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In the 1960s George Rochberg suffered the loss of two family members and began to reevaluate his musical compositions. Rochberg decided to move beyond the serial music he had studied and began to incorporate quotations of other composers. He referred his theory of time and music as *ars combinatoria*, or the art of combination, which guided his transitional period and helped him write music he found meaningful. While many researchers have investigated this period of Rochberg's compositional output *Black Sounds*, a work for chamber winds and percussion, has received little research.

This paper serves as a guide for conducting *Black Sounds* by George Rochberg. Through an exploration of the context surrounding Rochberg and the origins of *Black Sounds,* an analysis of the composition and how it reflects the influences of Edgard Varèse, and rehearsal strategies specific to the demands of *Black Sounds,* this paper will aid conductors to a comprehensive understanding of the composition.

A CONDUCTOR'S GUIDE TO GEORGE ROCHBERG'S *BLACK SOUNDS*.

by

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I: GEORGE ROCHBERG: LATE ROMANTIC TO POSTMODERNIST

Understanding Rochberg's Training and Early Career

To understand George Rochberg's mature aesthetic one must observe the music that spans the first twenty years of his career and its relation to larger musical movements before and during the time of his development. George Rochberg grew up studying and composing music that corresponded to the late Romantic and early modernist eras, but his time with Luigi Dallapiccola introduced Rochberg to serialism and contributed to his development as a composer during the 1950s. Serialism was the primary musical movement among composers during a majority of the twentieth century, but certain individuals deviated from this style in search of music that connected with them. Rochberg's combination of serial technique with historicism and his appreciation for music of the past created his mature postmodern aesthetic.

Born July 5, 1918, in Paterson, New Jersey, George Rochberg grew up with traditionalist views of music which upheld the music of the past. He attended the Mannes College of Music and the Curtis Institute of Music where he studied with teachers who reinforced his late Romantic and less experimental modernist music values. Rochberg studied during college with George Szell, Hans Weisse, Rosario Scalero, and Gian Carlo Menotti who were known to be musically conservative. Each of Rochberg's instructors admired and was influenced by pre-modernist music alongside Igor Stravinsky, Paul Hindemith, and Béla Bartók among others. Rochberg's exposure to conservative teachers during his compositional development did nothing to push him towards the serial development occurring across the world.

George Rochberg's final influential teacher was Luigi Dallapiccola who he studied with in 1951 after becoming a Fellow of the American Academy in Rome. Unlike Rochberg's previous teachers, Dallapiccola pushed him towards modernism, atonality, and serialism.

Dallapiccola wrote expressive works for the stage and used unorthodox serial techniques which he believed could be used alongside diatonic music as a way to enhance the resulting music. Dallapiccola's music became increasingly serial through the 1940s and 50s, but the pairing of diatonic music and serial techniques greatly influenced Rochberg.

Following Dallapiccola's teaching, Rochberg believed serialism was the musical language that would liberate his musical imagination but was never content to write within the aesthetic of Webern or Schoenberg.[1] After two years of work, Rochberg finished his first string quartet in 1951 as an exploration of twelve-tone technique. The quartet was not serial but hinted at the next decade of Rochberg's compositional output which explored atonality and serialism. Rochberg continued developing his serial aesthetic through the second string quartet commissioned by the Contemporary Chamber Music Society of Philadelphia in 1962. The work was remarkable due to its creative use of a soprano soloist while still investigating the possibilities of serialism through the use of a melodic tone row and hexachordal substitutions.[2] Rochberg also acknowledged mimicking Charles Ives by using multiple simultaneous tempi and believed Ives was also imitating older composers.

> The idea itself was really not "new" in the sense of having been invented by Ives. He simply developed the combination of slow moving music against faster music, common to Bach, Beethoven, Berlioz, Wagner, and others to a significant level of differentiation in which the two musics lost their metric common denominator and proceeded on their own—though still in tandem.[3]

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1. Serialism as George Rochberg understands it is defined well by Paul Griffiths as, "A method of composition in which a fixed permutation, or series, of elements is referential (i.e., the handling of those elements in the composition is governed, to some extent and in some manner, by the series)."

2. Alexander Ringer, "The Music of George Rochberg," *The Music Quarterly*, 52/4 (1966): 420.

3. Joan DeVee Dixon, *George Rochberg: A Bio-Bibliographic Guide to His Life and Works*, (New York: Pendragon Press, 1992), 137.

Rochberg's development began with a transition from late Romanticism to serialism, but his unconventional usage of serialism led to what is now referred to as postmodernism and more specifically, neo-romanticism. While his early string quartets displayed a tendency towards serialism, his need to experiment and mid-life crisis pushed him further away from pure serialist writing.

Life and Career in Transition

George Rochberg experienced an existential crisis in the 1960s that led to a serious reevaluation of his life and art and created a transitional period in his compositional approach. His new perspective sought out a stronger connection between himself and his music, but the path to achieve this required exploring the music of others. During the 1960s and early 1970s, Rochberg's compositions quoted music from previous generations and experimented with ideas and forms from older music.

The compositional transition began in 1963 when Rochberg completed his Piano Trio. Rochberg considered this his final serial work and claimed it showed his struggle to create music through serialism that is "more than mere pattern and design." [4]He had expressed concern in a letter written two years earlier to Canadian composer Istvan Anhalt explaining his dissatisfaction following a concert of music by Milton Babbitt, Elliott Carter, and Leon Kirchner.

> I came away from the concert feeling one overpowering dissatisfaction: namely, the inability of any of the three composers to make a passionate statement, to produce vibrant music that catches you up and does not let go until it has said all it intends to. In short the burning intensity of a Beethoven or Mahler or the dark somber intensity of a Brahms or the bit and reality which produces suffering is not there. If music is merely the writing of the "pieces" I withdraw my criticism. But that is the least of what music is.[5]

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4. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 180.
5. George Rochberg to Istvan Anhalt, Letter of September 9, 1961, in Gillmot, *Eagle Minds*, pg. 5–6.

Following years of struggling with serialism, the deaths of loved ones pushed Rochberg away from strict serialism permanently. His son, Paul, was diagnosed with a brain tumor and passed away as a teenager in November of 1964, the same year Rochberg's father passed away. These impactful deaths left Rochberg questioning life and existence, and he quickly decided that his art would have to change to suit his new perspective.

> It became crystal clear to me that I could not continue writing so-called "serial" music... It was finished...hollow...meaningless. It also became clearer than ever before that the only justification for claiming one was engaged in the artistic act was to open one's art completely to life and its entire gamut of terrors and joys (real and imagined); and to find, if one could, new ways to transmute these into whatever magic one was capable of. I rediscovered and reaffirmed with an intensity I had never known before the basic impulse which had led me to want to compose music in the first place a long time ago.
>
> With the loss of my son I was overwhelmed by the realization that death—and time which, as we humans reckon it, brings an end to all living things—could only be overcome by life itself; and to me this meant through art, by practicing my art as a living thing (in my marrow bone), free of the posturing cant and foolishness abroad these days which wants to seal art off from life.[6]

Rochberg composed in this mindset for nearly a decade before finding a style and aesthetic that he is comfortable calling his own.

During this period Rochberg followed in the path of his former teacher, Dallapiccola, and strove to include ideas from other genres and eras of music that he believed had merit. Rochberg outlined his philosophy in an essay titled "No Center," where he redefined previously used terminology and referred to his idea on musical collage as "*ars combinatoria*" or the "art of combination."[7]

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6. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 74.

7. Rochberg frequently redefined well-known musical terminology and "*ars combinatoria*" is another instance. *Ars combinatoria* has its origins in musical dice games where composers like Johann Philipp Kirnberger, C. P. E. Bach, Mozart and Haydn would write small phrases that could be combined in nearly limitless ways. This was later explored by Charles Ives and John Cage in chance music.

> *Ars Combinatoria*. Inclusive vs. Exclusive. *Unity of Varieties* vs. *Variety in Unity*. Combination of opposites. Blake's *contraries*. Search for new inner balances and outer surfaces. The created illusion of new images. A new collective consciousness.[8]
>
> I stand in a circle of time, not on a line. 360 degrees of past, present and future. All around me.[9]

Rochberg used *ars combinatoria* to surround and connect himself to the combined music history. His concept of time as nonlinear allowed him to be the same distance from all music that has been and would ever be written. Rochberg began to think of all music as being tethered together and music historian David Metzer explains how this affected the music of Rochberg.

> ...Rochberg describes what he calls the *universal mind*, an infinite field of consciousness in which all ideas and feelings ─ those of past, present and future ─ are enfolded… These connections are still vital, as they broaden the play of expansion in *ars combinatoria*. Each link takes us one step further into the *universal mind*, serving as a means for us to hop from one musical idea to another.[10]

Through *ars combinatoria* Rochberg showed his belief in a form of historicism or the tendency to regard historical development as the most basic aspect of human existence.

George Rochberg's unique development through late Romanticism, serialism, and finally historicism as defined by his philosophy of *ars combinatoria*, made him an early example of a postmodernist. Postmodernism can be defined as a reactionary movement during which artists desired to be free of the restraints found in modernism and the individual was largely responsible for defining their own conceptualization of the movement. Postmodernism was not trying to turn away from the techniques of modernism but attempted to reconceptualize the strict modernist

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8. George Rochberg, "No Center," *Aesthetic of Survival: A Composer's View of Twentieth Century Music*, (Michigan: The University of Michigan Press, 2004), 134.

9. Rochberg, *Aesthetic of Survival*, 132.

10. David Metzer, *Quotation and Cultural Meaning in Twentieth-Century Music*, (United Kingdom: Cambridge University Press, 2003), 115.

philosophies. One technique that was reintroduced to music was collage and quotation, which Rochberg used alongside Berio and Stockhausen.

Contra mortem et tempus, written and premiered in 1965, pushed Rochberg's previous compositional boundaries and is an early example of his postmodern music. The work is considered by Rochberg to be the first in a series of experimental compositions.

> [*Contra mortem et tempus*] shares with the other works my urge to bring together in simultaneous/successive combinations everything germane to my musical purpose: not only raw and refracted quotations from the music of other composers (regardless of when they composed it; or how) but also multi-lingual levels of musical speech ranging through history and the present.[11]

Contra mortem et tempus quotes Pierre Boulez, Luciano Berio, Edgard Varèse, Alban Berg, Anton Webern, and Charles Ives in a work that spans just twelve minutes.[12]

Nach Bach is viewed as another defining composition of Rochberg's transition due to the combination of quotes and references to multiple historical composers. The work is a fantasy for harpsichord, written in 1966 for Igor Kipnis, and directly quotes J.S. Bach throughout, as well as a single quote by Johannes Brahms and references to Frédéric Chopin, and Robert Schumann.[13] Alongside the references, he composed using free atonality, unmeasured rhythms, and indeterminate notation to accomplish the goal of connecting music of the past and present. Rochberg describes his goal in the work:

> My chief interest… was to "take off" from the harmonic dialect (as I like to call differences in harmony viewed over long periods) of Bach; and even to show-but not didactically-that the dialects of harmony are really, after all, only that and not different languages.[14]

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11. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 75.

12. *Contra mortem et tempus* quotes six works: Alban Berg's *Vier Stücke für Klarinette und Klavier,* op. 5, Luciano Berio's *Sequenze I per Flauto Solo*, Pierre Boulez' *Sonatine pour Flûte et Piano*, Charles Ives' Piano Trio, Edgard Varèse's *Density 21.5 pour Solo Flûte*, and Anton Webern's *Vier Stücke für Geige und Klavier,* op. 7

13. *Nach Bach* quotes and references four works: Johann Sebastian Bach's Partita no. 6, *Toccata, Allemande, Air, and Sarabande*, Johannes Brahms' Intermezzo, op. 117, no. 3, Frédéric Chopin's Étude, op. 10, no. 6, and the 12th movement of Robert Schumann's *Papillons*, op. 2

14. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 100.

