EXPLICIT NOTATION AND IMPLICIT IDENTITY: EARLE BROWN'S PHILOSOPHY OF COMPOSITION AND AN INFORMED PERFORMANCE PRACTICE

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ABSTRACT

This paper analyzes several recordings of Earle Brown's *December 1952* (1952), *Four Systems* (1953), and the *String Quartet* (1965) to understand how performers approach composition and improvisation when performing his works. By collecting and synthesizing Brown's lectures and writings over several decades of his career it can be determined that Brown was focused primarily on the concept of an identity, or a set of characteristics that allow performed works to be easily recognizable (e.g., the recurring motive in Beethoven's Fifth Symphony). Through graphic notation and open form, Brown allows musicians to collaborate with him through the score to create an identity in performance. This requires performers to experiment both with the explicit information Brown supplies and the implicit extensions of that information as perceived by the performer(s). Recordings of these works are reflections of the work's innermost identity and analyzing them provides insight into how future performers can interact with and successfully perform Brown's scores. With this knowledge, this paper presents a performer's guide to Earle Brown's music, opening a door for his works to be accessible by any musician regardless of their familiarity with Brown or his contemporaries. This guide can be read independently of the rest of the paper, serving as both a concise point of entry and a quick reference tool.

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INTRODUCTION

Earle Brown (1926-2002) was an American composer famous for incorporating improvisatory elements and nontraditional forms of notation within his music. After studying composition at the Schillinger House in Boston[1] between 1946 and 1950, Brown began his career as a professor in Denver. Within a few years, he moved to New York to collaborate with John Cage, Morton Feldman, and Christian Wolff, among others, placing him among some of the most innovative composers of the twentieth century. Indeterminacy became a central facet for these composers, though each sought to realize it through different methods. Brown developed open form and various nontraditional notations to introduce indeterminacy to his music, creating a large oeuvre full of vastly different works. However, Brown has largely been recognized solely for his early work *December 1952* (1952). In an interview, Brown expressed his frustration with this:

> It's so frustrating to spend forty-five years writing music, and then to be talked about in connection with only one or two pieces. I would like people to realise the range, the aesthetics and the optimism of my work. And, I would certainly want to clarify the difference between the pieces for which I am notorious and the pieces that people don't know…But I've written so much music in so many different ways. I've never understood why people want to put me into a box and throw me away.[2]

Over the years, scholars analyzed many of Brown's works, exposing more to the musical community. However, few analyses encompass more than a single work, nor do they provide easily accessible routes to fully comprehending Brown's philosophies and works through performance. Like many composers, Brown hoped that his scores were the best possible vehicles for communicating the works he designed, but many of those scores still present extra obstacles to performers and therefore successful performances. For example, if a musician is unfamiliar with

[1] Now known as the Berklee College of Music.
[2] John Yaffé, "An Interview with Composer Earle Brown," *Contemporary Music Review* 26, no. 3 (2007): 309.

Earle Brown's music but has just discovered *December 1952*, the included performance instructions may not give them quite enough information to do justice to the piece. Proficient musicians understand the importance of form and formal relationships in performance, but what does it mean if the form is open? Every performer or performing ensemble applies their interpretation to a work, but what does spontaneity look like? How does one improvise, both in general and within the framework of any single piece? There is no one answer to any of these questions, even for a single piece, but they must be considered when approaching Brown's works. In general, creating authentic performances of Brown's works requires both an understanding of the work as a conceptual identity and an active collaboration with the score to create a new identity.

This paper aims to open a doorway for musicians into any of Brown's works by creating a performer's guide to Earle Brown. Part 1 is the performer's guide itself, containing a brief distillation of Brown's philosophy and techniques as well as a series of questions and concepts to consider when crafting an intentional, informed method of performance for any of Brown's works. This was created from the knowledge gained in Parts 2 and 3: Part 2 is an in-depth discussion of Brown and his music, primarily informed by his writings, lectures, and interviews, leading to a method for generally evaluating performances of his music. Part 3 analyzes several recordings of *December 1952*, *Four Systems*, and the *String Quartet* using this method and discusses how the performers might have interpreted the scores.

PART 1: A PERFORMANCE GUIDE TO EARLE BROWN

The following pages summarize fundamental concepts of Earle Brown's compositions as a quick guide for performers. I also provide several aesthetic and practical questions to consider during the rehearsal process of a piece. Since there are no strict rules for approaching a given score, these questions are meant to be as general as possible. Many can be applied to any work, others can safely be ignored for some works, and certain questions might seem relevant until partway through the rehearsal process. I hope that this guide can be used at any point while planning or rehearsing a work so that the result is the best performance possible. In addition, it should be helpful both for newcomers and experienced contemporary music performers. Also, note that this section is not a guide to rehearsals, as those methods are unique to each ensemble and performer.

While reading the entire body of this paper would provide the most context, this section is abridged to include only the most helpful information. For more information on Brown, his works, and his philosophy, I recommend reading Part 2 of this paper. As Part 3 focuses on specific realizations of certain works, it may not be quite as helpful or relevant for rehearsals, especially for works not discussed here. That said, the analyzed recordings may still be useful as starting points or as inspirations for certain works.

1.1 GENERAL GUIDELINES

Each of Brown's works, although similar in some ways (after all, they were all written by him), vary widely from one to the next and must be considered on an individual level. As Gifford describes in the introduction to his analysis of Brown's compositional process, "His works are like branches that grow from a single tree: although every limb shares a source, the reality at the tip of

each may be strikingly different from that of its nearest neighbor."[3] Many composers might desire an individual approach to their works, but for Brown, it is a necessity. Each work is its own microcosm of sounds, gestures, rules, and notations, which much be understood and interpreted well for an effective performance. Thus, the first step in approaching a work for performance is to become familiar with it on a fundamental level.

It is worth noting that while the philosophical and overarching concerns of a given work are important, jumping directly into a discussion of what a work should be or sound like is usually not a great practice for starting rehearsals. Typically, as with many works, the best (and typically quickest) method for understanding music is to simply start playing and practicing it.[4] Once a foundation is established, musicians can dissect the intricacies of a work much more effectively.

1.1.1 The Work as an Identity

On a conceptual level, a given piece is defined by a plethora of characteristic elements. Many composers dictate these elements on a note-by-note, second-by-second level, as is seen in traditional notation. Without playing *these notes* at *these times* with *these relationships* to one another (etc.), *that work* is not really being performed (or, it is being performed poorly). There is still some flexibility built into works: performers can adjust tempo slightly, execute phrasing differently, lengthen or shorten fermatas, create different improvisations where allowed, and so on. However, straying too far from the score or accepted performance practice may not be received well by audiences or the work's composer. Therefore, a score holds a number of different potential realizations of the work within it, each representing slight changes in decisions and executions. In

[3] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 188.
[4] Drury, "Then and Now" in *Beyond Notation*, 242. Drury's chapter is an excellent view into one musician's evolving relationship with performing Brown's music, especially as a conductor.

Brown's words, this is the "identity" of a work. Performances and recordings are then reflections of this inner identity—provided the notes, rhythms, and other musical details are performed with accuracy.

In this regard, Brown's works are no different. The difficulty arises from Brown releasing creative control over some part of the work's identity, which then falls to the performer(s) to complete and execute. This is mainly accomplished through open form, graphic notations, performance instructions, and an invitation to improvise within Brown's sound worlds. These are all loosenings of traditional notation, making it impossible to uncover a work's full identity simply by playing through the notes on the page. Instead, discovering an identity requires experimentation both with the explicit information Brown supplies and the implicit extensions of that information as perceived by the performer(s), all executed in good faith by performers.

1.1.2 Navigating Open Form and Improvisation

Briefly, "open form" describes the loosening of the organization of music within a piece. Composers usually determine the organization of material during composition, disallowing any changes to the form. Open form then ranges from the composer supplying a few possible organizations of music to allowing the performer(s) to spontaneously create their own formal areas during performance. In many works, Brown explicitly outlines the rules or boundaries of a section or work with open form. These instructions are rather straightforward, for example in *Cross Sections and Color Fields*:

> Page 4: the last measure of ¾ leads directly to box 3 of an open-form section. The five boxes in this section may be conducted in any order; and dynamics, durations and superpositions may be varied at will, though the general dynamic shape of the entire section (total duration: 20–30") will be *pp* < *ff* >...The open-form section must

> end with box 4 (*pp*) which is held in preparation for the string chord at B.[5]

Despite the freedom given through open form, Brown provides an extremely clear set of requirements for this section. Executing those requirements becomes rather straightforward. In such circumstances, the given material combined with Brown's instructions will always "work" due to how Brown created both the materials and instructions.

Other works are less prescriptive, such as in the final section of the *String Quartet* (see Musical Example 18 on page 90). The basic instructions: "Play events between dotted lines in any order independently (conscious of ensemble), if played more than once vary the technique each time (or not), maintain basic rhythm & pitch, tempi: free, volume of total phrase may be raised or lowered proportionately."[6] This essentially says, "play selections freely while actively listening to the ensemble." Active listening is key here, as four non-interacting players are not likely to create an interesting performance. The ensemble's goal must be to create a coherent section of music—in other words, their selections must define the form of the work. Players must listen to what each other player is choosing to create, responding with complementary or contrary gestures as the aural situation changes over time. For example, if three members of the string quartet are playing pizzicato gestures, the fourth might join them with another pizzicato line or create a contrasting texture by playing a sustained arco phrase. Both are "correct" but create different music. Which should the player choose in that moment?

This question is the reason why experimentation with Brown's materials is essential—that player should be able to spontaneously select the best option for the evolving work. Soloists and ensembles alike must learn what kinds of textures are possible given the freedoms available in

[5] Brown, *Cross Sections and Color Fields*, 1972-1975.
[6] Brown, *String Quartet*, 1970.

these scores, and armed with that knowledge, they must react to the ongoing musical identity accordingly by continuing to mold it over time. This process, even when practiced to create a particular identity in performance, is improvisation. Works like the *String Quartet* give performers the raw musical material to improvise with, while others like *December 1952* (see Musical Example 5 on page 38) only provide the slightest suggestions of what to play. For these works, performers must also generate sounds to improvise with, usually during the performance itself, based on the implications of sound from the score. The only way to identify what sounds are implied by the notation is to experiment, creating various notes and gestures and keeping only the results that do match the score. Once this is completed, performers can confidently respond to the unfolding of a performance only with relevant musical information, adding to a cohesive performance identity.

Note that the spontaneity of improvisation is key to Brown's music. Newcomers to Brown or improvising in general might want to prepare an improvisation or open form section ahead of time, but Brown specifically warns against doing this:

> "I prefer that such ordering should come about in this intuitive-conscious manner spontaneously during each performance. A completely pre-performance ordering of these materials—which I could very well arrange myself—would eliminate the possibility of the intense, immediate communication of ensemble collaboration which is an extremely important aspect of music making as I see it."[7]

1.1.3 Performance Instructions

Most of Brown's scores include performance instructions about the work as a whole, notation indications, or specific open form sections. In every case, these instructions are imperative

[7] Brown, *String Quartet*, 1970.

to comprehending the work. Brown was interested in communicating musical identities through the actual notation as much as possible. Ideally, he would not have to include performance instructions, but he found it especially necessary for performers he worked with during his career, who generally were not used to the type of collaboration he was interested in. Musicians today may not need any additional instructions to create a compelling performance from any of Brown's scores, but the additional context from Brown himself is still necessary. At a basic level, if he found the instructions to be unnecessary, he would not have included them.

Typically, Brown describes the music to be created in a general sense, using phrases like "[a] sequence of statistical similarities of texture and style,"[8] "…to have elements exist in space…space as an infinitude of directions from an infinitude of points in space…,"[9] and "The figurations should be generally fast, brilliant, and virtuosic."[10] These descriptions can be interpreted as perspectives of the music or states of mind and should be referenced more towards the tail end of rehearsals. After understanding how to create and execute gestures on a local level, these descriptors help performers to frame their collection of sounds into a whole. Often, discussing rehearsals and run-throughs in the context of these instructions is an excellent tool to ensure that a single performance identity is emerging through performance. As with the experimental process of creating sound materials, performances of entire works may need to be tweaked or edited to create the most effective final product. This is no different than the ideal rehearsal process for a traditionally notated piece without any improvisation or detailed instructions, with the exception of highly involved collaboration between performers, conductors, and the score itself.

[8] Brown, *String Quartet*, 1970.
[9] Brown, *Folio and Four Systems*, 1961
[10] Brown, *Cross Sections and Color Fields*, 1972-1975.

1.2 WHAT TO CONSIDER FOR A PERFORMANCE

The following sections contain aesthetic and practical questions that can be useful for organizing and executing successful performances of Brown's music. As mentioned previously, some of these questions might be incredibly useful or have a profound impact on rehearsals, while others might be irrelevant. Some may appear simple, only to suddenly become relevant later in the rehearsal process. This is also by no means an exhaustive list of questions, as some situations may generate a deeper line of questioning that no other performers have encountered with a given work. That is also natural: once again, every performance of each of Brown's works is a presentation of a unique identity, arrived at in a unique way by all performers involved. Note that aesthetic questions are the primary concern, and practical questions should be considered regarding how to achieve said aesthetic goals. Questions are presented without additional discussion to keep them clear and general. For additional details or example performances, the rest of this paper contains more information.

1.2.1 Aesthetic Questions

- What is the identity of the work? How does it sound? What is characteristic about this work or this performance?
- What sonic materials fit that identity? What sonic materials do not? Is there a clear boundary between acceptable and unacceptable?
- Of the acceptable materials, are some more important than others?
- Given Brown's instructions, are there any requirements that are integral to the performance? Are any allowed to fluctuate?
- What sounds, gestures, or phrases are implied or described by nontraditional notations?
- How do you know if your contributions are "correct"?
- What forms are possible, and which are desired?
- How should ensemble members interact with one another? Is there a leader?
- Are any facets of improvisation, open form, or the whole work predetermined? Conversely, how much spontaneity and agency do players have?
- Does the work align with Brown's conception as described in the performance instructions?
- Should recordings of other performances of the same work be used as a starting point for developing a new identity, or should musicians only use the score as their guide?

1.2.2 Practical Concerns

- What instrumentation is to be used? How are players arranged on stage?
- Should there be a conductor? If so, are they merely a facilitator or are they the principal controller of the work?
- How long is an acceptable performance?
- Is there a limit on instrument ranges?
- Is the identity of the work clear to listeners?
- Are all players interpreting nontraditional notations in the same way? Should they?
- Are all players interpreting traditional, explicit notations in the same way?
- For applicable works, should scores be oriented in the same manner across an ensemble?
- How do ensembles move through a work (independently or as a whole)?
- Are any facets of improvisation, open form, or the whole work predetermined? Conversely, how much spontaneity and agency do players have?
- Are all performers equally good improvisers? If some are better than others, should they take on more responsibility for creating successful performances?
- If something goes wrong during improvisation or open form sections, should there be an "escape plan" to get everyone back on track?
- Should audiences be aware of the visual appearance of the score? If so, should the score be visible to audiences in the same perspective that performers are viewing it from?

1.3 CONCLUSION

Above all, creating a strong musical identity is the key to successful performances of Brown's music, as it is with music from all composers. Brown, through his scores, is simply inviting you as the performer to also participate in some part of the compositional process. That collaboration results in a new form of the work in every performance. Through rehearsal and experimentation, performers must seek not only what their identity of the work is, but what the best version of that identity sounds like. The most effective performances will feature performers actively making optimal decisions (before or during performance) such that audiences are equally as engaged as with performances of traditionally notated music. It is possible that audiences are not able to tell if musicians are improvising material or reading explicit material, but this is not a requirement: the goal is collaborating with Brown to create a new, valid, and effective work with every performance.

PART 2: EARLE BROWN'S PHILOSOPHY AND PROCESS OF COMPOSITION

Before going directly into Brown's scores and performances thereof, it is helpful to discuss Brown's extensive writings, lectures, and interviews. While not necessary for any given work, analyzing the composer's thoughts about that work or others can shed light on different perspectives. Brown was always driven by a *conception* of what a given work *was* or *could be*. This fundamental strategy of composition distinguishes Brown from his colleagues, who (at least in Brown's view) were generally more interested in the development of newer compositional techniques for the sake of creating such techniques. As evidenced in his writings, composition was always strictly a means to an end: how can this amorphous, unknowable, *thing*—a completed work in Brown's mind—be consistently and clearly communicated to all future performers and audiences? For many earlier composers, this question had a relatively simple solution in the form of traditional five-line staves, notes, clefs, dynamics, and the like, which trained performers had no difficulty in understanding and realizing. However, due to their scope and design, very few of Brown's compositions could be completely contained in the usual notational system. Brown certainly utilized this system whenever it made sense: again, as a means to an end of communicating musical ideas. He also did not hesitate to discard elements of the system whenever they were irrelevant or incapable of communicating the level of precision (or imprecision) desired.

Over the decades since Brown's career began, scholars, performers, and critics have gained more insight and understanding into how Brown's philosophy of composition truly influenced and shaped his output. In general, scholars have explored the breadth and depth of Brown's pre-planning process for many compositions via analysis of a plethora of sketches, often collected and

preserved by the Earle Brown Music Foundation.[11] While not the main thrust of this paper, synthesizing the findings of other researchers on both Brown's compositional process and professional performances of his works provides valuable insight into not only Brown's conception of a work, but also possible avenues for interpretation that may not be immediately clear in a score. This conceptualization is invaluable in uncovering the essence of any given work—in Brown's words, its "identity." This identity then provides an excellent foundation for creating faithful realizations of the works in question, regardless of size, ensemble, conductor (or no conductor), or date in Brown's career. This is not to say that there is a "correct" way to perform Brown (just as with any piece by any composer after publication), but rather that understanding a work's identity is essential to creating an intentional and informed method of performance. While this is a solution to unlocking Brown, it is also the main difficulty in that each work presents unique provocations and challenges to performers.[12] Because of this, understanding Brown's compositional philosophy and unique generative process allows performers to ultimately unlock and execute one possible crystallization of the endless potentialities present in his works.

[11] For example, see Fredrick Gifford, "Imagining an Ever-Changing Entity: Compositional Process in Earle Brown's Cross Sections and Color Fields," in *Beyond Notation: The Music of Earle Brown*, ed. Rebecca Y. Kim, 188-230 (Ann Arbor: University of Michigan Press, 2017).
[12] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 188.

2.1 BROWN'S MUSICAL LANDSCAPE

The early to mid twentieth century saw composers experimenting with newer compositional techniques and wider varieties of inspirations to further the development of music and create new sound worlds. Several of these innovations were important for Brown's development as a composer, though he never fully embraced or rejected any single ideal from these, instead synthesizing them into his own style. Namely, these innovations were the development of serialism, aleatoric music, chance operations, increasing precision in notation and complexity, and extended instrument techniques.

Arnold Schönberg developed his twelve-tone technique in 1923, launching him and his students onto the path towards total serialism eventually championed by Milton Babbitt and Pierre Boulez.[13] Aleatoric and chance music originated from Charles Ives and Henry Cowell and later from John Cage and Morton Feldman. With many composers developing works with ever more complex structures, there was an increasing demand for precision in notation and performance which naturally demanded more rehearsal time.[14] Together with works involving noises, sounds without pitch, and extensive percussion, this exactness of all aspects of pitch, rhythm, and the sounds themselves helped pave the way for the explosive development of tape and electronic music from the 1950s onward. Simultaneously, composers began to embrace alternative methods of producing sounds from traditional instruments (now commonly known as extended techniques), beginning with Cowell's "string-piano" in the 1920s and evolving into John Cage's prepared piano in 1940 among dozens of other innovations for all instruments.[15] When Earle Brown met Cage for

[13] Paul Griffiths, "Serialism," *Grove Music Online*, 2001, www.oxfordmusiconline.com.
[14] Earle Brown, "The Notation and Performance of New Music," *Musical Quarterly* 72, no. 2 (Jan 1, 1986): 190-192.
[15] Hugh Davies, "Instrument Modifications and Extended Techniques," *Grove Music Online*, 2020, www.oxfordmusiconline.com.

the first time in 1951,[16] he was introduced to the wider contemporary music scene, where each of these monumental innovations was in full swing. Brown could then absorb and wrestle with a vast palette of sounds, techniques, and ideas, leading him to create his own philosophy and style.

The greatest dichotomy between these innovations stems from the question of how much control a composer has over their work, ranging from the initial conception of the work to the minute details of each performance. On one hand, the desire for increased control saw composers move through incredibly complex notations and performance instructions and to the "canonization" of infinitely repeatable electronic and tape music. In contrast, composers relinquishing control turned to gradually more ambiguous notation, chance operations when composing and performing, and a greater reliance on performer interpretation and improvisation. Brown found himself among composers almost wholly devoted to one side of this divide or the other and would include several elements from both schools of thought in his works. It will be necessary to briefly analyze many of these elements and techniques, as Brown's responses to them shed light on his compositional philosophy and process. Examining existing recordings alongside this knowledge will inform best practices for creating effective performances of Brown's music.

2.1.1 Serialism and Schillinger Techniques

Brown attended the Schillinger House in Boston,[17] having been introduced to Joseph Schillinger's books (likely *The Mathematical Basis of the Arts*, 1943) by a fellow Air Force band member.[18] While there, he took lessons from Roslyn Brogue Henning where he learned serial techniques, though he was not satisfied with that technique alone due to the amount of time it took

[16] Yaffé, "An Interview," 293.
[17] Now known as the Berklee College of Music.
[18] Yaffé, "An Interview," 290.

for him to generate any results using only those methods.[19] Ultimately, Brown returned to Schillinger's mathematical techniques as his preferred basis for composition. Schillinger was mainly known as a mathematician, despite his clear interest in several fields of the arts, including the creation of several visual art pieces informed by his own techniques of organization (see Figure 1).[20] In general, these techniques involve a great deal of planning for each creation. Schillinger would discover and manipulate close relationships between all aspects of the art to be created, including numerous permutations of melodies, harmonic relationships, numeric rhythmic patterns, numerically derived scales, and contrapuntal schemes.[21] In a 1996 interview, Brown remarks,

Figure 1: Joseph Schillinger, "Area Broken by Perpendiculars," ca. 1934. Smithsonian American Art Museum, 2023, americanart.si.edu.

[19] Yaffé, "An Interview," 308.
[20] Louis Pine, "Conversation with Earle Brown about Constructivism and Schillinger's System of Musical Composition," *Contemporary Music Review* 30, no. 2 (Apr 2011): 167-178.
[21] Ted Pease, "The Schillinger/Berklee Connection," *Berklee Today*, Fall 2000, www.berklee.edu/berklee-today/fall-2000/The-Schillinger.

"Messiaen's modes of thinking were very close to Schillinger's in many, many ways," and proceeds to highlight Messiaen's *Mode de valeurs et d'intensites* (1949-1950) as a particularly Schillinger-adjacent work due to its extremely organized nature. When viewing Schillinger's visual art pieces, the minute structural relationships are immediately understood (i.e., the internal patterns and transformations are generally clear). At the same time, those patterns create intricate designs that all but obscure themselves. In much the same way, the serialist techniques of Anton Webern and Milton Babbitt contain internally consistent relationships between all twelve notes and subsets thereof, and these relationships can be simultaneously plainly visible (audible) or entangled within the depths of a given work.

Brown quickly adopted the Schillinger system into his compositional practice, and its importance in his process will be discussed later. Strikingly, Schillinger "was convinced that music was moving toward a completely mathematically plotted, machine-generated and -produced period,"[22] placing him directly among composers who wished essentially to do the same via serial techniques and/or electronic music. Brown could not agree with this approach—while he certainly understood and valued the insights Schillinger's techniques uncovered and created, Brown felt that the graphs and charts from that practice "were a kind of geometrical shorthand and not meant to be used in performance…[they accepted] none of the inherited techniques as essential today."[23] Brown strongly felt that the composer's influence must not disappear behind macro and micro organization from generative techniques. Again, while useful, Schillinger techniques *informed* Brown's works and did not *constitute the works themselves.*

Despite not following Schillinger's perspective, integrating his techniques allowed Brown to immediately converse on a technical level with the leading composers of his day. In one

[22] Brown, "Notation and Performance," 189.
[23] Brown, "Notation and Performance," 189.

interview, Brown recalls Cage being astonished that a "dumb kid from Denver" would have any ability to discuss the *Sonatas and Interludes* on a deeper level, let alone know of composers such as Webern.[24] Brown's *Three Pieces for Piano* (1951) was a Schillinger-based work and impressed Cage at that initial meeting. Similarly, when meeting Karlheinz Stockhausen and David Tudor in 1956, Brown found they had "similar vocabularies," even going so far as to describe his own works as having the same cellule-based approach as Messaien and Boulez despite never meeting them or knowing their music.[25] This exposure to the leading European and American composers' twelve-tone techniques might have influenced Brown, but his continued reliance on Schillinger techniques then and throughout his career already demonstrated devotion to his own style, choosing to gain inspiration from styles and techniques that intersected with it. Brown was always open to creative impulses from any art form, musical or otherwise.

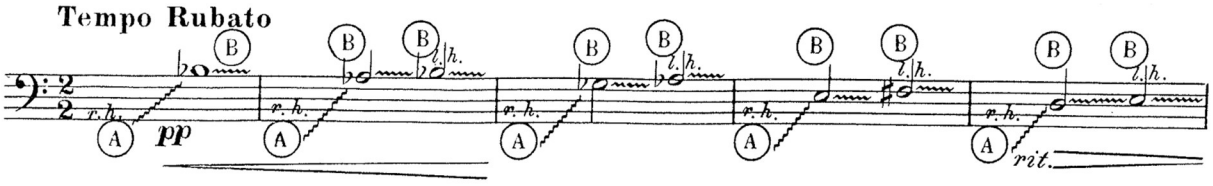
2.1.2 Aleatoricism

Generally, the word "aleatoric" describes a portion of a score where the composer has given the performer more interpretive leeway in how the music is realized. Traditional performance practice (i.e., pre-twentieth century) had always seen some amount of interpretation as a possibility: what is the precise tempo of a work or section, how are phrases constructed or emphasized, intensity of dynamics or *accelerandos* or *ritardandos,* or any number of details. That said, there have always been unwritten limits to how far these details can be adjusted one way or another, and almost without exception, the written notes and rhythms of a score are immutable. There of course can be a discussion of the minutiae where each facet of music could be altered

[24] Yaffé, "An Interview," 293. Brown is from outside of Boston but was living and teaching in Denver when Cage and Merce Cunningham toured through there.
[25] Yaffé, "An Interview," 293.

(pitch via temperament or precise tuning of A4, flexibility of rhythm, the existence of cadenzas in general, etc.), but aleatoricism covers a far greater magnitude of possible interpretations.

Henry Cowell's *The Banshee* (1925) is one of the earliest examples of outwardly aleatoric music, in large part due to the notation he developed for the work (see Musical Example 1). As the piece is mostly played on the strings within the piano, most of the score consists of glissandi-type lines indicating the direction to sweep one's fingers across or along the strings; fingertip or fingernail indicated for timbre. Only a few specific pitches are indicated throughout the work, so the glissandi only have general starting and ending points; the precise pitches that sound from these gestures will not be exactly consistent from performance to performance.



Musical Example 1: Henry Cowell, first system of *The Banshee*, in *Piano Music by Henry Cowell*, New York: Associated Music Publishers, 1950.

