice and body to be used. It is difficult to imagine a strictly notated version of *ζCorporel* that calls for the performer to rub violently on his or her skull for 3.5 seconds with the right hand while tapping his or her shin with the left hand at a tempo of 76 beats per minute all while vocalizing an open mouthed inhalation that occurs on the 5th sixteenth note of the measure. This would be an immensely difficult piece to notate without allowing the performer and the composer freedom. Globokar himself states in *Anti-Badabum* that the performer is “no longer asked to produce fifteen precise attacks per second but simply to invest each movement, however innocuous it first seems to be, with a meaning.”⁵

This brings up another point about Globokar’s intent. Thus far I have discussed how his choice of graphic notation aids the performer in synthesizing musical and physical gestures, but I have not discussed how this decision also gave him more freedom. Globokar originally composed *ζCorporel* as a response against the percussion writing of the 1970s and 1980s that called for numerous instruments as one instrument was only used for one sound. In order to accomplish this, he had to create new sounds and new sound possibilities. The result was a new notational system that allows Globokar to convey musical and physical meaning directly to the performer.

⁵ Globokar, "Anti-Badabum, 81."

CHAPTER 5: Conclusion

As discussed in the previous three analyses, there are two concurrent issues that necessitate discussion, the first of which centers on musical gesture, and the second of which centers on graphic notation. These two topics will be dealt with individually before synthesizing the data in order to make broader ranging conclusions about the use of graphic notation as musical gesture.

Four main musical gestures dominated the surface of each composition. The introductory gesture parallels its definition as a formal parameter, and provides the first hearing of motivic material. The ascending gesture finds its definition as an increase of surface tension. It functions to provide musical questions that require answers. It is characterized by an increase in surface activity, both rhythmic and motivic. In contrast, the descending gesture serves to dispel tension that was created by the ascending gesture. It is comparable in literature to the resolution that is followed by the denouement. The cadential gesture does not introduce any new motives, instead opting for closure that manifests itself as means of breath and release.

In addition to these four main musical gestures, other gestures, both musical and physical, were discussed within this paper. A static gesture, found in *The King of Denmark* marks a period of motivic idleness. In this particular example, the static gesture was found in a phrase that contained fragments of four phrases that appeared throughout the piece. Since the fragmented material had already been heard, and since it was followed by simply more fragmented material, the phrase as a unit did not move anywhere. It ended where it began, thus allowing for a static gesture label. In *Corporel*, physical gestures began to permeate the surface. A concurrent physical gesture parallels the musical gesture occurring at the same moment. As a result, the two work concurrently. Conversely, the independent physical gesture exists when the physical gesture and the musical gesture work indirectly of one another.

The concept of musical motion is an important one to make in a discussion of musical gesture. As seen in the tables at the end of each analysis (and reproduced below), which detail the micro-level and macro-level function of musical gestures, a balanced form manifests itself. On the macro-level, each of the compositions exhibits the following gestural structure: Introductory, Ascending, Descending, and Cadential. Overall, this form creates a strong “ebb and flow” of musical ideas.

Gestural Hierarchy in Cage's *Composed Improvisation* *

Event	Internal Event-Level Gestural Functions	Event-Level Gestural Function	Part-Level Gestural Function
1a	Descending, ascending	Introductory	
1b	Descending, ascending	Ascending	Introductory, ascending
1c	Ascending, cadential	Descending, cadential	
1d	Cadential (from 1c)	Cadential	
2a	Ascending, descending, cadential	Ascending	
2b	n/a	Introductory	
2c	Ascending, descending, cadential	Ascending, descending	
2d	n/a	Cadential	Ascending, descending
2e	Introductory, ascending	Ascending	
2f	Introductory, ascending, cadential, descending, cadential	Descending, cadential	
3a	Ascending, descending, cadential	Ascending	
3b	Ascending, descending, cadential	Descending	Cadential

* As indicated in Chapter 2, transitional material is omitted from the gestural hierarchy

Gestural Hierarchy in Feldman's *King of Denmark*

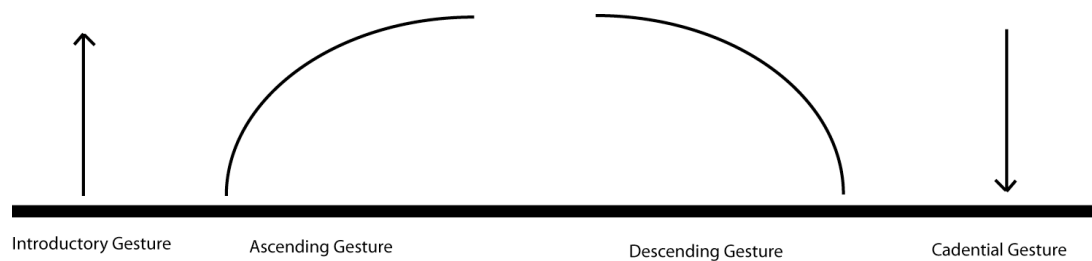
Section	Internal Clause-level gestural functions	External clause-level gestural functions	Section-level gestural functions
1a	Introductory, ascending, cadential	Introductory	
1b	Introductory, ascending	Ascending	Introductory, ascending
1c	Introductory, descending	Descending	
2a	Introductory, ascending	Ascending	
2b	Static, descending	Descending	Ascending, descending
3a	Ascending, descending, static, cadential	n/a	
3b	Cadential	Cadential	Cadential

