BREAKING FORMAL LINEARITY: OPEN-FORM CONCEPTS FOR JAZZ LARGE ENSEMBLE MUSIC

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To my precious sons, Édouard and Henri,

may your curiosity and creativity illuminate your path.

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TABLE OF CONTENTS

ABSTRACT

This dissertation explores the intersection of composition and improvisation in jazz orchestra music. A thorough review of open-form concepts in the music of Earle Brown (1926-2002) precedes analysis and discussion of several original compositions by the author. These compositions demonstrate an engagement with non-linear form that empowers the conductor to manipulate contrasting musical materials in real time. Experimentation during the rehearsal process uncovered ways to enhance the creative contributions of improvising musicians (particularly within large ensembles), culminating in the creation of an open-form jazz orchestra piece, *Beautiful Humans*. Score samples are included in the body of the essay's text and in an appendix.

RÉSUMÉ

Cette thèse explore l'intersection entre la composition et l'improvisation dans la musique pour orchestre de jazz. Un examen approfondi du concept d'œuvre ouverte dans la musique d'Earle Brown (1926-2002) précède l'analyse et le commentaire de plusieurs compositions originales de l'auteur. Ces compositions montrent un intérêt marqué pour les formes non linéaires qui permettent au chef d'orchestre de manipuler différents éléments musicaux en temps réel. L'expérimentation au cours du processus de répétition a permis de mettre en évidence des moyens de favoriser les contributions créatives des musiciens improvisateurs (en particulier au sein de grands ensembles), ce qui a abouti à la création d'une œuvre ouverte pour orchestre de jazz, *Beautiful Humans*. Des extraits de partitions sont inclus dans le corps du texte de l'essai et dans une annexe.

INTRODUCTION

As a composer, my work is shaped by my background in improvisation as a jazz musician and my interest in contemporary classical music. In my scores, sections of conventional musical notation coexist with spaces for improvisation, creating a tension between control and freedom. I prefer music where composed material interacts with and influences improvised elements, blurring the line for the listener between what is notated and what is improvised. I primarily compose for three types of ensembles: jazz combos, hybrid chamber music ensembles that mix jazz and classical musicians, and jazz orchestras (big bands).

When composing for the jazz musicians in a combo, part of the creative process involves deciding which sections of the pieces the musicians will improvise on and what type of musical information I will share with them as a framework for their improvisation. In my hybrid chamber music works, I typically fully notate the parts for classical musicians while including improvisation only for jazz musicians who are well-versed in that practice. My goal with these ensembles is to create a stimulating backdrop of fully notated material that inspires the improvisers' performances. When composing for the jazz orchestra, my focus has primarily been on creating notated pieces with an emphasis on creative orchestration. In my jazz orchestra works, I have incorporated conventional soloistic improvisation sections within through-composed pieces, as well as the same ‘backdrop as a source of inspiration for improvisers’ that I use in my chamber music projects.

While I have been satisfied with experimenting in composing for the types of ensembles described earlier, a key moment occurred in 2016 after the record-release concert for my album *Lungta*, which led me to reconsider the relationship between improvisation and composition in jazz orchestra works. This concert featured American saxophonist David Binney as the main soloist, who improvised over the fully notated material for the Orchestre national de jazz de Montréal, which I conducted. The music for this project involved detailed orchestrations for an ensemble comprised of leading jazz musicians from Montréal, some of whom are also excellent improvisers and composers. I was extremely pleased with the performance of both the improvising soloist and the orchestra musicians, the latter of whom were committed to accurately playing my written material. However, I felt after the concert that by limiting the orchestra musicians to playing exclusively notated material, I was not fully realizing the potential contribution of these musicians in my goal of having notation and improvisation coexist with a blurred line between them for the listener. This realization led me to want to embark on a research path to explore additional ways to include improvisation in jazz orchestra works through doctoral studies at the Schulich School of Music.

What was clear from the start was that I was not interested in completely free collective improvisation. As a composer, I wanted to shape a musical narrative and invite the improvising musicians to contribute to this narrative, rather than create it entirely on their own. My initial idea was to research music whose notation allowed for different levels of freedom for musicians in improvisation. It was during this research that I discovered the work of American composer Earle Brown (1926-2002), including his various types of abstract musical notation that foster improvisation from performers, as well as his open-form mobile music, which allows

a conductor to determine the form of a composition in real time through the variable ordering of sections and the varied layering of musical elements within a section. In Brown, I discovered a composer who had a background in jazz, interacted with major twentieth-century contemporary classical composers, expressed his creative process eloquently in both writing and interviews, and whose quest for spontaneity in music aligned with my goals for jazz orchestra writing for improvising musicians.

I was particularly drawn to Brown's open-form concept because it offers additional possibilities for interaction between a piece's fully notated elements and improvised sections through spontaneous directions from the conductor. Brown's philosophy of including the performer as a collaborator in the creative process resonated with me and closely aligned with my intentions as an artist. His thoughts exemplify why I decided to research his music and experiment with his open-form concept with this doctoral project:

> "I have felt that the conditions of spontaneity and mobility of elements which I have been working with create a more urgent and intense "communication" throughout the entire process, from composing to the final realization of a work, I prefer that each "final form", which each performance necessarily produces, be a collaborative adventure, and that the work and its conditions of human involvement remain a "living" potential of engagement."[1]

In this final doctoral project, I examined ways to incorporate open-form content into jazz large ensemble music, focusing on Earle Brown's open-form music concept. The main goals of this research were to:

[1] Brown, *Novara : (1962)*.

1. Embrace non-linear forms by granting the conductor the freedom to juxtapose and superpose contrasting musical materials within a large ensemble
2. Blur the lines between composition and improvisation by incorporating different approaches to group improvisation
3. Utilize simple and practical concepts that can be implemented in a professional context with minimal rehearsal time for a large ensemble

The methodology of this project was situated within a framework of research creation, where I experimented with ways to apply Brown's concepts in my music before composing a fully open-form composition, *Beautiful Humans*, which was performed at a lecture recital in May 2024.

In this dissertation, I will first discuss Earle Brown, focusing on his background, influences, and the development of his open-form concept. Next, I will explore the application of this concept within a jazz orchestra, as well as my open-form experiments with various ensembles. Finally, I will analyze *Beautiful Humans*, the open-form composition created for this research.

PART ONE: Earle Brown (1926-2002)

1.1 Biography and Context

1.1.1 Early Years and Jazz

A native of Massachusetts, Earle Brown started to play the trumpet at age ten, playing in school bands, town bands and later in dance bands.[2] Big Band music was at its peak of popularity in America during Brown's teenage years, and many leading bands like the ones of Harry James, Tommy Dorsey, Duke Ellington and Stan Kenton passed through his hometown during the summers.[3] Additionally, as his first wife, ballet dancer Carolyn Brown recalls, anytime there would be a big band in Boston and Worcester, they would attend, giving Earle "an important self-directed musical education."[4] During that time, Brown formed his own dance band and learned to arrange music for his combo of trumpets, saxophones, piano and drums.[5]

Passionate about flying airplanes and wanting to become an aeronautical engineer, Brown went on to study mathematics and engineering at Northeastern University.[6] After attending the school for one year, Earle Brown joined the army and played in military bands. Brown gained much varied musical experience in the military by playing in marching bands, combos, jazz orchestras and classical music orchestras.[7]

[2] Yaffé, "An Interview with Composer Earle Brown", 289.
[3] Brown, "The Early Years", 23.
[4] Brown, 23.
[5] Brown, 23.
[6] Yaffé, 290.
[7] Yaffé, 290.

1.1.2 Composition Studies

In the military, Brown encountered a New-York musician who had studied the Schillinger system, "a kind of mathematically oriented system" for musical composition.[8] Brown was very intrigued by this system which had already been studied and implemented by many Hollywood and Tin Pan Alley composers, most notably, George Gershwin. After his military service, Brown, aiming at becoming a Hollywood composer, moved to Boston to attend Schillinger House (now Berklee College of Music), a school (mainly attended by jazz musicians) dedicated to teaching the Schillinger system, as well as studying early and 20th-century classical music privately with twelve-tone composer Roslyn Brogue Henning.[9] As Carolyn Brown recalls, during his time in Boston, Brown became curious about other arts, haunting "bookshops … discovering articles about Jackson Pollock, Alexander Calder, John Cage, and the works of Gertrude Stein."[10] These individuals would later have an indispensable influence on Brown's work.

1.1.3 Cage, New York School, Musical Experiments

After his time in Boston, Earle Brown moved to Colorado with his wife Carolyn to teach the Schillinger system and jazz arranging.[11] In 1951, he set out to compose concert music using twelve-tone pitch rows and rhythmic groups from the Schillinger system, resulting in *Three Pieces for Piano*. A pivotal moment for Earle Brown's career came in 1952 in Denver when he met John Cage, who was touring with his partner, dancer and choreographer Merce

[8] Yaffé, 290.
[9] Brown, 25.
[10] Brown, 25.
[11] Gahn, "Foreword: A Less 'Cloistered' Music,"xviii.

Cunningham. Brown mentions in a 1995 interview with conductor John Yaffé that he showed Cage his *Three Pieces for* Piano (1951) and that Cage was astonished.[12] Brown moved to New York and became close with two other composers in Cage's orbit, Morton Feldman and Christian Wolff, who would later, with Brown and Cage, be referred to collectively as the New York School. Brown's interest in visual art was also stimulated by interacting with members of the vibrant New York visual arts scene including abstract expressionist painters Willem De Kooning, Franz Kline and Mark Rothko.[13] It was at that time Brown began to explore ways of composing other than those governed by dodecaphony or by the Schillinger system. He experimented with different types of graphical notation to include a sense of spontaneity suggestive of Jackson Pollock's action painting and jazz improvisation, as well as with formal mobility inspired by the work of sculptor Alexander Calder. *Folio and 4 Systems* (1952-54) is a collection of these explorations in notation including Brown's most famous graphical piece: "December 1952". In 1953, Brown wrote for pianist David Tudor his first "truly open-form composition"[14], *Twenty-Five Pages*, a piece for one to twenty-five pianos. Tudor played excerpts of this piece at the highly influential Darmstadt Summer Course, sparking an interest in Brown's music among leading European composers such as Pierre Boulez, Karlheinz Stockhausen and Bruno Maderna.[15]

[12] Yaffé, 293.
[13] Yaffé, 295.
[14] Yaffé, 301.
[15] Beal, "David Tudor in Darmstadt," 80-81.

1.1.4 Capitol Records and Europe

Brown's previous experience working with tape music for Cage as well as for his own *Octet I* (1952-53) led him to a music production job at Capitol Records from 1955 to 1960 where he developed his recording skills while maintaining contact with jazz and popular music.[16] His interaction with European composers also continued during that time. In 1958, Pierre Boulez commissioned and premiered Earle Brown's *Penthathis* at the Darmstadt Summer Courses. The piece was written in conventional music notation, in closed form and did not reflect the innovations of *Folio and 4 Systems* and *Twenty-Five Pages* as Brown did not want to put Boulez in an unfamiliar setting.[17] Brown was later able to bring the ground-breaking notational and formal elements of his music to the orchestra in 1961 with *Available Forms I*, the first ever open-form piece for orchestra, to be conducted by Bruno Maderna. In this piece, the conductor plays a creative role, shaping the musical material by cueing musicians in various ways, and thus improvising the form by way of variable content ordering. Brown pushed the idea further in 1962 with *Available Forms II*, using two conductors (on this occasion, Maderna, and himself).

1.1.5 Sixties, Seventies and Final Decades

Brown continued to refine his concepts throughout the sixties with many commissions from European and American ensembles where, according to composer David Ryan, "[he] continued to emphasize different ways of combining fixed and mobile forms; these might include graphic indications for 'extended' techniques and improvisational mobile qualities, as well as highly

[16] Cady, 3.
[17] Dufallo, *Trackings : Composers Speak with Richard Dufallo,* 103.

wrought passages demanding playing of great accuracy."[18] His relationship with audio recordings continued as he produced what Ryan qualifies as "one of the most remarkable series of recordings of new music, titled *Contemporary Sound Series 1960–73* for Time Mainstream Records."[19] The series included works by composers such as John Cage, Luciano Berio, Karlheinz Stockhausen and Iannis Xenakis. From 1968, Brown was active as an educator with long-term residencies at Peabody Conservatory (1968-73) and CalArts (1974-83).[20] In the eighties, Brown served as a co-director of the Fromm Music Foundation (1984-89) and as the president of the American Music Center (1986-89). In the words of Rebecca Y. Kim, editor of *Beyond Notation: The Music of Earle Brown* (the first comprehensive survey of Brown's life and work),

> Brown's output slowed over the last decades of his life, but works such as the Koussevitsky commission *Cross Sections and Color Fields* (1975) for orchestra, *Windsor Jambs* (1980) for voice and ensemble, and *Tracking Pierrot* (1992) for chamber ensemble continued to explore variability of form while revealing Brown's richly textured harmonic and timbral writing.[21]

With his background in jazz, his study of the Schillinger System of Musical Composition, and his interest in contemporary arts, Earle Brown developed a unique perspective on concert music composition. His innovative notational systems "had a profound effect on compositional and performance techniques" and Brown remained "a vital link between the European avant-garde

[18] "DRAM: Notes for 'Earle Brown: Selected Works 1952-1965."
[19] "DRAM"
[20] "Bio: earle-brown.org."
[21] "Bio."

and the Americans, through important associations with Varèse, Cage, Feldman, Boulez, Maderna, and Berio, among others."[22]

1.2 Influences - Philosophy

The following discussion contextualizes Brown's open-form concept and his quest for spontaneous performance, mobility of musical content, and collaborative synergy between composer and performer within his notational innovations, highlighting the influence of jazz, Jackson Pollock, Alexander Calder, and Buckminster Fuller.

1.2.1 Jazz

Among the New York School composers, only Earle Brown was closely familiar with jazz from his early years as a trumpet player and jazz band arranger. Whereas John Cage dismissed improvisation as a viable form of expression in contemporary classical concert music, fearing that performers would simply play quotations, Brown embraced the spontaneity of jazz.[23] In the Yaffé interview, Brown expressed his belief in the concept of "improvisational composition."[24] In a 1991 interview with radio host Bruce Duffie, Brown mentioned that he valued "the freedom and the flexibility that jazz has from performance to performance".[25] He also added that he viewed his concept of open form as "another possibility of the palette of musical expression ... [that] make(s) a bridge between some aspects of classical music and

[22] "DRAM: Notes for 'Earle Brown: Selected Works 1952-1965.'"
[23] Yaffé, "An Interview with Composer Earle Brown", 300.
[24] Yaffé, 300.
[25] "Earle Brown Interview with Bruce Duffie . . . . . ."

jazz."[26] His familiarity with jazz improvisation influenced his philosophy as a composer, finding, as he remarked in a 1997 interview with music historian and performer Amy Beal, "that total systemic control of every note and nuances was sort of contrary to my [his] nature."[27] He wanted to combine the composer's and performer's creativity by having performers contribute to the musical content of the compositions and engage with content supplied by the composer. Brown shared with Bruce Duffie that: "one of the greatest things about jazz is the […] instantaneous communication."[28]

With his extensive background in jazz, Earle Brown did not initially understand why classical musicians could not improvise. The "October 1952", "November 1952", and "December 1952" pieces from *Folio and 4 Systems* (1952-54) constitute an attempt to progressively free classical performers from their dependence on traditional music notation and get them to start improvising. Habituated to jazz practices "wherein notated rhythms are not always meant to be performed exactly as written"[29], Brown experimented with different types of graphic notation to enable performers to improvise with varying degrees of freedom. For example, Brown removed stems from notes and rests between notes; he also removed meters and conventionally notated rhythmic values. Instead, he situated note heads in an abstract spatial arrangement that he called "time notation" (now known generally as "proportional notation"). This subsequent stage in Brown's notational explorations marked a significant shift toward abstraction. In "November 1952", he added supplementary lines to a musical staff,

[26] "Earle Brown Interview with Bruce Duffie . . . . . ."
[27] Beal, "An Interview with Earle Brown", 348.
[28] "Earle Brown Interview with Bruce Duffie . . . . . ."
[29] Cady, "An Overview of Earle Brown's Techniques and Media," 9.

making the notion of pitch ambiguous for the performer. Furthermore, the ordering of the pitch content and its rhythm were left to the performer's interpretation. These developments culminated in the completely graphical "December 1952". According to composer Jason Cady this piece "is purely abstract in that it does not specify notes, staves, clefs, dynamic markings, or other elements of traditional music notation; instead, it consists of vertical and horizontal solid black rectangles of varying lengths and thicknesses on one page".[30] Brown considered the notation conventions in "December 1952" as constituting the final frontier to letting musicians improvise freely.[31] Although Brown acknowledged that his music did not sound like jazz, he described its influence as more related to the "poetic relationship to the act of performing."[32] He considered himself a "very performance-oriented composer."[33]

1.2.2 Pollock and Spontaneity

Earle Brown's fascination with contemporary art, especially New York's abstract expressionist painters of the 40s and 50s such as Jackson Pollock, deeply impacted his work. Brown stated in a 1986 interview with Richard Dufallo, "I think of sound as an abstract material, like the Abstract Expressionist painters thought of paint... line, color, texture, density, intensity as abstract materials. And when I write a piece, I think of all those things."[34] With his music, Brown aimed to create a mosaic of abstract sound objects rather than tell a narrativistic story.[35] Brown

[30] Cady, 5.
[31] Ryan, "Energy Fields: Earle Brown, Open Form, and the Visual Arts," 84.
[32] Brown, "On December 1952," 6.
[33] Brown, 6.
[34] Dufallo, 114.
[35] Yaffé, "An Interview with Composer Earle Brown," 297.

was not only influenced by the paintings of Pollock but also by the painter's spontaneous process. For Brown, Pollock "was improvising and performing his paintings, in real time, to a large extent".[36] Pollock's 'action painting' also inspired Brown to explore music, as he described in the prefatory notes for *Novara* (1962), as "being conducted and formed spontaneously in performance"[37]. Brown created such music by leaving elements of his compositions up to the performer and requiring conductors to determine the formal aspects of large ensemble works in real time.

1.2.3 Calder and Open Form

The works of American sculptor Alexander Calder (1898-1976) made a significant impression on Earle Brown. In the Dufallo interview, Brown declares that Calder's work gave him "the aesthetic base for making open-form music."[38] Calder's mobile sculptures can be experienced from many angles, and the positioning of their elements can vary depending on external conditions. The different parts of the mobile do not constitute fixed relationships among themselves, but rather, a myriad of relationships or forms, to which Brown responded by finding ways to render certain composed musical elements 'mobile'.[39] In a 1964 lecture in Darmstadt, Brown shared that he wanted his work to be "an endlessly transforming and generating 'organism', conceptually unified in its delivery."[40] The composer and music theorist

[36] Dufallo, 107.
[37] Brown, *Novara*.
[38] Dufallo, 109.
[39] Brown, *Novara: (1962)*.
[40] Brown, "The Notation and Performance of New Music," 199.

Bradley Green, in his analysis of Earle Brown's *String Quartet* (1965), differentiates between closed-form and open-form music:

> In a closed-form piece, the order of sound events is dictated entirely by the composer and will be identical in separate performances. It is possible to have slight changes between performances as a result of interpretation (e.g. slightly altered tempo, different phrasing, articulation, etc.), but the progression of events will always be the same. […]
>
> By contrast, a piece composed from Brown's principle of open form puts the order of sound events in the hands of the performers. The composer may notate exactly the types of sounds he or she would like to occur, but the placement of these sounds within the piece is decided by the performers during the performance.[41]

Brown's first work using this open-form principle is *Twenty-Five Pages (1953)*. Playable by one to twenty-five pianists, the score comprises twenty-five pages that can be played in any order and shared among performers. In his 1961 work, *Available Forms I*, Brown advanced his concept of open-form music by devising a system that could be applied to larger ensembles, including orchestras. This innovative approach organized the printed music into unbound score pages, each featuring several numbered musical events that the conductor cues during the performance. Significantly, this system accords the conductor considerable freedom to improvise the work's form. As Brown explains in the prefatory notes to *Available Forms*: "The conductor may begin a performance with any event on any page and may proceed from any page to any other page at any time, with or without repetitions or omissions or pages or events, remaining on any page or event as long as he wishes."[42] Brown extended this approach

[41] Green, "Performer Choice and Earle Brown's String Quartet (1965): The Formal and Aural Implications of Open Form", 61.
[42] Brown, *Available Forms 1: For Chamber Ensemble (18 players)*.

in *Available Forms II* (1962) to include two conductors (Maderna and himself at the work's premiere). The inner workings of Brown's open-form music as applied to large ensembles will be discussed in detail later (section 1.3.3).

