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## New Indeterminate Music:

The Influence of the Cagean Trajectory in The Importance of Being Earmarked

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Music Technology

31st October 2008

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## Abstract

This paper explores the influence of John Cage (1912-1992) on contemporary experimental music focusing on the indeterminate work *The Importance of Being Earmarked* (2008). Firstly through an investigation of selected works from Cage (written between the 1930s – 1960's) and the concepts that form a Cagean trajectory, and secondly by showing how a contemporary composer has adopted this trajectory in the composition of a new work that combines sound-installation, theatre, and Max/MSP programming.

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## Contents

1.	Introduction	6
2.	Part One – The Cagean Trajectory	6
2.1.	Before Cage	7
2.2.	Early Cage	8
2.3.	Music of Changes, composing with the I Ching	8
2.4.	Cross-disciplinary work with Merce Cunningham	10
2.5.	4'33"	11
2.6.	Live Electronic Music	13
2.7.	Fluxus	14
2.8.	Summary of Part One	15
3.	Part Two – The Importance of Being Earmarked	15
3.1.	Chance operations with Max/MSP	16
3.1.1.	An introduction to Max/MSP	17
3.1.2.	The "Random" object	18
3.1.3.	The "Drunk" Object	19
3.1.4.	The "Decide" Object	20
3.2.	Cross-disciplinary collaborations	22
3.3.	Experimental Amplification	22
3.4.	Context	23
3.5.	A Fluxus Parody	24
3.6.	Summary of Part two	25
4.	Conclusion	25
Bibliography		
Appei	ndix I	27

## **New Indeterminate Music:**

The Influence of the Cagean Trajectory in The Importance of Being Earmarked

By Brett Murray

#### 1. Introduction

This paper examines how the indeterminate work *The Importance of Being Earmarked* (2008) has been influenced by the concepts and selected works of John Cage (1912-1992). Cage's work is argued here to form a trajectory that has provided freedom in contemporary composition, through the validation of indeterminacy and accidental sound, and the removal of any symbolic requirements commonly attributed to music. Part one of the paper explores the Cagean trajectory, focusing on Cage's development as a young composer, his employment of chance operations, his cross-disciplinary work with Merce Cunningham, his 'silent' piece 4'33" (1952), his pioneering use of live electronics, and briefly explores the Fluxus movement, which was inspired by Cage's teachings. Part two of the paper draws connections between *The Importance of Being Earmarked* to this Cagean trajectory, demonstrating the influence of Cage's concepts in contemporary music, including the creation of indeterminate programs made using Max/MSP, and other experimental performance strategies.

## 2. Part One - The Cagean Trajectory

John Cage was an American composer who had an extraordinary impact on contemporary music practice, resulting in new considerations and a sense of freedom in modern composition. He is best known for his work during the late 1940s and early 1950s as part of the New York avant-garde<sup>1</sup>, sometimes referred to as 'the Cage group' given his enormous influence over his contemporaries. Morton Feldman, one such contemporary, spoke of Cage's work as "granting 'permission' for him and others to carry out their own experiments." Following is an investigation into the development of Cage's compositional processes and concepts, what I call the Cagean trajectory, looking at selected works from his early professional years until the 1960s. Although

<sup>2</sup> Griffiths, Modern Music, 70.

<sup>&</sup>lt;sup>1</sup> I use the term New York avant garde as mentioned by Paul Griffiths. See Paul Griffiths, *Modern Music:* The avant garde since 1945 (New York: George Braziller, 1981), 66.

Cage continued composing up until his death in 1992, the period I focus on here arguably makes up the significant bulk of his evolution, during which Cage was responsible for dismantling boundaries and expanding the concept of music.

## 2.1. Before Cage

By the 1920s, long before Cage had become a prominent figure of avant garde music, new sound technologies (including film-sound, radio, and amplification), new compositional methodologies (like atonalism and serialism), as well as discussion generated from other progressive art movements (*The Art of Noises* (1913) by Futurist painter Luigi Russolo<sup>3</sup> is a good example) had already begun to question traditional music ideals. But as Douglas Kahn points out, by the mid 1930s the "economic collapse, consolidation and expansion of authoritarian regimes, exile and repression against artists and intellectuals, and military activities, would remove what conditions had existed for major artistic revision and elaboration." This would see many European artists emigrate to the United States of America, including the serialist composer Arnold Schoenberg, who would soon have a direct relationship with Cage, as his teacher. It would seem that if the artistic revision and elaboration were to continue, it would happen in America, and it was the American pioneer of new music Henry Cowell<sup>5</sup> who, after overseeing Cage's early compositions employing a 25-tone-row, suggested to Cage that he should study serialism with Schoenberg.

Schoenberg's devotion to music was inspirational for Cage. He offered Cage an example of how to live one's life as a composer, and in the process made Cage feel more like a composer himself. Although Schoenberg may not have had a lasting influence on his style of composition, he changed Cage's life. <sup>6</sup>

<sup>4</sup> Douglas Kahn, Noise Water Meat (Cambridge: The MIT Press, 1999), 101.

<sup>&</sup>lt;sup>3</sup> Futurism was an art movement that celebrated advancements in technology – *The Art of Noises* (1913) advocated the use of industrial noise in new music. UbuWeb "Luigi Russolo – The Art of Noises," http://www.ubu.com/papers/russolo.html

<sup>&</sup>lt;sup>5</sup> Henry Cowell (1897-1965) was an American composer and writer famous for composing and promoting music of as many styles as possible. See David Nicholls, *The Whole World of Music: A Henry Cowell Symposium* (New York: Routledge, 1998), 1.

