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For Gordon Mumma

From the Editor

On behalf of the Editorial Board, it is my pleasure to present Volume Fifteen of *Musicological Explorations*, an academic journal published by the graduate students of the School of Music at the University of Victoria. Originally published as *Fermata* in 1995, 1996, 2001, and 2002, the journal was re-launched in 2004 under the new title, with the mandate of enriching musicological discourse and research by providing a platform for scholarly work by graduate students and faculty. Under this mandate, the journal has grown from a largely localized publication to a forum which includes the work of a large number of emerging (and several established) scholars from British Columbian, Canadian, and international universities.

The four articles presented in this volume combine to create a thematic issue devoted to the composers and creators of the Merce Cunningham Dance Company. As Dr. Michelle Fillion explains in her Foreword, the Cunningham Company and its music was the subject of a graduate seminar she co-taught with Gordon Mumma in Spring 2015—a seminar which formed the genesis of the work presented in this volume. The four articles, though diverse in the components and protagonists of the Company that they discuss, share a common theme in their focus on the Company's aesthetic practice of collaboration and community. They are also connected through Gordon Mumma's influence and the interviews, anecdotes, and insights he generously shared with the four authors. It is thus with distinct pleasure that we, the contributors and Editorial Board, dedicate this volume of *Musicological Explorations* to him.

I take this opportunity to thank the members of the Editorial Board and the journal's contributors for their hard work and dedication. I would also like to thank our Faculty Advisors, Dr. Michelle Fillion and Dr. Elissa Poole, for their generous guidance in producing this year's journal, and, in Dr. Fillion's case, for first suggesting the idea of a thematic volume devoted to the Cunningham Company. The University of Victoria Graduate Students' Society as well as the School of Music at the University of Victoria are gratefully acknowledged for their generous funding contributions, as is Bill Blair, the Music Librarian at the McPherson Library, University of Victoria, for the generous donation of books to our annual book sale. Finally I thank you, our readers, for your continued support, and hope that this volume will inspire further submissions and subscriptions to *Musicological Explorations* in the years to come.

Rena Roussin
Managing Editor

Foreword

Michelle Fillion
Professor Emerita of Musicology, University of Victoria

The articles in this issue originated in a graduate seminar in musicology at the University of Victoria directed by myself and my husband, the composer Gordon Mumma, in Spring 2015. The seminar was a co-celebration of Mumma's 80th birthday and of my final year of teaching before retirement. Its subject, the composers, visual artists and theatre designers who found a rich source of creative inspiration in the Merce Cunningham Dance Company, exemplifies the power of collaborative interaction as a stimulus to artistic and intellectual pursuits. Over fifty composers contributed music to choreographies by Cunningham throughout the lifespan of the Company from its inception in the 1950s to the early 21st century. Among these were some of the most innovative composers of American new music for instruments and electronic media, including David Behrman, Earle Brown, Gavin Bryars, John Cage, Morton Feldman, Gordon Mumma, Conlon Nancarrow, Pauline Oliveros, David Tudor, Christian Wolff, and many others. Together with artists in visual arts, lighting, costuming, and stagecraft, including Robert Rauschenberg, Jasper Johns, Marcel Duchamp, and Beverley Emmons, they created a lasting artistic legacy.

In the context of the seminar Gordon Mumma proved a generous, genial teaching partner and an inexhaustible font of personal experience, engaging anecdotes, and information on music and dance in the Cunningham circle. He was invited to join the Cunningham Dance

Company for the European tour of August 1966, and remained with the Company until 1974 as a musician, composer, and electronic wizard, sharing the pit with Cage, Tudor, Behrman, and others. During that time he also composed the music for two Cunningham choreographies, *Place* (1966) and *TV Rerun* (1972), and collaborated with Cunningham for *Loops* (1971) and with Cage and Tudor on the interactive creation of the music for Cunningham's *Assemblage* (1968), *Signals* (1970), and *Landrover* (1972). He also took part in at least eighty Cunningham *Events*, one-time choreographic works that were often combined with live-electronic music. During that time he became a skilled reader of the physical syntax of Cunningham's choreography and its implications for the musical composer. Cunningham's originally radical dependence on chance operations to generate choreography and his aesthetic of total independence of choreography and music – conceived separately and coming together with lighting and stage and costume design – is now central to the field of modern dance. Yet chance did not extend to the dancers, whose movements were the result of meticulous, disciplined rehearsal of a preconceived choreography (chance is a source of physical danger to a group of high-flying dancers careening across a stage).

The circumstances of Mumma's invitation to join the Company say much about the creative environment around Merce Cunningham. A commission for the music for a new choreography – the eventual *Place* – was finalized shortly afterwards in a memorable phone conversation with Cunningham that Mumma recreated in his classic essay on his years with the Company, "From Where the Circus Went":

> "I'd like it if you could do something for David Tudor to play."
> I agreed, and asked about the title of the new dance.
> "I haven't decided yet."
> "How long will it be?"

> "Between twenty and thirty minutes."
> "I wonder what else I should know, maybe how many dancers?"
> "Eight dancers, and we perform it at Saint-Paul de Vence, in France, on the 6th of August. It's beautiful there."
>
> That was all. I now attempted to accumulate enough information to compose a work for them in two months. To meet the deadline, I decided to recast the elaborate composition that I was already preparing for Tudor and his bandoneon [his ensemble work Mesa for bandoneon and cybersonic console].
>
> Though the information that Cunningham had given me was minimal (I didn't have the presence of mind to probe further), his matter-of-fact tone was reassuring. I doubted that he knew any of my music, but I had the feeling that he trusted me, or at least seemed comfortable taking the risk. In the ensuing years it became clear that this initial encounter was representative of much of the Cunningham Dance Company collaboration. The best and worst aspects of "grapevine" communications and telephone arrangements, the minimal specifications between choreographer and composer, the blended sense of freedom and responsibility, and a pervading ambiguity about details and commitments were nourished by Cunningham's immediate trust in his collaborators and his invitation to artistic risk.[1]

Mumma frequently talks about the fundamental importance of Cunningham's example to his own work and to that of many other composers. Most often cited are his model of artistic freedom and his respect for the individual in collaboration with others. For Cunningham's composers the choreographer's willingness to trust his associates and embrace the unexpected opened the door to a flowering of musical creativity unparalleled since the Diaghilev years. For the members of the seminar, students, instructors, and guest speakers

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[1] Mumma, *Cybersonic Arts: Adventures in American New Music*, ed. with commentary by Michelle Fillion (Urbana, Chicago, and Springfield: University of Illinois Press, 2015), 109-10.

alike, Cunningham's spirit of adventure seemed to hover over our proceedings, serving as a constant goad to work communally, embrace the unfamiliar, and explore the unexpected. The four essays that follow are devoted to three significant composers in American new music, Cage,Tudor, and Wolff, and a brilliant stage designer, Beverley Emmons, who provided the innovative staging for the Cunningham–Mumma collaboration *Place*—and with them four perspectives on the creative ferment of the Cunningham milieu.

Beverly Emmons: Composing Light for Merce

Claire Carolan

ABSTRACT

There is an increasing interest in the performance and analysis of stage lighting design as a unique artistic discipline with a logic and language of its own that serves a creative purpose outside of simple performance illumination. This article suggests that the lighting design work of Beverly Emmons in collaboration with Merce Cunningham and John Cage – can be analyzed and perceived in similar ways to music composition. The improvisational processes and practice often associated with the Cunningham and Cage aesthetic, were present in all aspects of their staged works, including the lighting design. The key production discussed in this article is "Winterbranch" for which Emmons designed/composed the lighting in the 1960's and again in 2012. At the core of this article is a 2015 conversation with Beverly Emmons on her experience in moving from a career path as a dancer to that as an emerging female lighting designer with the Merce Cunningham Dance Company in the 1960's, balancing audience expectation with experimentation, re-imagining another artist's work, composition "by chance" and being female in a predominantly male occupation. Emmons recollections of her work with Cunningham and Cage offer unique insight into her experience with the avant-garde artists and the effect on her own approach to the composition of stage lighting.

In March of 2015, Beverly Emmons kindly agreed to a telephone interview from her home in Brooklyn, New York to discuss her experience as the lighting designer for the Merce Cunningham Dance Company in the 1960's. Emmons' account revealed that the improvisation, experimentation and composing by chance that was created for the company by John Cage, David Tudor and their contemporaries was also being explored by the lighting designers. Her candid, detailed and often hilarious accounts are the base for this article. Citations listed as (Emmons) are direct quotations from that interview.

A lighting designer for the stage is like a symphony conductor giving the performance its tempo. A talented lighting designer can direct the pace and dynamics of a live stage production like a play, musical, opera or ballet through the speed at which light appears or disappears from the stage and the intensity with which it is presented. The lighting composition may consist of a solo in the form of a single spotlight, the pianissimo of a gently lit cyclorama glowing[1] and revealing the human form in silhouette, or the full sensory assault of the strobe light – like a bass response that is felt more than it is heard. I contend that in her role as the lighting designer of twelve productions[2] for the Merce Cunningham Dance Company, Beverly Emmons was

[1] The single largest piece of scenery in the theatre, the cyclorama or "cyc" encloses the scene to form the background and is most commonly placed as far upstage as possible. Most often used to create a sky effect behind a scene, it is traditionally illuminated in dance to match the mood of the piece and to create visual depth between the dancers and the stage. Depending on the material the cyc is made of it can be lit from the front or behind to create different effects. The cyc can be a large screen or curtain stretched between battens or the back wall of the stage painted white, and may be curved or flat.

[2] Beverly Emmons designed the lighting for twelve productions by the Merce Cunningham Dance Company: *Winterbranch, Cross Currents, Place* (also costumes and scenery), *Night Wandering, Scramble, Walkaround Time, Field Dances, Nocturnes, Story, Variations V, Rain Forest,* and *Crises. Winterbranch* is the focus of this article because, as I discuss below, it is the most recent remount of a Cunningham show that Emmons has been involved with.

as much a composer of these avant-garde pieces as John Cage or David Tudor. The uncommon aesthetic practice of the Merce Cunningham Dance Company, which I shall summarize, influenced Emmons' approach to colour, improvisation, creative agency and standard lighting conventions for the stage, as this article demonstrates. This article will draw on examples from various productions of *Winterbranch* as well as biographical information gathered from a conversation with Emmons. Throughout this essay I refer to norms and changes in the field of lighting design: I have gained these insights from my own work as a professional in the field since 1992.

Lighting design is a precise and mathematical art, not unlike many forms of music. Improvisation is not a common requirement for lighting designers, but the collaborative creation style of the Merce Cunningham Dance Company essentially aligned lighting design practice with improvisational traditions in music. In theatre, the lighting designer is often the last to come to the table in the production process. The director, set designer and costume designer take the lead on the thematic vision of the performance, and the lighting designer then adds depth, texture, atmosphere and mood. Emmons sees lighting designers as secondary artists, by which she does not mean that they are less a part of the creative process, but that without the others performing first, the lighting designer serves no purpose: "We are there to communicate the work of the primary artist – the choreographer, the playwright, the director. We bring a lot to the party but if somebody doesn't write a play, I can't light it. If some choreographer doesn't make a dance, I can't light it."[3] In this sense, Emmons is like a musician improvising music in response to

[3] Monica Snellings, "In Conversation with Beverly Emmons," *Culturebot Maximum Performance*, Dance Interviews, last modified September 26, 2013, accessed August, 27, 2016, http://www.culturebot.org/2013/09/19149/in-conversation-with-beverly-emmons/

themes and variations being offered to her, except that she is doing so with light.

Beverly Emmons began her performance career path as a dancer. She studied with Bessie Schönberg[4] at Sarah Lawrence College, a liberal arts college in Yonkers, N.Y., and the *American Dance Festival* at Connecticut College. In order to be able to afford the tuition to attend the *American Dance Festival* as a student, Emmons needed a summer job. Having enjoyed backstage work at *Jacob's Pillow Dance Festival* in Becket, Massachusetts and working in summer stock theatre in high school, Emmons approached Schönberg, to help her secure a job backstage at the *American Dance Festival* for the summer. Initially, Schönberg told her that she did not have enough experience for the job. Emmons proved her wrong. At the time, Sarah Lawrence was predominantly a women's college, and Emmons was the only person in her all-female class willing to climb the ladder to work with the stage lights for the theatre and dance department performances. According to Emmons, "I put in a stellar performance and I asked Bessie again and she lifted the phone and got me a job on the crew that minute."[5]

In 1962, her senior year at Sarah Lawrence, Emmons was hired to create the lighting design for a performance by the Merce Cunningham Dance Company (Emmons). Her lighting professor, John Braswell, was too busy to take on the production and recommended her to Cunningham.[6] It was this chance happening that led to

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[4] For more on Bessie Schönberg see "Bessie Schönberg papers 1932-1997 and undated," The New York Public Library Archives and Manuscripts, accessed August 27, 2016, http://archives.nypl.org/dan/19838#overview.

[5] Beverly Emmons, personal interview, March 2015. Unless otherwise noted, all subsequent references to 'Emmons' refer to this interview and will be cited in text.

[6] For more on John Braswell see the Sarah Lawrence College Archive, "Guide to the John Braswell Papers 1939-89," last modified August 15, 2016, accessed August 27, 2016, https://www.sarahlawrence.edu/archives/ collections/finding-aids/j/john-braswell-papers.html.

Emmons' successful career as a lighting designer on the Broadway stage; a notable accomplishment in a male dominated discipline where, even today, only one in five shows are designed by women.[7] In addition to the twelve productions designed for Cunningham, Emmons is credited with more than thirty productions on Broadway, (six earned her Tony Award nominations), and played a role in the development of Vectorworks™, the dominant software program used by lighting designers. She served as the Artistic Director of the Lincoln Centre Institute and is the director of both the *Theatrical Lighting Database*, housed in the New York Public Library, and the *Lighting Archive*. Emmons eventually returned to Sarah Lawrence College as a professor, teaching courses such as "Lighting Design and Stagecraft for Dance" in the MFA Dance Program.[8]

The connection between music and modern theatre lighting design, vital to Emmons' work for the Cunningham Company, has deep roots and can be directly traced to Adolphe Appia, arguably the most famous lighting designer in history. Appia is credited with developing one of the first consoles for manipulating multiple lighting instruments at the same time. His "light organ" could "express the emotional nuance of music with great subtlety and variation… a calibrated and extremely sensitive lighting console operated by a single person. Light could, in effect, represent the music visually in space and thus complement the physical embodiment of music…"[9] Appia drew his creative inspiration from the operatic works of Richard

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[7] Adrienne Onofri, "Groundbreaking Women in Theatre: Lighting Designer Beverly Emmons," *Broadway.com, Wisdom Digital Media*, last modified March 12, 2005, accessed August 18, 2016, http:// www.broadwayworld.com/article/Groundbreaking-Women-in-Theater-Lighting-Designer-Beverly- Emmons-20050312

[8] For more information see https://www.sarahlawrence.edu/faculty/emmons-beverly.html, last modified 2016, accessed August 19, 2016.

[9] Richard C. Beacham. *Adolphe Appia: Artist and Visionary of the Modern Theatre*. (New York: Routledge, 2013): 94.

Wagner and ultimately defined the Bayreuth visual aesthetic that is commonly associated with Wagernian opera.[10]

Emmons, like Rauschenberg and Skelton, also wore multiple hats working for Cunningham, serving as the stage manager for many Cunningham performances in addition to creating the lighting design. Merce Cunningham and John Cage did not seek out lighting designers from the theatre; rather, the lighting designs were often generated by visual artists, including Robert Rauschenberg and Jasper Johns, or by other lighting designers who began as dancers, such as Tom Skelton and Emmons. Rauschenberg, for example, whose combines,[11] décor and light installations found their way onto the stage, had no intentions of being a lighting designer:

> I remember having very strong feelings that theatre basically was at the mercy of the lighting, and I had no training in lighting. At some summer festival in New London, I said, 'Where's the lighting technician?' John Cage said, 'Oh, Merce and I thought you could do that.'[12]

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[10] A young Adolphe Appia became quite obsessed with Wagner's work after seeing Wagner's production of *Parsifal* in 1882 and Cosima Wagner's staging of *Tristan und Isolde* in 1886 and *Die Miestersinger* in 1888 followed by the *Ring cycle* in 1890. Wagner's innovations in staging that included moving the large orchestras into the pit inspired Appia to explore a minimalist approach to scenery which was a move from Realism and Naturalism which were popular at the time. Appia's lighting was a study of shadow and light used to sculpt the performer, rather than simply lighting them to be visible. Stark forms and strong vertical and horizontal planes are representative of the Bayreuth aesthetic that was created by Appia. For further information see Beacham, *Adolphe Appia*.

[11] As suggested by the term, 'combines' are hybrid works of painting, sculpture and collage. Robert Rauschenberg's work from 1953-1964 were his 'Combines Period.' A friend of John Cage, Rauschenberg's later combines demonstrated a growing interest in sound and analogies between music and visual art. This connection with Cage led to the combines being used as stage décor by the Merce Cunningham Dance Company. For more information see Centre Pompidou, accessed August 27, 2016, http://mediation.centrepompidou.fr/education/ressources/ENSRauschenberg-EN/ENS-rauschenberg-EN.htm

[12] Don Schewey. "We Collaborated by Postcards: An Interview with Robert Rauschenberg," *Theatre Crafts*, last modified April 1984, accessed August 27, 2016, http://www.donshewey.com/ arts_articles/rauschenberg.html

Lighting designers are often born out of necessity and small budgets that force artists to wear multiple hats in order to get a performance to opening night.

Because I later focus on Emmons' use of improvisation, it is important to note the difference between improvisation and chance operation. Carolyn Brown, one of the most noted dancers in Cunningham's Company, has attempted to address the difference in a 2012 forum of *Arts Journal.* In regard to the improvised lighting by Emmons, Rauschenberg and Skelton she stated, "The lighting was different night after night, yes, but not by chance! BY CHOICE, artistic choice in the moment." In the same *Arts Journal* forum, in response to the 2012 remount of *Winterbranch* at Montclair University for which Emmons again re-conceptualized the lighting for the production, Emmons also responded, stating:

> I had a lovely long chat with Carolyn Brown… she does distinguish, as does Cage, between Chance and Chance Procedures. And [sic] both are different from Improvisation. Cage would devise simple or 'elaborate' games to arrive 'at the next note'. The *I Ching* hexagrams used in purposeful ways are an example….This can be done with lighting decisions only really at the cueing stage. Because *Winterbranch* was often performed in one-night-stand situations (no time for cueing) we would select the odd and interesting lights we wanted to use and then improvise in performance.[13]

While Emmons does not claim to have used chance operation, she notes that some of her Cunningham lighting contemporaries did. Richard Nelson "spent a great deal of energy figuring out games… like the composer's idea that they would think of games to arrive at sound… Richard did a lot more of that than I did." (Emmons). Emmons' comments suggest that she views the *I Ching* and other systems for

[13] Both Brown's and Emmons' comments are drawn from Deborah Jowitt, "Winterbranch: The Comment that Grew," last modified November 7, 2012, accessed August 27, 2016, artsjournal.com.

composing by chance, favoured by Cage and Tudor, to be game-like; for their own entertainment as much as a compositional method.

