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UNIVERSITY OF CALIFORNIA, SAN DIEGO

Composition for Seven Instruments and Accompanying Essay

A dissertation submitted in partial satisfaction of the requirements for the degree

Doctor of Philosophy

in

Music

by

Steven Adam Voigt

Committee in charge:

Professor Rand Steiger, Chair
Professor Anthony Burr
Professor Judith Dolan
Professor Phillip Larson
Professor Jann Pasler

2013

The Dissertation of Steven Adam Voigt is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

Chair

University of California, San Diego

2013

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ABSTRACT OF THE DISSERTATION

Composition for Seven Instruments and Accompanying Essay

by

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Doctor of Philosophy in Music

University of California, San Diego, 2013

Professor Rand Steiger, Chair

My composition $i \sin \theta$ (pronounced “I sign theta”) for seven instruments seeks to turn away from a conception of form as a discursive, linear, and closed argument, and instead embrace a vision of non-narrative structure that creates the illusion of open and unbounded form.

The composition is accompanied by an essay in two parts. Part one explores the philosophical and theoretical concepts that informed the composition of $i \sin \theta$, while part two details the compositional techniques and strategies employed.

CHAPTER 1

The Conceptual Framework for $i \sin \theta$

1.1 Introduction

$i \sin \theta$ (pronounced “I sign theta”) is the first new composition I have completed in seven years. During this period, I have struggled with a creative and aesthetic dilemma: I began my career as a composer with an unshakeable belief in the ethos of musical high-Modernism. Once that faith had been destroyed, I became creatively adrift, with no sense of larger artistic purpose. Since then, I have sought to reconstruct a sense of purpose and an overall aesthetic, one that transcends my Modernist roots without ignoring how profoundly Modernism shaped me.

In the first part of this essay, I discuss the evolution of my response to this dilemma, from graduate school to the present, and indicate how the composition of $i \sin \theta$ suggests at least a provisional solution. In the second part, I delve into the more technical issues of how $i \sin \theta$ was composed.

1.2 Origins of a Dilemma

My ideas about musical form grew directly out of my experiences as a graduate student. As noted above, I entered graduate school with a High-Modernist aesthetic, primarily influenced by composers such as Pierre Boulez, Karlheinz Stockhausen, Brian Ferneyhough (my teacher and mentor) and Elliott Carter. One

piece that I was particularly taken with was Carter's *Night Fantasies*¹ (1980) for solo piano. A brief examination of this piece will help elucidate the underlying aesthetic assumptions that I absorbed from Carter, among others.

According to David Schiff, Carter describes the form of *Night Fantasies* as “a fast movement interrupted...by slow trios that gradually turns into a slow movement interrupted by fast trios.”² Carter has also stated that “Night Fantasies is a piano piece of continuously changing moods, suggesting the fleeting thoughts and feelings that pass through the mind during a period of wakefulness at night. The quiet, nocturnal evocation with which it begins and returns occasionally, is suddenly broken by a flighty series of short phrases that emerge and disappear. This episode is followed by many others of contrasting characters and lengths that sometimes break in abruptly and, at other times, develop smoothly out of what has gone before. The work culminates in a loud, obsessive, periodic repetition of an emphatic chord that, as it dies away, brings the work to its conclusion.”³

While these comments convey the general character of the work, most scholarly analyses of *Night Fantasies* have focused on the rather formidable pitch and rhythmic structures that underpin the work.⁴ Rhythmically, *Night Fantasies* is based on a single, extremely slow polyrhythm (216:175). The two pulses coincide only twice: on the downbeat of measure 3 and on the last notes of the piece (the first two measures thus function as a structural anacrusis). The polyrhythm is a deep

¹ Elliott Carter, *Night Fantasies* (New York: Associated Music Publishers, 1982).

² David Schiff, *The Music of Elliott Carter* (London: Eulenberg Books, 1983), 319.

³ Carter, *Night Fantasies*, preface.

⁴ For example Schiff, *The Music of Elliott Carter*, pp. 316-321, and John Link, “The Composition of Elliott Carter's ‘Night Fantasies,’ ” *Sonus* 14 no. 2 (Spring, 1994):67-89.

background structure, rather than a surface feature: the pulses move too slowly to be perceived as periodic, and they are often indistinguishable from the welter of surface detail that surrounds them.

Harmonically, the pitch material in *Night Fantasies* is derived from a special type of twelve-note all-interval chord in which, as Schiff states, “each interval is paired symmetrically with its inversional equivalent...around a central non-invertible tritone.”⁵ There are exactly 88 of these chords, and Carter uses all 88 in *Night Fantasies*. Like the polyrhythmic structure, the all-interval harmonic structure of *Night Fantasies* is a background structure, rather than a surface feature, supporting smaller, often more intervallically homogeneous pitch collections.