Gestural Hierarchy in Globokar's *¿Corporel*

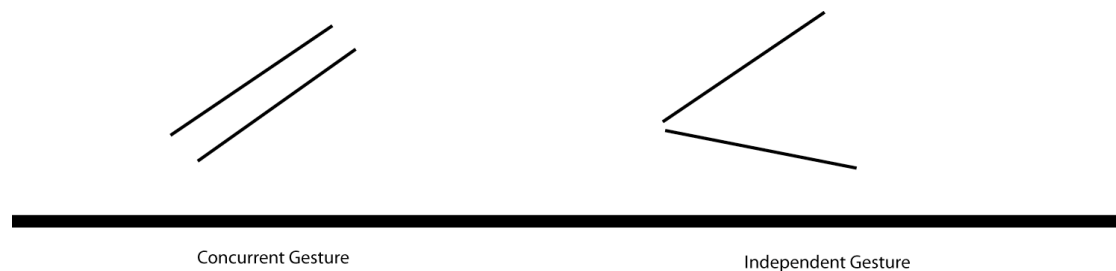
Section	Musical Gestural Function	Physical Gestural Function	Section-Level Gestural Function	Macro-level Gestural Function
1	Introductory, ascending, descending, cadential	Concurrent, independent	Concurrent introductory	Introductory
2	Ascending	Independent	Independent ascending	Ascending
3	Ascending, descending	Independent		
4	Introductory, descending, cadential	Independent	Independent descending	Descending
5	Introductory, ascending	n/a	Ascending in hoquet	
6	Ascending, cadential	Independent	Independent Cadential	Cadential

As mentioned above, each of the gestures maintains a sense of physical motion. Each of the musical gestures contains an associative movement. In order to better see this movement and compare the three compositions from a perspective of gestural motion, I graphed each of the pieces micro- and macro-level gestural functions on the horizontal axis.

Graph of Musical Gestures on a Horizontal Axis



Graph of *Physical Gestures* on a Horizontal Axis

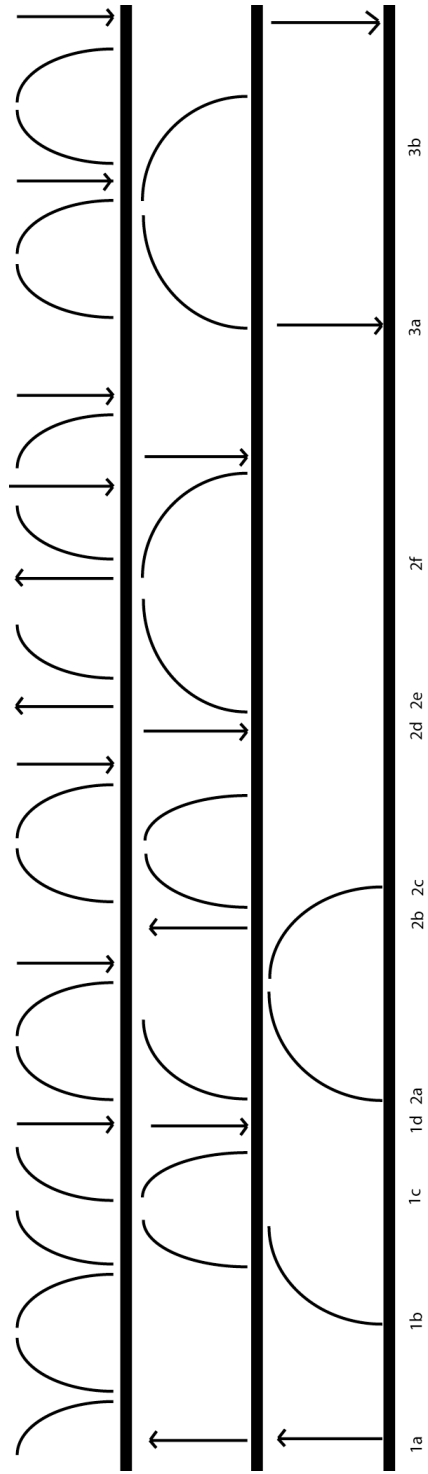


An introductory gesture comes from nowhere and provides motivic life to the composition. As a result, on the graph below, a vertical arrow, pointing upward, indicates motivic movement and represents the introductory gesture. This shows the onset of gestural motion. The ascending gesture provides the motivic thrust of the composition, taking the introduced motives, and springing them forward to development. On the horizontal axis below, the ascending gesture starts on the axis and arcs upward (an arc was used instead of a line as

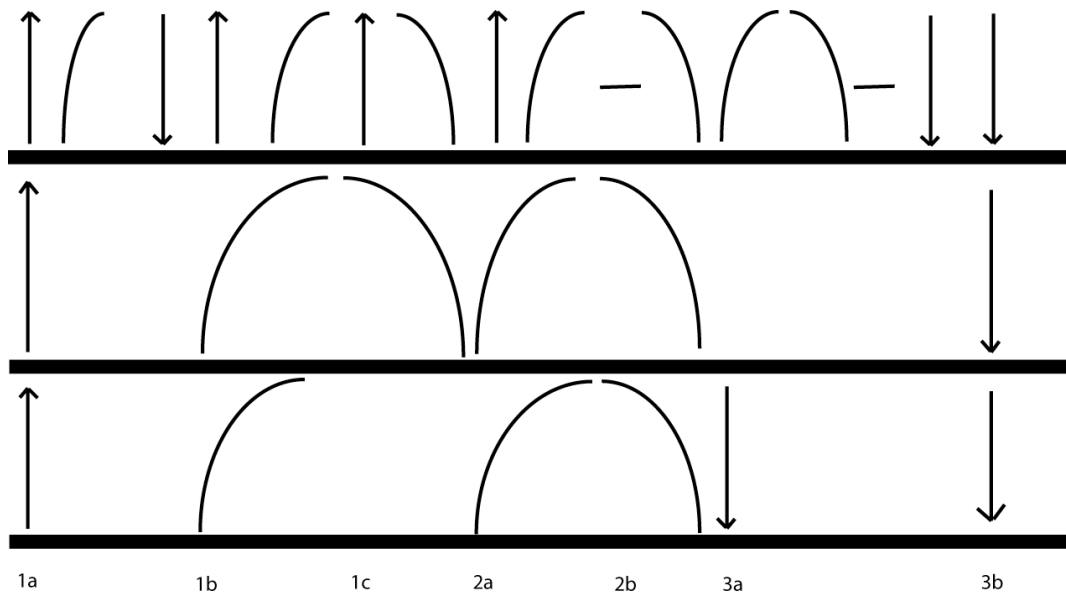
development is never immediate, as it takes change over time, thus creating a smoother arc). This is the reverse of the descending gesture, which, while still rich in motivic content, wanes in motivic energy. This results in the descending gesture beginning where the ascending gesture finished and over time, also in the shape of an arc, moving back down to the axis. The cadential gesture serves as a closing passage, wherein motives come to an idle position or to rest. On the horizontal axis, an arrow pointed down represents cadential gesture, coming to rest on the plane of the axis. This effectively shows the end of the gestural motion. A horizontal line represents a static gesture. The three horizontal lines on the following graphs, from top to bottom, represent a micro- to macro-level view of gestural motion.

