

# *Variations V*: “Escaping Stagnation” Through Movement of Signification

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*Variations V*, a collaborative event by the Merce Cunningham Dance Company and composer John Cage, premiered on July 23, 1965 at Lincoln Center for the Performing Arts as part of the New York Philharmonic’s French-American Festival. Following Edgard Varèse’s *Hyperprism*, Pierre Boulez’s *Improvisation sur Mallarmé II*, and Elliot Carter’s Second String Quartet, *Variations V* contrasted greatly in composition and media with the pieces of the first half of the Philharmonic’s program. Instead of orchestral instrumentalists performing live on their trumpets, cellos, and violins, recorded and radio sounds filled the concert hall through six speakers “distributed around Philharmonic Hall” (Hughes “Leaps” 1965:10); the choreographed movements of seven dancers occupied the stage; and filmed images projected on a screen behind them. The performance was an overwhelming multimedia display, with no immediate connection between the various modes of artistic expression.

This was not the case, however, as performances of *Variations V* in the 1960s depended on a complex interface for the production of simultaneity between visual and aural media, as woven by multiple voices of artistic authority. This interface may initially be traced to Cage and Cunningham, and their shared desire to create a performance in which movement on stage set sound into motion. However, multiple collaborators contributed their electronic designs to make performances of *Variations V* possible. To begin, a team of sound engineers created technology to mediate between motion and sound. The first piece of equipment was a fifty-channel mixer built by Max Mathews—an innovator in the field of computer and electronic music—one year prior to the French-American Festival in 1964, for Cage’s New York Philharmonic premiere of *Atlas Eclipticalis*. Cage then called on a Swedish research scientist at Bell Labs, Wilhelm (Billy) Klüver, to construct a series of photocells. Whenever a dancer passed in front of a light source on stage and interfered with a cell’s reception of that light, the interruption would trigger a change in sound. To add to this method of electronic sound activation were twelve high capacitance antennae constructed by Robert Moog, yet another innovator of electronic music; each one taken into consideration by Cunningham when he devised his choreographic design.

Sounds emanated primarily from two types of sources: tape recorders and radios. All of the tapes were created by Cage before the premiere and

## Current Musicology

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have been described as consisting primarily of “ambient sounds” (Miller 2001:554). Musician and composer Frederic Lieberman gathered radios from electronic stores on Canal Street and—along with James Tenney and Malcolm Goldstein, also associates of Cage at the time—acted as the team in charge of operating these sound devices. Cunningham also attached contact microphones to props with which his dancers interacted during the performance. The recorded, radio, and microphone sounds were fed into Mathews’s mixer. Cage and virtuoso pianist and composer, David Tudor, sat at its dials.

To complete the audio-visual collaboration were films and still shots supplied by American filmmaker Stan VanDerBeek, some of which were distorted by the video artist, Nam June Paik. This included clips from a film of a Cunningham Dance Company rehearsal, as well as imagery from mid-twentieth century television and film produced in the United States. During the premiere performance these images were shown on one screen, their occurrence in time not influenced by the motions of the dancers.

The technological innovation and interdependency between artistic media in *Variations V* has posed serious problems for musicologists who depend on prescriptive notation and the authority of the composer to form histories of music. There was no musical score that the collaborators followed while performing *Variations V*—the score that exists today was created by John Cage in October 1965, three months after the premiere performance. Subtitled “Thirty-Seven Remarks Re an Audio-Visual Performance,” the score lists just that—thirty-seven brief statements which specify certain resources, collaborators, methods of sound generation, and general attitudes in regards to its performance, such as “escape stagnation” (Cage 1965:4). Featuring no traditional notation, this indeterminate score has been interpreted as Cage’s own reflection on the collaboration, rather than a prescriptive series of directions for future performance.<sup>1</sup> Problems with this interpretation have been confronted by musician and writer David P. Miller, who points out, in an article on the performance practice of Cage’s *Variations* series, that “indeterminacy is not synonymous with an absence of boundaries,” but is “responsive to changing technological, art-historical, or sociological conditions” (David Miller 2009:64). However, by using the score as a figure of agency—one that had not even existed for the premiere and for many of its performances in the United States before the European tour—Miller also places all authority in the hands of John Cage.<sup>2</sup> As a result, aural forces take precedence over the visual, despite a dependency of both.

Leta Miller has conducted the most thorough historical investigation of *Variations V*, which reconstructs how the premiere of *Variations V* came to be, and the challenges each collaborator faced in “a project in which technical

equipment was so central to the concept of the work” (2001:555). Through a number of personal interviews with many of the original collaborators—those in the team of sound engineers and those in the team who operated the sound devices, Miller continuously underlines the important role technology played as a figure of authority in the premiere. Unfortunately, this agency of technological mediation is never explicitly articulated because Miller avoids hermeneutical discussion. As a result, her article, as valuable as it is for tracing the conception, development, and reception of *Variations V* during the 1960s, does not discuss it in terms of *meaning*.

The purpose of this article is to move the discussion of *Variations V* away from pure descriptive accounts—whether historical or in regards to performance practice—and towards an understanding of its cultural meaning, the importance of which was ascribed by the *New York Times* critic Allen Hughes only one day after the premiere performance: “In a sense *Variations V* was a monumental symphony of the visual and aural banalities of our age and as such was highly successful” (1965).