The most explicit example of Calder's influence on Brown can be found in *Calder Piece (1963-1966)*, commissioned by the Paris Percussion Quartet. In the score's program note, Brown explains that in his initial idea for the piece, the percussion ensemble "would be 'conducted' by a mobile in the center of the space with the four percussionists placed equidistantly around it, the varying configurations of the elements of the mobile being 'read' by the performers and the evolving 'open form' of each performance [yielding] different and changing perspectives in relation to it."[43] The mobile used as a 'conductor' was created by Calder himself and named "Chef d'Orchestre" by him. The percussion ensemble even used the metallic mobile as a percussion instrument to be struck with mallets.

1.2.4 Synergy

In his 1965 article "Form in New Music" and the 1986 Dufallo interview, Brown references French poet and essayist Charles Baudelaire's concept that "the arts tend, if not to complement each other, to lend one another new energies."[44] Baudelaire's notion of "energies" encompasses the creative forces, inspirations, and dynamism that different art forms can share. This concept underscores how various artistic disciplines can invigorate and enhance each other, fostering new ideas, perspectives, and expressions. As previously noted, Brown drew on

[43] Brown and Calder, *Calder Piece : For Four Percussionists and Mobile (1963-66)*.
[44] Dufallo, 116.

the works and processes of visual artists Calder and Pollock as different influences shaping his music. Reflecting on his close friendship with fellow composers John Cage and Morton Feldman, Brown remarked: “What brought John, Morty and me together was the fact that we had a wide, wide range of interests, not only music. Music was our material, but art was our subject.”[45] Brown believed that “art is for anything but decoration” and “to expand awareness and to bring things together.”[46] He pursued a creative process based on experimentation, where an artist aims to do something very personal that nobody else has done before by “using [their] mind, [and] using the culture [they are] involved with to expand the possibilities.”[47] Brown incorporated not only the work of Pollock and Calder into artistic practice but also that of novelists and poets like James Joyce, Kenneth Patchen and Gertrude Stein. His curiosity and wide-ranging interest in different art forms allowed him to draw from diverse cultural influences.[48] [49]

Reading about American architect and systems theorist Buckminster Fuller's concept of synergy validated Brown's belief in the creative process of fusion and amalgamation, highlighting the element of unpredictability. Fuller defines synergy as the behavior of whole systems that is unpredicted by the behaviors of their individual components. By this definition, influences from various artistic mediums can interact to create something beyond their initial structures.[50] Fuller's concept reinforced Brown's idea to include the performer in this synergetic relationship, redefining the typical composer-performer dynamic in pre-1950 western concert

[45] Yaffé, “An Interview with Composer Earle Brown," 297.
[46] Yaffé, 299.
[47] Yaffé, 299.
[48] Yaffé, 299.
[49] Dufallo, *Trackings : Composers Speak with Richard Dufallo, 106.*
[50] Ryan, “Energy Fields: Earle Brown, Open Form, and the Visual Arts”, 95.

music, where performers played exactly what composers wrote. Brown described synergy in his work as follows: "My imagination is the first energy . . . I come up with a notation for a score . . . that's a second energy. I give this ambiguous notation to David Tudor, for instance, who is a third energy . . . every stage in the game is a step forward in the unexpected."[51] Brown saw the performer's background, attitude, and reactions to a score with highly ambiguous notation as essential in sparking creativity. His background in jazz, where musicians create spontaneously without scores, taught him to trust musicians.[52] As he mentioned in a 1995 interview with John Yaffé: "I'm interested in inviting the performers into the process. I used to play with jazz musicians. We were equal. We played together, we worked together, we conversed together."[53] Pierre Boulez's reaction to Brown's graphic scores and proportional notation in 1952 illustrates how challenging the idea of inviting performers into the creative process was to some composers: "Oh, no, no, no. Composers cannot do that. *We* are the ones who know, *we* are the ones with taste, we are the ones who know the way it should be."[54]

[51] Ryan, 94.
[52] Dufallo, 107.
[53] Yaffé, "An Interview with Composer Earle Brown," 305.
[54] Dufallo, 106.

1.3 Exploring Mobility in Earle Brown's Music: Development of an Open-Form Concept for Ensembles

1.3.1 Mobility

In his 1964 Darmstadt lecture "Notation and Performance of New Music," Earle Brown reflected on his motivations for developing notational innovations in the early 1950s that allowed for a flexible and dynamic approach to musical composition and performance, which he referred to as "mobility." In such a context, the elements of a piece can be rearranged or interpreted in various ways.

> For me, the mobility (or mutability) of the work had to be activated during the *performance* of the work (as in a mobile of Calder), and expressed spontaneously and intensely by the performer, as in the immediacy of contact between Pollock and his canvas and materials. These two elements —mobility of the sound elements within the work, and the graphic provocation of an intense collaboration throughout the composer-notation-performance process—were for me the most fascinating new possibilities for "sound objects" as they had been for sculpture and painting. The necessity for new means of graphic representation is obvious.[55]

Brown developed two approaches to achieve mobility in his music: one physical and the other conceptual. In the prefatory note to *Folio and 4 Systems* (1952-54), Brown outlines the two approaches:

1. a "mobile" score subject to physical manipulation of its components, resulting in an unknown number of different, integral, and "valid" realizations

2. a *conceptually* "mobile" approach to basically fixed graphic elements; subject to an infinite number of performance realizations through the involvement of the performer's immediate responses to the intentionally ambiguous graphic stimuli relative to the conditions of performance involvement [56]

[55] Brown, "The Notation and Performance of New Music," 192.
[56] Brown, *Folio and 4 Systems*.

A prime example of Brown's physical approach to mobility is "1953" from *Folio and 4 Systems*. This one-page score can be flipped, allowing the performer to read it from either side, right side up, or upside down. Brown employs proportional notation for the durations of pitches, with alterations and accents added to both sides of each pitch, ensuring a "correct" reading in both orientations. Additionally, he modified common dynamic markings, such as *piano* (*p*) and *forte* (*f*), to be legible in both orientations (e.g. Figure 1). The performer can choose which clef to use for reading the pitches within each two-line system of "1953". Brown further developed his physical approach to mobility with *Twenty-Five Pages* (1953), consisting of twenty-five unbound pages that can be played in any order and shared among one to twenty-five pianists. Like "1953", each page can be performed right side up or upside down and each two-line system can be read in either treble or bass clef.

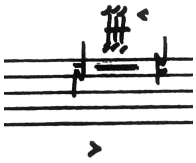


Figure 1, "1953", Example of notation legible in both orientations.[57]

In his essay "Overview of Earle Brown's Techniques and Media", Jason Cady suggests that, in addition to Calder's mobiles, the work of 19th century Symbolist poet Stéphane Mallarmé may have influenced Brown's physical approach to mobility in music. Cady observes: "Brown's conception for *25 Pages* [sic] was similar to *Le Livre*, which Mallarmé had planned as an

[57] Brown.

unbound and unpaginated book that could be read in any order. Brown had read and studied Mallarmé and was certainly familiar with *Le Livre* at the time he composed *25 Pages*."[58] *Le Livre*, unfinished at the time of Mallarmé's death in 1898, also influenced composer Pierre Boulez's explorations with mobility in works like his *Troisième Sonate pour Piano* (1957-1963).[59]

In Earle Brown's conceptual approach to mobility, graphic elements of a musical score allow for a wide range of interpretations. The performer interacts with these deliberately ambiguous elements, leading to countless performance possibilities. Brown described the conceptual mobility as the "performer's mental approach to the piece" where the performer is "holding in mind the considerable number of different ways of moving, moving the mind around a fixed kind of graphic suggestion."[60] In the first score of the *Folio* series, "October 1952", Brown used standard notation for pitches and rhythms, read from left to right, but offered the performer interpretive flexibility by removing all rests.[61] His goal was to "throw the performer into the necessity of performing in a very spontaneous way as far as time is concerned."[62] In "November 1952," Brown extended his approach by instructing the performer to interpret the ambiguous notation—suggestions of pitches with varying relationships of high to low and rhythmic durations from long to short on a fifty-line staff he called a "field" [63]—from any point, in any direction, for any length of time.[64] He described his vision for the performance of the piece as follows:

[58] Cady, "An Overview of Earle Brown's Techniques and Media," 14.
[59] Welsh, "Open Form and Earle Brown's Modules I and II (1967)," 257.
[60] Brown, "On December 1952," 3.
[61] Hoover, "Collage and the Feedback Condition of Earle Brown's Calder Piece," 163.
[62] Brown, 2.
[63] Brown, 3.
[64] Brown, *Folio and 4 Systems*.

> *November 1952: Synergy* is intended for the performer to perform in a very spontaneous manner, very quickly. Where the eye falls, it sees a certain duration or group of durations. And then the performer is to perform them. The eye can move from any point to any other point on the page so the piece could be realized - improvised through, worked through - for any amount of time. It can also be played by any number of instruments simultaneously. So it is beginning to be a collective kind of improvisational piece based on very simple elements which, to me, suggest ways of performing, various realizations possible from that one graphic thing.[65]

With "December 1952", Brown's graphical notation becomes purely abstract with no clear references to traditional music notation. The work presents a visual field of black rectangular forms—varying in dimensions and orientation—that deliberately avoid specifying exact pitches or sounds, instead offering performers complete freedom of interpretation.[66] Recalling a 1964 group performance of the piece in Darmstadt, Brown explained: "The performers are instructed that the top of the page is the top of their register and the bottom of the page is the bottom of their register, no matter the instrument they play. [...] Left-to-right is generally considered to be time and continuity can be from any point to any other point. The thickness of the line indicates relative loudness."[67]

With "December 1952", Brown applied his conceptual approach to mobility by encouraging performers to explore or interpret the different ways of "moving their minds" around the graphic score akin to "November 1952". He stated in the prefatory note to *Folio*, that "the composition may be performed in any direction from any point for any length of time."[68] Additionally, he introduced an element of physical mobility by allowing the performer

[65] Brown, "On December 1952, 3."
[66] Cady, "An Overview of Earle Brown's Techniques and Media," 5.
[67] Brown, 9.
[68] Brown, *Folio and 4 Systems*.

to read the score "from any of the four quadrant positions, which is right-side up, upside down, sitting on the right margin, or in the left margin."[69] Emphasizing the flexibility and creativity in how one can mentally engage with "December 1952", Earle Brown described a possible interpretation of the score:

> "One could begin a performance very quietly by choosing to read only the thinnest lines at the beginning, and moving from point to point in various frequencies, playing only the thinnest. Or, one could start very loudly by playing the thicker lines. Such things are all within the potential of a performer's decision or determination of how he will perform the piece."[70]

1.3.2 From Mobility to Open Form

Brown initially described the pieces from *Folio* and *4 Systems* as his "first examples of 'mobile' or 'open-form' works" because they required "varying degrees of performer involvement in their final form and, in two cases ("November 1952" and "December 1952"), in the sound content."[71] He later refined the term "open-form" to distinguish between compositions with open form and/or open content:

> "There are things in *Folio* which are open form, but I've always considered the *Folio* pieces to be steps on the way to making a really, truly open-form composition. In an improvised piece, the content is open as well as the form. The *Folio* pieces were a first shot. But when I did *Twentyfive Pages* [sic], it was twenty-five pages of fully described material, of pitch, dynamic and duration, in a relative sense, [...] And therefore, once the pitch is determined, the duration relatively determined, et cetera, then you really have *open form*, and not *open content*, and not *improvisation*. That's an important distinction.[72]

[69] Brown, 6.
[70] Brown, 6.
[71] Brown, "The Notation and Performance of New Music," 193.
[72] Yaffé, "An Interview with Composer Earle Brown," 301.

"November 1952" and "December 1952" are improvisational pieces due to their open content, granting performers such freedom that the piece may not be recognizable from two separate performances. Brown recalled receiving a tape of Gordon Mumma's performance of *December 1952* and noted, "If he [Mumma] hadn't labeled the box *December 1952*, I wouldn't have recognized it! That piece is completely anonymous and quite unique in my oeuvre."[73] With *Twenty-Five Pages*, Brown clarified his definition of open form: "There must be a fixed (even if flexible) sound content to establish the character of the work, for it to be called 'open' or 'available' form. We recognize people regardless of their actions, words, or attire if their basic identity is established as a constant yet flexible function of being alive."[74] In this work, Brown applied his physical approach to mobility by allowing performers to choose the sequence in which they play the "fixed sound content." Inspired by Calder's mobiles, he later designed a notation system enabling performers to "move" conceptually between fixed sound elements, similar to the "in any direction from any point" instruction in the improvisational *Folio* pieces. This approach applied to ensemble music struck a balance between control and flexibility, allowing Brown to make creative decisions as a composer while permitting performers to make spontaneous choices regarding the formal aspects of the works. As he stated in a letter to composer, Bruno Maderna: "My 'open-form' work is not to *evade* compositional responsibility!!"[75]

[73] Beal, "An Interview with Earle Brown," 355.
[74] Hoover, "Collage and the Feedback Condition of Earle Brown's Calder Piece," 164.
[75] Dubinets, "Between Mobility and Stability: Earle Brown's Compositional Process," 417.

1.3.3 Available Forms

The first piece to use this system is *Available Forms 1* (1961), for orchestra, where the conductor shapes the form in the moment by selecting and arranging the composed musical material. In this open-form notational system, pieces are structured in "pages" that contain different "events" to be played in any order according to the conductor's indications. Jason Cady's essay on Brown's techniques describes an event as "a musical figure that is cued by the conductor's left hand showing one to five fingers, while the right hand gives the "downbeat" that initiates the beginning of the event."[76] The conductor cues pages by placing a movable arrow-shaped sign on a placard indicating the different page numbers.

The score for *Available Forms 1* consists of six pages with four to five events per page. All six pages are placed on music stands in front of the conductor to avoid page turns, ensuring all events are visible throughout the performance. The number of pages in Brown's open-form works had a practical implication for the conductor and according to Cady:

> "Brown had felt that six pages was the maximum number that conductors could comfortably leave open on the podium, but after *Available Forms 1*, Brown never used that many pages again. The rest of his open form works use only four pages, with the exception of *From Here* (1963) and *Time Spans* (1972), both of which consist of three pages; and *Module III* (1969) on two pages."[77]

The layout of the individual parts is designed so that multiple pages and events are combined to fit on two pages, allowing ensemble musicians to access all the events on a single music stand without the distraction of page turns.

[76] Cady, 14.
[77] Cady, 15.

In 1962, Brown expanded his open-form concept with *Available Forms 2 for Large Orchestra, Four Hands*. In this work, a large orchestra of ninety-eight musicians is divided equally into two smaller orchestras, each with its own conductor. The piece is notated in two separate scores (one for each conductor) of four pages each with four or five events per page for a total of thirty-eight different events. As Brown states in the "Introductory Remarks" to *Available Forms 2*, the two scores are "independent but compositionally related" and the different events "differ from each other in their fundamental sound characteristics: articulation, density, contour, timbre, registration, and potential rhythmic energy."[78] The conductors "may call for them [events] in any combination or sequence, or in any juxtaposition [superposition] of two or more events at any moment."[79] Commenting on the interaction between the two conductors, Brown adds: "The conductors, working independently of one another, are of course dependent and related by their mutual knowledge of the combinatorial sound possibilities and by their intuitive and aural responses to the material (events) and to each other's sound-forms as they develop in the process of performing."[80] Although the orchestra is divided into two groups, the musicians are seated in a conventional large orchestra arrangement, with members from both groups alternating chairs within each section. Each conductor has their own podium, one slightly to the left and the other slightly to the right. The only exceptions to the alternating seating plan are the percussion, piano, guitar, and harps, which follow this arrangement:

[78] Brown, *Available Forms 2: For Large Orchestra, Four Hands (98 players).*
[79] Brown.
[80] Brown.

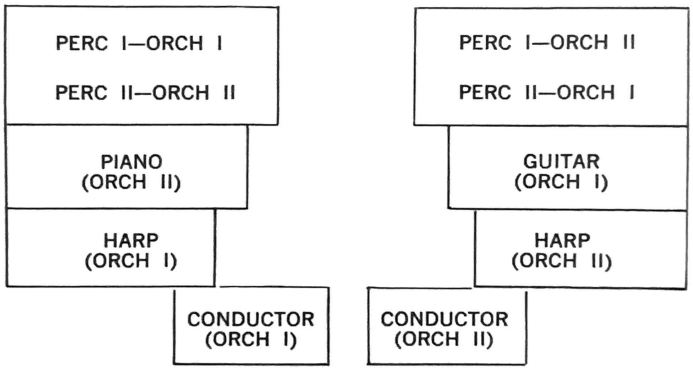


Figure 2: *Available Forms* (1962), Introductory Remarks.[81]

Although Brown's conception of the orchestra layout was not motivated by concerns of antiphony, he felt that "the existence of geographically separate orchestras would lead to visual and aural distractions," and that this "would also produce an atmosphere of "competition" between the conductors and orchestras, something that is completely foreign to my [his] intentions."[82]

Earle Brown used the same open-form concept with two conductors for *Modules I, II & III* (1966-69). In the "Directions for Performance," he states: "[emphasis in original] MODULE I and MODULE II are to be considered as two separate scores which may be performed simultaneously, or either one of them [...] with MODULE III."[83] *Module I* and *Module II* each consist of four pages containing five events. Each event comprises a held chord with varying orchestration, cued by the conductors. Module III comprises five events with different orchestrations for each section of the orchestra, allowing the conductor to cue and juxtapose

[81] Brown.
[82] Brown.
[83] Brown, *Modules III*.

any event specifically for the woodwinds, brass, strings, or percussion. Brown specifies the following orchestra seating plan and cueing system for the conductors "for maximum clarity of sectional cueing and independent modifications of dynamics."[84]

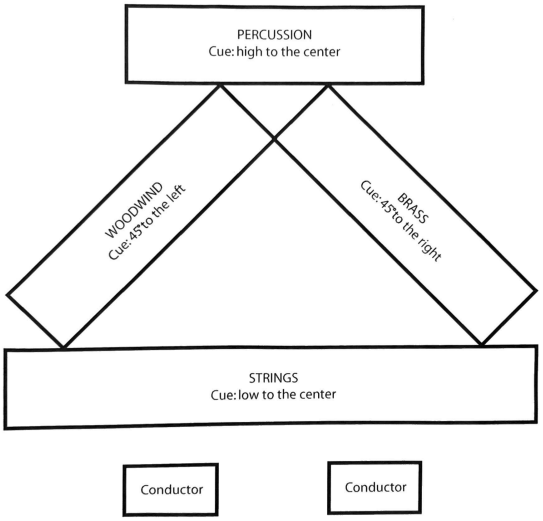


Figure 3: *Module III* (1969), Directions for Performance.[85]

With *Event: Synergy II* (1967-68), Brown expanded the possibilities for different performance formats by introducing five instrumentation options. The work is designed for nineteen instruments divided into two groups playing "A material" and "B material". The "A material" is scored for six woodwinds and a string quartet while the "B material" is scored for five woodwinds and string quartet. While Brown "strongly suggest[s] that the full 19 instruments be used, with two conductors, utilizing all A and B materials"[86], he conceived the work to allow

[84] Brown.
[85] Brown.
[86] Brown, *Event: Synergy II : For Ensemble and Two Conductors : (1967/68)*.

four other performance formats: "[emphasis in original] **ONLY** the A materials: six winds and one string quartet. **ONLY** the B materials: five winds and one string quartet. **ONLY** the **WIND** materials of both A and B materials: 11 winds. **ONLY** the **STRING** materials of both A and B materials: two string quartets."[87] He also suggests that: "In the latter four cases, one conductor is certainly sufficient but two *may* be used."[88]

1.3.4 Linear Open Form

Later in the seventies, Brown developed a new type of open form he described as "closed form with 'open' interior sections" which Jason Cady refers to as "linear open form".[89] With this concept, some sections are completely notated with a fixed linear approach to time while other sections are flexible open-form events. The large-scale form in these works consists of the fixed sequence of both types of sections, a closed form. As Brown states: "The mobility within the events within the given sequence must, however, certainly modify the formal effect which we experience from performance to performance, despite the fact that it is a diagrammatically fixed "form"."[90] *Cross Sections and Color Fields* (1973–75) exemplifies this interaction of linear form with open-form sections. In the score's "Programme Note", Earle Brown explains his intention behind using linear open form:

> There is no improvisation in the work (as we commonly think of it); all of the material and the basic form and structure of the piece are composed by me; but, as in my work since 1952, I am strongly committed to including a kind of "renewal factor" so that the

[87] Brown.
[88] Brown.
[89] Cady, "An Overview of Earle Brown's Techniques and Media," 16.
[90] Austin, Kahn, and Gurusinghe, *Source: Music of the Avant-Garde, 1966-1973*, 26.

work can come to life, transform and express itself somewhat differently in each performance, yet continue to be its very distinct "self". [91]

1.4 Events and Notation

1.4.1 Rhythmic Freedom and Notational Innovation in Earle Brown's Open-Form Works

In Earle Brown's open-form works, the main musical element left flexible for the performers in each event is rhythm. As he mentions in the performance notes to *Novara* (1962), Brown lets go of the idea of metric accuracy.[92] This means that instead of adhering to strict, predefined rhythmic patterns, performers are encouraged to interpret the rhythmic relationships more freely within systems of non-conventional music notations. He adds that: "the performance is not expected to be a *precise* translation of the spatial relationships but a *relative* and more spontaneous realization through the involvement of the performers' subtly changing perceptions of the spatial relationships."[93] The origins of this idea date back to his works from 1950-52 where he "came to a point of indicating rhythmic complexity and durational subtleties which seemed to me to be beyond counting and beyond performers' conscious or unconscious control of metric divisions on which standard notation is based."[94] Brown believed that the rhythmic complexities in standard notation of contemporary serial music often exceeded practical performance control, yielding only approximate results.[95] This observation led him to

[91] Brown, *Cross Sections and Color Fields: For Orchestra (1972-75)*.
[92] Brown, *Novara*.
[93] Brown.
[94] Brown, "The Notation and Performance of New Music," 191.
[95] Brown, 193.

reconsider the " function and practicality of standard notation" and "it seem[ed] to [him] much more reasonable to notate in [approximate, proportional] time relationships rather than in a metric notation which would then be transferred back into time relationships in the performance process."[96] These considerations led Brown to develop alternative notational systems, such as proportional notation and the use of stemless noteheads, which would better represent his musical ideas and encourage spontaneity in performance.