Upon looking at the horizontal axis, it becomes apparent that musical gesture acts much the same way as an object in motion (Newton's first law of motion: An object in motion remains in motion unless acted upon by an outside force). The introductory gesture sets the motivic material in motion. This motion is altered through musical inertia, or the ascending, descending, and cadential gestures that develop the motives until bringing them to a final resting point. The ascending and descending gestures can be likened to the gravity principle of "what goes up, must come down." The ascending gesture thrusts the motives up and the descending gesture helps to bring them down again (but not resting until the cadential gesture completes its function).

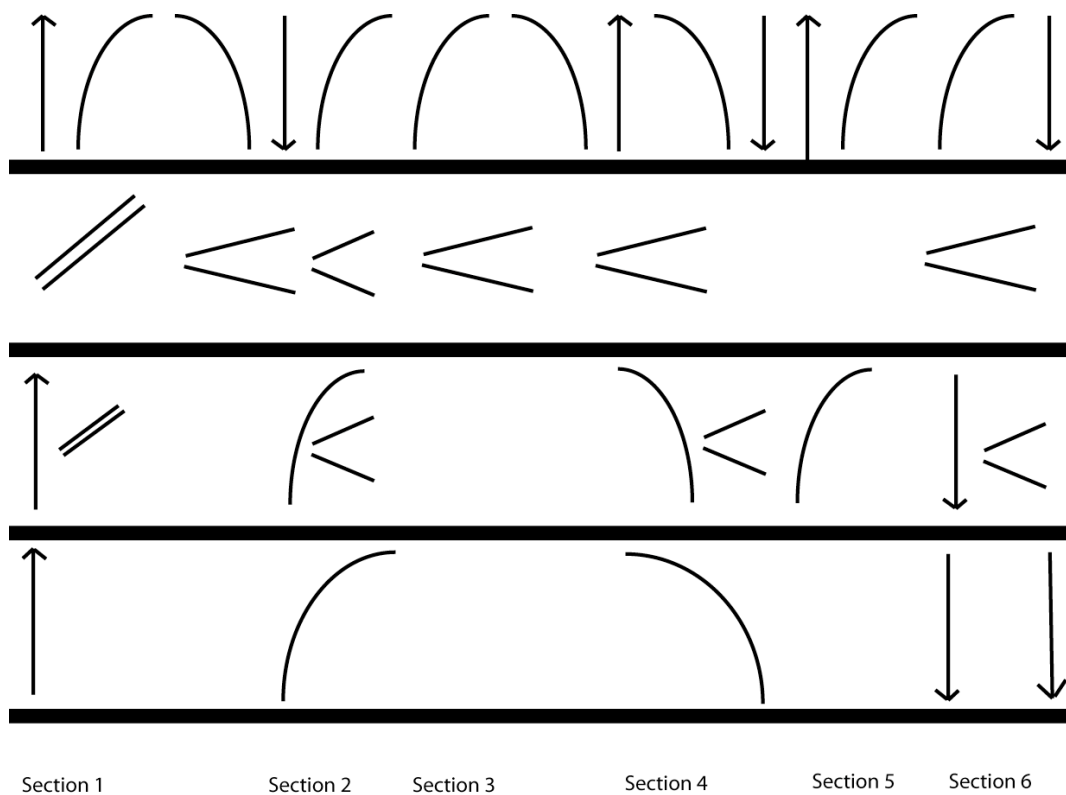
Gestural Motion in Cage's Composed Improvisation



Gestural Motion in Feldman's *King of Denmark*



Gestural Motion in Globokar's *ζ Corporel*



So how does graphic notation fit into this sense of musical gesture and gestural motion? What immediately stands out from the horizontal axis graphs is the likeness to a Schenker graph. While no melodic material is present in any of these three compositions, one is able to view them on a hierarchical plane, and clearly see where the strong structural points lie. The benefits of this type of analysis for a performer are great, yet while interesting, are not in the scope of this paper. What is in the scope of this paper is the composer's intent for using graphic notation. As has been asked throughout this paper, *why* did the composer choose to notate as they did? The gestural reduction chart, seen above, supports the claim that graphic notation was a necessary tool employed by the various composers in order to create a sense of musical gesture and musical motion that was previously unattainable through standard notation.

Cage used chance procedures and prose instructions as graphic notation in order to allow the performer sonic freedom. However, this sonic freedom manifests through the formal constructs outlined in each section and subsequent analysis, in clear musical gestures. By seemingly controlling less, Cage ultimately controls more.