Although the work of the Merce Cunningham Dance Company was collaborative, Cunningham's aesthetic is arguably most prominent. Emmons asserts that he wanted the lighting designer to operate as independently as the other artists, but he had definite ideas about the final look. She states that Cunningham's direction to her as the lighting designer was very clear,

> The lighting for my [Cunningham's] pieces should move, it should have a life, but it should be the way the tree looks different outside the window…. because the sun has moved and not because anything emotional has happened in the room…if I have the dancers in a clump up left, I don't want you to take the rest of the lights out and leave them in the lights up there because that's telling the audience that I'm going to be there long enough to make it worth your while to do that. Plus if I go and leave that clump, you have to bring up the lights ahead of me signalling where I'm going. That's none of your business, that's my business (Emmons).

Beyond these instructions though, Emmons says she had very little communication with Cunningham regarding the lighting design. Unlike other directors and choreographers, he rarely rehearsed with light, only agreeing to it if was necessary for filming or photography for promotional purposes.

John Cage and his musical contemporaries David Tudor and Gordon Mumma experimented with how evolving technologies could be used to compose challenging and new kinds of music and soundscapes. Likewise, the lighting designs for the Merce Cunningham Dance Company challenged the audience's visual expectations. In contrast to standard practice, Emmons and her lighting contemporaries experimented with lighting sources other than the stage lights, incorporating work lights, flashlights and other non-traditional (for theatre) illumination. Like the composers, Emmons often created the

lighting design completely separate from the choreography, which sometimes resulted in a disconnect between the dance and visibility of the performance. This improvised method often upset the audience who were accustomed to bright, evenly lit stages with fully visible dancers. Emmons described that the occasional outcome was

> …enraged audiences. In part because what happens is somebody comes out and takes shape and starts to do something interesting and 'boom', the light goes out on them, and then oooooh we discover way up in back someone is crawling along on the floor with the light lighting his toes and so you pay attention to that and then 'bang' its gone and someone is running, leaping and running and you catch them in mid-air in the light and they land in the dark. But what it demands, what it reveals, is the audience's unconscious expectation that they are actually going to be able to see that ballet from beginning to end – they don't (Emmons).

In this way, the lighting designs were operating in the same way as the new music of Cage and his contemporaries; creating a disruption, not only in the traditional production/rehearsal process, but also in the way that an audience experiences performance.

Many of today's stage lighting conventions evolved in the late 1950's and 1960's. At the time when Emmons began working with Cunningham and Cage, stage lighting technology was advancing in terms of the increased brightness that was possible. Designers like Nicola Cernovic and Skelton were exploring with the saturated colours that have become synonymous with dance lighting; the lighting instruments were now powerful enough to project deeper hues. However, according to Emmons, "Merce hated strong colour which at that point was the main exploration. The equipment was finally bright enough so the strong colour could make an impression and Nic Cernovic and Alvin Ailey…that aesthetic is still there…" (Emmons).

The improvisational nature of the lighting for the Merce Cunningham Dance Company was a complication when it came time to

remount a show. Conventionally, a lighting design consists of technical drawings, lighting hookups, cue sheets and equipment lists that document how the show is to be performed.[14] Much like a musical score, it allows a lighting design to be recreated with relative ease. However, these documents were not always generated for Cunningham's productions, so when it came time for Emmons to reproduce lighting designs that had been originally conceived by Rauschenberg or Nelson, she was often at the mercy of someone's memory of the event and their ability to communicate it to her. For example, when Emmons designed a version of *Winterbranch* after Robert Rauschenberg's version,

> I never saw Rauschenberg's version, I never talked to him about it. I was told by people in the company what it should be…the question of how to adapt that… I mean the first time I did it I had some gobos[15] in lights, in Lekos[16] and he (Cunningham) said, 'Oh no. No, no, no, no…' I said, OK, fine. So what I would do is slowly during the evening, I would pull the colour out of any of the equipment that I could reach and I would just improvise with stuff coming off and on (Emmons).

Winterbranch is an interesting case study that illustrates Emmons' early lighting design work as a form of composition with the Merce Cunningham Dance Company, and, through the 2012 remount,

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[14] Examples of technical drawings, lighting hookups, cue sheets and equipment lists, created by Beverly Emmons for the Martha Graham Dance Company, can be viewed at http://thelightingarchive.org/archive.php, accessed August 27, 2016.

[15] A gobo is a small patterned template or stencil of either very thin steel or glass that creates a projected image when inserted into a stage lighting instrument called an ellipsoidal reflector spotlight. Gobos are traditionally used to add texture (live leaves) to stage light.

[16] Leko or Lekolite is a popular stage lighting instrument manufactured by Strand Century Lighting. The Lekolite features ellipsoidal beam reflector with adjustable focus and shutters and a gobo slot that make it a highly flexible instrument.

also demonstrates her current approach to achieving the unique Cunningham aesthetic. *Winterbranch*'s lighting design holds up well when compared to a jazz standard or bel canto aria interpreted by various soloists; Rauschenberg, Skelton, and Emmons have all performed interpretations. Emmons took over the lighting design/improvisation for this show after Rauschenberg in the 1960s and was later involved in a remount of the show at Montclair University in 2012. La Monte Young composed the music for *Winterbranch*, a piece that was disturbing to 1960s audiences who "variously interpreted it as images of race riots, concentration camps or the atom bomb."[17] In an interesting reversal, the music for *Winterbranch* was recorded and therefore consistent for every performance, while the lighting was reinterpreted for each performance. According to Gordon Mumma, a composer who worked with Cunningham and Cage, *Winterbranch* used "'canned' music: a tape recording of two sustained sounds…at near deafening levels. The sensation of *Winterbranch* was in its theatrical impact, due largely to its lighting."[18] The rawness of the lighting design was achieved in multiple ways, but largely by incorporating alternate sources of lighting at unpredictable intervals, inconsistent levels of brightness and angles that caused discomfort for the audience.

The timing of the piece is fairly formal. For the first twelve minutes there is silence that helps to focus audience attention, allowing them to be more involved with the fractured lighting, rather than split between lighting and music. The costumes are sweatpants and sweatshirts that are largely devoid of colour, and there is a point in

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[17] Joseph Carman. "The L.A. Experiment: Benjamin Millepied's New Company tests the City's Appetite for Concert Dance," *Dance Magazine* 86, no. 9 (2012): 35.

[18] Gordon Mumma. *Cybersonic Arts: Adventures in American New Music*, ed. with commentary by Michelle Fillion (Urbana, Chicago, and Springfield: University of Illinois Press, 2015):114.

the piece where the light on the stage is absolutely black. During the blackness, a solo dancer (originally Merce Cunningham) engages with a mysterious monster that has been improvised from a collection of 'stuff': a motley collection of overturned chairs, rags and whatever junk could be found laying around backstage and loaded onto a wheeled dolly, and dragged across the stage.[19] As with most Cunningham pieces, the meaning of the 'monster' is left to each individual member of the audience to decide for him or herself. The 'monster' has a front searchlight and a police light flashing on top of what is essentially a covered pile of chairs on a dolly. Anecdotally, Emmons states that "Bob Rauschenberg would make it each time and in each place and of course that made it a Rauschenberg sculpture, I'm sure it was fabulous and interesting. When I made a pile of chairs and would show it to Merce, he would sigh and throw a big rag over it" (Emmons).

Emmons is candid that creating the lighting design for the Merce Cunningham Dance Company allowed for somewhat more latitude in terms of what would be considered a safe environment for dancers to work in. In another example of how standard lighting conventions were ignored in order to achieve a specific aesthetic, about *Winterbranch* specifically, Emmons commented, "it was very dark. Its always been very dark, but with Cunningham dancers, they were dancing for Daddy and they never got hurt, they just soldiered on" but she asserts that any remount of the piece by another dance company, especially with current safety standards, cannot work with the same level of risk: "if you're talking about a unionized professional ballet company…no no no no, you can't do it as dangerously as that" (Emmons).

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[19] Film footage of Merce Cunningham interacting with 'the monster' in *Winterbranch* can be viewed in the "Merce Cunningham Dance Capsules", last modified 2011, accessed August 17, 2016, http:// dancecapsules.mercecunningham.org/overview.cfm?capid=46113.

In the 2012 Montclair University incarnation of *Winterbranch*, Emmons' grounding in the Cunningham culture met with her fifty plus years of lighting design experience. Those experiences coupled with advances in technology made it possible for her to devise a lighting performance that was both improvisational and dark, but with greater safety for the dancers. Keeping with the norms of the Cunningham and Cage collaborative model, Emmons created much of the lighting design separate from the choreography and rehearsal of the show. Modern lighting technology allows a lighting designer to pre-program lighting cues that can be loaded into the computer control system. Knowing that *Winterbranch* is a timing based performance, Emmons was able to choose arbitrary lighting cues that would execute with no more than seven seconds of darkness between them, with the exception of the 'monster' scene. This portion of the lighting design, although improvised at its inception, would remain consistent every night, providing the dancers with some predictability and thus greater safety on what was still a very dark stage.

Emmons disagrees with the premise that chance-based composition embraced by Cage and Tudor must also be different from one performance to the next. "The whole idea that every time it's different…it isn't different for an audience that only sees it once. So it is only amusing for the artists…unless of course you have a fan base that comes back again and again…" (Emmons) To illustrate her point, Emmons shared the story of the John Cage piece *Atlas Eclipticalus*, which she lit only once. The performance featured a group of musicians from the New York Philharmonic Orchestra. Her observation was that Cage was "a little cute" (Emmons) to not include program notes about the piece that would help the audience past their discomfort with the new music. She argued that without the context to understand what the composer is aiming for, particularly with experimental music, the audience is excluded. Her sense is that if the

audience knew the concept of *Atlas Eclipticalis* being derived from star charts it would be more accessible: "when you get the idea of what the piece is about, that the sounds are like stars in the universe… oh my God, what a beautiful idea" (Emmons).

However, at its core, *Winterbranch* is a piece with a reputation built on improvised and at times irritating light. Current lighting control consoles have the ability to run two cues lists at the same time, which in basic terms means that two sets of lighting commands can be operated in tandem. This extra level of control allowed Emmons to reintroduce nightly improvisation to the show. In addition to the preprogrammed 'random' lighting, Emmons trained the lighting operator to essentially 'play' the lighting board as an instrument, bringing up lights in multiple locations, intensities, and originating from various sources responding in the moment. For today's lighting technician, this is a level of creative agency that would rarely if ever be afforded (although for those whose careers predate computerized control systems, this was the norm). In addition to the board operator improvising overtop of the recorded lighting cues, Emmons gave the stage hands the brightest and strongest flashlights that she could find and directed them to shine the light at random on anything that caught their interest, thus adding additional players to what could be interpreted as the lighting ensemble (Emmons). The Montclair show is also an example of how evolving technologies continue to play a role in *Winterbranch*, as the most recent Emmons version would not have been possible in the 1960s, but new technology allowed a deeper level of improvisation in 2012.

This performative, improvisational approach to lighting design that defines Emmons' work for the Merce Cunningham Dance Company is not the norm. This style of design demands a unique set of creative and intuitive skills from the designer; a set of skills that are arguably more difficult to develop given the current level of

technology.[20] Current lighting technologies are heavily digitized, and the transition from the analog sensibilities common at the height of the Cunningham and Cage collaborations has greatly altered how lighting designers work on current productions. From the late 1950s and into the early 1990s lighting operation was still similar to playing a musical instrument. True artistry in the art form required sensitivity, finesse and being perceptive to what your fellow collaborators were offering you. Designers like Emmons, whose careers have evolved in tandem with the technology, seem to have mastered the best of both eras. In regard to being open to experimentation, Emmons stated, "designers who take chances on new materials and techniques that are unproven are courageous. In fact, knowing the risks and still doing what is right for a show is courageous because critics and audiences are more comfortable with the ordinary."[21] That the lighting designers associated with the Merce Cunningham Company share a diversity of backgrounds and training speaks to the value of the interdisciplinary collaboration that is evident throughout the work.

Winterbranch in particular demonstrates how Emmons was as much a composer of the piece as the musicians and soundscape artists. Her compositional flexibility allowed her to repeatedly reimagine the piece. She re-interpreted the lighting of other lighting designers who designed the production before her, and then her own lighting choices

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[20] I began my post-secondary training as a lighting designer in 1989. The late 1980's marked the beginning of the transition from analogue to digital lighting control systems. Analogue systems were more akin to musical instruments, where the physical hand and touch of the operator on the control directed affected each performance. Having worked as a professional lighting designer since 1990, it is my opinion that today's computerized systems have all but eliminated these kinds of nuances as each lighting cue is now digitally recorded in a cue setting session prior to the show opening. Today's operators need only push a 'go' button to execute the lighting cue that will automatically rise to the predetermined level and colour in a set time.

[21] Beeb Salzer, "The Subtext: A Risky Business," *Theatre Design and Technology* 46, no. 3: 10-11.

fifty years later. The twelve minutes of silence at the beginning of the piece does not seem devoid of some element: in the place of music, the lighting – or lack thereof – forces the audience to become more attentive. The willingness and ability of Cunningham's lighting designers to put aside theatre lighting convention and cross over into attitudes of creativity more akin to musical improvisation than theatre speaks to their trust in Cunningham and Cage and the work they were doing. In an era where lighting designers were being presented with access to technology that could flood the stage in colour and offered designers unprecedented options for controlling multiple instruments more capable than ever of projecting complex textures, Cunningham's designers opted for the experimental route that their musical contemporaries were embracing. Beverly Emmons and her Cunningham contemporaries accepted the challenge to think of lighting design outside of the box, and achieved thrilling compositions of light that rival the musical accomplishments of the composers.

Bibliography

Beacham, Richard, C. *Adolphe Appia: Artist and Visionary of the Modern Theatre.* New York: Routledge Publishing, 2013.

"Bessie Schönberg papers 1932-1997 and undated." The New York Public Library Archives and Manuscripts. Accessed August 27, 2016. http://archives.nypl.org/dan/19838#overview.

Carman, Joseph. "The L.A. Experiement: Benjamin Millepied's New Company tests the City's Appetite for Concert Dance." *Dance Magazine* 86, no 9 (2012): 34-37.

Emmons, Beverly. Personal Interview. March 2015.

Mumma, Gordon. *Cybersonic Arts: Adventures in American New Music*. Edited with commentary by Michelle Fillion. Urbana, Chicago, and Springfield: University of Illinois Press, 2015.

Jowitt, Deborah. "Winterbranch: The Comment that Grew." Last modified November 7, 2012. Accessed August 27, 2016. Artsjounal.com.

Leoni-Figini, Margherita. "Robert Rauschenberg Combines (1953-1964)," Exhibition notes from 11 October 2006 – January 15, 2007, Gallery 2, Level 6 Centre Pompi dou, Public and Educational Action Unit, October 2006. Trans by Vice Versa. Accessed August 27, 2016. http://mediation.centrepompidou.fr/education/ressources/ENS-Rauschenberg-EN/ENS-rauschenberg-EN.htm.

Onofri, Adrienne. "Groundbreaking Women in Theatre: Lighting Designer Beverly Emmons," *Broadway.com, Wisdom Digital Media*. Last modified March 12, 2005. Accessed August 18, 2017, http://www.broadwayworld.com/article/Groundbreaking-Women-in-Theater-Lighting-Designer-Beverly-Emmons-20050312

Salzer, Beeb. "The Subtext: A Risky Business". *Theatre Designs and Technology* 46, no 3: 10-11.

Sarah Lawrence College. "Faculty at a Glance: Beverly Emmons." Accessed August 27, 2016. www.sarahlawrence.edu/faculty/emmons-beverly.html.

Sarah Lawrence College Archive, "Guide to the John Braswell Papers 1939-89." Last modified August 15, 2016. Accessed August 27, 2016. https://www.sarahlawrence.edu/archives/collections/finding-aids/j/john-braswell-papers.html.

Schewey Don. "We Collaborated by Postcards: An Interview with Robert Rauschenberg." *Theatre Crafts*. Last modified April 1984. Accessed August 27, 2016. http://www.donshewey.com/arts_articles/rauschenberg.html.

Snellings, Monica. "In Conversation with Beverly Emmons." *Culturebot Maximum Performance.* Dance Interviews. Last modified September 26, 2013. Accessed August, 27, 2016. http://www.culturebot.org/2013/09/19149/in-conversation-with-beverly-emmons/.

Understanding Wolff through Music: Problems with Reading Politics into His Early Work (1950–1976)

Dave Riedstra

ABSTRACT

The composer Christian Wolff has a reputation for writing political music. In this paper, I discuss the problem of ascribing solely such an origin to the hallmark techniques of the composer's early output (until about 1976, including works such as *Burdocks* and *For 1, 2 or 3 People*). I define political as that which promotes norms of social behaviour and organization (and thus has implications for governance). I delineate four potentially political aspects of these works—the individuality of sounds, performer freedom and interaction, accessibility to listeners, and settings of topical texts—and suggest that these aspects are responses to musical concerns rather than, as Wolff later said, "a kind of metaphor, if you will, for a social situation." Not taking these works as consciously politically motivated, I suggest that the social views one might find in them are artefacts of Wolff's personal beliefs. Considering the music in this way offers a richer understanding of the composer's personality and his musical decisions.

> A composition (score) is only material for performance: it must make possible the freedom and dignity of the performers; it should allow at any moment surprise, for all concerned, players, composer, listeners: it should allow both concentration, precision in detail, and release, or collapse, virtuosity and doing things in the ordinary way. No sound, noise, interval, et cetera as such is preferable to any other sound, including those always around us, provided that (a) one is free to move away or towards it, and that (b) sounds are not used deliberately to compel feelings in others: let the listeners be just as free as the players.[1]

Beginning in the early 1970s, the music of Christian Wolff has employed textual elements which overtly reference contemporary social and political issues. Probably because of this he has earned a reputation as a politically-minded composer. This has been furthered by critical dialogue concerning his music that routinely frames it as political statement—a dialogue in which the composer participates. For instance, in a recent lecture Wolff suggested that "[Experimental] music becomes a kind of metaphor, if you will, for a social situation; it suggests a way of organizing your thinking, your attitude towards the world which suggests that the world could be different."[2] One way this can be understood is as pertaining to the complex performer interactions Wolff began employing in the early 1950s and has continued developing throughout his career.

The present discussion will describe the problem of ascribing a purely political origin to the compositional techniques which Wolff began developing in the period before and during his self-described "political awakening" in 1972. I take 'political' here to mean that

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1 Christian Wolff, "... let the listeners be just as free as the players: Fragments to make up an interview" (1971) in *Cues: Writings and Conversations / Hinweise: Schriften und Gespräche*, ed. Gisela Gronemeyer and Reinhard Oehlschlägel (Köln: MusikTexte, 1998), 86.

2 Christian Wolff, "Experimental Music" (lecture, Institute of Musical Research, London, UK, May 12, 2014), accessed April 6, 2015, https://www.youtube.com/watch?v=3I6WwY4ftdI.

which pertains to norms and normativity of social organization and behaviour, particularly those norms which Wolff later explicitly espoused (such as Marxism). I will outline four broad categories of potentially political aspects of this music (individuality of sounds, performer freedom and interaction, accessibility, and settings of topical texts), describe why they might be considered as such (taking into account the composer's statements during that period and after it where possible), then examine the historical context and musical lineage of these techniques to problematize the notion of politicality as their primary motivator. Instead, I will propose that these techniques are responses to the musical problems with which Wolff was concerned. In doing so, I hope not to accuse the composer of historical revisionism, but rather to suggest that any political views one might draw from these early works are the result not of conscious compositional intent but rather of a non-conscious worldview.[3] Understanding the music in this way affords telling insights into the character of the composer.