1.4.2 Time Notation (Proportional Notation)

To address what he describes as a 'notational problem,' Brown developed his 'time notation,' a system more suitable for his musical language and conceptual approach than standard notation.[97] In his survey of Earle Brown's techniques, Jason Cady portrays time notation as:

> […] a specific form of graphic notation […] developed […]as an alternative to traditional rhythmic notation. In time notation, rhythmic values are drawn in space rather than notated by the traditional rhythmic values that represent ratios according to a given meter. A notehead is elongated or compressed on the page to signify duration, and its position in space determines the approximate moment of attack. Rests are signified by the absence of notes. The interpretation of durations within time notation is, of course, subjective and this was another way that Brown encouraged spontaneity and variability in the performance of his music.[98]

Brown's time notation represented a significant departure from standard notation. In exploring its origins, Cady also suggests that Brown was influenced by the Schillinger system in his creation of time notation, where "music is also notated on a graph with the vertical ordinate

[96] Brown, 192.
[97] Brown, 192.
[98] Cady, 8.

representing pitch and the horizontal axis representing duration."[99] However, Cady outlines an important distinction : "Schillinger was striving for a precise and objective notation [...], whereas Brown was deliberately exploring the imprecision of such notation."[100] Brown first employed time notation in "1953" from *Folio and 4 Systems* (1952-54), and then in *Twenty-Five Pages* (1953). He also employed his time notation in open-form works such as *Available Forms I* (1961), *Available Forms II* (1962), *Novara* (1962), *From Here* (1963), and *Event: Synergy II* (1967).

1.4.3 Stemless Notation

Another notational technique Brown employed in his open-form works was the use of stemless noteheads. This approach offered even greater flexibility than time notation, allowing performers to determine both the duration and rhythmic relationships between notes. As Cady notes, Brown used black stemless noteheads in works such as the two *Available Forms* to "signify a looser interpretation of rhythm than time notation for either the conductor or performer."[101] While black noteheads allowed rhythmic freedom to all musicians in the ensemble, Cady observes that white stemless noteheads generally granted this flexibility specifically to the conductor. This is evident in works like the three *Modules* (1966–69) and *New Piece* (1971), "which feature these stemless white noteheads on staves without meter as "fermata" notes held by the conductor."[102] Brown used both black and white stemless

[99] Cady, 10.
[100] Cady, 10.
[101] Cady, 10.
[102] Cady, 10.

noteheads in his various open-form and linear open-form works. Cady documented that: “In the fifties and sixties Brown used time notation much more than stemless noteheads, but in the seventies, eighties, and nineties Brown used stemless noteheads more often than time notation. His last published work, *Special Events* (1999), used both.[103]

1.4.4 Standard Notation

Earle Brown used standard notation in his linear open-form works such as *Cross Sections and Color* Fields (1972-75) and *Centering* (1973). However, elements of standard notation can also be found in completely open form pieces such as *Tracer* (1984-85) and *Oh, K* (1992), demonstrating Brown's flexible approach to notation across different compositional structures. While Brown specified rhythmic figures using standard notation in these works, he still maintained a degree of interpretative freedom for the performer. For instance, in the "Performance Notes" to *Tracer*, Brown instructs that the notated events "can be performed *very slow* to *very fast*, inclusive," thus preserving the elements of spontaneity and mobility characteristic of his open-form works.[104]

1.4.5 Graphic Notation

Earle Brown's initial exploration of musical mobility in the *Folio* pieces of the early fifties was grounded in performer's responses to intentionally ambiguous graphic notations. As Jason Cady observes: “Brown explored other forms of graphic notation in his subsequent works, but he

[103] Cady, 10.
[104] Brown, *Tracer: (1984-85)*.

seldom used pure abstraction."[105] While Brown did not use purely abstract notation like that of "November 1952" and "December 1952" in his open-form works, he did incorporate graphic elements in compositions such as *Hodograph I* (1959), a piece for flute, piano/celeste and percussion. This piece is structured with two types of sections that Brown terms "explicit" and "implicit". Explicit sections have systems in conventional staff notation with durations of pitches using Brown's time notation. Implicit sections (ex. Figure 4) are completely graphical, drawn by Brown in a "spontaneous gestural style" without a clear reference to standard musical notation.[106] In the performance notes to *Hodograph 1*, Brown explains that:

> The "notations" within the "implicit" areas form trajectories through the total available range [vertical axis] and chosen time [horizontal axis] and are intended to imply the general character of the actions to be taken by the performer. The relative thickness of the lines may be interpreted as varying dynamic (intensity) levels; the configurations of the lines may be interpreted in general to imply staccato or legato attacks, a connected or disconnected type of phrasing, large or small intervals, rates of speed, types of motion, and in general "process through time."[107]

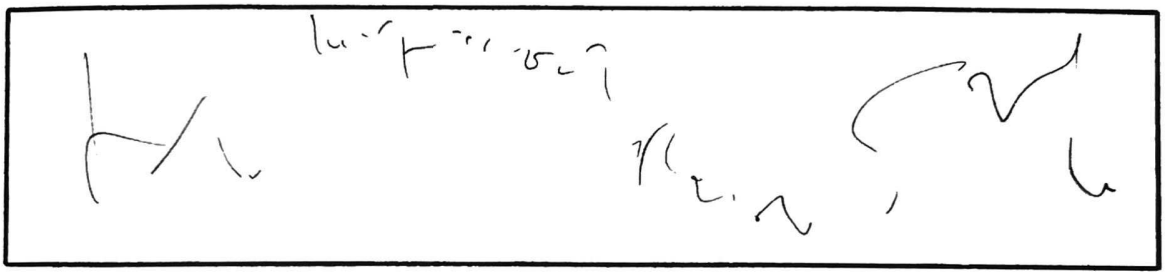


Figure 4, *Hodograph I* (1959), p3.[108]

[105] Cady, 6.
[106] Cady, 7.
[107] Brown, *Hodograph I*.
[108] Brown.

Brown further developed this approach in his later works, beginning with *Available Forms 1*, where he incorporated gestural notation within a musical staff in his open-form compositions. This gestural notation affords performers considerable freedom in both rhythmic and pitch content. Jason Cady identifies two reasons for Brown to use such a notation: "First, the ambiguity of the notation produced an infinite number of interpretations and spontaneous reactions. Second, the graphic notation could be used to convey extended instrumental techniques that otherwise could be awkward or complicated to notate."[109] Cady also notes that : "In the preface and score of *Available Forms 1* there is little explanation of how the notation should be interpreted (Figure 5), but in *Available Forms 2* (1962), Brown listed various extended instrumental techniques next to these gestural lines in the score."[110] (Figure 6)

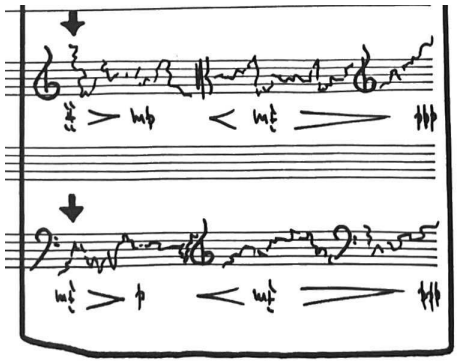


Figure 5, Available Forms 1 (1961), p4, viola and cello.[111]

[109] Cady, 8.
[110] Cady, 8.
[111] Brown, *Available Forms 1: For Chamber Ensemble (18 players)*.

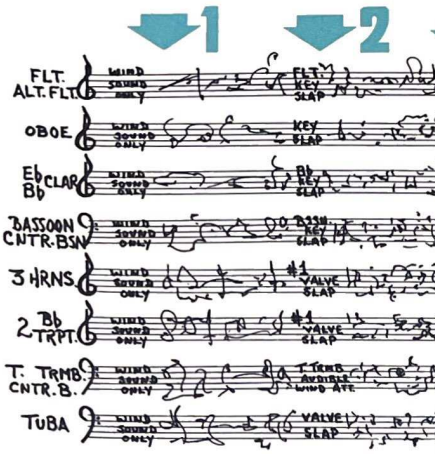


Figure 6, Available Forms 2 (1962), excerpt from page 2 orchestra 2.[112]

1.5 Conducting

1.5.1 Role of the Conductor in Brown's Open Form

In the prefatory notes to *Available Forms 1*, Earle Brown compared his open-form conception and the role of the conductor to the act of painting: "It is a conception of sound, organized events, and ensemble, as 'plastic' material capable of being molded, modified, and 'formed' in various ways. The conductor's function is analogous to that of a painter who has a canvas (time) and colors (timbres) and the possibility of working with the medium."[113] In the introductory remarks to *Available Forms 2* (1962), Brown affirms that: "[emphasis in original] The conception of the work is that the score presents specific material having different characteristics, and that this material is subject to many **inherent** modifications, such as

[112] Brown, *Available Forms 2: For Large Orchestra, Four Hands (98 players).*
[113] Brown, *Available Forms 1: For Chamber Ensemble (18 players)*.

modifications of combinations (event + event), sequences, dynamics, and tempos, **spontaneously** created during the performance".[114]

The conductor—or conductors, in the case of this work subtitled *For Large Orchestra, Four Hands*—are responsible for these spontaneous modifications of the work's material. Needless to say, this role extends beyond the habitual one of Western concert music conductors, incorporating creative decision-making that encompasses interpretation, composition, and improvisation. In the Dufallo interview, Brown states: "the conductor is improvising with the orchestra as the instrument."[115] In the same interview, Brown recalled that while conductors who were also composers, like Bruno Maderna, loved performing his open-form works, they intimidated other conductors who were not composers "because they are put in a situation [...] of making decisions which they are not used to making [and] they worry about whether their decisions are going to be as good as someone else's decisions."[116] Brown believed that this apprehension might stem from the confidence required to be a composer and to create works that can be judged by critics.[117] While being a composer seems to help in conducting open-form music, Brown noted that two of the best performances of *Available Forms II* were conducted by Charles Bruch, who was not a composer but possessed the confidence and mindset necessary to tackle the open-form work without feeling nervous. When Brown conducted the piece with the legendary conductor and composer Leonard Bernstein and the New York Philharmonic in

[114] Brown, *Available Forms 2: For Large Orchestra, Four Hands (98 players).*
[115] Dufallo, *Trackings : Composers Speak with Richard Dufallo*, 112.
[116] Dufallo, 110.
[117] Dufallo, 112.

1964, Bernstein told Brown that it was "one of the most challenging things he had ever done."[118]

1.5.2 Conducting Technique

Brown conducted his open-form works on many occasions and, given the importance of the conductor's role in his open-form concept, he had a clear understanding of the conducting techniques required for their performance. Brown's open-form music does not require the conductor to rhythmically synchronize all the musicians of the orchestra at all times, as it employs proportional or stemless notation that lacks meters or an audible pulse. Essentially, the conductor indicates which material the orchestra will play by moving an arrow on a placard to point to the page of the event to be performed and using his left hand to indicate which event to play, before initiating the event with a right-hand downbeat, the speed and size of which will influence the relative tempo and dynamics of the orchestra's performance. Starting with *Novara* in 1962, the prefatory notes to open-form works included the following guidelines for conducting:

> The conducting technique is basically one of cueing; the notation precludes the necessity and function of "beat" in the usual sense (although the conductor does indicate the relative tempo). The number of the event to be performed is indicated by the left hand of the conductor — one to five fingers. A conventional (right-hand) down-beat initiates the activity. The relative speed and dynamic intensity with which an event is to be performed is implied by the speed and largeness of the down-beat as given with the right hand. Nearly all of the events in the score have been assigned dynamic values. These are acoustically accurate in terms of instrumental and ensemble sonority and balance and must be respected as written, although the conductor may "override" the indicated dynamic values and raise or lower the overall loudness.[119]

[118] Dufallo, 111.
[119] Brown, *Novara: (1962)*.

The conductor can stop an event at any point using a conventional cutoff gesture. Brown's open-form concept allows for the superposition of events because he wanted to allow the conductor the flexibility to cut off events individually. To achieve this, the conductor uses only his right hand for the cutoff gesture while signaling an event number with his left hand, only the musicians playing that specific event need to stop. However, when the conductor employs both hands for the cutoff gesture, all musicians are required to stop.

PART TWO: Jazz Ensembles Open-Form Experiments

2.1 Reflections on Adapting the Open-Form Concept to Jazz Large Ensembles

2.1.1 Personal Motivations and Compositional Goals

My research on Earle Brown led me to refine my goals for the creation aspect of this project. While it remained essential to include improvisation from all musicians in the orchestra, I realized that I was particularly drawn to Brown's open-form concept because I wanted to improvise as a composer-conductor with the orchestra. Specifically, I aimed to explore improvisation through the juxtaposition and superposition of composed events with the improvised contributions of the orchestra musicians.

I also share Earle Brown's appreciation for the performance-to-performance variability and spontaneity that characterizes jazz. Before becoming a composer, I was an improvising jazz saxophonist, striving for spontaneity in my small group projects, such as my duo with pianist François Bourassa and my different jazz combos. Prior to encountering Brown's open-form concept, my jazz orchestra writing allowed only the improvising soloist to be spontaneous. Similar to Brown, I viewed open form as the perfect approach for achieving what I consider a key aspiration: getting the compositional process closer to the act of performance.[120]

[120] Cady, "An Overview of Earle Brown's Techniques and Media," 16.

2.1.2 Translating Brown's Concepts to Jazz Orchestra

The first question I asked myself before designing my initial open-form experiments was whether the fundamental characteristics of Earle Brown's concept could effectively translate to the jazz orchestra setting. At its core, the structural mechanics of Brown's open form consist of a conductor ordering and layering short composed musical sections for an ensemble organized, into pages and events, employing specific conducting logistics to indicate these pages and events. Brown's choice of musical notation for the composed events in his open-form works was driven by his artistic goals, including the desire to relinquish metric accuracy, provide performers with the freedom to interpret rhythmic relationships, and encourage musicians to react to ambiguous graphical stimuli.

2.1.3 Structural Mechanics Versus Notational Innovation

While I find Earle Brown's music to be both interesting and inspiring, my interest in his open-form concept is rooted more in the efficiency and creative possibilities offered by its structural mechanics. I am inspired by Brown's notational experiments, which I explore in my music for this research-creation project. However, my primary focus has been to utilize the open-form concept to create mobile works that also incorporate improvisation from the orchestra musicians.

2.1.4 Notation Choices and Pulse-Based Distinctions

My notational choices form an integral part of the experimental process, guided by the anticipated musical results. Prior to composing any open-form music, I recognized that a fundamental distinction between my work and Brown's was the presence of pulse in my compositions—a defining feature of jazz. This understanding informed my decision to employ conventional musical notation (especially metrical notation) for many events, despite my concurrent intention to explore methods for granting performers rhythmic freedom.

2.1.5 Cross-Genre Orchestral Adaptability

I could not see any reason why Earle Brown's open-form concept couldn't be applied to the jazz orchestra—an ensemble whose musicians are accustomed to reading musical notation and following a conductor, despite differences in the styles of classical and jazz conductors. Jazz orchestra musicians would simply need to familiarize themselves with the open-form concept's inner workings, just as any classical musician unfamiliar with these inner workings would need to do.

2.1.6 Structuring Improvisation Within Open Form

Another crucial element of this research-creation project lies in how I incorporate orchestral musicians' improvisation within the open-form context. Exploring diverse approaches to both individual musician's and collective improvisation constituted a significant component of the research. As established in the introduction, my clear intention has been to craft a musical

narrative while inviting improvising musicians to contribute to this narrative. This approach would necessitate structuring improvisation in a manner that enabled improvisers to shape their spontaneous statements in response to the composed elements of the works.

2.2 Experimental Foundations: Establishing Parameters for Open-Form Jazz Exploration

In my process of exploring open-form music, I began by working with jazz ensembles before composing a fully open-form piece. I experimented with varying degrees of specificity in the notated material, enabling spontaneous choices by the performer(s) with multiple possible outcomes.

Drawing inspiration from Brown's linear open-form works, I incorporated open-form sections into fully notated compositions. I wanted these sections to integrate seamlessly with the notated sections and to ensure that the performer-chosen events remained musically related to the overall composition. This experiment served multiple purposes:

1. To gain experience composing musical ideas with multiple possible outcomes
2. To observe how jazz musicians would perform and make spontaneous choices within this conceptual framework and notation style
3. To engage with the performance aspect as a conductor

To begin, I established several practical limits for presenting the open-form sections within the compositions:

1. Reduce the open-form sections to a single page to avoid the complexity of managing multiple pages
2. Adopt Earle Brown's open-form event layout, labeling events in large red numbers (e.g., *Novara* (1962))
3. Eliminate individual parts in favor of collective score reading, with adjustments to instrument transposition when necessary

These guidelines formed the foundation for my initial experiments with open-form composition in a jazz ensemble context, allowing me to maintain a simple process for both the musicians and for myself (as conductor).

2.3 Chamber Jazz Ensemble

2.3.1 Ensemble Description

McGill University's Chamber Jazz Ensemble 1 served as my initial experimental group. This ensemble of about ten graduate and advanced undergraduate musicians bridges the gap between a jazz combo and a full orchestra and includes rhythm section instruments (piano, bass, guitar, and drums), wind instruments, and voice. Its mission includes performing student compositions and exploring various improvisation strategies. Its flexible instrumentation accommodates students whose principal instruments might not typically feature in a jazz orchestra (e.g., flute), allowing them to participate in an ensemble larger than a standard jazz combo. From Winter 2023 to Spring 2024, I co-led this ensemble with Professor John Hollenbeck. Bi-weekly rehearsals and the alignment of my research interests with the

ensemble's mission created an ideal environment for experimenting with Brown's open-form techniques. The ensemble's changing instrumentation requires leaders to arrange or compose music tailored to its "formation" (in a given semester). During my tenure as co-leader, I both arranged my own compositions and works by other composers.

2.3.2 *ID 1*: Ensemble Open-Form Musical Backgrounds

The first piece in which I experimented with open form is *ID 1* (2018), originally written for a jazz quintet project and inspired by Steve Reich's *Drumming* (1970-71). The piece comprises four movements, each employing only four pitch classes. The composition's narrative arises from the juxtaposition of different rhythms and layers of melodic cells (Figure 7).

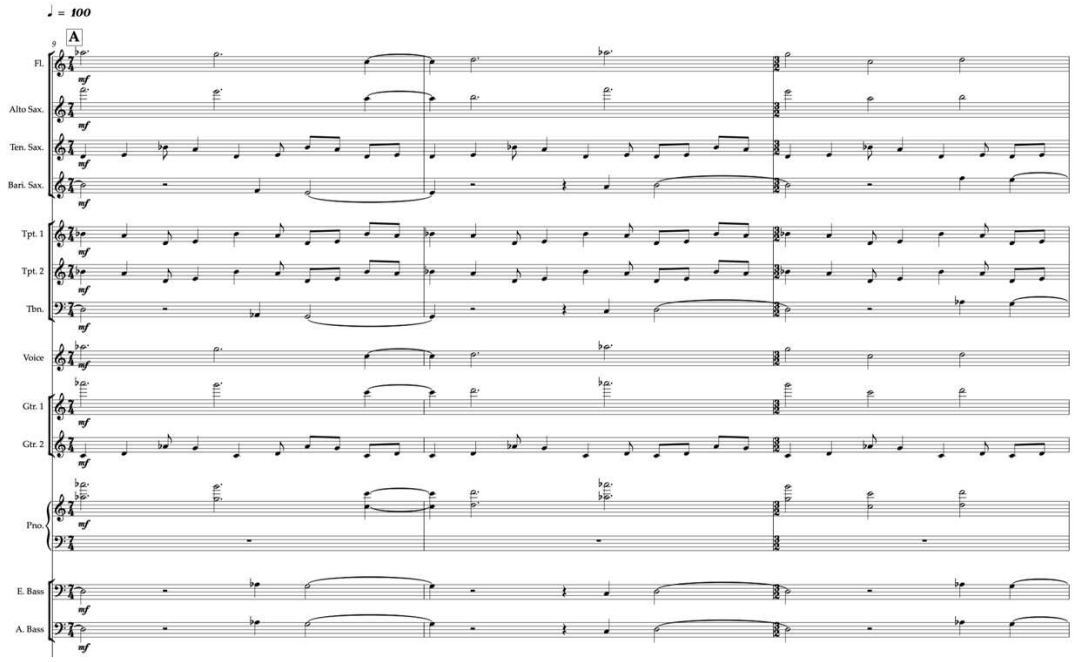


Figure 7, *ID 1,* movement one, section A, mm, 1-3.