Cowell also championed the music of Charles Ives, whose music almost entirely predated Cowell's. Ives experimented with several facets of music; to Cowell and Brown, the most salient of these innovations was his rhythmic complexity. Many works feature irregular subdivisions of beats, expanding far beyond even multiples or triplets into groups of five, seven, nine, and so forth—subdivisions that become increasingly difficult to count, feel, and execute accurately. Ives further compounded the rhythmic complexity by requiring two or more soloists or instrument groups to perform music with different tempi. Famously, some of these works such as the Second Symphony (1902-1909) were so complex that they did not receive premieres for several years or even decades.[26] However, there is an important caveat to this complexity: instead of exactness,

[26] J. Peter Burkholder, James B. Sinclair and Gayle Sherwood Magee, "Ives, Charles (Edward)," *Grove Music Online*. 2020, www.oxfordmusiconline.com.

Ives wanted these complexities to be flexible, much like the *rubato* of a figure in Chopin. Having studied much of Ives's works and correspondence, Cowell writes that "Ives' whole approach to his complex rhythms should be understood as an attempt to persuade players away from the strait-jacket of regular beats, with which complete exactness is impossible anyhow… In fact, Ives has often expressed regret at having to write out a piece at all, since its rhythm will then be hopelessly crystallized."[27] Removing this "strait-jacket" of rhythmic precision also removes a key element of the conceptual composer-as-didact: while musicians are obviously still required to play the correct notes in the correct ordering, the correct timing of each has been loosened. Widening this spectrum of acceptability in turn allows a "good" or "successful" performance of a given work to have much more widely defined limits. This is the nature of aleatoric music: the section of music or work as a whole retains the same audible identity, while the details at some granular level are loosened or entirely given to the performer to devise, interpret, and execute.

2.1.3 Serialism and Aleatoricism

As mentioned above, Brown includes stylistic and technical elements from both serial and aleatoric perspectives. Brown spoke directly to these styles and his perspective of the relationship between the two. Of serialism, "…there is an underlying acceptance of a kind of autonomy and a by-passing of subjective control and determination of the subjective 'rightness' of *each* succeeding or simultaneous *detail*."[28] In selecting the next iteration of a tone row and its method of implementation, serialist composers accept the resulting set pitch and rhythmic relationships. This is not to say that composers blindly accept whatever occurs from a tone row; if anything, serialist composers exhaustively investigate possible outcomes to ensure their selections are appropriate

[27] Henry Cowell and Sidney Cowell, *Charles Ives and His Music*, Oxford University Press, 1955: 172-173.
[28] Brown, "Notation and Performance," 181.

and create the desired outcomes. That said, integral serialism (structuring all aspects of music into rows) does approach a point where composers seem to create an initial organizational structure that in effect produces the finished work without any further input. The composer is still present in the precise application of material (octave displacement, instrumentation, and so on), but finished works appear entirely beholden to the precomposed structure. Brown highlights how different this approach is from earlier methods of composition, where composers "interfered" with every aspect of a work throughout all points in the composition process (instead of "entirely before composing", as it were), often including diversions from processes or patterns established in the work. Brown continues:

> "This, as a general condition in serial and like attitudes, presupposes a poetic acceptance of micro-manifestations not totally within the control of the composer but actually once removed and, subjectively speaking, is an indeterminate function of a closed rational system. Here we have a basic condition of accepting unforeseeable configurations of, paradoxically, totally rational and controlled systems."[29]

In controlling every aspect of a work, starting from the planning process, composers accept that the work will fall into place without knowing any of the final details. Only the underlying musical relationships are known and established. Much more obviously, any aleatoric music *assumes* that the composer hands control of the final realization over to performers, as the composer is absent from the actual time of performance.[30] Recognizing the "absence" of the composer in both avenues of composition, Brown reminds us that the craft of composition is alive and well, and should not discount either approach: "No one seems to realize, however, that the details and/or the formal

[29] Brown, "Notation and Performance," 181.
[30] An exception is that Brown conducted many performances of his own works; more on this later.

aspects *do* in fact come into existence."[31] This poetic relationship between philosophical extremes is the space Brown inhabits, respecting and integrating both but pledging allegiance to neither.

2.1.4 Chance Music and Improvisation

After their first meeting in 1951, Brown and Cage quickly grew close, and Brown moved to New York in 1952 to collaborate with Cage on the *Project for Music for Magnetic Tape* and to simply exist in the leading American contemporary music scene.[32] By this time, Cage was already exploring the possibilities of chance procedures in his works. Cage would compose a plethora of material, then devise systems where the order of these materials (and of entire sections of the work) was randomly chosen from a roll of the dice or coin flips according to the *I Ching*. After Cage composed all the material that would end up in a work, he would purposely relinquish control over any of the lower-level details. Cage's chance procedures also fall into that poetic relationship with serial and aleatoric techniques. While both chance and serial works require a scheme of the work beforehand, the ultimate construction and execution are no longer in the composer's control. Paradoxically, composers seeking total control and those releasing control arrive at a similar junction of a work which is fundamentally unknowable until its "crystallization" into a physical score.

Brown never adopted chance procedures, saying that "we [Brown and Feldman] didn't study with John, and we weren't influenced that much by John. But John *gave us permission* to be ourselves…"[33] Like Feldman, Brown instead opted for a more aleatoric approach to relinquishing control, where most decisions were being made at the time of performance instead of during

[31] Brown, "Notation and Performance," 195.
[32] Yaffé, "An Interview," 295.
[33] Yaffé, "An Interview," 303-304. There is one exception to this; see the discussion of *December 1952* in Part 3.

composition. Furthermore, Brown entrusted performers with a significant responsibility of co-creatorship, generally in the form of improvisation. Brown's years performing with the Air Force jazz band led him to believe improvisation could be introduced to classical music. Though present in many musical traditions, improvisation is one of, if not *the*, defining characteristics of jazz. Briefly, most jazz songs feature the same formal structure: first, play the theme (also called chorus or "head") once or twice; second, an open section where soloists improvise over the same chord sequences repeated an undefined number of times; third, play the theme once or twice and end the song.[34] Many, many variations of this structure exist, with the vast majority including a section devoted to improvisation.

Knowing *what* and *how* to improvise is difficult for anyone new to the practice, and many theorists and performers have attempted to distill key concepts of improvisation into quick tips and tricks, books, and treatises. I make no attempt to do this here, but it is worth mentioning a few methods and concepts considered when improvising. As with most tonal music, there is a "grammar" of general harmonic rules to be followed, which naturally are followed, bent, or outright ignored at various times. While this grammar must obviously be practiced, this can also lead musicians to rely too much on a "bag of tricks" of various patterns or phrases that have worked before, allowing them to avoid true improvisation—this "trap" will be discussed later in Part 2. Another important facet is that of density, often discussed as the trajectory, phrasing, or buildup of a solo. From a high level, how is the improvisation organized? Is there more or less energy at the beginning, middle, or end? What is the climax of the improvisation—*is* there a climax, or multiple? After mastering the basics of *what* to play (scales, patterns, quotations, etc.), these questions form

[34] A common variation is to insert a bridge before the return of the theme or as a divider between different soloists.

the *how*, *when*, and even *why* of improvisation. The best improvisers view their contributions as parts of the musical whole, becoming co-creators with the titled composer of the work.

This co-creatorship is what Brown sought, and his jazz background is what convinced him that such collaborations could exist in classical music—he only needed to devise a methodology to allow classically trained musicians access to the same level of creatorship. Brown and Cage argued back and forth on whether this much responsibility could be entrusted to performers, especially as Cage had seen very mixed results from his works. Both were friends with David Tudor, who as a pianist, faithfully realized many difficult and esoteric works by Cage, Brown, and Feldman. Tudor was the best-case scenario, especially compared to larger ensembles:

> "[Cage] thought, when he started doing chance music, that everyone was going to be David Tudor. David could dress up in white bow tie and tails, blow a duck whistle and pour water into a saucepan in the most elegant way imaginable. But when you put it in front of the Cologne Radio Orchestra, they all clown it up, they're embarrassed, and they don't know how to be free *with honour*. He was incensed."[35]

Cage argued, if an orchestra is unable to realize neither these "non-musical" actions nor traditional sounds organized by chance with the same commitment as any other performance, how would they possibly be able to *improvise* with grace, intentionality, and musicality? Brown, however, knew:

> "…there's such a thing as improvisational composition, but John didn't understand that. I had this idealistic, romantic feeling that I could, with a graphic score and classical musicians…I couldn't understand why classical musicians couldn't improvise, and why so many looked down on improvisation. The whole series of *October*, *November*, and *December* [*1952*] was progressively trying to get them free of having to have every little bit of information before they had guts enough to play. And I was convinced. John was not convinced at all."[36]

[35] Yaffé, "An Interview," 300-301.
[36] Yaffé, "An Interview," 300.

2.1.5 Inadequate Notation

Traditional notation is an abstraction of sound: instruments are listed as words or abbreviations, sonic frequencies are codified as pitches with letter names and accidentals, attacks and decays are communicated via articulations, dynamics, and expressive markings (adjectives or adverbs), and so on. As composers began exploring newer sound possibilities, this notation became increasingly removed from the sounds they wanted to hear, requiring additional written explanations that superseded any given musical symbol. Beyond this, a long-standing and constantly evolving performance practice was expected by composers and performers alike; a kind of coded interpretation was woven into centuries of works. Challenging or diverging from this performance tradition required explanation, and composers approached this challenge in a variety of ways. Simpler instructions could be communicated with a word or short phrase, such as *col legno battuto* for a string instrument or "depress keys silently to allow resonance" for piano. Neither of these require any change to the usual system of notation; the instructions are simple enough for players to adjust their technique appropriately. Techniques that required more lengthy explanations often resulted in a new symbol, like Bela Bartók's snap pizzicato technique[37] or cluster chords popularized by Leo Ornstein and Henry Cowell.[38] These symbols were still integrated into traditional notation, so once a musician understood what that symbol meant, they could execute it in context without any further difficulty.

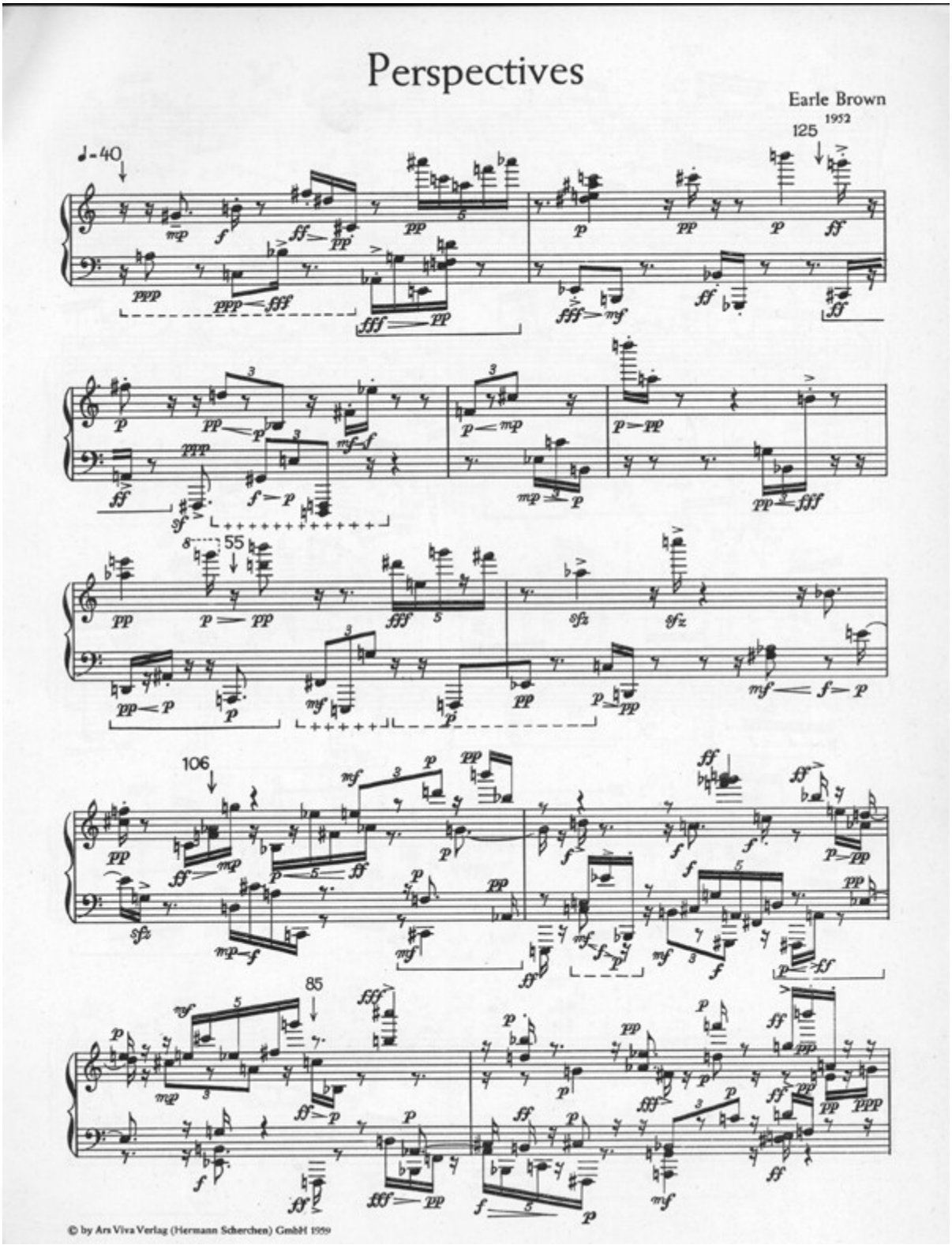
Brown took note of these developments in notation, both regarding the basic communication of music and the development of new (extended) techniques. He lauded several notational inventions, including Cowell's string-piano technique, Schönberg's *Sprechstimme*, and

[37] Also called Bartók pizz. due to his invention and prolific usage thereof. See his *String Quartet No. 4* (1929) or *Music for Strings, Percussion, and Celesta* (1939).
[38] See Ornstein's *Wild Men's Dance* (*Danse Sauvage*¸ 1913-1914) and Cowell's *The Tides of Manaunaun* (1917).

cluster chords, but stated, "These are, however, primarily adaptations of the standard notation to new sounds and instrumental resources, which while not insignificant, do not basically affect the nature of the musical discourse or performance."[39] In the same discussion, while speaking specifically on the *Sprechstimme* technique, Brown summarizes the general problem of notation he grappled with at the start of his career: "it is the loosening of the existing notation to achieve more accuracy. The ambiguity is more than outweighed by the *graphic clarity of intention*."[40] The emphasis is mine, as Brown's response is to develop the precise notation necessary to visually communicate his musical intentions—clearly, effectively, and instantly.

In addition to the introduction to newer sounds, the sheer complexity of newer works (by Brown and others) stretched traditional notation to its limits. Brown encountered this issue personally when speaking to Tudor about his *Perspectives* (1952), a solo piano work dedicated to Tudor and organized via Schillinger techniques (see Musical Example 2). Realizing that the complex rhythmic groups transformed in various dimensions resulted in a very difficult score to read, Brown asked Tudor if it was worth rewriting with new barlines to make it easier to read (and hopefully to play). He replied, "Oh no, you don't think I *count* that, do you?"[41] Instead of relying on the mathematically derived tempo markings, rhythmic groupings and tuplet markings, Tudor decoded the score by analyzing rhythms relationally between the smallest and largest units. Brown realized that if performers were going to ignore the score's "punctuation" in favor of relating elements to each other, he might as well eliminate the distracting "static" from his scores to enable easier and likely more effective realizations of them.[42] At the very least, it would save performers

[39] Brown, "Notation and Performance," 187-188.
[40] Brown, "Notation and Performance," 188.
[41] Earle Brown and Carlton Gamer, "Notational Problems," American Society of University Composers: Proceedings of the Annual Conference 5 (1970): 9-10.
[42] Grown and Gamer, "Notational Problems," 10.



Musical Example 2: Earle Brown, first page of *Perspectives*, Ars Viva Verlag, Mainz: Schott Music, 1952.

the hassle of an extensive rehearsal process to even comprehend the score, let alone perform it accurately. Brown saw that increasing complexity was offering diminishing returns and set out to devise alternative solutions to existing notation.[43]

Each of these trends and developments in music fueled Brown's drive to hone his musical philosophy and consequently his compositional process and goals. From the beginning of his career, his works tackled several well-established tenets of music notation and composition. The following section analyzes Brown's compositional techniques and the philosophies behind each, including where possible the particular struggles that led Brown to these solutions.

2.2 BROWN'S RESPONSES IN COMPOSITION AND PHILOSOPHY

Though prompted by a wide variety of composers, philosophies, and individual works, Brown's responses to the past and his contemporaries are relatively few. Stemming directly from the visual arts, Brown developed open form and graphic notations over decades of his career. We have the benefit of viewing his works, writings, and lectures in hindsight to gain the clearest perspectives of each concept. There is still a difficulty in that each of Brown's works generally live in their own microcosm of notation, identity, and communication with and to the performer. Although all were composed by the same person, each work will display Brown's techniques somewhere on a wide spectrum of application. Fortunately, it is that same uniqueness, that *identity*, of each work that allows for a slightly different perspective into Brown's intentions. Leveraging those differences, along with insights from interviews with Brown in the later years of his career, will paint a clear picture of Brown's goals. Understanding his goals, along with viewing works as identities, will provide tools for analyzing performances of said works (Part 3). In turn, evaluating

[43] Brown, "Notation and Performance," 190.

performances lays the groundwork for a distilled, general guide to approaching the performance of any single work by Brown (presented in Part 1).

2.2.1 The Visual Arts

It is difficult to overstate the importance of the visual arts on Brown's artistic growth. While incredibly inspirational for Brown, there are some connections he makes between visual arts and his philosophy behind his works that do not translate quite literally. Having apparently received some criticism because of this mismatch, Brown invokes Baudelaire: "…if the arts don't tend to compliment [sic] one another at least they tend to lend one another new energies. And from whence-ever cometh, I'm glad it cometh!"[44]

Brown was enamored specifically with the abstract expressionists Jackson Pollock, Max Ernst, Willem de Kooning, Mark Rothko, and Alexander Calder.[45,46,47] Interpretation of works by these artists became individualized to the viewer, as abstractions of life, people, and ideas inherently invites ambiguity—the word "abstract" itself implies an absence of detail, and including those details would generally have given preference to one interpretation over others. Brown recognized this concept as an opportunity for music: "that's where *open form* occurred to me: because of the multiple ways of interpreting a Bill De Kooning [sic]…With Joyce it's the same. It's impossible for two people to agree on what *Finnegans Wake* means…Then, the thing to do is to create a world in which each person interprets it differently. Because that's what they're going to do anyway."[48] By removing details from their paintings and inviting ambiguity, artists loosened

[44] Brown and Gamer, "Notational Problems," 9.
[45] Brown, "Notation and Performance," 192, 196-197.
[46] Brown and Gamer, "Notational Problems," 8-9.
[47] Yaffé, "An Interview," 295, 297-299, 302.
[48] Yaffé, "An Interview," 302.

relationships between the elements in those works. In the same manner, Brown began removing details from his scores, thereby inviting ambiguity and allowing relationships between the internal materials to become flexible.

Of these visual artists, Pollock and Calder were the two Brown was most drawn to. Pollock invented the "drip technique," where instead of dipping a brush or other implement into paint to then touching the implement to the canvas and transferring the paint, Pollock would pour paint directly from a can onto the canvas or would apply paint to a brush and flick it towards the canvas, spattering paint across it (see Figure 2). Brown summarizes his interest not only in the spontaneity of the technique, but also the underlying decisions supporting it: "…he exerted a high degree of control over where the spatters spattered, and it was not just an arbitrary, 'don't care' thing, it was a very deep poetic caring, but under the impulse of a very direct spontaneous action."[49] Not only was the technique spontaneous in the moment of application, but there was always an intention behind how that single action would produce results. Brown connected Pollock's spontaneity and

Figure 2: Jackson Pollock, *One: Number 31, 1950*, 1950. Museum of Modern Art, 2022, www.moma.org.

[49] Brown and Gamer, "Notational Problems," 8-9.

intent to his own experience when performing jazz. In addition to the improvisatory elements discussed earlier, where performers engaged in co-creation with composers, there is an active process of paying attention to the other performers in the ensemble via listening. All trained musicians should be actively listening in performances to ensure the music is cohesive and as effective as possible. However, with improvisation being fundamental to jazz, that active listening also translates into spontaneous responses from other members of the ensemble, including soloists quoting each other's solos, rhythm section players inserting unprompted accents to match the soloist, or even call-and-response patterns. This active, participatory generation of music, in Brown's mind, is analogous to the immediate motion of spattering paint—while the results are generally as expected, nobody involved in the creation of the material is quite sure how the art will take shape.

Calder became known for his mobiles, sculptures of metal plates and rods welded and hung together so that the entire sculpture was in balance with itself (see Figure 3). The plates were also

Figure 3: Alexander Calder, "Chef d'orchestre," 1966. Calder Foundation, 2023, www.calder.org.

free to rotate by themselves and around each other, and with an impetus from any amount of wind or a touch, the entire mobile would move in response. Brown saw how the plates were constantly moving in relation to each other, so each passing moment presented a unique orientation of the plates and the relationships between them. At the same time, the mobile itself never changed: despite the work's internal mobility, its existence as a single work is static. Inspired, he wanted to bring that ever-present mobility into his music in such a way that the mobility presented itself in the moment of performance while preserving the singular, static identity of the work.[50] (Literal mobility of the score came later, as in *Calder Piece* from 1966.) In his mind, this also meant creating "mosaic" music instead of "narrative."[51] The difficulty then arose from creating externally static musical works that are by nature performed linearly over time. Calder's mobiles presented themselves completely and simultaneously to the viewer, though their internal mobility unfolded over time. Music, linear by nature, cannot be presented in the same manner, which forced Brown to invent new techniques for constructing and communicating mobility within a static identity.

A brief description of open form and graphic notation as compositional techniques is included to help illustrate Brown's development of both through his earlier works and sketches.

2.2.2 Open Form[52]

The form of a musical work is the large-scale organization of the contents within. Much like with a physical object, form provides the general shape of the piece in question but omits any finer details; in other words, form describes relationships between larger sections of the work. Note

[50] Brown, "Notation and Performance," 192.
[51] Yaffé, "An Interview," 296-297.
[52] Although there are slight differences in the connotations between open form and mobile form, I use open form as the more general term which includes all presentations of flexible forms.

that this is different than the relationships between musical material in different sections[53]—there can be various relationships between material that do or do not reflect the larger formal relationships. In music preceding Brown's time, the form of any given piece was set by the composer, was unalterable past the point of composition, and was typically selected from several standardized choices for arranging music over time.[54] Regardless of exact interpretation, the work as a whole would proceed in the same manner: this succession of pitches, with those simultaneities, at these moments in time, etc. All of these are of course mutable via interpretation (faster or slower, tuning, note-to-note timings and dynamics, etc.), but again, the work itself is unchanged, particularly the large-scale organization of musical sections. This is closed form—closed to any alterations or diversions. Put simply, changing the form would inherently change the work. Open form, then, is the opposite, where sections of music can be rearranged by the performer as an additional dimension of interpretation. This flexibility becomes part of the work itself, and making formal changes does not inherently change the work.

Decisions on form can be finalized before performances, but can also occur during them, just as improvisers make decisions concerning what to play at the moment of performance. While both potentially spontaneous decisions, open form strictly refers to the form of a work being flexible and does not necessarily require any improvisation.[55] Since formal decisions are much larger than the decisions of what notes to play next, Brown found he could not rely only on performers' improvisation skills to get the sorts of results he was after. In most works, this problem is addressed by outlining the possibilities and limits of how a work could be organized, and only then releasing control to performers. In other words, works contained organizational rules, and

[53] Transformations such as inversion, diminution, etc.
[54] Naturally, composers adjusted form quite often in the Classical and Romantic eras, but again, these forms were finalized during composition.
[55] Brown and Gamer, "Notational Problems," 10-11.

depending on the strictness or leniency of them, performers could arrange the work in any number of ways. When composing, the goal of organizational freedom was always in Brown's mind, and he designed works to be effective and coherent regardless of how performers could organize them. Without necessarily planning out every possible form of a work, Brown's rules ensured that each possibility would both be an effective performance and would maintain the work's identity.

2.2.3 Graphic Notation

As described earlier, Brown grappled with the difficulty and illegibility of increasingly complex scores produced by European serialism and his own Schillinger organized works. He realized that the communication of the score as a visual medium was becoming insufficient on both a practical and theoretical level. Brown was once envious of painters, as there was no intermediary person to work through to create art: "[painters] can deal directly with the existent reality of their own work without this indirect and imprecise 'translation' stage. I would ask them if they could imagine sitting down and writing out a set of directions so that someone else would be able to paint exactly what they themselves would paint in all details."[56] He also recognized that existing notation is already subjective and that the human element of performers was still a major factor in the realization of scores meant to be executed with the utmost precision: "…the possible notational accuracy on paper bypassed its maximum point of *producing* finite control in performance and proceeded into a realm of human response where it again became only an approximation and suggestive of actions."[57] Brown sought a "more functional and less self-defeating and more realistic graphic suggestion," a completely new system of representing music that embraced the reality of performers' endless interpretations instead of attempting to eliminate

[56] Brown, "Notation and Performance," 186.
[57] Brown, "Notation and Performance," 193.

humanity's unpredictability from performances. He was also careful to note the difference between graphic notation and a graphic score: graphic notation is merely any "graphic" that is placed on an otherwise normal (traditional) score, while a graphic score is one that consists entirely of graphics and may or may not include musical symbols.[58] Most importantly, Brown emphasized these graphics were to be used if and only if the score *could not be notated in any other way*, as the resulting effects and interpretations of the work naturally depend on performers' interactions with and understandings of the physical/visual score.[59]

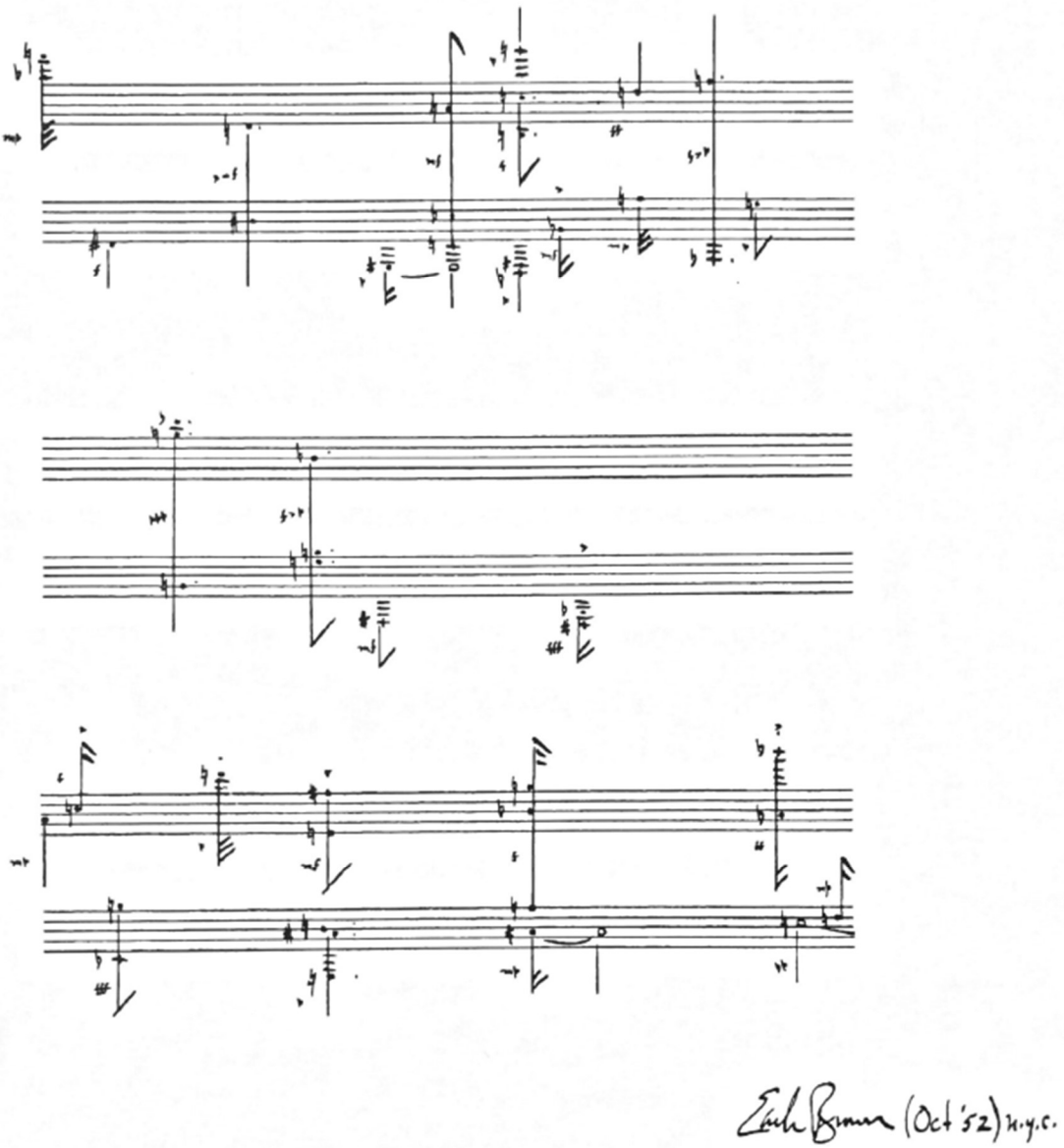
Because graphic notation inherently loosens the composer's control over the resulting sounds made by the performer, Brown carefully judged the degree to which that control was loosened or released entirely. Maximum control lay in what he called explicit notation (i.e., the traditional five-line staff method with its associated symbols and instructions), while implicit notation merely implied sounds and were not dictated by the composer.[60] Implicit notation required significant deviation from the norm to give the performer some amount of control over the actual sound to be produced. Works could also contain varying degrees of implicit notation or alternating sections of implicit or explicit notation to fit the needs of the specific work.