<sup>&</sup>lt;sup>6</sup> James Pritchett, *The Music of John Cage* (Cambridge: Cambridge University Press, 1996), 9.

## 2.2. Early Cage

Cage's early music consisted of mostly percussion pieces that used rhythmic structures similar to the simplistic functionalism of Bauhaus principles. Quartet (1935), a piece for 'any' percussion, does this with four movements that utilise fixed rhythmic structures that are repeated without variation. This type of composition showed that Cage had an interest in structure that resisted what was being taught:

Cage learnt from Schoenberg that musical structure results from the division of a work into parts. However, he did not agree that harmony should define the parts of a composition ... structure should not depend on tonal or thematic articulation, but on a rhythmic structure consisting of precompositionally determined temporal divisions. <sup>8</sup>

It was out of this understanding of structure that Cage lost interest in serialism – *Metamorphosis* (1938) is Cage's last work in serial and contrapuntal style. In the next decade Cage would experiment with ways to achieve 'precompositionally determined temporal divisions,' ultimately by embracing indeterminacy.

## 2.3. Music of Changes, composing with the I Ching

In the early 1940s Cage felt obligated, as an artist, to find something to say. Cage pondered at the time:

"What is beautiful? So what's art? So why do we write music? All these questions began to be of ... such a great importance that I decided not to continue unless I could find suitable answers." <sup>9</sup>

Cage's attempts to answer such questions resulted in more symbolic works, like *Imaginary Landscapes No. 3* (1942), with a piano prepared with tin cans, buzzers, mechanical oscillators, and amplified coil of wire, or *Amores* (1943), which delicately prepares the piano with rubber. The former was meant to symbolize the hideousness of war, and the latter echoed eroticism and the delicate beauty of love – in this way, the

<sup>&</sup>lt;sup>7</sup> Bauhaus was an art movement that began in Germany around the 1910s, usually associated with architecture, which promotes simplicity and functionality as its goal. See Magdalena Drost, *Bauhaus*, 1919-1933 (Koln: Taschen, 2002), 22.

<sup>&</sup>lt;sup>8</sup> David Nicholls, *The Cambridge Companion to John Cage* (New York: Cambridge University Press, 2002), 70.

<sup>&</sup>lt;sup>9</sup> Richard Kostelanetz, Conversing with Cage (New York: Routledge, 2003), 63.

pieces exploit psychoanalytical attachments to sounds. Cage would soon reject this process in favour of chance operations, which freed sounds from their psychological value and allowed them to be *just* sounds. <sup>10</sup>

Cage's use of the Chinese *I Ching* began in the late 1940s whilst he was developing the use of chance in his pieces. The *I Ching* is a text that can be used to generate numbers based on the results of throwing yarrow sticks, or by tossing coins. The formation of the fallen sticks (if they overlap or not, for example) corresponds to possibilities proposed by the *I Ching*. The text will determine whether the sticks have landed in either a *Yin* or *Yang* formation – giving the user a solution to a problem with two possibilities. Or if you require a random number, you could for example toss three coins six times and the *I Ching* will yield a number between one and sixty four. Cage was attracted to this versatile random number generator for he could use it to determine whole pieces of music. The virtue, for Cage, of using these operations was the ability to make choices that are free from his *ego*, and to create sequences and structures without historical or symbolic baggage.<sup>11</sup>

Cage's seminal example is *Music of Changes* (1951) (not only does *I Ching* translate to "Book of Changes" but the title also refers to Cage's change in his own musical language), whereby he uses the *I Ching* to create various parameters<sup>12</sup>. The work was written for piano, involving extended techniques such as plucking or using mallets on the strings, and opening or closing the keyboard lid. The rhythmic structure was determined to be 3-5-6.75-6.75-5-3.125, but it is expressed in changing tempi, with accelerandos and ritards. As well as this rhythm, the dynamics, rests, and duration of notes were all decided by the use of the *I Ching*. It is an example of a chance composition that was only notated with the assistance of chance; it was to be performed precisely as written. So, to a degree, it still supports the Western art paradigm, of separating the composer, from the performance, and hence from the sounds, although it attempts the process of eliminating the composer's taste and memory from the composition.

<sup>10</sup> Kostelanetz, Conversing With Cage, 63.

<sup>12</sup> Kostelanetz, Conversing With Cage, 68.

<sup>&</sup>lt;sup>11</sup> David Bernstein and Christopher Hatch, Writings Through John Cage's Music, Poetry, and Art (Chicago: University of Chicago Press, 2001), 87.