Rochberg did not abandon serialism in this work or others, instead he continued to incorporate serialism as a technique with creating a collage alongside other music.

George Rochberg's transitional period came to an end in 1972 with his third string quartet, commissioned by the Concord String Quartet. His transition has been defined by a connection to the past through quotation or direct references, but he moved away from these techniques and wrote original tonal music that referenced the styles of Beethoven and Mahler. The absence of musical quotations separates the third string quartet from other compositions during Rochberg's development. Rochberg unabashedly claimed his aesthetic and was free of serial limitations which he identified in his comments on the third string quartet.

> I have come to think of [this time period] as "the time of turning." Every artist needs a way of viewing his situation in terms of where he's been, where he is now, and where he must go. The pursuit of art is much more than achieving technical mastery of means or even a personal style; it is a spiritual journey toward the transcendence of art and of the artist's ego. In my "time of turning," I have had to abandon the notion of "originality," in which the personal style of the artist and his ego are the supreme values; the pursuit of the one-idea, uni-dimensional work and gesture which seems to have dominated the aesthetics of art in the twentieth century; and the received idea that it is necessary to divorce oneself from the past, to eschew the taint of association with those great masters who not only preceded us but (let it not be forgotten) created the art of music itself. In these ways I am turning away from what I consider the cultural pathology of my own time toward what can only be called a possibility: that music can be renewed by regaining contact with the tradition and means of the past, to re-emerge as a spiritual force with reactivated powers of melodic thought, rhythmic pulse, and large-scale structure.[15]

Conclusion

George Rochberg was a complex individual who underwent a radical compositional exploration in order to find his postmodern aesthetic. Rochberg's search for meaning brought him to historicism and the philosophy of *ars combinatoria*. His decision to quote and imitate

15. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 141.

music of older composers and styles alongside original serial techniques created music that was unique for the time period and remains one of the earliest examples of neo-romanticism. Rochberg successfully wrote in this aesthetic for many years which included his Symphony no. 5, a finalist for the Pulitzer Prize in 1986. Understanding Rochberg's compositional trajectory contextualizes the remaining chapters and sets the stage for a clearer interpretation of *Black Sounds.*

CHAPTER II: *BLACK SOUNDS* AND THE VARÈSE AESTHETIC

Apocalyptica

The first work George Rochberg wrote for winds and percussion was *Apocalyptica*, composed as an homage to Edgard Varèse and commissioned by the Montclair State College Development Fund in 1964. The composition was premiered on May 19, 1965.

Figure 1. Instrumentation of *Apocalyptica*

C Piccolo	B♭ Tenor Saxophone
2 Flute	E♭ Baritone Saxophone
Oboe	3 B♭ Cornet
E♭ Clarinet	2 B♭ Trumpet
3 B♭ Clarinet	4 Horn in F
E♭ Alto Clarinet	3 Trombone
B♭ Bass Clarinet	Euphonium (Baritone)
B♭ Contrabass Clarinet	Tuba
Bassoon	String Bass
2 E♭ Alto Saxophone	Percussion (12 players)

Figure 2. Percussion Instruments by Part

Percussion 1	Piano
Percussion 2	Chimes, Glockenspiel
Percussion 3	Vibraphone, Triangle
Percussion 4	2 Suspended Cymbals (Large and Small), Slapstick, Anvil or Iron Pipe
Percussion 5	2 Gongs (Large and Small), 2 Cowbells (High and Low)
Percussion 6	Small Snare Drum. Field Drum
Percussion 7	3 Tom-toms (High, Medium, and Low)
Percussion 8	Tenor Drum, Small Bass Drum (Laid Flat), Large Bass Drum (Laid Flat)
Percussion 9	2 Maracas (Large and Small), Steel Plate, Wind Chimes (Bamboo)
Percussion 10	Guiro, Tambourine
Percussion 11	Large Ratchet, Wood Blacks (High, Medium, and Low), Temple Blocks (High, Medium, and Low), Sleigh Bells
Percussion 12	String Drum (Lion's Roar), Crash Cymbals

In addition to paying homage to Varèse, Rochberg found inspiration from Shakespeare and included a quote from *King Lear* Act III, Scene 2 in the score.[16]

> Blow, winds, and crack your cheeks! Rage! blow!
> You cataracts and hurricanoes, spout
> Till you have drenched our steeples, drowned the cocks!
> You sulph'rous and thought-executing fires,
> Vaunt-couriers to oak-cleaving thunderbolts,
> Sing my white head! And thou, all-shaking thunder,
> Strike flat the thick rotundity o' the world.
> Creak Nature's molds, all germens spill at once,
> That make ingrateful man![17]

16. The text is missing from the score of *Black Sounds* yet there was no explanation for this omission given by Rochberg. An attempt to focus on the ballet's narrative may have been the cause for removal.

17. William Shakespeare, *King Lear,* Act III, Scene 2.

Anna Sokolov and the *Black Sounds* Premiere

In 1965, during his transition towards postmodernism, George Rochberg was commissioned by Lincoln Center to compose the score for *The Act*, a ballet choreographed by Anna Sokolov.[18] Rochberg distilled the materials from *Apocalyptica* into a new composition for the commission, originally titled *Apocalyptica II*, which he eventually retitled *Black Sounds*. By removing 106 measures from *Apocalyptica* in the creation of *Black Sounds*, Rochberg created a "crystallized" version of the original composition.[19]

The ballet was one of three works televised in an hour-long program titled “Lincoln Center Anniversary” by WNET, New York.[20] The program premiered September 24, 1965 and revolved around a short play titled *Far Rockaway* by Frank D. Gilroy who had been awarded the Pulitzer Prize for Drama for his play, *The Subject was Roses*, the year before.[21] Anna Sokolov’s ballet, and Mark Bucci’s opera *The Hero*, with libretto by David Rogers, were created as artistic interpretations of Gilroy’s play and premiered in the same program.[22] After airing twice and receiving poor reviews from critics, it was reported that all parties decided to cancel the program’s further performances, but the creators and performers claimed to be unaware of this decision. This led to confusion and frustration as the creators and performers discovered they would not be paid for the canceled performances.[23]

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18. Lincoln Center’s archives have no information on the ballet and the Anna Sokolov Theatre/Dance Ensemble, which licenses her work, does not list it in their repertoire

19. Ringer, *The Music of George Rochberg*, 423.

20. Anna Sokolov’s name is also spelled Sokolow, which is the original spelling. This paper will use the Americanized spelling Sokolov.

21. An early copy of the *Far Rockaway* script can be found alongside the manuscript of *Black Sounds*. Both items are housed in the New York Public Library for the performing arts.

22. Sokolov’s ballet should be viewed independently as well as in conjunction with *Far Rockaway* to gain the greatest understanding of the mood and expression she created.

23. Val Adams, New York Times, June 4, 1965, ProQuest Historical Newspapers, 71.

A digital copy of the program, including *The Act,* is available through the American Archive of Public Broadcasting (AAPB).[24] The AAPB performance is titled "Lincoln Center Stage Five: Three Premiers" and was hosted by composer and president of Lincoln Center, William Schuman, who introduced the concept of displaying four branches of performance art; dance, drama, opera, and music alongside one another. Stage Five of Lincoln Center was devoted to the television medium and each of these performances were meant to be experienced in this way.

The ballet was approximately thirteen and a half minutes in duration, set entirely on the pier of Far Rockaway. The story follows a protagonist who meets a murderer and kills him but suffers a guilty conscience following the murderer's death. The protagonist gradually goes insane, and the ballet concludes as he walks into the water and drowns. *Black Sounds* accompanied the ballet and viewing the performance creates a different perspective of the composition.

Black Sounds, A Part of the Transition

Black Sounds represents an important part of Rochberg's compositional timeline as well as the greater musical movement towards postmodernism and can be performed as a standalone concert work or as a ballet. His move towards postmodernism, a term not codified in the 1960s, was risky and Rochberg understood the professional difficulties surrounding non-serial music. He stated, "It [Rochberg's move away from serialism] is equally liberating and dangerous. But pursuit of real art, like life itself, has nothing to do with the spurious comforts of security, safety,

24. AAPB has a description of the program as well as contact information if you wish to view the performance here: https://americanarchive.org/catalog/cpb-aacip-516-7d2q52g67n

and society.[25]" *Black Sounds* was one example of Rochberg's desire, if not his need, to create a new type of art.

Written near the beginning of Rochberg's transitional period, *Black Sounds* was composed the same year as *Contra mortem et tempus* and *Music for the Magic Theater*. While Rochberg's other works of the 1960s explored the use of quotation and *ars combinatoria*, *Black Sounds* does not directly quote any other composer, instead the work mimicked the compositional style and aesthetic of Edgard Varèse. Rochberg's reason for choosing Varèse as the inspiration was never plainly stated, but there are clues that can be examined.

George Rochberg Connects to Edgard Varèse

George Rochberg wrote extensively throughout his career about his thoughts, experiences, and growth. Rochberg used certain essays to grapple with developments occurring in the field of music and in 1963, Rochberg wrote one such essay titled, "The Concepts of Space and Time." This essay delved into Rochberg's dissatisfaction with modern musical form terminology and argued that music occurs in one of two large-scale forms: time-space or space-time. He loosely defined each term, as found in table 1, by splitting time into the concepts of pulse, rhythm, and meter, while space referred to pitch, timbre, and density.[26] The order of the terms, time-space and space-time, clarified what construct is the primary organizing tool of the composition.[27]

25. Dixon, *George Rochberg: A Bio-Bibliographic Guide*, 75–76.

26. Density defines the texture of a composition. Homophonic or monophonic may be considered to have a light or thin density, while heterophonic and polyphonic may be considered to have a heavy or thick density.

27. For further reading, see Rochberg's essays "Indeterminacy in the New Music" and "The Concepts of Space and Time." Each essay describes Rochberg's evolving ideas of music, space, and time while he attempts to redefine musical terminology.

Table 1. Rochberg's Terminology Regarding Time and Space[28]

Time	Space
Arsis, thesis	Timbre
Upbeat, downbeat	Pitch, note
Tempo	Chord
Meter	Triad
Rhythm	Harmony
Rubato	Sonority
Measure	Density
Phrase	Texture
Period	Register

The concept of redefining music has already been identified in Rochberg's use of the term "*ars combinatoria*," and these two can be used together to understand why the composer would decide to imitate the aesthetic of Edgard Varèse. Rochberg mentioned Varèse as an influence and inspiration in many essays. He saw in Varèse another composer who defined their music in writing and was unwilling to let outside influences limit their compositions.

> If Varèse decided to pass up the twelve-tone method and Bartók, after studying Schoenberg closely, also decided not to avail himself of its use, can it be said, as some have, that they were "wrong"?[29]

Rochberg found in Varèse's music a path to explain his own theories on music and existence. Rochberg explained Varèse's influence on his music,

> The great pioneer of space-form is Edgard Varèse, whose first major works in this direction are *Octandre*, *Hyperprism,* and *Intégrales,* composed between 1922 and 1924. What makes these works significant is their embodiment of tendencies reaching back to

28. Rochberg, *Aesthetic of Survival*, 86.
29. Rochberg, *Aesthetic of Survival*, 48.

> the earlier part of the twentieth century in a new concept of music in which space becomes the focal point of musical structure. The dominant tendency towards atonality, the increasing interest in timbre for its own sake, and the new possibilities of rhythmic structure were molded into a unique formulation by Varèse which is remarkable for its anticipation of the sound structure of serialism, but with a difference—the difference consisting essentially in the fact that the structure of Varèse's music if audible in its unfolding movement, i.e., its macroform grows clearly and organically out of the relations of musical events to each other. This is in sharp contrast to the inaudibility of macroform in serial music and the ambiguity (or indeterminacy) which is intrinsic to serialism. The fact that serialism arrived at spatial formulations (sound structures) analogous to Varèse's, produced twenty-five or more years before, only serves to confirm the fundamental significance of his work and the insights which led him to his concepts of music.[30]

Not only did Rochberg connect Varèse to space-form and express his admiration for Varèse, calling him "the great pioneer," but he also identified Varèse's compositions as being before and after their time. According to Rochberg, *ars combinatoria* can be seen in Varèse's music because it reaches into the past and future to create meaningful and expressive music. As Rochberg tried to connect to the nonlinear timeline, he saw Varèse as a visionary who had already succeeded in this goal. While Varèse's aesthetic does not last in Rochberg's music past the mid-1960s, it was an important tool to aid the composer's transition to postmodernism.