2.2.4 Developing Solutions in *Folio*

Brown's conversations with Tudor about the rehearsal process for *Perspectives* gave Brown the impetus for achieving his compositional goals. With Tudor considering the relationships between individual notes instead of their "literal" position in the score as defined by beats and barlines, Brown sought to push works and performers into the same "*relational* space, rather than

[58] Brown and Gamer, "Notational Problems," 11-13.
[59] Brown, "Notation and Performance," 180-181.
[60] Brown and Gamer, "Notational Problems," 12.

a *counting* space."[61] Briefly, a sequence of works in *Folio and Four Systems* (*October 1952*, *November 1952*, and *December 1952*) outlines the development of Brown's compositional solutions. *October 1952* for piano consists of three systems of two five-line staves, implying grand staves, but omits clef markings (visually), barlines, and rests entirely (see Musical Example 3). The performance notes describe the "usual treble-bass relationship" of the staves' invisible clefs,



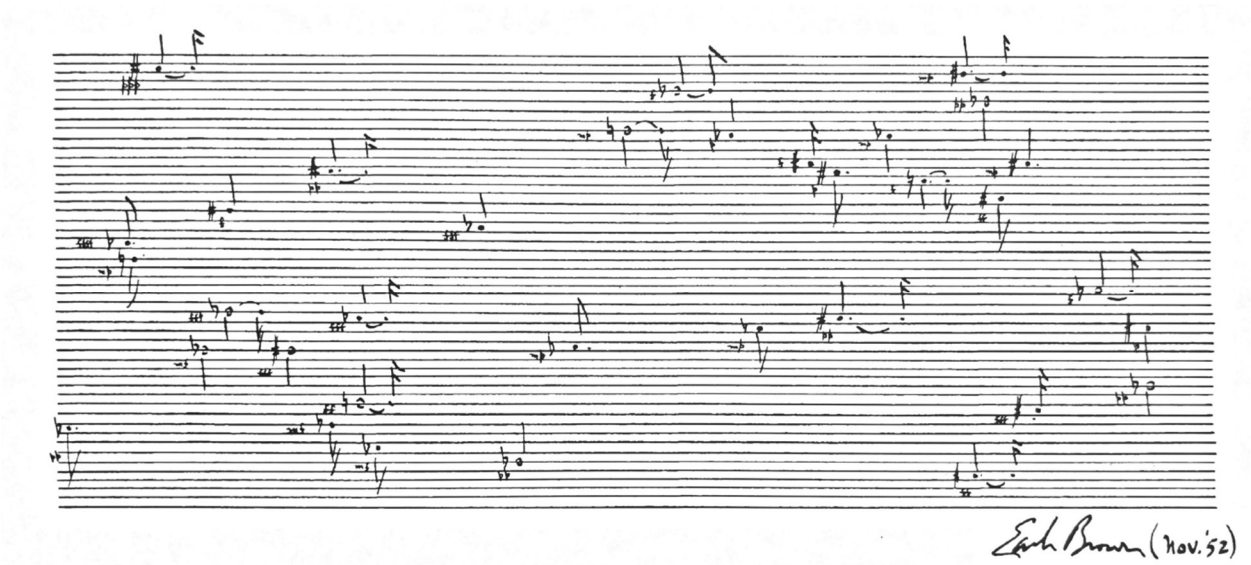
Musical Example 3: Earle Brown, *October 1952*, 1952, in *Folio and Four Systems*, New York: Associated Music Publishers, 1961.

[61] Yaffé, "An Interview," 299.

but more importantly, they generally describe Tudor's method for *Perspectives* as the correct approach for performers to interpret the score.[62] Notably, Brown allows performers to move through the work "relative to 'real' time or to intuitive time."[63] Immediately, Brown discards faithfulness to indicated rhythm: even with the elimination of rests already forcing the performer into a relational space, the remaining relationships can be intuitively adjusted within each performance. Pollock and Calder begin to shine through: musicians are permitted to spontaneously adjust the rhythmic scheme in performance (within a relatively tight framework) and giving permission to adjust the work intuitively is the foundation for mobility. Open form is not yet present, as *October 1952* reads linearly from start to finish, and the absence of rests only hints at the idea of graphic notation.

November 1952 ("Synergy") is written for piano(s) and/or other instruments or sound-producing media. Its performance notes permit just about every possible transformation or interpretation of space, including expansion and contraction, real and imaginary spaces, or even infinite space versus strictly organized and finite space—in addition, the work is "to be performed in any direction from any point in the defined space for any length of time."[64] The number of systems is reduced to one, but fills an entire page and consists of a single 50-line staff (see Musical Example 4). Rests, clefs, and barlines are again absent, though with the additional instruction that clefs "may be considered as floating (vertically over the defined space)."[65] The only traditional information remaining in the score consists of durations, dynamics, and accidentals, despite the pitch to be altered being dependent on the performers' perceived clefs and placements thereof.

[62] Earle Brown, *Folio and Four Systems*, New York: Associated Music Publishers, 1961.
[63] Brown, *Folio and Four Systems*, 1961.
[64] Brown, *Folio and Four Systems*, 1961.
[65] Brown, *Folio and Four Systems*, 1961.



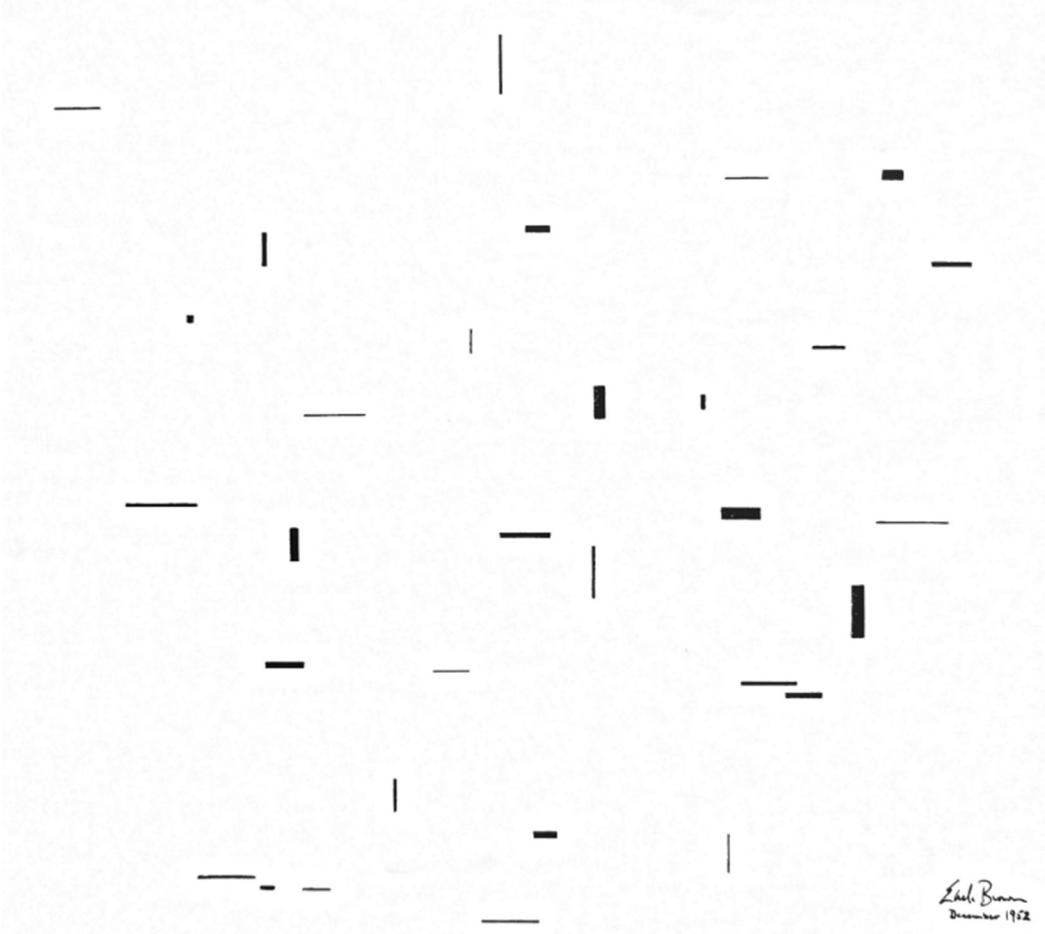
Musical Example 4: Earle Brown, *November 1952*, 1952, in *Folio and Four Systems*, New York: Associated Music Publishers, 1961.

Most details are now left to the performers to select and execute: conceptual and time-relative form, orientation of and movement through the score, pitch selection and orderings, tempi, articulations, etc. Even the information Brown does provide is subject to change based on the performers' decisions regarding score orientation and clefs, rendering listeners unable to accurately connect any given marking to any given sound in performances.[66] Calder's mobility is immediately present, as performers are free to choose their "positions" within or around the space of the work, unlocking different perspectives of it and therefore creating different internal relationships between material with each unique performer and performance. Pollock's spontaneity also inhabits this decision; musicians can at any time choose to orient themselves and/or the score in new positions, dramatically influencing micro-details of each note or silence as well as the macro-organization (form) of the work. *November 1952* is the initial foray into open form due to the vast number of possible directions that performers can take through the score. However, aside from this

[66] "Score-followers" might be more appropriate here. In response to a critic saying performers did not follow the score of *December 1952*, Brown asked "I would like to ask the critic what the score should sound like (*laughs*)." Clemens Gresser, "Earle Brown's 'Creative Ambiguity' and Ideas of Co-Creatorship in Selected Works," *Contemporary Music Review* 26, no. 3 (2007): 379.

freedom, there is no guidance as to how to craft a meaningful, effective form while maintaining this freedom. Graphic notation also presents itself, as the massive staff demands a different approach to performance: if Brown only included the spatial performance instructions but retained five-line staves, performers would certainly not align with Brown's interpretation for the work. In fact, since the graphic elements of *November 1952* essentially comprise the entire score, this could qualify as a graphic score.

Much to his disappointment, *December 1952* became Brown's most famous work, despite being very much an exploratory piece in his output.[67] The score is a single page containing rectangles of various lengths and thicknesses, oriented vertically or horizontally, and generally



Musical Example 5: Earle Brown, *December 1952*, 1952, in *Folio and Four Systems*, New York: Associated Music Publishers, 1961.

[67] Yaffé, "An Interview," 309.

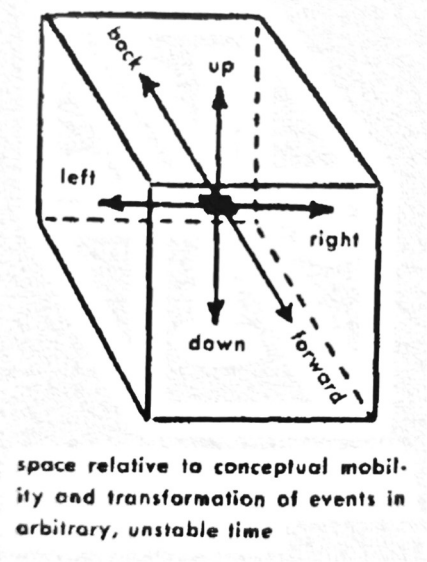


Figure 4: Sketch of an imaginary cube that the score for *December 1952* represents.

evenly but randomly distributed around the page—a completely graphic score (see Musical Example 5). Its performance notes contain a two-dimensional sketch of a cube with one such rectangle within it (see Figure 4). That rectangle is the point from which six orthogonal axes extrude in the usual three dimensions (forward, back, up, down, left, and right). This illustration is meant to depict the possible motion of every rectangle in *December 1952*, "…the score [being] a picture of this space at one instant, which must always be considered as unreal and/or transitory…a performer must set this all in motion (time)…"[68] Brown, in this sketch, was trying to represent a mobile, three-dimensional contraption within the confines of a single two-dimensional piece of paper. This was directly inspired by Calder: "I had…discovered that a lot of [Calder's] early work was motorized, so the origin of *December 1952* was to be a box that was to sit on the piano. It was going to be a series of bolts and pulleys that moved objects through space…a kinetic score."[69] The resulting score, representing three-dimensional motion, was Brown's best attempt at literal mobility within a work. *December 1952* also continued the trend of spontaneity, inviting musicians to not only imagine their positions and perspectives relative to the imagined score, but required that perceived reality to always be in motion, i.e., constantly changing. Within the hypothetical boundaries of the cubic score, blocks (read as notes) can move in any direction at any speed. It is left to the performer to spontaneously choose a direction and

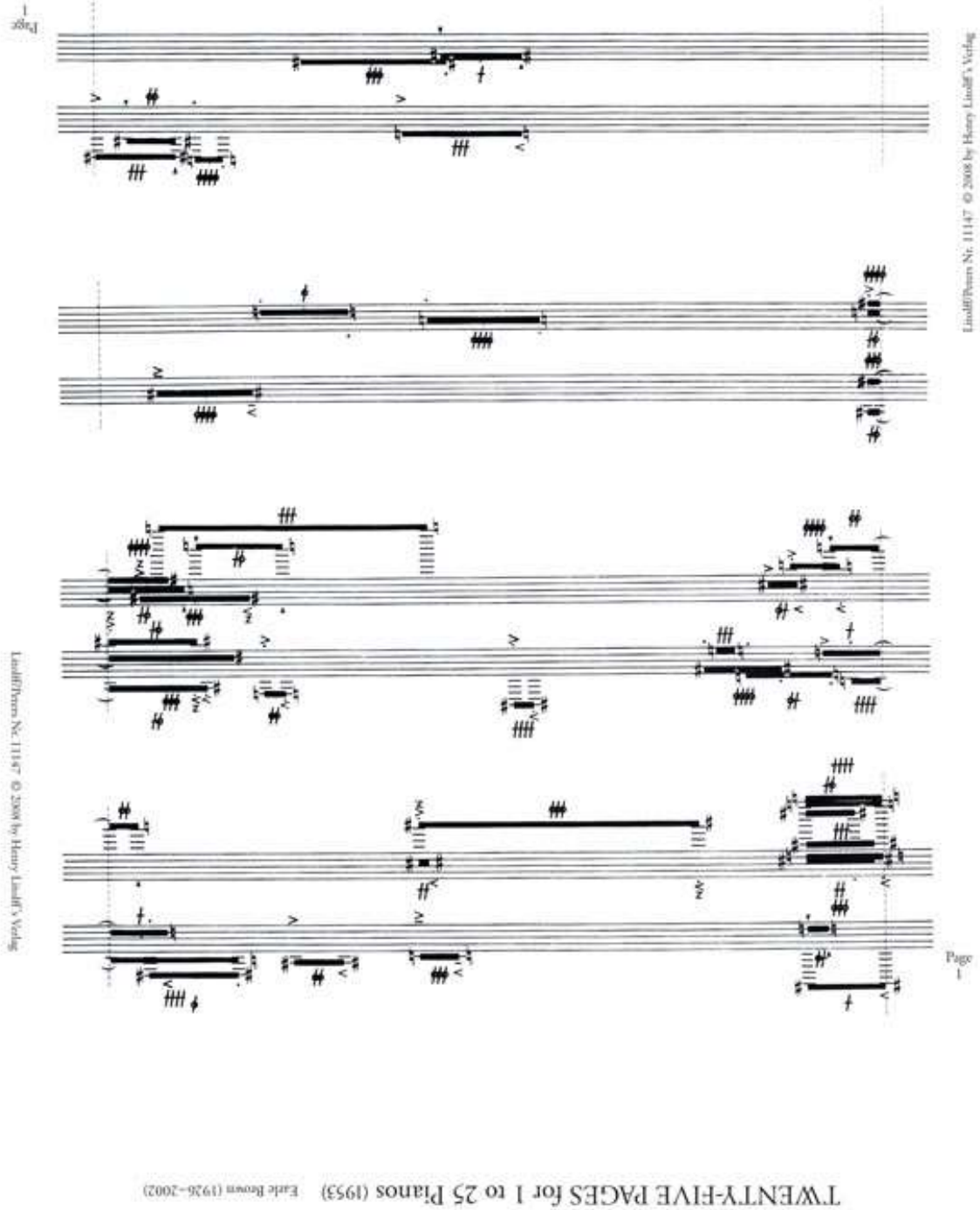
[68] Brown, *Folio and Four Systems*, 1961.
[69] David Ryan, "Energy Fields: Earle Brown, Open Form, and the Visual Arts," in *Beyond Notation: The Music of Earle Brown*, ed. Rebecca Y. Kim, 87 (Ann Arbor: University of Michigan Press, 2017). Amusingly, Brown continued, "I never did realize this idea, not being able to get motors and not really being all that interested in constructing it."

speed for any such block, and then to execute the result of that decision musically. Much like *November 1952*, the form of *December 1952* is undefined and potentially infinitely malleable but is more improvisatory than true open form—in fact, Brown notes that it is one step away from pure improvisation or *carte blanche*.[70]

2.2.5 Refining Open Form

On a conceptual level, graphic notation and graphic scores had already achieved a refined state: the existence of nonmusical symbols in otherwise standard scores was the innovation, and further "development" would simply result in newer symbols; the same can be said for graphic scores. Despite this, graphics in music would take some time to be generally accepted into and understood by the larger musical community. Throughout his writings, Brown recounts stories of needing to elaborate or literally demonstrate the desired effects for such notations directly to orchestra members.[71] On the other hand, Brown was not satisfied with the extreme openness of *December 1952*, at least in terms of organization. While considered groundbreaking works by scholars today, the works in *Folio* were "steps on the way" to fully realizing open form for Brown.[72] He felt that open form finally coalesced in *Twenty-Five Pages* (1953), for one to twenty-five pianos. In this work, there is no improvisation: twenty-five pages of discrete, notated pitches can be arranged in any order and with either side up (right-side-up or upside-down), but the inscribed music *must* be performed accurately to that orientation (see Musical Example 6).[73] The freedom of *order*, combined with Brown's carefully composed material, became his first open form work. Establishing this "basic" arrangement of open form allowed Brown to expand the

[70] Brown and Gamer, "Notational Problems," 10-11.
[71] Brown and Gamer, "Notational Problems," 13.
[72] Yaffé, "An Interview," 301.
[73] Since each page specifically dictates pitches, dynamics, and durations in whatever orientation it is placed, there are fifty possible cells that can be rehearsed to eliminate clear errors.



Musical Example 6: Earle Brown, first page of *Twenty-Five Pages*, Frankfurt, Germany: C. F. Peters, 2008.

concept to more complex rules of form and to larger ensembles, almost always placing his trust in the hands of a willing and knowledgeable conductor on the podium.[74,75] Brown himself would often conduct his works. As the composer, he was perhaps best able to interpret the scores and exactly translate the messages he was conveying through them.[76] Immersing himself in an orchestra's rehearsal process also gave him insight both into how musicians reacted to his scores and how effective the logistics of his works were, allowing him to reflect and improve his techniques further.

2.2.6 Summary

Clearly, Brown developed his techniques for the purpose of creating the music he was interested in writing. He also felt that these innovations were absolutely necessary—at least for him—given the music of his time as well as the broader artistic environment. Brown's conclusion was that any art, once completed by the artist and released into the world, took on a new and uncontrollable life. Even if the artist was attempting to convey a single, precise message, it may be interpreted in a multitude of unforeseen ways.[77] Recognizing this reality became foundational to Brown's philosophy and was the justification for his perennial quest for performer collaboration; creating works designed with the unknowable future performers and listeners in mind was Brown's ultimate goal in composition. He summarized his trajectory in five points:

> 1. [The] belief that the complexity and subtlety of the desired sound results had passed the point at which standard notation could practically and reasonably express and describe the desired result.

[74] Amy C. Beal, "An Interview with Earle Brown," *Contemporary Music Review* 26, no. 3 (2007): 349.
[75] Stephen Drury, "Then and Now: Changing Perspectives on Performing Earle Brown's Open Form Scores," in *Beyond Notation: The Music of Earle Brown*, ed. Rebecca Y. Kim, 235-236 (Ann Arbor: University of Michigan Press, 2017).
[76] Gresser, "'Creative Ambiguity,'" 381.
[77] Brown, "Notation and Performance," 197-198.

2. The above belief led to a relaxation of finite notational controls and to the conscious inclusion of ambiguity in 'generalized' notations with which the performer and the performance process could collaborate.
3. The search for inherent or 'process' mobility in the work. The work as an endlessly transforming and generating 'organism,' conceptually unified in its delivery (the influence of the work of Calder).
4. The above necessitates a search for the 'conditional' performance state of spontaneous involvement, responsible to the composed materials and to the poetic conception of the work; 'work' in this case being the activity of producing as well as the acquisition of a finite result (the influence of the work of Pollock).
5. The fundamental motivation for all of the above: to produce a 'multi-ordinal' communicative activity between the composer, the work, and the performer, and a similarly 'open' potential of experience for the listener.[78]

As mentioned previously, attempting to distill Brown's techniques into firm definitions is impossible due to the widely varying nature of his works and the application of techniques within them. The best approach is to become generally familiar with the techniques, and then to recognize that each of them exists on a wide spectrum throughout Brown's works: implicit or explicit notation, graphic scores and/or graphic notation, the mobility of a work, and the degree of performer collaboration, improvisation, and spontaneity. These axes intersect with one another, producing unique challenges and circumstances in every work. In turn, understanding a given work or performance thereof requires an understanding of each of these aspects regarding the composer, performer, listener, and the literal performance—the *creation*—of the work. With this set of criteria, studying the existing literature both on scores and performances of Brown will help assemble a frame with which to analyze existing performances and to aid in creating additional faithful performances.

[78] Brown, "Notation and Performance," 199.

2.3 A METHODOLOGY FOR EVALUATING PERFORMANCES

Most current scholarship on Earle Brown centers on the compositional aspects of his works, generally focusing on his inspirations, the technical process, or complete analyses of works. While these are insightful topics, they do not necessarily lend any specific insight into performing Brown, especially regarding the technical spectra discussed above. That said, these articles posit valuable questions about the work, but they are usually about how Brown came to compose a given work, including the mechanics and notation necessary. I will adapt some of these questions into starting points for approaching performances of Brown, allowing for the evaluation of recordings in Part 3 and laying the groundwork to a guide for new performances (presented in Part 1).

There also exists some literature written by those who have realized Brown's works, both as performers and conductors. As with every article or analysis, the author's viewpoint injects some amount of bias into the prose, as much as they may attempt to be completely objective. With these writings, however, the individual's perspective is much stronger as they describe their lived experiences with the music, and in some cases, with Brown himself. Having insight from these interpreters of Brown sheds light on the true effectiveness of the scores, and just as the recordings do, they offer individualized interpretations of works that no other performer or ensemble may have been able to conceive or execute.

Many questions in these sources investigate Brown's music, and they can all be at least somewhat applied to performance. In my research, every question revolves around the work's identity. As Gifford puts it, this is "what the work *is or can be.*"[79] All of Brown's work in developing and refining his techniques and notations is intended to effectively communicate this identity, this *thing* of a collection of sounds and their ever-changing relationships flexibly

[79] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 198.7

suspended in time, through performers to audiences. Performers are given the task of understanding and creating this identity along with Brown so that they can then communicate it in the concert hall. Thus, evaluating any performance of Brown requires the listener to comprehend both the identity that Brown communicates through the score and the identity the musician(s) create with Brown and realize as music. The following questions are, I believe, critically important to consider when getting at the heart of a given score. They also include sub-questions that can help clarify and orient listeners to Brown's identities. Note that these are strictly aesthetic questions; practical concerns to achieve aesthetic results are reserved for the guide in Part 1.

2.3.1 What sonic materials are at the core of the work's "identity"?[80]

This question arises from Gifford's analysis of Brown's compositional process via his sketches for *Cross Sections and Color Fields* (1972-1975), written two decades after *Folio*. Brown's process is rather well established at this point, and the earliest sketches show Brown's ideas for the work in their most fundamental stages. Brown imagines the entire work at the beginning of its composition, without quite knowing how to get there or what the piece will sound like. This has always been the case: "…concerning my conception of *December 1952*, one thing I knew before I ever wrote or 'drew' it, was that it could be played from any point to any other point, in any direction—multi-ordinal."[81] Everything in his process following the creation of an identity was in pursuit of effectively communicating it. This notion of what the work "is" is paramount to understanding a work and effectively performing it. Performers must then work backwards from the score: all the details are present (unlike when Brown imagined the work), and the work's identity can only be understood through experience with the score and any included performance

[80] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 192.
[81] Ryan, "Energy Fields," in *Beyond Notation*, 86.

instructions. Musicians are usually experts here—every new page of music must be "decoded" in this way—but there is more to it for Brown. Performers must become familiar with the work as written but also with the work as a description of many potentialities (again, its identity). While some sections are completely scored and orchestrated, other sections remove information from the score and place compositional responsibility in the hands of players or conductors, most often with strict guidelines and directives for performance. Performers must then experiment in this space.