Feldman, in contrast to Cage, provides a strict numerical grid system that corresponds to unique icti. The specifics of how and where these icti are to be played are left to the performer, thus leaving certain musical elements to chance processes. Feldman achieves a musical flattening by controlling aspects of how the sounds are to be produced. The result is a series of musical gestures that emerge, and specifically fit with Feldman's tight control over musical parameters. By allowing a performer freedom in aleatoric sections, Feldman achieves his sonic desire.

As compared to Cage and Feldman, Globokar adds the physical element to the musical one. *¿Corporel* contains composed as well as aleatoric sections, specifically asking the performer how to create the sounds requested by the composer. Globokar desires a synthesis of physical

and musical gestures that show the performer in the barest of forms, performing on him or herself. He creates this synthesis by allowing the performer freedom; however, the resultant musical and physical gestures are precisely the desired effect, and Globokar gets what he wants.

In each of the three pieces, graphic notation is a vehicle by which the composers use musical gesture. Would it be possible for *Composed Improvisation*, *King of Denmark*, and *¿Corporel* to be in standard notation and still achieve the same overall effect? The data presented in the previous pages says no, as the graphic notation was a musical imperative to achieve a previously unattainable sound. Yet in deference to the quote at the beginning of this thesis, I will refer to Anthony Coleman, “Play whatever you want, as long as it’s there.” I believe that Cage, Feldman, and Globokar would all agree with Mr. Coleman. They all desire performer freedom, and provide it in the guise of graphic notation and aleatoric music, but only if the performers play what they want, in the guise of musical gesture.

Appendix A:

**Scores of *Composed Improvisation* by Cage, *King of Denmark* by Feldman, and *ζCorporel*
by Globokar**

Specify by means of chance operations two of the following points in time with the exception of the last one (8'00"):

15"	1'15"	2'15"	3'15"	4'15"	5'15"	6'15"	7'15"
30"	1'30"	2'30"	3'30"	4'30"	5'30"	6'30"	7'30"
45"	1'45"	2'45"	3'45"	4'45"	5'45"	6'45"	7'45"
1'00"	2'00"	3'00"	4'00"	5'00"	6'00"	7'00"	8'00"

e.g.:

3'00 and 4'30"

Within the field of time points between the next one after the earlier of these two (i.e. 3'15") and the penultimate (7'45"), specify by means of chance operations two more points in time. e.g.:

3'30 and 5'45"

The improvisation will then have three parts, the first and third fixed in time, the second beginning and ending at any time within the given time brackets, e.g.:

0'00 to 3'00"
 (3'00" - 4'30) to (3:30 - 5'45)
 5'45" to 8'00"

There will be 1-8 events (chance determined) in each part, e.g.:

6 in the first; 7 in the second; 2 in the last.

Each event will have not more than or not less than 1-64 icti, e.g.:

not more than 37, not more than 15, not more than 4,
 not less than 2, not more than 15, not less than 53;

not less than 23, not less than 44, not more than 8,
 not less than 36, not less than 3, not more than 11,
 not more than 20;

not less than 49, not more than 23.

Not more than 37 is an acceptance of any number 1 to 37. If such latitude is not useful for the purposes of improvisation, a single number can be specified by chance operations, e.g.:

13

Each event is to be characterized by the two beaters used. These are either the same or different. Thus,

given eight different conventional pairs and making use also of the hands, sixty-four "pairs" can be distinguished (H = hand, left or right, specified if necessary by means of chance operations):

1, 1	1, 2	1, 3	1, 4	1, 5	1, 6	1, 7	1, 8
2, 2	2, 3	2, 4	2, 5	2, 6	2, 7	2, 8	H, 1
3, 3	3, 4	3, 5	3, 6	3, 7	3, 8	H, 3	H, 2
4, 4	4, 5	4, 6	4, 7	4, 8	H, 6	H, 5	H, 4
5, 5	5, 6	5, 7	5, 8	H, 1	H, H	H, 8	H, 7
6, 6	6, 7	6, 8	H, 6	H, 5	H, 4	H, 3	H, 2
7, 7	7, 8	H, 3	H, 2	H, 1	H, H	H, 8	H, 7
8, 8	/, /	H, H	H, 8	H, 7	H, 6	H, 5	H, 4

/, / = no hands, no beaters (a jet of air perhaps).

For each of the three parts (e.g. 6, 7, or 2 events) use chance operations to determine whether the snare is on or off. The drum can be given another "preparation," e.g. cloth, paper, rubber, plastic, etc., over the entire surface or over only a part of it. Or the side of the drum can be used as the surface to be struck, with or without preparations. Which surface and which if any preparation is to be used during a single event is determined by chance operations. In fact any questions that arise are to be answered by means of chance operations. In memoriam Marcel Duchamp, use a hat for these (put all possible answers of a single question in it, each on a separate bit of paper, and then, not seeing which one you have, take one out). To prepare this improvisation, sixty-four small pieces of paper numbered from 1 to 64 are required.

Icti not perceptible separately (as during a roll) count as 1 ictus.

A single conventional rim-shot fffz is to be part of each performance. It is to be played with a pair of snare drum sticks, not with a chance determined pair. Ask which part it is in, and then which event it is in.

If the events cannot be performed in the allotted time, record all events of that part at 15"/sec and playback at 7.5"/sec, repeating this process as many times as necessary. Begin the playing of the record (if of the first part) at 0'00"; if of the second part so that it falls properly within the flexible time bracket with respect to both beginning and end; if of the third part so that it concludes at 8'00". Use chance operations to determine the amplitude of the playback. However, let them act within the field of audibility.

The performance may be alone or with *c Composed Improvisation for Steinberger Bass Guitar*, which was composed for Robert Black, or *c Composed Improvisation for One-sided Drums with or without Jangles*, which was composed for Glen Velez. If a longer piece is desired, one or more 8'00" sections may be prepared to follow the first.