Conclusion

George Rochberg's desire to connect himself with all of music history and his respect for Edgard Varèse were the impetus for *Apocalyptica*. In 1965, Rochberg was still at the earliest part of his transitional period, which led to imitation of Varèse as an early experiment, instead of direct quotation. *Black Sounds* arose as the final product of his interactions with Lincoln Center and Anna Sokolov, and it stands as an important example of Rochberg's attempt to redefine musical concepts.

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30. George Rochberg, "Concepts of Time and Space," *Aesthetic of Survival: A Composer's View of Twentieth Century Music*, (Michigan: The University of Michigan, 2004), 115.

CHAPTER III: ANALYSIS OF BLACK SOUNDS THROUGH COMPARISONS TO VARÈSE

Context of Analysis

George Rochberg admired Edgard Varèse, but there are no specific sources Rochberg claimed to have used when drawing inspiration for *Black Sounds*. The form and compositional construction of *Black Sounds* will be discussed, and comparisons will be made to three works by Varèse chosen by this author due either because Rochberg referred to them directly in his essays or due to clear aural similarities: *Hyperprism* (1923), *Octandre* (1924), and *Intégrales* (1925). The selected works were written over the course of two years and reference a specific sound Rochberg imitated.

Varèse often wrote about his compositional techniques, and Rochberg was well aware of Varèse's thoughts on his own music. As an example, Varèse identified the process of creating *Intégrales* which was translated by Rochberg himself.

> [*Intégrales*] was conceived as a spatial projection… constructed… according to certain acoustical principles which had not existed previously, but which I knew, could be realized and made use of sooner or later…. While in our musical system we divide quantities whose values are fixed, in the realization which I sought, the values would be continually changed in relation to a common factor. In other words, it would be like a series of variations, the changes resulting from slight alterations in the form of a function or the transformation of one function into another. In order to make my meaning clear—for the eye is quicker and more disciplined than the ear—let us transfer this conception into the visual field and consider the shifting projection of a geometric figure on a ground with the figure and ground both moving in space, but each with its own individual speeds changed and varied according to position and rotation. The immediate form of the projection is determined by the relative position between the figure and ground at this moment. But in permitting the figure and the ground to have their own movement one is capable of representing with the projection a highly complex image seemingly unpredictable. In addition, these qualities can be further developed by letting the forms of the geometric figures vary as well as their speeds.[31]

31. Edgard Varèse translated by George Rochberg. *Canadian Music Journal*, Winter (1961): 34–35.

This explanation reveals Varèse's compositional process and reflects Rochberg's familiarity with Varèse's compositional philosophy. Rochberg explained his interpretation of Varèse's musical self-analysis.

> Density emerges in Varèse's music as the richly varied, constantly fluctuating movement of sound substance within the spatial images themselves, the object of musical process without reference to anything beyond itself. Liberated from the traditional stratification imposed upon it by figured bass and harmonic progression, register, too, is free to take on a new function; with the consequence that registral distribution of the musical elements and forces which constitute the density plays a significant role in determining the character of the spatial image, even to some extent the actual *weight* and *mass* of the density.[32]

Form

Black Sounds is a through-composed work with nine sections. Rochberg created form through the use of tone rows, dynamics, orchestration, pitch centricity, and tempi. Table 2 outlines some of the formal devices to give an overview of the composition.

32. Rochberg, *Aesthetic of Survival*, 117.

Table 2. Form of *Black Sounds*

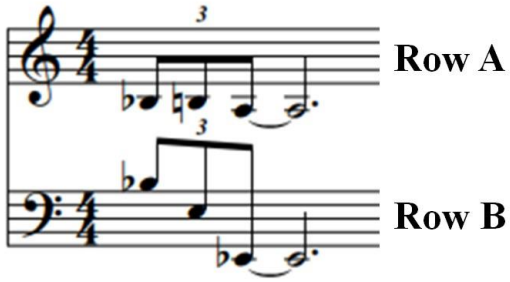
Section	Measures	Pitch Centricity	Tone Rows and Motivic Content	Tempo
Introduction	1–21	A3	Tone Rows A & B, Trombone Lead	♩ = 104
A	22–65	A3 to F4 at m. 47	Continued Triplet motive, Trombone/Tuba Lead	♩ = 126, 104
B	66–133	B4 to F4 at 120	M9 (A8), M7	♩ = 104, 126, 80
C	134–174	F♯5	Whole step triplet motive, Wave triplet	♩ = 152, 160
D	175–209	F5	Oboe and Clarinet Lead, Triplet inversions (203–204 for example)	♩ = 144, 126
E	210–238	B♭2	Timpani cadenza, Two interjections	Freely, Indeterminate, ♩ = 144
F	239–284	Free atonality	Metered percussion and indeterminate winds	♩ = 56 accelerando until "as fast as possible"
G	285–305	Free atonality, Dodecaphonic Sound-Mass	Melodic Phrase, Climax Dodecaphonic Sound-Mass	♩ = 76, 52, 104
H	306–321	A4	Flute sighs	♩ = 52

Tone Rows

The tone rows found in *Black Sounds* included two short, three-note rows and Rochberg altered them to create contrast throughout the composition. Both rows are presented simultaneously in the first measure of *Black Sounds* and the reduced rows can be seen in figure

3. The composer included a reduction of both tone rows attached to the manuscript title page, shown in Appendix V.

Figure 3. *Black Sounds* Tone Row Reduction

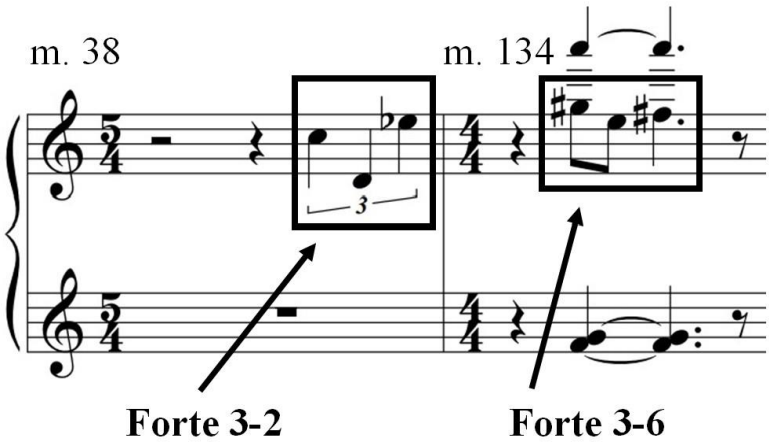


The two rows begin on a unison B♭ before splitting into B♭–B–A (Forte 3-1) and B♭–E–E♭ (Forte 3-5). For the remainder of the paper, "Row A" will refer to B♭–B–A and "Row B" will refer to B♭–E–E♭. In the score of *Black Sounds*, Row A is immediately apparent due to the melodic nature of the line, but Row B is harder to identify because of the large intervals between pitches. It only became clear after seeing Rochberg's sketch that the B♭ was connected to both rows. The contour of each row is also different, as Row A ascends a m2 and descends a M2 while Row B has two descensions, a tritone and an augmented octave. After repeating Row A multiple times Rochberg augmented repetitions, created conflicting rhythms with the tone row, and created a sense of half time in m. 30. Through continuous development of these two rows, Rochberg created motivic contrast that helps guide the form of *Black Sounds*.

From the first measure, Rochberg set the stage for a serial composition, but rarely used the tone rows in the manner of Schoenberg or his teacher Dallapiccola. Instead of only using retrogressions and inversions, Rochberg treated the tone rows like melodic motives and changed the intervallic relationship. He first wrote an intervallic change in m. 38 by increasing the row to

Forte 3-2 performed in a hocketed quarter note triplet.[33] One additional expansion occurs at m. 134 where Rochberg continued the widening of intervals to create Forte 3-6.[34] Rochberg continues this development, as seen in figure 4, by including a sustained F–G–A octaves below and above this expanded row creating multiple aural connections to the original tone row A.

Figure 4. Measure 38 and 134 of *Black Sounds*, Tone Row Expansions



Rochberg brought the tone rows to a complex climax at m. 285 by changing the order of pitches and occasionally adding additional notes to the row. Figure 5 shows the number of pitches and location of each row. Table 3 names the Forte numbers seen in figure 5 and demonstrates the moments of expansion and change for Rochberg. Row A is transposed four times and the original pitches are only heard in the first row of the trumpet 1 m. 287. The expansion of Row A is seen in the large number of 4-1 and 5-1 rows that can be identified in every voice.

33. The specific notes are C–D–E♭ or with a prime form of (0,2,3)
34. The specific notes are E–F♯–G♯ or with a prime form of (0,2,4)

Figure 5. Measures 285–87 of *Black Sounds*, Development of Tone Row A

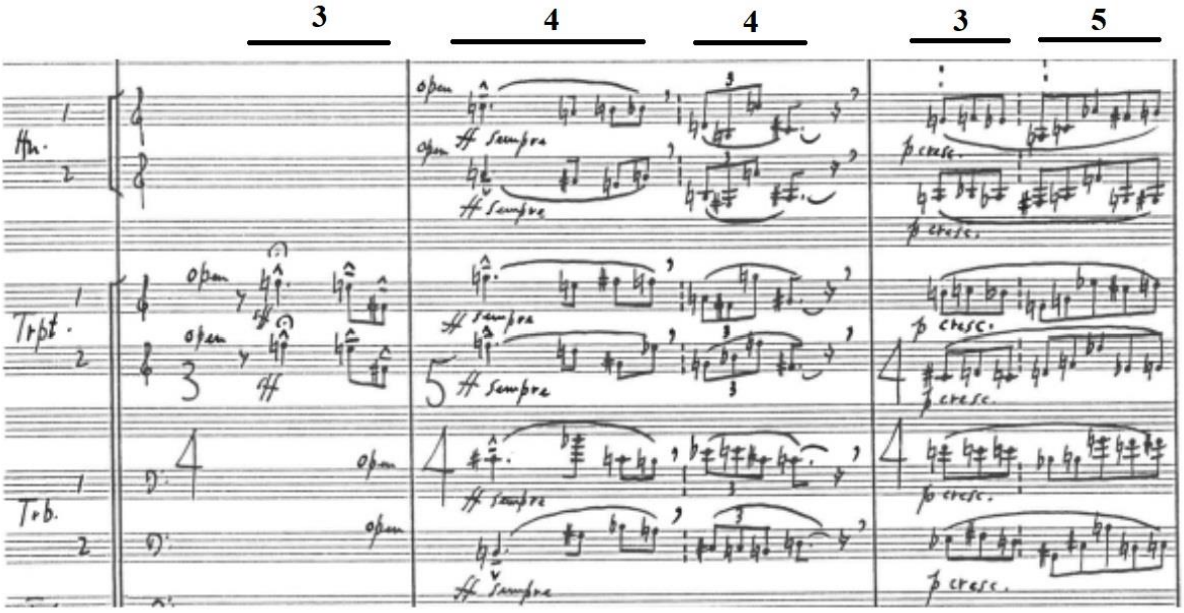
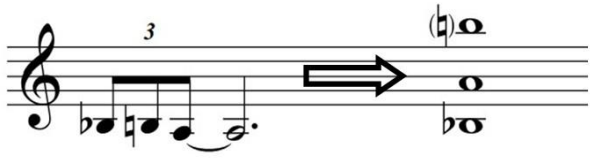


Table 3. Measures 285–87 of *Black Sounds*, Forte Number Associations

Instrument	m.285	m.286a	m.286b	m.287a	m.287b
Horn 1	-	4-1	4-1	3-1	5-4
Horn 2	-	4-10	4-1	3-1	5-1
Trumpet 1	3-1	4-1	4-1	3-1	5-4
Trumpet 2	3-1	4-12	4-4	3-1	5-1
Trombone 1	-	4-1	4-3	2-1	5-6
Trombone 2	-	4-1	4-1	3-3	5-3

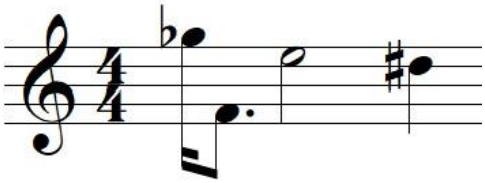
After this developmental climax, m. 319 returns to a more restrained statement of Row A, but with each note sounding simultaneously and two pitches, A–B♭, displaced by octaves (figure 6). The simplicity of this final statement is blurred by octave clusters in the piano and glissandi in the flutes which causes the recognizable motif to fade away before it can be fully heard.