This experimentation process is essential, as Brown invites each performer into an act of co-creatorship. As with any piece, any specific performance of Brown will be unique due to its place in space and time and with those personnel, but this co-creatorship elevates the range of possibilities far past subtle inflections of tone or the number of gestures in a flashy cadenza. As discussed, the entire formal organization of the work can change; while obvious with the basic concept of open form, this level of flexibility is core to a work's identity. Brown's works "…insist on the validity of the now moment, a uniqueness that can only be discovered once and then forgotten…Performances—players—must discover the moment: this is the self-nature of the open form work."[82] While every score possesses its own identity, every performance is one of an infinite number of potential realizations of that identity. In this way, performers discovering *the* identity of a work also discover *their* version of the work and *its* identity. Brown welcomed this immensely and would insist on having performers' names alongside his as composers of the work.[83,84]

Coupled with co-creatorship is the balance of control. Brown, almost hypocritically, wants performers to join him in creating the work, but demands their faithfulness to an identity of his

[82] Drury, "Then and Now" in *Beyond Notation*, 248.
[83] Frances-Marie Uitti, "Earle Brown – Innovator," *Contemporary Music Review* 26, no. 3 (2007): 334.
[84] Brown's works having infinite potentials and transitioning to a single realization by a performer carries a significant similarity to the concept of "collapsing" in quantum mechanics. Cursory research does not uncover whether Brown was interested or spoke on quantum mechanics, but he has referred to interference principles when discussing his inspiration from Schillinger techniques (Pine, "Conversation with Earle Brown," 169), which may be connected to the famous double-slit experiment.

design. Fortunately for musicians, Brown already determined that balance during the composition process. All performers then need to do is carefully study and follow his instructions, asking what is controlled, and what is free to interpret?[85] Clearly, material that Brown dictates—the most controlled material—is what he considers to be absolutely essential to the identity of the work. If it was not essential, it would not have been so controlled. This is not to say that every tightly controlled sound in every piece must be heard in every performance, as that would severely limit the possibilities of co-creation in many works. Rather, those controlled materials should then act as an important genesis or inspiration for less controlled material. Yaffé summarizes this act in an interview with Brown:

> Yaffé: So in a way, it's a kind of tutorial: you're saying, 'I'll give you an example, I'll hold your hand for a couple of pieces…now, you do it." It's an interaction between Earle Brown the composer/interpreter and the actual performer/interpreter; you lead him into it, then let him take over.
>
> Brown: Yeah, what's wrong with that?![86]

From this perspective, Brown becomes a teacher, communicating an identity and possible interpretations of it to performers. Once the performers ingest those teachings, they are free to realize it as they wish—but with care:

> "…I'm interested in activating, more and more, the interaction between composers and performers, and making performance simply a more collaborative world—not in all cases, but in some. *Whether you succeed or fail is your business*. The ones that are failures to you may not be failures to someone else; and the ones that are successes to you may not be successes to someone else."[87]

[85] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 192-193.
[86] Yaffé, "An Interview," 309.
[87] Yaffé, "An Interview," 309. Emphasis mine.

Brown agrees that there is no standard for a good or bad performance: it is only through one's own perspective can such a judgment even exist. So, then, what does Brown consider to be a good performance, and how can he communicate that for each work? In another lecture:

> "It is precisely in the hands and mind, the physical and mental responses, of a fine and devoted performer, who is in an indefinable and unnotatable relationship to the clearest possible graphic representation of a potential sound event. To be clear [as a composer] is to have foreseen and removed the barriers between cause and effect, as well as to be explicit. Cause and effect are not rationally connected, and the shortest distance between two *people* is not a straight line."[88]

Brown's scores are the causes he mentions, and they are his best attempts at getting the sorts of effects—the music—he wanted for each work. Performers are then responsible for interpreting and creating results. A work's identity is discovered through experimenting with explicit notation in Brown's score together with the implicit results of that notation as understood by performer(s).

2.3.2 What are the limits of an acceptable performance? What would end up breaking the work's identity?[89] How do you know whether one's contributions are "correct"?

Determining the identity of a work in theory also determines what the identity is not. Though at first a simple question, there is often a fine line between a faithful yet radical interpretation of a work and an interpretation that no longer bears any resemblance to the work being performed. Brown wrestled with this problem when developing his techniques at the start of his career: "his own compositional approach for the two most extreme compositions in *Folio* (*November 1952* and *December 1952*) threatened the pieces' identities."[90] In giving so much

[88] Brown, "Notation and Performance," 194.
[89] Gresser, "'Creative Ambiguity,'" 379-381.
[90] Gresser, "'Creative Ambiguity,'" 381.

freedom about the work to performers, these works are dangerously close to being unrecognizable,[91] a problem demanding extra care when interpreting these earlier pieces. As he continued composing, and especially for works with larger ensembles, Brown refined his process to ensure each work contained tight internal coherences. In constructing these well-established identities, Brown guides performers through complex relationships in his works. Abiding by the score allows players to focus only on realizing the score, as the mechanics are carefully considered beforehand.[92] Brown can only do so much from the score, however: everyone involved in realizing a work must ensure that their possible actions and sounds do not extend past the explicit or implicit boundaries of the score. This is why I suggest determining a work's identity to be the primary goal of rehearsals: performers must self-evaluate their improvisations and interactions with each other and audition out poorer choices in favor of ones that do fit the identity (or fit it better). If a conductor is present, they can assist in this process, though ultimately (as in most works) the conductor should be able to step aside and let the ensemble collaborate as one.[93]

Defining the boundaries of a score becomes more difficult when there is less explicit notation to execute. Obviously, incorrect performances of these highly controlled sections appear through wrong notes, dynamics, rhythms, and so on, just as in traditionally notated music. Part of the experimental process in determining sonic materials for the work is working to precisely delineate when or how gestures become disconnected from the score. For example, a Mozart melody in the middle of a *December 1952* performance that mainly features single notes would clearly violate the work's identity. Zooming out, is "melody" an appropriate concept to use in a

[91] Brown once received a tape of a *December 1952* performance and remarked, "if he hadn't written on the box *December 1952*, I wouldn't have known what it was!" Beal, "An Interview," 355.
[92] J.P. Welsh, "Open Form and Earle Brown's Modules I and II (1967)," *Perspectives of New Music* 32, no. 1 (Winter 1994): 267.
[93] Drury, "Then and Now" in *Beyond Notation*, 243-244.

performance of *December 1952*? If so, how would it be constructed from the score? What is the maximum length of a "melody?" This and other lines of questioning should continue until a clear (and possibly very specific) boundary of "rightness" for various criteria is established and agreed upon by all performers. Again, this active collaboration is the main purpose behind Brown's compositional innovations: Brown supplies a score that becomes a complete identity through performers' interpretations and ultimately in performances. We will now turn to several performers to understand how they might have interpreted Brown's scores to produce recordings.

N.B.: This process of experimentation poses a different problem, as players, ensembles, or even conductors may come to rely on specific gestures, formal arrangements, or improvisations (which then are no longer improvised). Additionally, performers may elect to predetermine a route through an open form work. While possibly useful to enact a successful performance in a pinch, these practices usually invalidate Brown's intentions. Referring specifically to open form, he says:

> "I prefer that such ordering should come about in this intuitive-conscious manner spontaneously during each performance. A completely pre-performance ordering of these materials—which I could very well arrange myself—would eliminate the possibility of the intense, immediate communication of ensemble collaboration which is an extremely important aspect of music making as I see it."[94]

The entire point of these works is to create an environment where performers can *actively* collaborate: individually in solo works, together as an ensemble, or under the direction of a conductor, but *always* in collaboration with Brown and his score. This pitfall is the same "trap" that musicians might encounter when learning to improvise in jazz; the grammar may be correct and audiences may enjoy it, but the fundamental collaboration and co-creation of music making is absent.

[94] Earle Brown, String Quartet, London: C. F. Peters, 1970.

PART 3: INTERPRETATIONS AND REALIZATIONS OF EARLE BROWN'S MUSIC

Before analyzing performances, a few things are worth noting. In seeking out exemplary performances of Brown's music, one might turn to performances where Brown was actively involved with or conducted the ensemble. Gresser suggests that "…performances by other musicians, during his lifetime and after his death in 2002, would, out of principle, be inferior to his own interpretations."[95] While logically sound—Brown's interpretations of Brown would naturally be "good"—this argument is no more valid for Brown than it is with any other composer. After creating a score (and including any necessary media, such as electronics, computer programs, etc.), composers cede control of the work to performers and audiences. Brown is no exception; he merely limits his own influence over a given work so that performers can exert that much more influence through their interpretations. After that, when Brown conducted his own works, it was Brown the *performer* realizing information from Brown the *composer*, meaning those performances are no more or less valid than performances by other musicians and ensembles. Because of this, I am choosing only to include analyze recordings that do not involve Brown in any way, though some of the performers had worked directly with Brown at one point or another. Future research on this topic could include performances that did involve Brown to determine whether he was instrumental in establishing a performance practice for his works.[96]

Without writings from performers, it is impossible to understand what performers truly experienced and understood from their collaborations with Brown through the scores. This paper does not attempt to decipher the exact methods or questions performers used in their rehearsals;

[95] Gresser, "'Creative Ambiguity,'" 381.
[96] In a letter to Bernstein, Brown described a recent performance of *Available Forms II* as "perhaps the best we have done of the work." Brown conducted this performance along with Bruno Maderna, lending credence to his possibly extensive influence on performances of his works. Brown, "Letter to Leonard Bernstein," in *Beyond Notation*, 278.

rather, the following analyses are limited to relations between crystallized performances (recordings) and the written scores. Furthermore, these analyses assume a good faith effort from all performers involved in each recording, both as expert musicians and as collaborators with Brown. The fact that these works were recorded and published, often in collections with several other works by Brown or his contemporaries, heavily implies the performers are invested in the music and in creating the best music they can.

Finally, in addition to the questions posed at the end of Part I, an existing analysis of Brown's work provides an excellent framework for discussing the sonic materials in each performance. While more focused on Brown's compositional process, Frederick Gifford's analysis of *Cross Sections and Color Fields* is a useful starting point for analyzing performances. I will analyze an excerpt from a recording of *Cross Sections* using Gifford's framework and the preceding questions before analyzing recordings of *December 1952*, *Four Systems*, and the *String Quartet*.

3.1 PERFORMANCE ANALYSIS OF *Cross Sections and Color Fields*

Cross Sections and Color Fields (1972-1975) is one of several of Brown's large ensemble works. Brown applied his open form and notational techniques for orchestra in his earlier works *Available Forms I* and *II* (1961 and 1962) and therefore was well aware of the possibilities and limitations of an orchestra when composing *Cross Sections*. The piece progresses linearly (i.e., the work as a whole is closed form) and alternates between several sections of open and closed form. Brown eschews nontraditional notations in this work, instead focusing on the interplay between various timbres, hence the title. In general, instrument sections are treated as single instruments, playing unison gestures and rhythms and often with internally consistent vertical intervals. Similar

to *Available Forms I* and *II*, Brown entrusts the execution of open form to the conductor. For each of the eight open form sections, Brown provides detailed instructions for the conductor to be able to cue various sections of the ensemble to play certain excerpts from the score. Using these signals, the conductor organizes the materials presented in real time, just as a single performer would do in a work like *December 1952* or *Twenty-Five Pages*.

Gifford's analysis sheds light on Brown's compositional process for *Cross Sections* and spells out a process Brown generally followed for this and other works.[97] He identifies six sketch categories that inform this process, and it is these categories that can be applied to other works and performances thereof. Gifford's categories are as follows, from most abstract to most concrete:[98]

Table 1: Fredrick Gifford's categories of Earle Brown's sketches for *Cross Sections*

Category	**Description**
Process	Words and/or diagrams describe a process
Gesture	Graphic and/or verbal indication of event or formal section
Chord	Notated harmonic material, usually on staves, as chords
Instrument	Instrumental/timbral data (orchestration, transformation)
Rhythm	Time or rhythmic notation of gestures or lines
Score	Short, full-score drafts; manuscript; notation on proofs

Gifford, through Brown's sketches, outlines how these categories take Brown from the initial conception of a work to the completed score. The latter categories (Instrument, Rhythm, and Score) are more interesting from a compositional standpoint, but less so in analyzing performances: if an ensemble accurately performs the notes on the page, they of course have accurately realized Brown's fleshed-out ideas. On the other hand, Process, Gesture, and to a degree Chord allow us to (at least partially) deconstruct any of Brown's works to understand his possible goals for a given sound, gesture, section, or entire work. Again, neither Brown's exact concept nor

[97] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 197-198.
[98] Gifford, "Imagining an Ever-Changing Entity," in *Beyond Notation*, 193.

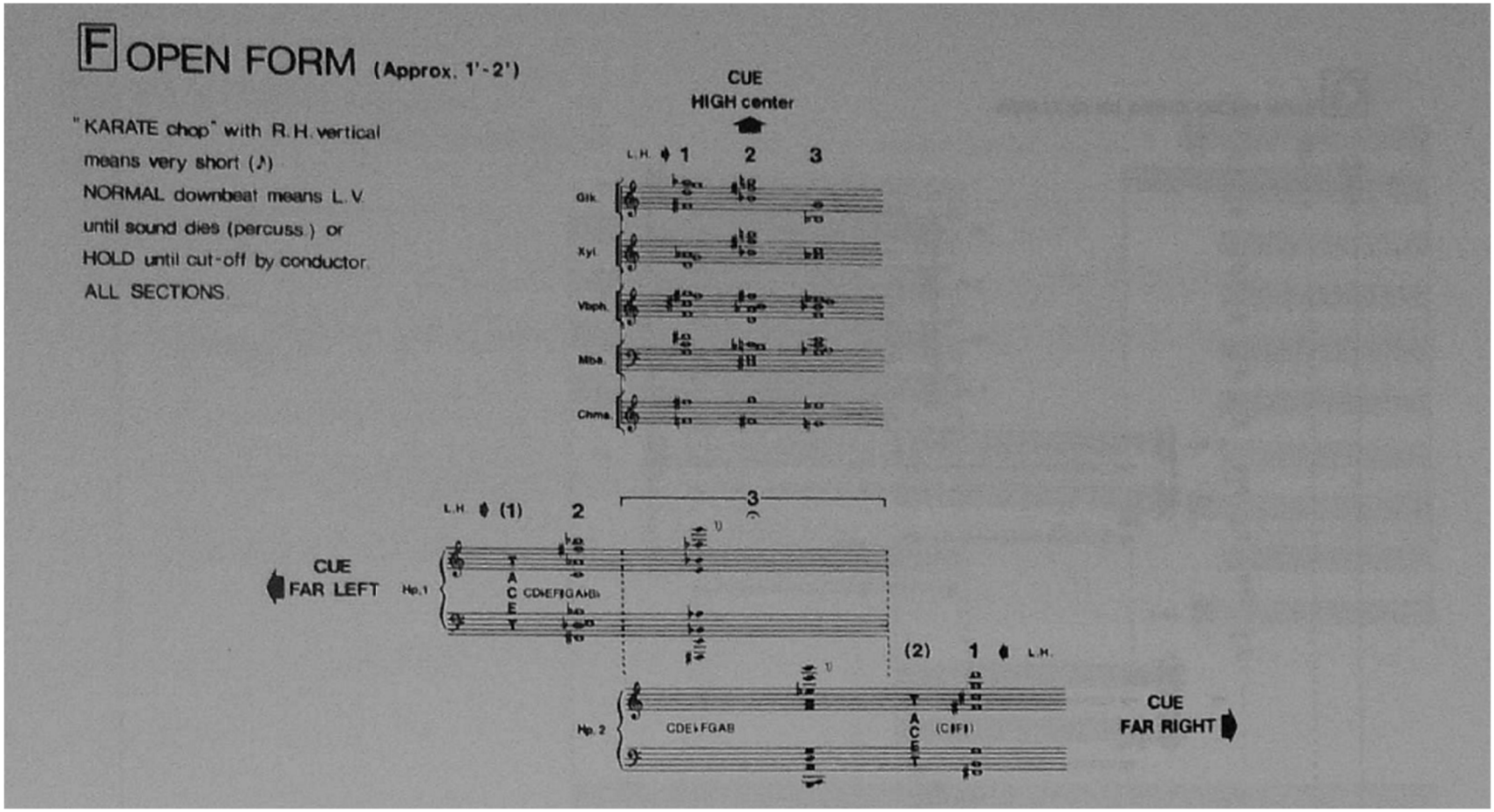
any of his recorded interpretations of a work are the goal; rather, we only need to evaluate how a performance compares to the *potential* processes, gestures, and chords available within a score.

Applying Gifford's categories to a brief section of *Cross Sections and Color Fields* will illustrate how these categories can be applied to other works. The first open form section involving the entire orchestra is at rehearsal F (see Musical Example 7). The aesthetic instructions for rehearsal F (i.e., not including the mechanical cueing instructions) are as follows:

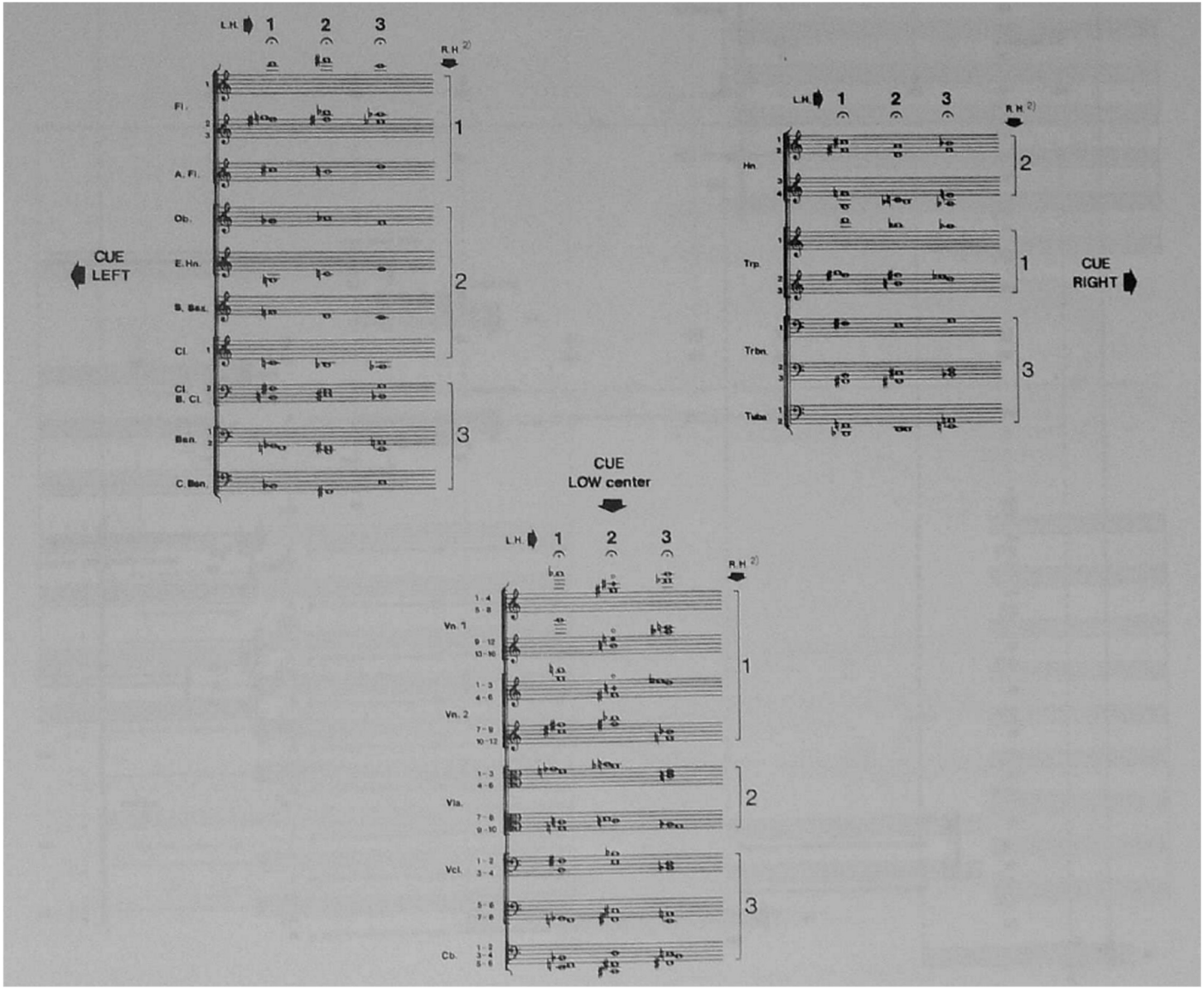
> This is the first fully open-form page and is laid out as the orchestra appears to the conductor. It is "formed" by the conductor giving cues accurately and clearly IN THE DIRECTION OF INDIVIDUAL SECTIONS…The conductor must allow adequate time for the cues to be seen before giving the downbeat, but the continuity should move quickly and intensely. Dynamics, durations and superpositions may be varied at will. As before (page 4), the size of the down-beat indicates loudness. Each sound must be stopped individually (in the manner of starting), unless the conductor selects a sequence of chords within one section, in which case a new indication automatically stops a previous one and the chords move smoothly from one to the other. As before, single, instantaneous attacks may be made with "karate chop" down-beats. This section should be rather fast and exploit the timbral differences and at least 1-2 minutes in duration.[99]

Here, Brown supplies only chord and instrument information, with a hint of process in "should be rather fast and exploit the timbral differences." The conductor is responsible for weaving a fully scored texture via the communication of rhythms and the shaping of gestures through dynamics and articulations. This section, propelled by the conductor, assumes its own identity during performance. In the uncredited performance on the Earle Brown Music Foundation website, the conductor incorporates all the available materials and presents a variety of timbral juxtapositions.[100] The road map in Musical Example 8 details their route through the section.

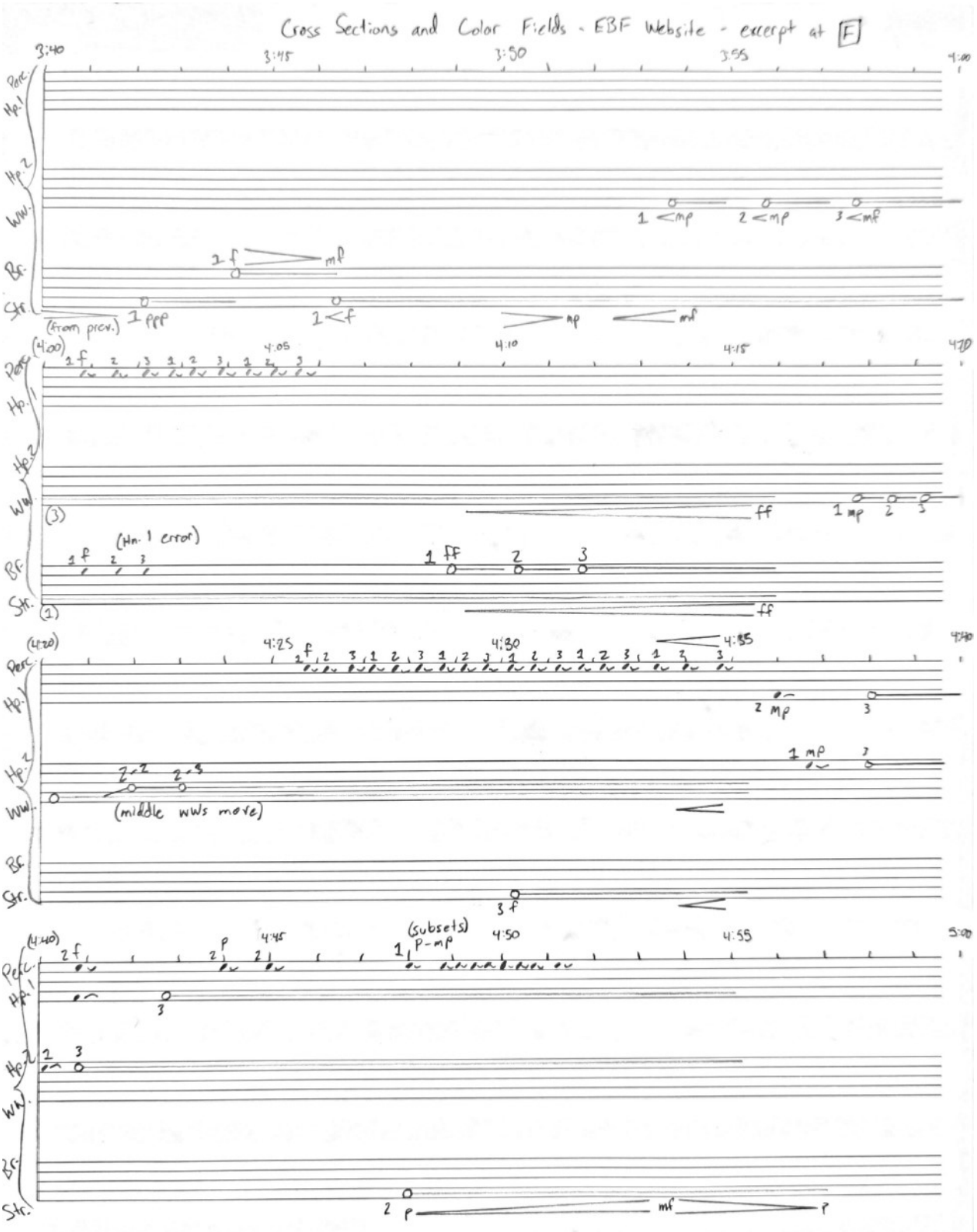
[99] Brown, *Cross Sections and Color Fields*, London: C. F. Peters, 1972-1975.
[100] Unknown ensemble, "Cross Sections and Color Fields: 1972-1975," Earle Brown Music Foundation, 2022, www.earle-brown.org.



Musical Example 7: Earle Brown, rehearsal F of *Cross Sections and Color Fields*, 1972-1975. Continued on next page.



Musical Example 7 (cont.)



Musical Example 8: Road map of a recording excerpt of *Cross Sections and Color Fields.* Excerpt begins at 3:40 in the recording.

I have designed this road map to illustrate what sound events occur over the eighty second timespan that is rehearsal F. For the most part, the road map is self-explanatory: noteheads with l.v. ties or sustain lines are cued entrances. Pitch information is entirely omitted, as that information is available on the score page in Musical Example 7. Instead, numbers adjacent to noteheads identify the chord material being played by the indicated instrument section. A few exceptions: at 4:00, the percussion section is repeatedly cued, rotating through their three chords. The first horn is also heard, playing three notes in time with percussion before stopping again. No other brass are heard, so this horn entrance appears to be an error. At 4:22, the woodwinds are sustaining chord 1, and a subset of them moves to chords 2 and 3 in sequence. This is intended, as the subset aligns with the square bracket labelled "2" on the score. The conductor signaled for that subset *only* to move to the other two chords, exploring another dimension of Brown's supplied chord material. Finally, both harpists are instructed in the score that if their chord 3 is signaled, they are to "improvise any patterns on these pitches arhythmically until stopped by conductor." At 4:36, the conductor cues the harpist's individual chords (they do not play chords 1 and 2 respectively), then cues chord 3 and does not give a cutoff until 4:55.[101] In this way, the road map shows how that chord is activated in the same way that other instruments sustain chords, but with the understanding that improvised rhythms and notes (within that chord) are occurring over that time.