In the first movement of the jazz quintet version of *ID 1*, an open-length improvisation section is inserted between fully notated sections. Here, the saxophone and trumpet improvise freely over accompaniment from the rest of the quintet, which is also improvised but based on the movement's four pitch classes. In the chamber jazz version, I wanted to keep this improvised section but expand it to include all musicians from the ensemble. To do so, I drew on a common practice in jazz large ensemble arranging: composing backgrounds for wind instruments during sections where a soloist (e.g., saxophone) improvises with rhythm section support (e.g., piano, bass, and drums). This approach engages all of the instruments during a solo and enhances the improvised section by facilitating interaction between the soloist and the full ensemble. Traditionally, backgrounds for open-length improvisations require the conductor to cue predetermined, fixed-length sections, thus constraining their spontaneous nature. These cued passages serve either as conclusions to the improvised sections or as transitions to new ones, with composers predetermining both the content and duration of these backgrounds in a linear fashion. Drawing on Brown's open-form concept, I developed an alternative approach where different backgrounds are organized in numbered events, with their order and duration determined in real time by the conductor. This enables spontaneous interaction between the ensemble and soloist during performance without fixing the length of improvised sections. The conductor is free to cue any background at any time and for any duration.

2.3.3 *ID 1* Events Content (see Appendix 1 for complete content)

Event #1 (Figure 8) employs white stemless noteheads to represent a chord using the movement's four pitch classes. Musicians are instructed to pick a note and play it in any octave,

enabling spontaneous choices within the defined pitch set. This approach ensures unique chord voicings and orchestrations while preserving the harmonic framework.

Event #2 (Figure 8) presents a repeated ascending sequence of the four pitch classes with a fixed starting note and progressive note addition in each repetition. Black stemless noteheads indicate rhythmic freedom (either for the conductor or the performers) and the ellipsis in parentheses suggests that the musicians can continue to add notes to each repetition.

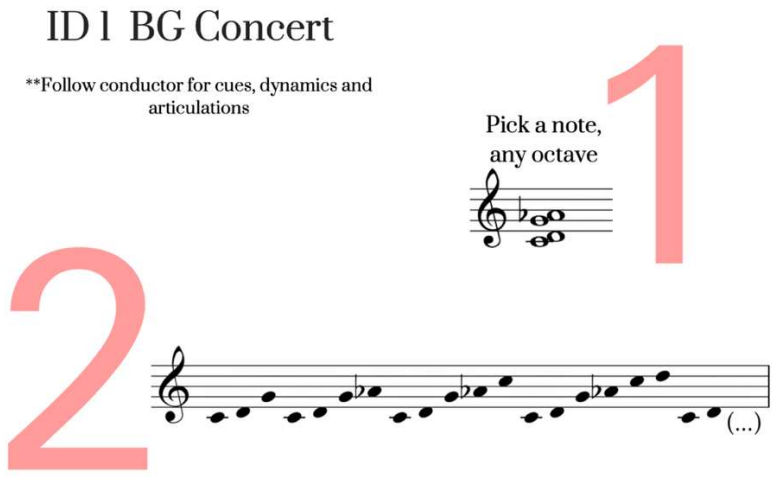


Figure 8, *ID 1*, Events #1 and #2

Event #3 employs conventional music notation, featuring descending sixteenth-note motives. Performers are instructed to start on any note and loop a succession of notes at any tempo. While the sixteenth-note notation suggests rapid pitch succession, the freedom in tempo selection opens up poly-rhythmic possibilities independent of the performance tempo. The flexible starting and looping points elicit diverse figurations among musicians.

Event #4, similar in notation to Event #1, introduces harmonic contrast to the first movement's four-pitch-class (C-D-G-Ab) foundation, by introducing a chord (B-C-E-F#) that shares only one common pitch class (C) with the chord in Event #1. The four pitch classes of Event #4 produce an eight-note chord in which each pitch class sounds in two adjacent registers. Performers are instructed to "pick a note," allowing for varied chord voicings and orchestrations within a more confined pitch range.

Event #5 instructs performers to freely interpret the fully-notated melodic material from rehearsal letter "A" of *ID 1*'s score (see Figure 7), allowing for personal choices in selection, order, tempo, and register. This approach enables collective improvisation based on the section's melodic content, with overall flexibility in tempo, rhythm, and register.

2.3.4 Observations

I introduced the open-form concept to the ensemble, explaining the cueing system: using left-hand finger counts to indicate specific events, coupled with a conventional downbeat to signal the start. We practiced each event multiple times to familiarize the musicians with this approach. To foster creativity, I encouraged the musicians to explore different interpretations within the notational parameters each time we repeated an event. This directive aimed to prevent repetitive performances and cultivate a more dynamic, inventive execution each time. The ensemble quickly adapted, achieving satisfactory results efficiently. The integration of the five open-form events into *ID1* proved seamless. Their close connection to the piece's core material effectively blurred the line between improvised and notated sections, enhancing the overall musical experience while maintaining compositional integrity. We also successfully

experimented with using the open-form material to create an improvised tutti following a solo, before transitioning to the next fully-notated section. This application demonstrated the versatility of the open-form approach and its potential to create smooth transitions between different structural elements of the composition. Throughout the rehearsal process, I remained available to answer any questions from the musicians, ensuring clear communication and understanding of the concepts. The overall experience was positive, with the ensemble quickly grasping and effectively implementing the open-form technique within the context of *ID1*.

2.3.5 *Rhizomes:* Fixed Orchestration

My next application of open-form techniques occurred in arranging Kris Davis's *Rhizomes* (2019) for chamber jazz ensemble. The piece's open solo section, built on a bass ostinato, provided an ideal vehicle for implementing a strategy similar to *ID 1*, integrating open-form events as backgrounds to improvisation sections. Unlike *ID 1*, I opted for more specific orchestration in the *Rhizomes* events, aiming to achieve particular harmonic and timbral colors as an arranger. Despite the fixed orchestration, I maintained my commitment to avoiding individual parts for musicians, instead indicating voice distribution for chords at the top of each event (Figure 9).

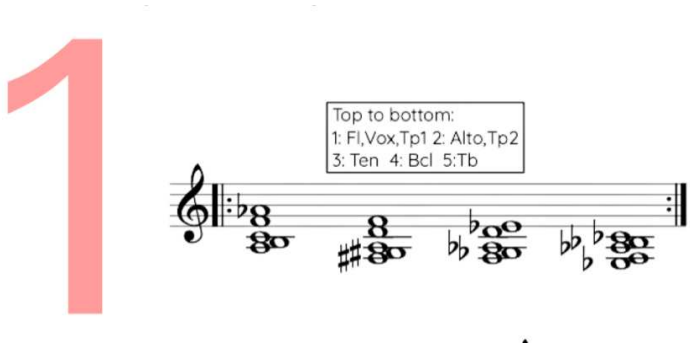


Figure 9, *Rhizomes*, Event #1

2.3.6 *Rhizomes* Events Content (see Appendix 2 for complete content)

Events #1 and #2 of *Rhizomes* are notated similarly to Event #1 of *ID1,* featuring chords with stemless white noteheads. However, these events have pre-determined orchestration, leaving no choice to the performer. The conductor can cue these chords as fermatas, echoing Earle Brown's *Modules* (1966-1969). Event #1 is designed for indefinite repetition until the conductor signals a final cutoff. In contrast, Event #2 incorporates a repeating section but concludes with a definitive final chord, denoted by a fermata.

Event #3 reinforces the solo section's foundational bass line by adding a minor second to each note, lending tension to the melodic line.

Event #4 introduces a tonal melody, contrasting sharply with the dense harmony and angular melodies prevalent in Davis's original composition (and in the newly composed background events). Intended for rubato conducting, this melody employs conventional notation without meter, discouraging alignment with any existing pulse in the solo section.

Event #5 presents a sustained two-note chord (Ab-F) with a trill attached to each note (A-Gb); performers choose which of the two notes to play.

2.3.7 Observations

The ensemble's prior experience with *ID 1* facilitated a smooth integration of the open-form section into *Rhizomes*' solo segment. Clear voice distribution indications in chords proved efficient. Conducting was straightforward, with most events featuring held chords or rubato melodies easily cued at any moment. Only Event #3 required metrical alignment within the solo section, given its doubling of the bass ostinato.

2.3.8 *Trio 3*: Fixed Content with Meter (see Appendix 3 for complete content)

My next experiment aimed to integrate events with fixed content into an improvised section with a constant pulse and metre. I adapted my composition *Trio 3* (2005) for this purpose, utilizing its 4/4 solo section with a consistent swing beat. *Trio 3* originally appeared on my album *Lungta* (2016), featuring a jazz quintet and a wind orchestra. During recording, the jazz quintet laid down the foundational track. For the piano solo, the pianist was instructed to improvise sparsely, allowing space for me to compose orchestral elements to be overdubbed later by the wind orchestra. In adapting *Trio 3* for this open-form project, I repurposed several of its original orchestral elements as distinct events that could serve as backgrounds for the improvised solo section. This approach presented new conducting challenges, demanding greater precision in cueing events within the meter. Event #1 (Figure 10) required particular attention due to its anacrusis, necessitating more precise timing.

Figure 10, *Trio 3*, Event #1

2.3.9 Open Form Companion: Conducted Improvisation

Leading McGill's Chamber Jazz Ensemble 1, with its focus on improvisation and with regular rehearsals, inspired me to explore additional strategies for flexible, spontaneous ensemble music creation. Building on Earle Brown's open-form concept, I sought to complement this approach with other techniques. I initially considered adapting elements from conducted improvisation like Butch Morris' Conduction and Walter Thompson's Soundpainting. However, as these typically require musicians to memorize numerous specific gestures, I simplified the approach to align with my research goal of using practical concepts implementable in professional contexts with minimal rehearsal time.

I focused on four easily remembered elements:

1. Long notes: adopted the Soundpainting gesture, "Holding your hands slightly in front of your body, pinch the thumb and index finger of both hands together. Keeping your other fingers closed and facing the ensemble, bring your hands together and pull them apart along a horizontal plane"[121]
2. Short notes: employed Earle Brown's "karate chops"[122] right hand gesture from *Cross Section and Color Fields* (1972-75)
3. Pitch modulation: utilized simple "thumbs up" or "thumbs down" gestures, also used in Conduction, to raise or lower pitch

[121] Thompson, “Soundpainting | Soundpainting Workbook 1 (PDF 5 MB) – The Art of Live Composition (English) by Walter Thompson,” 24.
[122] Brown, *Cross Sections and Color Fields: For Orchestra (1972-75)*, 9.

4. Pointillism: incorporated Soundpainting's gesture of pinched fingers above the head in a drumming-like motion, prompting "arrhythmic, staccato notes and bits of longer notes performed rapidly"[123]

These gestures, while not specifying exact pitches, allowed for versatile musical textures. I could cue dense chords of varying duration, raise or lower the overall pitch range, and create pointillistic, arrhythmic, atonal textures. Conventional orchestral conducting gestures were also used to modify dynamics and articulations.

2.3.10 Observations

Integrating these conducted improvisation elements into the open-form sections proved to be straightforward and effective in creating additional variations in textural density. Moreover, these techniques proved particularly useful for crafting short interludes between pieces in a concert setting. An unexpected benefit emerged: without the distraction of notated parts, the ensemble became more responsive to my conducting gestures, fostering a stronger conductor-musician connection.

2.3.11 Open Form Companion: Cue Cards

Inspired by Professor John Hollenbeck's use of cue cards in McGill University's Chamber Jazz Ensemble 1, which I discovered while substituting for him, I explored this technique for flexible and spontaneous ensemble music creation. These letter-sized white cardboard cards (see

[123] Thompson, “Soundpainting | Soundpainting Workbook 1 (PDF 5 MB) – The Art of Live Composition (English) by Walter Thompson,” 21.

Figure 11 for examples) display instructions shown to musicians by the conductor during performance, enabling content-specific communication without spoken words or memorized gestures.

While cue card content possibilities are vast, I focused on their potential for:

1. Spontaneously generating new musical content:
    - Specific pitch-based improvisational parameters: "improvise with the following pitches," "melody in A minor," "minimalist figures with Bb7"
    - Less specific pitch-based instructions: "fast descending lines," "angular melodies," "low register long tones"
2. Modifying tempo, rhythm and articulation:
    - Tempo alterations: double-time, half-time
    - Technique changes: playing notated rhythms with random pitches
    - Enhancing open-form events: e.g., instructing to arpeggiate chord events
3. Altering form:
    - Indicating specific rehearsal letters to play
    - Making non-open-form section ordering flexible
    - Allowing on-cue section repetition

This approach balanced conductor/composer control with individual musicians' freedom, while strongly connecting to my open-form experiments through content modification and additional real-time form-shaping agency.

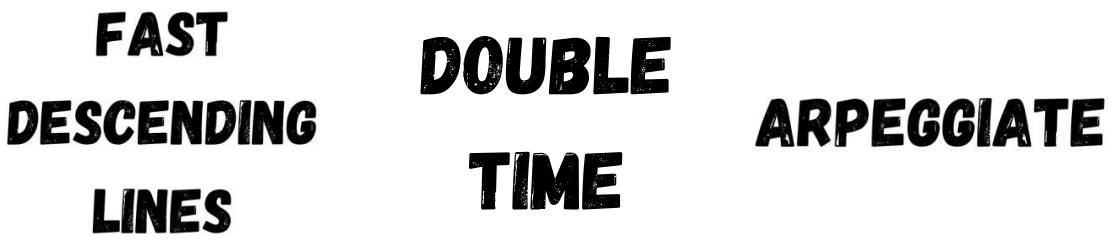


Figure 11, Cue Cards Examples

2.3.12 Observations

I experimented with cue cards in my composition *Trio 3* to complement the open-form background page discussed earlier. The composition originally consisted of three sections (A, B, open solo section) in a fixed sequence determined before the performance. Both the A and B sections have multiple potential ending points so the form of the piece can vary. Cue cards instructing the musicians to play either the A or the B section allowed for the flexible section ordering during performance. Other cue cards were used for content modification (e.g., tempo changes, random pitch implementation of notated material). This approach transformed *Trio 3* from a piece with a pre-determined form into a composition with significantly more spontaneous potential formal variations.

Cue cards also offer significant possibilities for structuring entire concert performances, extending beyond individual compositions. Traditionally, the ordering of works in an ensemble concert is predetermined and communicated to musicians in advance (and audience via a printed program). However, cue cards enable the conductor to:

1. Spontaneously determine the program order, transforming the entire concert into a large-scale open-form composition
2. Incorporate and shape conducted improvisations as interludes between notated works

This approach becomes particularly powerful when using improvised interludes. The conductor can craft these segments to create seamless, organic transitions between pieces by using cue cards with content related to the other performed compositions. Such flexibility allows for a dynamic concert experience, where the overall structure can be adapted in real time, fostering a cohesive progression between compositions.

2.4 Jazz Orchestra: Larger Ensemble and Spontaneous Orchestration

2.4.1 Jacques Kuba Séguin and Orchestre national de jazz de Montréal

Following successful experiments with the chamber jazz ensemble, I sought to apply my research to a larger ensemble: the jazz orchestra. In 2023, an opportunity arose when I was engaged to conduct the Orchestre national de jazz de Montréal (ONJM) for an April concert and a June recording session featuring trumpeter Jacques Kuba Séguin's music. Séguin, already familiar with my research, welcomed the addition of improvised ensemble interludes between his compositions. This context allowed me to:

1. Experiment in a professional setting with limited rehearsal time
2. Advance toward a key research goal: developing techniques easily applicable in professional contexts

Séguin and I incorporated two distinct interludes into the program:

1. A conducted improvisation
2. An open-form introduction derived from Séguin's *Tango* (2016), a piece referencing the music of Argentinian composer Astor Piazzolla (1921-1992)

2.4.2 Conducted Improvisation

For the conducted improvisations, I employed the same limited set of gestures from my chamber jazz experiment: long notes, short notes, pitch modulation (raising and lowering), and pointillism. Inspired by Earle Brown's cueing system in his *Modules*, I wanted to explore whether the jazz orchestra's traditional instrumentation and seating plan allowed for effective spontaneous orchestration choices. The typical jazz orchestra layout includes three wind instrument sections (saxophones, trombones, and trumpets) seated in rows to the right of the rhythm section and in front of the conductor (Figure 12). While this arrangement differs from Brown's more clearly delineated seating plan (Figure 3, page 27), I adapted my cueing method so that a simple finger-pointing gesture, moving horizontally from right to left, indicated which instruments would play based on the hand's height (waist height for saxophones, heart height for trombones, and head height for trumpets). This system proved both simple and effective for spontaneous instrument-section cueing.

Figure 12, Jazz Orchestra Layout (illustration by the author)

2.4.3 Open-Form Interludes

For the open-form interlude (Appendix 4) introducing Séguin's *Tango*, I created five events strongly referencing the composition, offering varying levels of performer freedom. A single-page approach, similar to the open-form backgrounds used with the chamber jazz ensemble, aimed to supply a complete narrative rather than supplement an improvised solo section. The events range from strictly notated passages to open-ended instructions.

The five events are:

1. A dense chord from *Tango*'s harmony, allowing different voicings based on performers' note selection
2. A sustained pedal tone on the dominant (D) of the piece's key (G minor) available to all musicians in a register of their choosing
3. Expressive and soloistic presentations of melodies from the original piece, allowing for sequential or contrapuntal cuing of multiple players
4. A one-bar loop from the piece to be used as an ostinato

5. A repeated rhythmical figure with harmony derived from the piece

This open-form interlude also allows for spontaneous orchestration; events can be played sequentially or layered, creating diverse textural possibilities.

2.4.4 Observations

The context of these jazz orchestra experiments differed significantly from the previous chamber jazz ensemble experiences. While the student ensemble rehearsed weekly with a focus on ensemble improvisation, the professional context of ONJM primarily centered on performing Jacques Kuba Séguin's music. The interludes played a supportive role and were allocated only two fifteen-minute time slots within longer rehearsals before the concert performance. Despite this limited preparation time, the musicians' professional backgrounds and overall musicianship allowed for satisfactory results. Although not all orchestra players had equal experience with ensemble improvisation, my familiarity with the musicians and their individual strengths from previous collaborations influenced my spontaneous choices, particularly in the open-form interlude. Events that allowed interpretative freedom, such as Event #3, yielded engaging performances when assigned to these exceptional soloists.

This project also illuminated the specific skills required from the conductor for seamless performances in such a context. The conducted improvisation with limited gestures was straightforward and easily implemented with the larger ensemble, requiring only clear gestures from the conductor, especially when cueing individual instrument groups (e.g., saxophones). However, the open-form tango interlude posed greater challenges with multiple layered

events. Precision of conducting for tempo synchronization was crucial, particularly when cueing events within a constant metered pulse.

While I had had experience conducting similar events in *Trio 3* with the chamber jazz ensemble, the spontaneous orchestration and layering possibilities of multiple events in the larger orchestra added significant challenges. The conductor must make quick decisions about when to cue and end events by reacting to the ensemble's playing and simultaneously guiding the music's narrative. Given the limited rehearsal time, I realized the importance of mentally rehearsing prospective performance scenarios that involve cueing different events and anticipating/responding to multiple performer responses.