INDIVIDUALITY OF SOUNDS

Almost from the moment he began studying with John Cage in 1950, Wolff was exploring musical ideas that characterize his entire output. Despite his relative inexperience, these early works should not be written off as juvenilia. Wolff was only seventeen when he wrote *Nine*, a work that Morton Feldman hailed as "'the masterwork' of the period."[4] Furthermore, the high calibre of his collaborators (including Cage, Feldman, David Tudor, and

[3] By "non-conscious worldview" I refer to a system of values which the composer took for granted and to which he did not explicitly refer.

[4] Michael Hicks and Christian Asplund, *Christian Wolff* (Chicago: University of Illinois Press, 2012), 16.

Frederic Rzewski) and the consistency with which he developed his materials argue for the sustained consideration of his early output.

What characterizes Wolff's apparent compositional perspective during this period is a concern for the individuality of sounds and the thorough examination of them. This trait is present in the use of space in these works and in the complementary notions of non-intentionality and asignification— 'let[ting] the listeners be free.' These concerns are likely the results of the study of species counterpoint and analysis of Webern that formed the first exercises of Wolff's formal tutelage under Cage. Wolff might have found license to a liberal use of "silence" (rests) in the writing of Webern's Symphony (which Cage had him analyse).[5] The space between the events in these works suggests a hearing of sounds as separate phenomena, trivializing the relationship to the preceding and succeeding events and cognitively grouping each as an individual unit. One might also speculate that Wolff was reacting to Webern: where the latter drew a maximum of topical significance from a minimum of materials, the former attempted to minimize the degree to which he imposed meaning on the sounds.[6] We might even take this affinity toward

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[5] Hicks and Asplund, *Christian Wolff*, 10.

[6] The composer Helmut Lachenmann gives a brief treatment of topics in the fourth movement of Webern's *Fünf Stücke* (op. 21) in "Hearing is Defenseless without Listening", in which he describes Webern as "Mahler in birdseye view, radically reduced to the slightest signal, prescribed like a deflated balloon to be blown up at home." Helmut Lachenmann, "Hearing [Hören] is Defenseless—without Listening [Hören]: On Possibilities and Difficulties," *Circuit: musiques contemporaines* 13, no. 2 (2003): 33–36, accessed October 1, 2013, http:// id.erudit.org/iderudit/902272ar. One can draw a parallel to musique concrète in the asemic characterstics of Wolff's music, as, for example, Seth Kim-Cohen has done with Cage in Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sound Art* (New York: Continuum, 2009), 149–174.

transparency as having developed from Wolff's early preference for "Classical masterworks," the harmonic textures of which would have sounded spartan and clear relative to the music heard in mid-twentieth-century New York.[7]

Cage incubated this interest, encouraging Wolff to write using a small number of pitches.[8] Wolff took this careful consideration of compositional materials to a material level, focusing closely also on the material (sounding) results of a piece's performance, and composed music that facilitates that consideration. Wolff also learned Cage's nested proportional forms as well as the use of gamut-style composition, adopting compositional non-intentionality as the next step in respecting and observing the properties of individual sounds.[9] However, Cage explains that "it was Wolff who made clear to me the necessity to renounce any interest in continuity. It was he who, in order to 'let the sounds come into their own,' wrote

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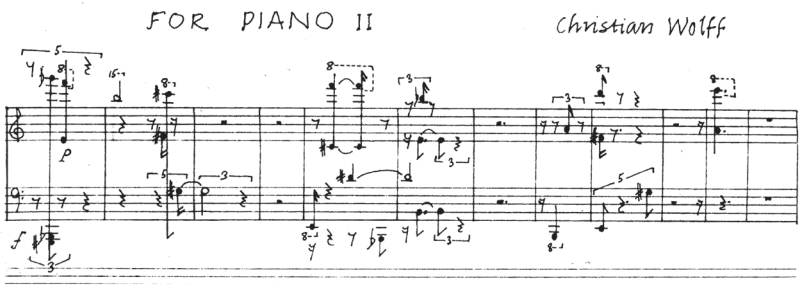
7 Hicks and Asplund, *Christian Wolff*, 6–8. Christian's parents were musically knowledgable and exposed him to "a repertoire dominated by Bach at one end and Brahms at the other." The boy Wolff preferred that gamut's earlier music, probably following cues from his parents. "David [Lewin] and Christian sometimes arrived at the seminary [the Quaker Society of Friends Seminary on Sixteenth St, which they attended] around 7:30 (an hour and a half before classes started) to practice four-hands scores at the piano …. The repertoire consisted of classical masterworks, mostly Bach and Mozart." Christian "sometimes booed the new music he heard" at concerts and "disliked popular music" such as Broadway and hit radio, but was fond of Dixieland jazz.

8 Christian Wolff, "Taking Chances: from a conversation with Victor Schonfield" (1969) in Cues, 70. "Around 1951–52 my pieces had very few pitches, resulting from exercises Cage had set me."

9 'Nested proportional form': a compositional form in which the sequence of durations in a small section are proportionally replicated in larger formal sections. For example, a rhythmic sequence of quarter-quarter-half would create a nesting of one level deep if it were followed by quarter-quarter-half, half-half-whole. 'Gamut-style composition': a compositional technique in which a selection, often but not necessarily of sounds, is represented in a grid. A musical work is constructed from a selection of the grid's cells. For more, see Wolff's lengthy discussion in "Precise Actions under Variously Indeterminate Conditions" in *Cues: Writings and Conversations / Hinweise: Schriften und Gespräche*, ed. Gisela Gronemeyer and Reinhard Oehlschlägel (Köln: MusikTexte, 1998), 33–50.

music vertically on the page though the music was to be played horizontally."[10]

These attributes can be found as early as Wolff's opus no. 1, *Duo for Violins* (1950). The piece uses three pitches (D5, Eb5, and E5) coloured by string changes and set in a restrained dynamic range of *pianissimo–mezzo forte*. The piece was created by means of a "row" of twelve sounds, differentiated by their pitch content and by their modes of attack and decay (whether they begin or end simultaneously or otherwise).[11] The work has an overall sustaining stasis that presages both American and European minimalism and the drone-like pieces of Giacinto Scelsi. Later works such as *Nine* (composed using Cage's gamut technique) and *For Piano I* (1952) and *For Piano II* (1953) display a greater use of sonic disconnection of sounds by silence.



Example 1: from For Piano II

A political reading of these attributes is easily accommodated by their context. Wolff's (and for that matter, Cage's and Feldman's) concern with 'letting the sounds come into their own' echoes a distinctly American brand of neoliberalism which prioritizes the ineluctable

[10] Jean-Jacques Nattiez, ed., The *Boulez-Cage Correspondence* (Cambridge: Cambridge University Press, 1995), 108, in Hicks and Asplund, *Christian Wolff*, pages 14–15.

[11] Hicks and Asplund, *Christian Wolff*, page 12.

rights and comfort of individuals. Simultaneously, by not "push[ing] the sounds around" (as Feldman later described it), these composers evince a curiosity about the materials of their practice that subverts the more European concern of engaging with musical traditions.[12] "The Europeans Boulez and Stockhausen are thoroughly self-conscious about musical history," Wolff wrote in 1957, while "among the Americans … there is a greater freedom and intransigence, simplification and disruption, a 'cleaning the ears out,' as Alan Watts has said."[13] By avoiding engagement with these European traditions, the music dispenses with intersubjectively intelligible messages, garnering instead a more neutral signification. This is in line with the semiotic asceticism of Wolff's later musical manifesto-in-miniature, the epigraph of this paper.[14] The date of the manifesto (1970) demonstrates the degree to which these ideas informed Wolff's thought.

However, there is little evidence to suggest that such a political reading of these early works was intended by the composer at the time of their writing. As just demonstrated, the "getting rid of the glue" (to borrow Henry Cowell's description) was situated squarely in what Hicks and Asplund call the "Cage-Webern axis."[15] While this axis itself would have been divergent from the dominant contemporary musical tradition, for Wolff these were two figures of authority to follow during a formative period of technical development. So while the composer's interest was in creating something unique and new, the concern is clearly with the material rather than with a statement of individuality, anarchy, or opposition to an institution. Later, in 1957, Wolff wrote that among these experimentalists—including

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[12] Morton Feldman, "Crippled Symmetry," *Anthropology and Aesthetics* 2 (1981), 97.

[13] Christian Wolff, "Immobility in Motion: New and electronic music" (1957) in *Cues*, 26.

[14] Wolff, "Fragments to make up an interview," 86.

[15] Hicks and Asplund, *Christian Wolff*, 15.

himself, the New York "school," Boulez, and Stockhausen as well as Henri Pousseur and Bo Nilsson—the "'work of art' is not presented as though it existed in an ideal and privileged isolation but is simply allowed to take its place among other 'transient phenomena.'"[16] While this 'objectivity' and 'anonymity' is in opposition to the expected 'artistry and taste,' the focus lies on the work's engagement with physical reality and not on its difference from tradition.

In addition, what little there is of the composer's own writing on these early through-composed pieces does not stray far from technical matters concerning the music itself. In liner notes to his *String Trio* (1950) and to *For Prepared Piano* (1951), Wolff describes the limited pitch set, texture, and rhythmic structure of the pieces without touching on any possible external significance thereof.[17] His note for *For Magnetic Tape* (1952) describes the piece's development in the Barron studio, its use in Merce Cunningham's *Suite by Chance*, and its materials and proportional rhythmic structure. One can see that this work was not consciously politically oriented, but that it developed from a mixture of personal impetus and contextual cultivation.

PERFORMER FREEDOM AND INTERACTION

Wolff's music is probably best known for those pieces which employ complex performer interaction as primary material, such as *For 1, 2 or 3 People* (1964) and *Burdocks* (1970–71). This material is characterized by its use of the performers' capacities to shape sounds in their own way as well as to listen to and engage with

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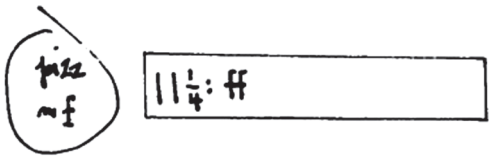
16 Wolff, "Immobility in Motion," 28.

17 Christian Wolff, liner notes to *String Trio* and *For Prepared Piano*, in *Cues: Writings and Conversations / Hinweise: Schriften und Gespräche*, ed. Gisela Gronemeyer and Reinhard Oehlschlägel (Köln: MusikTexte, 1998), 494. Unless noted otherwise, all reference to liner notes are based on their reproductions in *Cues*, which are unfortunately not accompanied by original publication details.

the other performers (and occasionally the performance situation). Unlike many scores from this era which strayed from common practice notation, Wolff was structuring interactions more than he was sounds.

These interactions materialized in several different ways in the works of the period under consideration. A first system presented fields of sounding possibilities as ratios with a duration as their left term and a sound description as the right, and a complex system of cues based on them. An instance of this notation can be seen in example no. 2, from *Duo for Pianists II* (1958). This instruction tells the performer to play 11¼ seconds of anything *fortissimo* after hearing a *mezzoforte pizzicato* in the other player's part. The players' agencies are engaged in their shaping of the sounds and their constant monitoring of the other's activity.



Example 2: from Duo for Pianists II

After his military service in 1959–60, Wolff conceived a new means of expressing these interactions, resulting in the more "graphical" notation used in *For 1, 2 or 3 People*.[18] In these systems, the sounds and the cues are less thoroughly defined, leaving them open to performer choice. Additionally, while the cues of the system described above simply indicate the beginnings of new sounds, in this new system the sounds are continually modulated, requiring

[18] Hicks and Asplund, *Christian Wolff*, page 32.

even greater attention and collaboration between performers. Consider example 3, from *For 1, 2 or 3 People*. In it, the performer is instructed to play a long sound (with no cue to start from), change its timbre, then play a shorter sound which is to end at the next sound that the player hears. Then the player will play another short sound which starts and stops at the same time as the next sound they hear, followed by a long sound, followed by seven seconds of silence. In all of this, Wolff specifies only changes in state, leaving the specifics up to the performer.

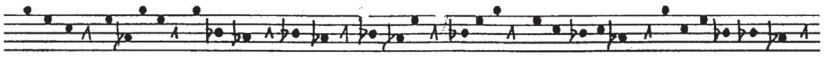
Example 3: from For 1, 2 or 3 People

A different and roughly contemporaneous form of performance indeterminacy that relies on performer agency is found in pieces such as *Tilbury I* (1969) and *Exercises 1–14* (1973–74). In it, a series of notes with imprecise rhythmic indication are given on a staff with no clef, as in example no. 4. Players are to supply their own staff and transposition, and various guidelines are given pertaining to aspects such as dynamics and timbre, but the "normal situation" as described in the notes to *Exercises 1–14*

> is unison. But, as rhythm and speed, articulation, amplitude, color, and modes of playing are all flexible, any player may try to establish what the point of reference for unison is at any point in the course of playing. If however, a movement by a player, say, in the direction of faster is not generally picked up by the rest, he must return to the prevailing speed.[19]

[19] Wolff, *Exercises* 1–14 (New York: C. F. Peters, 1974), 2.

The result is a situation in which the players are expected to listen to the others and collaborate during the performance in what might be considered a more linear version of the coordination-neumes pieces.



Example 4: from Exercise 1

Various different performer freedoms are explored in other works during this period. Among these are the open orchestrations of pieces such as *For Five or Ten People* (1962) and *Pairs* (1968), the polyvalent instructions of the *Prose Collection* (1968–71), and the democratically decided arrangement of *Burdocks*. Some further implications of these are discussed below, but here it is important to recognize them as allowing for a substantial—possibly unprecedented—amount of performer control over the sounding result of the piece.

These forms of performance indeterminacy developed out of Wolff's musical concerns during this period. In the first instance, the use of a score as a less-defined source of performance material was employed as early as 1950, with his *Madrigals*.[20] This was a result of his increased workload during his study at Harvard, and was an efficient way to produce music that was just as interesting as something more rigidly defined.[21] There is evidence that Wolff attempted to continue thinking in terms of Cage's square-root form: speaking about his *Duo for Pianists I* (1957), Wolff states that "there is one rhythmic structure, marking out eight times eight time-spaces in the proportions ½:10:1:½:4:⅔:12:2."[22] Wolff's practice of composing performer interplay might be compared to Morton Feldman's

[20] Hicks and Asplund, *Christian Wolff*, page 23–24.

[21] Ibid., 22.

[22] Christian Wolff, liner note to *Duo I* in *Cues*, 488.

usage of graph scores, but where Feldman turned away from graphical notation to avoid performances that leaned too heavily on idiomatic playing, Wolff continued working with interactions, trusting in the musical tastes of the performers. Before 1972, Wolff discussed the effects of these measures on the performers without explicitly relating their potential relevance to any extramusical reality. In 1957 he stated that he assumes "a measure of good will" from the performers in realising his indeterminate forms.[23] This sentiment is echoed seven years later, when he discusses how, beyond being "machines of reproduction," he hopes to put performers "really in the making of the music again" and "to have made something hazardous with which we may try ourselves."[24] This dialogue hints at the democratic socialism and increased agency which these scores present their performers, but does not overtly connect musical and socio-political realms. Whence the politicization of this material, then?

In fact, the first blush of politicality in Wolff's discourse comes in the early 1970s, at roughly the same time as Wolff's political awakening. A number of important events in his life may figure in this conversion: in the immediately preceding years he had returned to America from his stay in Europe (where he was intimately involved with Cornelius Cardew and the improvising ensemble AMM), become a father for the first time, lost his job at Harvard, was hired by Dartmouth, was awarded a short intermediary position at the Centre for Hellenic Studies in Washington, and moved to New Hampshire.[25] Immediately following this chaotic personal period, Cardew sent Wolff a letter containing a copy of an article in which Cardew denounced Cage for being overly individualistic and

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[23] Wolff, "Immobility in Motion," 28.

[24] Christian Wolff, "...something hazardous with which we may try ourselves: Questions" (1964) in *Cues*, 54.

[25] Hicks and Asplund, *Christian Wolff*, page 42.

for separating politics from life.[26] The resulting awkward position of being caught between two good friends incited Wolff to carefully review his own position on the matter over several months. In his reply, Wolff agreed that Cage was downplaying potentially political aspects of his music, but posited that music could, instead of necessarily being overtly "hard-hitting and tough," be "infiltrating, insinuating, subversive."[27]

It was around this time that Wolff penned the article containing the miniature manifesto of this paper's epigraph. In its emphasis on 'freedom and dignity,' the article outlines an ethical normativity but never suggests extrapolating that position to other extramusical contexts. In a later interview from 1972, Wolff stated that, in addition to beginning to read Marx, he was

> at a transitional point. I think I have learned how to do one thing—to write music which is available for a number of performers, which allows the performers to actively take part in the music, be responsible for the music …. [it] allows them to be free….I cannot find a solution to the social problems right now. I would like to learn much more about them, and what is involved in them. I would like to relate my music to them as much as possible.[28]

This provides a usable reference for his political conversion. The broader goal of "freedom" is not suggested in order to address the social problems to which Wolff admits not knowing the solution. In fact, the potential of a political reading of this music was suggested to Wolff by an unknown Marxist writer who pointed out a "strongly

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[26] Ibid., 49-50.

[27] Christian Wolff, letter to Cornelius Cardew, July 21, 1972, quoted in Hicks and Asplund, *Christian Wolf* 50.

[28] Christian Wolff, "What Are We Doing?: Conversation with Ildi Ivanji" (1972) in *Cues*, 90–92.

anti-authoritarian, a democratic" connection in its organization.[29] Preceding that suggestion, Wolff declared "it's [creating such a connection is] not something that had occurred to me, because I hadn't set out to do that."[30] We can point to these events—the personal upheaval, the Cardew article, and the manifesto—as markers of the point in his life when Wolff began to think of his music as effecting social or political change.

ACCESSIBILITY

From the 1960s onward, Wolff became increasingly concerned with his music's ease of access, both to performers and to listeners. The use of open instrumentation allows for any person to perform the piece, regardless of sound source. This can be read not just as an indeterminate orchestration, but also as being open to different economic statuses, as sources of low or zero cost could be used in these pieces' performance. The earliest use of open instrumentation in Wolff's output is the *Madrigals* of 1950, scored for "3 voices and/or instruments," after which it is absent until *For 5 or 10 Players* (1962).[31] Wolff's interest in "found" sound sources can be seen in *Stones* (1968), in the instrumentation description for *Burdocks*—"any instruments or sound sources (but there are places which require specific pitches to be played)"—and in his 1972 lectures at the Darmstadt *Internationale Ferienkurse für Neue*

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[29] Christian Wolff, "I can't shake Webern's influence: Interview by Gerald Gable" (1986) in *Cues*, 158. In this interview Wolff only refers to the interpreter as "a Marxist" and with masculine pronouns: "In retrospect, a Marxist once did a long paper on my earlier music and his interpretation of it was Marxist oriented, which sort of flabbergasted me!"

[30] Ibid.

[31] Stephen Chase and Philip Thomas, "List of Works," in *Changing the System: The Music of Christian Wolff*, ed. Stephen Chase and Philip Thomas (Burlington, VT: Ashgate Publishing, 2010), 219.