Clearly, the orchestra is executing Brown's vision for chord and instrument data, and the conductor has created a complete score by virtue of simply executing the available cues in some order at this point in the piece. There is also a clear demonstration of process in the inclusion of several orchestral textures appearing within this section. We can then say that this performance (or

[101] Both harpists repeat their individual chords once at 1:00. Due to the additional percussion cue here, I assume that the harpists were given instructions in rehearsal to insert that individual chord during their chord 3 improvisations, removing the need for the conductor to cue both chords 1 and 2 as well as the return to chord 3.

at least this section of it) is coherent and successful. This is all well and good, but how does the identity of this performance compare to the identity of *Cross Sections and Color Fields*? It is worth restating that Brown's identity for any given work is the collection of infinite potentials encompassed by the score and its instructions, while a performance is a single reflection of that identity.

The resulting sonic materials constitute this performance's identity. Characterized by longer sustains, timbres shift both suddenly and gradually. Most of the texture is made up of string and woodwind sustains, only broken up by a brief silence at 4:16 and then the harp-only moment from 4:36-4:47. Percussion, with the inherently sharper attacks of the xylophone and glockenspiel, are featured as repeated, rhythmic attacks over the comparative stasis of the strings and woodwinds. The brass section is reserved for its dominating *fortissimo* sound, once to boldly announce the section opening (3:44) and another time to cap off a gradual, nearly full ensemble crescendo leading to the halfway point of the section (4:09-4:16). All of these are generated from the conductor's collaboration with Brown through this one page of the score. Other performances of this portion of *Cross Sections* will be different, as other conductors will interpret the given data and instructions in any number of different ways. With this example in mind, we can now move to other works, including those that supply performers with much less discrete information.

A brief aside: does the horn's apparent error at 4:00 detract from the successfulness or effectiveness of the performance? Probably not, as the audience likely did not have an exact understanding of the score or cueing system and simply heard it as a temporary coloring of the percussion sound. Even if the entrance was technically incorrect according to the conductor's cues, the horn plays the correct material in the correct style. Perhaps the hornist was exercising

spontaneity, having studied Brown's inspirations. Whatever the reason for these three notes, they did not break the identity that the conductor was creating in that moment.

3.2 PERFORMANCE ANALYSES OF *December 1952*

December 1952, being the famous work that it is, almost demands a place in any broader analysis of Brown's works, despite his complaints to the contrary.[102] Many learning or inquisitive musicians have and will continue to come across *December 1952* before Brown's other works, and it is mainly for that reason that I have chosen to include it in my analysis of performances. Due to its extreme openness, analyzing performances of this work must rely heavily on more conceptual questions. As with all of Brown's works, its identity is forefront, and for *December 1952*, Brown's performance notes and diagram describe blocks of various size moving through time and space (see Musical Example 5 and Figure 4 on pages 38 and 39). Brown needed a method of representing three-dimensional motion on paper, and he found a solution in Cage's chance procedures. However, as mentioned previously, Brown was not interested in using chance procedures to determine any musical attributes of his works. *December 1952* is no exception, as the selection of musical attributes is completely entrusted to performers. Chance procedures simply provided a method to generate an "accurate" representation of motion, creating a score that effectively communicates a process concept to performers, though without any further details to aid in its realization.

Given such an abstract score, what musical elements do the rectangles represent? Brown's only directive is that thickness corresponds to intensity, but even that can be construed differently as dynamics, attacks, or tone quality, for example.[103] Every other musical aspect is left to the

[102] Yaffé, "An Interview," 309.
[103] Brown, *Folio and Four Systems*, 1961.

performer(s) to decide, whether spontaneously in performance or ahead of time, "provided that the imposed determinate-system is implicit in the score and in these notes."[104] This directive, while quite broad, gives us an exact criteria for the limits of acceptable interpretation: if a given realization or realized gesture is not implicit in Brown's score or notes, it is not acceptable for *December 1952* and would constitute a poor performance of the work. Again, though: what exactly is implicit in the score materials? This is the moment Brown was after, when performers encounter the work as potential and discover its nature for themselves via rehearsal and performance.

Possible interpretations for *December 1952* might see performers viewing the single-page score in a traditional sense, with the vertical axis indicating pitch, the horizontal indicating time, and the whole page envisioned as one or a few systems. Others might attempt to convey the movement of blocks through space as literally as possible by incorporating movement into performances, or somewhere in between, with motion, stasis, perspective, time, and/or space represented in any number of musical ways. With this near-limitless potential, it is doubly important to take the following performances at face value and with the assumption that all performers involved collaborated at the highest level and in good faith with Brown.

3.2.1 *December 1952*, Sabine Liebner, piano[105]

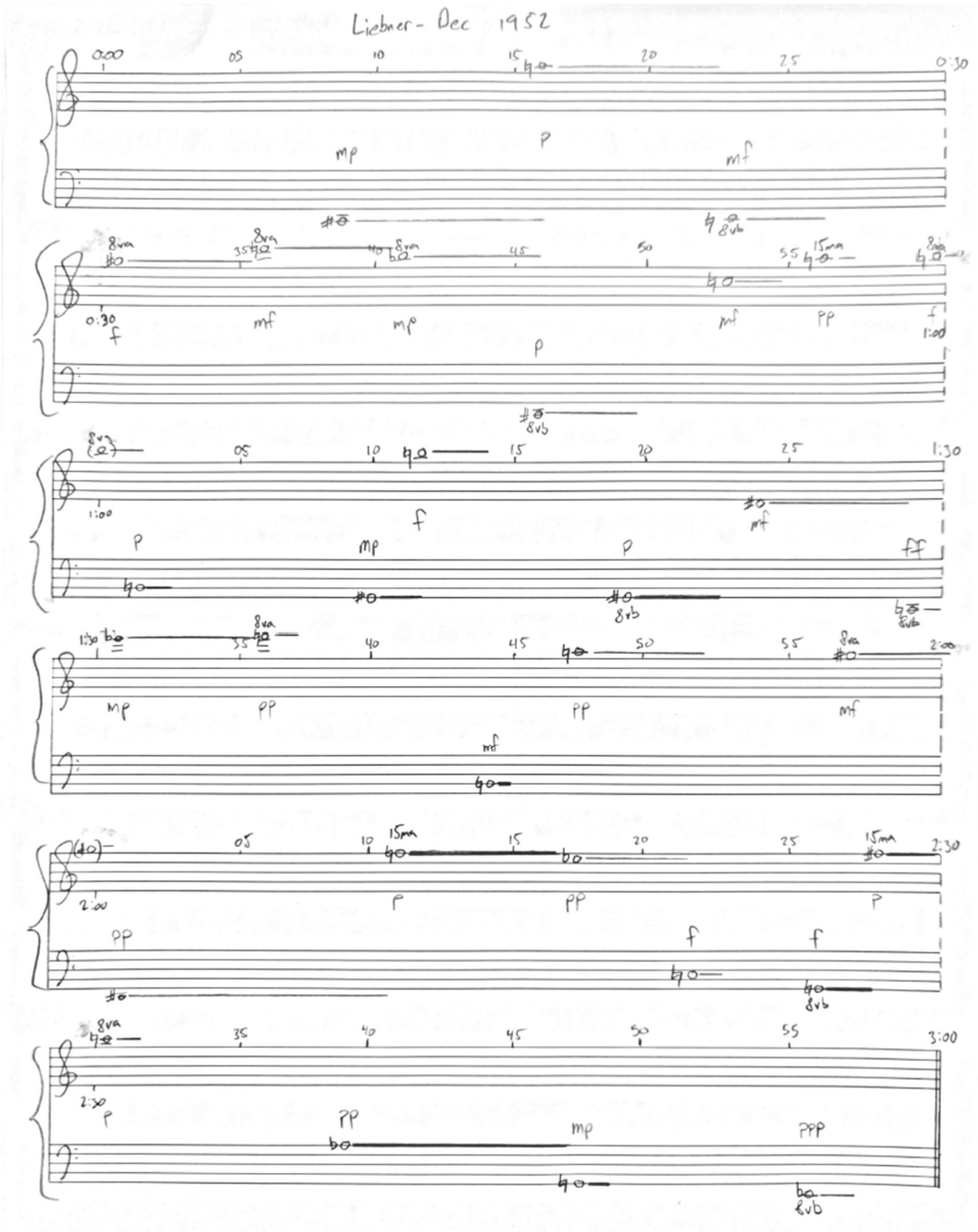
Liebner's interpretation of *December 1952* is rather literal and extremely sparse: with a recording length of 3:06, thirty-one notes are played. Brown's score also contains exactly thirty-one rectangles of various sizes and shapes, strongly suggesting that Liebner's performance is a one-to-one interpretation of rectangles representing sounds. One might then argue that Liebner placed the score in some orientation—rotated some number of degrees around any of the three-

[104] Brown, *Folio and Four Systems*, 1961.
[105] Earle Brown, *Abstract Sound Objects*, Sabine Liebner, piano, Wergo WER6745-2, 2012.

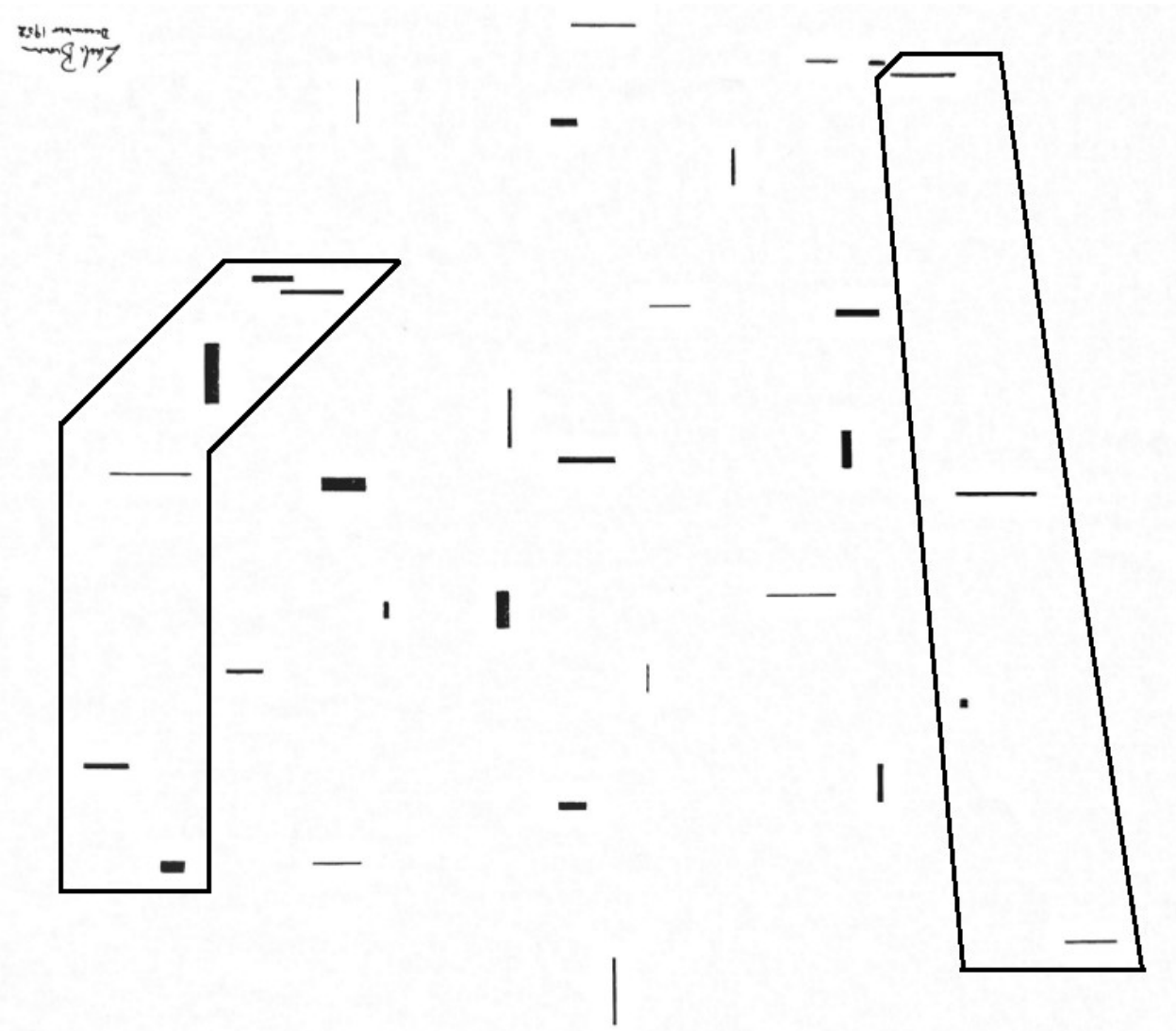
dimensional axes—and then read as a typical score, i.e., from left to right. Transcribing Liebner's performance (see Musical Example 9) reveals a possible explanation in this vein, but with a significant caveat attached that ends up strengthening Liebner's performance rather than hindering it. Due to the clear relationship between Liebner's performance and the written score, I will briefly outline what I believe to be how Liebner interpreted the score for this performance.

If one views the score "upside-down," where Brown's signature appears upside-down and in the upper left corner, several rectangles and their relative positions on the page can be generally correlated to pitches in Liebner's performance. The initial six pitches (C#2, A5, E1, G#6, D7, B♭6) appear to correspond with six rectangles on the left edge of the score (in this orientation) if the usual relationship between pitch and the vertical axis is intact (see Musical Example 10). Other musical characteristics reinforce this connection, as increasing rectangle thickness corresponds to louder dynamics, while the length of the rectangles correspond somewhat to the length of each note's sustain. After these six notes and rectangles, Liebner's movement through the score becomes much less apparent to the point that the exact journey becomes irrelevant. Other sequences of rectangles and notes can potentially be aligned (perhaps the last four notes align with the four rectangles farthest to the right, see Musical Example 10), but there is little reason to continue searching for such connections. This deviation is the caveat mentioned above. If we look at Brown's performance notes for *December 1952*: "The composition may be performed in any direction from any point in the defined space for any length of time and may be performed from any of the four rotational positions in any sequence."[106] Clearly, Liebner "moves" through the score, interpreting the markings on the page and realizing them as notes that possess different musical characteristics. Thus, Liebner is following Brown's instructions precisely during this

[106] Brown, *Folio and Four Systems*, 1961.



Musical Example 9: Transcription of *December 1952* as performed by Sabine Liebner.



Musical Example 10: Possible orientation of *December 1952* during Liebner's performance. Encircled blocks may have been directly realized as individual notes.

performance, and even if all thirty-one rectangles could be definitively assigned in a traditional left-to-right ordering to her recording, her performance would still fit within Brown's stipulations. Also, despite these connections appearing to suggest a particular method of interpretation, this narrative is only hypothetical and could be entirely unrelated to Liebner's actual method and thought process. However, it is worth illustrating one way a performer *might* have moved from the written, static score to music sounded in time.

Liebner realized a unique identity for this work, as she made several conscious (and possibly unconscious) decisions during her rehearsal process. Not to belabor the point, but it is worth outlining at least once just how many decisions contribute to the identity of a performance. Liebner is a pianist, so in choosing to perform this work as a solo, she immediately determined the instrumentation of the work to be solo piano. Choices were also made to sound thirty-one impulses (chord), at specific moments over a three-minute period (rhythm), where each impulse was a single note (gesture/chord), etc.... The multitude of possible choices is built into the work by Brown but only truly accessible when rehearsing and performing the work. Each of Liebner's decisions prior to and during this recording resulted in one musical identity, itself a reflection of the singular identity that is *December 1952*. One can imagine several attributes Liebner might have gathered from the score to use as guidelines for her performance, such as spaciousness, suspension of objects in a field, simplicity of materials, possible (even suggested) relationships between objects, densities of subsets of materials, and so on. Liebner interpreted these attributes musically, using the entire breadth and depth of (on-the-keyboard) piano playing to give each note its own character and subsequently its unique relationships with other notes in the work. Each of these attributes can be discussed in the context of the score or the recording, and it is these sorts of interpretations that Brown requires to be "implicit" in the score. This is how Brown's identities open the door to successful collaboration and co-creation, and in turn allow for the continued creation of new and engaging interpretations such as Liebner's. As with theorizing about her interpretive approach, analyzing the resulting transcription of Liebner's performance with the usual lenses of pitch collections, form, and other characteristics is of limited use. While certain interesting relationships may appear in one performance, they have no solid connection to the identity of the work itself. A simple illustration can be seen in Table 2, where I have highlighted pitch relationships that stood

out as possibly significant—any other performance of *December 1952* would result in a drastically different table.

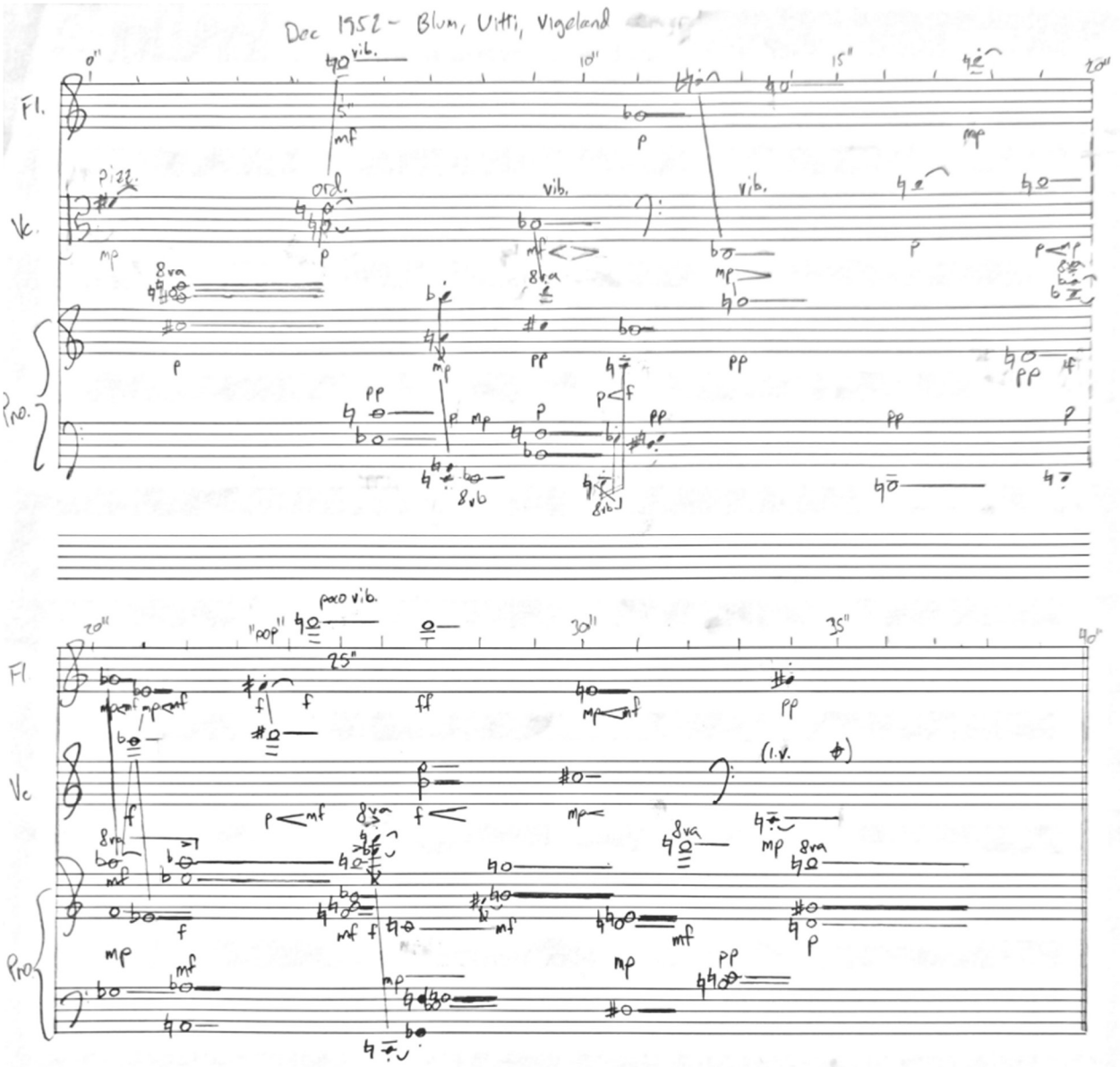
Table 2: Timing of notes in Liebner's performance with perceived relationships

Time of Attack	Note	Perceived Harmony/Stand-Out Event
0:08	C#2	
0:16	A5	A major triad
0:23	E1	
0:30	G#6	E dominant seventh
0:36	D7	
0:41	B♭6	
0:46	C#1	
0:53	C5	
0:56	A7	
0:59	B6	
1:01	B2	Octave jump
1:10	G#2	
1:12	B5	G# minor third; returns to B and G#
1:19	G#1	
1:24	D#4	Completes G# minor triad
1:29	C1	
1:30	E♭6	
1:36	F7	
1:44	B2	
1:47	A5	
1:57	G#6	
2:01	D#2	
2:11	F7	
2:17	E♭5	*return to E♭/D# obscured by time and range*
2:22	C3	C minor triad
2:26	G1	
2:28	F#7	
2:30	C7	
2:39	A♭3	C Phrygian Half-Cadence
2:47	G2	
2:55	E♭1	*almost imperceptible*

3.2.2 *December 1952*, Eberhard Blum, flute, Frances-Marie Uitti, cello, Nils Vigeland, piano[107]

Compared to Liebner's recording, this performance of *December 1952* is strikingly different for a variety of reasons (see Musical Example 11). The instrumentation now also features flute and cello, and the length of this performance is only 41 seconds long. There is also a much higher density of sound, due firstly to the basic premise of multiple musicians performing together (it is incredibly unlikely for musicians to avoid overlapping without a conductor's control), and secondly to the number of gestures and attacks in that short time. Though the definition of "gesture" is flexible, I estimate there to be approximately twenty gestures in this recording that range from single, freestanding notes to upwards of five attacks within one second and spanning all three instruments. As with Liebner, all three instruments utilize a wide spectrum of timbres, attacks, and range, creating a field of unique sound objects. Simultaneities extend from the existence of multiple instruments into just the piano, which plays chords far more often than single notes. Surprisingly, the cello never plays any chords, despite easily being able to—perhaps Uitti would have introduced chords if the performance had lasted longer, or perhaps it was a conscious decision on her part or as an ensemble to leave the chords to the piano. The cello and flute include both vibrato and dynamics as additional dimensions of mutability: vibrato is impossible for the piano, and while it can approximate crescendos and static dynamics with repeated notes, the other instruments can and do truly execute these shapes. Register again plays a large role in the timbres available to each instrument, with opposing extremes conjuring either the hypothetical movement of blocks distant from one another or the rapid movement of one block over a large amount of space. Even the flute's smaller range in this performance, which barely spans two octaves, contains massive timbral shifts. With its lowest register being hollow and airy, pitches not even an octave

[107] Earle Brown, "December 1952," track 3 on *The New York School*, Eberhard Blum, flute, Frances-Marie Uitti, cello, Nils Vigeland, piano, Hat Hut Records 889176543357, 2015.



Musical Example 11: Transcription of *December 1952* as performed by Eberhard Blum, Frances-Marie Uitti, and Nils Vigeland.

higher become quite clear; pitches above the staff again drastically brighten and pierce through the other instruments' voices. Meanwhile, the cello's range spans nearly five octaves, reaching B6 with an artificial harmonic and eclipsing the flute's highest note of F6. Allowing a tenor instrument to reach higher than a soprano instrument is a clear demonstration of the ensemble's particular attention to timbre and sound design as the primary materials needed to represent Brown's score.

With the inclusion of multiple performers, attempting to divine what routes the ensemble took through the score multiplies the difficulty of an already difficult problem. We cannot know if the ensemble moved as a group through the score or if all three performers moved independently of one another—fortunately, those details are not necessary to evaluate the identity of this performance. Brown suggests that only the length of the overall piece is determined prior to performance,[108] and while we cannot say for sure if this length was even discussed by Blum, Uitti, and Vigeland, it is clear that no other predetermined actions or simultaneities were chosen. When two instruments play at the same time, there is never any indication that attacks have been aligned, as one would expect from a cue by a conductor or fellow ensemble member. In other works, this could indicate a sloppy or under-rehearsed performance, but not so in this performance—these near-simultaneities are simply representations of blocks in motion. Regardless of whether the ensemble moved through the score as a group or not, each player creates their own material and responds to other material generated, without necessarily aligning with any other player. This interactivity demonstrates that the performers' rehearsal process allowed for sufficient experimentation to develop appropriate sounds, which in turn gave them the ability to listen to one another and respond coherently according to their identity for the work.