## 2.4. Cross-Disciplinary work with Merce Cunningham

Cage's work with choreographer Merce Cunningham linked music composition with dance in a way that overcame the tradition of music playing a subordinate role when paired with another medium — sound complimenting the visual. In the Cage Cunningham relationship sound and movement are not only on equal footing but are also independent of each other. In *Sixteen Dances* (1951) there are sixteen movements of music and sixteen dance parts. Cage and Cunningham would use the *I Ching*, individually, to determine the sequence of the movements and the sequence of dance parts, so as they are performed together, the relationship between music and dance becomes indeterminate and surprising. Cunningham recalls to Morgenroth:

I did a strong movement and then John made a strong sound, but separately. That was a moment for me when I saw that if the two had been planned to happen together, it would have been conventional and unsurprising. But this way it was different. The independence allowed for a sense of freedom.<sup>13</sup>

In August 1952 Cage, during his residency at Black Mountain College (a progressive institute in North Carolina), curated a multi-media event of unprecedented conceptual design, some of which was chance-composed. The event included Cage reading excerpts from his Juliard lecture, Cunningham dancing, piano performed by David Tudor, records being played, paintings hung, and the projection of slides, all simultaneously. The near 45-minute performance, known as the first *Black Mountain Event* (or *Black Mountain Piece*) arguably became a prototype for a modern new media.

LaBelle points out another major development of the Cagean trajectory from this period – noise and accidental sounds.

Cage's Black Mountain event from 1952 is a composed noise aimed at unsettling audiences and their listening habits. ... the work was structured around fixing durational "compartments" within which performers were allowed to fill their respective slots with whatever materials they chose, from text to sound to movement. In addition, the actions, musical, visual, and performative, were housed in a spatial design that aimed to disrupt the centrality of the stage/audience dichotomy. <sup>14</sup>

<sup>&</sup>lt;sup>13</sup> Joyce Morgenroth, Speaking of Dance (New York: Routledge, 2004), 15-16.

<sup>&</sup>lt;sup>14</sup> Brandon LaBelle, Background Noise: Perspectives On Sound Art (New York: Continuum, 2006), 17.

Up until now, for the most part, Cage had been delivering conventionally musical scores, in the sense that they were fixed. In a way, they hadn't changed the meaning of what music could include. I would happily argue that Cage's collaborations with non-musicians greatly expanded his view of music, most likely due to the other mediums revealing holes in his own. "When I saw those," Cage recalls the white paintings of Robert Rauschenberg, "Oh yes, I must; otherwise I'm lagging, otherwise music is lagging." Rauschenberg's 'white paintings' premiered in 1951, and were largely seen as *just* blank canvases. But for Cage the paintings represented possibility – the possibility of indeterminate shadow effects caused by the painting's changing environment, for example. Cage states of his new works, "I was intent on making a kind of composition, that was indeterminate of its own performance, a composition that didn't itself prescribe what would be done." And the work referred to by Cage as the thing he *must* do, to not otherwise lag, would become his most memorable work.

## 2.5. 4'33"

Cage's 4'33" (1952) was certainly inspired by Rauschenberg's 'white paintings' but also had been foreshadowed in his earlier, unrealized, *Silent Prayer* (1948), a silent thirty second piece that cage attempted to sell to the Muzak<sup>TM17</sup> company in the hope that it would get played in shopping centers around the USA. Although Muzak<sup>TM</sup> did not buy the piece; the concept remains to remind us of its power:

Silent Prayer proposes to challenge the status quo and individuality at the one and same instant: by silencing Muzak it sabotages the mechanism of consumption. Through the creation of not so much a produced musical object but a silent space, Cage redefines the notion of the composer as a form of agency against delivering up an overt musical message based on saying something. 18

We can see here that Cage is concerned with how music is 'consumed' within society, traditionally as a message from the author to the listener through counterpoint. Cage

<sup>15</sup> Kostelanetz, Conversing With Cage, 71.

<sup>&</sup>lt;sup>16</sup> Ibid., 63.

<sup>&</sup>lt;sup>17</sup> Muzak Holdings LLC is a company known for its distribution of music to retail stores. See Muzak Holdings LLC, "Muzak – Creating Experiences with Music, Voice, and Sound Systems" http://www.muzak.com

<sup>&</sup>lt;sup>18</sup> LaBelle, Background Noise, 12.

sees music rather as being "found in the immediate and the proximate, whether it be in a concert hall or a shopping center, inside objects or even inside [one's] own throat" 19 and thus rejects harmony and melody in favor of accidental sounds.

Cage's 'silent' piece was finally realized as 4'33", which premiered on August 29, 1952, at the Maverick Concert Hall in Woodstock. David Tudor performed the piece on piano, although the score calls for any instrument, or combination of instruments. But most importantly no intentional sounds were to be made by the performer for the entire duration - meaning Tudor did not play a single note. 4'33" illustrates three Cagean music principles in a more direct way than perhaps any other work. IT demonstrates firstly; that there is no such thing as silence (Cage argued that what his critics thought was silence "because they didn't know how to listen, was filled with accidental sounds,")<sup>20</sup> secondly; that time is the 'proper' basis of music – counterpoint being the 'improper,' and thirdly; music does not require melodic interpretations of that which occurs within the chronology of sounds.

Cage was also aware of the cultural significance of performing 4'33" in a concert hall setting, having said, "I have felt and hoped to have led other people to feel that the sounds of their environment constitute a music which is more interesting than the music which they would hear if they went into a concert hall." <sup>21</sup> Cage therefore must be interested in the cultural self-reflexivity of the work. Labelle points out "4'33" gains its operative force by self-consciously working with its own anticipated context, that of the concert setting. Context and audience function as determining factors to the work, as musical material." <sup>22</sup> The content of the piece, the actual live event itself, and the listener's subjective awareness of it, are all included as part of the the work of art.