Musik (the International Summer Course in New Music), in which he guided attendees in a realisation of a section of that piece using stones.[32] One might also consider his usage of the electric guitar and electric bass guitar in his performing with the AMM, in premieres of his own music, and in instrumentation to pieces such as *Electric Spring I* (1966) and *II* (1966/70) as an allegiance to the musical practices of the working class.[33]

His unique scoring methods might be interpreted along a similar line. While some of the pieces are open to and sometimes take advantage of performer virtuosity (as in 1959's *For Pianist*, which pushed Tudor past his formidable skill and rendered his mistakes as cues for following material), much of this music can be performed with little or no musical training. The first set of *Exercises* requires the bare minimum of note-reading for performance, while the coordination system of *For 1, 2 or 3 People* creates a system which stands essentially outside of what might be learned in conventional musical training. Hicks and Asplund even suggest that the switch from "players" to "people" in the title of *For 1, 2 or 3 People* reflects an attitude of inclusivity to non-musicians.[34] The *Prose Collection*, composed during Wolff's tenures at art schools in the United Kingdom, may be the apex of this effort to write instructions "from which even the least musically literate could make sounds in an organized way with whatever means were available," and it is known that Wolff

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[32] Amy C Beal, "Christian Wolff in Darmstadt, 1972 and 1974," in Changing the System, 29.

[33] At the time, the guitar was known as the instrument around which the genres of blues, folk-rock, and rock 'n' roll were constructed. The electric guitar would be prominent in the soon-to-follow Vietnam War protest music, which struck out at an unsympathetic governing class, as well as in rock and punk bands kicking back against an oppressive economic structure. Steve Waksman discusses the complicated class, race, and sexuality associations of the electric guitar in *Instruments of desire: the electric guitar and the shaping of musical experience*, Cambridge, Mass.: Harvard University Press, 1999.

[34] Hicks and Asplund, *Christian Wolff*, page 34.

wrote *Burdocks* with the image of the mix of trained and untrained musicians of the Scratch Orchestra in mind.[35] This is clearly not an attitude of sacrificing compositional intent or pandering to the public as performers (Wolff was constantly in collaboration with musicians of the highest calibre, such as Tudor, Frederic Rzewski, and Gordon Mumma, and clearly stated that the score "should allow … virtuosity and doing things in the ordinary way"[36]) but rather one with a goal to "provide material for performances which could include non-musicians."[37] This inclusivity could be seen as a reflection of the midcentury American libertarianism that ostensibly welcomed people of all stripes, and it also accommodates a Marxist reading, since the capacity to own a potentially expensive instrument and invest the time to learn it to a high proficiency may be barred by the same financial barrier that effects the proletariat-bourgeoisie divide.

Wolff began to consciously consider the reception of his music around the same time as his political conversion. In a 1972 interview, Wolff stated that "the first step that I think I have taken now is to bring the composer and performer together. The next step is to bring in the audience, and that is what I am working on now."[38] In the context of the interview, this refers to their involvement in the music-making activity at the same level as the composer and performers. However, at about the same time, Wolff was beginning to reintroduce the connective "glue" which had been so absent from his music until this point. *Snowdrop* (1970), a composed realisation of *Tilbury I*, makes use of diatonic scale and arpeggio fragments (earning it a poor reception at

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35 Ibid., 41.

36 Wolff, "Fragments," 86.

37 Christian Wolff, liner note to *Stones*, in *Cues* p 494.

38 Wolff, "What Are We Doing?," 92.

Wolff's 1972 Darmstadt lecture).[39] *Burdocks* employs a characteristic melodic fragment, and some of Wolff's text settings take the appearance of a campfire song chart, written as a melody with accompanying chord symbols. The *Exercises* are basically materials for linear connections of pitches, complete with phrase breaks. These connected sounds were a way for Wolff to avoid the "highly introverted" and "abstract" esotericism that resulted from his earlier music, and to involve a more general audience than the specialized musical elite.[40]

As before, it is misleading to ascribe a solely polemical intent to these features. Wolff's inclusivity of performers may be considered a side effect of the indeterminate coordination notations, and there can be no doubt that the flexibility of open instrumentation was a useful feature in these pieces. The individual contexts of certain pieces are also instructive to consider: the *Prose Collection* was written expressly *for* the art students of the various schools at which Wolff was teaching; any instructive intent in these situations would have been to expose the students to performance-based art. *Burdocks*, though inspired by the "democratic anarchic community" of the Scratch Orchestra, was written for an annual private celebration—it is what Gordon Mumma describes as "the biggest party piece."[41] There is no known

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[39] "in particular, the students questioned Wolff's use of scales and arpeggios. One commentator called the inclusion of such traditional elements of Western music 'disturbing.' Wolff responded: …. 'I must say I was originally very surprised to see that [*Snowdrop*] got a mixed reception …. to see that people were disturbed by it surprised me very much.'" Beal, "Wolff in Darmstadt," 28–30.

[40] David Ryan, "Changing the System: Indeterminacy and Politics in the early 1970s," in *Changing the System: The Music of Christian Wolff*, ed. Stephen Chase and Philip Thomas (Burlington, VT: Ashgate Publishing, 2010), 150.

[41] Gordon Mumma, interview by author, February 24, 2015; Hicks and Asplund, *Christian Wolff*, pages 46–47. The piece "premiered" atthe second Burdock Festival in August of 1971, in Vermont at the farm belonging the family of Holly Nash, Wolff'swife. The annual festival was originally intended to be a gathering of friends, but its music attracted a largeraudience.

documentation from this period which connects these pieces to a social or political intent.

TEXT SETTINGS

On the other hand, the didactic intent of Wolff's settings of various texts in the early seventies is unmistakable. In these settings, the text—which always refers to a political topic—features as a major component of the piece, framed in a way that prioritizes the effective communication of its meaning to the audience. All of these settings are in close proximity to his political conversion. The text for *Accompaniments* (1972) is an account of the experiences of Chinese villagers during the Cultural Revolution which illustrates "the principle of applying a revolutionary political orientation to immediate and practical problems."[42] *Changing the System* (1972) uses a portion of a speech about the need for "systemic social change," given by Tom Hayden during the 1968–69 American student revolts against the Vietnam War.[43] The *Songs* (1973) set texts from newspapers, commentary on capitalist economics, and an account of the Attica prison riots. *Bread and Roses* (1976) is a 1912 marching tune written by Carol Kohlsaat and used during a strike in Massachusetts, and *Wobbly Music* (1975–6) uses text from 1921 songs associated with the Industrial Workers of the World, an early international worker's union.[44] Wolff curtailed this direct, propagandistic use of text after 1976.

The text scores are problematic for the interpretation of Wolff's preceding music. As in the increasingly linear music of this period, the clear setting of text allows for far fewer interpretations, both

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[42] Christian Wolff, liner notes to *Accompaniments*, in *Cues*, 498.

[43] Christian Wolff, liner notes to *Changing the System*, in *Cues*, 500.

[44] Christian Wolff, liner note to *Bread and Roses*, in *Cues*, 502; Hicks and Asplund, *Christian Wolff*, page 62.

musically and morally. The listener freedom which had concerned him in his 1971 manifesto has no place in this music. Furthermore, that these settings followed his political conversion and his investigation of the "problem of what music is doing in society or who listens to it" so closely suggests that *they,* and not any of his other music, are his primary artistic address to socio-political issues.[45]

Interestingly, Wolff continues writing in his 'esoteric' style throughout this period, and there is evidence that his consideration of these pieces was unaffected by his newfound political concerns. The pairing of his 1972 string quartet *Lines* with *Accompaniments* on a 1976 LP is a telling example. Wolff's notes for the quartet discuss the details of its ensemble coordination, concluding that "the music as a whole, then, is a collaboration between the composer's score and the players' playing, and the latter becomes increasingly directed by the players' own decisions and feelings—the forming of which may have been assisted by the score to begin with."[46] His treatment of *Accompaniments* discusses the choice of text (which follows the note), certain feelings which the music was intended to invoke ("In the second and third parts, single line keyboard figures are intended to have a propulsive feeling," "the fourth part of the piece … comes as something of a release"), and explains certain musical choices ("the drum and cymbals were … suggested by their appearance in China during mass assemblies and marches," "the addition of singing and percussion playing to the pianist's tasks is to … combine his professional competence with non-professional capacities which we all have").[47] The contrast between descriptive

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[45] Wolff, "What Are We Doing?," 92.

[46] Christian Wolff, liner notes to *Lines/Accompaniments* (New York: Composers Recordings Inc, 1976). Accessed April 6, 2015, http://www.dramonline.org/albums/christian-wolff-lines-accompaniments/notes.

[47] Ibid.

and prescriptive subtexts suggests that these may have been conceived of as parallel styles.

QUESTIONS OF INTERPRETATION

In light of this evidence, I conclude that the only reasonable speculation of intent behind the compositional decisions made by Wolff in the "esoteric" works of this period is that he was responding primarily to musical and practical concerns rather than to conscious social normativity. Therefore, instead of ascribing a political intent to Wolff's compositional decisions, we should take any leanings we read in this early music as the result of a non-conscious personal belief. These clues to Wolff's individual worldview provide more telling insights into the composer's character than a stated political agenda ever could. Furthermore, framing Wolff as having composed primarily with political intent detracts from his works' relationship with other music—both music that influenced Wolff and music that likely would not have happened without him. By considering Wolff's work in the company of these musical relations, we gain a richer understanding both of the composer and his work.

Bibliography

Beal, Amy C. "Christian Wolff in Darmstadt, 1972 and 1974." In *Changing the System: The Music of Christian Wolff*, edited by Stephen Chase and Philip Thomas, 23–47. Burglinton, VT: Ashgate Publishing, 2010.

Chase, Stephen, and Philip Thomas, eds. *Changing the System: The Music of Christian Wolff*. Burglinton, VT: Ashgate Publishing, 2010.

Feldman, Morton. "Crippled Symmetry." *Anthropology and Aesthetics* 2 (1981): 91–103. Accessed August 17, 2014. http://www.jstor.org/stable/20166669.

Hicks, Michael and Christian Asplund. *Christian Wolff*. Chicago: University of Illinois Press, 2012.

Ryan, David. "Changing the System: Indeterminacy and Politics in the early 1970s." In *Changing the System: The Music of Christian Wolff*, edited by Stephen Chase and Philip Thomas, 143–169. Burglinton, VT: Ashgate Publishing, 2010.

Christian Wolff. *Burdocks*. New York, NY: C. F. Peters, 1971.

———. *Cues: Writings and Conversations / Hinweise: Schriften und Gespräche*. Edited by Gisela Gronemeyer and Reinhard Oehlschlägel. Köln: MusikTexte, 1998.

———. *Duo for Pianists II*. New York, NY: C. F. Peters, 1962.

———. *Duo for Violins*. New York, NY: C. F. Peters, 1963.

———. Exercises no. 1–14. New York, NY: C. F. Peters, 1974.

———. "Experimental Music." Lecture, Institute of Musical Research, London, UK, May 12, 2014. Accessed April 6, 2015. https://www.youtube.com/watch?v=3I6WwY4ftdI.

———. *For 1, 2 or 3 People*. New York, NY: C. F. Peters, 1964.

———. *For Pianist*. New York, NY: C. F. Peters, 1963.

———. *For Piano I*. New York, NY: C. F. Peters, 1964.

———. *For Piano II*. New York, NY: C. F. Peters, 1967.

———. *Prose Collection*. New York, NY: C. F. Peters, 1973.

———. *Tilbury*. New York, NY: C. F. Peters, 1969.

Hearing and Seeing (Beyond) *Finnegans Wake*: *Roaratorio* and the Revitalization of Cage's and Cunningham's Experiential Aesthetic

Rena Roussin

ABSTRACT

A diversity of meaning that includes the option that there be no meaning at all, an ongoing invitation to the audience to participate in the creation of art by choosing where to focus their attention, and the experience of multiple ways of experiencing are all aspects that have come to define the Merce Cunningham Dance Company's aesthetic inspiration and vision. Yet in Cunningham's 1983 choreography *Roaratorio*, performed alongside John Cage's 1979 musical composition *Roaratorio: An Irish Circus on Finnegans Wake*, several other aspects and influences become apparent, namely: James Joyce, his 1939 novel *Finnegans Wake*, connection to a central (if multivalent) textual narrative, and a loose sense of place joined to placelessness. These narrative and thematic elements make *Roaratorio* an anomaly within the Company's output. Yet *Roaratorio*'s differences and incorporation of Joycean elements expand and revitalize, rather than depart from, Cage's and Cunningham's experiential aesthetic. By outlining the features of *Finnegans Wake* and tracing its fingerprints across Cage's writings on it, *Irish Circus*'s sound world, and *Roaratorio*'s choreography, this paper demonstrates how Cage and Cunningham allowed their audience to see and hear *Finnegans Wake* through the artistic languages of multivalent music and movement. Yet by interpreting the many meanings and possibilities of the novel through multiple artistic genres, Cage and Cunningham also hear and see beyond it—and widen their own experiential aesthetic in the process.

> "The word in English for 'laughing' is 'laughter.' And by putting an *a*, it becomes 'laughtear' in Joyce. So that the opposites which we try to keep apart in our lives—because we prefer to laugh rather than to cry—he brings them back together where they belong. And that's why this book [*Finnegans Wake*] seems to me like a whole world, rather than part of a world, it [is] this *bringing together of the opposites*."
>
> "…if you open *Finnegans Wake*, which is I think without doubt the most important book of the twentieth century, you will see that it is just nonsense. Why is it nonsense? So that it can make a multiplicity of sense, and you can choose your path, rather than being forced down Joyce's."
>
> – John Cage[1]

The Merce Cunningham Dance Company, a modern dance troupe based in New York City and active from 1953 to 2010, is widely associated with a distinct aesthetic. Rather than joining dance to a narrative story, the Company focused on movement for movement's sake, and, in an era when music often added to or interpreted choreography, the company's chief composer, John Cage, composed music independent from the movement, creating sound for sound's sake. The Company's performances consequently contained independent layers of music and

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I would like to express my indebtedness to the findings Marjorie Perloff presents in "Music for Words Perhaps: Reading/Hearing/Seeing John Cage's *Roaratorio*," *Genre* 20, no. 3-4 (1987): 427-462, which has greatly influenced my own thinking. Perloff's "Difference and Discipline: The Cage/Cunningham Aesthetic Revisited," *Contemporary Music Review* 31, no. 1 (2012): 19-35, though a lesser influence on this paper, first led me to consider the Cage/ Cunningham aesthetic, and its various influences and impacts. For their generous feedback, I am grateful to Dr. Michelle Fillion, Dr. Jeffrey Hennessy, Rebekah Hutten, Michelle MacQueen, Shelby Marshall, and the members of the *Musicological Explorations* Editorial Board. Gordon Mumma's early encouragement of this essay brought it to fruition; I am grateful for his enthusiasm, time, and insight.

[1] John Cage and Klaus Schöning, "Laughtears: Conversation on *Roaratorio*," in *Roaratorio: Ein irischer Circus über Finnegans Wake/An Irish Circus on Finnegans Wake*, ed. and trans. Klaus Schöning (Köningsten: Athenäum, 1985), 77; Richard Kostelanetz, *Conversing with Cage* (New York: Limelight Editions, 1988), 147.

movement, free of narrative or a centralized sense of meaning. Consequently, audience members were free to determine their own meaning and to experience the performance in any number of ways depending on where their attention was focused in each moment.[2] This aesthetic in which the art forms are independent of each other and lack a central narrative, and which I refer to in this paper as 'experiential,' is among the defining aspects of the Company. Therefore, Merce Cunningham's 1983 choreography *Roaratorio*, performed in conjunction with John Cage's 1979 musical composition *Roaratorio: An Irish Circus on Finnegans Wake*, is something of an anomaly in the Company's output, as the music and movement both draw inspiration from a central literary source: Irish writer James Joyce's 1939 novel *Finnegans Wake*.[3] I intend to argue that *Roaratorio*, because of its differences from the Company's standard practices, and in its incorporation of Joycean elements, expanded and revitalized Cage's and Cunningham's experiential aesthetic. Irish writer James Joyce (1882-1941) was a direct inspiration on Cage's poetic writings and musical compositions, while *Finnegans Wake* nourished Cunningham's choreographic vision and creative concepts in the 1983 choreography. Furthermore, Joyce's oeuvre—and its embrace of multivalent narrative and untraditional language and structure— directly correlates to many of Cage's and Cunningham's

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[2] These practices of the Company are widely known, and are inherent to their artistic output. For some select explanation, however, see Merce Cunningham, *The Dancer and the Dance: Conversations with Jacqueline Lesschaeve* (New York and London: Marion Boyars, 1985), 137, as well as Cunningham's "Space, Time and Dance" (1952) and "Four Events That Have Led to Large Discoveries" (1994) as published in *Art Performs Life: Merce Cunningham/Meredith Monk/Bill T. Jones,* curated by Phillpe Vergne, Siri Engberg, and Kellie Jones (Minneapolis: Walker Art Centre, 1998), 18-21. The Cunningham Company's principal dancer, Carolyn Brown, gives in-depth discussion of life and aesthetics within the Company in her *Chance and Circumstance: Twenty Years with Cage and Cunningham* (Evanston, Illinois: Northwestern University Press, 2009).

[3] In order to provide clarity of meaning I refer to Cage's 1979 composition as *Irish Circus*, an abbreviation of its full title, throughout this paper, and reserve the name *Roaratorio* for discussion of the music joined to movement and décor in 1983.

career-long goals of breaking traditional syntax and structure in their respective fields of music and movement. By outlining the features of *Finnegans Wake* and tracing its fingerprints across Cage's writings on it, *Irish Circus* as music and sound, and *Roaratorio* as a multifaceted work of art, I hope to demonstrate how Cage and Cunningham allowed their audience to see and hear *Finnegans Wake* by expressing it through the artistic languages of multivalent music and movement. Yet by interpreting the many meanings of the novel through their own artistic fields, Cage and Cunningham also heard and saw *beyond* it—and widened the Cunningham Company's experiential aesthetic in the process.

Though the main focus of this essay is *Roaratorio*'s simultaneous expansion and revitalization of the Company's typical aesthetic, it is also necessary to demonstrate the aesthetic with which *Roaratorio* breaks—and why, of necessity, I have dubbed that aesthetic 'experiential.' The central aesthetic of the Company is rooted in independence: music and movement do not interpret one another, and indeed, need not interpret anything at all. In the words of Gordon Mumma, "Cunningham's choreography exists for its own reasons—for the theatre of human movement…and does not have to be driven by anything outside it."[4] While narrative is not expressly forbidden, it is not a driving force of movement or music. Cunningham believed that "the dance is an art in space and time" and that "dancing is a spiritual exercise in physical form and…what is seen, is what it is."[5] He further stressed that

> I do not believe it is possible to be 'too simple.' What the dancer does is the most realistic of all possible things, and to pretend that a man standing on a hill could

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[4] Gordon Mumma, "From Where the Circus Went," in *Cybersonic Arts: Adventures in American New Music*, ed. with commentary by Michelle Fillion (Urbana, Chicago, and Springfield: University of Illinois Press, 2015), e-book location 2062.

[5] Merce Cunningham, "Space, Time and Dance," in *Art Performs Life*, 18.