Figure 6. Measure 1 and 319 from *Black Sounds.* Reduction of Octave Displacement of Row A



George Rochberg's unorthodox approach to tone rows exemplified the composer's newfound flexibility as he explored connecting serialism to other musical aesthetics. Rochberg used tone rows within the aesthetic of Varèse to create a unique composition and although Varèse was not a strictly serial composer, he did employ serial techniques in a similar fashion to *Black Sounds*. For example, the oboe solo that begins *Octandre*, if read as a tone row, would be interpreted as a Forte 4-1. This four-note gesture, seen in figure 7, is repeated three times with changes to pitch durations and the addition of repeated pitches and grace notes. The gesture is written a final time at the end of the solo, but transposed down a M3 with the same octave displacement of the second note. Other gestures dominate the remainder of the *Octandre*, but this opening is reminiscent of Row A in the first sixty-seven measures of *Black Sounds*.

Figure 7. Measure 1 of *Octandre,* Four Note Row

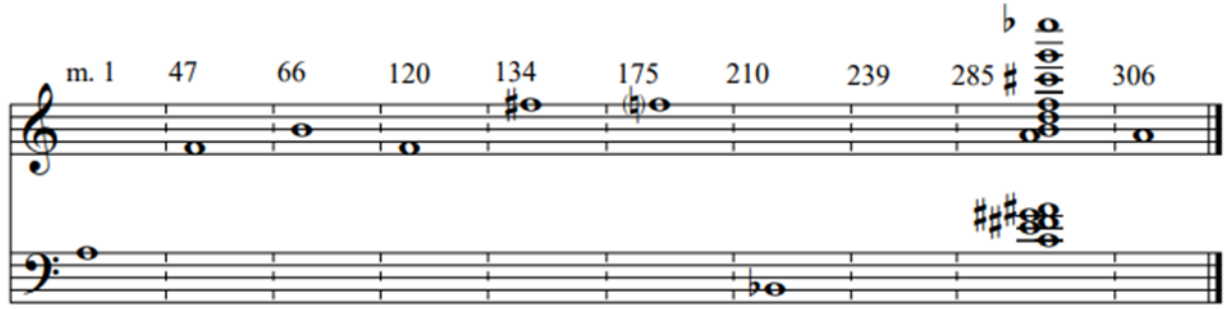


Pitch Centricity

Pitch centricity is another audible technique used to define formal architecture. Louis Karchin defines pitch centricity as "the use of one pitch to anchor those pitches surrounding it, and the concept derived from tonal music which focused on a key center, but the idea persists in

certain free atonal music and is alluded to exist within serialism."[35] While Schoenberg specifically sought to avoid using serial techniques that mimicked tonality, some composers continued to find ways to centralize pitch.[36] Rochberg created pitch centricity in the majority of *Black Sounds* through repetition that revolves around central pitches. Each focal pitch can be seen in figure 8, and it should be noted that they occur almost exclusively in the written octave during that section of music. Rochberg's ideas of space-form considered each octave of a pitch to be a separate musical idea with its own expressive capabilities. The first three focal pitches outlined in figure 8 are supported by soloist lines.

Figure 8. Pitch Centricity of *Black Sounds*



George Rochberg wrote multiple soloist lines in *Black Sounds* that outline the first three pitches of figure 8. These solo lines are very similar to a practice of Varèse and the first recognizable similarity is the trombone solo starting in m.3 of *Black Sounds*. Figures 9, 10, and 11 identify and compare three solo lines from the music of Varèse and Rochberg. The examples not only repeat the pitch in various rhythms, but the central pitch is also approached by grace notes, or in the case of the trombone a glissando. Rochberg went as far as selecting the same

35. Louis Karchin, "Pitch Centricity as an Organizing Principle in *Speculum Speculi* of Charles Wuorinen," *Music Theory Society of New York State*, 14/15 (1989/90): 59.

36. Arnold Schoenberg and ed. Leonard Stein, *Style and Idea: Selected Writings of Arnold Schoenberg*, (Berkeley University of California Press, 2010), 246. The italics were added to the quotation by Louis Karchin to emphasize Schoenberg leaving room for pitch centricity in the future of serialism.

instrument, trombone, and mimicking the intervallic slides from above and below as seen in the example from *Black Sounds*. The difference between the examples is that Varèse typically moved away from the solo lines quickly and to the next part of the form, but Rochberg expanded the solo to nearly forty measures before changing the central pitch and continuing the pattern.

Figure 9. Measures 1–5 from *Intégrales*, E-flat Clarinet

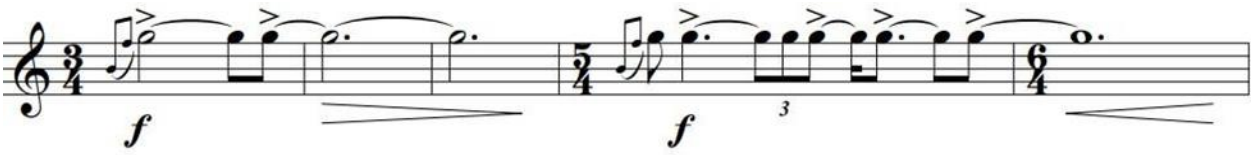


Figure 10. Measures 3–6 from *Hyperprism*, Trombone

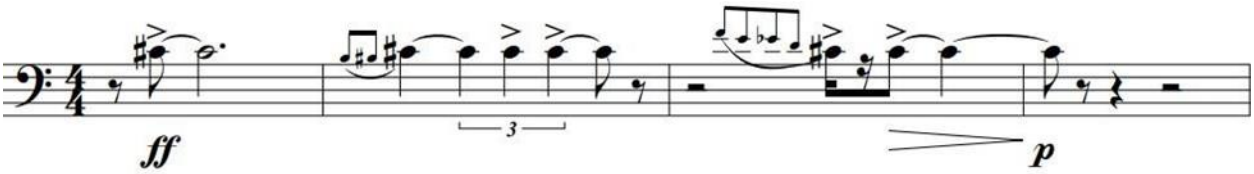
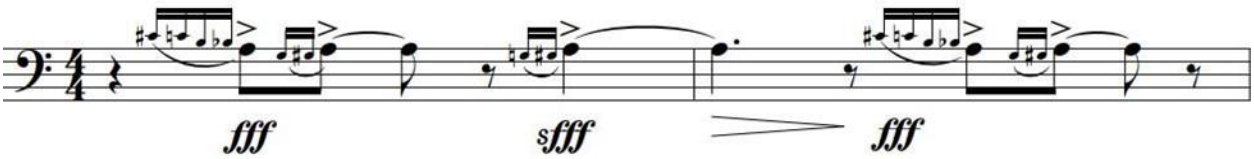


Figure 11. Measures 17–18 from *Black Sounds*, Trombone



Sound-Masses

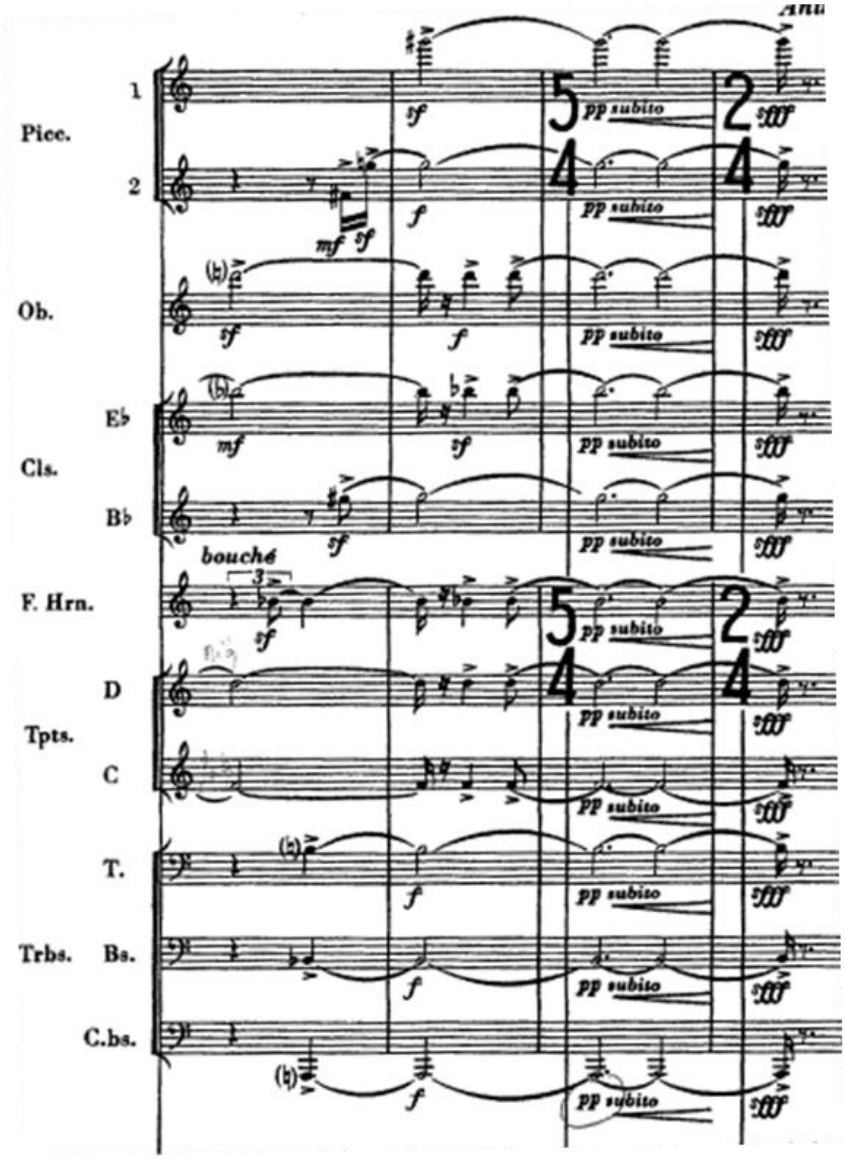
George Rochberg used sound-masses, a term that had been defined and incorporated by Edgard Varèse. Sound-masses were a compositional technique that represented music becoming increasingly focused on the intervallic distance between notes. Varèse used sound-masses as vertical chord structures that incorporated previous musical material and they have been further outlined by music theorist John Anderson,