## A Derridean Framework for the Moment of Performance

The collaboration premiered and toured the United States during the middle of the 1960s, a decade which has never been characterized historically in terms of stasis. On the contrary, it is often historicized and described in terms of movement: in revolution, as going overseas to war, as moving “upwards” and embodied in social unrest.<sup>3</sup> Following Hughes’s claim, it would seem plausible to read the sounds, images, and gestures of *Variations V* as referring to culturally significant topics of the time and thereby relate the collaboration to that which what was experienced as Americans went about their daily routines. However, I am interested in the meaning revealed from such a semiotic reading—is it the same one that transpires in the time and space of performance? In the first half of this article I investigate the performance’s sounds, images, and gestures, and historically contextualize them as signs associated with everyday environmental and ecological topics in the news that would have been experienced by Americans during the 1960s.<sup>4</sup> This reading, however, serves to demonstrate the futility behind such an abstraction of signification as a result of its inconsideration for indeterminacy, and its relationship to determined elements in the collaboration, principally the choreography of Merce Cunningham.

I argue that *Variations V*, as Cage’s last remark in his own “report” on the piece urges, escapes stagnation. During 1960s-era performances of the collaboration, the system of signification would have been projected through indeterminate interaction between artistic media, and it is through

this indeterminacy that I believe the collaborators succeeded as innovative activists. By creating potential intersections between media in space and time indeterminacy in performance functions as a method in which the experimental avant-garde questioned modes of social and political activism. The nexus between what a performance could be and how it was inscribed in time constitutes what I call the “culture of indeterminacy.” Images, sounds, and gestures of nature, urbanity, technology, suburbia, etc., were shown and heard in a different way: overlapped, interrupting, and yet equal in relevance, no matter the media—a visual and aural critique of hierarchical projection. This essay will display that through the culture of indeterminacy, Cage, Cunningham, and the rest of the collaborators offered a different approach to the same set of political concerns as expressed in mass media.

Philosopher and cultural theorist Jacques Derrida offers a compelling framework to account for both signification and performance within the culture of indeterminacy through his writings on culture and literature. An analysis of cultural signification that persisted through signs in the multimedia display of the filmed version of *Variations V* may ground the performance in the 1960s; however, it is the continuous *play* of relations *during performance* that needs to be considered in terms of understanding its cultural, political, and social meaning; that is, a stagnant surface can be broken to reveal a movement of signification. During the 1960s, this movement was considered by Derrida as *différance*: “It is because of *différance* that the movement of signification is possible only if each so-called ‘present’ element, each element appearing on the scene of presence, is related to something other than itself...” (Derrida 1982:13). In the case of *Variations V*, each “present element”—whether image, sound, gesture, or a relation between them—depends on “something other than itself” as a result of indeterminacy. The second half of this article thus refuses any *one* reading of signs as it explores the role of Merce Cunningham’s choreography for *Variations V* in thematizing a Derridean play of relations.

In the influential Paula Higgins article “The Apotheosis of Josquin des Prez and Other Mythologies of Musical Genius,” Higgins confronts the “genius” status of composers in the musicological community—what she postulates to be the motivating drive of Josquin historiography—as a construction of Barthesian myth. It is myth that creates a definition of genius as one who takes painstaking efforts, is devoid of technical error, and is, in essence, perfect and natural. “Genius” historiography promotes the “creative trajectory as a strictly linear progression from the unskilled works of youth to those of consummate artistic maturity” (Higgins 2004:474) which binds and paralyzes historiography to “great men” and their works. As Gary Tomlinson proposed in his article for a special edition of *Current Musicology* in 1993

about “Approaches to the Discipline”: “. . . we might try to see more clearly that categories such as ‘work,’ ‘art,’ ‘the aesthetic,’ even ‘music’ itself are not truths given us by the world through which we and others must always conceive musical utterances but rather are themselves cultural constructions darkly tinted for us with modernist ideology” (Tomlinson 1993:23).

The central concerns of musicologists such as Higgins and Tomlinson—both the fetishization of the composer and the *musical* work—mirror the undercurrent of my own argument and illuminate my use of a Derridean lens for the study of a Cagean collaboration. To elucidate *différance*, Derrida employs the metaphor of the sheaf to rhetorically mark its “complex structure of a weaving” (Derrida 1982:3). As a result of its woven assemblage as sheaf, there is nowhere from which to begin tracing *différance*. According to Derrida, it puts into question “precisely the quest for a rightful beginning, an absolute point of departure, a *principal responsibility*” (Derrida 1982:6, emphasis added by author). John Cage penned his score three months after the premiere; however, performances of *Variations V* depended on the collaborative efforts of sound engineers, the choreographer, dancers, visual artists, and the composer. Although this collaborative effort could be likened to the “art worlds” of Howard Becker in which “a network of people whose co-operative activity, organized via their joint knowledge of conventional means of doing things, produces the kind of art works that the art world is noted for,” (Becker 1984:x), the end result and primary objective of such an art world ultimately relates back to the art object as *work*. In *Variations V I* I posit that its cultural, social, and political meaning—like *différance*—cannot be grounded precisely because the collaboration is caught in between determinacy and indeterminacy in the moment of performance.