> be doing everything except just standing is simple divorce—divorce from life, from the sun coming up and going down, from clouds in front of the sun… from each thing that succeeds each thing. Dancing is a visible action of life.[6]

The Cunningham Company's output, then, is mostly about movement and sound in and of themselves rather than being about story-telling or meaning-making. The aesthetic is grounded in a reflection of everyday life in its duality of simplicity and complexity. The choreography, as is the case in ordinary, non-choreographed human movement (i.e., walking down a city street), need not be complex or revolve around one centre, and rarely occurs in linear fashion, with one thing happening at a time. The audience must choose where to focus its attention in any given moment, just as one does in daily tasks.[7] As I shall presently demonstrate, *Roaratorio* breaks with many of these concepts through narrative components and connections between music and movement, but at the same time, renews the very aesthetic from which it departs.

I refer to the principles of the Cunningham Company's aesthetic as 'experiential' foremost to highlight that the strongest evidence of Cage's and Cunningham's aesthetic is to be found in direct, experiential contact with it. Though critical writing and scholarship may explain processes or facilitate insights, no commentary can substitute for directly experiencing the Company's visual, musical, and choreographic output.[8] Yet at the same time, their aesthetic is also experiential

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6 Ibid., 20.

7 This is clear through viewing video footage of the Company's dances, though it was highlighted to me through personal communications with Gordon Mumma throughout February 2015.

8 Further proof of experiential import can be found in Cunningham's *Changes: Notes on Choreography* (New York: Something Else Press, 1968), the choreographer's only book on his Company's work, which features minimal traditional text, instead giving attention to photos, choreography charts, lighting plans, notation and instructions for musical performance, and similar primary documents. It is significant that Cunningham shows rather than explains the Company's history, projects, and goals.

in that it created new artistic experiences for audiences and inspired innovative collaborations among the Company's artists. Furthermore, because of the Cunningham Company's goal of using art to reflect life rather than to give an interpretation of life or communicate one particular story, their output could arguably lead the audience towards reflection on the experience of daily life. Their aesthetic, then, is doubly experiential: it must be experienced to be fully understood, and, when experienced, may lead to new reflections on art and life.

FINNEGANS WAKE: JOYCEAN BEGINNINGS FOR CAGE'S AND CUNNINGHAM'S ENDS

Within the context of my argument, the inspiration and beginnings of *Irish Circus* and *Roaratorio* are not to be found in 1979 or 1983, but rather in 1939, the year *Finnegans Wake* was published. British author Peter Dickinson has argued that Joyce's final literary opus is "still perhaps more discussed than widely read."[9] Dickinson's observation is a fair one: *Finnegans Wake*'s narrator communicates the story from a state of unconscious sleep, which enables the text—the narrator's dream—to demonstrate a breakdown of traditional narration and language use. Indeed, a breaking down of syntax and language is arguably the book's main goal. Puns, allusions, and both foreign and idiosyncratic language abound in the novel, making it a challenging read that is impossible to approach traditionally. *Finnegans Wake* is, however, situated in the same place as the rest of Joyce's oeuvre: in Dublin.[10] Furthermore, the novel

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[9] Peter Dickinson, "Introducing *Roaratorio, Cage*, Cunningham, and Peadar Mercier with Peter Dickinson," (interview from July 19, 1987) in *CageTalk: Dialogues with and about John Cage*, ed. Peter Dickinson (Rochester, NY: University of Rochester Press, 2006), 218.

[10] In Harry Blamires's *Studying James Joyce* (Harlow, Essex: Longman and York Press, 1987), 17, he stresses that Joyce believed that Dublin could be "Everyman's city." Consequently, Dublin exists in a dual state of being a distinct place, while also serving Joyce's purpose of exploring deeper, universal truths applicable to humanity rather than exclusively to Dubliners.

tells, if unconventionally and loosely, a story of an Irish family struggling to deal with rumours that their patriarch, Humphrey Chimpden Earwicker (HCE), has committed sexual transgressions. In spite of the novel's Irish characters and locations, however, both its narrative and narration, as well as its significant use of experimental language, are not distinctive to any one place or time. Colin MacCabe's summary of the goals, structure, and interpretive challenges of the *Wake* provides a comprehensive introduction to Joyce's incomprehensible text and its multivalent significance:

> In *Finnegans Wake* Joyce attempted to write a book which would take all history and knowledge for its subject matter and the workings of the dreaming mind for its form. If one takes a page at random from *Finnegans Wake*, one may find reference to subjects as disparate as chemistry, Irish mythology, philosophy, American history, details from Joyce's life, all woven together in a language that constantly creates new words….The result of this deformation of language is that every word carries more than one meaning and each sentence opens out into an infinity of interpretations.[11]

Joyce, then, penned a work that, although situated in Ireland, is truly about the whole world and everyone and everything in it. Patrick O'Neill has taken MaCabe's observations further still, noting that "*Finnegans Wake* is a literary machine designed to generate as many meanings as possible for as many readers as possible."[12]

There is, as such, no one right way to read the *Wake*. Indeed, one may ask whether it is a book that is to be read, or one that is to be experienced and lived. The latter seems to have been its impact on John Cage, who in addition to citing it as the most important

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[11] Colin MacCabe, "An Introduction to *Finnegans Wake*," in *James Joyce's Finnegans Wake: A Casebook*, ed. John Harty III (New York and London: Garland Publishing, 1991), 23.

[12] Patrick O'Neill, *Impossible Joyce: Finnegans Wakes* (Toronto: University of Toronto Press, 2013), 3.

book of the twentieth century, potently observed that "the story of it is exactly what it isn't."[13] Cage was intimately familiar with Joyce's work, and was fascinated by its breakdown of syntax and structures. Although Cage read parts of the serialized *Finnegans Wake* throughout the 1920s, and bought a copy of the completed novel in 1939, he did not read it fully until 1977 upon being asked to write a text that was inspired by the novel.[14] Several pieces of scholarship suggest that Cage never actually read the book—a definite falsehood. If Cage's own repeated iteration that he read the *Wake* multiple times is not enough evidence that it is so, surely, as Marjorie Perloff points out, the nuance and insight with which Cage discusses and writes of Joyce's magnum opus will prove his profound knowledge of it.[15] For Joyce inspired not only Cage's compositions but also his poetry.

In his roles as writer and composer, Cage shared Joyce's fascination with sound and word. As is the case with *Finnegans Wake*, Cage's poetic writings are meant to be "asyntactical."[16] There is thus a shared spirit in Joyce's and Cage's writing of celebrating the very existence of words and language, of appreciating their sounded reality

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13 Cage and Schöning, "Laughtears," 75.

14 Ibid., 73.

15 Perloff herself points to Jill Johnston's "Jigs, Japes, and Joyce," in *Art in America* 75 (1987): 102-105 as one review which suggests Cage had not read the book. Similar cursory treatment can be found in Scott W. Klein, "The Euphonium Cagehaused in Either Notation: John Cage and *Finnegan's Wake*," in *Bronze by Gold: The Music of Joyce*, ed. Sebastian D.G. Knowles (London: Routledge, 1999), 156. Cage clearly stated that he had read the book in his and Richard Kostelanetz's "Talking About Writings through *Finnegans Wake*," in *A John Cage Reader in Celebration of His 70th Birthday*, ed. Peter Gena and Jonathan Brent with supplementary editing by Don Gillespie (New York: C.F. Peters Corporation, 1982), 146. Perloff's layout of the critique and her defense of Cage can be found in "Music for Words," 440-444.

16 Jackson Mac Low, "Cage's Writings up to the Late 1980s," in *Writings Through John Cage's Music, Poetry, and Art*, eds. David W. Bernstein and Christopher Hatch (Chicago: University of Chicago, 2001), 211, where Mac Low also notes that Cage himself preferred the term "nonsyntactical."

and individuality rather than their traditional hierarchies. Cage's poetic writings were meant to evoke a sort of spiritual experience by "allowing the experience of sounds perceived in themselves…rather than as means of communication, expression, or emotional arousal or as subordinate elements in a structure."[17] Reading Joyce's work aloud invokes a similar experience, and, like Cage's writings, creates a place of increased freedom for the reader, who must learn to read and appreciate language in new ways. In that sense, it is worth noting that Joyce's holistic attitude towards literature, words, and the removal of self from artistic creation parallels the artistic goals of Cage and Cunningham. "Unlike most traditional writers," Blades stresses, "[Joyce] does not interfere by telling you how to react to the events and people in his work. Freedom is one of the key features of his work."[18] That freedom of interpretation, which is also scattered across Joyce's syntax, makes him a likely source of inspiration for Cage's compositions and writings, and of the Cunningham Company's artistic mission. Yet through *Roaratorio*, Joyce moves a step beyond an artistic predecessor, instead becoming in a sense one of the Company's many artistic collaborators.

That collaboration indirectly began in 1977-1982, when Cage 'wrote through' *Finnegans Wake* five times using varying poetic and chance devices to reinterpret Joyce's prose. Cage's *Writing for the Second Time through Finnegans Wake* formed the text for *Roaratorio*, and reduced his first *Writing through Finnegans Wake* from 125 pages to 41. In these two *Writing throughs*, Cage selected lines from the text of *Finnegans Wake* and wrote mesostics on JAMES JOYCE until he reached the end of the novel; in the second writing through, all

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[17] Ibid., 211.

[18] John Blades, *How to Study James Joyce* (Basingstoke, Hampshire: MacMillan Press, 1996), 2.

words with repeated syllables were omitted to reduce the text length. Cage removed punctuation from Joyce's sentences, then re-inserted it through chance operations, so that it would further obscure syntactical structure.[19] In this sense, by breaking sentences into fragments and removing Joyce's still-traditional grammar and punctuation, Cage's writings "break down the last remaining hierarchy that he saw functioning in Joyce's language."[20]

Cage's mesostics enable an even greater breakdown of syntax than *Finnegans Wake*, and allow readers to 'read through' and experience the *Wake* in a realistic reading time. But at the same time, Cage's re-writing of Joyce in and of itself creates more multiplicity of meaning. Perloff notes that "to cite someone else's words…thus cutting them free and grafting them elsewhere is to create what Cage himself would call a 'both / and' situation, the cited passage retaining its original meanings even as its new context generates others."[21] Cage's narrative is inextricably linked to Joyce's own, but by virtue of looser syntax and removed words, it becomes a new entity, a narrative of wider contexts, and one of more experiential and experimental structure (see Figure 1 for a comparison of syntactical and narrative structures).[22]

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[19] Readers interested in a further discussion of Cage's *Finnegans Wake* writing-throughs as literature and sound (including the composition of *Roaratorio*) are directed to Thomas Köhler, *James Joyce und John Cage: Welt, Klang, Text* (doctoral dissertation, University of Hannover, 1998), particularly 267-294, as well as Cage and Kostelanetz, "Talking About," 142-150. An example of a mesostic is also provided in Figure 1.

[20] Klein, "The Euphonium Cagehaused," 159.

[21] Perloff, "Music for Words," 449.

[22] Sources used in Figure 1 include James Joyce's *Finnegans Wake* (New York: The Viking Press, 1939), 1, and Cage's first two mesostics from *Writing for the Second Time through Finnegans Wake* in *Empty Words: Writings* '73-'78 (Middletown: Wesleyan University Press, 1979), 133.

riverrun, past Eve and Adam's, from swerve of shore to bend of bay, brings us by a commodious vicus of recirculation back to Howth Castle & Environs.

Sir Tristram, violer d'amores, fr'over the short sea, had passencore rearrived from North Armorica on this side the scraggy isthmus of Europe Minor to wielderfight his penisolate war: nor had topsawyer's rocks by the stream Oconee exaggerated themselse to Laurens County's gorgios while they went doublin their mumper all the time: nor avoice from afire bellowsed mishe mishe to tauftauf thuartpeatrick: not yet, though venisoon after, had a kidscad buttended a bland old isaac: not yet, though all's fair in vanessy, were sosie sesthers wroth with twone nathandjoe. Rot a peck of pa's malt had Jhem or Shen brewed by arclight and rory end to the reggin-brow was to be seen ringsome on the aquaface.

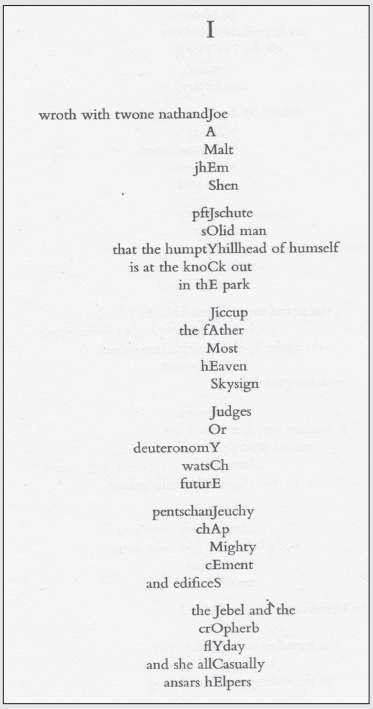

Figure 1: A comparison of the opening two paragraphs of Joyce's *Finnegans Wake* and the first two mesostics for Cage's Irish Circus demonstrate both narrative and syntactical differences. "Writing for the Second Time through Finnegans Wake" from *Empty Words: Writings* '73-'78 © 1979 by John Cage. Published by Wesleyan University Press. Used by permission.

HEARING *FINNEGANS WAKE*: CREATING THE *IRISH CIRCUS*

Cage's most multivalent of texts was then joined to multivalent music in the form of *Roaratorio: An Irish Circus on Finnegans Wake*, a *Hörspiel* (radio play) commissioned by Klaus Schöning.[23] Central to the sixty-minute composition is Cage's recitation of his *Writing for the Second Time through Finnegans Wake*, which allows the listener to 'hear' the *Wake* through the sound of its syntax and language brought to life. Joined to Cage's reading, constantly interacting with and playing over it are various recorded sounds, including, for a brief sampling, dogs barking, water running, Irish jigs and reels, Irish songs, and laughter (see Figure 2 for a detailed chart). These seemingly disparate sounds were, however, linked to a goal: an incorporation of all the sounds that Joyce specifically mentions in the novel, along with soundscapes associated with places that are mentioned (the 3000 places Joyce mentions in the novel were narrowed to 626, the number of pages in the book, through consultation with the *I Ching*). The sounds, furthermore, were spaced throughout the composition so that they would occur in a scaled-down proximity to where they occurred in the *Wake*.

Some of these sounds were specific to Ireland, and included excerpts and samples of traditional Irish music. Cage spent a month in Ireland in the summer of 1979, collecting these sounds and soundscapes with the assistance of engineer designer John Fullemann. However, other sounds were neither linked to Ireland nor attached to any one place or time (laughter and farting, for two examples). Cage's method of gathering the sounds was to ask radio stations, universities, and personal

[23] For discussion of the *Irish Circus*' impact on radio art and tape composition, and detailed explanation of the Hörspiel as distinct from North American radio culture, see Richad Kostelanetz, "John Cage as *Hörspielmacher*," in *Writings about John Cage*, ed. Richard Kostelanetz, 213-221 (Ann Arbor: University of Michigan Press, 1996).

friends from all over the world to send him tape recordings of the listed sounds, which were then joined to the sounds recorded in Ireland and to Cage's recitations in the final radio play. This was all accomplished through an extensive process of tape recording at IRCAM, forming a collage of musical, spoken, and ambient sound.[24] In this sense, the music of *Irish Circus* is at once placed and placeless: it is about Ireland and the Irish people, but also, to borrow Cage's words on the story of the *Wake* and re-apply them to his music, "a family which is all of humanity. And…all of nature."[25]

CATEGORIES AND NUMBER OF ALL SOUNDS USED IN *ROARATORIO*
(Hand-written facsimile: Poster (9))

A. Listing through Finnegans Wake:	Part I	Part II
Thunderclaps	6	4
Thunder rumbles and earthquake sounds	29	27
Laughing and Crying (Laughtears)	64	100
Loud voice sounds (shouts, etc.)	31	22
Farts	5	5
Musical instruments (short)	66	96
Bells, clocks, chimes	28	42
Guns, explosions	32	36
Wails	7	11
Animals and particular birds	56	113
Music (instrumental and singing)	57	145
Water	34	24
Birds (in general)	16	18
Singing	64	72
	495	715
		495
B. Places		1210
		1083
	Grand Total	2293

Figure 2: John Cage's index of categories and numbers of the sounds which appear in *Finnegans Wake*. Appears in *Roaratorio: An Irish Circus on Finnegan's Wake*, p. 147. Copyright © 1979 by Henmar Press, Inc. All Rights Reserved. Used by kind permission.

[24] The logistics of the sound gathering and recording process of the *Irish Circus* is subject to incomplete and at times conflicting summaries in its literature. My summary of the process is drawn from Cage and Schöning, "Laughtears," 89-91, 99-101.

[25] Ibid., 77.

What Cage accomplishes in his joining of natural sound to text is a sort of 'sounding through' *Finnegans Wake*: Cage's listeners are able to directly experience the sounds of the novel, moving them beyond the silence of the written word. Perloff has suggested that it was "the *textuality* of the *Wake* rather than its larger 'plot' or its 'themes' and characters that inspires *Roaratorio* [1979 version]."[26] In spite of Cage's aforementioned comment—that the story is what the book is not—I disagree. It is what textuality *did* to the plot of the *Wake* that we hear in this composition: an enabling of multiplicity, a breakdown of structure and syntax and hierarchies that thus reflect everything and nothing, the sound and story of the whole world.

Cage commented that he did not feel the *Irish Circus* shares the same level of difficulty as the *Wake*, but rather musically alludes to the challenge of Joyce's language and story.[27] Cage did himself a disservice in suggesting this. The *Irish Circus*, to my hearing, is rather a musical or sound-based reinterpretation of its source, the full musical equal of its mother-text. Scott Klein has gone so far as to suggest that the composition is "the most thoroughly Joycean work of music yet written."[28] Klein's assessment is fair: just as Joyce's readers are left wondering how to read the *Wake*, Cage's listeners are left wondering how to listen to the *Irish Circus,* as traditional aspects of and reciprocal relationships between words and sounds collapse. In suggesting this, I am in alignment with the thoughts of Chris Thompson, who notes that Cage's writing-throughs (his mesostics included) "[were] on one level a device for enabling the development of music, and on another a device for undercutting the attachment to syntax which keeps

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[26] Perloff, "Music for Words Perhaps," 451.

[27] Cage and Schöning, "Laughtears," 75.

[28] Klein, "The Euphonium Cagehaused," 152. Klein's intriguing suggestion that the *Irish Circus* democratizes music in a mirror of Joyce's democratization of language (163) is worthy of further examination than this paper can provide.

us bound to listening to relationships between sounds rather than to sounds themselves."[29] Cage's mesostics are of course only one layer of the composition: the tape-recorded sounds routinely overlap with them, and at times drown them out altogether, creating a new level of complexity in the sounds themselves. Robert Bean has dubbed this phenomenon "polyphonic aurality."[30] I would suggest that "aural multivalency" would be a more appropriate term, since Cage's realization of the text and sounds of Joyce's novel lead the listener to a sound experience that constantly allows multiple options: the listener is forced to decide, in almost each moment, what aspect of the composition to listen to. Bean notes that over the composition's sixty-minute time span, our hearing becomes "provoked long enough to re-experience the act of listening."[31] In this sense, the *Irish Circus* is not entirely different from Cage's typical aesthetic: new and multivalent sound experiences are present all across his sound world, and consequently listening itself becomes an art form. But in linking Joyce's sound world to his own, Cage decidedly adds a new layer to the how and what of the act of listening, therein expanding his experiential aesthetic. Yet at the same time, in sounding-through *Finnegans Wake*'s text and sounds, Cage begins the process of moving beyond Joyce, expanding the author's original creative vision and artistic platform. This process is one that 1983's *Roaratorio* would take still further.[32]

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[29] Chris Thompson, "Voicing Joyce: Crossmess Parzels from Cage to Beuys," in *Performance Research: A Journal of the Performing Arts* 8, no. 1 (2003): 10.