THE KING OF DENMARK (Solo percussionist)

1. Graphed High, Middle and Low, with each box equal to MM 66 -92. The top line or slightly above the top line, very high. The bottom line or slightly beneath, very low.
2. Numbers represent the amount of sounds to be played in each box.
3. All instruments to be played without sticks or mallets. The performer may use fingers, hand, or any part of his arm.
4. Dynamics are extremely low, and as equal as possible.
5. The thick horizontal line designates clusters. (Instruments should be varied when possible.)
6. Roman numerals represent simultaneous sounds.
7. Large numbers (encompassing High, Middle and Low) indicate single sounds to be played in all registers and in any time sequence.
8. Broken lines indicate sustained sounds.
9. Vibraphone is played without motor.

SYMBOLS USED:

- B - Bell-like sounds
- S - Skin instruments
- C - Cymbal
- G - Gong
- R - Roll
- T.R. - Tympani roll
- △ - Triangle
- G.R. - Gong Roll

M
1965
K5
1965
Music

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THE KING OF DENMARK

MORTON FELDMAN

Handwritten musical notation on a grid with 5 rows. The notation includes numbers, Roman numerals, and symbols like 'R' and 'S'. A thick horizontal line indicates a cluster. A handwritten '7' is above a box, and a handwritten '5' is below a box.

Handwritten musical notation on a grid with 5 rows. The notation includes numbers, Roman numerals, and symbols like 'R' and 'S'. A thick horizontal line indicates a cluster. A handwritten 'SOMES' is written below the notation.

Handwritten musical notation on a grid with 5 rows. The notation includes numbers, Roman numerals, and symbols like 'R' and 'S'. A thick horizontal line indicates a cluster.

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70-30 80th Street, Glendale, NY 11385

Edition Peters 6963

Handwritten musical notation on a grid. It includes various rhythmic patterns, some with 'R' (Right) and 'S' (Snare) markings. A large number '5' is written in the center of the grid.

Handwritten musical notation on a grid. It includes various rhythmic patterns and markings. A label 'SKIN' is written below the grid.

Handwritten musical notation on a grid. It includes various rhythmic patterns and markings. A label 'CYMBALS' is written below the grid.

Handwritten musical notation on a grid. It includes various rhythmic patterns and markings. A label 'BELL LIKE SOUNDS' is written below the grid.

Handwritten musical notation on a grid. It includes various rhythmic patterns and markings.

Handwritten musical notation on a grid. It includes various rhythmic patterns and markings. A note says 'AS MANY DIFFERENT ROUNDS AS POSSIBLE'.


Musical notation for a vibraphone (VIB.) and Glockenspiel (GLOCKENSPIEL). The VIB. part includes a note about 'PEDAL RIGHT AFTER ATTACK'. The GLOCKENSPIEL part is marked 'AVG. 1960'.


VINKO GLOBOKAR: ? CORPOREL

①
In canvas trousers, bare-chested, barefoot. Seated on the ground, facing the audience. Stage lighting. Amplification.

f = strike the "soft" parts of the body (cheeks, abdomen, thighs etc.) with the flat of the hand.

F = strike the "bony" parts of the body (skull, collarbone, breastbone, knee, shin etc.) with the fingertip.

 = slide the flat of the hand on the parts of the body indicated with the idea of groping, caressing etc. 1 cm = 1 second.

 = rub with the flat of the hand (increasing/decreasing speed).

 =


Voice: Avoid all vowel sounds. Only breathing sounds are used.


+ → ○ = start with mouth closed and gradually open it (wide open).


○ → + = start with mouth wide open and gradually close it.

 = kiss

 = cluck tongue (simple block sound).

 = draw back tongue while stuck on palate.

 = pronunciation while inhaling (sound of disapproval).

 = suddenly open throat while inhaling.

These five sounds are produced while inhaling:
l, p, k, d, g - very percussive.

Lisolf/Peters

ANNOTATIONS

②
Start: hands covering face.

③
voice
skull
groping

④
face
neck
hands covering face

⑤
clack teeth while uncovering face, gradually open mouth.

⑥
voice
head
chest

⑦
wipe

⑧
voice
head
chest
stomach

⑨
X = clack hands in front of you.

⊗ = clack fingers while holding arms crossed.

⑩
voice
head
chest
abdomen
leg

⑪
voice
caress

⑫
head
chest
abdomen
thigh

⑬
shin

⑭
voice
head
chest
abdomen
leg
foot
hmm

⑮
(hum, remaining bent)

⑯
abdomen
neck
shin

⑰
(gradually straightening up) **burst upright**.

⑰
voice
skull
forehead
chin
chest
abdomen

⑱
(gradually lying down on back)

⑲
lying on back
arms crossed,
legs extended
and spread

⑳
snorting

㉑
left hand
right hand
left foot
right foot

㉒
strike floorboards
with hands and feet. (voice)

㉓
voice

Sing with full voice, very loudly.
Lift both legs
creating a counterweight
so as to return to seated position, legs crossed.

Lisolf/Peters

㉔
voice
skull
sole of foot

㉕
✖ = hands crossed above head (like a prisoner).

㉖
While looking at hands crossed above head, rock back and forth so as to end up kneeling, facing the audience.

Speak the following text:
"I recently read this remark: The history of mankind is a long succession of synonyms for the same word. It is a duty to disprove this."

㉗
voice
skull

Ruffle your hair, at first slowly, then more and more quickly until hair is "hysterically" disheveled.
Rise slowly.

㉘
standing
(hands on your head)

㉙
Yawn and stretch arms above head.

㉚
J = violently strike both hands alternately on all parts of the body, as if hitting somebody else.