3.2.3 *December 1952*, Joan La Barbara, vocals, Ne(x)tworks Ensemble members, flute/trumpet[109]

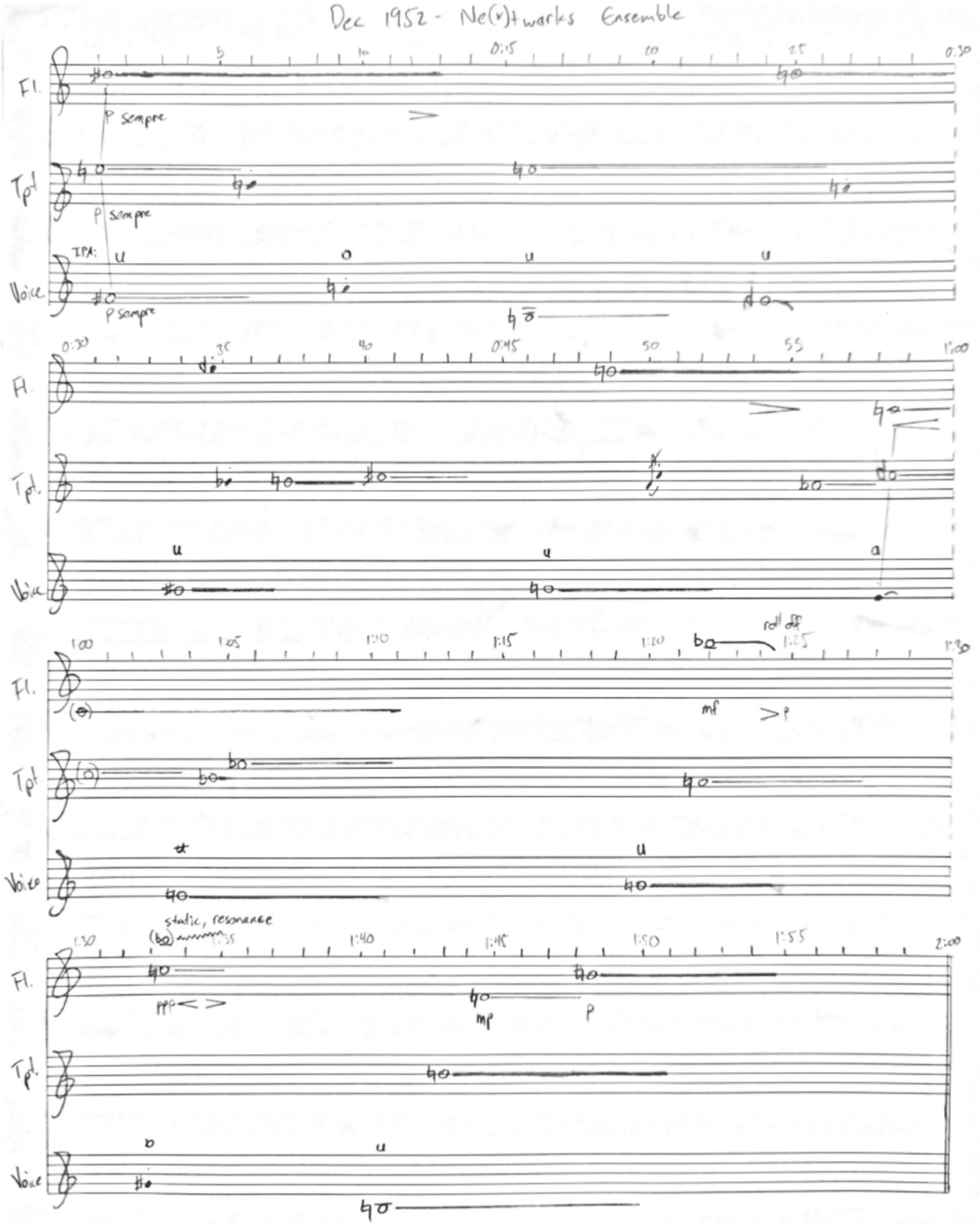
This performance of *December 1952* is another trio and is the first without piano (Musical Example 12). With all three voices being both single-line and wind-powered instruments, the

[108] Brown, *Folio and Four Systems*, 1961.
[109] Earle Brown, *Tracer / Folio / Special Events / Octet I*, Christian Wolff, conductor, Joan La Barbara, vocals, Stephen Gosling, piano, Aaron Trant, percussion, Ne(x)tworks Ensemble, Mode Records MOD-CD-179, 2007. Unfortunately, the flute and trumpet players are unnamed and do not appear on the current Ne(x)tworks Ensemble website either. I am assuming they were temporary or visiting ensemble members during this recording.

available range for the work is drastically reduced. Furthermore, all three instruments have alto or soprano ranges, with the lowest note of the performance being G3. Gestures are reduced to single notes (except for one grace note prefixed to a staccato note), creating another interpretation where the score's rectangles are performed as static notes. In total, thirty-five notes (thirty-four if the grace note is excluded) sound over the span of two minutes and three seconds. This is rather close to thirty-one, the number of rectangles present on the score—one might hypothesize that a conductor was present and did indicate thirty-one cues; however, there is no conductor listed for this performance.[110] Alternatively, the players might have kept track of exactly how many notes each of them performed, concluding after the thirty-first note was played. For this recording, that approach may have been followed but with the understanding that *approximately* thirty-one notes would be played. Regardless of exactly what the performers had in mind when rehearsing and performing this piece, the end result is their own identity of *December 1952*.

That identity is rather understated and almost static. While other performances utilized the entire spectrum of dynamics, this performance is almost exclusively quiet. The loudest moment is the highest note of the performance by nearly a fifth: the flute's B♭5 at 1:22. I notated this at mezzo-forte but even this might be too loud of a dynamic marking to be truly representative, as the timbre of the flute's higher register causes it to pierce straight through the other two instruments. While all three instruments are capable of vibrato, this performance contains no vibrato at all, giving each note a static, plain quality. A few notes are performed with minute pitch inflections: the voice and flute each flatten a note at the tail end (0:25 and 1:22), and the flute adds a breathy overtone-like quality to a note at 1:32. Additionally, I have included two quarter-tone accidentals in this transcription. This is not enough to warrant labelling this performance as truly

[110] Christian Wolff does conduct on the album, but only Brown's *Tracer* (1985).



Musical Example 12: Transcription of *December 1952* as performed by Joan La Barbara and members of the Ne(x)tworks Ensemble.

24-EDO, but given the simplicity of texture, quarter tones are essential in describing the audible pitch relationships. Finally, the vocalist's vowel sounds occupy a very small range, all centered around the [u] vowel. Single instances of [o], [ɒ], and [ʉ] appear, and even these minute differences may be unintentional. In other performances, inflections and timbral shifts such as these would be woven through the entire work, while here they stand out against a simpler textural backdrop.

This rather plain texture is at odds with Brown's instruction to interpret block thickness as intensity. The basic identity of the work is clear, as single notes are suspended in space and time, but the various thicknesses are not translated into performance. There was clearly an agreement between the performers to keep the performance at a quieter level, possibly for the purpose of focusing listeners' ears solely on pitch relationships. Unfortunately, without any significant dynamic contrasts, this performance feels quite flat, especially when set next to the other performances analyzed here. I would hesitate to label this as a truly poor performance—again, the basic identity is present—but it is a less interesting performance.

3.2.4 *December 1952*: A Comparison

Though definitively unanswerable, it is worth asking the question of which performance is the most effective or successful at representing Brown's score. Clearly, each performance is its own identity, complete with its own connections to the score. Perhaps the biggest diversion of these three is the Blum/Uitti/Vigeland performance that features highly active gestures and chords. Is this a better interpretation than one where blocks from the score are represented with much slower motion or even static notes? One might align this higher activity with Brown's directive to "set this all in motion;" however, Brown also allows performers to "either sit and let it move or

move through it at all speeds."[111] Any "speed" is acceptable for Brown, so that decision must be left to the performers to discover in their rehearsals. That discovery must also include decisions from the performers about how the speed is realized. For example, must all performers maintain the same level of activity? For Blum/Uitti/Vigeland, the answer is clearly no, as only the piano plays several notes in succession. How might the performance be different if the flute and cello matched the piano's density of notes? Another line of questioning might ask, are there multiple "speeds" in one performance? Similarly, is motion constant, or can its velocity and direction change? None of these three performances opt to change textures or "speeds" during the performance. With performances at three minutes or less, there is not very much room to create different (and definite) formal sections that changing these parameters could indicate, but it is possible and certainly would be for longer performances of *December 1952*.

A striking similarity between each performance is the acceptance of unpredictability and (un)alignment. The closest moment to a simultaneous attack from all members of an ensemble is at the beginning of the Ne(x)tworks performance, possibly indicating a cued downbeat to begin the piece—but even that is unaligned with audible entrances from each player at separate times. Conversely, all three performances have moments where seemingly random pitches are repeated or returned to after an interceding note. Brown would immediately object to my use of "random" here, as the performers "are on the spot and…make distinct choices."[112] Indeed, if we take these recordings at face value where each note is intentional, of course these repetitions are distinct choices made by the performers. This is a demonstration of the improvisational abilities of each artist. As repetition is an incredibly powerful tool that composers have utilized for centuries, improvisers must be keenly aware of both what materials may warrant repetition and when the

[111] Brown, *Folio and Four Systems*, 1961.
[112] Yaffé, "An Interview," 303. Brown was objecting to "Lenny" Bernstein titling a concert as *Chance Music*.

repetition should occur. Liebner alternates between B and G# in various octaves for five notes in a row (1:00-1:23); you may immediately notice this on your first listen as I did. Blum, Uitti, and Vigeland converge on B and D for a few seconds (0:16-0:19), creating a moment of slightly lessened activity amid the short but relatively hectic performance. The Ne(x)tworks Ensemble performers eschew repetition until possibly the most impactful moment at the conclusion of the piece. They also converge to B (with one D), and with the length of that note (1:40-1:55), signal a sort of resolution to round out the work. Each of these moments was the result of conscious decision-making by the performer(s), so chosen to aid in the effectiveness of that performance's identity.

Another surface-level yet profound similarity is that each performance uses the full chromatic pitch collection.[113] No pitch instructions or descriptions are given, so why this coincidence? A more insightful question would attempt to answer why *not* to use the chromatic scale. Brown's rectangles do not indicate any pitch as being more or less important than others, so imposing any sort of constructed scale, let alone diatonic harmony with all its interdependencies, would likely create an identity no longer implicit in Brown's score. Because of this, the chromatic scale probably is the best, or at least default, choice for performing *December 1952*, regardless of instrumentation, duration, timbre, or other factors. Naturally, the piece is not limited to 12-EDO, so this applies mostly to instruments and/or musicians that prefer to stay within 12-EDO. All of this said, there may well be successful performances of *December 1952* that both utilize an established pitch hierarchy and maintain accuracy and faithfulness to the score.

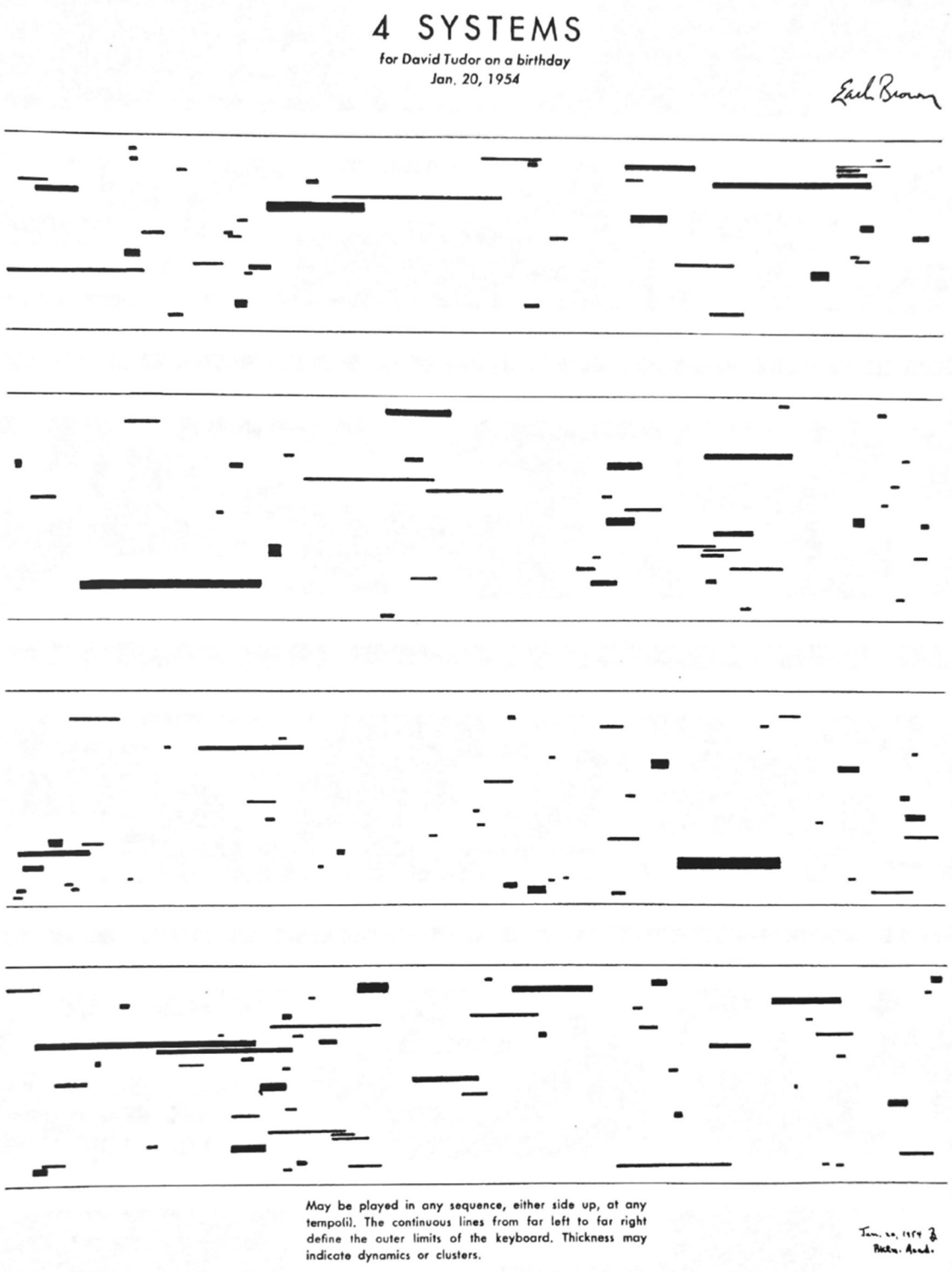
[113] F natural does not appear in the Ne(x)tworks Ensemble performance, though all eleven other pitch classes plus a few quarter tones appear. I ascribe this omission to improvisations necessarily being composed in the moment; no performer is making sure that all twelve pitch classes appear.

Each performance here is effective and successfully interprets Brown's score, though the final results differ significantly from one another. At this point, selecting one as better than another generally becomes more about the listener's opinion and reaction to the performance.[114] However, the performance by La Barbara and Ne(x)tworks Ensemble members is markedly less effective than the other two performances, despite appearing to have a similar approach as Liebner did to the score. This performance likely would have been greatly improved by additional time devoted to experimentation so that the actual limits of performable materials could have been established. Without this, the performance feels "safe" and timid, especially when juxtaposed with the Blum/Uitti/Vigeland performance. Overall, Brown's score and performance instructions provided each set of musicians with enough impetus to create sounds he was interested in, while simultaneously leaving enough room for interpretation so that their collaborations became part of the work itself. In effect, the creative process begins with Brown and spans years and decades before finding completion in each recording, becoming rendered as valid reflections of *December 1952*, despite the difference in overall effectiveness.

3.3 PERFORMANCE ANALYSES OF *Four Systems*

Four Systems (1954) consists of a single page of music, appropriately containing four notated systems (see Musical Example 13). Brown allows the score to be in one of two orientations, right side up or upside down, ensuring that each of the systems remains horizontal. Instead of a traditional staff, Brown reuses the blocks from *December 1952* to depict musical events, although here they are always horizontal to match the systems themselves. In addition, Brown reuses the performance notes for *December 1952*. The same concept of blocks in motion, though now with

[114] Brown, "Notation and Performance," 198.



Musical Example 13: Earle Brown, *Four Systems*, 1954.

almost a forced perspective. The infinite, unbounded space implied in *December 1952* is now finite, both in space and time. Spatially, the horizontal boundary lines of each system "define the outer limits of the keyboard," lending a clear sense of relative pitch orientation to the arranged blocks.[115] Pitch is the key word here, as Brown's definition of these lines connects visual space on the score to the discrete pitch range of the instrument(s) performing (unlike in *December 1952*). Although not explicitly prohibited, non-pitched sounds seem to be discouraged. Regarding time, the systems can be played at any tempo; technically, performances of *Four Systems* could stretch on for hours (or even years, like with Cage's *Organ2/ASLSP*), though performances typically last between five and forty-five minutes. Regardless of the chosen tempo, the score having a finite number of systems on it implies that once all of them have been performed, the piece ends, whereas *December 1952* has no such boundary.

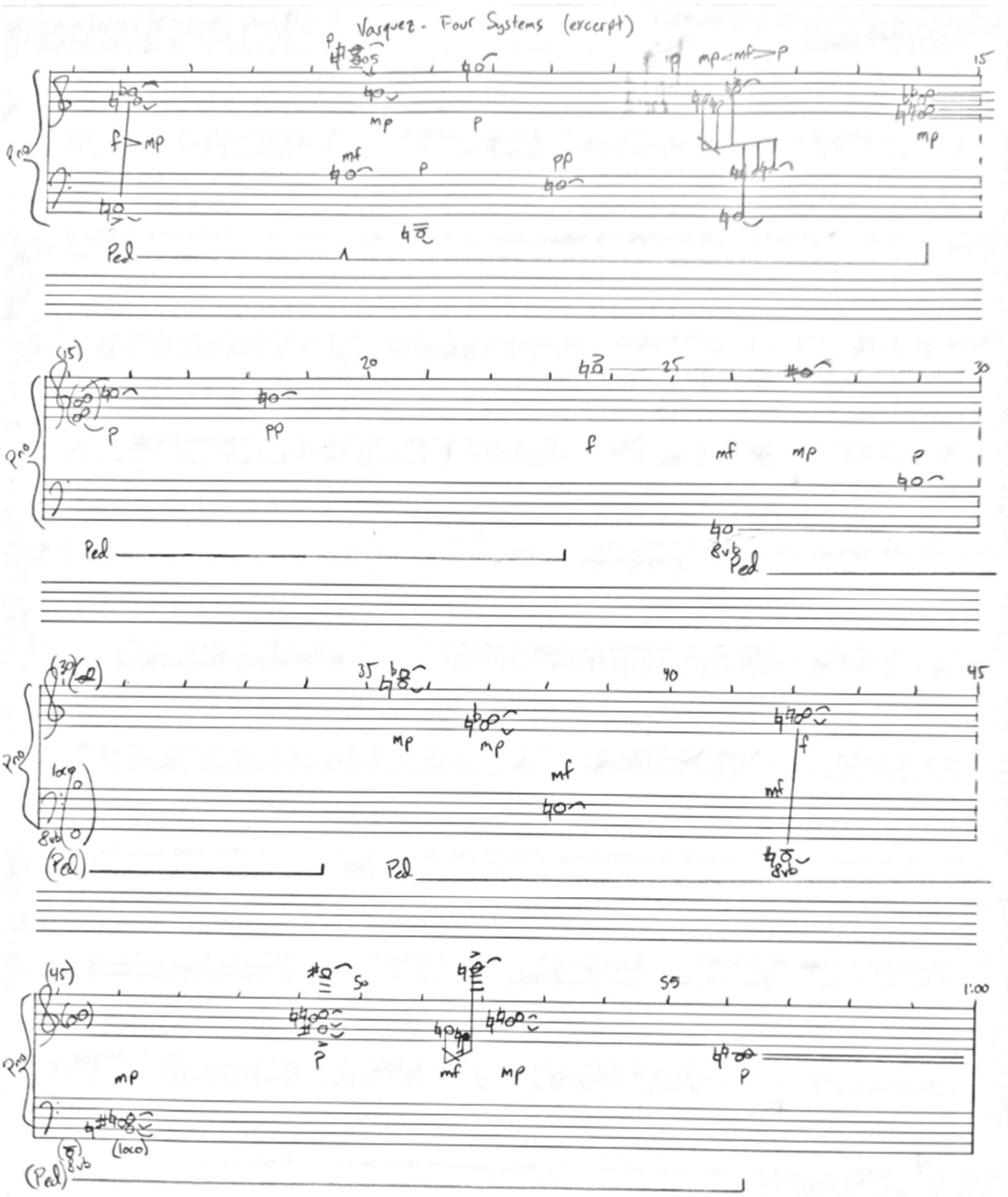
Visually, *Four Systems* matches *December 1952* rather closely due to the shared use of blocks, but even the limited addition of defined systems has profound implications for performance. Though still extremely malleable when compared to traditionally notated works, this established perspective allows listeners to orient themselves in the score, if not immediately, then after some analysis with a recording. The possibility of noticeable "errors" therefore increases, but it will again be seen that the errors do not detract from the identities formed in each performance. A significant challenge for performers is how to specifically differentiate performances of *Four Systems* from those of *December 1952*, especially if the instrumentation remains the same. If a listener did not have a program for a concert with both works on it, would they be able to tell them apart? A successful collaboration with both scores would give a resounding "yes" to that question.

[115] Brown, *Folio and Four Systems*, 1961. From a footnote: "outer limits" may refer to the range extremities of any instrument, group of instruments, or other sound-producing media; "Keyboard" appears by virtue of the dedication [to David Tudor].

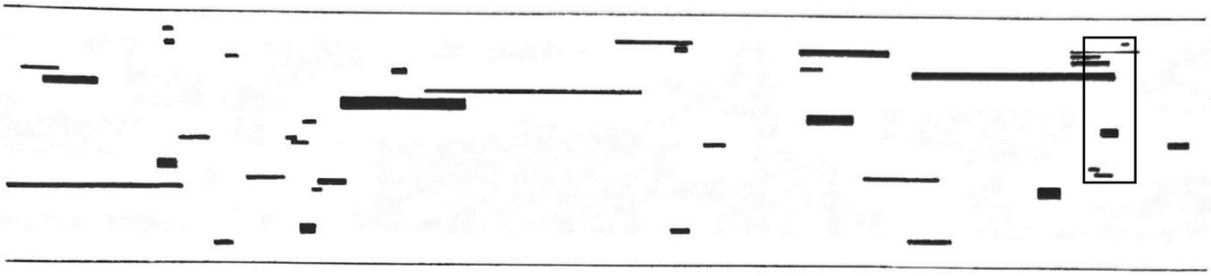
3.3.1 *Four Systems*, Juan Carlos Vasquez, piano[116]

Similar to Liebner's solo piano rendition of *December 1952*, Vasquez depicts a literal reading of *Four Systems.* He chooses to read the score in its typical orientation, the systems are performed in the usual order, and the total duration is 4:47, with a little more than one minute allocated to each system. A transcription of the first minute of his performance shows his accuracy to the score: when counting clusters as single impulses, Vasquez plays thirty-eight impulses, matching the thirty-eight blocks spread across the first system (see Musical Examples 14 and 15). For the most part, notes are played in the same left-to-right order that the blocks are arranged in, though Vasquez occasionally switches the order of blocks very close to one another; see 0:51-0:52 in Musical Example 14 and the indicated blocks in Musical Example 15. The tempo is also flexible, except for when several blocks begin simultaneously or very close to one another (i.e., the left edges are vertically aligned or close to alignment). In these moments, Vasquez plays chords or rapid grace note gestures respectively, clearly indicating the visual relationship between the blocks musically. Importantly, chords are always comprised of intervals greater than a second, as major and minor seconds are reserved for clusters. Brown suggests that block thickness indicates either dynamics or clusters, and Vasquez opts for the latter. Note that clusters can occur within chords, as in the chord at 0:49. All twelve pitch classes are used, as is expected by now. Vasquez does not avoid pitch relationships that could imply certain pitch collections. For example, the first grace note gesture at 0:10 is entirely on the white keys and even features two G's and two C's, heavily implying (at least for the moment) a pitch center on C. While this is immediately disrupted by a dissonant cluster (that includes black keys), the inclusion of such a pitch collection establishes its

[116] Juan Carlos Vasquez, "Earle Brown – 4 Systems. Piano: Juan Carlos Vasquez," Juan Carlos Vasquez, piano, YouTube video, 4:47, April 18, 2020, https://youtu.be/x99i7HZNQzM.



Musical Example 14: Transcription of *Four Systems* as performed by Juan Carlos Vasquez.



Musical Example 15: First system of *Four Systems*. Encircled blocks align with 0:51 in Musical Example 14, but are out of order from left to right.

validity amongst the otherwise chromatic pitches throughout the work. Vasquez chose, whether spontaneously or in rehearsal, to perform that gesture on the white keys.

In addition to realizing the score with his chosen notes, Vasquez devises an identity by freely adding dynamics and articulations to notes, giving a sense of overall forward motion to the work. He maintains a connected texture by almost always using the sustain pedal, letting the piano's natural decay act as cutoffs for some notes. Releasing or retaking the pedal signals a clear transition from one set of notes to the next; this technique varies from simply defining a boundary between gestures to including moments of silence. Grouping notes together in this way might seem relatively inconsequential, but this is the key factor that sets Vasquez's performance of *Four Systems* apart from Liebner's *December 1952*. Blocks appear near each other many times in *Four Systems*, demanding similar arrangements of notes. In the first second of performance, Vasquez plays three notes, something that would be completely out of place in Liebner's performance. In addition, the densities of blocks on the page are strikingly different between the two scores—so too are the densities of sound within these two performances. Indeed, both performers may have taken the same general approach to this notation, and yet the relatively minor differences in the score have profound impacts on the resulting performances. There can be no mistaking which performance was generated from which score.

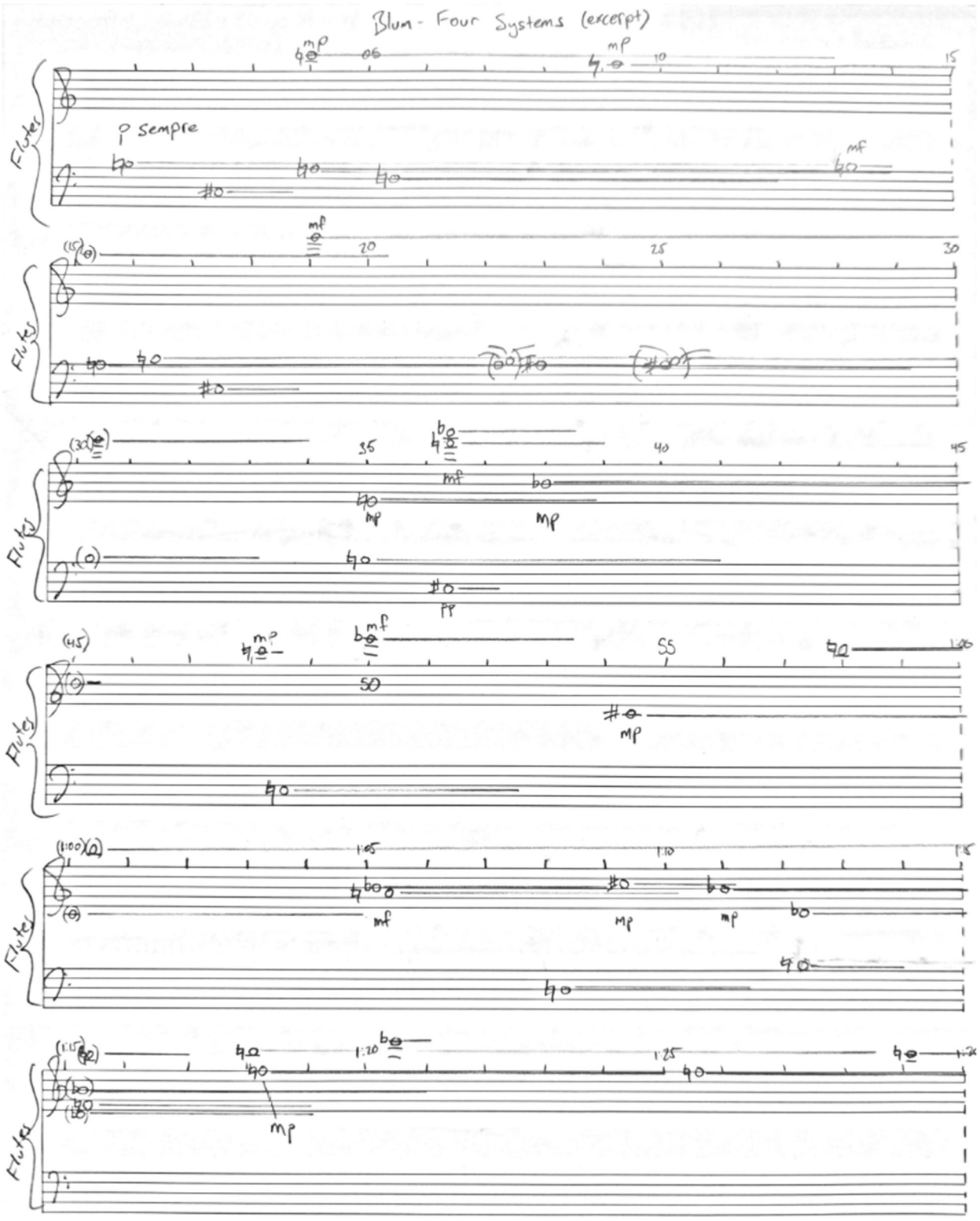
3.3.2 *Four Systems*, Eberhard Blum, flute[117]

Blum's performance of *Four Systems* is quite long at 37:32. It features flutes of different sizes (bass, soprano, and piccolo at least) playing simultaneously. Since Blum is the only person credited on the recording, the recording was likely done over several takes instead of all at once

[117] Earle Brown, *Earle Brown: Four Systems*, Eberhard Blum, flute, Hat Hut Records 889176561184, 2015.

with an ensemble. Aside from this, the method of generating the performance is entirely obscured, especially given the length of the performance compared to the single page of music. Like other performers, Blum interprets blocks as individual notes independent of one another, causing any melodies to appear coincidental (see Musical Example 16). The majority of the performance is quiet, with occasional notes reaching mezzo-piano or mezzo-forte. In the same way, almost every note is played without vibrato. Exceptions occur mostly in the upper register, though the vibrato that does appear is understated and generally less than one would expect from flutes playing more traditional works. Again, the chromatic collection is present, without an emphasis on any note. Although the overall tempo is quite slow, harmonies shift unpredictably due to the extreme differences in note lengths. Durations range from under a second to an entire minute, and without any pattern to follow, listeners are never sure when any particular note will end. This also applies to rests (silences rarely last more than a second), as notes will sometimes be sustained for several seconds without any additional entrances.