[30] Robert Bean, "Polyphonic Aurality and John Cage," in *Aural Cultures*, ed. Jim Drobnick (Banff: YYZ Books, 2004), 127.

[31] Ibid., 134.

[32] Rather than release a traditional score for his composition, Cage released a score entitled *(title of composition), (article) (adjective) Circus on (Title of Book)*. The score provided an instruction manual for turning any book into a musical score, an action which in and of itself points to the composition's ability to see beyond the *Wake*. German and English copies of the score are reproduced in Cage, *Roaratorio*, 172-175.

SEEING THE HOLY CIRCUS: *ROARATORIO*

Cage's comments on the extended title of his composition hold implications for the 1979 composition and 1983 choreography alike, and lend some insight into one possible interpretation for both works; as such, an examination of the title and its meanings is where my discussion of the *Circus* and the *Roar* finally merge. Cage initially forgot that the word 'roaratorio' appears in Joyce's original text, and had his own unique conception of what the word ought to mean.[33] The word-play on "oratorio" and the sacred connotations that this musical genre holds are very much intentional. Cage noted that "an oratorio is like a church-opera, in which the people don't act, they simply stand there and sing," and that the additional letters reflect the fact that "the world has become a church—in which you don't sing, you roar."[34] In examining these quotations, Perloff has pointed out that the addition of extra letters also refers to an idea "that it is the world outside the church that has become holy."[35] What is most sacred in the world outside of the church, this work seems to suggest, is the 'roar' of human life—and the fact that life itself is a circus in that it has "not one center but…a plurality of centers."[36] In other words, life is a continual whirlwind of multivalent aspects, dialectics, and contradictory perspectives, the whole of which can never be known at once. That very unknowability, however, rests at

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[33] Cage notes his overlooking and recollection of Joyce's pun in his and Schöning's "Laughtears," 87; Joyce employs the term on p. 41 of *Finnegans Wake*: "the thrummings of a crewth fiddle…caressed the ears of the subject of King Saint Finnerty the Festive…. with their priggish mouths all open for the larger apprasiation of this longawaited Messiagh of roaratorios." This quotation is elucidated in Dickinson, "Introducting *Roaratorio*," 218.

[34] Cage and Schöning, "Laughtears," 89.

[35] Perloff, "Music for Word Perhaps," 451.

[36] Cage and Schöning, "Laughtears," 107.

the core of life's beauty, richness, and holiness. Such a conception, I would suggest, underlies not only the pulse of *Roaratorio*, but the experiential aesthetic itself.

In 1983, the music of *Irish Circus* joined movement and décor to comprise *Roaratorio*— something Cage had hoped to see happen since the genesis of his composition.[37] Merce Cunningham, himself half-Irish, was also inspired both by James Joyce and "the feeling of dance" in *Finnegans Wake*.[38] Like Cage, Cunningham incorporated elements of the *Wake* into his own artistic medium of movement. Cunningham has stressed that he did not want to fully recreate the story or ideas of *Finnegans Wake* in his choreography, but that he did notice an element of the story that seemed to focus on "this enormous human family continuing and moving around in a kind of spiral fashion."[39] This element, he concedes, is present in his conceptualization of the *Roaratorio* choreography, specifically in his utilization of time and space:

> We start by entering one side of whatever area we're going to perform in, gradually it continues, and then we exit. We leave at the other side as though we are going on someplace else to start all over again…or continue in some other way. That's simply a spatial way for me, and it isn't meant as any kind of strict reference at all. It was like a structure I could use to work on the piece.[40]

There is, as such, an element of central narrative in the choreography—a profound anomaly in the context of Cunningham's

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37 Ibid., 97.

38 David Vaughan, "About Roaratorio," Merce Cunningham Trust Dance Capsules, "Roaratorio," accessed July 3rd, 2016, http://dancecapsules.mercecunningham.org/overview.cfm?capid=46035.

39 Dickinson, "Introducing Roaratorio," 225.

40 Ibid.

normal aesthetic. Cunningham's joining of movement to narrative decidedly breaks with his typical approach to both movement and audience experience. Yet this break and this particular narrative both support and affirm his experiential aesthetic: the dance, ultimately, is about everyone and everything. The anomaly Cunningham allows in embracing Joyce's novel expands the number of possible experiences the audience might have in electing to 'see' the narrative, or not.

Yet the narrative aspect is only one of the two Joycean anomalies that fill *Roaratorio*'s movement. Irish-flavoured dance is ubiquitous in the choreography, but it is joined to Cunningham's typical range of modern dance movement, linking his sense of dance to Joyce's heritage and stories. However, Cunningham notes that the Irish dance vocabulary he employed in *Roaratorio* was not deliberate in

> any strictly material sense…the dance contains a number of reels and jigs, all made up. I simply took the sense of the rhythm and made them up—they're certainly not authentic. I wouldn't pretend to do that. The *Wake* is so full of references to dancing that I thought it could have that kind of thing.[41]

In this semi-Irish movement, then, there is a sense of Ireland—but that sense is scattered and not entirely authentic: the movement, like the music, is with and without place. This, too, is an aesthetic anomaly: the music and movement share a central link. Cunningham has stressed that the two creative processes did still occur independently, but that a shared concept of place led to a certain amount of coincidence. In relating his movement to Cage's composition, Cunningham has stated that he "thought of the dancing as another layer, not supported by other layers or referring to them—just to add more complexity."[42] Cun-

[41] Ibid.

[42] Ibid.

ningham's own creative efforts, then, do not directly mimic the place and placelessness of the *Irish Circus*, but instead reflect the choreographer's unique vision, which happens to reflect something of the same as what is heard in Cage's composition: Joyce's Ireland, and the whole of humanity. The two multivalent layers come together to create an impossible complexity and number of experiences.

Yet another layer is added through *Roaratorio*'s décor, costuming, and lighting, all contributed by Mark Lancaster (Christine Shallenberg assisted Lancaster with lighting design). The dancers, dressed from a pile of vibrantly coloured clothing, alternate solos and group movement. When they are not dancing, they rest on bar stools to the side of the stage.[43] The combination of vibrant colour in clothing and lighting, and the multiple activities of moving, resting, and watching lend themselves to many interpretations. If one is tempted to create one central meaning or place, an Irish pub in homage to Joyce is quick to come to mind. However, dancer Neil Greenberg has commented on his sense of profound human and social interaction in Cunningham's choreography, distinct from any one sense of time or place.[44] The result, I would suggest, is a transcendence of place in what listeners both hear and see: Joyce's Ireland is hinted at in the music, and, to a lesser extent, in the movement. But when they are all brought together, joined to Lancaster's conceptions and stage design, Joyce's Ireland is only one part of a story that is ultimately placeless and timeless, a spiral of human

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[43] Permission to reproduce images of *Roaratorio* in this article could not be obtained; excerpts of the dance can be viewed online through the Merce Cunningham Trust Dance Capsules, "Roaratorio," accessed July 3rd, 2016, http://dancecapsules.mercecunningham.org/overview.cfm?capid=46035.

[44] For Greenberg's comment, and video footage from the 2010 revival, see Merce Cunningham Trust, "*Mondays with Merce*, Episode 13: Roaratorio," accessed July 3rd, 2016, http://dancecapsules.mercecunningham.org/player.cfm?capid=46035&assetid=3947&storeitemid=5498&assetnamenoop=Mondays+With+Merce+Episode+013+.

interaction that seeks to speak to all of humanity. What the audience sees and hears is *Finnegans Wake*—but in joining the text, its places, and its ideas to sound and movement and décor, the audience also sees and hears far beyond the limits of the *Wake*'s words.

Cunningham succinctly outlined the Company's defining aesthetic mode and artistic feature in 1985, saying that "the three arts don't come from a single idea which the dance demonstrates, the music supports and the décor illustrates, but rather they are three separate elements each central to itself."[45] This guiding principle lies in exact contradiction of what occurs in *Roaratorio*—yet the Company's audience and enthusiasts, steeped in the concept of independence rather than interdependence of each art form, had come to expect their separation. *Roaratorio*'s breaking of that expectation is exactly what enables a revitalized, expanded experiential aesthetic. The audience may *choose* to see the elements of interconnectedness, or not. The independence of each artistic element is still present, and the dazzling array of layers and options that vie for one's attention ensure that seeing the greater whole in each moment will not be possible. *Roaratorio*'s structure reflects the holiness of Cage's world outside the church: it holds a plurality of centers.

In 1979, the year he composed the *Irish Circus*, Cage wrote that

> Many composers no longer make musical structures. Instead they set processes going. A structure is like a piece of furniture, whereas a process is like the weather. In the case of a table, the beginning and end of the whole and each of its parts are known. In the case of the weather, though we notice changes in it, we have no clear knowledge of its beginning or ending. At a given moment, we are where we are. The nowmoment.[46]

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45 Cunningham, *The Dancer and the Dance*, 137.

46 John Cage, "The Future of Music," in *Empty Words: Writings '73-'78* (Middletown: Wesleyan University Press, 1979), 178.

In each moment of Cage's and Cunningham's artistic output, we are where we are in the nowmoment, which can alter and shift as our attention and experience does. When one examines their entire artistic output, one can well argue that Cage and Cunningham, in their multiplicity of experiential options and their breakdown of traditional syntax of sound and movement, have ultimately beaten James Joyce at his own game. Indeed, the very two works that started out as a "sacrilegious homage" to Joyce end up, I would suggest, out-Joycing Joyce.[47] Yet if Cage and Cunningham move beyond Joycean multivalency and experiential aesthetic in their own creative fields, Joyce's own texts and ideas in the literary field are central to this accomplishment: they provided both Cage and Cunningham with a place of profound artistic nourishment. For in spite of its departures from aesthetic norms, *Roaratorio* stands as one of the best exemplars of the Cage/Cunningham experiential aesthetic in its sheer variety of options presented to the audience's attention. If I might revise an earlier sentence, we are where we are in the now *moments* as word and sound and movement come in and out of human perception. At the heart of the experiential aesthetic in *Roaratorio* is the sacred element of the unknowable. It is a work full of overlapping layers we cannot fully decipher, rich in opposites and dialectics that cannot be understood at once as text, sound, music, movement, and décor all come together to portray the unfathomable circus that is human life.

[47] Cage and Schöning, "Laughtears," 83.

Bibliography

Bean, Robert. "Polyphonic Aurality and John Cage." In *Aural Cultures*, edited by Jim Drobnick, 127-135. Banff: YYZ Books, 2004.

Blades, John. *How to Study James Joyce*. Basingstoke, Hampshire: MacMillan Press, 1996.

Blamires, Harry. *Studying James Joyce*. Harlow, Essex: Longman and York Press, 1987.

Brown, Carolyn. *Chance and Circumstance: Twenty Years with Cage and Cunningham*. Evanston, Illinois: Northwestern University Press, 2007.

Cage, John. *Roaratorio: An Irish Circus on Finnegans Wake*. Accessed July 3, 2016. https://www.youtube.com/watch?v=bdHe4c10smY.

———. *Empty Words: Writings '73-'78*. Middletown: Wesleyan University Press, 1979.

———. *Roaratorio: Ein irischer Circus über Finnegans Wake/An Irish Circus on Finnegans Wake*. Edited and translated by Klaus Schöning. Köningsten: Athenäum, 1985.

——— and Richard Kostelanetz. "Talking About *Writings through Finnegans Wake*." In *A John Cage Reader in Celebration of His 70th Birthday*, compiled and edited by Peter Gena and Jonathan Brent with supplementary ediitng by Don Gillespie, 142-150. New York: C.F. Peters Corporation, 1982.

——— and Klaus Schöning. "Laughtears: Conversation on *Roaratorio*." In *Roaratorio: Ein irischer Circus über Finnegans Wake/An Irish Circus on Finnegans Wake*. By John Cage, edited and translated by Klaus Schöning, 72-113. Köningsten: Athenäum, 1985.

Cunningham, Merce. *Changes: Notes on Choreography*. New York: Something Else Press, 1968.

———. *The Dancer and the Dance: Conversations with Jacqueline Lesschaeve.* New York and London: Marion Boyars, 1985.

———. "Space, Time and Dance" (1952) and "Four Events That Have Led to Large Discoveries" (1994). In *Art Performs Life: Merce Cunningham/ Meredith Monk/Bill T. Jones*, curated by Phillipe Vergne, Siri Engberg, and Kellie Jones, 18-21. Minneapolis: Walker Art Centre, 1998.

Dickinson, Peter. "Introducing *Roaratorio*, Cage, Cunningham, and Peadar Mercier with Peter Dickinson." Interview from July 19, 1987. In *CageTalk: Dialogues with and about John Cage*, edited by Peter Dickinson, 217-226. Rochester, NY: University of Rochester Press, 2006.

Johnston, Jill. "Jigs, Japes, and Joyce." *Art in America* 75 (1987): 102-105.

Joyce, James. *Finnegans Wake*. New York: The Viking Press, 1939.

Klein, Scott W. "The Euphonium Cagehaused in Either Notation: John Cage and *Finnegan's Wake*." In *Bronze by Gold: The Music of Joyce*, edited by Sebastian D.G. Knowles, 151-170. London: Routledge, 1999.

Köhler, Thomas. *James Joyce und John Cage: Welt, Klang, Text*. PhD diss., University of Hannover, 1998.

Kostelanetz, Richard. *Conversing with Cage*. New York: Limelight Editions, 1988.

———. "John Cage as *Hörspielmacher*." In *Writings about John Cage*, edited by Richard Kostelanetz, 213-221. Ann Arbor: University of Michigan Press, 1996.

Mac Low, Jackson. "Cage's Writings up to the Late 1980s." In *Writings Through John Cage's Music, Poetry, and Art*, edited by David W. Bernstein and Christopher Hatch, 210-233. Chicago: University of Chicago Press, 2001.

MacCabe, Colin. "An Introduction to *Finnegans Wake*." In *James Joyce's* Finnegans Wake*: A Casebook*, edited by John Harty III, 23-32. New York: Garland Publishing, 1991.

Merce Cunningham Trust. "*Mondays with Merce*, Episode 13: Roaratorio." Accessed July 3, 2016. http://dancecapsules.mercecunningham.org/player.cfm?capid=46035&assetid=3947&storeitemid=5498&assetnamenoop=Mondays+With+Merce+Episode+013+.

Merce Cunningham Trust Dance Capsules. "*Roaratorio*." Accessed July 3, 2016. http://dancecapsules.mercecunningham.org/overview.cfm?capid=46035.

Mumma, Gordon. "From Where the Circus Went." In *Cybersonic Arts: Adventures in American New Music,* edited with commentary by Michelle Fillion, ebook locations 2045-2570. Urbana, Chicago, and Springfield: University of Illinois Press, 2015.

O'Neill, Patrick. *Impossible Joyce: Finnegans Wakes*. Toronto: University of Toronto Press, 2013.

Perloff, Marjorie. "Music for Words Perhaps: Reading/Hearing/Seeing John Cage's *Roaratorio*." *Genre* 20, no. 3-4 (1987): 427-462.

———. "Difference and Discipline: The Cage/Cunningham Aesthetic Revisited." *Contemporary Music Review* 31, no. 1 (2012): 19-35.

Thompson, Chris. "Voicing Joyce: Crossmess Parzels from Cage to Beuys." *Performance Research: A Journal of the Performing Arts* 8, no. 1 (2003): 5-22. Accessed July 3, 2016. doi: 10.1080/13528165.2003.10871906.

Vaughan, David. "About Roaratorio." Merce Cunningham Trust Dance Capsules, "Roaratorio." Accessed July 3, 2016. http://dancecapsules.mercecunningham.org/overview.cfm?capid=46035.

Anarchic Practices in the Merce Cunningham Dance Company's *Ocean*

Janet Sit

ABSTRACT

In 1994, the Merce Cunningham Dance Company premiered *Ocean*, a large-scale production that featured a dance on a round stage with choreography by Merce Cunninghanm, orchestral music for over 100 musicians by Andrew Culver, and an electronic music component by David Tudor. The creation of the dance and music components utilized anarchic practices, such as chance operations and the *I Ching*, which drew upon the compositional processes and music of John Cage. In this paper, I examine *Ocean* through its use and employment of anarchic practices in its dance and music components, with a primary focus on the music component. My discussion begins by exploring the story behind *Ocean*'s creation and the influence of James Joyce and John Cage on this work. This is followed by an exploration of the multi-layered integration of anarchic practices within each component, with a detailed discussion on the construction and performance of the musical components. The discussion finishes with how the multi-layered incorporation of anarchic practices might parallel the scientific concept of synchronicity, based on the writings of Andrew Culver. In addition to published articles and documentation, I interviewed three musicians who were involved in this work: Andrew Culver, *Ocean*'s orchestral composer, John D. S. Adams, sound engineer and assistant to David Tudor, John King, electronic musician for David Tudor's component, and I contacted Gordon Mumma, a close friend to David Tudor and longtime member of the Merce Cunningham Dance Company.

The Merce Cunningham Dance Company premiered *Ocean*, its largest and most ambitious project to date, in 1994 at the Cirque Royale in Brussels, Belgium. It was the first "dance in a round"[1] for the American dance company, and the large-scale project took two years to realize from conception to premiere. Merce Cunningham created the choreography and composers Andrew Culver and David Tudor provided the orchestral and electronic music respectively. *Ocean* challenged traditions in both choreography and music in its creation and execution. Neither the Merce Cunningham Dance Company (hereafter MCDC) nor its contemporaries have since created a dance production of comparable scale. By focusing on ways its creators utilized and integrated anarchic practices as a compositional and performative tool, this essay explores the creative evolution of *Ocean*, with a central focus on its musical component.

Composer John Cage had worked with the MCDC since its formation in 1953, and his application of anarchic practices held a significant influence on *Ocean*, and informed my understanding of anarchy. Cage used the term "anarchic harmony," which has been described by Cage scholars as "a mutually consensual, non-hierarchical enterprise," or something "arrived at through social situations

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Throughout the paper, *Ocean* refers to Merce Cunningham Dance Company dance production, *Ocean 1-95* refers to the orchestral composition by Andrew Culver, and *Soundings: Ocean Diary* refers to the electronic music component by David Tudor. I would like to thank John D.S. Adams and John King for their time and generosity in sharing their recollections and experiences regarding *Ocean* and working with the MCDC. I would like to thank especially to Andrew Culver for sharing his experiences and insights on *Ocean*, on composing *Ocean 1-95*, and for providing music examples from *Ocean 1-95*. And finally, I would also like to thank Gordon Mumma for sharing his experiences working with the MCDC and David Tudor.