2.5 Doctoral Recital Experiments

The next opportunity for experimentation came in January 2024 with my doctoral recital in Tanna Schulich Hall. The concept for this recital was twofold:

1. To experience Earle Brown's early 1950s music as a performer (on saxophone and piano) in a duo context with pianist François Bourassa
2. To arrange music from Bourassa's and my duo project *Confluence* (2023) using Brown's open-form concept for a chamber jazz ensemble consisting of six wind instruments and a rhythm section of piano, bass, drums, and percussion

2.5.1 Earle Brown's Early-1950s Music

My research on Brown's music deepened my understanding of his intentions and the influences shaping his notational innovations of the early 1950s. To engage with these different notations and their effects firsthand as a performer, I programmed three pieces from *Folio and 4 Systems (1952-54)*: "October 1952", "November 1952", "December 1952," for my January 2024 recital. The performance of these pieces allowed me to explore various aspects of Brown's approach:

1. "October 1952" (piano solo): Experienced as a performer the interpretive temporal flexibility offered by the absence of rests; I found this notation to be one that I did not want to include in future open-form compositions, as it did not provide results that I could not achieve with proportional, stemless or conventional music notation

2. "November 1952" (duo - Bourassa on piano, myself on soprano saxophone): Experienced Brown's conceptual mobility, moving freely within the abstract field of his fifty-line stave (results discussed in 2.5.2)
3. "December 1952" (same duo): Explored conceptual mobility in a purely abstract way, without clear references to traditional music notation (results discussed in 2.5.2)

2.5.2 Context and Observations

Brown composed these pieces for classical musicians unaccustomed to improvisation, aiming to enable varying degrees of freedom in performance. In contrast, improvisation is an integral part of my duo practice with Bourassa (and jazz musicians in general). We both have extensive experience in traditional and contemporary jazz improvisation, as well as completely free improvisation without predetermined content—an approach we value for its ability to yield satisfactory results in terms of the dynamic interplay between us and the musical cohesion of our improvisations. Our engagement with Brown's scores aimed to help us understand how different types of notations might influence our playing compared to our usual free improvisation setting. In previous free improvisation playing experiences, I had noticed a tendency for direct imitation between us when reviewing recordings of our performances. While we are both sensitive and reactive players, I sought to decrease this direct imitation and encourage more contrasting or complementary statements.

Using Brown's score as a focal point revealed the following results that encourage me to explore further the use of conceptual mobility:

1. We were less inclined to engage in direct imitation while remaining responsive to each other's playing.
2. As a saxophonist, I felt less tempted to fall back on habitual patterns (licks), which I've found to be an obstacle to great improvised music, characterized by spontaneous expression and the seamless flow of ideas.

2.5.3 Time Notation

Another of Brown's innovations I wanted to experience firsthand in performance was his time notation. While I have extensive experience with stemless notation, I had not previously worked with his proportional notation system. I thus randomly selected a few pages from *Twenty-Five Pages* (1953) and divided them equally between François Bourassa and myself for a two-piano performance of a portion of Brown's piece.

In general, I found that reading the pitches in proportional notation felt different from reading them in stemless notation. Rather than feeling free and creative with rhythm, proportional notation challenged me to realize a relative sense of durations and rests. This notation may be more suitable when composers have a general sense of the desired durations for their musical material, rather than the greater rhythmic freedom that stemless notation provides to performers. I also found proportional notation to be particularly effective in cases of very complex chord layouts with different durations for each note (e.g., Figure 13). This notation rendered such elements extremely easy to read in performance, inspiring me to incorporate similar elements in my future compositions.

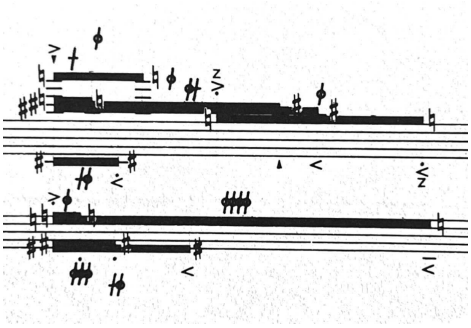


Figure 13, *Twenty-Five Pages* (1953), p7.[124]

2.5.4 Complete Open-Form Arrangements

The next step in my experiment with Earle Brown's open-form concept to use it exclusively for movements of a piece without other sections in conventional music notation. For this purpose, I chose two movements from my recorded suite *Confluence* (2023). Originally, *Confluence* was conceived not as fully notated movements but as a series of sketches constituting ideas for duo improvisation between Bourassa and me. Prior to recording, we established a general plan for the order of ideas, which could range from melodic motifs to pitch sets or harmonic progressions. Our approach involved improvising on an idea, developing it, and cueing the next idea primarily through musical statements hinting at this next idea in our improvisation. The duo format and our shared experience facilitated seamless transitions between the work's different sections or the effective juxtaposition of contrasting ideas.

Adapting this piece for a chamber jazz ensemble necessitated a more structured approach. Before my exploration of Brown's open-form concept, I would have simply notated

[124] Brown, *Twenty-Five Pages: For 1 to 25 Pianos*.

and orchestrated the key elements in a fixed order, potentially adding sections for improvised solos. However, Brown's approach offered a way to recreate the freedom of our duo recording within the larger ensemble context, providing additional flexibility in spontaneously ordering and orchestrating ideas, as well as allowing different musicians to improvise.

2.5.5 Events Improvisation

An open form approach proved ideal for two movements of the *Confluence* suite: "Rideau Falls" (Appendix 5) and "When Blue Meets White" (Appendix 6). Both original pieces consisted of a few simple ideas (e.g., melodic fragments, bass ostinatos, chord changes) that fit on a single page and could easily be organized into open-form events. With these two movements, I aimed to enhance the creative contribution of the musicians compared to my earlier experiments by allowing them to use the different events as sources of inspiration for improvisation. Each event now had two potential interpretations:

1. To be played as written
2. To be used as a springboard for improvisation

To indicate improvisation, I employed a gesture that mimics stretching an imaginary object by pulling apart both hands (closed) before indicating the event number with my left hand. This stretching gesture could also be employed mid-event, signaling musicians to transition from playing as written to improvising based on that event's material.

2.5.6 Observations

The implementation of Earle Brown's open-form concept for "Rideau Falls" and "When Blue Meets White" proved highly effective in generating compelling spontaneous arrangements of those pieces. While the original recorded pieces were short, each around three minutes, the ensemble versions allowed for longer and more varied interpretations based in repetition and improvisation. My familiarity with this music from recordings and past performance experiences provided me with the confidence to experiment as a conductor during the performance. Additionally, the new "stretching" gesture for signaling event-based improvisation proved to be highly effective and easily understood by musicians, opening up new avenues for spontaneous musical creation within the open-form structure.

2.6 Jazz Orchestra and Soloist: *Shades of Bowie* (2024)

2.6.1 Donny McCaslin and Orchestre national de jazz de Montréal

The winter of 2024 presented another opportunity to incorporate open-form elements in a professional project before progressing to the final phase of my research—writing a completely open-form composition for jazz orchestra. Orchestre national de jazz de Montréal commissioned me to compose a long-form jazz orchestra piece featuring tenor saxophone virtuoso Donny McCaslin as a soloist. McCaslin, known for his role as musical director on David Bowie's final album *Blackstar* (2016), inspired the concept: a multi-movement work drawing from iconic Bowie compositions to create a backdrop for the soloist's masterful improvisations.

The piece, *Shades of Bowie* was designed to contrast McCaslin's largely improvised performance with highly detailed fully notated orchestral writing. Open form was not intended as a central element of this project for two main reasons:

1. Artistic: I had specific ideas for the orchestra and the overall narrative of the piece that extended beyond the layout possibilities of open form
2. Practical: Limited rehearsal time was available, and I had not yet developed sufficient experience to conceive an hour-long open-form piece

However, my successful previous experiments with Brown's concept in jazz large ensemble settings gave me the confidence to insert a few single open-form pages into the work. This approach served as a tool to be employed where I felt the context was appropriate and where it would yield results otherwise unattainable through conventional linear organization of musical content.

2.6.2 Orchestra Solo Backgrounds with Spontaneous Orchestration

For this project, I identified two elements from my previous experiments that I felt would be valuable to include:

1. Solo backgrounds from the chamber jazz ensemble experiments
2. Spontaneous orchestration elements from Jacques Kuba Séguin's jazz orchestra project

Incorporating an open-form approach in solo sections allowed me to interact with McCaslin's improvisations in real time by conducting the orchestra through various musical events in different instrumental combinations. Two movements, "One More Chance" and "I Love You

So," feature open solo sections over a rhythm section ostinato, which were well-suited for one page of wind-instrument open-form events.

The events for "One More Chance" (Appendix 7) are closely related to the fully notated section preceding the solo section but add an element of spontaneity within the orchestra, whereby individual musicians may:

1. Change their pitch ad lib (Event #1)
2. Loop any bar of their choice (Event #4)
3. Start on any note of a given mode to create a diatonic cluster with trills (Event #5)

"I Love You So" (Appendix 8) also features events closely related to the fully notated sections of the movement, but these do not allow freedom for the orchestra's musicians. Each event comprises a specific repeating figure, and the conductor can arrange the events in various orders as well as layer over one another.

2.6.3 Open Form for the Solo Saxophone Part

My goal was to provide Donny McCaslin with improvisational freedom while ensuring his improvisations maintained a connection to the notated material. This balance between the varying degrees of freedom allowed for the soloist and the extent to which the soloist's music audibly aligns with the orchestra's music was achieved through various approaches:

1. Free-improvisation cadenzas for the soloist
2. Sections with harmonic information (e.g., chord symbols, modes) or orchestral cues to help shape the soloist's improvisations
3. Sections with prescribed pitch sets

4. Fully notated sections

Movement Title	Approximate Duration	Improvisation Approach
Shades of Bowie Ouverture	1:00	Free Improvisation Cadenza
Let Me Out	5:30	Chord Changes
One More Chance	9:00	Pitch Set, Over an Ostinato, Open-Form Backgrounds
Ground Control	9:00	Free Improvisation Cadenza, Pitch Set, Chord Changes,
How Could They Know	4:00	Orchestral Cues
I Told You So	5:00	Over an Ostinato, Open-Form Backgrounds
On the Edge of the Night	6:00	Open-form Soloist Material, Open-form Backgrounds
Last Dance	6:00	Chord Changes
Give Love	5:00	Pitch Set
Higher, Higher, High	4:00	Chord Changes

Table 1, Improvisation Approaches in *Shades of Bowie* (2024)

During the composition process of *Shades of Bowie*, I drew inspiration from Earle Brown's linear open-form piece *Centering* (1973). In this work, a solo violinist plays a cadenza over an open-form section performed by a chamber ensemble.[125] Brown designed the cadenza to be played initially in a given sequence, and then to allow the soloist to freely reorder segments at will. Inspired by this approach, I created a solo saxophone open-form page (Appendix 9) for the movement "On the Edge of the Night" with variations on the harmonic and melodic material from other movements of the piece. This page, labeled as “etude” in reference to McCaslin’s appreciation for virtuosic classical saxophone etudes, was designed for him to perform both as written and as a basis for improvisation over another open-form section (Appendix 10) performed by the wind instruments of ONJM. However, I departed from Brown's approach in *Centering* by organizing the "etude" material into open-form events. This modification allowed

[125] Brown, *Centering*, 6-7.

me (as conductor) to cue a specific event for the soloist while layered it over another orchestral event of my choice at any time.

2.6.4 Observations

The rehearsal parameters for this project were similar to those of my previous experiences with this orchestra, but with limited time to rehearse with the soloist who arrived in Montreal only two days before the concert. I composed the open-form pages with these constraints in mind and, given the orchestra's previous experience with the open-form concept from the Séguin interludes, I felt that the material could be mastered in a short amount of time.

The solo sections with open-form backgrounds in "One More Chance" and "I Love You So" were a highlight of the concert, as the orchestra closely matched the soloist's intensity throughout his improvisations. The ability to lead the orchestra in real time, facilitating their interaction with the soloist, allowed for a natural and seamless unfolding of these sections. The transitions between different background events in the orchestra avoided the "premeditated feel" that I find often characterizes cued fully notated fixed orchestral backgrounds.

The dual open-form concept of "On the Edge of the Night" proved too complex given the very limited rehearsal time. With only a few minutes to experiment, I decided to simplify the approach, allowing the soloist to improvise on events of his choice while I focused on conducting the open-form orchestra page. Effectively, the soloist's "etude" page became a menu of available ideas for improvisation. While not fully realized in this project due to time constraints, I strongly believe the concept of using open-form pages for both soloist and

ensemble is viable and could yield interesting results. I intend to explore this concept in subsequent pieces.

This concert experience validated open form as a very effective tool for solo backgrounds in a jazz orchestra setting. As a composer, it was straightforward to conceive and allowed more flexibility than fully notated orchestral solo backgrounds, with the added benefit of multiple possible spontaneous musical outcomes. As a conductor, it taught me, however, that leading open-form events in the context of music with a constant pulse requires accuracy and clarity—skills that can nonetheless be developed through experience and mental practice.

Encouraged by the results of my experiments, I was excited to move forward with the next phase of this research: composing a multi-page, completely open-form work for jazz orchestra. This final step would synthesize the insights gained throughout these experiments and further explore the possibilities of open form in jazz contexts.

PART THREE: *Beautiful Humans* (2024)

3.1 Framing the Open-Form Jazz Orchestra Piece: Intentions and Limitations

3.1.1 Artistic Goals and Research Parameters

Before embarking on the final step of this research creation project, I clearly delineated several goals for the piece, outlining what it would (and would not) be within the context of this research.

1. Relationship to Brown's work: while deeply influenced by my exploration of Earle Brown's music, this composition would be neither a pastiche nor a comprehensive application of his notational innovations; I would primarily adopt Brown's open-form concept of organizing musical material into events and pages, and explore, to a lesser extent, varying degrees of performer freedom via notation.
2. Compositional approach: I would align the process with my habitual creative approach; instead of realizing and developing musical ideas with detailed notation and complete orchestrations, I kept the melodic, harmonic and rhythmic ideas simple, allowing them to be ordered (in some cases layered) and improvised upon in performance; composing forms in real-time (with pre-established materials) would also allow me the opportunity to gain experience as a conductor.
3. Balance of composition and improvisation: in exploring different types and degrees of musician involvement in performance, I would retain Brown's philosophy of not evading "compositional responsibility;" I thus conceived events with distinct musical identities,

which could serve as inspiration for improvisation, rather than creating events with open content akin to Brown's "December 1952".

4. Research context: Despite the significance of this piece as the culmination of years of research (and creation), I would focus more on the process than on the outcome; the composition did not need to validate my research on Earle Brown; my previous experiments with single-page open-form composition had already confirmed, in my mind, its successful incorporation into my work as linear open form.
5. Experimental nature: This piece would serve as my first experiment in completely open-form composition; it would offer opportunities to assess its effectiveness when collaborating with jazz musicians, to experiment with organizing my musical thoughts into short open-form events, and to inform how I would incorporate this approach into my future artistic practice.

3.1.2 Experimental Design: Composition, Rehearsal, and Performance

Beautiful Humans was designed to be performed by a jazz orchestra in the context of a lecture recital. This recital would feature two performances of the piece, each approximately 20 minutes in duration, and a presentation of my research on Earle Brown. I structured my experimental approach to reflect the realities of professional concert music performance. This included imposing limitations on both the composition and rehearsal processes:

1. Composition time: One month was allocated for composing the piece

2. Rehearsal schedule: Two two-hour rehearsals were scheduled in the week preceding the lecture recital, with an additional one-hour dress rehearsal on the day of the performance

For the instrumentation, I assembled a jazz orchestra comprising professional musicians whom I believed would be interested in and receptive to the project. This approach constituted a middle groundbetween my previous experiments: regular biweekly rehearsals with McGill's Chamber Jazz Ensemble 1 on the one hand, and only a few minutes with Orchestre national de jazz de Montréal (where open-form material was of secondary importance) on the other. I judged this new timeframe realistic for the preparation of a piece dedicated to open form, mirroring large ensemble professional conditions that are often influenced by economic factors.

3.1.3: Compositional Process

My habitual compositional approach begins with finding a single musical idea (e.g., a melody, a rhythm, a set of pitches or chord changes) that inspires me and shows potential for modification and expansion. I develop this idea using various techniques, such as inversion, retrogradation, and modulation. My aim is to create the most music with a minimum of materials. For instance, a single twelve-tone row was sufficient for composing an entire record (*Fleur Revisited*, 2021) and most of the music in my *Chamber 5tet* recording project to be released in 2025.

With *Beautiful Humans*, my goal was to start with a single idea that would form a main open-form event and then develop variations as the basis for other events. By generating variations on the original idea, I established connections that would help to create a compelling

musical narrative from the succession of interconnected events in performance. After composing the main event and five variations (i.e., five events), I composed other events with contrasting musical material to ensure a diverse array of musical ideas.

3.1.4: Score and Parts

In planning the work's form and notation, I decided on a score of four pages with five events per page, feeling that twenty events would provide sufficient variety of musical material while remaining practical for musicians to learn within the limited rehearsal time. To increase the ease with which musicians could quickly navigate through different events in their parts, I implemented the following modifications to Brown's original open-form page layout:

1. Color-coding: Each page was assigned a unique color for its page number and event numbers. This color scheme was replicated on the conductor's page-number placard, providing a visual link between the score and the placard.
2. Condensed parts: To avoid page turns during performance, I limited each musician's part to three pages. Pages three and four of the score were presented together on the third page of each part (see Appendix 11).
3. Section parts: Rather than creating individual parts for each musician, I opted for one part per instrument section (saxophones, trumpets, trombones, rhythm section) in the appropriate transposition(s) or clef(s). This decision allowed for the inclusion of more contextual information, such as complete chords, which an individual part would not provide. Musicians could use this information to improvise when the events were cued for improvisation.

4. The wind section of the orchestra consisted of five saxophones, three trumpets, and three trombones. For events with multiple chord tones in the winds, I established the following guidelines:
    - Musicians follow the chair distribution. For instance, in a three-note chord for trumpets, the first trumpet would play the top note, the second trumpet the middle note, and the third trumpet the bottom note.
    - In cases where the number of voices does not equal the number of chairs, performers were given the freedom to choose their notes.

3.1.5 Notation

The notation conventions depended upon the nature of the musical idea (or ideas) I wanted the musicians to interpret or improvise upon. Given that the focus of the piece was not on abstract or ambiguous graphic notation, but rather on the conductor and the musicians interacting with pre-composed fully notated materials, much of the notation features specific pitches. Drawing from knowledge gained in previous experiments, I recognized that either conventional musical notation or stemless noteheads would be the best choice of notation for most events. For contrast, I included a few events that reflect Earle Brown's notational innovations (proportional and graphic).

3.1.6 Cue Cards

My earlier experiments with cue cards had proven successful in generating new musical material, modifying supplied material, and altering the form of compositions during

performance. I concluded that the twenty-event open form would not require additional musical material or additional methods to spontaneously generate the form beyond using the open-form concept. However, I incorporated the possibility of signaling small-scale modifications to events through a limited number of cue cards during the performances of *Beautiful Humans*.

3.2 *Beautiful Humans* Events Content

In this section, I will describe the musical content of each event from the piece page by page, along with its notation, interpretive possibilities, and potential connections to other events.

3.2.1 Page 1: RED

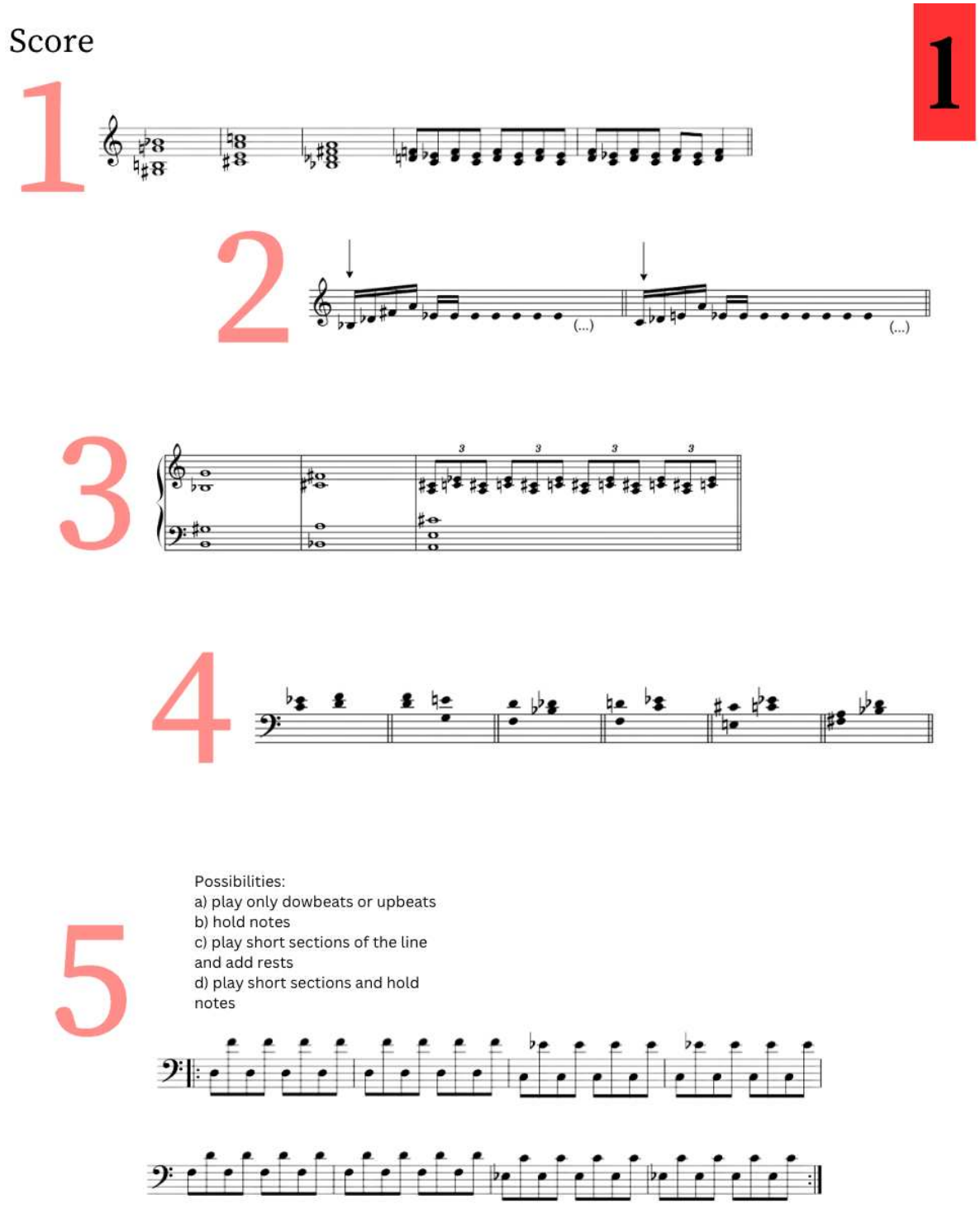


Figure 14, *Beautiful Humans* (2024), p1

EVENT #1: This is the main event of the piece serving as the foundational musical material from which I developed variation events before composing contrasting events. The event offers significant flexibility in performance. It can be played in time or with rubato; any (or all) of the whole-note chords may be played with (or without) a fermata (or fermatas). The eighth notes in the fourth and fifth measures can either maintain the rubato feel or transition to a pulsed rhythm. Harmonically, the chord progression creates a rich, ambiguous harmony through stacked minor thirds drawing from a minor sixth in chord one, a perfect fourth in chord two, and the enharmonic equivalent of a perfect fourth in chord three, ultimately resolving tonally to C minor at the event's conclusion.