LaBelle, Background Noise, 3.
 Kostelanetz, Conversing With Cage, 70.

<sup>&</sup>lt;sup>22</sup> LaBelle, Background Noise, 14.

## 2.6. Live Electronic Music

The Cagean trajectory includes a constant involvement with new technology. In his credo "The Future of Music" (1937) Cage insists that experimental musicians be equipped with the technology to amplify small sounds.<sup>23</sup> It is clear then that Cage had an interest in amplification from early in his career, and by the 1960s Cage was composing sophisticated electro-acoustic, and purely electronic works. *Cartridge Music* (1960) is generally regarded as one of the earliest examples of live electronic music,<sup>24</sup> in the sense that electronic modifications are made in a live performance and nearly all the audible content is produced electronically. Performers would generate sounds by placing small objects into the cartridges of old phonographic pick-ups (such as pipes, wires, feathers, etc.), as well as acting on furniture fixed with contact microphones, and then having individual control of the amplification of the sounds they produced. This piece adds to the trajectory the idea of objects being musical, even when not being hit (as percussion), but simply by being amplified. Each performer (at least one for every cartridge) interpreted their part from the twenty sheets provided, which contained mostly abstract circles. Griffiths explains:

The aim [of *Cartridge Music*] was not only 'to make electronic music live' but also 'to bring about a situation in which any determination made by a performer would not necessarily be realizable. When, for instance, one of the performers changes a volume control, lowering it nearly to zero, the other performer's action, if it is affected by that particular amplification system, is inaudible. <sup>25</sup>

From *Cartridge Music* we can see that the manipulations of electronic equipment, as well as an understanding of the order of electronic processes (the mixing of signals, etc.) are very much musical considerations.

<sup>&</sup>lt;sup>23</sup> Kahn, Noise Water Meat, 194.

<sup>&</sup>lt;sup>24</sup> Griffiths, *Modern Music*, 125.

<sup>&</sup>lt;sup>25</sup> Ibid, 125.

## 2.7. Fluxus

The Fluxus movement is included in the trajectory because it represents, for me, how extreme, or perhaps outrageous, was the flexibility that Cage's work granted music. Fluxus was born in the late 1950s classroom of Cage's composition course at New York's New School of Social Research. The class absorbed his teachings on "chance as motif and "found sound" as music" and his "contention that theatre was in the minds of the beholder"<sup>26</sup> This created a platform of freedom, allowing the students to create new music that could involve any media and have no restraints. Members of the class included Dick Higgens, George Brecht, and Allan Kaprow who would become principle Fluxus artists. Kaprow is credited with inventing the term and genre of the Happening – a performance idiom that the artists would consider to be their new art form. Although, by definition Fluxus is a musical performance - Auslander points out that "Fluxus artists presented performance work under the traditional rubric of music, though the concept of music they received from Cage was hardly traditional."<sup>27</sup> The students wrote scores that usually would not specify musical instruments, or sounds for that matter, instead they would contain text specifying an action that was to be carried out by the performer. Ideally in Fluxus the actions would be meaningless, and it was not required that the action would create any sounds. Consider the example of Brecht's Piano Piece (1962), the score simply reads "vase of flowers onto a piano." This piece of Fluxus music appears to require the observer to have a multi-sensory appreciation, rather than a refined auditory one. Auslander argues that in Fluxus "music as an audible phenomenon is replaced ... by music as a visual phenomenon,"29 which fits into the Cagean trajectory, as with works like Black Mountain Event where Cage was encouraging the use of multiple senses into music practice.

<sup>28</sup> LaBelle, Background Noise, 64.

<sup>&</sup>lt;sup>26</sup> RoseLee Goldberg, *Performance: Live art since the 60s* (London: Thames & Hudson, 1998), 63. <sup>27</sup> James Harding, Contours of the Theatrical Avant-garde (Ann Arbor: The University of Michigan Press, 2000), 112.

<sup>&</sup>lt;sup>29</sup> Harding, Contours of the Theatrical Avant-garde, 119.

## 2.8. Summary of Part One

Given the size of this paper it would have been impossible to discuss every Cage work, or even many of them for that matter. But from this brief exploration of *some* of his work we are able to construct a reasonable understanding of the conceptual direction of Cage's music. Here is a summary of the concepts that describe the Cagean trajectory:

- The ongoing questioning of musical values
- Shifting emphasis away from harmony and contrapuntal style, towards time, events, and simplicity
- The demarcation of sounds from psychology
- The use of chance-operations and indeterminacy to replace compositional taste
- Music as a combination of sensory stimuli
- A disruption of centrality in performance space
- The inclusion of the environmental
- Context as musical material
- An embrace of new technologies
- Freedom of possibilities

## 3. Part Two - The Importance of Being Earmarked

The Importance of Being Earmarked (2008) [hereafter referred to as Earmarked] is a cross-disciplinary sound composition I wrote influenced by the compositional practice of John Cage. Earmarked was made in collaboration with So Frenchy Productions, a small independent theatre company, combining elements of sound installation with theatre. The work showcases music technology built into the set (comprised of a dressing-table, an office-desk, and a dinner-table) that responds to the actors' activities by the placement of motion, touch, video and audio sensors that can create feedback loops, trigger samples and manipulate audio signals. The speakers are also part of the set, emitting sound from the objects themselves – as the set moves so must the sound. The score [refer to appendix] is written as a theatrical 'script', along with notes on how to build the interactive set.