### Sound, Image, and Gesture in *Variations V*: Signifying Environmental and Ecological Concerns

Two weeks before the premiere of *Variations V*, Adlai Stevenson addressed the environment in his last major speech to the Economic and Social Council of the United Nations: “We travel together, passengers on a little space ship, dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work, and, I will say, the love we give out fragile craft” (Nash 1990:187). Although the philosophical and organizational beginnings of environmentalism may be traced to the early nineteenth century, and acts of conservation and preservation occurred throughout the first half of the twentieth, as Riley E. Dunlap and Angela G. Mertig state in *American Environmentalism: The U.S. Environmental Movement, 1970-1990*, “these old and new issues began

## Current Musicology

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to coalesce in the 1960s and gradually evolved into environmental concerns” (Dunlap 1992:2). Rachel Carson’s *Silent Spring* (1962), a series of articles in the *New Yorker* analyzing the “wide-ranging impacts of pesticides on the natural environment and human beings” (Dunlap 1992:2) served as the impetus for broadening the concern for the environment and also ecology at the opening of the decade. By 1965, public concern, expressed on local and regional levels, was slowly answered by government legislation.<sup>5</sup> These local stories serve as a possible route of signification that could have been related to the sounds, images and gestures of *Variations V* depending on the indeterminate relations that unfolded.

Drip, drip, drip, drip, drip, drip, drop. The most pervasive sound in the filmed performance of *Variations V* is that of water dripping on a drain. It is one of the first sounds introduced, and often interrupts and overcomes other sounds as more and more enter the aural arena. Water was also a dominant topic in the news in 1965; so much so, that the persistence of the dripping drain in *Variations V* could be read as taking part in this conversation. In 1948, Congress enacted the Federal Water Pollution Control Act (FWPCA) in recognition of the threat of polluted water, and in aim of expanding Federal regulation of the nation’s water resources. This regulation was expanded through the Water Quality Act, signed by President Lyndon B. Johnson on October 2, 1965.<sup>6</sup> Although the WQA was passed after the premiere performance of *Variations V*, the act had been in local newspapers since the spring of 1965. *The Washington Post* briefly mentioned Senator Edmund Muskie’s (D-ME) warning to take action and ensure an adequate supply of clean water for a “booming population” at a luncheon of the Northern Virginia on April 29, 1965. Muskie introduced the act to the Senate earlier and endorsed it by stating that the WQA of 1965: “will help bring our national program of pollution abatement and control up to date and to put ourselves in a position to deal with the problems of the future” (1965:F6).

The value of water entered the minds of many Americans by the summer of 1965 as the northeast continued to experience a drought, which was ongoing for several years. As the snow melted in early March, the low water table raised fears of a severe summer water shortage: a fear that grew by April when Mayor Robert Wagner of New York City called for the stiffest restrictions in years to aid conservation efforts. On April 11, 1965, the *New York Times* reported: “They will leave the streets dirty, may cause lawns to turn brown, should silence thousands of dripping faucets, change the tooth-brushing habits of the young—and save a minimum of 50 million gallons a day” (Curbs 1965:1). The mayor was hopeful that these efforts would help NYC deal with a storage system that was predicted to be at only 65 percent

capacity by the end of spring runoff by June. This prediction turned out to be more hopeful than the actual capacity that resulted, as indicated in a headline in the *Times* on the third of that month: “City’s Water Supplies Fall to 55 Percent of Capacity” (Benjamin 1965:37). By the end of June, the city began to weigh the option of using water from the Hudson River, which could be made possible by rebuilding a pumping station that had once been located at Chelsea. As the water situation for the state became more dire by August, other cities—most notably Philadelphia—started to feel the effects of the water shortage, the Federal government was finally called in to take action. Bearing in mind the location of Cage and his collaborators in New York City, it appears as if the sound of water in *Variations V* could have carried with it a specific association to the contemporaneous topics of preservation, conservation, and shortage.

Many images within the *Variations* film carry connotations of the natural or of nature, including multiple photographs of outdoor landscapes featuring trees and mountains, an image of a herd of sheep, a photograph of a beetle, and close-up images of sedimentary rocks. As more Americans became active in environmental reform in the 1960s, the government also turned its attention to issues of land and air. In November 1965, the Environmental Panel of the President’s Science Advisory Committee addressed the growing pollution problems and the necessity of establishing environmental quality standards.<sup>7</sup> According to *The Columbia Guide to America in the 1960s*, “reformers saw the government apparatus and rational application of science and technology as a means by which to protect both the human and natural world” (Farber 2001: 275–76). Not only did membership in the Sierra Club more than double from 16,000 to 33,000 members between 1960 and 1965, but new groups also formed, such as the Chesapeake Bay Foundation (1966).<sup>8</sup> Johnson’s administration received the reform called for by these organizations, as it paralleled the President’s vision of a “Great Society,” described in a speech delivered on May 22, 1964 at the University of Michigan:

We have always prided ourselves on being not only America the strong and America the free, but America the beautiful. Today that beauty is in danger. The water we drink, the food we eat, the very air that we breathe, are threatened with pollution. Our parks are overcrowded, our seashores overburdened. Green fields and dense forests are disappearing. (Johnson 1964)

## Current Musicology

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The importance of preventing an ugly America was continuously “supported in legislation that would limit air, water, and solid-waste pollution,” beginning with the Land and Water Conservation Fund and the Wilderness Act of 1964, followed by: The WQA (already discussed above); the Clean Air Act (1965), which established a mandate on including pollution control devices on automobiles; and also the Air Quality Act of 1967, concerned with industrial air pollution. In the Wilderness Act, 9.1 million acres of land were labeled as “wilderness” and protected in national forests. The Act also defined the concept of the “wilderness” for the first time by a federal government:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. (1967)<sup>9</sup>

Many of the panoramic views of outdoor landscapes in *Variations V* feature no human “visitors,” except for the photograph of the herd of animals in which some men are present. They appear to be suggestive of Johnson’s conception of a natural and untouched wilderness; and, when these images are contextualized into the time period in which they were shown in performance, they could be interpreted as signs of Johnson’s political agenda.