EVENT #2: The arpeggiated figures of Event #2 outline the second and third chords from Event #1 with a repeated E-flat. Notationally, I use stems for the initial part of the event, then transition to stemless note heads for the Eb. This notational choice allows performers to repeat the Eb with rhythms of their choosing. In performance, this approach can lead to different outcomes: sometimes musicians naturally converge on a common rhythm, while at other times, the superposition of contrasting rhythms creates interesting and complex rhythmic textures. Two conductor cues, indicated by arrow signs, were added for clarity, particularly as the end of each section involves improvisation.

EVENT #3 varies the order and voicings of the three whole-note chords from Event #1 and concludes, not with a C minor chord, but with a harmonically ambiguous A major chord (with added minor third and diminished fifth). Trumpets (Appendix 11) and trombones (Appendix 12)

perform whole notes exclusively, providing a sustained harmonic backdrop. Meanwhile, the piano and upper two saxophones play alternating harmonic minor thirds reminiscent of the ending of Event #1. However, these are now written in eighth-note triplets, creating a more fluid and suspended rhythmic feel compared to the eighth notes of Event #1, particularly when performed homorhythmically.

EVENT #4 develops the C minor ending from Event #1, offering the possibility to either extend the previous event or briefly recall a part of it before moving on. Event #4 comprises six pairs of dyads, each consisting of a major sixth and a minor third, creating the longest harmonic progression on this page. Each pair (except for the last) is linked by a shared dyad, providing harmonic continuity. The event concludes with pairs of thirds that form an F# major minor chord, potentially serving as a link to Events #1 and #3 from page four.

Stemless note heads allow performers to create rhythms spontaneously. This notation offers multiple interpretative possibilities: musicians can choose to play melodically by selecting a single voice from each pair of notes and varying only the rhythm of these two notes; alternatively, they can approach it chordally playing both notes from each pair with flexible rhythms. Double bars separate each pair of notes, and it was orally specified in rehearsal that each bar should be repeated until the conductor cues a transition to the next bar.

EVENT #5 builds upon and expands the final two dyads (C-Eb, D-F) from Event #1 to imply a simple harmonic progression (Dm - Cm - Dm/F - Cm/Eb) in eighth notes. Designed as a contrast to the more harmonically complex events, this progression provides a tender and introspective

moment. The notated elements can also serve as a background for an improvised solo melody by a musician cued by the conductor.

My goal with this event was to generate multiple concurrent readings of the notated material by allowing each musician the freedom to choose their own interpretation within suggested guidelines. Four interpretive possibilities are suggested:

a) Selective rhythm. Musicians may opt to play only downbeats or upbeats, thereby parsing the material among multiple musicians. This creates interesting orchestrations suggestive of an antiphonal call and response.

b) Sustained notes. Musicians may hold a note at any point, creating a sustained resonance effect.

c) Rhythmic hocket. Musicians can play short sections of the notated eighth notes and substitute rests ad lib, expanding on the idea of selective rhythm with units of two or more notes. The collective result of these individual choices may suggest an improvised rhythmical hocket effect. (See hypothetical example in Figure 14)

d) Melodic lines. Musicians can play short fragments of the notated eighth-note line and hold notes ad lib, creating melodic lines with sustained notes. This option contrasts with the more rhythmical possibilities of options a) and c). (See hypothetical example in Figure 15)

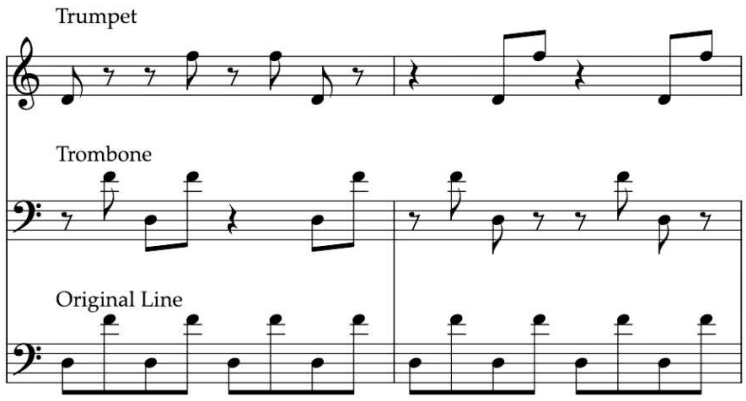


Figure 15, Example of Rhythmic Hocket with Event #5

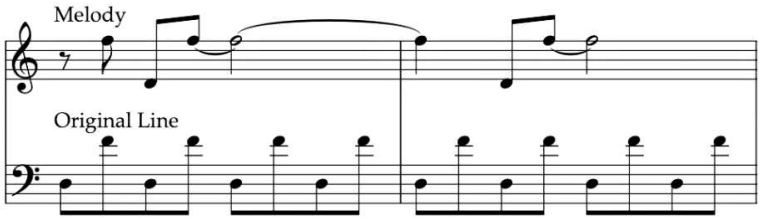


Figure 16, Example of Melody with Event #5

3.2.2 Page 2: YELLOW

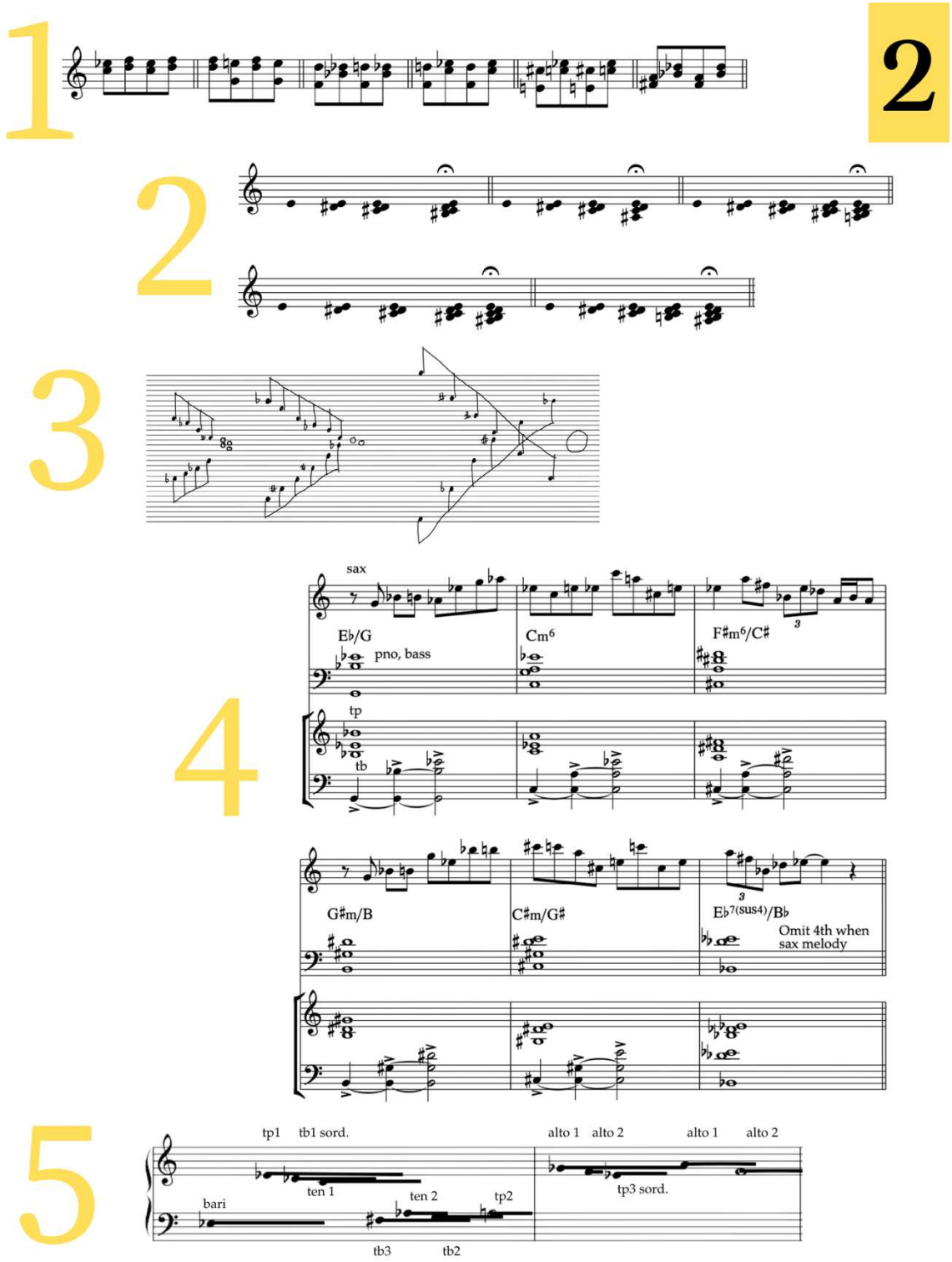


Figure 17, *Beautiful Humans* (2024), p2

EVENT #1 adapts Event #4 from page one by replacing the stemless noteheads with eighth notes. The event may be interpreted in two main ways:

1. Rubato (led by the conductor)
2. In time, with an emerging audible pulse; each bar repeats until the conductor cues a transition to the following bar

EVENT #2: features an E pedal point that initiates several successions of descending scalar fragments (four to five notes each). The sustain of each scale note creates accumulating clusters whose formation resembles the opening of a folding fan. Stemless noteheads offer two types of rhythmical flexibility: the conductor can lead each note change with the ensemble playing together, or the performers can change notes ad lib, creating a blurry texture.

EVENT #3's notation offers a nod to Earle Brown's "November 1952" visually but serves a different musical aim. While using a fifty-line staff (without clefs) that renders pitch ambiguous, rhythm is precisely notated, encouraging a default left-to-right reading instead of Brown's "play from any point in any direction" approach.[126] The event comprises three phrases, each consisting of two scalar or arpeggiated eighth-note lines in contrasting motion, arriving at whole-note agogic accents. The ascending/descending lines expand from four to six notes in phrases one and two, and traverse successively widening pitch ranges (and commensurately larger intervals) across all three phrases. The whole-note agogic accents vary in their numbers of notes (four notes in the first phrase, two in the second, and an indeterminate number of

[126] Brown, *Folio and 4 Systems*.

notes in the third phrase). In performance, my default approach was to conduct the ensemble for synchronized playing with random pitches. More abstract interpretations may be elicited by cueing a limited number of musicians at the event's start without any further conducting.

EVENT #4 provides chord changes for improvisation as well as fully notated material with modular orchestration that may be layered in various ways by the conductor. There are four modules:

1. Saxophones playing the melody
2. Trumpets providing harmony in whole notes
3. Trombones contributing sustained bell tones
4. The rhythm section furnishing melodic and harmonic material following lead-sheet-style notation; This arrangement allows the rhythm section to either play the through-composed content or improvise their accompaniment, a common practice in jazz large ensemble music

Unlike most of the work's events that were designed to create musical narrative through juxtaposition, Event #4 stands as a complete, autonomous musical statement featuring multiple module combinations over a cyclical six-measure form. The composed material can also serve as a background during improvised solos.

This event specifically aims to harness the improvisational abilities of jazz musicians in their most familiar context (improvising on chord symbols), bridging the gap between traditional jazz practices and the large-scale open-form approach.

EVENT #5 experiments with Brown's time notation while employing fixed orchestration for the wind instruments. Each pitch is assigned to a single instrument, with musicians interpreting note durations relative to the proportional notation and in response to other musician's performances. For the listener, the pitch content may elicit associations with other events throughout the piece:

1. The opening Eb connects to the Eb pedal point of Event #2 (page one) and the Eb pedal tone of the C minor tonal center in Event #5 and Event #1's conclusion (page one).
2. Descending diatonic lines creating clusters (Eb-Db-C and Gb-F-Eb) echo Event #2 from page two.
3. The pitch succession F-Ab-G-A derives from the beginning of Event #1 on page four (to be discussed in 3.2.4).
4. The event concludes with a descending major third (A-F), linking to Events #1 and #2 from page three (to be discussed in 3.2.3).

3.2.3 Page 3: BLUE

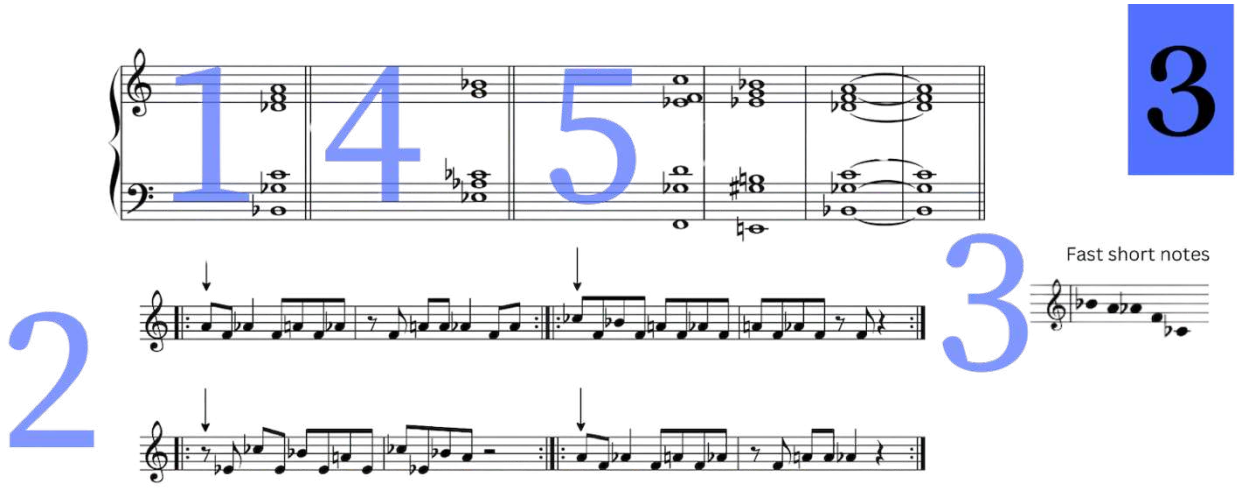


Figure 18, *Beautiful Humans* (2024), p3

The inclusion of events on pages one and two was primarily determined by practical considerations, aiming to group events with interconnected material on the same page. Page three, in contrast, was designed to interact specifically with one of the most common forms in jazz: the blues form. This form, which has accrued numerous variations throughout jazz history, typically consists of twelve bars and is harmonically based on the I, IV, and V chords of a key. A basic twelve-bar progression consists of: I (4 bars), IV (2 bars) I (2 bars), V (1 bar), IV (1 bar), I (two bars).

To compose page three, I adapted the harmony from Event #1 of page one. The goal was to construct chords that evoke the function of I, IV, and V chords with their bass notes while maintaining the harmonic color of the stacked pairs of minor thirds from Event #1 of page one. The I chord consists of a polychord that features the second inversion of an F major triad

over the first inversion of a Gb major triad. The IV chord consists of the superposition of an Eb major chord with the second inversion of an Ab minor triad. The V chord was constructed using the second mode of the ascending Eb melodic minor scale. In the last four bars of my progression, I altered the IV chord to a polychord featuring an Eb major triad over an E major triad.

To allow for formal flexibility, I distributed the events as follows:

1. The I and IV chords were made into single events
2. The final four bars of my version of the blues chord progression (V, IV, I, I) were created as a separate event
3. Scale degrees (I, IV, V) became event numbers to consolidate their connection with the blues form

EVENTS #1, 4, 5 on page three offer multiple possibilities for restructuring the blues form:

1. Maintaining the original order with the added possibility of extending the duration of each chord ad libitum
2. Looping (repeating an event one or more times as in Event #5), mimicking the conventional jazz practice of repeating the last part of a song's final section (known as a "tag")
3. Reordering chords to create modified blues forms
4. Disregarding the blues form entirely and allowing single events to be used in different contexts with events from other pages

EVENT #2 emulates the repeated musical figures (riffs) characteristic of blues melodies in jazz. It features four distinct riffs that can be repeated and layered over events #1, #4, and #5. During rehearsal, musicians were instructed to repeat each riff until the conductor cues the next one or signals a stop. Arrow signs were added for clarity in cueing, especially when layering this event among several instrument groups. For example, the conductor can cue Event #2 for the saxophones, then Event #1 for the rhythm section, and later return to the saxophones to progress to the second riff of Event #2.

EVENT #3 incorporates the important pitches from Event #2's riffs, presented in stemless notation to allow for flexible rhythms. Its key characteristics include:

1. "Fast short notes" to create a busy pointillistic texture
2. Rhythmic elasticity (to contrast with the metrical riffs from Event #2)
3. Potential for layering with other page-three events

3.2.4 Page 4: GREEN

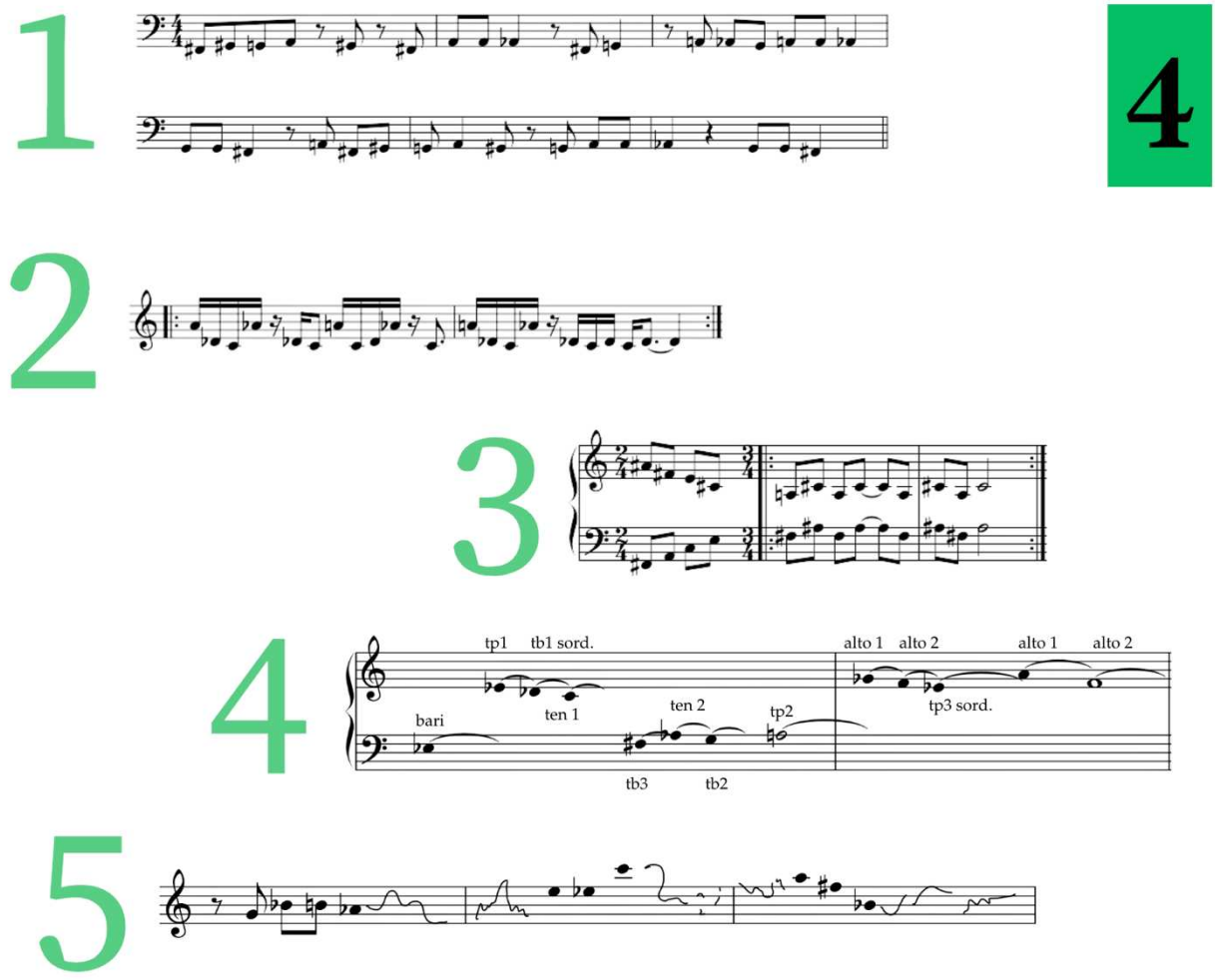


Figure 19, *Beautiful Humans* (2024), p4

EVENT #1 contrasts with the derived events from page one. Its key characteristics include:

1. Minor- and major-second melodic intervals, utilizing only the first four pitches of the chromatic scale, starting on F#

2. A six-measure bass line intended for low-register instruments, although higher-pitched instruments, such as trumpets, can also perform it in their register
3. Syncopations, contrasting with the simpler, repetitive rhythms of the other events

EVENT #2 functions either as a stand-alone event or as an event to be superposed with Event #1 on the same page. I incorporated repeat signs, as this event is intended to loop until the conductor cuts it off. The two-bar loop features an elastic rhythmic with a syncopated 'feel;' the sixteenth notes provide faster surface rhythm than the eighth notes in the preceding events. The alternation of A and Ab evokes the blues riffs found in Event #2 on page three. This line shares two pitch classes (A, Ab) with Event #1 on the same page, allowing for efficient succession and layering possibilities.