> Most sound-masses are constructed by the verticalization of previous melodic material. Pitch classes, or intervals, which constitute a melody or plane, are often reorchestrated and sounded simultaneously as a chord or sound-mass. For Varèse there is an equality

between the vertical and the horizontal that constitutes what he referred to as a "melodic totality." Furthermore, planes are capable of evolving into masses and vice versa. Varèse termed this the "expanding plane."[37]

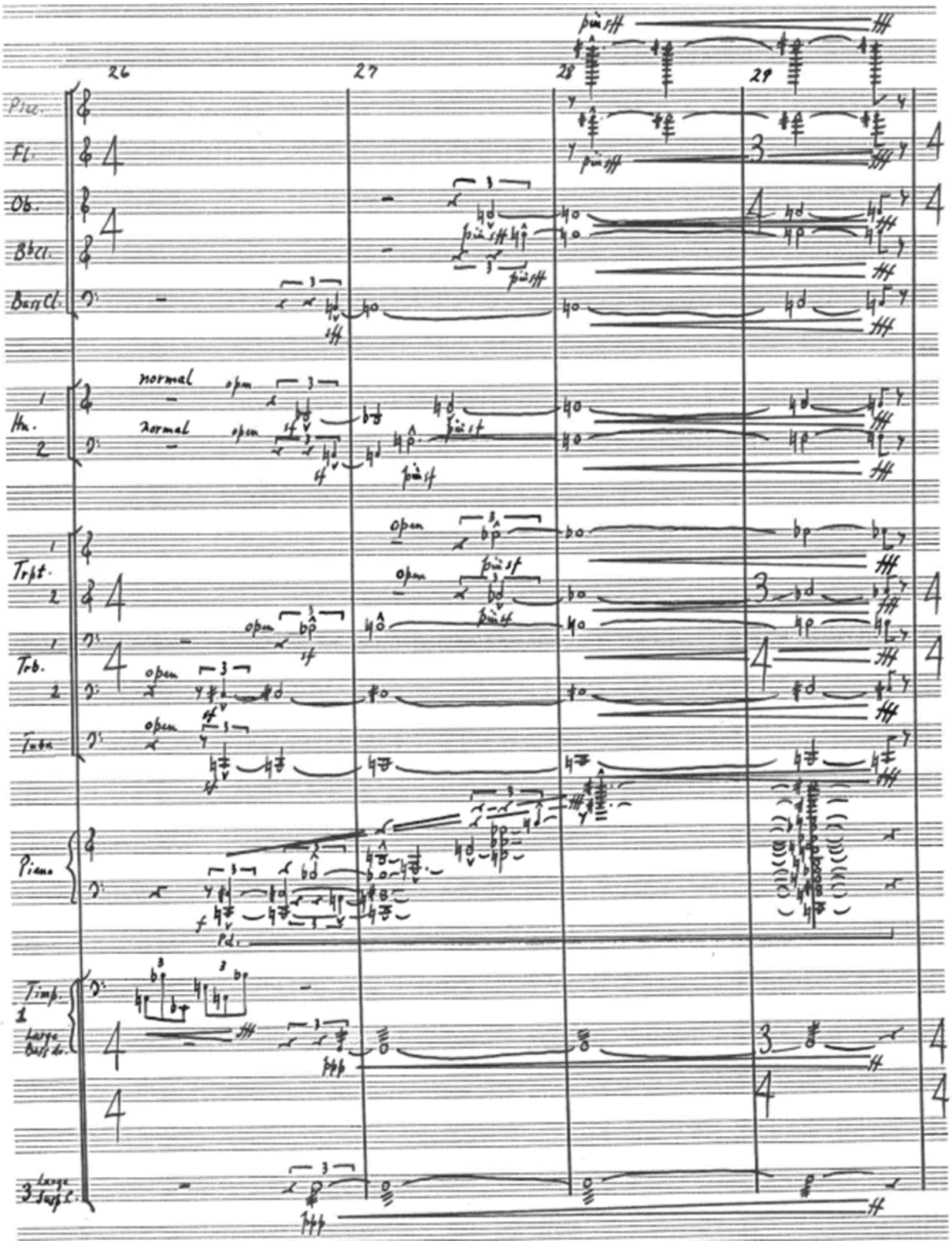
The similarity between the tiered sound-masses of Rochberg and Varèse can be viewed in figure 12 as compared with figure 13.

Figure 12. Measures 26-29 of *Intégrales*, Tiered Entrance Sound-Mass



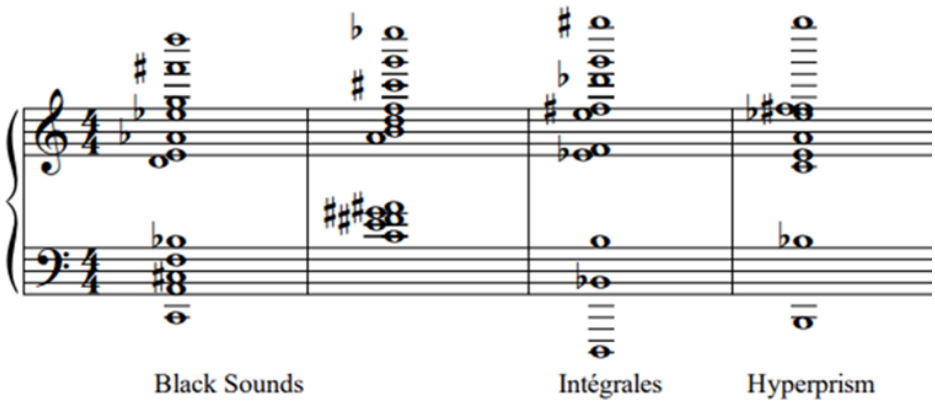
37. John Anderson, "Varèse and the Lyricism of the New Physics," *The Music Quarterly*, 75/1 (1991): 35.

Figure 13. Measure 26-29 of *Black Sounds*, Tiered Entrance Sound-Mass



While the two composers used the same technique, a close inspection reveals several differences. The conglomerate of each sound-mass was different for the two composers, as seen in figure 14. Both composers used extreme ranges in these masses, but Rochberg wrote smaller intervals in the bass voices while Varèse tended to leave large amounts of distance between the bass voices. This made for a clearer sound in the works of Varèse even though they were highly dissonant while Rochberg's technique made the sounds dense and less stable. Varèse's technique focused on overtones and as seen in figure 14, he may use two or more overtone series at once.

Figure 14. Sound-Mass Reduction Comparison



Rochberg and Varèse also constructed their sound-masses differently and figures 15 and 16 compare a visual representation of the previously shown tiered sound-masses.[38] The example from *Intégrales* is constructed from middle voices and grows through the addition of the highest and lowest voices. Rochberg's tendency in *Black Sounds* was to start with the bass voices and build upwards. The final difference between their sound-masses was the length of time used to create and sustain the masses. Varèse's tendency was to quickly add voices and sustain the full sound-mass for a longer period. He created additional interest in the held mass by writing

38. Referring to figure 12 and 13.

articulated rhythms occurring during the sustained mass. In *Black Sounds* Rochberg introduced voices in a drawn-out manner for his sound-masses. Rochberg also used a piano composite to outline each note sustained by the winds for the sound-masses.

Figure 15. Measures 26–29 of *Intégrales*, Sound-Mass Visual Representation

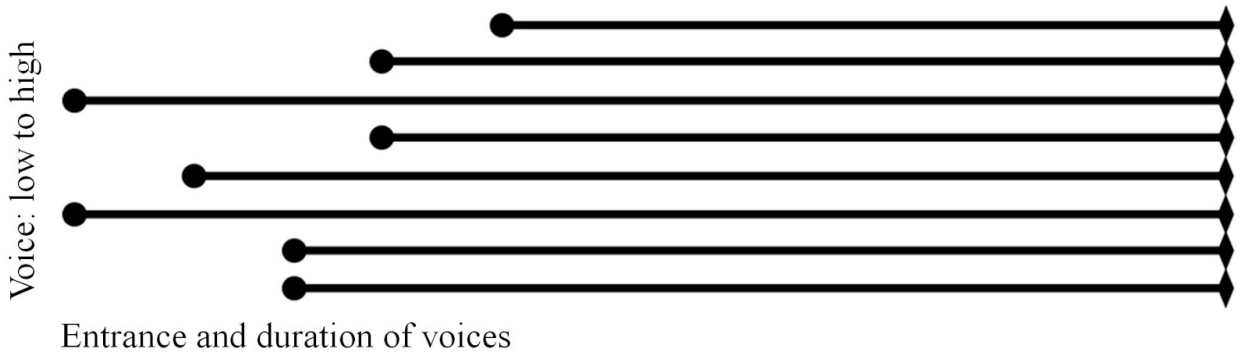
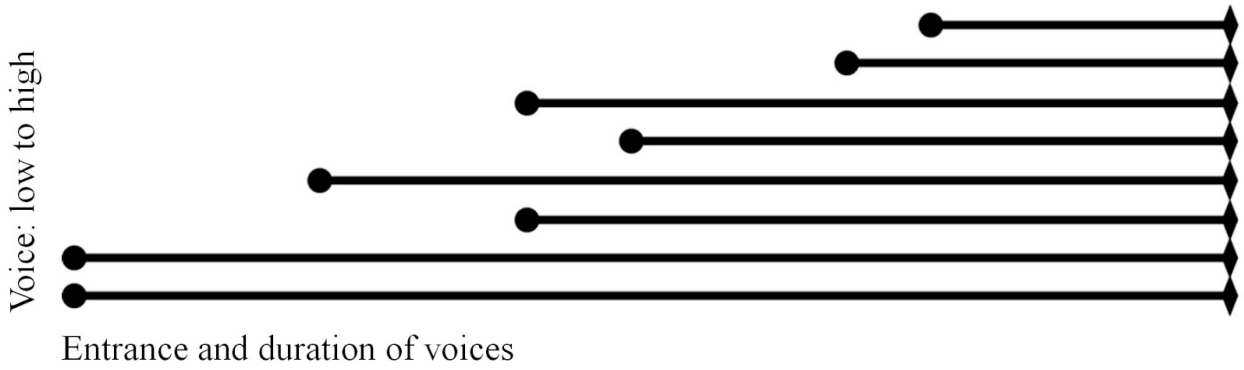


Figure 16. Measure 26–29 of *Black Sounds*, Sound-Mass Visual Representation



Dynamics

George Rochberg used dramatic changes of dynamic levels to help outline formal architecture in *Black Sounds*. There are many small-scale and dramatic dynamic changes in *Black Sounds*, but there are also distinct patterns at the macro level which, alongside previously discussed sound-masses, shape the form of the work. A frequently used technique in the first half of *Black Sounds* was the intensification of dynamics followed by dramatic decreases in volume.

Rochberg alters the pattern by gradually decreasing the volume to set up for dramatic changes to the form.

The dynamics found in the percussion writing of *Black Sounds* are an example of Rochberg's drastic alterations to dynamics within smaller sections of music. Subito dynamic changes and drastically longer crescendos and decrescendos create waves of sound that come in and out of the texture. This technique mimicked the dynamic waves from *Intégrales,* as seen in the comparison of figure 17 and 18. These interjections are used with increasing frequency as the architecture nears a climactic point to create energy.