Of particular note in regards to these landscapes is the presence of mountains, and their possible association to Storm King Mountain, a mountain of the Hudson Highlands that had been in the news since 1963. In January of that year, Consolidated Edison proposed a project to the Federal Power Commission that called for an 800-foot long power house, reservoir, and transmission lines to be built around the base and behind Storm King Mountain. To intervene with the Power Commission hearings, a small group of citizens who believed the project threatened not only the Cornwall water supply and fisheries of the Hudson River, but also the natural beauty the scenic mountain landscape, created the Scenic Hudson Preservation Conference. Despite their efforts, in March of 1964 the Commission granted a license for Edison’s project. Scenic Hudson and the surrounding towns continued to protest and the Joint Legislative Committee on Natural Resources intervened.<sup>10</sup> As Storm King Mountain appeared frequently in the headlines of the *New York Times*, it became more familiar to Americans as they went about their daily routines, transforming into a symbol of environmental concern. The repetition of mountainous landscapes in *Variations V* could have been linked with that of Storm King and the environmental controversy in which it was enveloped.



The imagery of Johnson's American wilderness could also have been heard in *Variations V*. Throughout the performance different sounds which evoke the outdoors are incorporated, including: cawing birds, crickets, growling, and even sheep baa-ing. The piece's gestures have ties to nature as well. When Cunningham first enters the stage in the filmed performance of the collaboration, he carries with him a plant. As soon as he places the plant on the ground, he begins to pull the leaves; however, after ten minutes he returns to the plant and begins to put its leaves back on. Carolyn Brown also tends to the plant: instead of removing leaves and then putting them back on, however, she brings it a new pot. After filling it with crumpled newspaper, Brown releases the plant from its original pot by breaking it with a shovel. Once she frees the plant, she then replants it in the new one, anchored by the newspaper. Now the plant is grounded by paper earth. The attention Cunningham and Brown devote to the plant could be decoded as any number of different readings; however the amount of time dedicated to it—over ten minutes if all of the moments with the plant are added together—point to the significance of engaging nature, or what seems to be a product of her natural environment (perhaps it is just a plastic plant), with the movement of human bodies.

#### Différance and the Play of Absence and Presence

Images of outdoor landscapes, the act of planting or gardening, and the sound of water, aural, and visual signs were not unique to the concert halls in which *Variations V* was performed: they were sights and sounds experienced everyday by its audience members. They inhabited, however, a positive conception of time and space, events that were of a fully self-sufficient realm, closed in representation. Although these images, sounds, and gestures may have acted as socially encoded signs, were these cultural, social, and political meanings necessarily the same as those to arise during the *act* of performance?

In the act of performance, indeterminate interaction is essential for creating sound and its relation to image and gesture. The political, cultural and/or social signification resulting from such interplay between differing media cannot be grasped, unless the dialogue is considered as existing as *always and already possible*; and what is *always and already possible* is not always present. Therefore, to speak of any sort of meaning, and of political and social meaning in particular, one must *also* consider spaces of absence, the spaces of mediation in performance which did not occur, but could have occurred, and could always occur. In the next performance, for instance, how will these spaces change? Which interactions will be absent and which will

now be present? It is the continuous play of absence and presence during performance that needs to be considered in terms of understanding cultural, political, and social meaning for *Variations V*.

As Derrida states, “in the *system* of language, there are only differences,” there is no fixed system of difference (with an *e*): “these differences play...” (Derrida 1982:11). And, this play of difference between differing/deferring, temporization/spacing, and absence(outside)/presence(inside) allows for a movement in regards to signification. *Différance* hosts this movement and *is* “movement according to which language, or any code [including musical], any system of referral in general, is constituted ‘historically’ as a weave of differences” (Derrida 1982:12).

### Cunningham’s Voice and the Sheaf of *Différance*

To elucidate this “weave” of differences, Derrida compares his analysis to a sheaf:

... I would like to attempt, to a certain extent, and even though in principle and in the last analysis this is impossible, and impossible for essential reasons, to reassemble in a *sheaf* the different directions in which I have been able to utilize what I would call provisionally the word or concept of *différance*... the word *sheaf* seems to mark more appropriately that the assemblage to be proposed has the complex structure of a weaving, an interlacing which permits the different threads and different lines of meaning—or of force—to go off again in different directions, just as it is always ready to tie itself up with others. (Derrida 1982:3)

The concept of the sheaf is what foregrounds a Derridean play of *différance* in performances of *Variations V* in the mid-1960s. To understand this complex structure is to address the individual agents in charge of the different aspects of sound, image, and choreography: the sound engineers, John Cage, David Tudor, James Tenney, Malcolm Goldstein, and Frederic Lieberman; the lighting designer, Beverly Emmons; Merce Cunningham, the choreographer; and visual artists Stan VanDerBeek and Nam June Paik. *Variations V* brought together many artists and musicians; however, these individuals took part in an intricate web of relations, a metaphorical Derridean sheaf that consisted of potential interactions between multiple modes of media that featured indeterminate and determined elements. Crucial insight into the multimedia design of *Variations V* can be gained by considering the responsibility of Cage’s equal partner in conceptualizing the piece, choreographer Merce Cunningham. Knowledge of his agency in the structure of the sheaf of *différance* puts into question “precisely the quest for a rightful beginning, an absolute point of departure, a principal

responsibility” (Derrida 1982:6).