EVENT #3 is based on thirds, similar to many events from page one. Its key characteristics include:

1. Eighth-note arpeggios in contrasting motion outlining an F# minor/major harmony (similar to Event #4 from page one and Event #1 from page two)
2. A looping two-bar syncopated ostinato (which may serve additionally as a background for an improvised solo)
3. A triple metre (the only such metre in *Beautiful Humans*)
4. A single 2/4 measure to offset the pulse of repeating (looping) 3/4 measures

EVENT #4 notates Event #5 from page two using stemless noteheads (included as an experiment to compare proportional notation with stemless noteheads)

EVENT #5 explores Earle Brown's gestural notation, as exemplified by *Hodograph I* (1959), but presented on a staff. I incorporated the first three measures of the melody from Event #4 on page two, removing two- to three-beat units to create space for the gestural notation. The inclusion of stems for the first three melody notes is intentional, as it helps maintain a clear connection to the original melody's rhythm before transitioning to a more abstract form. I employed stemless noteheads for the remaining melody sections, allowing performers to interpret the pitch classes freely in relation to the gestural notation. In the spirit of Brown's *Hodograph I*, I created the graphic notation spontaneously and produced different versions for each instrument section part.

3.3 Cue Cards

After composing all of the events for *Beautiful Humans*, I created the following list of cue cards to communicate modifications to the interpretation of the events, thereby expanding their performance possibilities. These cue cards were also useful for cueing musicians to improvise on an event's content, providing performers with a starting point by addressing the treatment of one or more musical parameters. Because the use of cue cards was not the primary focus of this research, the number of cards was kept to a minimum.

Arpeggiate: Instructs musicians to play arpeggios based on the event's harmony, using either traditional musical notation (as in Event #1 on page one) or chord symbols (as in Event #4 on page two)

Conversation: Encourages musicians to improvise on an event in a "conversational" manner

Double Time: Doubles the tempo of an event (performed with a steady pulse)

Fast!: Instructs musicians to play an event or to improvise with a fast tempo independently of the other musicians (not conducted)

Groove: Encourages musicians to improvise on an event with a strong sense of rhythm

Half Time: Halves the tempo of an event to be performed with a steady pulse

Play Quarter Notes in your Own Tempo: Generates complex polyrhythmic textures of layered pulses from events originally written with stemless noteheads

Slow!: Instructs musicians to improvise with a slow tempo independently of the other musicians (not conducted)

PART FOUR: Post-Lecture-Recital Observations

4.1 General Impressions: Before and After

Although I treated the lecture-recital as an experiment, my goal for the two consecutive performances of *Beautiful Humans* was to elicit two compelling versions of the piece. To encourage spontaneity, I did not predetermine the succession of events, allowing each performance to demonstrate some of the multiple possibilities offered by a completely open-form score. My feelings about the outcomes of the first performance directly informed my conducting choices in the second performance, with the goal of delivering two contrasting interpretations. I composed the piece with the aim of blurring the line between improvisation and composition. My wish was that musicians would move seamlessly between the performance of notated material and spontaneous improvisations based on this material. On the whole, I was very satisfied with both performances of *Beautiful Humans*, particularly with the varied textures, conductor/musician interaction, and quality of performances in both fixed and free events. The following section will focus on the various elements of *Beautiful Humans* and discuss its harmony, rhythm, melody, orchestration, and notation.

4.2 Beautiful Humans Elements

4.2.1 Harmony

Harmonic connections across events and pages create smooth transitions in the music's narrative. The harmony based on stacked pairs of minor thirds from Event #1 on the first page served as the source material for many other events in this open-form piece, specifically, Events #2, 3, 4, and 5 from page one, Event #4 from page two, Events #1, 4, and 5 from page three. Events #2, 3, and 5 from page four all originate harmonically from Event #1. In total, twelve out of the twenty events that comprise *Beautiful Humans* share harmonic relationships with that first event. Harmonies at the beginnings and ends of events were designed to facilitate smooth transitions between events. For example, Events #4 and 5 from page one, along with Event #1 from page two, all start with the same pair of minor thirds as the conclusion of Event #1 from page one. Event #4 from page one and Event #1 from page two also conclude with a pair of minor thirds outlining an F# minor/major harmony, allowing for a smooth transition to Event #2 on page four, which shares this harmony, as well as to Event #1 on that page, which has F# as its root.

Another element linking the different events is pitch-class centricity. Examples include Event #2 from page one and Event #4 from page two, where Eb is accentuated throughout, as well as at the beginning of Event #5 from page two and Event #4 from page four. These events also connect smoothly with all events that begin or end with the C-Eb and D-F minor third pairs.

One final type of connection arises from compatible harmonies (e.g., belonging to a common diatonic mode or creating satisfying harmony from their superposition), as demonstrated by Events #1 and #2 from page four.

In future compositions, I intend to explore various types of contrasting harmonic structures between events. Nevertheless, careful attention to the relationship between event endings and beginnings will remain essential to ensure fluid transitions.

4.2.2 Rhythm

While my compositional approach to harmony emphasizes variations on a single idea, my approach to rhythm emphasizes contrast between events. Some events feature steady eighth-note flows while others employ syncopation. Events can be performed either rubato with guidance from the conductor or with a constant pulse. Several events employ stemless noteheads to encourage rhythmic freedom among performers. When such events are cued without further involvement from the conductor, musicians independently interpret the notation, generating collectively spontaneous complex rhythmic textures.

An additional strategy was to compose events with similar rhythmic material (e.g., tempo, metre, patterning) so that they could be superposed (e.g., Events #1 and #2 from page four), yielding organized rhythmic textures when performed with a common pulse.

In a more traditional vein, the drummer contributes an important element to the work's rhythmic texture by improvising in response to text-based information (stylistic indicators, desired information, etc.) and partially notated rhythmic patterns. For *Beautiful Humans*, I provided the drummer with the piano part, as it contained the most comprehensive representation of all instrumental parts. Having an improvising drummer spontaneously generate rhythmic material added a layer of rhythmic diversity that I, as composer, did not need to explicitly design.

In contrast with the relatively straightforward rhythmic structures in *Beautiful Humans*, I intend, in future works, to investigate more complex rhythms and rhythmic interrelationships between events, and more extensive event layering.

4.2.3 Melody

When composing *Beautiful Humans*, I prioritized harmony over melody. In numerous events, melodies emerge simply as the top voice of either chords or pairs of thirds. Several events—Event #2 from page one, Events #2 and #3 of page three, and Event #2 from page four—function as ostinatos. Since I conceived many events partially as frameworks for improvised solos, pre-composed melodies were not a priority. Only Event #4 from page two features a more substantial melodic line spanning six measures. Event #5 of page two and Event #4 of page four stand out from other sections, employing a technique where individual notes from a melody are distributed among different instruments creating a melody of pitches and timbres. In future compositions, I intend to emphasize melody more prominently, potentially exploring extended melodic structures with interconnections similar to those employed in the harmonic variations throughout *Beautiful Humans*.

4.2.4 Orchestration

In *Beautiful Humans*, orchestration significantly contributes to (and arises from) the potential layering of instrument groups within musical events. To facilitate this, most instruments read from the same "reduced" notation, which allows for variations in interpretation, such as pitch selection and register and so forth. Complexity arises not so much from any individual

musician's interpretation, but from a multiplicity of interpretations, engineered spontaneously by the conductor. Unlike my through-composed works, I did not aim to explore intricate orchestrational detail, instead prioritizing material mobility. With the exception of Event #5 from page two and Event #4 from page four, where "timbre melody" dictates pre-determined orchestration, none of the events specify exact voice assignment beyond the general guideline of following each instrument group's chair distribution. Musicians frequently made independent voice (i.e., note) selections since the number of voices in many events did not match the number of performers in a section. During rehearsals, I experimented with allowing musicians to change octaves ad libitum—an approach particularly effective for trumpets and alto saxophones playing in higher octaves during intense, loud passages. This flexibility expanded orchestrational possibilities and was eventually incorporated into the recital performances.

While *Beautiful Humans* met my compositional objectives for the final lecture recital, future open-form works will likely incorporate more orchestrational detail. One potential avenue may involve combining events with detailed chair-specific orchestration alongside others providing "reduced" notation. In addition, I would like to explore the spontaneous cueing of individual musicians (as opposed to groups of musicians) throughout the ensemble to achieve more nuanced blends of timbre. This approach could be implemented by pointing to specific musicians before cueing an event. While such cueing would require slightly more time than cueing a group of musicians, a conductor could incorporate this minimal delay into performance decisions.

4.2.5 Notation

Most of the score for *Beautiful Humans* employs either conventional musical notation or stemless noteheads, the latter offering performers freedom in rhythm and interpretation. The musicians' familiarity with these notational systems made their implementation practical and efficient, minimizing rehearsal time and reducing the number of performers' questions—aligning with my objective of presenting open-form compositions in professional contexts with limited rehearsal time. It is worth emphasizing that my notational choices considered that many jazz musicians, unlike classical musicians specializing in contemporary music, possess limited knowledge of or experience with experimental notation systems. My streamlined focus on these two notational approaches was further guided by my intention to create events with defined pitch content conveying clear harmony instead of abstract open-content compositions where performers determine the pitch material.

However, I did incorporate a number of events inspired by Earle Brown's notational innovations. Event #5 from page two employs proportional notation, and I included a parallel event featuring identical musical material in stemless noteheads to enable comparison and evaluation of these contrasting notational approaches. However, the limited rehearsal time obliged me to work only with the Event #5 (the proportional notation version) without rehearsing its stemless notehead companion. My observations from rehearsals and recital performances suggest that proportional notation might prove valuable primarily for asynchronous voice-leading in homophonic (quasi-polyphonic) textures, for which stemless noteheads might prove insufficient. In contrast, my experiment with Brown's gestural notation from *Hodograph I* (1959) yielded compelling results. Juxtaposing this abstract notation with

sections of fully-notated melodic material created an effective balance between composed elements and more abstract improvisations inspired by the notation. This application of Brown's notational approach will remain in my compositional toolkit for both open-form and linear compositions. Drawing further inspiration from Brown, I intend to experiment with similar notation for passages employing extended instrumental techniques.

I also explored graphical notation in Event #3 from page two, deliberately referencing Brown's "November 1952." As previously noted, my approach involved conducting the ensemble for synchronized performance with indeterminate pitches—a decision primarily influenced by rehearsal constraints. Future work will include further exploration of graphical notation, informed by my positive experiences performing selections from Brown's *Folio and 4 Systems* (1952-1954) in an earlier recital (section 2.5.1).

4.3 Improvisation

A central motivation for applying Earle Brown's open-form concept to a jazz large ensemble stems from the opportunity to incorporate improvisation—a distinctive capability of jazz musicians—thereby leveraging the creative faculties of all ensemble members. When selecting performers, I deliberately considered their individual improvisational abilities and artistic personalities. Several musicians are also accomplished composers, contributing their unique musical perspectives to spontaneous performances of *Beautiful Humans*. Unlike through-composed works where the composer determines the complete musical narrative, an open-

form piece featuring improvisers introduces a collaborative and conversational dimension to the relationship between the composer/conductor and performers/improvisers.

The open-form concept inherently generates multiple performance possibilities through spontaneous event ordering in *Beautiful Humans*, but the integration of improvisation exponentially expands this spectrum of creative potential. The twenty events comprising the piece can not only be performed in varied instrumental combinations through the conductor's spontaneous orchestration choices but also can serve as foundations for improvisation within multiple instrumental configurations. The conductor may cue an individual musician to improvise a solo based on a complete event or direct an instrument section or selected musicians therein to improvise collectively on an event, creating small-group improvisations. At any moment during an event's performance, the conductor can employ the "stretching" gesture, signaling musicians to transition from notated material to improvisation based on elements of the current event. Such cues can encompass the entire ensemble, facilitating collective improvisation directly linked to the composed events that establish the piece's identity. In previous performance experiences, I found that large ensemble collective improvisation often tends toward chaos, frequently producing indistinctive sonic results regardless of compositional context. However, the conducted open-form framework allows for markedly different outcomes. Collective improvisation can be cued for varying durations and interwoven with composed events, generating compelling narratives that blur distinctions between improvised and through-composed sections.

This performance environment requires musicians to alternate between two distinct mindsets: following the conductor during notated events on the one hand and being ready to improvise on these events—either soloistically or collectively—at any moment on the other.

4.4 Conducting *Beautiful Humans*

4.4.1 Navigating Real-Time Decisions in Open-Form Conducting

Conducting a jazz orchestra through an open-form piece like *Beautiful Humans* requires the conductor to navigate multiple real-time decisions, including assigning material to individual performers (or groups of performers), indicating entry points for musicians, and shaping tempo, dynamics, and character. The conductor must communicate information clearly to the musicians while simultaneously anticipating (and planning) potential directions in the musical narrative. The inclusion of improvisation requires the conductor to respond to the performers and integrate their contributions into the decision-making process. Directing performances of *Beautiful Humans* demands a high level of focus, as the conductor must remain present while constantly looking ahead.

Reflecting on the lecture-recital performances, a key element that contributed to their success was my familiarity with each event in the piece. Composing these events just weeks before the performances ensured that I had an intimate understanding of the material. Although I was well-acquainted with the piece's content, I still engaged in imaginary performances prior to the recital, practicing the mechanics of cueing contrasting iterations of events. One of the piece's key characteristics is that the events are simple (brief with minimal elaboration) and can be

performed in various ways. This mental practice was not intended to predetermine the order of the events, but, paradoxically perhaps, to sharpen my ability to make creative decisions spontaneously in the moment.

4.4.2 Interacting with Musicians: Body Language and Cueing Techniques

I used two types of body language to interact with the musicians: one active, requiring their complete attention, and another more passive, allowing them to perform or improvise with the events freely. The nature of this piece, characterized by short events, led me to employ active body language more frequently; however, the presence of passive moments was essential in creating an environment that encouraged creative initiative from the musicians. To clearly delineate these two modes of interaction with the ensemble, I maintained raised arms and ongoing visual contact with the musicians in active mode. In passive mode, I lowered my arms and minimized my body movements. I drew on my earlier ensemble experiments in cueing events with the fingers of my left hand, but this was my first time employing Earle Brown's concept of using a placard with an arrow to indicate page numbers for works with multiple pages (each with multiple events). This method proved straightforward and efficient, requiring only a little extra time for event changes between different pages. Having a significant number of related events on the same page facilitated quick transitions. During rehearsals, I realized that it was essential to capture the musicians' attention before giving cues. I signaled my upcoming cues by raising and moving my arms while making eye contact with each musician in the ensemble. This anticipatory gesture was particularly helpful when stopping an event mid-performance or transitioning swiftly to another event. In contrast to my previous jazz orchestra

experiments where I only cued the wind instruments (normally situated at the conductor's right), I needed to ensure that my left-hand fingers were visible to all musicians (e.g., piano situated at the conductor's left), regardless of their position on the stage. Depending on their line of view to the conductor, musicians could easily confuse an indication made with two fingers with one made with three. To prevent any confusion, I consistently moved my left arm back and forth from right to left while also rotating my forearm, ensuring that every musician could see the signal clearly, no matter their position.

In addition to signalling events, the conductor must also communicate information about how to play it - tempo, dynamics, character - since these elements are not fixed in the score for *Beautiful Humans*. As discussed in the earlier section on conducting, the preparatory beat can effectively convey such elements to the musicians. I have found this approach to be effective in performance, the only difference being that I often provided more than a single preparatory beat, as jazz musicians are accustomed to starting pieces with a count-off of at least one measure. Throughout the performance of events, I modified the tempo, dynamics, and character of the music using conventional conducting gestures.

While I did not want to include conducted improvisation in this piece, I employed a few simple gestures to facilitate interaction with the musicians. These gestures included:

1. **Stretch Gesture**: I used this gesture to signal improvisation, as discussed earlier.
2. **Pointing**: I pointed at individual musicians or instrument groups to direct my spontaneous orchestration choices.

3. **Circle Gesture**: I encouraged musicians to continue what they were playing at a particular moment by making circles with my index finger.
4. **Loop Gesture**: When I wanted a section to be looped, I brought both hands together to form the letter "O," indicating “open,” which is the standard nomenclature in jazz for looping a section.

4.5 Cue Cards

In retrospect, the combination of conventional and extended conducting techniques was sufficient to produce effectively contrasting performances of *Beautiful Humans*. While the inclusion of cue cards was not essential to my experiment, I believe that they remain a valuable tool for interacting with musicians in open-form works. Future conductors of *Beautiful Humans* may wish to use cue cards (perhaps of their own devising) as a way of eliciting even more varied musical results.

4.6 Rehearsals and Musician Interaction

Overall, the rehearsals ran smoothly, and I felt that the musicians whom I assembled for the lecture-recital were highly engaged and stimulated even though they were not initially familiar with Earle Brown’s open-form concept. During the first rehearsal, I briefly explained the cueing system for pages and events, as well as the conducting gestures I would use in performance. I kept my explanations brief and quickly began cueing events and transitions, allowing the

musicians to become familiar with the concept through practical experience. Even when rehearsing composed works, I prefer to let the notation speak for itself and to avoid providing excessive direction. There is always the option to pause the rehearsal to respond to any questions that arise. This approach also allows me, as a composer, to evaluate the efficiency and clarity of my notation.

We rehearsed each of *Beautiful Human*'s events briefly, dedicating the remaining rehearsal time to experimenting with different combinations of events. I ensured that I never cued events in the same way, keeping the musicians prepared for various performance possibilities, both with and without improvisation. The rehearsals also provided me with valuable experience as a conductor, teaching me how to communicate my intentions clearly to the musicians.

SUMMARY

I believe that my exploration and application of Earle Brown's open-form concept throughout this period of research-creation has produced significant artistic growth. In Brown, I discovered a composer whose jazz background and engagement with contemporary art align with my artistic aims of balancing compositional control and improvisational freedom. Brown's open-form concept enabled me, as a composer-conductor, to improvise with the jazz orchestra as though it were a single instrument. This approach also allowed the musicians within the orchestra to contribute to the narrative through improvisation—an element that was significantly absent in my previous orchestral works.