Blum's performance here is markedly different from his performance in the above *December 1952* recording with Uitti and Vigeland (see Musical Example 11 on page 60). Aside from the massive discrepancy in duration (Blum easily sustains notes in *Four Systems* longer than the entire *December 1952* recording), the range of timbres is much smaller. *December 1952* saw Blum utilize several different dynamics, levels of vibrato, and articulations, while notes in *Four Systems* are plain in comparison. This difference also matches the density of notes and activity level in each recording: recall that Vigeland was quite active on the *December 1952* recording, creating an active space for Blum to introduce several timbres to. With the drawn out sustains in *Four Systems*, Blum uses a simpler sound to represent Brown's horizontal blocks stretching across



Musical Example 16: Transcription of an excerpt of *Four Systems* as performed by Eberhard Blum.

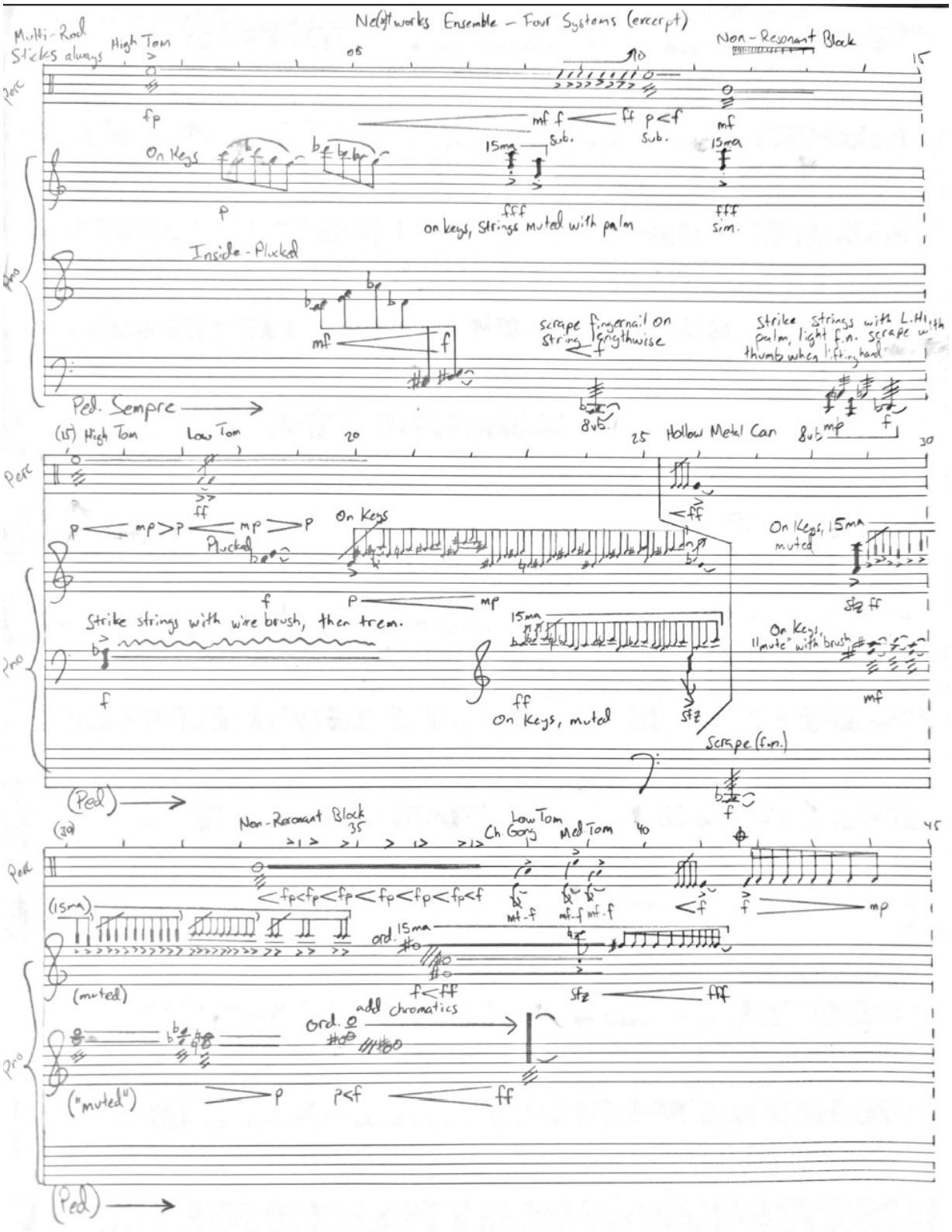
space—there is no need to make the sound more complex, as these sounds are already an effective realization of an identity. In fact, Blum might have decided that adding excessive modulation to notes over time would weaken the identity he was creating instead of strengthening it.

3.3.3 *Four Systems*, Ne(x)tworks Ensemble[118]

This recording features a chamber ensemble consisting of an alto sax, trumpet, trombone, vocalist, violin, viola, cello, piano, and percussion. This instrumentation becomes central to Ne(x)tworks' identity of *Four Systems*, as the first three systems feature subsets of the ensemble (percussion and piano, winds, then strings) and the last system involves the entire ensemble. Besides instrumentation, there are significant silences between systems further emphasizing the limits of each. With a total duration of four minutes, these silences lasting several seconds are just this side of obtrusive, especially when compared to the high level of activity during each system. I will discuss the first system in detail to establish the identity of the work, and then a brief description of the remainder of the piece follows.

A transcription of the first system shows the ensemble being incredibly active and featuring a wide variety of timbres and techniques (see Musical Example 17). Throughout this system, the percussion utilizes multiple toms, a non-resonant block (probably wood), a hollow metal can, and a Chinese gong tuned to B3. The piano blends well with these instruments through multiple techniques. First, the sustain pedal is always depressed, creating a resonant space for anything played in or on the piano and mimicking the resonance of the drums and Chinese gong. Second, the piano's main mode of attack is percussive, with hammers striking the strings, and variations of this action push the piano further into percussion territory. Two of these are common inside-the-

[118] Earle Brown, *Tracer / Folio / Special Events / Octet I*, Christian Wolff et al.



Musical Example 17: Transcription of an excerpt of Four Systems as performed by the Ne(x)tworks Ensemble.

piano techniques, with strings being plucked (0:04) and the lower register strings scraped lengthwise (0:09). In addition, clusters of strings are struck with an open palm (0:13) or a wire brush (0:15) which then tremolos on the strings. The most percussive piano technique is when the highest strings are heavily muted with a palm while being played on the keyboard (0:07). This produces an incredibly dry, wooden "thwack," especially at higher volumes. Finally, the piano gestures generally deemphasize pitch. The initial two piano gestures are melodic, but after those, the piano gestures are completely percussive and/or are made up of tight chromatic lines or clusters (e.g., the gestures from 0:20 to 0:25 are pitched, but chromatic and dense enough to eclipse the pitch of any individual note). Instead of pitch, the various timbres become the main sonic materials of the work.

Eliminating the importance of pitch is a creative solution to Brown's block notation. Brown does imply the use of pitch when discussing the horizontal lines enclosing each system, but there is no definite pitch information. For Ne(x)tworks, *Four Systems* is a process describing active gestures over time—no other characteristics necessary. The other instrument sections continue this trajectory over the next systems, despite using instruments that are inherently more pitch-oriented. Techniques include flutter tonguing or growling, blowing air or singing through instruments, squeaking, half-valve glissandos, hissing, bowing slowly and/or with extreme pressure, playing under the bridge, muted pizzicato, wide vibrato, and undefined harmonics, in addition to typical playing techniques. While many pitches are audible, the main texture is a cacophony of noises and effects through time, rather than any sort of melody. The one exception for this is towards the end of the performance (3:30), where several instruments converge on and sustain a C for around ten seconds. After this note, the recording peters out with a few more short and quiet gestures. It is unclear whether this convergence was a spontaneous event or an intentional one meant to provide

some stability to the end of the performance. In a way, having such a coherent moment from the ensemble is as surprising as any of the other dozens of sounds. After three and a half minutes of wildly varying improvisation, a unison note is not very expected. It is instead just another block from the score being realized by the ensemble.

3.3.4 *Four Systems*: A Comparison

Again, attempting to discern which performance is better than the others will ultimately prove fruitless. Do these performances depict a compelling identity that is implicit in the score? Despite their drastic differences, they do. Obviously, the Vasquez performance is the simplest interpretation, though the identity itself is not simple. *Four Systems* is read as if it is a traditional score, only lacking several dimensions of musicality in pitches, rhythms, tempos, and so on. This does not mean that Vasquez did the bare minimum for performance, as we do not know how much experimentation and rehearsal went into this recording. Brown's score is a representation of motion with a heavy emphasis on horizontal gestures. Vasquez, in collaboration with the score, simply adds the information he deemed necessary to translate this concept into sound and executes it. This is all Brown asks of musicians approaching his scores, just as many other composers do while supplying much more of that information themselves.

Both Blum's performance and the Ne(x)tworks recording take extensive liberties when creating unique identities of *Four Systems*, much more so than the outlying Blum/Uitti/Vigeland *December 1952* recording. Both *December 1952* and *Four Systems* convey three-dimensional motion using printed blocks on paper, but *Four Systems* adds slightly more direction to the concept simply by organizing blocks into systems and orienting them horizontally. With this perspective, musicians can immediately grasp Brown's concept for the work and begin to imagine how the

implicit motions can be realized as music. On the other hand, approaching *December 1952* requires musicians to select one (or several) perspective(s) within or around "an infinitude of directions from an infinitude of points in space…"[119] The human mind is notoriously inadequate when attempting to reason with infinities, making *December 1952* a more difficult piece to grasp at face value. *Four Systems* also can theoretically be extended infinitely, though only in one dimension (horizontal) rather than the three or four dimensions suggested by *December 1952*. Even then, each of the four systems has a beginning and ending point, capping that infinity at some large but still finite value. All of this relates back to Brown's concern about the fragility of identity in his earlier works, especially with *December 1952*. In offering only the barest suggestions for material to perform, the identity also becomes ambiguous and potentially unrecognizable.[120] *Four Systems* offers a much clearer identity to performers, providing a jumping off point for experimentation and interpretation. As a result, musicians become much more comfortable in transforming the work into their own realization of it. Brown viewed this as a necessity for his works: "the 'object' [work] must reappear transformed by the process imposed upon it as a 'subject' [musician]."[121]

This still does not elevate any one performance over another; it simply establishes Brown's criteria for works he was interested in creating, evidenced by his never returning to works with notation as extreme as *December 1952*.[122] Blum's identity of *Four Systems* aligns with the idea of extending simple events a great deal over one dimension, while the Ne(x)tworks ensemble focuses on the creation of horizontal noise-oriented gestures in time. Meanwhile, Vasquez realized the score as closely as possible. All three are supported by the other choices made in rehearsals and performances, from the simplicity of a flute only instrumentation to furthering the implied division

[119] Brown, *Folio and Four Systems*, 1961.
[120] Brown, "Notation and Performance," 193.
[121] Brown, "Notation and Performance," 193.
[122] Gresser, "'Creative Ambiguity,'" 381.

of *Four Systems* into four very distinct sound worlds. As with *December 1952*, Brown's score transcends time to reach these performers and to create diverse reflections of its inherent identity.

3.4 PERFORMANCE ANALYSES OF THE *String Quartet*

Brown's *String Quartet* (1965) combines the mobility and graphics of the early *Folio* sketches with the developed open form concepts found in works like *Twenty-Five Pages* and the *Available Forms* works for orchestra.[123] In the program note, Brown distills his entire compositional trajectory into one sentence, underlining how his earlier works were necessarily the genesis of his mature style: "The works achieve a strong formal identity while maintaining the 'performer process' spontaneity and the balance of collaboration between the composition and the performers that are characteristic of the previously mentioned open-form and graphic works."[124] The score also tells this story, as notations run the gamut of clearly indicated pitches, rhythms, and dynamics to scribbled lines, directions for inarticulate sounds, and several sections with other various degrees of freedom. Above all, Brown directs the ensemble to avoid simultaneous gestures for most of the work; moments of simultaneity are indicated with downward arrows and are the exception rather than the norm. Players are to become intimately familiar with the materials presented in each section so that the ensemble moves through the work together but (almost) never in full alignment. Boundaries between sections become blurred as some players transition before others, though the new sections become clear once all players have arrived. Additional flexibility arises from most sections being labeled with approximate durations. Each player is free to move through sections at their own speed, adding spaces between gestures whenever they feel appropriate, so long as sections generally align with the indicated durations.

[123] Earle Brown, *String Quartet*, London: C. F. Peters, 1970.
[124] Brown, *String Quartet*, 1970.

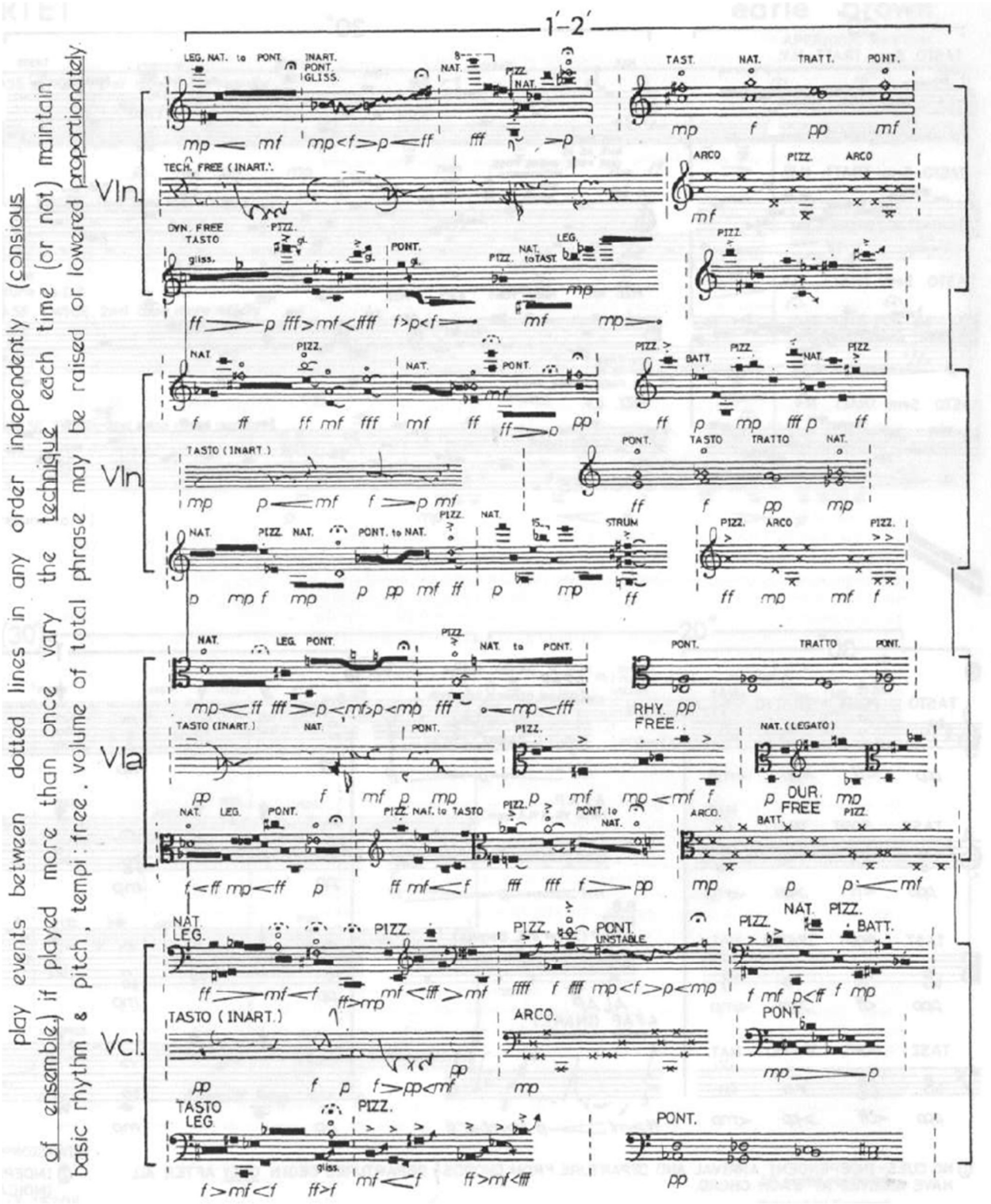
The work proceeds linearly until the final section, which is open form (see Musical Example 18). Each player is given eight to ten gestures comprised of material from elsewhere in the work—if not exactly copied, the material is styled similarly. Gestures can be performed and repeated in any order with the instruction that repeats may vary some or all of its features (dynamics, articulation, technique, etc.). Assuming the ensemble will gain familiarity with the sounds in the rest of the *String Quartet*, Brown describes this section as a "free coda, to be assembled spontaneously by the quartet."[125] While using the available gestures, the ensemble must improvise an effective and coherent ending to the entire work. Two quotes are worth repeating here. First, from the performance instructions in the score regarding this ending section:

> "I prefer that such ordering should come about in this intuitive-conscious manner spontaneously during each performance. A completely pre-performance ordering of these materials—which I could very well arrange myself—would eliminate the possibility of the intense, immediate communication of ensemble collaboration which is an extremely important aspect of music making as I see it."[126]

Second, from an interview where Brown is discussing why his works vary between implicit and explicit notation:

> Yaffé: So in a way, it's a kind of tutorial: you're saying, 'I'll give you an example, I'll hold your hand for a couple of pieces…now, you do it." It's an interaction between Earle Brown the composer/interpreter and the actual performer/interpreter; you lead him into it, then let him take over.
>
> Brown: Yeah, what's wrong with that?![127]

[125] Brown, *String Quartet*, 1970.
[126] Brown, *String Quartet*, 1970.
[127] Yaffé, "An Interview," 309.



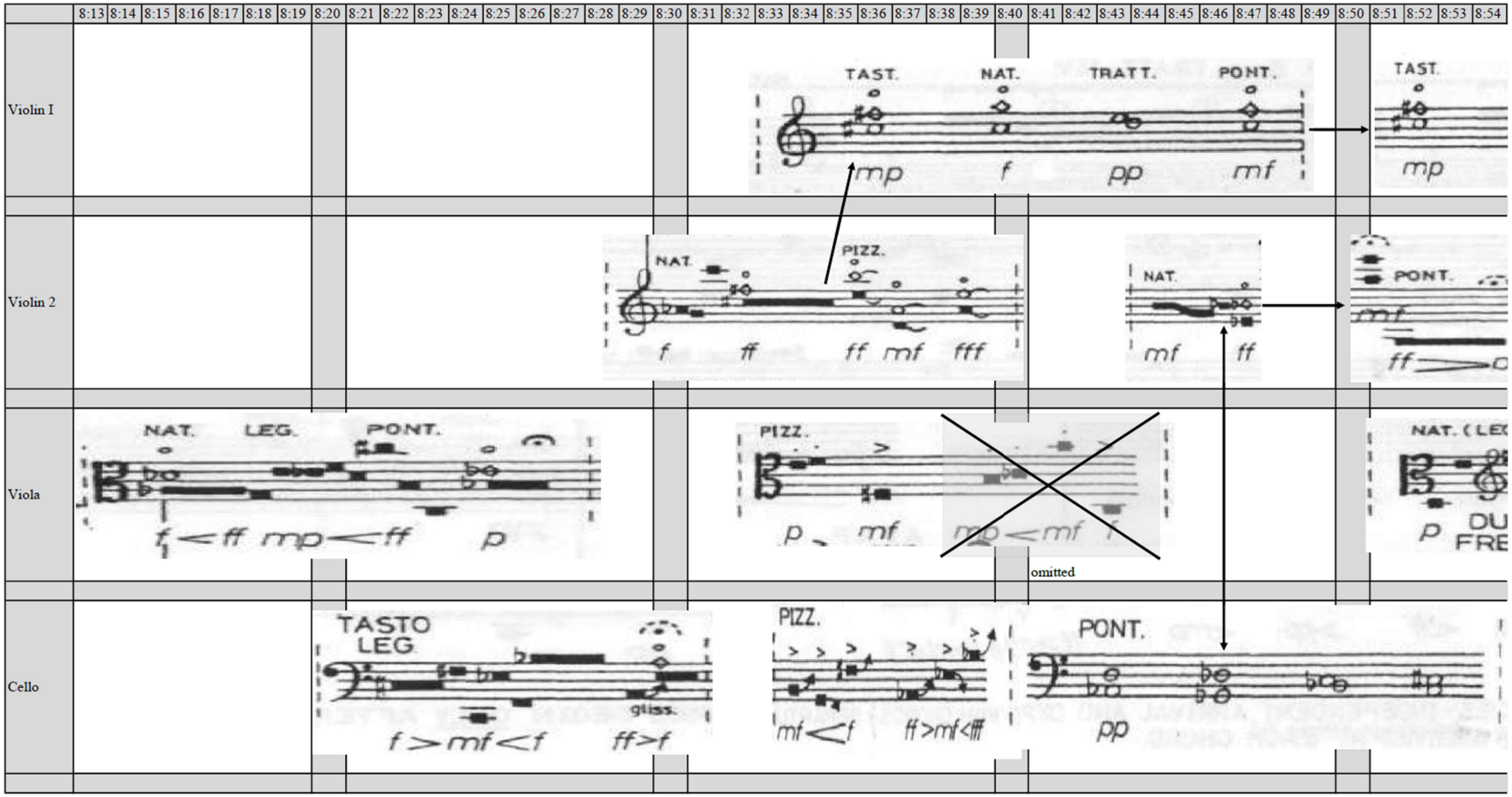
Musical Example 18: Final section of the *String Quartet*.

The *String Quartet* embodies Brown's desires from both quotes. He is interested in the spontaneous communication of music making, instigated by this improvisational section where players must cooperate to create a coherent ending to the work. This section arrives at the end of the work, after the performers (and audience members) have become familiar with all the included sound materials. Brown, after holding the ensemble's hand for most of the work, releases them from his control and trusts that their collaboration will succeed. Effective performances will likely convince (non-score-following) audiences that the entire concluding section was written out in the score. Additionally, since so much music is explicitly organized, the identity of the *String Quartet* is extremely clear and will vary far less from one performance to another than the previously discussed works. Therefore, the following performance analyses only focus on the concluding open form section to glean how identity is preserved and transformed through improvisation.

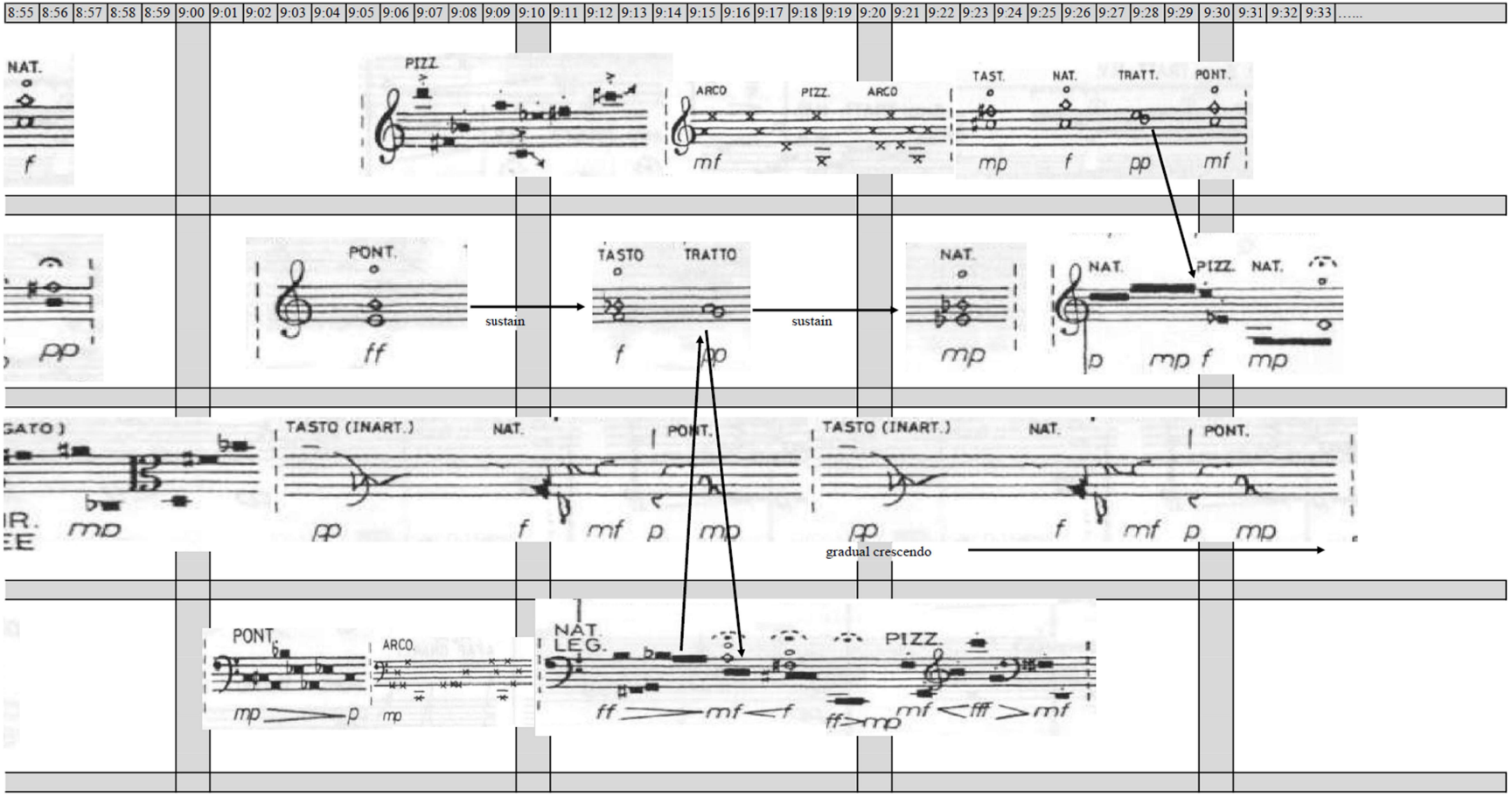
3.4.1 *String Quartet*, Concord String Quartet[128]

The Concord String Quartet's recording of Brown's *String Quartet* is nearly twelve minutes long with the final section lasting over three minutes on its own—for brevity, I have included a transcription of only the first eighty seconds, roughly a third of the total coda section (see Musical Example 19). This is a much longer duration than Brown suggests (one to two minutes), though the extension does not offset the existing structure of the work. Much like the rest of the work, the ensemble transitions between areas of various texture and technique generally as a single unit. The section is divided into three parts: a section where players play melodic or harmonic material in a

[128] Earle Brown, "String Quartet," track 3 on *American String Quartets of 1950-1970*, Concord String Quartet, Vox Box CDX-5143, 1995.