Figure 17. Measures 4–5 from *Black Sounds*, Example of Dynamic Writing

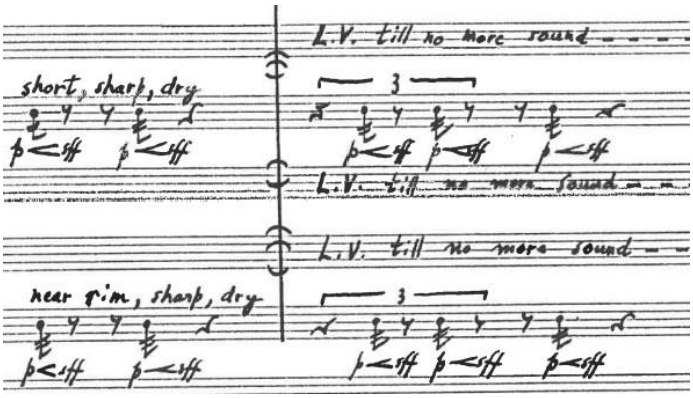
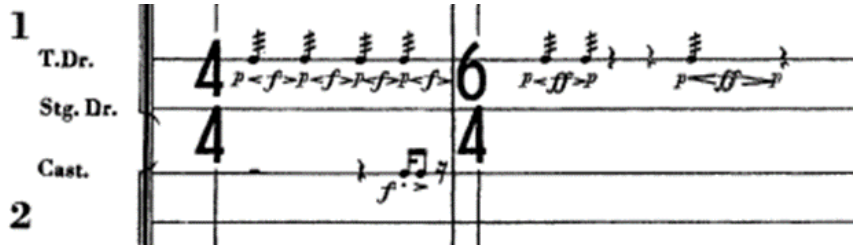


Figure 18. Measures 9–10 from *Intégrales*, Example of Dynamic Writing



Seen in the dynamic graph, figures 19 and 20, the changing dynamic levels over the course of the piece which also clearly delineate formal divisions. Using dynamics in this manner allows the form of *Black Sounds* to be aurally understood without any reference to melodic or harmonic structure.

Figure 19. Dynamic Graph of *Black Sounds*

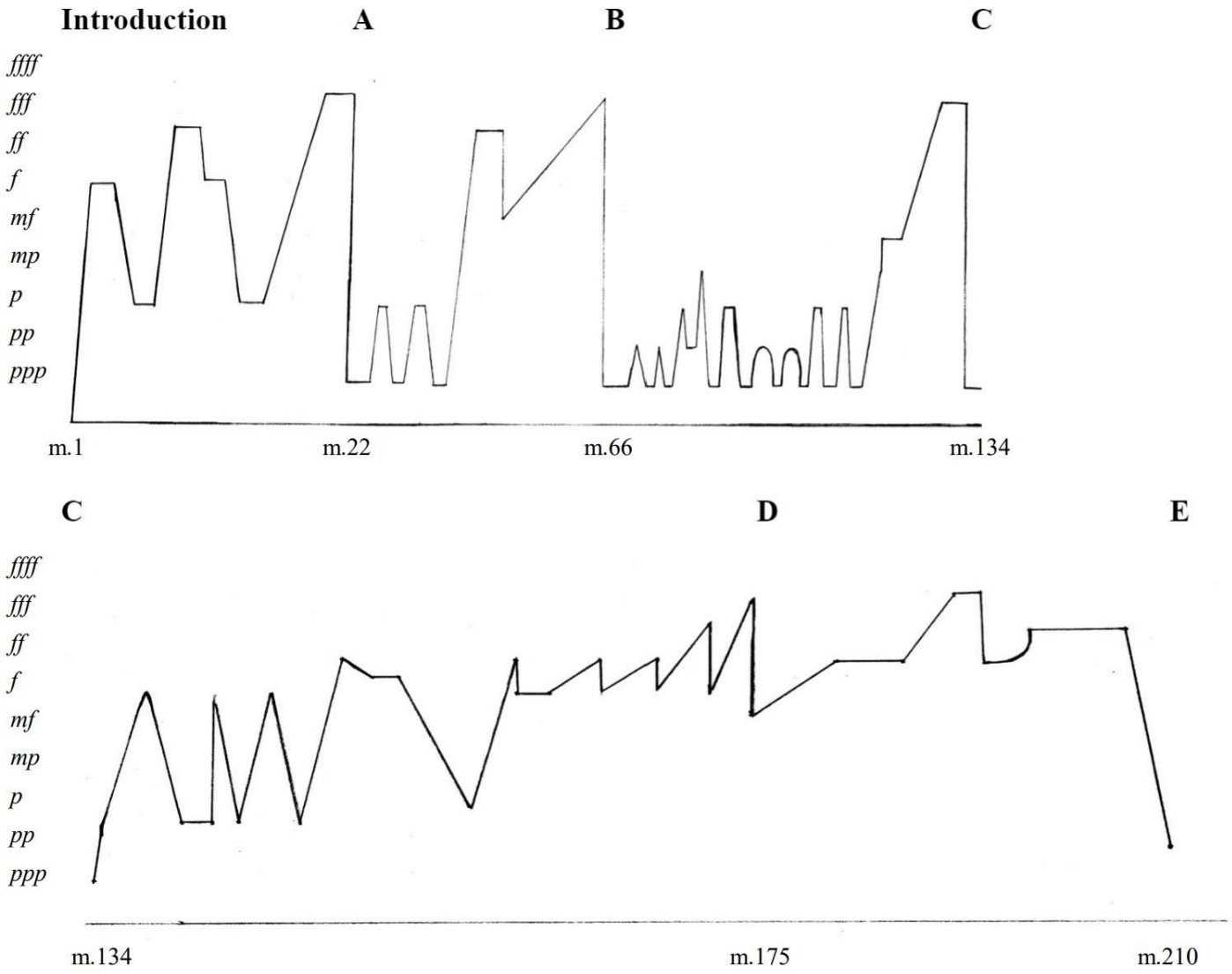
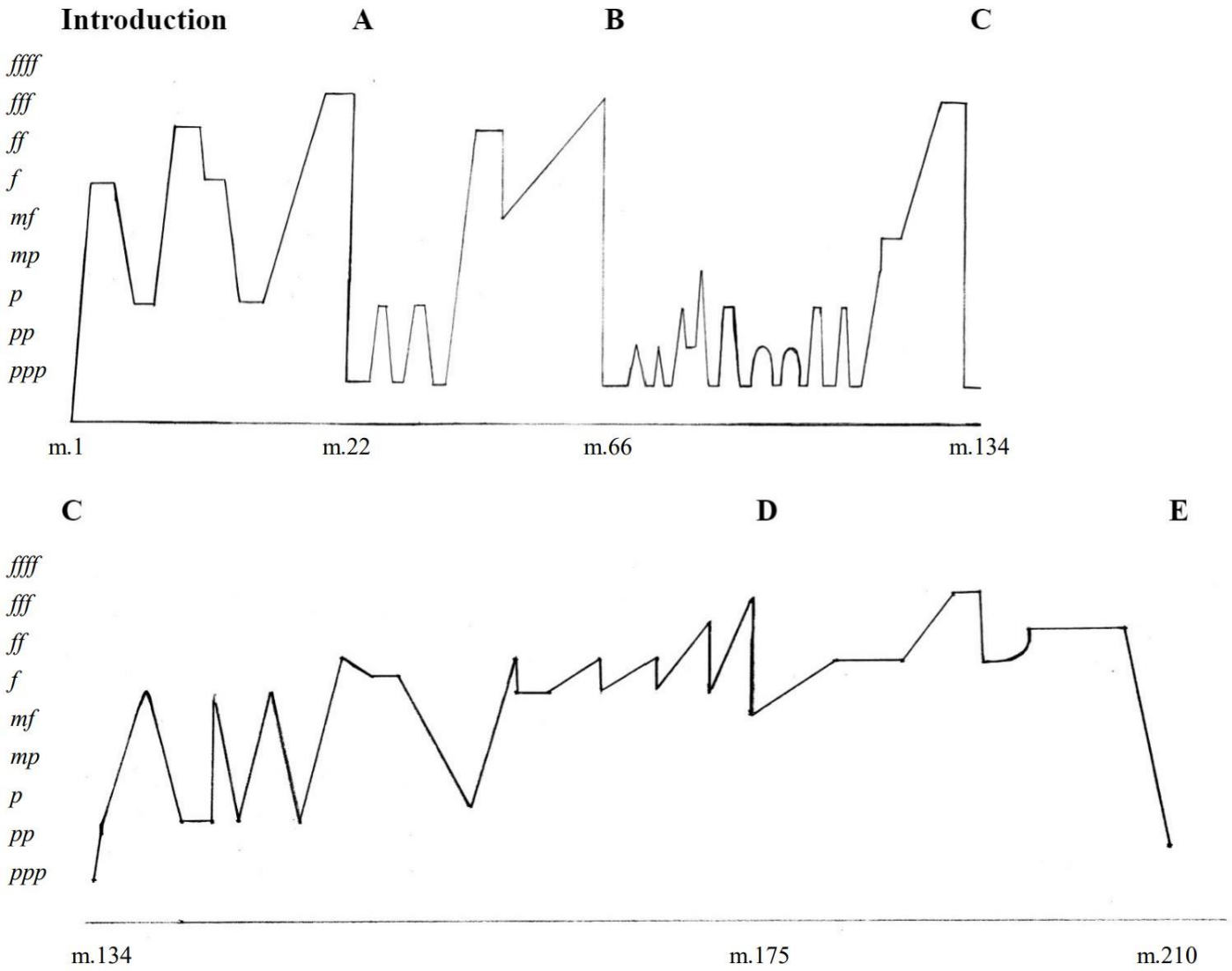


Figure 20. Dynamic Graph of *Black Sounds* (Continued)



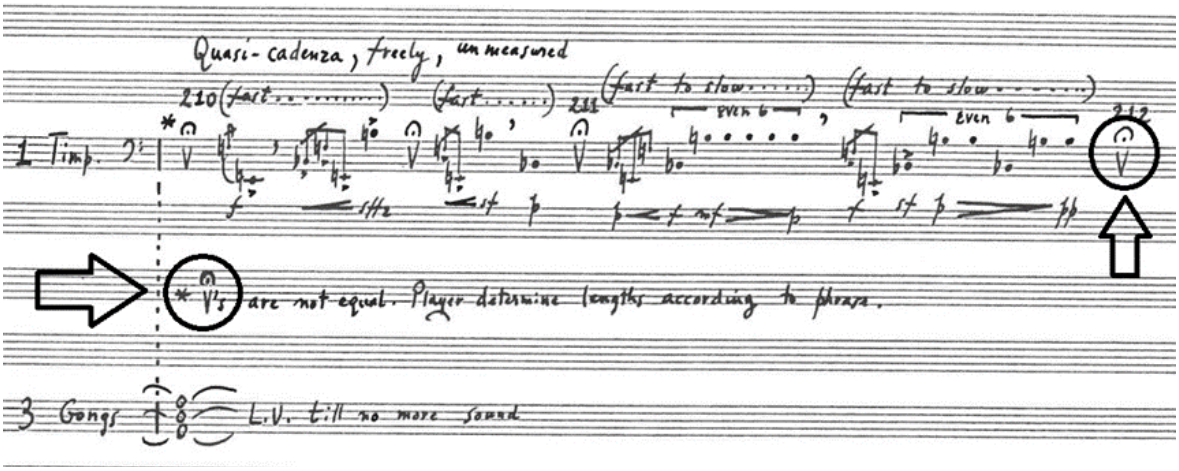
Tempo

George Rochberg used tempo and time relationships to create distinct moments of change through repetition and a combination of proportional and nonproportional relationships. The composer included a total of eight tempi, listed in table 2 on page 17, alongside two sections of unmetered music. There are twenty-eight tempo changes in *Black Sounds* and every section of the form is accompanied by a tempo change. The new formal sections often present a previously unused tempo in the composition, helping to create a sense of originality.