The work is not necessarily similar in style to any of Cage's own works, but rather it draws upon important concepts one finds when exploring Cage's trajectory of work. That is not to say there are no resemblances to specific works, in fact there are several that shall be discussed in this paper. However, when discussing Cage (and thus indeterminacy), the term 'style', if you consider it to mean what is typically determined by the design of a thing, becomes almost antithetical (what style does 4'33" suggest? In what style would one choose to perform it?) Rather, I am only really concerned with applying a range of Cagean compositional techniques, which are reflected in *Earmarked* as, to borrow a phrase from Wendall Harris, an appreciative montage<sup>30</sup> of ideas. Part two of this paper will continue with an in depth look at the above mentioned resemblances of Cage's work and *Earmarked*, with reference to the Cagean trajectory explored in part one.

## 3.1. Chance operations with Max/MSP

Even from a very youthful computer-age, Cage foreshadowed the use of computers to expand the musical concepts of his trajectory.

More and more people will be using computers, and that more and more routines will exist, and the possibility of making programs which utilize a routine made here, for instance, with one made there, with one made some other place and adding others to it, will produce a music which is not yet been heard. <sup>31</sup>

Inspired by Cage's use of chance operations in *Music of Changes* [referred to in section 2.3.], I explored the use of computer software that could generate random results, a virtual *I Ching* if you will. I found in the software Max/MSP many ways to employ chance elements into computer music composition that I then used in *Earmarked*.

<sup>31</sup> Kostelanetz, Conversing With Cage, 82.

16

<sup>&</sup>lt;sup>30</sup> Wendall Harris, Beyond Poststructuralism (University Park: Pennsylvania State Press, 2004), 221.

## 3.1.1. An introduction to Max/MSP

Max/MSP is a graphical programming tool that allows for a broad range of artistic application from electronic music to media installations. Originally developed at IRCAM (the computer music institute at the Centre Georges Pompidou in Paris) in the late 1980s by Miller Puckett, Max/MSP has since formed the basis for a growing interest in computer music, with users from around the world able to contribute to a growing online library of external programming tools<sup>32</sup>. Max/MSP is also known for its capacity to create interactive and indeterminate systems. It is from such systems that one can draw parallels to Cage's composition methods. But before we continue in that discussion, it is important to know a little about how the program works.

Max/MSP consists of a typology of *objects* and *messages* that when virtually wired to each other become a *patch*. An *object* refers to a program that, although written in code, appears in the interface as a box with *inlets* on the top and *outlets* on the bottom. Each *object* performs a unique function based on the information it receives through its *inlets*; the resulting data is then passed out through the *outlets*. *Messages* can generally be described as stored information that will be sent to an object's *inlet*. A *patch* simply refers to the program one is building using Max/MSP.

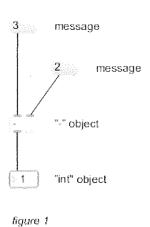
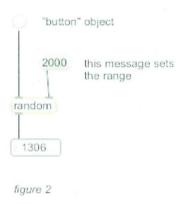


Figure 1 shows a simple program consisting of two *messages* and two *objects* that are virtually wired together. The "-" (subtract) *object* is performing the function of subtracting the *message* in the right inlet from the *message* in the left inlet. The result is then displayed in the "int" (integer) *object*.

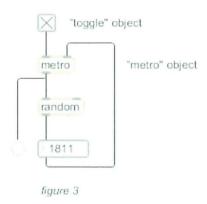
<sup>32</sup> Cycling 74 "Community" http://www.cycling74.com/community.

The *objects* used to introduce elements of chance in *Earmarked*, with similar effect to Cage's *Music of Changes*, are the "random", "drunk" and "decide" *objects*.

## 3.1.2. The "Random" object



This *object's* essential function is to send out a random number when prompted to do so. Figure 2 demonstrates the "random" *object*, which when triggered by the "button" *object* selects any integer (within the set range, if set) and outputs the result.

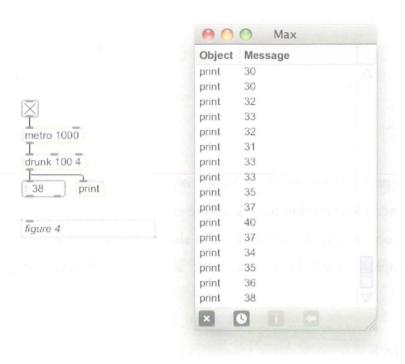


Cage recalls in *Music of Changes* "you see that every few measures, at every structural point, things were speeding up or slowing down or remaining constant. How much these things varied was chance-determined." Figure 3 demonstrates one of the uses of the "random" *object* from the *Earmarked* patch. Once instigated by the "toggle" *object* 

<sup>33</sup> Kostelanetz, Conversing With Cage, 68.

being switched on, the "metro" object (which acts as a metronome) sends out commands at a rate, set in milliseconds (that it receives through its right *inlet*,) out to the "random" *object*. Given that the "random" *object* is responsible for setting the rate of the "metro" *object*, one can see we have a combination that results in indeterminate tempo changes.