[1] "News," Merce Cunningham Trust, accessed March 2, 2015, http://www.mercecunningham.org/blog/ocean/.

that de-emphasize leadership and encourage voluntary cooperation between individuals and groups."[2] For this paper, then, anarchic practices refers to methods which move away from choice-driven, centralized, hierarchical structures which were and are often associated with traditional practices in dance and music. In *Ocean*, anarchic practices included the occurrence of chance-driven events, the use of the Chinese number-divination text *I Ching*, and chance operations through human and technological means.[3] To examine the musical composition and creation of *Ocean*, I interviewed three musicians directly involved in the production and performance: Andrew Culver, *Ocean's* orchestral composer; John D.S. Adams, sound engineer and assistant to composer David Tudor; and John King, electronic musician for David Tudor's music component.

The idea of *Ocean* came about by separate chance incidents that developed into a large-scale event. *Ocean* began with Cage and Cunningham talking about the idea of a dance in the round while touring with the MCDC in Zurich in June 1991. Cage imagined a "dance performed in the middle of a circular space, surrounded by the audience and then musicians, in concentric circles."[4] At that time, dance

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2 Joan Retallack, "Introduction," in Joan Retallack and John Cage, eds., *Musicage: John Cage in Conversations with Joan Retallack*, (Hanover and London: Wesleyan University Press, 1996), xxix, quotes in Marjorie Perloff, "Difference and Discipline: The Cage/Cunningham Aesthetic Revisited," *Contemporary Music Review* 31 no.1 (2012): 21, accessed February 24, 2015. http://dx.doi.org/10.1080/07494467.2012.712281; "Anarchic Harmony Foundation," accessed February 24, 2015, http://www.anarchicharmony.org/AHF/index.html.

3 "News," Merce Cunningham Trust, accessed March 2, 2015, http://www.mercecunningham.org/blog/ocean/; "Ocean (2010)," Nancy Dalva, originally published in *The Brooklyn Rail*, April 11, 2012, accessed February 24, 2015, http://www.nancydalva.com/2012/04/from-brooklyn-rail.html; Carolyn Brown et al., "Four key discoveries: Merce Cunningham Dance Company at Fifty," *Theatre* 34 no. 2 (2004): 105, accessed February 24, 2015, doi: 10.1215/01610775-34-2-105.

4 Dalva, "Ocean (2010)."

in the round was a significant departure from the traditional proscenium stage, which had a front-facing side and a focus towards centre stage. The placement of "musicians in concentric circles" outside the audience seating was another departure from traditional dance productions, which situated the musicians in an orchestral pit close to the stage. The length of the dance was set to 90 minutes, the longest continuous performance in the MCDC repertoire.

Both Cage and Cunningham enjoyed the writings of James Joyce and discussed the possibility of what work Joyce might have written after his final novel, *Finnegans Wake*.[5] In one interview, Cunningham attributed his and Cage's Joyce-based theme in *Ocean* to American writer and mythologist Joseph Campbell, a friend to the Cage-Cunningham duo, who had written on Joyce.[6] Culver noted that "one of Joyce's biographers suggested that it would have been something to do with the Ocean and the sea" as Joyce's last two novels, *Ulysses* and *Finnegans Wake*, were situated in Dublin, a seaside city.[7] As *Ulysses* contained 18 parts, and *Finnegan's Wake,* 17, the new Joyce-inspired MCDC work would somehow tie into this sequence, based on Culver's and Cage's discussion of the numerical aspects for *Ocean*:

> And he [Cage] said, 'What do you think, how many parts do you think his next book would have? … because of the sequence of 18 and 17, the obvious thing to say is 16.' And I [Culver] said, '…that's obvious 16 could be, but that wouldn't be it.'

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5 Ibid.

6 Ibid. For examples of Campbell's writings on Joyce, see Joseph Campbell and Henry Robinson Morton, *A Skeleton Key to Finnegans Wake* (New York: Harcourt, Brace and Complany, 1944); Joseph Campbell, *Mythic Worlds, Modern Words: on the art of James Joyce*, ed. Edmund L. Epstein (Novato: Joseph Campbell Foundation, New World Library, 1993).

7 Andrew Culver, interview with author, March 18, 2015; all subsequent citations of my interview with Andrew Culver refer to this date.

> And he said, 'Why not?' And I said 'Because 16 is such a symmetrical number and I don't think Joyce would have been attracted to it. It's too balanced, too static… it is also an *I Ching* number too.'… He said 'You are right. Then it must be 19.'[8]

Cage, Culver and Cunningham agreed that *Ocean* would be created with 19 parts, which are organized into *Ocean* in multiple ways that I will discuss later. Logically, 16 might also have been the next number in the sequence, but this chance alignment with the *I Ching* and Culver's opinion of 16 being 'static' turned the sequence the opposite way to 19.[9]

When Cage passed away in August 1992, Culver recalled Cunningham mentioning how *Ocean* would not be completed. Culver proposed that he work with David Tudor to create the music for *Ocean* and, captivated by a dance in the round, Cunningham agreed.[10] In a meeting in September 1992 at the "Anarchic Harmony" music festival in Frankfurt (celebrating what would have been Cage's 80th birthday), it was decided among European producers, managers, lead dancers, Cunningham, Tudor, and Culver that *Ocean* would be the next MCDC work as an homage to Cage, with Culver and Tudor providing the musical components.[11]

In their work as creative partners over multiple decades, Cunningham was influenced by Cage's use of the *I Ching* and chance operations

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8 Ibid. In addition to being an eventual composer of *Ocean*, Culver was also Cage's computer assistant at the time.

9 The *I Ching* is based on 64 hexagrams and 64 divides evenly into 4 parts, 64 ÷ 4 = 16 , which then divides symmetrically into 4 more part s, 16 ÷ 4 = 4 whereas 19 is a prime number and cannot be divided symmetrically.

10 Culver, interview with author.

11 Ibid. The city of Frankfurt am Main holds a yearly festival, the Frankfurt Feste, to celebrate arts and culture. In 1992, it was decided that one of the major themes was John Cage's music. It was intended to be a celebration of his music and 80th birthday. See "Artists: John Cage," Lovely Music Limited, accessed August 15, 2106, http://www.lovely.com/bios/cage.html.

as compositional tools and organized these anarchic practices into different layers of the choreographic structure in *Ocean*.[12] For his overall choreographic phrasing, Cunningham applied *I Ching* numbers; for the dancers' movements, stage placements, entrances, exits, and directionality, he used human- and computer-generated chance operations as a decision-making tool.[13] Referencing the Joycean number scheme, he divided the choreography into 19 sections over 90 minutes. Cunningham then applied chance operations to assign time duration for the phrases, resulting in 19 unequal sections.[14] A dance in the round meant that the front of a traditional proscenium stage was gone; consequently, there would be no back or sides of the stage either. This is a significant departure not only from traditional dance stagings, but also from Cunningham's previous works on proscenium stages. Cunningham divided the circular stage into 12 possible spaces, and in performance, it is thus made clear to the audience that all parts of the stage are considered equally important.[15]

Cunningham doubled the *I Ching*'s 64 hexagrams—figures composed of six horizontally stacked lines— to create 128 phrases (because he did not think the original 64 would be enough for the 90 minute work).[16] The order and length of the phrases determined the length of the sections. Cunningham applied chance operations to determine the entrance and exit times of the dancers, and applied them again to decide whether the dancers stayed in one space during a phrase or

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12 Brown et al., "Four key discoveries," 106.

13 Dalva, "Ocean (2010)"; Carolyn Brown et al., "Four key discoveries," 106.

14 Dalva, "Ocean (2010)."

15 Merce Cunningham Trust, "Merce Cunningham: on Ocean," published August 10, 2015, YouTube video, 02:21, accessed June 4, 2016, https://www.youtube.com/watch?v=pd3k67O-6EU; Dalva, "Ocean (2010)," 2012.

16 David Hinton, trans., *I Ching: the book of change*, (New York: Farrar, Straus and Giroux, 2015); Dalva, "Ocean (2010)," 2012.

whether they would move into another.[17] He further integrated chance operations to determine which of the 15 dancers at the Cirque Royal premiere exited through which of the four passageways. He stated that "each time we go over what has been worked on, I see possibilities missed; through chance operations I try to utilize them."[18] According to Merce Cunningham Trust scholar-in-residence Nancy Dalva:

> *Ocean* begins with Daniel Squire [dancer] performing a phrase – almost like an alphabet or a vocabulary – in varying directions, so that you see him do the same thing first from one angle, and then from another. He exits, and Julie [second dancer]…comes in and give the feminine version of the text.[19]

The use of recurrence and repetition in different spaces on the stage and with different dancers constructed a "visual rhyme," while a phrase which was repeated by a different dancer, facing a different direction or within different stage configuration, was considered at "slant rhyme."[20] In the performance, the dancers on stage ranged from solo parts to the whole ensemble in combinations of duos, trios, quartets, and larger groupings.[21]

To apply another layer of anarchic practice into the choreography, Cunningham integrated chance operations with computer software to generate the dancers' movements. Cunningham used the *LifeForms* software program, which allowed for experimenting with bodily movements (e.g. of arms, legs, spine) in a virtual landscape.[22] He had worked directly with Thecla Schiphorst at Simon Fraser University to develop this virtual

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17 Dalva, "Ocean (2010)."

18 Carolyn Brown et al., "Four key discoveries," 109.

19 Dalva, "Oceanography," *Dance Review Times* 3 no. 27 (2005): 1, last modified July 4, 2005, accessed February 28, 2015, http://danceviewtimes.com/2005/Summer/03/ocean.htm.

20 Ibid.

21 "News," Merce Cunningham Trust.

22 Ibid, and Carolyn Brown et al., "Four key discoveries," 109.

software.[23] In a 2003 panel discussion at the Brooklyn Academy of Arts, Schiphorst said the following about Cunningham's use of *LifeForms*:

> This experiment with technology is in many ways an extension of Merce's use of chance…with a figure doing a simple walking phrase, Merce would actually explore the relationship in time and space, looking at how he could change first the legs, then modify the arms totally separately, and then see how the spine could be modified.[24]

After using chance operations to determine combinations of movements for individual dancers and between dancers, Cunningham viewed the results through the *LifeForms* software.[25]

In applying anarchic practices at multiple levels, from the timing of phrases and entrances to the movements of individual body parts, *Ocean*'s choreography led to new ways of thinking about movement and directionality for Cunningham. *Ocean*, I believe, was the culmination of Cunningham's experiences in choreography through traditional and computer-assisted means. It was also the result of his familiarity with applying anarchic practices that allowed him to confidently explore new methods of movement. His style, where the dancers "often turn and change direction in ways that are difficult to anticipate," and in which "oftentimes parts of the individual's dancers' bodies go in different directions," further developed in *Ocean* to explore the multi-directionality of a circular stage.[26]

While Cunningham employed anarchic practices throughout *Ocean*, he was very specific about their use. The final decisions of which *LifeForms*

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[23] Ibid.

[24] Ibid., 109-110.

[25] Ibid., 109.

[26] Sally Banes and Noël Carroll, "Cunningham, Balanchine and postmodern dance," *Dance Chronicle* 29 no. 1(2006): 56, accessed February 5, 2016, http://www.jstor.org/stable/25598044.

movements were used in *Ocean* were not solely the result of chance, but rather a combination of the chance-produced results and Cunningham's assessment of their feasibility based on his experiences as a choreographer and dancer.[27] There was no improvised choreography during *Ocean's* live performances. The audience saw the results of a multi-layered decision-making process derived from anarchic practices. However, on stage, the movements come across as one complete and fluid sequence of events. The audience members interpreted the dance by imposing their own meaning without the creator(s) suggesting any intentional narrative. To not associate movement with a specific narrative or music, but rather make it "an aesthetic training ground, wherein the spectator is encouraged to savor the aleatoric conjunctions (and disjunctions) of sight and sound, in preparation for perceiving afresh the world outside the performance" was a continual and distinguishing feature of Cunningham's choreographies.[28]

Ocean's music components took an equally multi-faceted approach in integrating the Joycean number theme and chance operations. During the 1992 Frankfurt Feste's "Anarchic Harmony" festival, Culver and Tudor met to discuss the musical materials for Ocean. Culver had imagined the orchestral component as a homage to Cage and hoped to use a collage of *Number Pieces* as source material for *Ocean*.[29] He attended

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[27] Brown et al., "Four key discoveries," 110-111.

[28] Banes and Carroll, "Cunningham, Balanchine and postmodern dance," 59.

[29] Culver, interview by author. Cage's *Number Pieces* was a collection of works written for specific and undetermined instruments using time-bracket notation. Cage wrote *Number Pieces* during the last six years of his life, 1987-1992, with Culver's assistance on developing computer software that applied chance operations to calculating various aspects of time-bracket notation. The titles within *Number Pieces* indicate the number of performers and the placement within the collection for that number of performers. For example One[5] is the 5[th] piece for a solo instrument, Four[6] is the 6[th] piece written for four instruments, and 103 is the first (and only) piece written for 103 musicians. See Benedict Weisser, "John Cage: '…The whole paper would potentially be sound': time-brackets and the *Number Pieces* (1981-92)," *Perspectives of New Music* 41 no. 2 (2003): 179, accessed April 24, 2015, http://www.jstor/org/stable/25164529.

several Cage performances, including *103*, and at his next meeting with Tudor, said:

> …that *103* is a beautiful piece but I didn't think it had much of a relationship to John's ideas about *Ocean*, in particular the idea about James Joyce...[103] is an extremely calm, almost static 90 minute piece...David, who generally doesn't have much to say…looked really unhappy. And I can see on his face, the whole idea was going to be a disaster…I found myself saying to David "Why don't I write something new?" and David['s face] lit up.[30]

Culver modeled the structure of his new orchestral piece, titled *Ocean 1-95,* after *103* in several ways. *103* was written in layers of three groups with smaller ensembles within each layer playing at any given time, and derived its time durations and pitch materials through computer software that incorporated chance operations. Culver further developed the computer software for *103* in his creative process for *Ocean 1-95*. Culver also used the groupings of the smaller ensembles of *103* as a template for dividing his 112 musicians.[31] It is important to note, however, that while Culver used the ensembles from *Number Pieces* as a starting point, the musical content of *Ocean 1-95* was his own creation. Referencing the Joycean number theme, he divided *Ocean's* 90 minutes into 19 parts for *Ocean 1-95*. Like Cunningham, he applied chance operations to create 19 unequal divisions. He also referenced the number 5, favored by Cage's close friend, inventor Buckminster Fuller, as the number of layers for *Ocean 1-95*. Combining these numbers, Culver calculated 19 sections of each layer x 5 layers to create 95 individual pieces. Culver also used chance operations in his computer software to determine pitch materials.[32]

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30 Andrew Culver, interview with author.

31 Ibid.

32 Ibid.

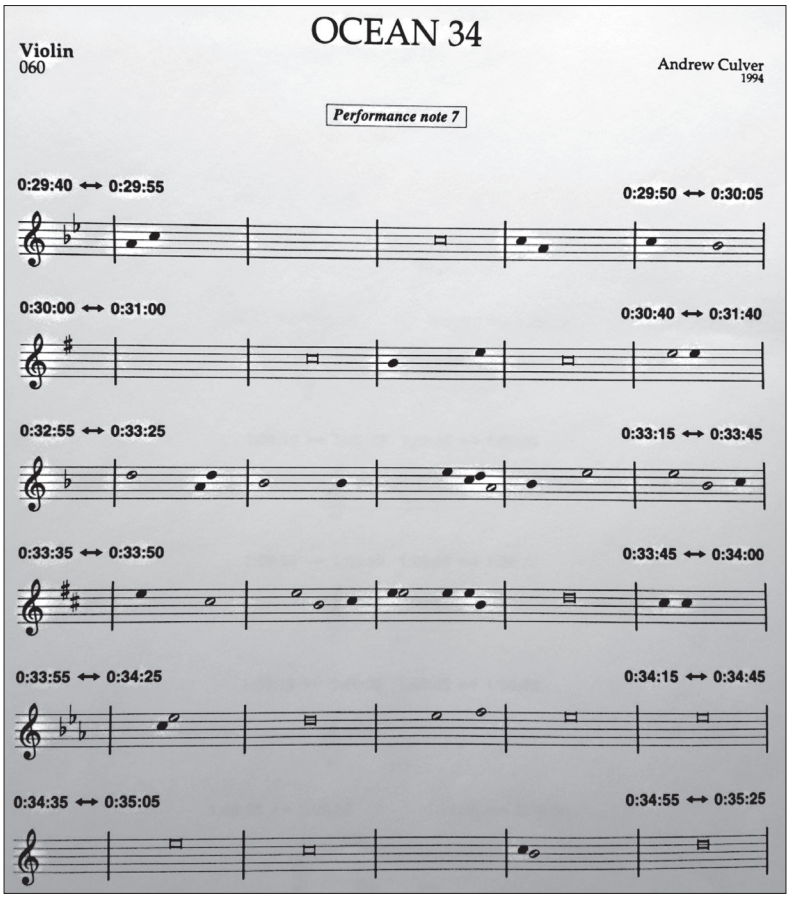

Figure 1. Excerpt from Andrew Culver's *Ocean 1-133* score, part for Violin 60, to be played with Performance Note 7.[33]

Ocean 1-95 used time bracket notation, which was a specific form for indicating the timing and duration of a phrase in music. This notational method grew out of Culver's work with Cage on developing computer software for calculating timing and duration based on

[33] Andrew Culver wrote an expanded version of *Ocean 1-95*, titled *Ocean 1-133*,for a subsequent performance of *Ocean*.

chance operations. A time bracket provides two time durations, one at the beginning and one at the end of a phrase (which could span one or more measures) for a specific length of time.[34] For example, with a beginning bracket of 0'00" – 1'00" and an end bracket of 0'30"-1'30", the performer would begin to play anywhere between 0'00" to 1'00" and stop anywhere between 0'30" to 1'30". The performer could choose to play the minimum duration by playing from 0'00" to 0'30". The performer could also choose the maximum duration by playing from 0'00" to 1'30". The overlap between the two brackets was essential for *Ocean 1-95*.[35] Two layers of chance operations are present here: one at the level of calculating the timing and duration through customized computer software and a second level during performance, when individual performers decide when to begin and end their musical phrases.

According to Weisser,

> The time bracket (which can be regarded not only as a notational device, but as a structural unit and a general compositional technique as well) produced harmonic situations that Cage could accept: a flexible, 'anarchic harmony' that is also highly determinate and 'coherent'…He [Cage] felt the need to invent notational systems which in themselves made no attempt to 'try to contain events in time,' but which let each thing make 'its own time and its own space.'[36]

Weisser noted that time bracket notation was the favoured process for Cage in his last decade of life.[37] Culver's use of customized software to incorporate chance operations, one may argue, forms a

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34 Weisser, "Time-brackets and the *Number Pieces* (1981-92)," 179-180.

35 Andrew Culver, personal correspondence with author, August 29, 2016.

36 Weisser, "Time-brackets and the Number Pieces (1981-92)," 179-180.

37 Ibid.

parallel to Cunningham's use of the *I Ching* and chance operations in *LifeForms*, integrating another layer of anarchy to the piece. Culver had further developed his chance-operated, time bracket notation software to create new levels of resultant complexities; in doing so, *Ocean 1-95*, in spite of its ties to Cage, forms a clear expression of Culver's musical voice.