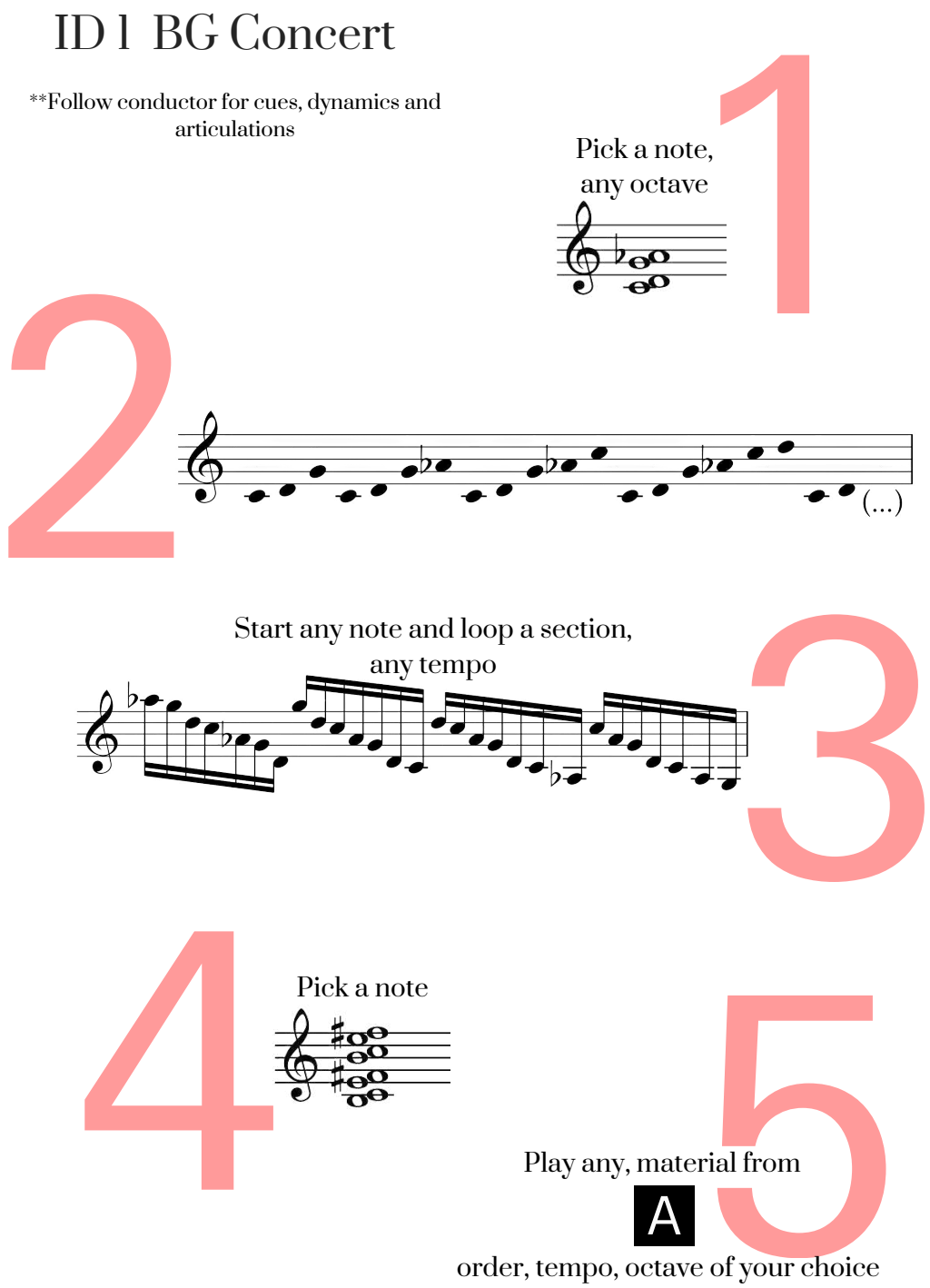
My open-form experiments with the McGill Chamber Jazz Ensemble 1, Orchestre national de jazz de Montréal, and a chamber ensemble for my doctoral recital enhanced my ability to compose musical ideas with multiple possible outcomes, to observe how jazz musicians interact with the open-form concept, and to engage with the performance aspect as a conductor. I experimented with different levels of performer choice regarding pitch, rhythm, and orchestration while employing open form in various contexts: as backgrounds to improvised solos, as short interludes, and within fully open-form arrangements. As a conductor, I implemented spontaneous orchestration choices by cueing and layering open-form events between different sections of the orchestra. I also explored conducted improvisation and cue cards as additional techniques to generate new musical content and modify notated material and its large-scale form.

The insights gained from these experiments culminated in the final step of this research-creation project: composing *Beautiful Humans*, my first completely open-form piece for jazz orchestra, and performing two contrasting versions of the work within the context of a lecture-recital. My main goals with this composition were to create a set of varied musical textures and to achieve performances that offered a level of continuity and thematic development similar to a through-composed piece, where the line between composed and improvised parts would be blurred. I met these goals primarily by composing events that shared musical elements such as harmonic relationships, contrasted rhythmically through both conventional and stemless notation, and facilitated spontaneous orchestration decisions during performance through selective cueing of different orchestral sections. These same events also functioned as foundations for improvisation by all musicians in the orchestra, connecting their spontaneous contributions with my composed elements. To ensure that this research would benefit my future artistic practice, I composed *Beautiful Humans* with self-imposed time constraints, and with the understanding that rehearsal time would be limited, so as to mirror the realities of professional concert music production.

Having completed this research-creation project, I view *Beautiful Humans* as the first in a series of open-form works I intend to develop. Earle Brown's open-form concept has become an integral part of my compositional toolkit, and I am eager to explore its applications across diverse contexts, from small ensembles to full orchestral settings in jazz, classical, and cross-genre settings.

APPENDIX

Appendix 1

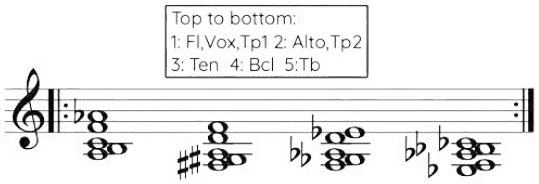


Appendix 2

Rhizomes BG (concert)

**Follow conductor for cues, dynamics and articulations
**Alterations are not held over

1



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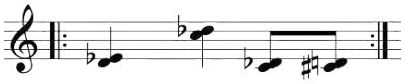

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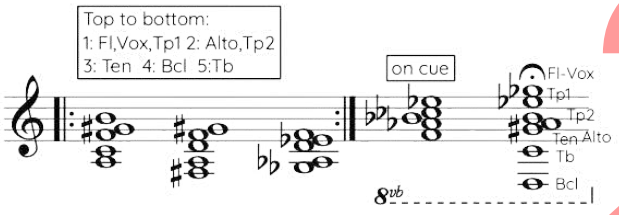
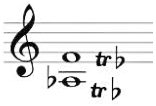
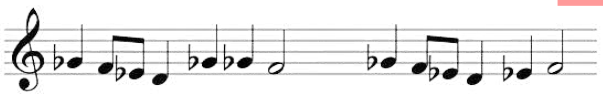


5



4

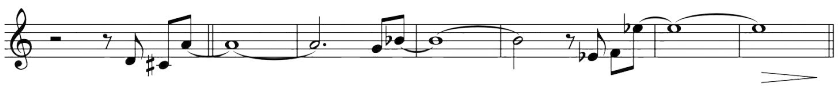


Appendix 3

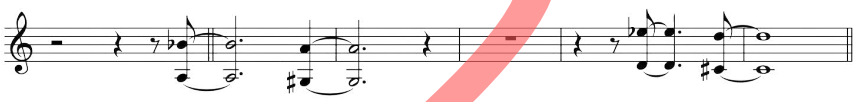
TRIO 3

**Follow conductor for cues, dynamics and articulations

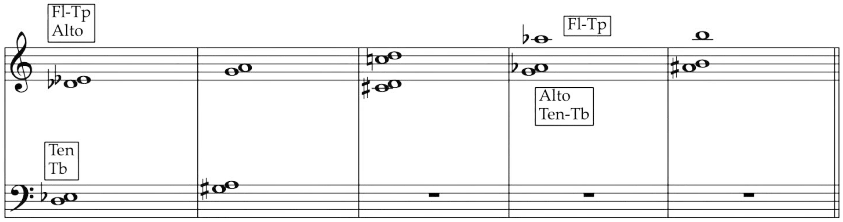
1



2



3

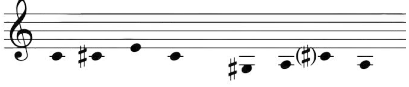


4

Improvise with a fragment of the "Head"

5

Improvise with these notes, any register



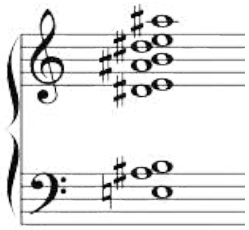
Appendix 4

Concert

Tango Interlude

**Follow conductor for cues, dynamics and articulations

1



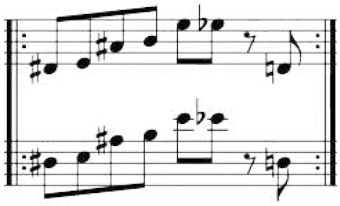
2

Play low "D" pedal

3

Play a fragment of a melody from the piece.
Soloistically, with expression.
Tempo ad lib.

4



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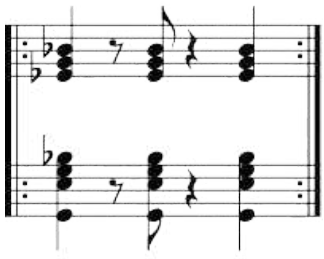


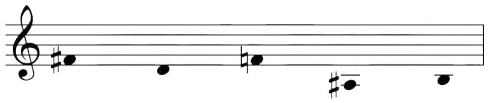
Appendix 5

Confluence: Rideau Falls

Concert

1

Improvise with pitches

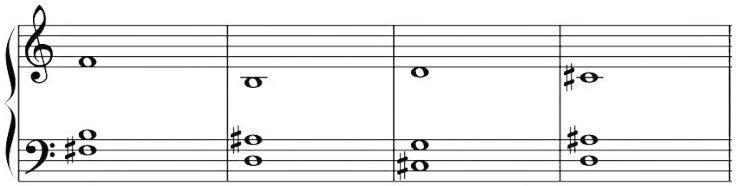


2

Play pitches from "1" in 5/8

Improvise patterns respecting the placement of the pitches in the 5/8 bar

3



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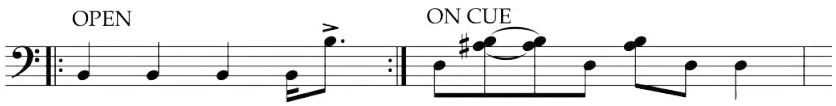

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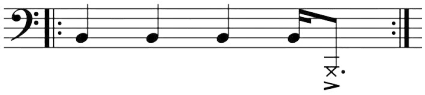


Appendix 6

Concert

Confluence: When Blue Meets White

**Follow conductor for cues, dynamics and articulations

1

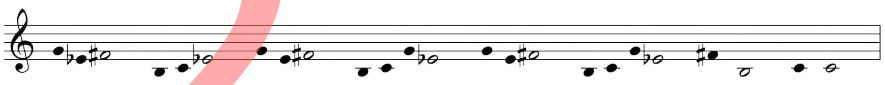
Play a held concert middle "C"
as quiet as possible.

4

Play a short phrase
possibly with extended techniques

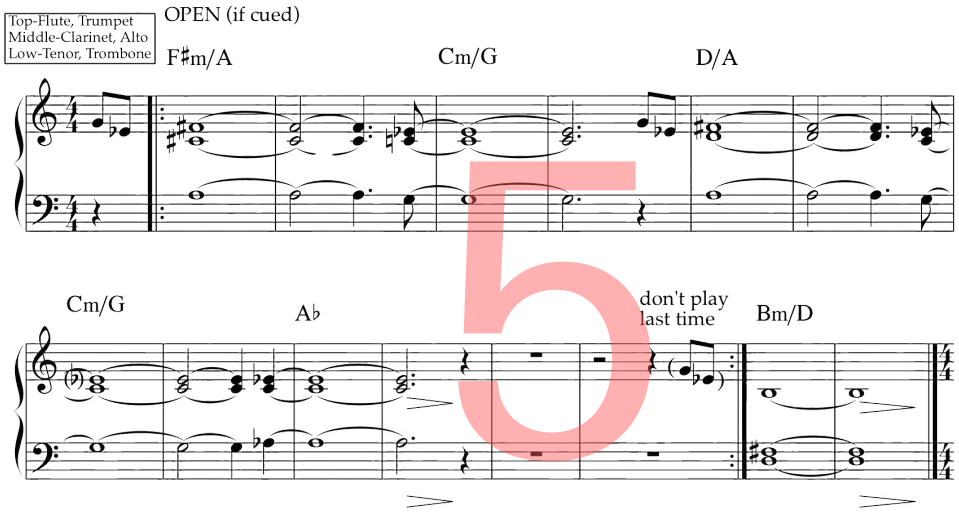
2

Improvise with this melody



3

Play only unpitched percussive sounds,
Groove!



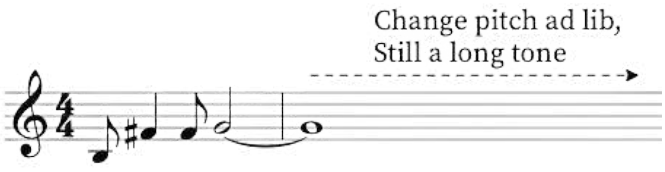
5

Appendix 7

One More Chance - BG Bar 52

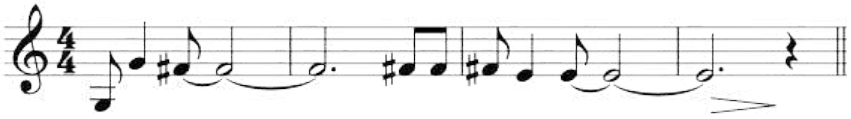
Concert

1



2

G or F# Long Tone with swells



3

4

Loop any bar of your choice

5

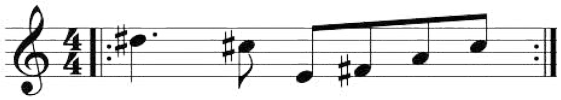
Starting on any note of B phrygian, play long tone trills slowly going up the mode

Appendix 8

I Love You So- BG bar 128

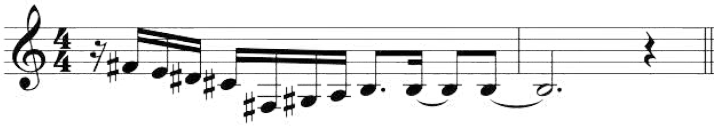
Concert

1



2

Loop bar 124



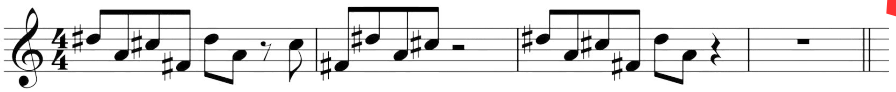
3

4

Trumpets + Bones: Loop bar 123

Sax: Tacet

5

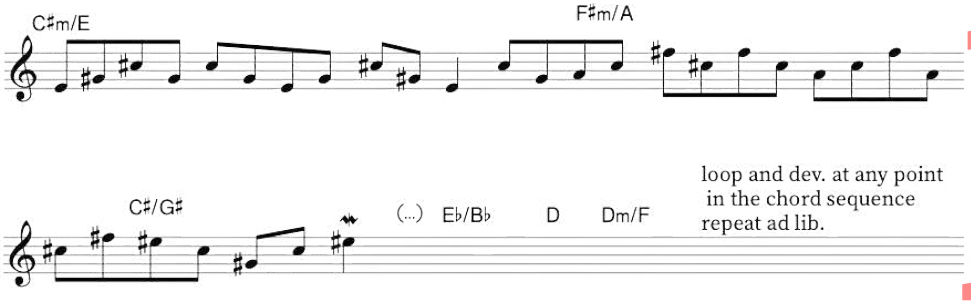


Appendix 9

Bb

On the Edge of the Night ETUDE

1



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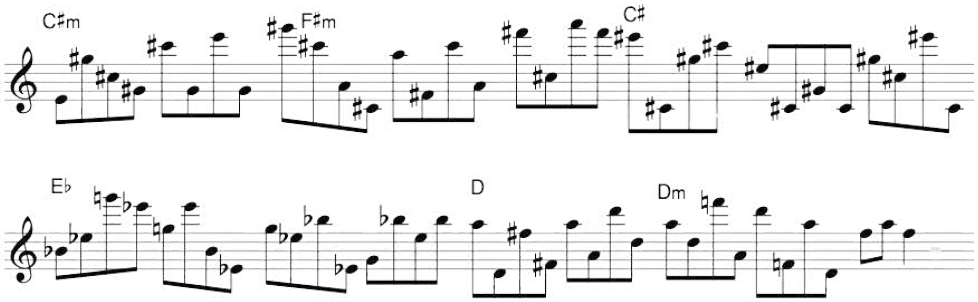
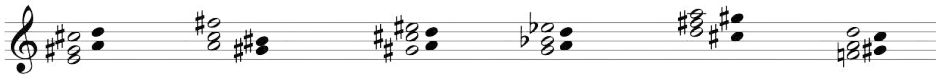


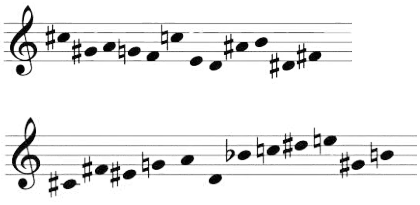
3

Improvise with those harmonies ad lib



4

Fast and nervous,
Start anywhere in the row,
repeat ad lib, loop section of the row ad lib



5

Play riffs in octaves with G#

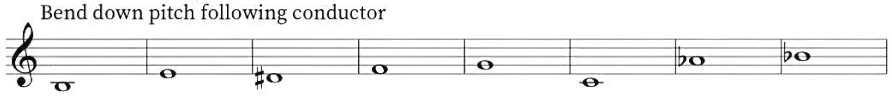
Appendix 10

On the Edge of the Night- BG bar 64

Concert

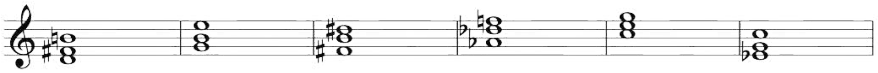
1

Each note on cue,
Bend down pitch following conductor



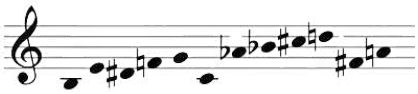
2

Each chord on cue



3

Fast and nervous,
Start anywhere in the row,
repeat ad lib, loop section of the row ad lib



4

Play a riff in octaves with F#,
Simple and repetitive

5

Play your lowest note!

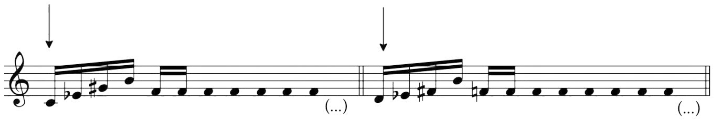
Appendix 11

1

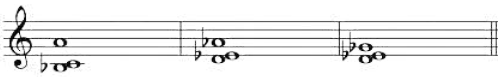
Tp Bb

1

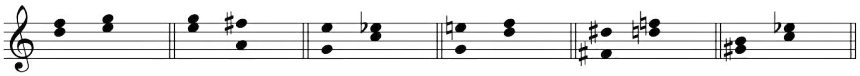
2



3

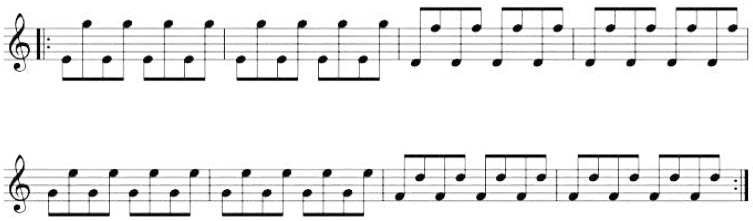


4



5

Possibilities:
a) play only dowbeats or upbeats
b) hold notes
c) play short sections of the line and add rests
d) play short sections and hold notes



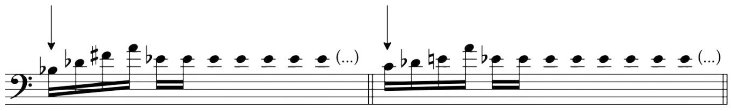
Appendix 12

Bones

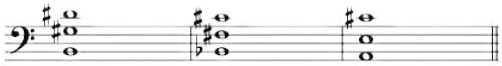
1

1

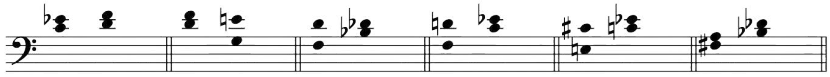
2



3

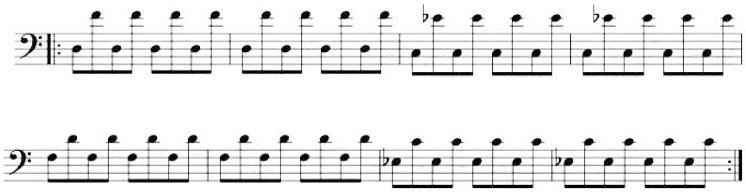


4



5

Possibilities:
a) play only dowbeats or upbeats
b) hold notes
c) play short sections of the line and add rests
d) play short sections and hold notes



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