At a cursory glance, many tempi appear to be proportional such as 76 vs. 152, 80 vs. 160, and 52 vs. 104, but these sections are often separated and do not have connected musical material. While most tempi do not relate proportionally, the beginning and end of the composition do directly relate. The work begins with ♩ = 104 and section H is ♩ = 52. This tempo relationship mirrors the relationship between the related presentations of Row A discussed on p. 19.

The first unmetered section of music is the timpani cadenza, marked in the score to be performed “Freely.” Instead of bar lines, fermatas are placed over each break in the phrase, seen circled in figure 21. Rochberg leaves the exact time of the pause up to the performer, but the “V” shape under the fermata is reminiscent of a caesura as well as a short fermata.

Figure 21. Measures 210–12 from *Black Sounds*, Fermata in the Timpani Cadenza



Following the cadenza, the percussion performs a metered two-measure phrase that repeats twenty-three times during which the tempo steadily accelerates from ♩ = 56 to "as fast as possible to end of phrase." After the first eight measures, flute 1 enters with a collection of selected pitches followed by six additional instruments, all with the same selected pitches. Each of these collections should be played according to instructions given by the composer.

> Each figure is to be repeated as often as necessary until end of passage. Begin each figure very slowly, gradually increasing speed, volume, and intensity of attack until as loud and as fast as possible. Players may vary order of pitches and shape of phrases at will; also lengths of successive phrase may vary. Attack always detached: at first "poco tenuto;" at peak of passage play "marcatissimo." Avoid playing unison with any other instrument. Do not worry if you are playing faster or slower than anyone else. But stay inside the ensemble at all times.[39]

Instrumentation

Black Sounds is written for seventeen performers; five woodwinds, seven brass, piano, and four percussionists. This instrumentation reduces the ensemble required for *Apocalyptica*

39. George Rochberg, *Black Sounds*, (Pennsylvania: Theodore Presser Company, 1965), 75.

from thirty-one wind parts, which were likely expected to be doubled, to twelve, and from twelve percussionists to four.[40]

Figure 22. Final Instrumentation for *Black Sounds*[41]

2 Flutes (doubling Piccolos)	2 Horns in F
Oboe	2 Trumpets in C
2 B♭ Clarinets (E♭, Bass)	2 Trombones (Tenor, Bass)
Piano; Celesta	Tuba
	4 Percussion

The most noticeable omission from *Apocalyptica* to *Black Sounds* is the entire saxophone family, but there is also a reduction of low instruments such as the BB♭ Contrabass Clarinet, Bassoon, Euphonium, and String Bass.[42] While *Apocalyptica* called for twelve percussionists, the manuscript for Black Sounds originally required only two players and was eventually increased to four.[43] The instrumentation of the percussion section can be found in figure 23.

Figure 23. *Black Sounds* Percussion Instruments by Part

Percussion 1:	Timpani (4), Large Bass Drum, Small Bass Drum, Crash Cymbals, Slapstick, Temple Blocks, Small Triangle, Tambourine, Steel Plate, Anvil (or Iron Pipe), Windchimes (Bamboo)
Percussion 2:	Chimes (Tubular Bells), Glockenspiel, Sleigh Bells, Large Triangle, Guiro, Claves, Large Ratchet, Large Gong
Percussion 3:	Pair of Suspended Cymbals (Small and Large), 3 Gongs (Large, Medium, Small), Vibraphone, Claves, Woodblocks
Percussion 4:	Small Snare Drum, Field Drum, Tenor Drum, Small Bass Drum (with Small Cymbal Attached), Vibraphone, Claves, Slapstick, Cowbells (High, Middle, Low), Large Suspended Cymbal

40. One of the original percussion parts was written for piano, so it is technically only reduced by seven percussionists, but the composer made the choice to not include piano as a percussion part in this score.

41. Rochberg, *Black Sounds*, 1.

42. The instrumentation for *Apocalyptica* can be found in Figure 1 on page 9.

43. The instrumentation sketch for *Black Sounds* can be found in Appendix F.

While *Black Sounds* and each of the selected compositions by Varèses have distinct instrumentations, there are many parallels. *Black Sounds* and *Intégrales* are most similar regarding instruments such as the two piccolos, extended clarinet family, and four percussion parts that perform on a wide array of instruments. The oboe, trumpet, and trombone sections are similar, although Rochberg exchanges the contrabass trombone for a more readily available tuba. A notable absence from all these compositions, with the notable exception of *Octandre*, is the bassoon. Rochberg used piano and celesta in *Black Sounds*, which are not found in any of the selected works of Varèse.

Figure 24. Instrumentation Comparison

Black Sounds	*Intégrales*	*Octandre*	*Hyperprism*
2 Flutes (doubling Pic) Oboe 2 B♭ Clarinets (E♭, BC) 2 Horns in F 2 Trumpets in C 2 Trombones (Tenor, Bass) Tuba 4 Percussion Piano; Celesta	2 Piccolos Oboe E♭ and B♭ Clarinet 2 Trumpets (C and D) 3 Trombones (T, B, Contra) 4 Percussion	Flute (doubling Pic) Oboe B♭ Clarinet (E♭) Bassoon Horn in F Trumpet in C Trombone String Bass	Flute 2 Oboes B♭ Clarinet 3 Horns in F 2 Trumpets in B♭ 2 Trombones 10 Percussion

Conclusion

Black Sounds is a unique work that explored the compositional techniques of Edgard Varèse during the 1920s. The analysis shows that while Rochberg mimicked many of the techniques used in Varèse's music, *Black Sounds* also explored different uses of tone rows, sound-masses, rhythmic patterns, dynamics, and instrumentation. The result is a composition that honors Varèse's music without being derivative.

CHAPTER IV: REHEARSAL STRATEGIES

Purpose

This section is meant to give insight from the author's experience with *Black Sounds*. It focuses on what to accomplish before the first rehearsal and interpretive suggestions for sections of *Black Sounds* that either lack instructional or performance clarity.

Before the First Rehearsal

A conductor will want to watch the premiere performance of the ballet through the American Archive of Public Broadcasting, mentioned in Chapter 2, to gain a full understanding of the moment-to-moment context that can be used to build an interpretation. The interpreter should also consider that certain moments in the music, especially unmetered moments, may have been altered to accommodate the dancers in the original context.

The conductor and timpanist will both benefit from a one-on-one meeting before the first rehearsal. This creates an opportunity for the timpanist and conductor to discuss phrasing and rest length.

To prepare for the first rehearsal, it may be helpful for the musicians to listen to additional works of Rochberg and Varèse. Appendix III includes suggested listening lists for both composers which will allow performers to compare *Black Sounds* and Varèse's aesthetic.

Interpretation Suggestions

The following interpretive suggestions may also be helpful to the conductor's preparation.

Introduction (mm. 1–21)

- Sustained pitches should decrescendo quickly to provide space for clarity
- The trombone 1 should be treated as a soloist and all other voices accompanimental
- The trombone 1 should read the exact dynamics throughout and not play this line with traditional phrasing

- Ringing percussion, like the chimes and gongs, do not need to dampen for the eighth note rests
- Emphasize measure 14 as the first moment of rhythmic dissonance

Section A (mm. 22–65)

- There should be little to no pause after the fermata in measure 21
- The snare drum in measure 22 should be played very quiet to enhance change of texture and dynamic
- The glissandi in trombone 2 should not occur for the first eighth note of duration
    - Measure 30 gives a well-defined visual timing of the gesture
- Treat each entrance in measures 26 and 27 as bell tones in order to hear each new entrance
- Balance the gongs in measure 30 to the winds playing the three-note motive
- Give the musicians a rhythmic reduction of measure 35 and 40 to practice so they can understand the entire rhythm and find their place within it
- Allow the trombone 1 to be heard in measure 45 when they change the pitch centricity to F4
- Let the percussion play by themselves at measures 54–65 because they have a repeated entrance of 5 notes against 3 against 2

Section B (66–133)

- The tuba's molto diminuendo in measure 66 should balance to the ringing piano
- The flute 1 at measure 71 should feel unmetered
- All decrescendos in this section should occur quickly to create space for other voices
- In measure 103 the wind crescendos should not overpower the three-note motif in the vibraphone

Section C (134–74)

- In measure 134 the piano should play the F and G at a volume that can support the flutes
- The poco ritardandos in this section should be enough to allow the crescendo to occur
- Starting in measure 151, the percussion 3 and 4 parts drive the music forward

Section D (175–209)

- The oboe and clarinet 1 should play their lines soloistically
- The piano in measure 152 should release with the winds
- The percussion parts in measure 191 should interpret Rochberg's words as a two-beat crescendo and two beat decrescendo for each figure.
- All musicians need to be aware of the 5 against 3 that begins in measure 191 and continues through the entire section
- The decrescendo in measure 208 and 209 should never get so quiet that each pitch can't be heard

Section E (210–38)

- The fermata lifts throughout the timpani cadenza should be interpreted as a short fermata, or a lift of the sound

Section F (239–84)

- The percussion needs to remain very quiet until the majority of winds have entered
- Percussion 1 should perform the cymbal roll on a suspended cymbal instead of a crash cymbal as Rochberg suggests
- The conductor can enhance the final note of this section by staying open after releasing the sound
- The pause in measure 284 can be very long

Section G (285–305)

- The brass choir should focus on the counterpoint of this section
- The musicians will need a breath in between measures 295–96 and again between 297–98

Section H (306–21)

- Encourage the flutes to sustain the pitch each time before bending the pitch down
- This entire section should feel unmetered
- Balance all pitches in 319 so that the three-note motif can be heard

CHAPTER V: CONCLUSIONS AND FURTURE RESEARCH

Conclusions

George Rochberg is an American voice rarely remembered in music history. His love of historicism, ideas of *ars combinatoria*, and the deaths of loved ones were the impetus for Rochberg's compositional development, and he explored the greater musical timeline through quotation and mimicking the aesthetics of other composers. *Black Sounds* represents an important inflection point in Rochberg's musical timeline that helped chart his growth and transition. Rochberg experimented connecting to a nonlinear timeline, but *Black Sounds* was early in Rochberg's transitional period and lacked the defining feature of his other compositions, quotation. Instead, this was an entirely original composition that represented Rochberg's musical ideas and experiences.

Black Sounds has been analyzed as a stand-alone work but also considered through the lens of Rochberg's understanding of Varèse. The selection of three works by Varèse from the 1920s were compared to *Black Sounds* to show specific techniques that Rochberg used to replicate the desired aesthetic. While Rochberg incorporated Varèse-like compositional techniques, he also created a new composition through the addition of multiple tone rows, dodecaphonic harmonies, instrumentation, extensive solo percussion writing, and unique sound-masses.

Future Research

An avenue of research is the topic of quotation and its evolving usage throughout the 20th and 21st centuries. This will begin with an analysis of quotation amongst Rochberg's contemporaries like Luciano Berio, George Crumb, and Karlheinz Stockhausen before reaching backwards to tin pan alley composers and Charles Ives. The intention of this research will be to

contextualize the usage of quotation before comparing it to recent composers like John Corigliano, Philip Glass, Steven Bryant, David Biedenbender, and Omar Thomas.

Finding information regarding the premiere alongside the video recording was one of the most important discoveries of this research. The circumstances surrounding *Black Sounds* have only been in the periphery of researchers and the significance of this discovery has inspired the possibilities for future research.

Future research by this author will be focused on the ballet, *The Act*, and the play, "Far Rockaway," with specialists in those disciplines. Future research will strive to better understand the ballet and play performances, and their relation to the music of *Black Sounds*. The goal is to stage the ballet and document the experience to aid future performance practices. The original was created for television and could be recreated in order to present and store the work digitally.