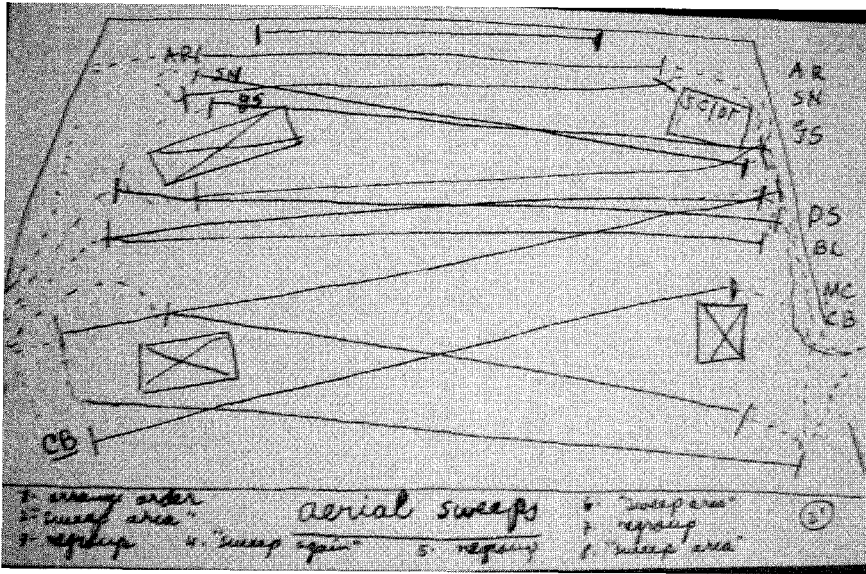
Cunningham’s insistence on detailed accuracy was known by all of hid-dancers. According to Gus Solomons, a performer in *Variations V*, “Clarity of movement was all there was . . . It forced us to be absolutely precise” (Miller 2001:555). It is no surprise that Cunningham had a detailed and *determined* vision as to the choreographic events for *Variations V*. He expressed this vision through a multitude of personal notes, currently held at the Merce Cunningham Dance Company Archives in New York City. Incorporating these notes into the discussion of the collaboration helps for understanding the space of the stage, the agency of choreography, and its interaction with sound and image during performances of the 1960s.

To speak of the sheaf of *différance* in *Variations V*, I turn to the last ten minutes—the point of Cunningham’s choreography given the title, “Aerial Sweeps.” In the film:

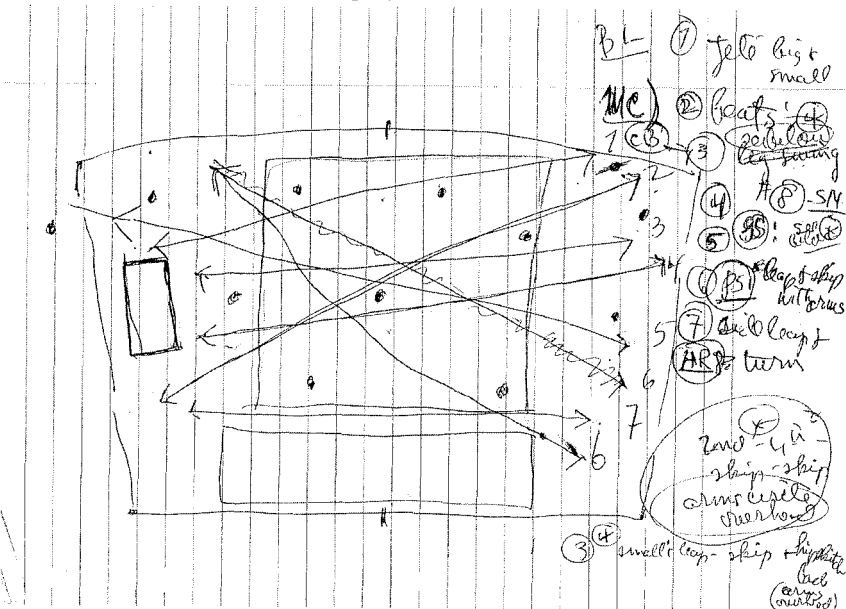
*Cunningham walks on stage from the front, stage right. There is the quiet dripping of water on a drain. An image of a pueblo is projected behind Cunningham on a screen. One after another the dancers follow imitatively. They jump, step, skip, jeté, and leap, dispersing from the back stage left of the stage, and to the front. A boat’s low horn sounds. And again. Now there is an abstract painting projected behind them; it switches to graph paper. There are two films: one of an airplane taking off, over and over again; and one of Cunningham dancing. The dancers perform the same balletic actions in repetition. Radio noise, quiet voices, and loud vacuum-like sounds. Carolyn Brown is the last to finish the sequence. (Author transcription, 2010)*

Cunningham’s sketches for the “Aerial Sweeps” demonstrate the extent to which the choreography was predetermined. He outlined a specific order in which the dancers gathered together, dispersed in movements, regrouped, and moved across the stage in repetition. After arranging an order, they should “sweep” the area of the stage with the movements of their bodies four times and regroup three times. See Cunningham’s eight instructions listed on the bottom of Figure 1. This drawing also includes the initials of the four male dancers (Cunningham, Gus Solomons, Albert Reid, and Peter Saul) and three female dancers (Carolyn Brown, Barbara Dilley Lloyd, and Sandra Neels) for *Variations V*, along with dashed lines along the sides of the stage and straight lines diagonally across the stage. Even though it is not clear as to what dancers followed which lines, it is clear that they *did* follow them as routes across and around the stage, determined by Cunningham before the premiere performance. This is also evident on another pair of sketches devoted to the “Aerial Sweeps” (Figure 2).