㉛
Ah! (cry of sadness and astonishment)

㉜
At final fermata
strike the pit of the stomach.
Remain doubled up,
eyes bulging.

- ① En pantalon de toile, torse nu, pieds nus. Assis par terre, face au public. Eclairage scénique. Amplification.
- F = Frapper sur les parties "molles" du corps (goues, ventre, cuisses etc...) avec le plat de la main.
 - F = Frapper sur les parties "osseuses" du corps (crâne, clavicule, sternum, genou, tibia etc...) avec le bout du doigt.
 - ~ = Glisser avec le plat de la main sur les parties indiquées du corps avec l'idée de tâtonner, caresser etc..., 1cm = 1 seconde.
 - ~ = Frotter avec le plat de la main (va et vient rapide).
- Voix : Eviter complètement les voyelles. Ce ne sont que des bruits de souffle.
- o → + = commencer avec la bouche grande ouverte et la fermer progressivement.
 - h = embrasser / tly = claquer de la langue, bruit de templeblock / tlyk = retirer la langue collée au palais / ts = prononcer ts en aspirant, bruit de désapprobation.
 - ~ = aspirer en ouvrant subitement la gorge. Ces 5 bruits sont produits en aspirant.
 - t, p, k, d, g = très perussif

② Début : mains couvrant le visage

Voix: h o + o + o h o + o + o

③

Voix: f sch

crâne: ~ ~ ~ ~ ~

face: ~ ~ ~ ~ ~

cou: ~ ~ ~ ~ ~

Voix: f sch

crâne: ~ ~ ~ ~ ~

face: ~ ~ ~ ~ ~

cou: ~ ~ ~ ~ ~

④ mains couvrant le visage

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⑤ claquer des doigts en découvrant le visage, frontal de plus en plus la bouche.

Voix: r. - r y p y r k y d t

tête: ~ ~ ~ ~ ~

poitrine: ~ ~ ~ ~ ~

⑥

Voix: p y t y y p y k y d

tête: ~ ~ ~ ~ ~

poitrine: ~ ~ ~ ~ ~

estomac: ~ ~ ~ ~ ~

⑦

Voix: r y t y y k y y y d y p y t y y y y p y p y k y y k y d y d y y g y t y p y y k y d y g y

poitrine: ~ ~ ~ ~ ~

estomac: ~ ~ ~ ~ ~

ral. en fan. do

⑧ X = frapper des mains devant soi. @ = claquer des doigts en tendant les bras (en croix).

⑩

Vivo + ad lib.

Voix: ~ ~ ~ ~ ~

tête: ~ ~ ~ ~ ~

poitrine: ~ ~ ~ ~ ~

ventre: ~ ~ ~ ~ ~

jambe: ~ ~ ~ ~ ~

Liedl/Peters

31644

11

Voix

tête

poitrine

ventre

cuisse

12

13

voix

tête

poitrine

ventre

jambe

pied

courbé

14 (changement restant courbé)

15

ventre

cuisse

libin

16 (se redresser progressivement) buste droit

17

voix

crâne

front

menton

poitrine

ventre

18 (se coucher progressivement sur le dos)

♩ = 96 minimum

voix

crâne

front

menton

19

voix

crâne

20 ronflements

21

main gauche

main droite

pied gauche

pied droit

22

frapper des mains et des pieds contre le plancher

LEATO

(voix)

accél. molto

23

voix A

chanter à pleine voix très fort. Ce faisant lever les deux jambes pour faire contrepoids afin de se retrouver assis les jambes croisées

24

voix

crâne

poitrine

ventre

jambe

25

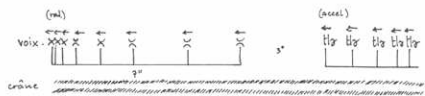
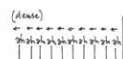
25

main gauche au-dessus de la tête. (comme un bras armé)

5.

26

Tout en gardant les mains croisées sur la tête
basculer afin d'aboyer sur les genoux face au public.
Ce faisant dire le texte:
" J'AI LU RÉCÉMENT CETTE PHRASE : L'HISTOIRE DES HOMMES EST LA LONGUE
SUCCESSION DES SYNONYMES D'UN MÊME VOCABLE . Y CONTREDIRE
EST UN DEVOIR . "



27 Frapper les coudes d'abord, l'un après l'autre puis de plus en plus vite pour
aboutir à un froissement " lyrique ". Ce faisant se lever lentement.

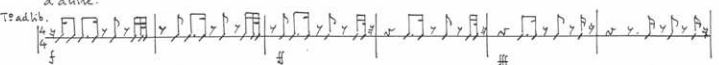


28

Bailler et élever les bras au
dessus de la tête.

29

Frapper avec les deux mains alternées
violemment sur toutes les parties du
corps, comme si on frappait quelqu'un
d'autre.



32 coup de pincet final
dans le creux de
l'estomac. Rester
recroquevillé, les yeux
exorbités.



Vidéo Globetrot
Paris 1985

Lucio Ferris

51648

Appendix B:

***Composed Improvisation* for snare drum by John Cage
realization by Cory Hills**

Sections:

45'' 3'45'' 2'15'' 5'00'' 8'00''

Part 1: 0'' to 45''

Part 2: (45'' to 3'45'') to (2'15'' to 5'00'') which becomes 1'00'' to 4'45''

Part 3: 5'00'' to 8'00''

Events:

Part 1: 4 events

Part 2: 6 events

Part 3: 2 events

Icti:

Part 1: 4 events (0'' to 45'')

- a. 15
- b. 24
- c. 28
- d. 1

Part 2: 6 events (1'00'' to 4'45'')

- a. 51
- b. 17
- c. 27
- d. 31
- e. 59
- f. 52

Part 3: 2 events (5'00'' to 8'00'')