## 3.1.3. The "Drunk" Object



This *object's* essential function is to choose an ascending or descending trajectory for its output of numbers. Figure 4 demonstrates the "drunk" *object*, when triggered by the "metro" *object*, sending out a number (between 0 - 100) that is either between 0 - 4 steps higher or lower than the previous number. The "Max" *window* shows the progression of numbers over time: 30, 30, 32, 33, 32, 31, etc.

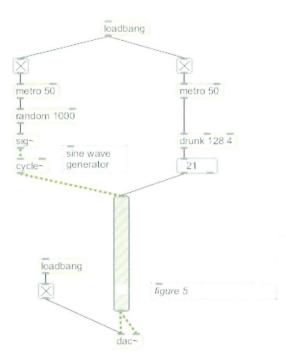
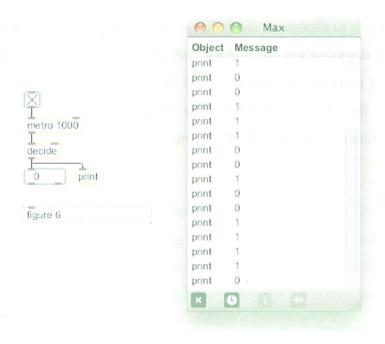


Figure 5 demonstrates a practical use of the "Drunk" *object*, seen here controlling a *volume slider*. Just as crescendos and diminuendos were controlled by chance in *Music of Changes*, the "Drunk" *object* here is used to create a similar situation in *Earmarked*, where live-recorded samples would be played back at a randomly increasing or decreasing volume.

## 3.1.4. The "Decide" Object



The "Decide" *object's* function acts similarly to tossing a coin, or how the *I Ching's* 64 possibilities could be reduced to two possibilities: *Yin* or *Yang*. Figure 6 demonstrates how the "Decide" *object*, when triggered, randomizes an output that either reads "1" or "0". The "Max" *window* shows us the progression of values.

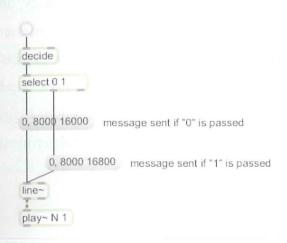


figure 7

Figure 7 demonstrates a practical use of the "Decide" object, seen here, with the aid of the "select" object, which splits the path of the '0' and '1' messages, randomizing which pathway will continue in the process. In Earmarked I used this object to choose different pitches of sample playback, different samples to playback, and often to decide between pathways that could reduce or increase activity within the patch. An example of this occurs in the first scene of Earmarked [refer to appendix] where the actor by triggering a sensor on the dressing table may disable the program's recording facilities, meaning no new samples will be recorded nor played-back, until the "decide" object is triggered (enough times) for it to choose a pathway that enables the recording facilities. This recalls where, in Cartridge Music, Cage was excited by the idea that one performer could be indeterminately sabotaging the function of another [referred to in section 2.6.]

## 3.2. Cross-disciplinary collaborations

I wanted *Earmarked* to have an indeterminate quality, similar to *Sixteen Dances* [referred to in section 2.4.], based on collaborating with a non-musician in a broad multi-sensory music context. This is how *Earmarked* came to be a theatre piece, by employing a director to interpret the score using their own dramaturgical ontology, and to block and direct the actors accordingly. Because the sets I built were interactive and designed to be stimulated by the actors (through their improvised use of the objects), they would become music performers even though their determination was to be purely dramatic and not musical. Whilst the piece is performed the actors unwittingly trigger sequences of sound and so, like in *Sixteen Dances*, they would create indeterminate relationships between the auditory and the visual.

## 3.3. Experimental Amplification

Inspired by Cage's early prepared piano pieces, such as *Imaginary Landscapes No. 3* and Amores [referred to in section 2.3.], which he used to create new effects from the instrument, and also inspired by the union of electronic instruments and the amplification of everyday objects in Cartridge Music [referred to in section 2.6.], I set out to create new instruments in Earmarked from the objects that made up the theatre set. The dressing-table, office-desk and dinner-table, were prepared with objects (props) and fitted with microphones, as well as the speakers that would amplify the sounds recorded from the set, including the audible activity that was acted out on the set, as well as the sound the set might make as it resonates. The result yielded exciting effects in timbre. An example from a performance of Earmarked would be how in the first scene [refer to Appendix I; where the actor's activity involved putting on make-up at the dressing-table as the actor makes a sound, say opening a drawer, the microphone inside the dressing-table might be used to record that sound, the recorded sample then could be played through the speaker – but at a volume and pitch that might make a make-up accessory on top of the dressing-table begin to vibrate – and then that sound might be recorded and played back, and so on. If this feedback loop continues a great deal of accidental and unique vibrations may occur, which is certainly in the spirit of John Cage, in my reading of his trajectory.

#### 3.4. Context

LaBelle suggests 4'33" [referred to in section 2.5.] "was self-consciously "written" so as to converse with music through its performance in a concert setting. That is to say the work aims for music, as cultural practice and as context."34 When one considers the context of 4'33" in light of LaBelle's above statement, I believe that one could find a similar conversation occurring in Earmarked. I was fascinated by 4'33"'s apparent ability to yield different responses from its audience from awe to outrage to indifference, etc.<sup>35</sup> I was interested to see if I could create a similar situation, and so I self-consciously wrote Earmarked to promote many contexts at once: at least in terms of what an observer could anticipate, the context was designed to be ambivalent. The promotional posters read "sound installation" yet the venue was to be a music auditorium (the economic baby brother to a concert hall), which evokes music performance rather than installation. Then, once they arrived, the observer was presented with a printed programme that read like a theatre programme; no musical works or musicians were listed, instead a cast, crew and director.