The application of chance operations continued beyond time notation practices. Culver developed a new software program to specify instruments for the various smaller ensembles so that performers were assigned to only one ensemble at a time and were also not left in silence for too long.[38] In cases where the *103* ensemble template could not be followed, Culver created new ensemble arrangements, with the resulting collection of 95 pieces with 30 different ensembles.[39] Culver wrote about *Ocean 1-95*:

> Played throughout are 5 simultaneous but non-synchronous sequences, the players jumping from place to place, layer to layer, as they become available, each of the 5 layers having 19 compositions in sequence…each time a player enters a new composition, he or she will find it composed according to a different set of rules and parameters (1 of 20), and that it must be performed according to 1 of 7 sets of performance practices.[40]

Following the non-hierarchical or de-centralized meaning of anarchy, there were no conductors for *Ocean 1-95*, which was a radical departure for traditional orchestral performance, especially for a work

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38 Culver, interview with author.

39 Ibid.

40 "News," Merce Cunningham Trust. In later performances of *Ocean* when a larger orchestral ensemble was available, Culver augmented *Ocean 1-95* to *Ocean 1-133* with 19 parts and 7 layers for 150 musicians, which was the original number desired by Cage. From Culver, interview with author Andrew Culver, personal correspondence with author, August 29, 2016.

of this size. In rehearsals, Culver had two or three people help to organize the performers and adhere to the rehearsal times. Culver addressed the full ensemble of performers:

> You are all soloists. And to prove it, there is no [full] score, which means that nobody knows what's on your stand. I mean…I have an idea but I certainly don't know at any moment whether you are supposed to play an F or a G. I have no idea and nobody else does either. Just you…you are all soloists.[41]

Expanding on his work as a computer programmer, Culver's *Ocean 1-95* software programs also used chance operations to assign additional rules, parameters, performance practices and dynamics, for each of the 95 pieces.[42] Culver composed each part according to these assignments to create a total of 2403 pages distributed among 112 booklets.[43] The first section of the *Ocean 1-95* "score," which is a set of instructions followed by the 112 booklets, provides guidance on performance practice, making a reference to Cage's ideas on 'anarchic harmony':[44]

> The practices that will make for a good performance of *Ocean 1-95* are the same that apply to a correct practice of anarchy: a self respect that is brought to bear on every action, without depending on the presence of others – either as superiors, subordinates, or equals – but with full recognition of the possibility of the presence of others, as beings simultaneously engaged in their own anarchic practices.[45]

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41 Culver, interview with author.

42 Ibid.

43 Andrew Culver, *Ocean 1-95*, page 7 *Anarchic Harmony* 1994, accessed March 17, 2015, http://anarchicharmony.org/AP/OceanBook/html/OceanBook.htm.

44 Ibid.

45 Ibid.

Through *Ocean 1-95*, Culver developed his own voice by exploring new ways to integrate anarchic practices into his software and decision-making processes to a highly complex degree. Culver did not strive for a specific outcome in *Ocean 1-95* because he knew each performance would be different based on the individual decisions of the musicians. Instead, he applied chance operations as building blocks for *Ocean 1-95* and invited listeners to find new connections through seemingly indeterminate events in a highly pre-planned framework.

Culver's orchestral music, with its tremendous size and complexity, could have fulfilled the musical requirements for a dance production on its own. However, *Ocean 1-95* was only half of the music component. David Tudor provided the other and equally important half: the electronic music, titled *Soundings: Ocean Diary*, which played simultaneously with Culver's score. In his work, (his last fully realized composition before his death in 1996), Tudor applied chance operations in a different way with a small group of performers.[46] Based on the Joyce-inspired Ocean theme, Tudor wrote about his component of *Ocean* that "Each performer uses different sound materials, derived from the peripheral 'ocean' sources: sea mammals, arctic ice, fish, telemetry and sonar, ship noises."[47]

This was not Tudor's first collaborative project in working with underwater sounds. In 1983, Tudor provided a sound component to *Sea Tails*, a video installation in collaboration with Molly Davies and Jacquie Matisse. *Sea Tails* depicted underwater kites moving with the ocean in the Nassau, Bahamas, with Tudor collecting

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[46] D'Arcy Philip Gray, "The Art of the Impossible", last modified January 28, 1999, accessed February 24, 2015, http://davidtudor.org/Articles/dpg_impos.html.

[47] "News," Merce Cunningham Trust.

sound samples in the same area.[48] For *Soundings*, he extended his search to oceanographic institutes for field recordings. According to Adams, Tudor's assistant for *Soundings*, Tudor divided his sound collection recordings amongst two to three musicians depending on the venue and number of musicians available. The divisions were not set; the musicians could re-divide the recordings amongst themselves to play for each performance. Each musician arranged their recordings in a sequence of their own choosing without informing Tudor or the other musician about the sequence. The musicians met with Tudor to discuss approximate durations or timings, but Tudor provided very few instructions or suggestions on how to perform. For the technical aspect, however, Tudor provided specific electronics and analogue processing equipment, which allowed the musicians to use the original recordings or use a filtering process during the performance.[49] According to John King, the processing came primarily from the use of guitar distortion pedals and filtering.[50] During the performance, all the electronic musicians would play their pre-arranged sequences simultaneously and use filtering processes at times of their choosing.

The sound system for *Ocean* involved a challenging set-up which included suspended speakers and panning abilities. There were two clusters of 4-speakers which connected to servo-motors for moving and an encompassing group of four additional channels (ground speakers). The hanging speakers were connected to servo-motors so that they could rotate from 0˚ degrees (parallel) to 90˚ degrees

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48 "Sea Tails (1983)," The Getty Research Institute, accessed February 24, 2015, http://www.getty.edu/research/tools/guides_bibliographies/david_tudor/av/sea_tails.html.

49 John D.S. Adams, interview with author, February 24, 2016. Future citations of 'Adams' refer to this interview.

50 John King, interview with author, March 1, 2016.

(perpendicular) to the floor; panning abilities between the speakers were also available.[51] Concerning the moving and panning abilities, Tudor stated that "three architectural spaces are defined."[52] I believe these 'architectural spaces' refer to the three separate sources of sound from the two suspended group of speakers and the ground speakers, which could change the directionality of the sound and sound sources through panning and rotating functions. Tudor intended to move sound physically in space through the servo-motors and a horizontal track; however, the design team considered the latter an infeasible option.[53]

Both Culver and Gordon Mumma, a longtime compositional colleague of Tudor, believed that Tudor's ideas of sound and space developed from his background as an organist. Mumma recalled that Tudor placed equal importance on both instrument and performance space; the sound of the organ being dependent on the shape of the space. This brought an architectural component to his music-making; the instrument was not only the organ Tudor was playing, but rather the combination of the organ and the space.[54] According to Mumma, Tudor "plays the room,"— an approach Tudor also brought to his electronic compositions, which caused some issues between him, his fellow musicians, and the dancers.[55] The primary causation of these issues was that Tudor listened to the overall sound and volume of the entire space and not necessarily how the sound may be affecting

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51 Adams, interview with author.

52 "News," Merce Cunningham Trust.

53 Adams, interview by author; D'Arcy Philip Gray, "The Art of the Impossible," last modified January 28, 1999, accessed February 24, 2015, http://davidtudor.org/Articles/dpg_impos.html.

54 Gordon Mumma, conversation with author in February 2015, corroborated by Culver in March 18 interview.

55 Ibid.

particular areas in the space, namely other performers.[56] Culver spoke about his time with Tudor:

> …David didn't believe that volume was a parameter. He believed in timbre but not in volume. And you know with an organ in a church, yes, there is a damper pedal that you can use, but there really isn't any volume control. I mean, if you want that bright trumpet sound, you get the volume that the bright trumpet sound has; you don't get the quiet trumpet. So when you are mixing timbres you just live with whatever the volume is…[57]

This issue of volume control was highlighted at the 1994 premiere of *Ocean* at the Cirque Royale in Brussels. The Cirque Royale had a curved metal roof and the speakers were suspended very high up from the beams. The shape of the roof and the acoustics of the venue caused serious discomfort for the *Nederlands Balletorkest* musicians when the speakers were playing at high volumes. After the premiere, the executive director of the orchestra came up and informed Culver that the orchestra did not want to continue if the speaker volumes were not lowered.[58] Having worked extensively with Tudor, Culver found a creative solution:

> I had to go to David, and he was still in the pit. [This] was after the premiere that he was still on stage…And I said "David," and he said, "What?" and I said "The orchestra is unhappy." And he said "Why?" and I said "Because it was too loud." And I knew that it wasn't going to work, but I had to say it. [The] executive director of the orchestra…was watching. David showed me his back and turned around to what he was doing. So I knew I only had this chance… and said "There's another thing David…there's a certain sound…there's a timbre that just doesn't work. It just masks everything they [the orchestra] are doing."

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56 Culver, interview with author.

57 Ibid.

58 Ibid.

> And he said "Describe it." And I said "It's a kind of," and I remember it, the only word I could come up with was shredded. "It is a kind of shredded sound." And he looked at me and…turned his back on me again. I never heard that 'shredded' sound again and the orchestra stopped complaining.[59]

Adams was in charge of manipulating the speaker array through remote control at *Ocean*'s premiere, while Tudor gave him improvised cues. There were no limits to panning speeds or dynamics; the sounds could go from silence to ear-splitting loudness.[60] The musicians could also choose the type and length of "live modification" of the recordings during the performance. Tudor left instructions for "invited [recordings] contributions" so that *Soundings* could change over time.[61]

Tudor incorporated chance operations at every level of the music-making process. He contacted oceanography institutes for recordings, but had no criteria for specific sounds.[62] His compilation ranged from human- and animal-made sounds to sounds from the oceanic landscapes.[63] The division amongst the two to three electronic musicians, coupled with the freedom to arrange the order of their materials, provided an additional layer of anarchic practice through chance operations. In each performance, the electronic musicians did not listen to each other's recordings pre-performance to avoid being influenced. They heard each other's arrangements for the first time during performance, and their task was to respond to the sound environment in determining the amount of filtering, with the exception of Tudor's

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59 Ibid.

60 Adams, interview with author.

61 "News," Merce Cunningham Trust. Some of the original recordings for *Soundings: Ocean Diary* are available through the Getty Research Institute.

62 Adams, interview with author.

63 "News," Merce Cunningham Trust.

pre-determined cues.[64] Tudor applied anarchic practices through a de-centralized decision-making process and improvisation; for any performance, the creator of *Soundings* had very limited knowledge about the overall resulting piece. Every performance was different as the musicians re-distributed the collection amongst themselves. Tudor's instructions for additional recordings integrated chance operations over a larger temporal scale.[65] Tudor, like Culver and Cunningham, integrated various anarchic practices within his own component of *Ocean*. However, Tudor incorporated a different layer of anarchic practices by using human-based chance decisions, rather than using computer-generated chance operations or the *I Ching*.

The overall resulting sounds, far from chaotic, expressed the scientific concept of synchronization, or what Culver described as a 'new interconnectedness' through anarchic processes.[66] In his 2012 article "Unconducting the Self-Synchronizing Orchestra," Culver discussed this scientific synchronicity, which occurs when a "weak coupling strength" and a "moderate degree of frequency mismatch between the oscillating systems" are present.[67] He related this concept to music; one can apply anarchic practices to create an environment where a novel kind of organizing principle [synchronicity] emerges and a sense of interconnectedness would develop that works in a positive feedback loop.[68] He proceeded to outline conditions where anarchic practices can be employed to encourage the potential for scientific synchronization (which I have summarized in chart form):

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64 Adams, interview with author.

65 "News," Merce Cunningham Trust.

66 Andrew Culver, "Unconducting the Self-synchronizing Orchestra," *Circuit: musiques contemporaines* 22 no. 1 (2012): 56-57, accessed February 24, 2015, doi: 10.7202/1008968ar.

67 Ibid.

68 Ibid.

Removal of strong coupling mechanisms	Introduction of weak coupling mechanisms	Conditions for limited specificity
1. shared parts	1. time brackets	1. numerous musicians
2. conductor	2. non-specific durations	2. large time span
3. meter	3. non-expressive organizing technologies	3. precise event counts
4. tempo	4. multiple layers of simultaneous/ partially overlapping compositions	4. precise event sequences
5. sectional seating		5. precise pitches
6. proscenium staging		
7. sectional forms		

Figure 2. Summary of the section "Utilities supporting anarchy" in Culver's 2012 article.

While Cage may have influenced Culver in applying anarchic processes as a compositional tool, Culver's music developed not only to further utilize anarchic practices in new ways, but also to merge and explore these musical approaches into scientific synchronicity to develop an innovative compositional approach.

Culver's ideas on synchronicity can be further applied to *Ocean*. Referencing Figure 2, there are elements of synchronicity occurring within Tudor's electronic music component. While there are fewer musicians, *Soundings* also contains sufficient anarchic practices to support synchronization, including removal of shared parts, multiple layers of simultaneous/partially overlapping compositions, non-specific durations (each performance having a different sequence of recordings), and specificity in the event sequences (which are only

known to the performers). I postulate that *Ocean 1-95* and *Soundings*, as two systems which exhibit synchronicity independently, created further potential for synchronization when performed simultaneously. When I first watched Charles Atlas' film of *Ocean*, I observed an unexpected sense of ebb and flow between the two musical components and found that they worked well together to form a new, coherent, musical organism or landscape. I believe this interconnectedness fits with Culver's description of the emergence of a novel organizing principle, or a new sonic synchronicity. Finally, Cunningham's choreography employed some of the anarchic practices from Figure 2. These included: (removal of) proscenium staging, multiple layers of simultaneous/partially overlapping compositions (dancers moving simultaneously in various groupings), and limited specificity (precise choreography in movement, directionality, sequences). Viewed as three separate components (two based in music, and one in dance) with synchronous elements performing simultaneously, the probability of synchronization between components in *Ocean* is highly probable.

Ultimately, the application of anarchic practices in the music and choreography gave rise to a complex audio and visual landscape that became far more enriched and nuanced than its individual parts. Cunningham, Culver, and Tudor collectively applied various anarchic practices and used them as the building principle for an entire production. The potential for experiencing a new form of interconnectedness, or scientific synchronization, developed as a result of the multi-layered and multi-faceted applications of anarchic practices. In using this approach, *Ocean* was truly innovative and unique in applying anarchic practices on such a large scale, and created results beyond the sum of its parts.

Bibliography

Aloff, Mindy. "Illuminating Merce Cunningham's spirited choreography." *The Chronicle of Higher Education* November 30, 2007 from *The Chronicle Review* Volume 54, no.14 (2007): B14. Accessed April 14, 2015. http://chronicle.com/blogs/brainstorm/from-the-archives-aloff-on-cunningham/7475.

"Anarchic Harmony Foundation." Accessed February 24, 2015, http://www.anarchicharmony.org/AHF/index.html.

"Artists: John Cage." Lovely Music Limited. Accessed August 15, 2016. http://www.lovely.com/bios/cage.html.

Banes, Sally and Noël Carroll. "Cunningham, Balanchine and postmodern dance." *Dance Chronicle* 29, no. 1(2006):49-68. Accessed February 5, 2016. http://www.jstor.org/stable/ 25598044.

Brown, Carolyn, Merce Cunningham, Laura Kuhn, Joseph V. Melillo, Thecla Schiphorst and David Vaughan. "Four key discoveries: Merce Cunningham Dance Company at Fifty." *Theatre* 34, no. 2 (2004):104-111. Accessed February 24, 2015. doi: 10.1215/01610775-34-2-105.

Campbell, Joseph. *Mythic Worlds, Modern Words: on the art of James Joyce*. Edited by Edmund L. Epstein. Novato: Joseph Campbell Foundation, New World Library, 1993.

——— and Henry Robinson Morton. *A Skeleton Key to Finnegans Wake*. New York: Harcourt, Brace and Company, 1944.

Culver, Andrew. *Ocean 1-95*. Anarchic Harmony 1994. Accessed March 17, 2015. http://anarchicharmony.org/AP/OceanBook/html/OceanBook.htm

———. "Unconducting the Self-synchronizing orchestra." *Circuit: musiques ontemporaines* 22, no. 1 (2012): 51-58. Accessed February 24, 2015. doi: 10.7202/1008968ar.

Dalva, Nancy. "Ocean (2010)." Originally published in *The Brooklyn Rail* April 11, 2012. Accessed February 24, 2015. http://www.nancydalva.com/2012/04/from-brooklynrail.html.

———. "Oceanography." *Dance Review Times* 3, no. 27 (2005): 1-4. Last modified July 4, 2005. Accessed February 28, 2015. http://danceviewtimes.com/2005/Summer/03/ocean.htm.

Duffie, Bruce. "Presenting David Tudor." Last modified 1986. Accessed February 27, 2015. http://www.bruceduffie.com/tudor3.html.

Electronic Arts Intermix. "Ocean." Accessed February 27, 2015. http://www.eai.org/title.htm?id=15049.

Gray, D'Arcy Philp. "The Art of the Impossible." Last modified January 28, 1999. Accessed February 24, 2015. http://davidtudor.org/Articles/dpg_impos.html.

The Getty Research Institute. "The Art of David Tudor – Audio and Video." Accessed February 24, 2015. http://www.getty.edu/research/tools/guides_bibliographies/david_tudor/av/index.html.

The Getty Research Institute. "Sea Tails (1983)." Accessed February 24, 2015. http://www.getty.edu/research/tools/guides_bibliographies/david_tudor/av/sea_tails.html.

Haskins, Rob. "John Cage and Anarchism: Notes on Sources and Musical Evocations." *Terzvermittlung magazin* October 9, 2012. Accessed on August 16, 2016. http://terz.cc/print.php?where=magazin&id=264.

Jowitt, Deborah. "Sea Life and Strange Fruit." *The Village Voice* July 12, 2005. Accessed February 28, 2015. http://www.villagevoice.com/arts/sea-life-and-strange-fruit-7137511.

Kisselgoff, Anna. "'Ocean,' pounding in an urban forest." *New York Times* August 1, 1996. Accessed April 15, 2015. http://www.nytimes.com/1996/08/01/arts/ocean-pounding-in-an-urban-forest.html.

Merce Cunningham Trust. "News." Accessed March 2, 2015. http://www.mercecunningham.org/blog/ocean/.

———. "Dance Capsules." Accessed February 24, 2015. http://dancecapsules.mercecunningham.org/?8080ed.

———. "Dance Capsules - Ocean (1994) Production Overview." Accessed March 2, 2015. http://dancecapsules.mercecunningham.org/overview.cfm?capid=46086.

Perloff, Marjorie. "Difference and discipline: The Cage/Cunningham Aesthetic Revisited." *Contemporary Music Review* 30, no. 1 (2012):19-35. Accessed February 24, 2015. http://dx.doi.org/10.1080/07494467.2012.712281.

Smith, Steve. "Avant-garde dancing feet, tickling composers' minds." *New York Times* March 17, 2011. Accessed March 1, 2016. http://www.nytimes.com/2011/03/18/arts/music/merce-cunningham-and-the-composers-he-inspired.html?_r=0.

Vaughan, David. "Obituary: Merce Cunningham." *The Guardian* July 27, 2009. Accessed February 27, 2015. https://www.theguardian.com/stage/2009/jul/27/obituary-merce-cunningham.

Weisser, Benedict. "John Cage: '…The whole paper would potentially be sound': Time-brackets and the Number Pieces (1981-92)." *Perspectives of New Music* 41, no. 2 (2003): 176-255. Accessed April 24, 2015. http://www.jstor/org/stable/25164529.

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