I would like to call attention to two important themes that emerge from the preceding descriptions. First, there is a discursive argument (the “fast movement interrupted by slow trios” that is transformed into “a slow movement interrupted by fast trios”) that builds to a central climax (the “work culminates in a loud, obsessive, periodic repetition of an emphatic chord”). Second, there are two underlying structures, a temporal rhythmic structure and an atemporal harmonic structure, that are self-contained, rational, and complete in themselves. The structural polyrhythm goes through one complete cycle, and the piece ends when the cycle is completed; in a similar fashion, the piece does not end until all 88 of Carter’s all-interval chords have been used.

Musical forms are not neutral containers for material: forms imply ideologies, belief systems, and ways of listening. In *Night Fantasies*, the formal structure reveals

⁵ Schiff, *The Music of Elliott Carter*, pp. 316.

much about the High-Modernist aesthetic that I so admired. The idea of a discursive argument that leads inevitably to an ultimate climax⁶ implies an unbroken thread, a narrative that must be followed in its entirety in order to be understood. The inviolable nature of this argument is supported by the underlying pitch and rhythmic structures: for example, omitting even one measure of the piece would disrupt the integrity of the inexorably unfolding polyrhythm.

However, given Carter's dense, atonal, polyrhythmic language, it is extremely difficult for even the most experienced listeners to follow Carter's train of thought so completely, and with total comprehension. Those listeners who are unable to keep up must take it on faith that Carter's musical logic is coherent. For a composer (or for critics/analysts who champion the works of that composer), one way to persuade such listeners is to point to the rational basis of the music's structure and the compositional systems used to construct the music. In a piece such as *Night Fantasies*, the pitch/rhythmic structures I have described become much more than techniques used to generate musical material—they become a defense of the validity and integrity of the work in the face of an uncomprehending public.⁷

⁶ I do not claim that the idea of a central climax is an essential part of Modernism; certainly there are many Modernist works that do not have this feature. However, the presence of a climax in this work (and many others by Carter) heightens the sense of an unbroken, discursive argument.

⁷ My argument in this paragraph owes much to Rose Subotnick, who posits that contemporary music's "one rather wan hope is to coerce the public, through a sense of moral obligation based on faith in the composer's integrity and in the authority of experts, into supporting contemporary music for the fact, rather than the substance, of its individualistic virtue" (Rose Subotnick, *Developing Variations* (Minneapolis: University of Minnesota Press, 1991), 275). Though Subotnick's argument applies more to a particularly rarified strain of High-Modernism than to contemporary music as a whole, I nonetheless found her ideas compelling; reading *Developing Variations* during graduate school helped to crystallize my growing discontent with the path I was on.

1.3 Philosophy and Music Theory

By my third year of graduate school, I had come to feel that the aesthetic embodied in works such as *Night Fantasies* was, for me, a cul de sac, and I began searching for an alternative basis for my work. Much of the research I did for my qualifying exams approached this problem from two different angles. The first was a thorough investigation of the aesthetics of both Modernism and Postmodernism. I wanted to understand the Modernist aesthetic so that I could determine what elements to accept, and what to reject; I sought to understand the many facets of Postmodernism in the hope that I would find a way out of the aesthetic dead end I felt trapped in.

In this research, I attempted to look past superficial differences in style and focus on the issues underlying the Postmodern response to Modernism. I identified five themes in Modernism that Postmodernism rejected, in whole or in part: (1) the ideal of art as autonomous; (2) the notion of structure as primary; (3) the narrative of artistic progress and the view of language (whether verbal, musical, or visual) as historically advancing; (4) the opposition of high and low culture; (5) resistance to the commodification of art.

In the short term, this aesthetic theorizing had a decidedly negative effect on my composing. The burden I placed on myself—in effect trying to find a cure for all the ills of Modernism—was too great, and it paralyzed me. Eventually, I decided that if I was going to continue composing at all, I would have to stop thinking about philosophical issues, or at least confine such thoughts to reflective periods between compositions.

Over the long term, however, this philosophizing did help me to determine a possible way forward. As I turned away from the aesthetic positions I have identified in *Night Fantasies*—form as a discursive, linear, and closed argument, and structure as an autonomous element that legitimates the work—I began to think about non-narrative forms that would create the illusion of a structure that was both open and variable; I adopted a view of structure as an aid to both composition and perception, rather than as something that conferred legitimacy on the work. In short, I narrowed my concerns, abandoned the search for grand solutions to the historical and social dilemma of New Music, and contented myself with personal and provisional solutions whose purpose was to grant me enough creative breathing space to keep working.