Both in presentation and promotion the work advertises itself as composition and/or sound installation and/or theatre play and/or sound art. The idea I find interesting here is that an observer investing their attention to the conventions of one may be limiting their experience of the work. Take for example the convention in theatre that during 'blackouts' the observer will suspend their attention until the stage is relit, but for the observer within the context of acousmatics this blackout will be one of few opportunities they can examine the sonorous objects without linking them to their visual source (unless they had closed their eyes the entire time.) In Earmarked the music continues through the blackouts, and on top of that a whole new set of moving sounds are introduced by the physical shifting of the sets by the stage hands – I was interested to know how much of this music would be lost on the observer anticipating theatre convention? LaBelle also states "[sound has the] ability to activate perception, social space, and temporal immediacy - [the] potential to foster subjective intensities, from listening to living."36 This process of ambivalence wasn't specifically meant to confuse

<sup>36</sup> LaBelle, Background Noise, 5.

LaBelle, Background Noise, 15.
 Kostelanetz, Conversing With Cage, 70.

the observer (albeit unapologetically) but rather act as an indeterminate listening tool – choose your context, choose your experience.

The title of the work "The Importance of Being Earmarked" is designed to support this concept too. The word 'earmarked' usually refers to a group of people, or things, that will have an expected result (e.g. x people are earmarked to do y activity.) Consider Meyer's view on how people respond to teleological music: "But whether expected or not, what actually does take place is colored by the fact that predictions were made. That is, musical events are felt to be normal and regular, surprising, amusing, or even shocking, as they conform to, or deviate from our predictions." For those in music school, who are trained in listening, the phrase 'earmarked' has a profound resonance — amongst the constant wash of sound through their ears they are expected to isolate music, and then 'good' music if the quality is there. The suggestion here is that they do this about as well as the aristocratic characters in Oscar Wilde's The Importance of Being Earnest can determine who amongst them is being sincere (which is to say not very well). And therein lies the punch line: in the Cagean trajectory there is no importance of being earmarked, because one should allow sounds to just be themselves.

## 3.5. A Fluxus Parody

The script of *Earmarked* [refer to Appendix I] was meant to gently parody Fluxus scores [referred to in section 2.7.] – the scenes are so barely detailed that they could almost be reduced to: "sit down at desk, answer the phone", which one might consider a fine example. The three scenes in *Earmarked*, in regards to the activity performed by the characters, were impartially chosen to represent common scenes found in popular culture, a woman applying make-up, a man sits at a desk, a couple eats cake. They were selected randomly from a list of reoccurring scenes I had myself compiled, several other scenes could have replaced them without difficulty; a man is sick in a bathroom; a family are watching television, etc. One reason was to eradicate a plot with a centre, to have scenes performed with no dramatic direction into the next scene, as an abstract expression and also to maintain the flavor of the Fluxus movement, which revolved around art that attempts meaninglessness. I was also interested in the prospect of there

<sup>&</sup>lt;sup>37</sup> Leonard Meyer, *Music, the Arts, and Ideas* (Chicago: University of Chicago Press, 1994), 72.

being accidental significance that the observer's mind may have invented, what they might describe as surreal elements. The possibility of narrative reinforces the Cagean concept that the "observer completes the work of art," and that the observer is responsible for how they allow psychology to affect their experience.

## 3.6. Summary of Part two

In an attempt to create an appreciative montage of Cagean ideas, I have composed a piece of music with direct influences from selected Cage works, as well an internalization of the concepts in the Cagean trajectory. In the creative endeavour that is *The Importance of Being Earmarked*, I have taken liberties as a composer, such as writing a score without a single musical note, being performed by non-musicians, which would have once been completely unacceptable, before Cage. To recall the words of Morton Feldman, Cage has 'granted' us permission through his commitment to, and legitimization of, indeterminacy and sound.

## 4. Conclusion

This paper has examined how the indeterminate work *The Importance of Being Earmarked* has been influenced by the concepts and selected works of John Cage. Through exploring Cage's development as a young composer, his employment of chance operations, his cross-disciplinary work with Merce Cunningham, his 'silent' piece 4'33", his pioneering use of live electronics, and his influence on the Fluxus movement, this paper has shown Cage's work to form a trajectory that has provided freedom in contemporary composition. Cage has been shown to legitimize indeterminacy and accidental sound, and created a demarcation of sounds from any traditional symbolic attributes. Then the paper showed direct resemblances and influences between Cage's works and *The Importance of Being Earmarked*, and made the argument that the Cagean trajectory has helped legitimize new experimental and indeterminate composition for a contemporary composer.

<sup>&</sup>lt;sup>38</sup> Kostelanetz, Conversing With Cage, 184.

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Appendix I – Excerpts from the score for *The Importance of Being Earmarked* 

# The Importance Of Being Earmarked Script

By Brett Murray

This script is designed to be brief thus leaving room for interpretation and improvisation.

## Scene One

Bedroom Inside Night

The stage is set: A chair and dressing table with various make-up products is moved to centre stage.

Lights fade in.

Several beats (moments).