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APPENDIX A: PROGRAM NOTE

Black Sounds (1965) **George Rochberg (1918–2005)**

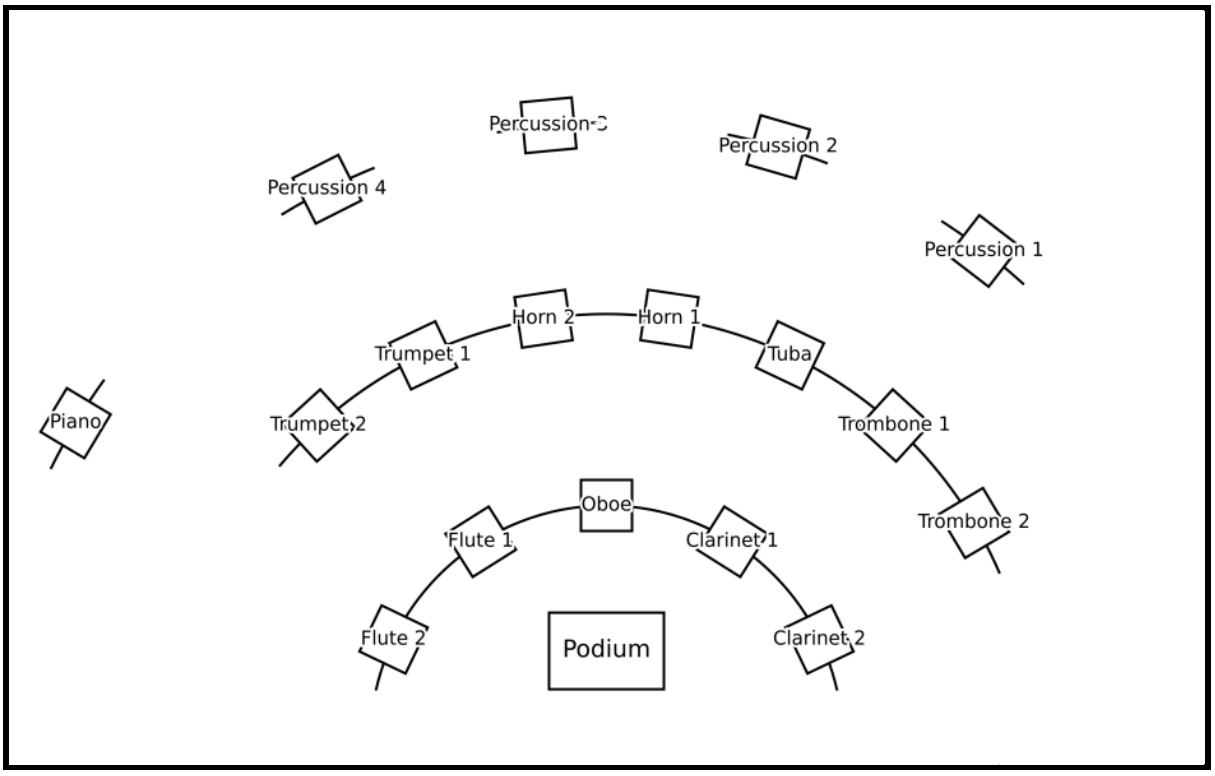
George Rochberg was an American composer who, like most composers of the early 20th century, was trained to write serial music, which is music that utilizes complex ordered patterns of pitch, rhythm, timbre, or dynamics to create structure. Eventually, Rochberg began to feel that serialism was limiting his expression but, at the time, it was difficult to gain acceptance as a "serious" composer if one composed in a non-serial style. Instead, Rochberg decided to explore a postmodern style of composition by quoting and imitating other composers' music and aesthetics.

Black Sounds was inspired by the aesthetic of Edgard Varèse, the landmark 20th-century composer who described music as having four characteristics: duration, dynamic intensity, frequency, and timbre. Using Varèse's understanding of musical aesthetics, Rochberg develops a three-note motive over the course of the composition. The chromatic motive is presented throughout the ensemble while being developed through augmentation, diminution, and transposition. Accompanying chords are written in extreme ranges to exemplify Varèse's approach to harmonic organization. The form of the composition is delineated through the density of the orchestration, extreme dynamic contrast, and the previously mentioned motivic development.

Rochberg wrote the following regarding *Black Sounds*:

> In 1964, I wrote a large wind ensemble work entitled *Apocalyptica* – from this work I drew the material for a 17-player wind piece called *Black Sounds*. This new work was done in 1965 on commission from Lincoln Center for a dance called *The Act*, choreographed by Anna Sokolow for inclusion in a special TV composite project Lincoln Center developed in cooperation with WNET, New York; later that show was awarded the Prix d'Italia. Since the dance concerned itself with the "act of murder," the music, to be appropriately "black" had to be unrelenting in its intensity, dark in its gesture. The result was a totally chromatized texture, though not necessarily atonal. In a through-composed single movement, *Black Sounds,* is stylistically consistent from beginning to end. At the time I wrote it, I also thought of it as an "homage" to Varèse, whom I admired greatly for his directness and power of dramatic expression.

APPENDIX B: SEATING CHART



APPENDIX C: ERRATA

- m.1, piano. Half note on beat two should be dotted (part)
- m.38, horn 1. Beat four and five should be a quarter note triplet (score)
- m.124, horn 1. Should be marked open (part)
- m. 134, piano. Missing eighth note rest at the end of the measure (score)

APPENDIX D: SUGGESTED LISTENING

George Rochberg

First String Quartet (1952)
Second String Quartet (1961)
Piano Trio (1963)
Black Sounds (1965)
Contra mortem et tempus (1965)
Music for the Magic Theater (1965)
Nach Bach (1966)
Third String Quartet (1972)
Symphony no. 5 (1986)

Edgard Varèse

Intégrales (1923)
Octandre (1924)
Hyperprism (1925)
Ionisation (1931)
Déserts (1953)

Luciano Berio

Sinfonia (1968)

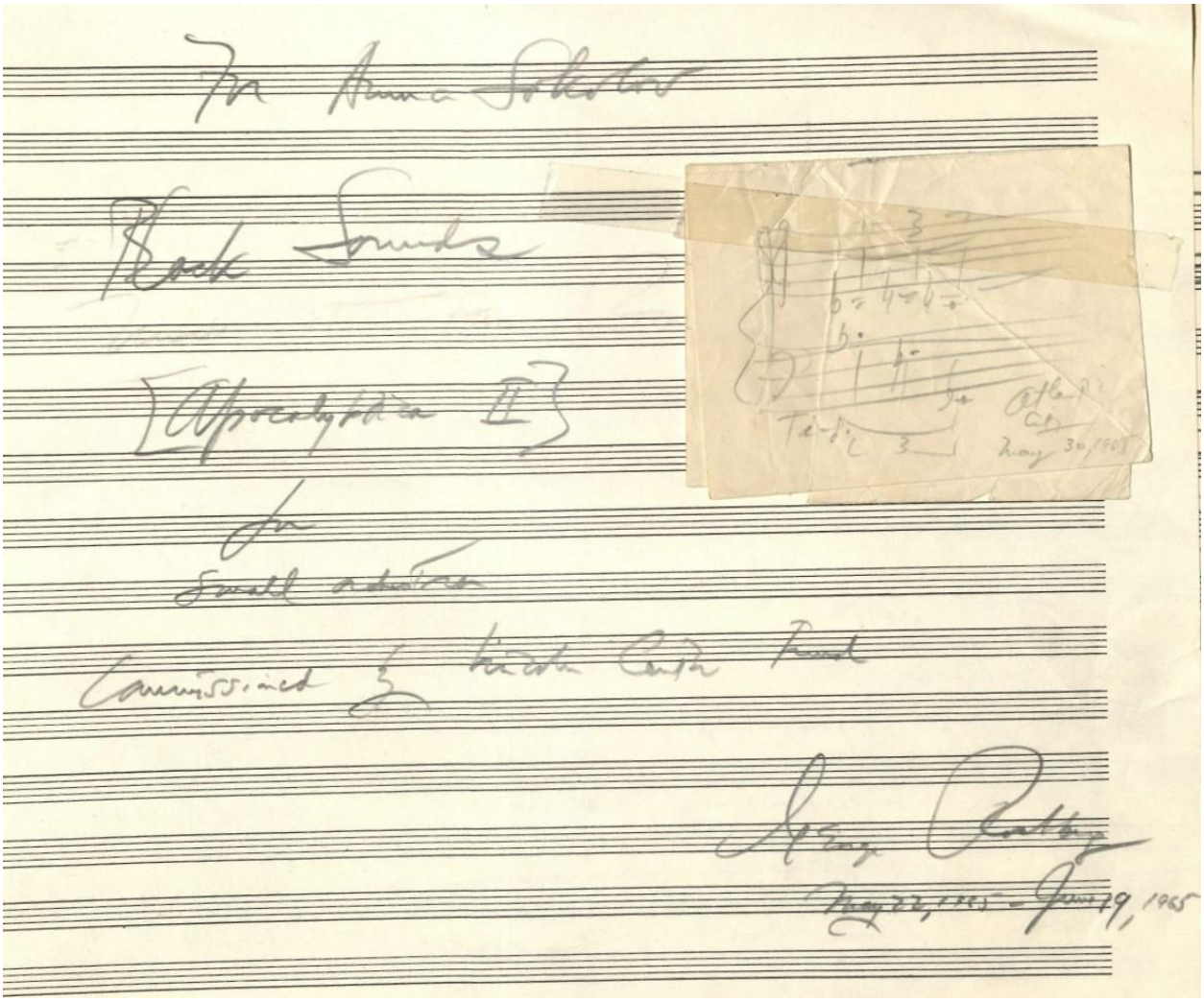
Karlheinz Stockhausen

Hymnen (1967)

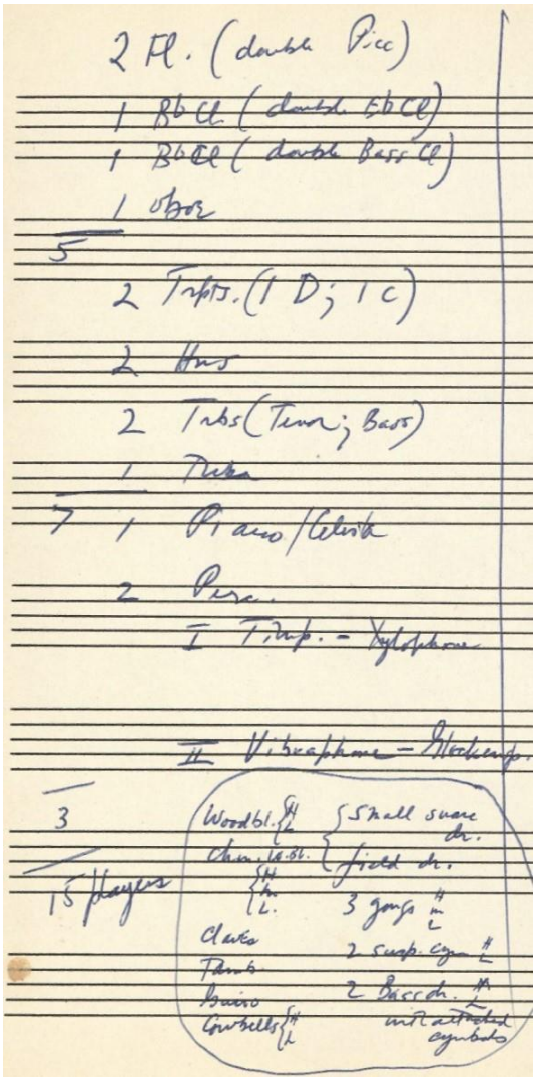
Luigi Dallapiccola

Tre Laudi (1936)
Marsia (1948)
Job (1950)
Il prigioniero (1950)

APPENDIX E: MANUSCRIPT TITLE PAGE



APPENDIX F: MANUSCRIPT DRAFT OF INSTRUMENTATION



APPENDIX G: LETTER OF PERMISSION

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December 23, 2021

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