The second avenue of research that I pursued in graduate school was narrower and more technical, though clearly related to my philosophical concerns. Much of this research revolved around the intersection of music theory and musical cognition. Of particular importance was a 1992 article by Fred Lerdahl.⁸ In it, Lerdahl developed an extended critique of compositional systems in Modernist works (of the sort I outlined in *Night Fantasies*). At the time, given the crisis of faith in Modernism that I was undergoing, Lerdahl's critique resonated powerfully for me. What was important to me about his theory, apart from its skeptical take on Modernism, was that it was a theory of how we actually *hear* structure, as opposed to an abstract description of structures whose relationship to listening was unclear.

⁸ Fred Lerdahl, "Cognitive Constraints on Compositional Systems," *Contemporary Music Review* 6 no.2 (1992): 97-121.

Lerdahl argued that the complex structures built into many Modernist works are inaudible because the *compositional grammar* (the rules governing how a piece is made) bears little relationship to the *listening grammar* (the unwritten rules that a listener uses to create a mental representation of the work). Two crucial concepts here are *hierarchy* and *segmentation*. He writes that in tonal, common-practice music, experienced listeners intuitively and unconsciously segment the musical surface into discrete events (motives and phrases, for example), and then structure those events hierarchically, grouping phrases into periods, periods into subsections, subsections into sections, and so on. Our ability to infer structure in music is heavily dependent on this grouping activity. But in much contemporary music, the conditions that would allow for such unconscious grouping are absent. In some cases, it is not clear how the musical surface can be segmented on even the most local level. In other cases, grouping may be clear on the musical surface, but not at successively higher structural levels. The result, according to Lerdahl is that such a work

does not feel structurally complex in the way, for example, that compositions by Beethoven or Schoenberg do. Vast numbers of nonredundant events fly by, but the effect is of a smooth sheen of pretty sounds.⁹

Lerdahl's critique is not reserved only for High-Modernist works:

Commenting on Steve Reich's music, he writes

⁹ Ibid. , 98.

Repetition is an obsession of minimalism. But without distinctive transitions such groups produce only “flat” hierarchies; that is, the repetitions are not heard within larger groups to any depth of embedding.¹⁰

This passage, in particular the idea of “flat” hierarchies, turned out to have a long-lasting effect on me, and I will return to it later. At the time, however, my main concern was to build upon Lerdaahl’s ideas and to develop compositional systems in which the compositional grammar was more closely integrated with the listening grammar, and in which cognitively transparent, multilevel hierarchies were built into the structure of the work.

Like my philosophical investigations, these attempts were, in the short term, a failure that had a decidedly negative effect on my composing. The main problem was that they invariably led to a sort of musical neo-conservatism that I found completely distasteful. Though I wanted to escape the contradictions of Modernism, I did not wish to do so by returning to the pre-modern past; rather, I wanted a sonically adventurous music that was stripped of Modernist baggage. In order to continue composing, I had to abandon the idea of hierarchical structures based on the concept of a listening grammar.

Much later, I would see how misguided these efforts had been. I came to realize that much music I was interested in—and not just the archetypal works of High Modernism—failed the test of cognitive transparency: The tangled polyphonic masses of Ockeghem, Obrecht, and Taverner, Stravinsky’s *Symphonies of Wind Instruments*, and the sculptural sound environments of Alvin Lucier, to name just a few examples.

¹⁰ Ibid. , 105.

While Lerdaahl presents the idea of thoroughgoing hierarchical structure as a sort of musical universal, it is actually a historically delimited concept, ideally suited to music of the common practice era, but less applicable to both earlier and later periods.

I also came to understand that “cognitively transparent hierarchies” were inextricably bound up with the same High-Modernist view of form that I had become so dissatisfied with, and would ultimately reject. Neither Lerdaahl nor the Modernist composers he criticizes dispute the primacy of structure, or its importance as a carrier of meaning; Lerdaahl is simply arguing that the structures are insufficiently audible.¹¹

However, I don’t view my theoretical investigations as unfruitful. The approach I would eventually embrace—based on *incomplete* hierarchies and the deliberate *subversion* of hierarchy at certain structural levels—would not have been possible without the thorough understanding of hierarchy that I had gained. Much of the impetus for these ideas came not from theory or philosophy, but through close study of musical works that I admired.

¹¹ Thanks to Anthony Burr for helping me to clarify this point.