WOMAN 1 is dressed in an evening dress. She walks slowly to the table. Sits. Fixes hair up above her head. Begins applying make-up, slowly.

WOMAN 1 sits back in the chair, examines herself from a distance. She then leaves the stage.

A beat.

Lights fade out.

The set is removed.

## Scene Two

Office Inside Night

The stage is set: A chair and desk is set up with assorted business paraphernalia, as well as a lamp.

MAN 1 is sitting in the chair. He is wealthy.

Lights fade in.

MAN 1 experiments with ways to be more comfortable.

Upon hearing the noise coming from MAN 2 he turns on the lamp.

After a beat MAN 2 (A subordinate) enters slowly from O.S. carrying a phone. He

paces himself so that the walk to the desk takes about 2 mins.

MAN 1's expression is unusual.

MAN 1 eventually puts the phone receiver to his ear.

Lights fade out.

The set is removed.

Scene Three

Courtyard Outside Day

The stage is set: two chairs and a table are set with a cake, plates and cutlery. MAN 1 and WOMAN 2 sit at the table.

Lights fade in.

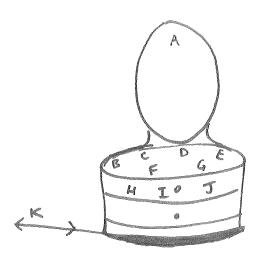
Both people slowly eat the cake. They eat ambiguously.

When they are finished eating their slices of cake, the lights fade out.

**End Of Script** 

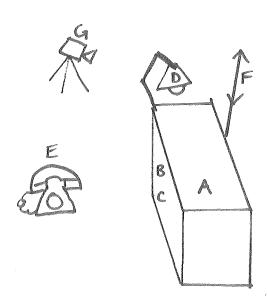
(c) 2008

How to set up the Dressing Table for Scene One by Brett Murray



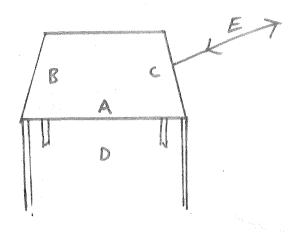
- A represents the dressing table
- B E represents placement of the motion sensors on the surface of the table
- F G represents placement of the touch sensors on the surface of the table
- H represents placement of the amplifier inside the dressing table
- I represents placement of the I-Cube X inside the dressing table
- J represents placement of the dynamic mic. inside the dressing table
- k represents the cable loom connecting devices to the laptop off-stage

How to set up the Desk for Scene Two by Brett Murray



- A represents the desk
- B represents placement of the dynamic mic.
- C represents placement of the amplifier
- D represents placement of the lamp
- E represents the phone (w/ mp3 player attached) off-stage
- F represents the cable loom connecting devices to the laptop off-stage
- G represents the USB camera off-stage

# How to set up the Table for Scene Three by Brett Murray



- A represents the table
- B represents placement of the magnetic pick-up
- C represents placement of the lapel condensor microphone
- D represents placement of the amplifier
- E represents the cable loom connecting devices to the laptop off-stage

## **Production Notes**

## **Personnel Requirements**

Ideally the work should involve:

A Director

Four Physical Actors

Three Stage Hands/Music technicians (responsible for moving the set, and operating the Max/MSP patches)

## Laptop Requirements

Capable of running MAX5, using USB cameras, using audio/midi interfaces. The *Jitter*, *CV*, and *Gigaverb* externals and the *I-Cube X Editor* must be installed.

## Complete Apparatus List (Arranged by Scene)

"?" represents the quantity as determined by the director

#### Scene 1

- 1x Dressing Table
- ?x Make-Up Props
- 1x Chair
- 1x I Cube-X
- 4x Movement Sensors
- 2x Touch Sensors
- 1x Dynamic Microphone
- 1x XLR Lead (approx. 20ft)
- 1x Amplifier (preferably small, approx. 10w)
- 2x Midi Cables
- 1x Audio Lead (approx. 20ft)
- 1x Power Board (w/ at least two sockets)
- 1x Power Extension (approx. 20ft)
- 1x Laptop
- 1x Audio Card (with volume control)

## Scene 2

- 1x Desk
- 1x Lamp
- ?x Business Props
- 1x Phone (including device to emit white noise (in this case an MP3 player attached)
- 1x Chair
- 1x Dynamic Microphone
- 1x Microphone Stand
- 1x XLR Lead (approx. 20ft)

- 1x USB Camera
- 1x Audio Lead (approx. 20ft)
- 1x Power Board (w/ at least two sockets)
- 1x Power Extension (approx. 20ft)
- 1x Laptop
- 1x Audio Card (with volume control)
- 1x Amplifier (preferably small, approx. 10w)

#### Scene 3

- 1x Table
- 1x Whole Cake
- 1x Cake Knife
- 2x Plates
- 2x Sporks
- 1x Magnetic Pick-up w/ Audio Lead (approx. 20ft)
- 1x Condenser Lapel Microphone
- 1x Audio Lead (approx. 20ft)
- 1x Power Board (w/ at least two sockets)
- 1x Power Extension (approx. 20ft)
- 1x Laptop
- 1x Audio Card (with volume control and phantom power)
- 1x Amplifier (preferably small, approx. 10w)

## Location

The work should be performed in spaces that exploit theatre conventions, i.e. spaces with lighting controls, a stage, and seats for the audience separated from the stage.

## (c) 2008