Musical Example 19: Road map of the Concord String Quartet performance of the *String Quartet*, A section of the open form coda. Continued on next page.



Musical Example 19 (cont.)

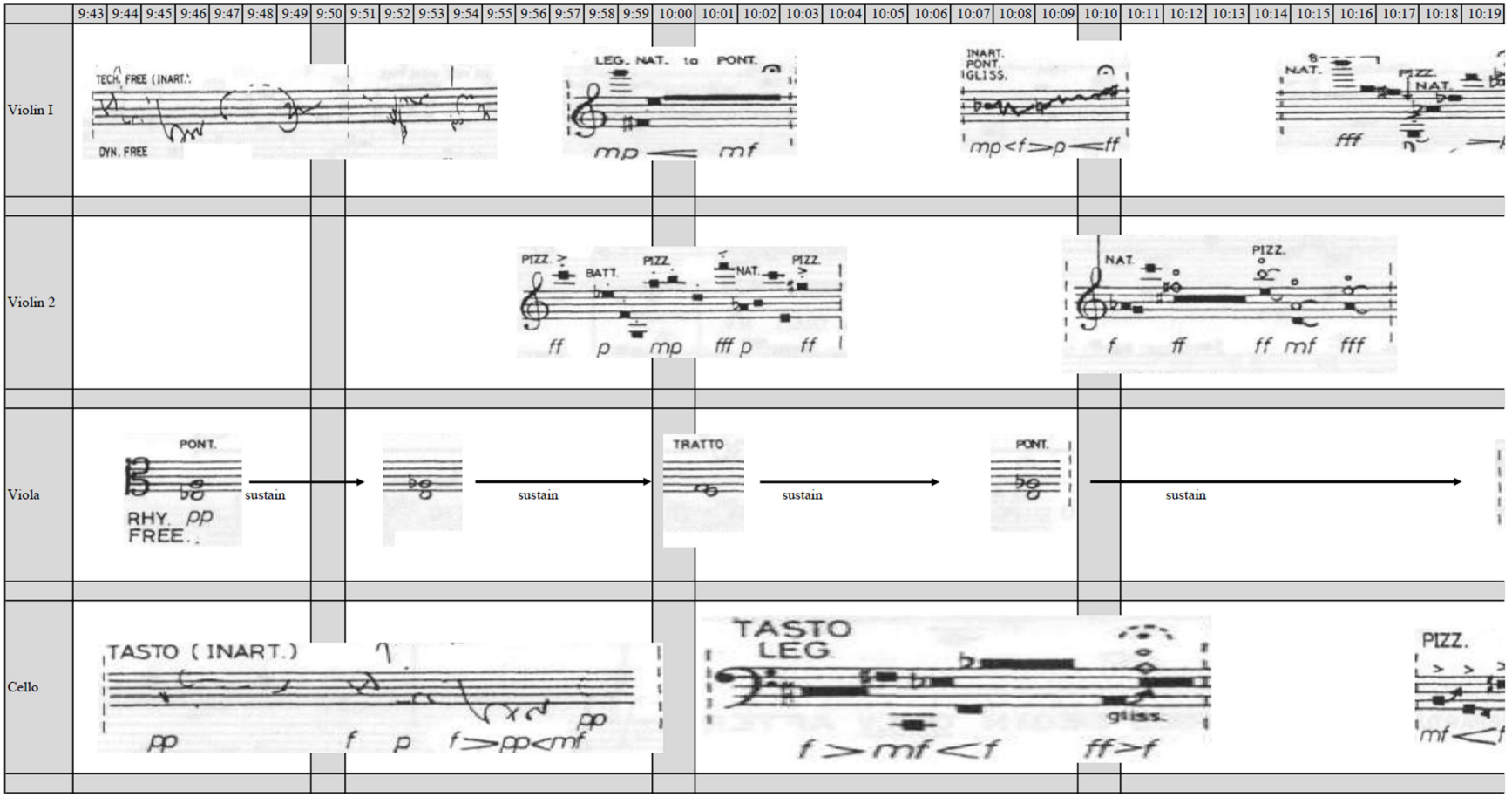
slower tempo ("A section," see Musical Example 19), an intense, much louder section mostly comprised of noise-oriented extended techniques ("B section"), and finally a drawn-out decrescendo with fragments of several gestures spread throughout it ("C section"). The Concord Quartet uses the given gestures freely, but tailors selections and techniques to fit the appropriate section. For example, the A section is almost exclusively comprised of materials where Brown has explicitly given pitch and duration information. Black noteheads are treated melodically to effectively stitch together the written melodies, almost as if they were traditionally stemmed and had definite rhythmic values. The alternative would be if performers decided to drastically change tempi during a gesture or to simply omit notes. This does occur once in the A section, when the viola begins its gesture starting on a pizzicato E4 but omits the last four notes, though this omission does not detract from the texture. In contrast, the unstemmed white noteheads look like and are treated as whole notes. Three of the ensemble members play their gesture with four whole notes (dyads or harmonics) in this section. Each time, notes are held for several seconds at a time, providing a harmonic backdrop for the more melodic gestures. Only three gestures stick out from this texture, and two of those are the behind the bridge gestures (indicated by "x" noteheads) in the cello and first violin. The last gesture is in the viola starting at 9:03, where they begin to play fragments of inarticulate sounds, bowed *sul tasto*, naturally, or *sul ponticello*. This lasts to the end of the A section (roughly 9:33) and serves as a bridge to the noise-centric B section. This technique is directly copied from the fabric of the rest of the work: with almost every transition, Brown allows instruments to arrive independently of one another, masking the exact point of transition. The viola adopts this concept, though with a much longer time span (around 20 seconds, compared to Brown's stipulation of 5-6 seconds in most of the work).

In this performance, Brown's identity established by the first three-quarters of the work is preserved and extended by the Concord String Quartet. In dividing the coda into distinct sections, they model the organization of the coda material after the rest of the piece, resulting in a conclusion that to audiences sounds rehearsed and precomposed. Perhaps the biggest departure from Brown's identity is the length of the coda and of each section within it. Brown's indicated durations for sections within the earlier part of the work typically range from 20 to 45 seconds and occasionally up to 60 seconds. However, each section consists of one main texture such as behind the bridge playing or sustained chords. In fact, the most active and frantic material is limited to the shortest sections, labelled AFAP (As Fast As Possible) or limited to 10 seconds. This makes the raucous B section in the coda stand out at roughly 60 seconds, several times longer than the earlier highly active sections. The B section would by itself satisfy the length requirement for the coda! By framing it between quieter, calmer sections (A and C), the Concord Quartet successfully integrates such a departure into their identity of the *String Quartet*. This section ending the piece also helps establish identity: instead of another smaller section showcasing one or a few techniques or sounds, the coda combines techniques freely through the spontaneous choices of the performers. In addition to the B section, the C section features multiple playing techniques until the last few seconds when only behind the bridge pizzicato sounds are heard. Combining these techniques is a natural conclusion to the work, especially given how the explicit portion of it constantly juxtaposes distinct techniques. Brown hoped for sections where "statistical similarities of texture and style is created." While different from the earlier sections, the Concord Quartet's coda clearly features similarities of texture and style and provides an organic ending to their identity of the work.

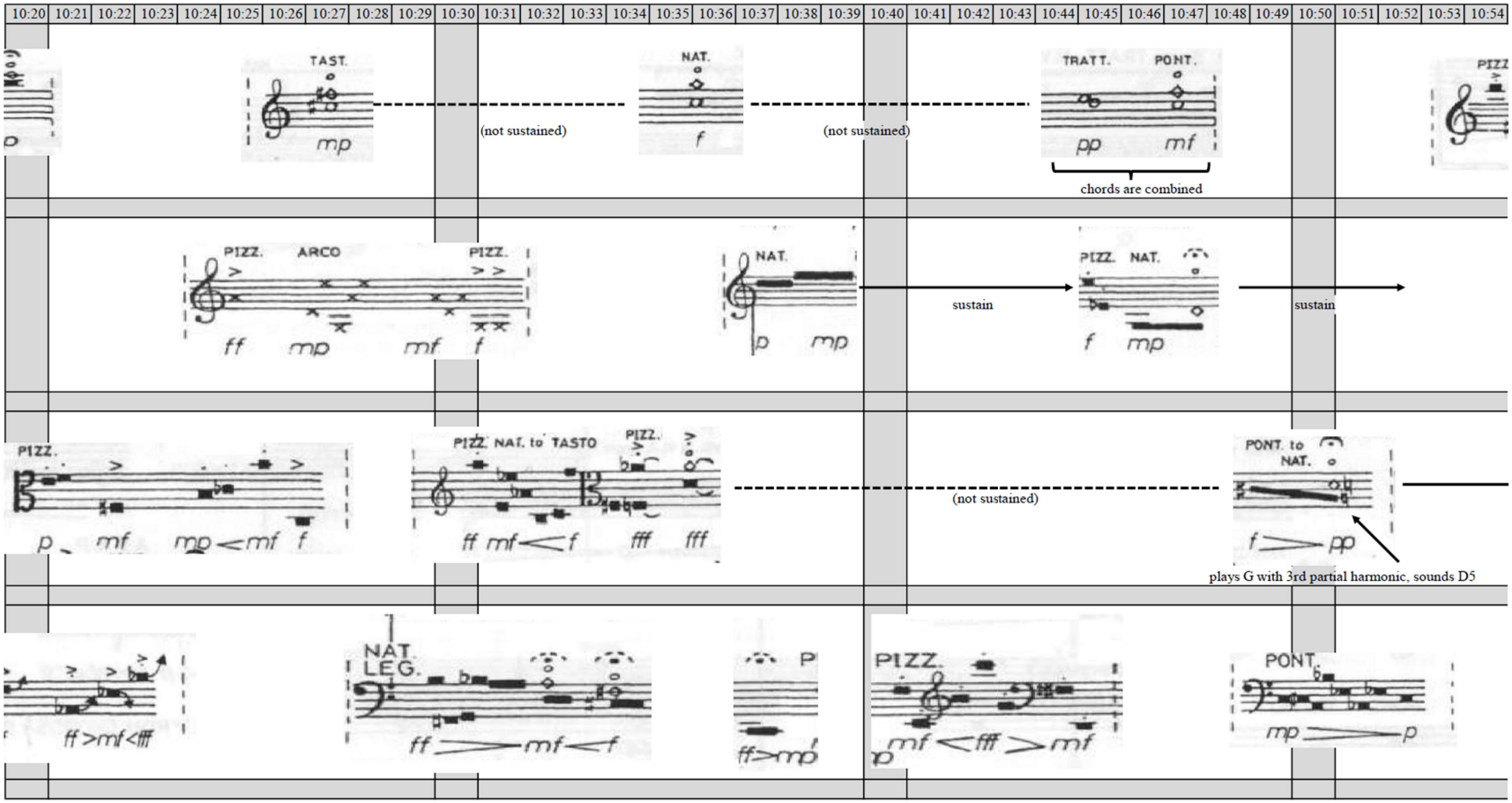
3.4.2 *String Quartet*, Ne(x)tworks Ensemble[129]

Comparing the complete Ne(x)tworks Ensemble recording of the *String Quartet* with the previous recording would uncover several different interpretations in the first three-quarters of the work. While analyzing these differences could be of interest, the overall gestures are essentially the same. Predictably, the coda section is unique to each ensemble. The Ne(x)tworks recording has a total duration of 11:40 and a coda duration of 1:50, fitting within Brown's indicated duration for the section (see Musical Example 20). Each gesture is treated similarly, with black noteheads interpreted melodically and white noteheads drawn out as lengthy whole notes. One might expect a similar segmenting of the coda into multiple sections, but this is not the case. Textures do change as various materials are played, but generally at a slower pace and creating a single heterogeneous texture rather than distinct sections with different textures. Although highly varied, most of the materials selected are pitch centric. Only the first violin and cello choose their inarticulate sounds gestures, and they are played first, forming a bridge from the previous section where all four players were creating inarticulate sounds (see Musical Example 21). In addition, the previous section ends with the viola and cello sustaining indeterminate pitches with "micro. changes of pitch and timbre," which the viola uses to transition into its whole note gesture to start the coda. The coda only gains its mixed texture at 9:56 when the second violin enters, though this transition to more defined pitch is foreshadowed by the first violin's last note before the coda. A vertical squiggly line marked forte and with a natural playing technique is interpreted as a dry staccato open fifth (A4 and E5), effectively signaling the beginning of the coda by directly juxtaposing a clear, traditional string instrument sound with the ethereal, undefined sound of the preceding

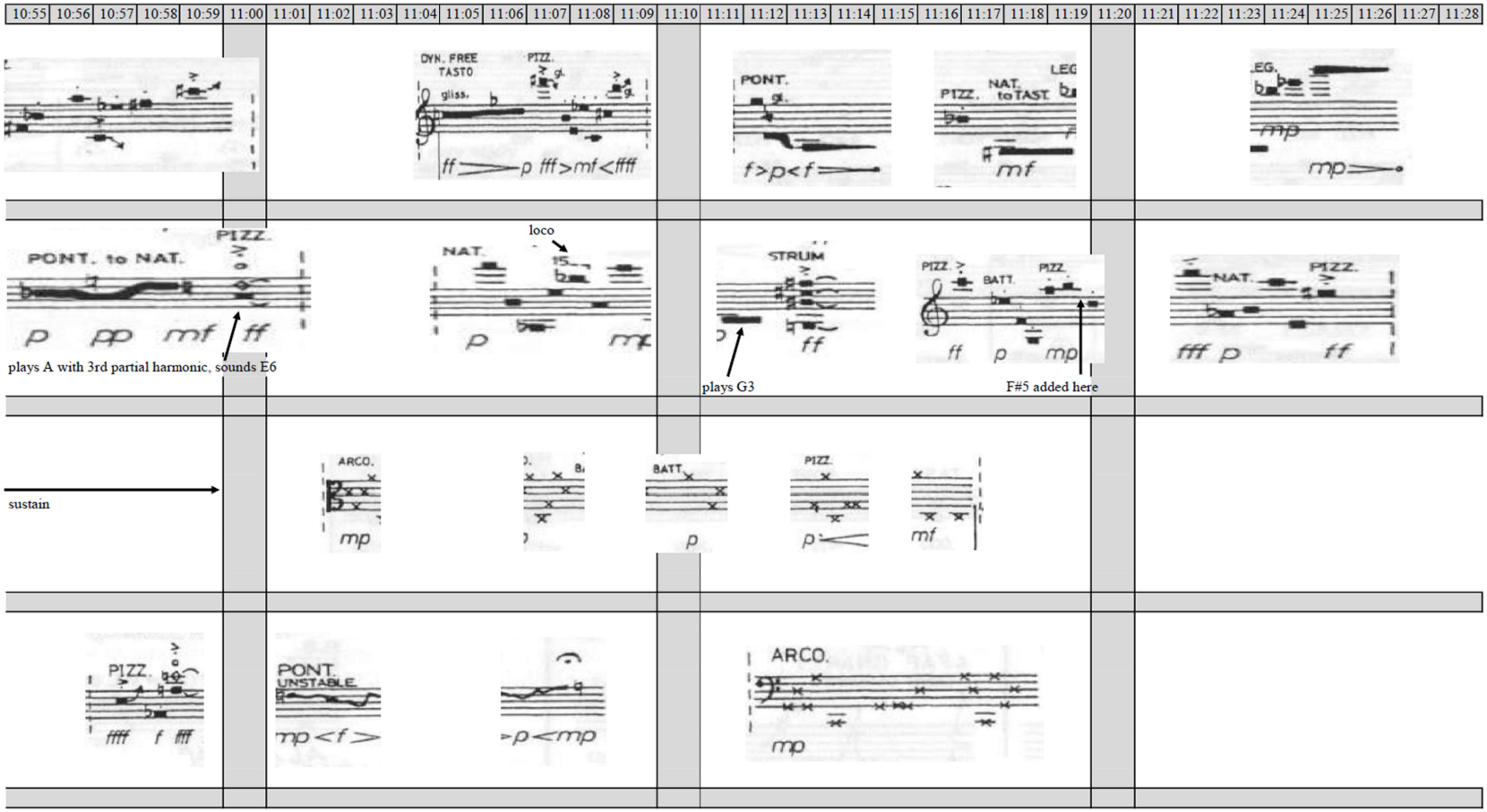
[129] Earle Brown, *Tracer / Folio / Special Events / Octet I*, Christian Wolff et al.



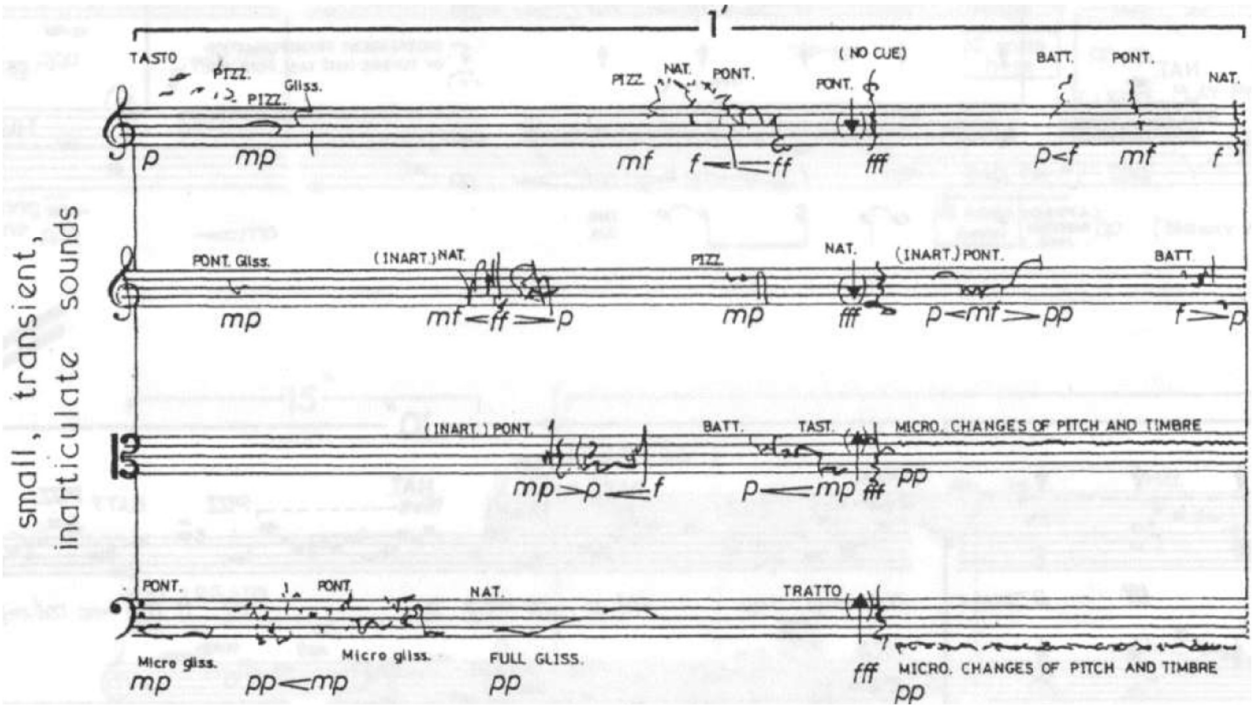
Musical Example 20: Road map of the Ne(x)tworks Ensemble performance of the *String Quartet*, open form coda. Continued on next two pages.



Musical Example 20 (cont.)



Musical Example 20 (cont.)



Musical Example 21: Section immediately prior to the open form coda in the *String Quartet*.

section. This moment, combined with the first twenty seconds of the coda, furthers Brown's identity of the *String Quartet* while simultaneously creating a performance identity unique to the Ne(x)tworks Ensemble in that moment.

With the coda being a single section, there is less overall dynamic variation than in the Concord String Quartet's rendition. Dynamics are certainly varied, but here only in the context of individual instruments and their specific gestures, contributing to the collective texture of varied sounds. However, an overall decrescendo begins after about 11:00. The viola and cello select their behind the bridge gestures, reducing the amount of definite pitch material sounded. These are also the final gestures for both instruments. Left to finish the piece, the violins continue reducing sound density by slowing their respective tempi until the piece ends but preserve the varied dynamics throughout by choosing the final attack to be a fortissimo, pizzicato G#5 amid other quieter notes.

3.4.3 *String Quartet*, A Comparison

Unlike the other pieces discussed, there really can be no mistaking that both of these recordings are successful performances of the *String Quartet*, simply by nature of having so much more explicit material performed. The question then is given Brown's materials and instructions, what applications are the most effective in concluding the work and preserving its identity? By design, Brown's materials applied in some manner consistent with his instructions will always maintain the work's identity. Both ensembles assemble the materials spontaneously during performances though the organization of those materials differs greatly. Technically, the Concord String Quartet did not "play by the rules" by extending the coda as long as they did, but that was done to create the space for the distinct A, B, and C sections within the coda. In effect, they pushed the boundaries of one limitation to better accomplish another directive, that being the creation of a "sequence of statistical similarities of texture and style." Does this invalidate the performance? As with the other works discussed, score-followers with stopwatches may certainly object, but this infraction does not detract from the performance. Fortunately, audiences are not filled with such listeners, though one can reasonably expect to perform for audiences with discerning ears. In general, the worst outcome for performances (aside from an actual failure to complete the performance) is that audience members recognize wrong notes, unmusical moments, or other such errors to the point that the music being created is no longer good, interesting, or accurate. Obviously, musicians prefer to avoid errors entirely. However, events that are technically errors may not be noticed by audiences (especially ones without scores and stopwatches) and may even support the performance. This recording attests to that fact: if the Concord String Quartet heard this recording and decided that they really should have shortened the coda to under two minutes,

they could have re-recorded it before releasing it to the world. Instead, they found this performance to be effective; it is the result of their intentional, informed method of performance.

Comparing and contrasting the selected gestures from each performance yields interesting results. Certain phrases come to the forefront; in particular, legato (or consistently bowed) phrases in any instrument assume a prominent role in the sound world, likely because they are the most melodic gestures available. (The Concord Quartet's B section is more of a wall of sound, so no individual phrases stand out, bowed or not.) Staccato and pizzicato gestures typically add texture to other phrases without being the dominant voice. The exception to this might be the cello gesture where several pizzicato notes have bends or glissandos attached; this always breaks through the texture of the moment. Whole notes always emphasize sustained sound, creating harmonic backdrops for other, more active gestures, except in the Concord performance when the cello and second violin converge on a G♭ major triad at 8:45 (the first violin adds a C natural, creating a G♭add#11 chord). This is the only moment in either performance where the ensemble collectively focuses on a harmonic gesture. Noise gestures are treated differently as well: the Concord Quartet creates a rambunctious minute-long section of primarily sound gestures, while the Ne(x)tworks Ensemble uses noise only as a bridge into the coda from the previous section and all but abandons it for the remainder of the piece. While there are no distinct divisions between stylistic sections, moving from inarticulate sounds through explicit pitch material into the reduction of density at the end is still a "sequence of statistical similarities of texture and style," just in a more subtle manner. More significantly, the shorter coda in the Ne(x)tworks performance resulted in no fewer than ten of the given gestures being omitted.[130] Initial reactions to this might suggest that the performance

[130] This could be eleven, depending on how the first violin interpreted their first selected gesture (inarticulate material) and if they played both gestures in sequence or stopped after one.

was not complete, but this demonstrates conscious collaboration among the players. Each selection was spontaneously chosen by each performer; necessarily, this choice is also the choice to *not* play any of the other gestures at that moment. Having studied all possibilities, the ensemble evaluated and auditioned out certain gestures to create this identity for the coda and for the whole work.

3.5 PERFORMANCE AND IDENTITY

Each of these recordings presents vastly different interpretations of a few scores, all fueled by the scores' inherent freedom to create endless potential realities. In every recording, there is a clear identity of a work being presented, characterized by certain sounds, pitches, gestures, and so on. While the resulting identity may not appear to correlate with the score, a successful performance is one where musicians studied the score, experimented in its sound world (its identity as envisioned by Brown), made informed decisions prior to or during performance, and effectively communicated the work and those decisions to an audience. As with works by any composer, performance is the communication of an identity that is only achievable through musicians actively collaborating with the score. Brown simply expanded what that identity could be through open form and notation, allowing broader creativity and collaboration in performance. Brown was no stranger to bad performances of his works,[131] but it seems likely that none of the recordings (except perhaps the La Barbara/Ne(x)tworks performance of *December 1952*) discussed in this paper would disappoint him. Above all, these musicians devised unique identities for each work, completing the creative musical process starting with Brown and ending in performance.

[131] Yaffé, "An Interview," 300.

CONCLUSION

The recordings analyzed here are just a few examples of how performers can approach Brown's works and create successful performances from them. Invariably, effective performances present a coherent identity that includes explicit material straight from Brown among material only implied in the score and composed or arranged by the performers. While certain aspects of scores can be interpreted in a myriad of different ways (some more radically than others), performance identities that explore the full range of implied material through their perspectives result in more cohesive and engaging listening experiences. All of this is powered by musicians experimenting with Brown's sound worlds and discovering not only what their version of a work sounds like, but what the best presentation of that version of a work is. Failing to ask this question in a rehearsal process is a disservice both to Brown and the performers—each work is a collaborative effort, and performers must elevate Brown's work to a level of artistic completion equal to that of performances of any other composer.

Future research on this topic would likely involve interviews with interpreters of Brown, especially those who worked directly with him. In the same vein, analyzing recordings where Brown was actively involved in rehearsal and/or performances would provide interesting comparisons to performances like those analyzed here. That said, it is entirely possible that Brown's performances may be indistinguishable from performances without him. As mentioned previously, Brown wanted his scores to be fully capable of getting performers to create the music he wanted, implying that his involvement would not make a noticeable difference, making this a worthwhile question to pursue in future research. A more tactile study might follow performers' individual experiences with Brown through multiple performances or multiple works of Brown's, or even among performers with varying amounts of preparation time (i.e. experimentation). This

would illustrate in finer detail how Brown might be understood over time and by twenty-first century musicians, and it might clarify if there are certain works that would be most beneficial for musicians new to Brown to begin with. Additionally, compiling responses from performers and listeners of the same performance could provide insight into how accurately music that a performer deems effective is perceived as such by audiences. Regardless of the direction of future research, Brown's concept of the identity of a work, and its interpretation by musicians in rehearsal and performance, remains a key component in Brown's music, and one of his most valuable musical insights.

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APPENDIX A: SUPPLEMENTAL FILES

The supplementary file “Brown - CROSS SECTIONS AND COLOR FIELDS.pdf” contains the full score for Earle Brown’s *Cross Sections and Color Fields*.

The supplementary file “Brown - String Quartet.pdf” contains the full score for Earle Brown’s *String Quartet*.