- a. 12
- b. 21

Beaters:

1=Sticks

2=Brushes

3=Rubber

4=Blasticks

5=Soft Yarn

6=Hard Yarn

7=Plastic

8=Medium Timpani

H=Hands

/=no hands or beaters

Part 1:

- a. 4,6
- b. 3,5
- c. H,7
- d. 1,7

Part 2:

- a. H,8
- b. 6,6
- c. H,6
- d. H,H
- e. 3,8
- f. 2,2

Part 3:

- a. /, /
- b. 6,8

Snares:

Part 1: On
Part 2: Off
Part 3: On

Rimshot:

Part 2a

Appendix C:

Spreadsheet Data of Icti by Grid in *King of Denmark*

Box	Number of Icti	High Icti	Middle Icti	Low Icti
1	7	7	0	0
2	0	0	0	0
3	0	0	0	0
4	1	1	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	1	1	0	0
9	1	1	0	0
10	1	1	0	0
11	1	1	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
15	1	1	0	0
16	1	1	0	0
17	1	1	0	0
18	1	1	0	0
19	1	1	0	0
20	1	1	0	0
21	5	0	5	0
22	1	0	0	1
23	1	0	0	1
24	1	0	1	0
25	1	0	0	1
26	3	1	1	1
27	2	0	2	0
28	1	1	0	0
29	0	0	0	0
30	7	3.5	2.5	1
31	7	3.5	2.5	1
32	0	0	0	0
33	1	0	0	1
34	0	0	0	0
35	0	0	0	0
36	1	0	0	1
37	1	0	0	1
38	1	0	0	1
39	1	0	0	1
40	0	0	0	0
41	0	0	0	0
42	0	0	0	0
43	1	0	1	0

44	1	0	1	0
45	0	0	0	0
46	0	0	0	0
47	0	0	0	0
48	0	0	0	0
49	0	0	0	0
50	1	0	1	0
51	1	0	1	0
52	2	1.5	0	0.5
53	2	1.5	0	0.5
54	0	0	0	0
55	3.66	1.66	1.33	0.66
56	3.66	1.66	1.33	0.66
57	3.66	1.66	1.33	0.66
58	3	1	1	1
59	0	0	0	0
60	0	0	0	0
61	1	0	1	0
62	1	0	0	1
63	3	2	0	1
64	2	0.5	1	0.5
65	2	0.5	1	0.5
66	2	1	1	0
67	1	0	0	1
68	6	3	1	2
69	7	0	7	0
70	4	1	2	1
71	3	0.5	0.5	2
72	3	0.5	0.5	2
73	2	1	0	1
74	1	1	0	0
75	0	0	0	0
76	1	1	0	0
77	3	1	1	1
78	3	0	1	2
79	2	0	1	1
80	2	1	1	0
81	2	1	0	1
82	2	0	1	1
83	1	0	1	0
84	1	0	0	1
85	6	2	0	4
86	3	1	1	1
87	3	1	1	1
88	0	0	0	0
89	3	2	0	1
90	0	0	0	0

91	0	0	0	0
92	1	1	0	0
93	0	0	0	0
94	2	1	1	0
95	9	1	3	5
96	5	2	3	0
97	2	1	0	1
98	0	0	0	0
99	1	1	0	0
100	1	1	0	0
101	1	1	0	0
102	0	0	0	0
103	0	0	0	0
104	0	0	0	0
105	2	1	1	0
106	2	1	1	0
107	0	0	0	0
108	1	0	0	1
109	2	0	1	1
110	2	0	1	1
111	0	0	0	0
112	0	0	0	0
113	1	0	1	0
114	0	0	0	0
115	0.33	0	0.33	0
116	0.33	0	0.33	0
117	0.33	0	0.33	0
118	0	0	0	0
119	9	5	3	1
120	1	0	0	1
121	2	0	2	0
122	0	0	0	0
123	0	0	0	0
124	1	0	1	0
125	1	0	1	0
126	1	1	0	0
127	1	1	0	0
128	1	0	1	0
129	2	1	1	0
130	2	1	0	1
131	1	1	0	0
132	1	1	0	0
133	1	1	0	0
134	2	1	1	0
135	3	1	1	1
136	2	0	0	2
137	0	0	0	0

138	2	1	1	0
139	0	0	0	0
140	0	0	0	0
141	3	1	1	1
142	5	1	2	2
143	3	0	2	1
144	1	0	1	0
145	1	0	1	0
146	1	0	1	0
147	1	0	0	1
148	6	0	5	1
149	4	1	2	1
150	2	1	0	1
151	0	0	0	0
152	0	0	0	0
153	0	0	0	0
154	4	0	2	2
155	2	0	1	1
156	0	0	0	0
157	0	0	0	0
158	1	1	0	0
159	1	1	0	0
160	0	0	0	0
161	0	0	0	0
162	0	0	0	0
163	1	1	0	0
164	1	1	0	0
165	0	0	0	0
166	9	5	3	1
167	1	0	0	1
168	2	0	2	0
169	0	0	0	0
170	0	0	0	0
171	0	0	0	0
172	1.25	0.416	0.416	0.416
173	1.25	0.416	0.416	0.416
174	1.25	0.416	0.416	0.416
175	1.25	0.416	0.416	0.416
176	0	0	0	0
177	0	0	0	0
178	0	0	0	0
179	12	2	7	3
180	0	0	0	0
181	0	0	0	0
182	1	1	0	0
183	1	1	0	0
184	0	0	0	0