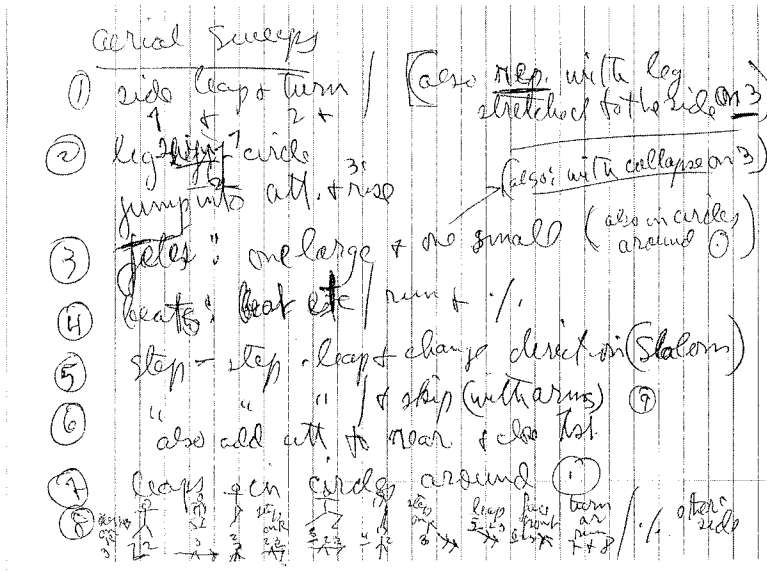
Similar to Figure 1, this drawing of the stage by Cunningham also features diagonal and horizontal lines; however, there are half as many,



**Figure 1:** Notes detailing the choreographic “Aerial Sweeps” in *Variations V*; specifically the order of sweeping and regrouping. Merce Cunningham, *Choreographic Notes for Variations V*, 1965, Page not numbered. Merce Cunningham Dance Company Archives, New York, NY. Photograph by author. Reproduced by permission of David Vaughan and the Merce Cunningham Dance Company Archives.



**Figure 2.** Diagram of the choreographic “Aerial Sweeps” in *Variations V*. Merce Cunningham, *Choreographic Notes for Variations V*, 1965, Page not numbered. Merce Cunningham Dance Company Archives, New York, NY. Photograph by author. Reproduced by permission of David Vaughan and the Merce Cunningham Dance Company Archives.



**Figure 3.** List of instructions for the individual movements of the dancers in the “Aerial Sweeps” in Variations V. (Merce Cunningham, *Choreographic Notes for Variations V*, 1965, Page not numbered. Merce Cunningham Dance Company Archives, New York, NY. Photograph by author. Reproduced by permission of David Vaughan and the Merce Cunningham Dance Company Archives).

and the routes for the dancers do not consist of any dashed lines. On the right-hand side of the page, the initials of all seven dancers appear again. Initially they seem to correspond to a list of eight instructions, beginning with “BL, 1.) jeté big & small.” Further down this list however, the initials stop lining up with the balletic gestures, and some numbers are not even given a corresponding movement, even if they are assigned an initial.

As a sketch, this drawing demonstrates a “working out” of the space of the stage for the “Aerial Sweeps” design. Following the drawing seen in Figure 2, there is an accompanying page provided in Figure 3.<sup>11</sup> It is a more finite list of eight instructions in regards to the dancers’ movements:

Side leap & turn [(also rep. with leg stretched to the side on 3)]

1 & 2 &

Leg lift circle; jump into att. & rise

Jetés: one large & one small—(also: with collapse on 3)

(also in circles around antennae)

Beats: beat etc/run & repeat

**Step—step—leap & change direction (slalom)**

## Current Musicology

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Step—step—leap & change direction (slalom)

Step—step—leap & skip (with arms); also add att to rear & close

Leaps in circles around poles

Drawn choreography (stick figures)

On this page Cunningham does not assign any one dancer to each of the eight instructions. Although the dancers “arranged an order,” as so directed in the first instruction of Figure 1, *all* were expected to “sweep the area.” Through an examination of his multiple sketches for these instructions, Cunningham’s “Aerial Sweeps” demonstrate an intricate eight-part dance event that was repeated (“swept”) four times after the dancers initially arranged order, and regrouped thrice. The event only lasts about two minutes, as indicated on the bottom right-hand corner of Figure 1, as well as in one of Cunningham’s charts for the order of all of the choreographic events of *Variations V* as printed in his book *Changes: Notes on Choreography*.<sup>12</sup> While watching these two minutes on film, they seem full of sporadic ideas; however, after examining Cunningham’s notes on the movements of the dancers, the choreography is no longer seen as random, but highly staged.