1.4 Musical influences

Though I still admired the works of Ferneyhough, Carter, and others, I no longer saw them as models upon which to build. I needed to find new models—not necessarily to imitate, but to provide clues for a way forward. I began to look for composers who used modernist materials in a way that transcended the contradictions I perceived in Modernism. Eventually, my search led me to focus on the late works of Franco Donatoni and Morton Feldman.

It may seem odd to lump these two together: superficially, they are a study in contrasts. Donatoni's music is typically frenetic and virtuosic. It often seems to have an emotionally detached, ironic tone reminiscent of Stravinsky's music—a resemblance accentuated by Donatoni's love of dry, staccato textures. Feldman's music, on the other hand, is often very sparse and deliberately anti-virtuosic. He tended to favor sustained sonorities over dry ones, and his expressive stance is worlds away from the “objective” tone of Donatoni's music.

Beneath the surface, however, they have much in common. In both composers' late works, pseudo-repetition of brief melodic/rhythmic cells is used to create clearly distinct sections, and the overall form is assembled from an unusually large number of these sections. In Donatoni's more radical works, and in nearly all of Feldman's works, a discursive, narrative structure is dispensed with.¹²

¹² The fact that Feldman and Donatoni are quite stylistically distinct was important to me. At a relatively advanced age, I was not looking for a stylistic model (as I had been when I patterned earlier works after those of Modernist composers), but rather for new (to me) approaches to form. In time, I would find other composers who shared this approach, such as the Swiss composer Beat Furrer, and the Romanian Horatiu Radulescu.

For example, consider Donatoni's *Tema* (1981).¹³ Below are the first three measures of the piece.

Figure 1.1: Donatoni, *Tema*, mm.1-3.

Dissonant, fortissimo trilled chords in rhythmic unison are grouped into brief phrases, separated by rests. The piece continues in this fashion for 59 beats (about 40 seconds). Then, in m.12, the first section abruptly ends, and a new section begins.

¹³ Franco Donatoni, *Tema* (Milano: Ricordi, 1981).

The musical score for Donatoni's *Tema*, measures 12-15, is presented for a large ensemble. The instruments listed on the left are Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Fg.), Cor Anglais (Cr.), Violins (Vni), Violas (Vlc), and Cellos/Double Basses (Vc.). The score shows measures 12 through 15. In measures 12 and 13, the woodwinds and strings play staccato or tremolo patterns. In measure 14, the horns (Fl., Ob., Cl., Fg.) play sustained chords. In measure 15, the strings play a sustained chord. Dynamics include *p, sempre*, *ppp, sempre*, and *punta pte, ppp, sempre*.

Figure 1.2: Donatoni, *Tema*, mm.12-15.

This new material (slow-moving, sustained two-part harmony in the horns, accompanied by staccato/tremolo interjections from strings and winds) continues in similarly static fashion for another 20 measures, until it is supplanted by yet another static section. In all, the piece consists of some 25 sections, each with an average length of a little less than a minute; the vast majority of these are simply static blocks of material, without directional tendency.

Many of Feldman's works pursue an extreme version of this formal strategy. Below are mm. 73–89 from *Patterns in a Chromatic Field*¹⁴ (also from 1981) for cello and piano.

¹⁴ Morton Feldman, *Patterns in a Chromatic Field* (London: Universal Edition, 1981).

The musical score for Feldman's *Patterns in a Chromatic Field*, measures 73-89, is presented in three systems. The first system (measures 73-77) features a complex, quasi-repeating pattern of chords and intervals, with a 'pizz.' (pizzicato) marking. The second system (measures 78-83) continues the pattern, with an 'arco' (arco) marking. The third system (measures 84-89) concludes the section, with a 'Reo. sempre' (Reo. sempre) marking. The score is in 3/4 time and features a complex, quasi-repeating pattern of chords and intervals. The notation includes various musical symbols such as notes, rests, and dynamic markings like 'pizz.' and 'arco'. The score is divided into three systems, with measures 73-77, 78-83, and 84-89 respectively. The key signature is one flat (B-flat).

Figure 1.3: Feldman, *Patterns in a Chromatic Field*, mm.73-89.