185	1	0	0	1
186	1	0	1	0
187	2	0	1	1
188	1	1	0	0
189	1	1	0	0
190	0	0	0	0
191	2	1	1	0
192	2	1	1	0
193	0	0	0	0
194	0	0	0	0
195	0	0	0	0
196	3	0	2	1
197	1	1	0	0
198	4	1	0	3
199	4	2	2	0
200	2	1	1	0
201	0	0	0	0
202	1	0	1	0
203	1	0	1	0
204	0	0	0	0
205	0	0	0	0
206	0	0	0	0
207	1	0	1	0
208	1	0	1	0
209	1	0	1	0
210	1	0	1	0
211	1	0	1	0
212	1	0	1	0
213	8	5	2	1
214	1	0	0	1
215	1	0	0	1
216	3	0	0	3
217	0	0	0	0
218	1	0	1	0
219	1	0	1	0
220	2	0	2	0
221	1	1	0	0
222	2	1	0	1
223	5	5	0	0
224	0	0	0	0
225	2	2	0	0
226	7	6	1	0
227	2	0	1	1
228	3	1	2	0
229	4	2	2	0
230	2	1	1	0
231	1	1	0	0

232	1	1	0	0
233	1	0	1	0
234	2	1	1	0
235	2	1	0	1
236	2	0	1	1
237	2	0	1	1
238	2	0	1	1
239	2	0	1	1
240	2	1	0	1
241	3	1	1	1
242	3	0	1	2
243	2	1	0	1
244	2	1	0	1
245	2	0	1	1
246	2	0	1	1
247	1	0	0	1
248	1	0	0	1
249	2	0	1	1
250	2	0	1	1
251	3	1	1	1
252	3	1	1	1
253	1	0	1	0
254	2	0	1	1
255	2	1	0	1
256	1	0	1	0
257	3	1	1	1
258	2	1	0	1
259	0	0	0	0
260	7	4	3	0
261	1	0	1	0
262	0	0	0	0
263	5	5	0	0
264	0	0	0	0
265	0	0	0	0
266	0	0	0	0
267	6	2	3	1
268	1	0	1	0
269	4	4	0	0
270	1	1	0	0
271	7	5	2	0
272	3	2	1	0
273	0	0	0	0
274	0	0	0	0
275	1	0	1	0
276	1	0	1	0
277	0	0	0	0
278	0	0	0	0

279	2	0	1	1
280	2	0	1	1
281	1	0	1	0
282	1	0	1	0
283	3	2	0	1
284	2	1	1	0
285	1	0	1	0
286	4	4	0	0
287	3	1	1	1
288	4	2	1	1
289	2	1	1	0
290	0	0	0	0
291	0	0	0	0
292	0.55	0.183	0.183	0.183
293	0.55	0.183	0.183	0.183
294	0.55	0.183	0.183	0.183
295	0.55	0.183	0.183	0.183
296	0.55	0.183	0.183	0.183
297	0.55	0.183	0.183	0.183
298	0.55	0.183	0.183	0.183
299	0.55	0.183	0.183	0.183
300	0.55	0.183	0.183	0.183
301	0	0	0	0
302	3	1	1	1
303	2	1	0	1
304	0	0	0	0
305	0	0	0	0
306	0	0	0	0
307	0	0	0	0
308	3	1	1	1
309	2	1	0	1
310	1	1	0	0
311	1	1	0	0
312	0	0	0	0
313	0	0	0	0
314	0	0	0	0
315	0	0	0	0
316	0	0	0	0
317	1	0	1	0
318	1	0	1	0
319	0	0	0	0
320	0	0	0	0
321	0	0	0	0
322	0	0	0	0
323	2	1	0	1
324	4	0	1	3
325	5	0	5	0

326	3	3	0	0
327	1	0	1	0
328	1	0	0	1
329	1	1	0	0
330	2	1	0	1
331	1	0	0	1
332	7	4	3	0
333	3	0	0	3
334	1	0	0	1
335	2	0	1	1
336	2	1	1	0
337	6	1	2	3
338	2	0	1	1
339	4	0	2	2
340	2	0	1	1
341	0	0	0	0
342	3	1	1	1
343	2	1	0	1
344	2	1	1	0
345	2	1	1	0
346	0	0	0	0
347	2	0	1	1
348	5	1	2	2
349	3	1	1	1
350	0	0	0	0
351	3	1	1	1
352	3	1	1	1
353	3	1	1	1
354	4	2	1	1
355	2	1	0	1
356	4	1	1	2
357	3	1	1	1
358	0	0	0	0
359	1	1	0	0
360	1	1	0	0
361	0	0	0	0
362	0	0	0	0
363	0	0	0	0
364	0	0	0	0
365	1	1	0	0
366	1	1	0	0
367	0	0	0	0
368	0	0	0	0
369	1.66	0.553	0.553	0.553
370	1.66	0.553	0.553	0.553
371	1.66	0.553	0.553	0.553
372	0	0	0	0

373	0	0	0	0
374	1	1	0	0
375	0	0	0	0
376	1	1	0	0
377	2	1	1	0
378	1	0	1	0
379	0	0	0	0
380	0	0	0	0
381	1	0	1	0
382	1	0	1	0
383	3.5	1.16	1.16	1.16
384	3.5	1.16	1.16	1.16
385	1	0	1	0
386	0	0	0	0
387	1	0	1	0
388	1	0	0	1
389	3	2	1	0
390	7	7	0	0
391	7	7	0	0
392	x	x	x	x
393	x	x	x	x
394	x	x	x	x
395	x	x	x	x
396	x	x	x	x
397	3	1	1	1
398	0	0	0	0
399	0	0	0	0
400	0	0	0	0
401	0	0	0	0
402	0	0	0	0
403	x	x	x	x
404	x	x	x	x
405	0	0	0	0
406	0	0	0	0
407	0	0	0	0
408	0	0	0	0
409	1	1	0	0
410	1	1	0	0
411	0	0	0	0
412	0	0	0	0
413	0	0	0	0
414	0	0	0	0

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