Cunningham’s drawing shows a consistent setup: the musicians, labeled “JC/DT” (John Cage/David Tudor) on one diagram are always on stage right in a rectangle. He also draws one screen on the back to represent where the images were to be projected; this implies that the drawings were prepared for the premiere performance, and not the subsequent tour in Europe, in which multiple screens appeared. The number of antennae on Figure 2 also points to this conclusion: there are twelve, instead of the six that traveled overseas for the European tour. Cunningham always had a concern for the agency of his counterparts: not only did he incorporate the possible presence of films and photographic imagery behind his dancers, but he also wove his choreography around the censors, which indicated the production of sound.

The web of authority pertaining to sound comprised an intricate system of checks and balances. Although Cunningham’s choreography acted as an agent of authority that called on sound to occur whenever a dancer passed a photoelectric cell or antenna, neither the choreographer nor the dancer could determine the parameters of the resulting sound, how loud or soft it would be; nor how long it would last. John Cage selected the tapes that were operated by James Tenney, Malcolm Goldstein, and Frederic Lieberman: he thus chose the taped sound world. Yet even though Cage preselected the types of sounds, he relinquished control over their order and occurrence: whenever the dancers triggered an antenna or cell, Tenney, Goldstein and

Lieberman chose how to operate the tape recorders, thus selecting the actual sounds from Cage's gamut. This choice by all men was done improvisatorially, as recollected by many of the original collaborators. In an interview with Leta Miller, for instance, Goldstein reminisced: "I operated the tapes in the spirit of not knowing what would come out."<sup>13</sup> As a check on the authority of everyone involved with the sound world were sounds that emanated from twelve short-wave radios—sounds obviously not able to be predetermined by any collaborator. Adding to the authority of the men controlling the tape recorders and radios were Cage and David Tudor at the dials of Mathews's fifty-channel mixer, the function of which was to control the amplitude and duration of the output of all sounds.

As soon as the MCDC dancers initiated the "Aerial Sweeps," any taped or radio sound could have resulted, as controlled by James Tenney, Malcolm Goldstein, Frederic Lieberman, David Tudor, and John Cage. Although the images were not triggered by the photoelectric cells or antennae, the same may be said of the relationship between the choreography and the order and timing of the visual imagery, produced by Stan VanDerBeek and Nam June Paik. The order of the imagery in the premiere performance was predetermined by VanDerBeek before the premiere. This order was then played straightforwardly with no relation to the antennae and photoelectric cell system. In the filmed performance, however, a woman (possibly Beverly Emmons, the lighting designer) operates the film reel and appears to assert control in regards to the order and frequency of filmed imagery. The images however, are never activated by the movement of the dancers.

## Conclusion

I began discussing Cunningham's choreographic role in performances of *Variations V* during the mid-1960s through a description of the 1966 film: a two-minute segment titled "Aerial Sweeps." Whereas Cunningham's choreography would remain relatively the same for each performance, as his detailed notes demonstrate, the indeterminate parameters of sound resulted in indeterminate interaction between sound, image, and gesture. Consequently, a description of *Variations V* could instead read as:

*Cunningham walks on stage. A short second of silent air. A photo of an assembly line followed by a portrait of an old man. One after another the dancers they follow imitatively. They jump, step, skip, jeté, and leap, dispersing from the back, stage left of the stage and to the front. The sound of a dripping drain interrupts the sound of a vacuum. Now there is geographical map projected behind the dancers; it switches to graph paper. There are two films: one of a coffee commercial; and one of Cunningham dancing. The dancers perform the same balletic actions in repetition. An operatic tenor and the faint sound of instrumental music. Carolyn Brown is the last to finish the sequence.*

To continuously describe the multitude of possible interactions between sight and sound in *Variations V* is to miss the point: it is impossible to “reassemble in a sheaf the different directions...” of *différance*. Instead, *Variations V* evokes the Derridean sheaf, woven by a complexity of determined and indetermined relations, which fosters the play of *différance*, and a movement of signification. As the authority is passed and overlapped, the interaction between the images, sounds, and gestures changes. This foregrounds the movement of *différance*, which cannot “be” or “exist”: precisely because it is caught in between the “present” relations of the collaborators, the presence of the sounds, gestures, and images they make, and the “absence” of indeterminacy. As historically contextualized in the first part of this article, the sights and sounds in *Variations V* demonstrated an interest in the same ecological concerns as those addressed in mass media; however, the collaborators for *Variations V* widened the limited perspective of single media outlets (newspapers, the television, the radio) and united them on one stage. By no means were these images, gestures, and sounds only ecological in concern: multiple topics in the news, on television, and on the radio could have appeared in concert halls in which *Variations V* was to be performed in the mid-1960s: the point is that what they signified was *always and already possible*.

To understand the movement of *Variations V* is not to grasp just the politics of representation in the presence of its sights and sounds, but also the signification that could result through the potentiality of the culture of indeterminacy. The slippage of *différance* allows for any number of ecological, political, or technological statements. Through this Derridean play, John Cage, Merce Cunningham, and the rest of the collaborators of *Variations V* critically engaged with American culture during the 1960s.

### Notes

1. For instance, this claim has been made by William Fetterman in *John Cage's Theatre Pieces: Notations and Performances* (Amsterdam, Netherlands: Harwood Academic Publishers, 1996; 130).
2. Leta E. Miller provides the complete list of tour dates in the United States and in Europe, as given to her by the archivist at the Merce Cunningham Dance Company Archives, David Vaughan, in her article, “Cage, Cunningham, and Collaborators: The Odyssey of *Variations V*.” Before the creation of the score, *Variations V* was also performed at Sundance, Upper Black Eddy, PA, July 31, 1965 and C.W. Post College, Brookville, NY, August 20, 1965.
3. See John Robert Greene, “We’ll Have the Opportunity to Move Upward: The Great Society of Lyndon B. Johnson,” in *America in the Sixties*, (New York: Syracuse University Press, 2010) for his discussion of movement “upward” by Johnson in his speech at the University of Michigan on May 22, 1964, in which Johnson stated: “In your time we have the opportunity to move not only toward the rich and the powerful society, but upward to the Great Society” (Greene 2010:68). See also M.J. Heale, *The Sixties in America: History, Politics and Protest* (Chicago:



Fitzroy Dearborn Publishers, 2001), Edward P. Morgan, *The 60's Experience: Hard Lessons about Modern America* (Philadelphia: Temple University Press, 1991), Terry H. Anderson, *The Movement and The Sixties* (New York: Oxford University Press, 1995) for discussions of the social unrest, activism and political movements of the 1960s (including their relation to war); Beth Bailey, "Sexual Revolution," David Farber, "The Silent Majority and Talk about Revolution," and "The New American Revolution: The Movement and Business," in *The Sixties From Memory to History*, ed. David Farber (Chapel Hill, NC: University of North Carolina Press, 1994) for essays on movement in terms of revolution; and, Terry H. Anderson, *The Sixties*, 2nd ed. (New York: Pearson/Longman, 2004) for a general introduction to the 1960s in terms of movement.

4. The filmed version is a filmed performance in Hamburg while the Merce Cunningham Dance Company was on the European leg of its tour with John Cage, David Tudor, and Gordon Mumma in 1966. Before the performance begins, there is a five minute introduction by the producer Hansjörg Pauli in German. The film was co-produced by Norddeutscher Rundfunk, Hamburg and Sveriges Radio Television (1966) and has not been released commercially by the Merce Cunningham Dance Company on DVD (such as the most recent release in February 2011 of *Merce Cunningham Dance Company/Robert Rauschenberg* featuring *Suite for Five*, *Summerspace* and *Interscape*). It is available through the Dance in Video series by Alexander Street Press as a streaming video and also through 16mm film reel the New York Public Library for the Performing Arts, MGZHB 20-85.

5. It was not until 1970, that environmentalism became a national movement, with the "transformation formalized by the national celebration of Earth Day," (Dunlap 1992:2) and a support base of 20 million participants.

6. According to the United States Environmental Protection Agency, the act "provided for the setting of water quality standards which are State and Federally enforceable; it became the basis for interstate water quality standards." The importance of these interstate regulations was called "the most controversial provisions of the new law," ("Federal Role" 1965:10) by the Wall Street Journal on the day the act was signed. The Water Quality Act "double[d] the dollar limit on individual city projects to \$1.2 million from \$600,000, and double[d] that for multi-city projects to \$4.8 million from \$2.4 million," ("Federal Role" 1965:10) in the grant program for sewage-treatment plants.

7. In this address, the Environmental Pollution Panel pointed to a broadening impact of pollution: "The pervasive nature of pollution, its disregard of political boundaries including state lines, the national character of the technical, economic and political problems involved, and the recognized Federal responsibilities for administering vast public lands which can be changed by pollution, for carrying out large enterprises which can produce pollutants, for preserving and improving the nation's natural resources, all make it mandatory that the Federal Government assume leadership and exert its influence in pollution abatement on a national scale." (Nash 1990:196).

8. "History: Sierra Club Timeline," Sierra Club, accessed March 3, 2011, <http://www.sierraclub.org/history/timeline.aspx>.

9. "Wilderness Act of 1964," Wilderness.net, accessed September 27, 2010, <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=legisAct&error404#2>

10. "In a letter to the Federal Power Commission the committee unanimously expressed its view that granting a license to the Consolidated Edison Company to build a hydroelectric plant on Storm King Mountain would be 'contrary to the best interests of the people of New York State'" ("New Hope" 1965:24).

## Current Musicology

11. Cunningham's choreographic notes for Variations V consisted of 47 pages; however they were not numbered, and were kept in order in a file folder by the Merce Cunningham Dance Company archivist David Vaughan. The folder was labeled "Variations V."

12. The "Aerial Sweeps" is listed as the eleventh event of twelve and lasts approximately 2 minutes 29 seconds. No page numbers are given in Notes: Changes in Choreography. In an interview with Jacqueline Lesschaeve, Cunningham was asked about the way in which he "composed" this book. Cunningham responded: "It was just notes on dances, which were never complete notes since they were sometimes sketches, sometimes indications of steps, sometimes fairly full instructions about the dance; or they were simply line drawings that I'd made to give me an indication of course in it, and the writings were not so much articles as they were notes for lecture demonstrations. Everything was overlaid, one on top of another as you've seen if you've looked at the book. Two points about that: the idea was to make a presentation that was comparable in a way to some of the dances I make. In the book where the dances are simple, the pages about them are simple, and not overlaid necessarily. Where the dances themselves are complex then things are overlaid and it is in that sense that it was comparable to the dance." (Cunningham 1985:29). For his section on Variations V Cunningham overlaid his sketches/instructions/notes on top of his typed description of the collaboration on top of black and white photographs: a "complex assemblage" of text and image.

13. Telephone interview conducted with Malcolm Goldstein by Leta Miller on July 31, 2000.

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