A static, quasi-repeating pattern in the first 15 measures (counting repeats) is followed by another, quite different, chunk of static material in the next 12 measures. The design is similar to Donatoni's, but the proportions are very different: Feldman continues to juxtapose static blocks of material for over 75 minutes. As Erik Ulman writes: "Panels succeed others of utterly different character and scale, without

transition or apparent consequence: minutes of near motionlessness follow unexpectedly on frenetic figuration.”¹⁵

Eventually, my understanding of these works by Donatoni, Feldman, and others coalesced with my theoretical and philosophical investigations, and I began to see how Lerdahl’s insights into hierarchy and perception could help point me toward a conception of form that might transcend the Modernist dilemmas I had been struggling with. Both composers’ works are, to use Lerdahl’s term, easily segmented on the most local level; the figures and their immediate transformations are easily identified. The music is also easily segmented on a middleground level; as I’ve shown, sections are relatively short, and their boundaries are clear. So the music is easily heard as hierarchical, but it is what Lerdahl called a “flat” hierarchy: There are no intermediate levels of segmentation to mediate between the local events and an individual section, and there are similarly no levels between the sections and the whole piece.

Lerdahl meant the term “flat” hierarchy as a criticism, but I began to see it as an essential feature. The missing levels *within* sections are part of why we hear the individual sections as static. But more important are the missing levels that group sections into larger units: The absence of these levels frustrates our attempts to hear the piece as an unbroken whole, and simultaneously encourages us to hear the form as open, incomplete, or even arbitrary. Lerdahl writes that “comprehension takes place when the perceiver is able to assign a precise mental representation to what is

¹⁵ Erik Ulman, *On Patterns in a Chromatic Field*,
<http://www.gardenvariety.org/projects/feldman/notes.html>.

perceived.”¹⁶ A prerequisite of this “precise mental representation” is that each hierarchical level must contain a manageable number of sections. In the case of Donatoni’s *Tema*, with some 25 sections that resist grouping into a smaller number of “super sections,” a precise mental representation becomes cognitively impossible. And in Feldman’s *Patterns* (which has so many individual sections that attempting to count them all seems an absurd and futile task), the problem becomes even more acute.

What makes such a structure a compelling listening experience, as opposed to one that is merely frustrating, has to do with recurrence of materials, and more generally with resemblances between materials. In Feldman’s *Patterns*, static blocks of a particular type of material frequently return, sometimes almost literally repeated, other times in altered but still recognizable form. It is generally easy to hear these recurrences. However, because it is so difficult to map the overall form, it is equally difficult to remember when, and how often, a given material has returned. Listening to the work, even after many times, I find myself wondering: has this material returned five, six, or seven times? Has it been three, five, or ten minutes since I last heard it? As the piece progresses, the answers to these questions seem not to matter. Since I am not able to create a “precise mental representation” of the form, it would not matter if the piece were slightly longer or shorter, if certain materials returned a bit more, or a bit less, often. Thus, the piece successfully communicates the arbitrary nature of its own form, as well as the non-necessity of apprehending that form in its totality.

It is important to recognize that the formal strategy used by Donatoni and Feldman—overwhelming the listener’s capacity to create a mental map of the

¹⁶ Lerdahl, “Cognitive Constraints on Compositional systems,” 98.

structure—is very different from the type of “information overload” that is common in many high-modernist works. In the latter, a high rate of information flow overwhelms the listener’s processing capacities right at the musical surface, creating a barrier through which the listener must pass in order to engage with the work. In the former, on the other hand, a very low rate of information at the surface masks an overwhelming large-scale complexity.

It is also important to distinguish between the *illusion* of a seemingly open and unfixed form in Donatoni’s and Feldman’s works and the *literal* attempt to create open, unfixed forms in certain High-Modernist works such as Stockhausen’s *Klavierstück XI*¹⁷ or Boulez’s *Troisième Sonate*.¹⁸ In the latter, the open form, though real, is apparent only to the performer, or to a listener who has the opportunity to hear several different realizations, whereas in the former, a structure that is actually fixed manages to create the impression that it is contingent and variable.

It is worth emphasizing once more that in a work such as *Patterns*, the “flatness” of the formal structure plays an essential role in creating the illusion of variability and open-endedness. Because the form, in a global sense, consists of a large number of sections that occupy the same hierarchical level, and because the number of sections is too great to be apprehended as a totality, listeners create their own connections between nonadjacent sections, aware that these are not the only ones possible. In a sense, listening to the work is a bit like contemplating a large jigsaw possible that can never be put together: There are manifold ways of putting a subset of

¹⁷ Karlheinz Stockhausen, *Klavierstück XI* (London: Universal Edition, 1957).

¹⁸ Pierre Boulez, *Troisième Sonate* (London, Universal Edition, 1963).

the pieces together, but none of those ways is necessarily more correct than others, and there is no overarching solution to the whole thing.

1.5 The Rhizome and the Tree

It is clear how the formal strategies used by Donatoni and Feldman address my misgivings about the contradictions inherent in the High-Modernist approach: A form that communicates the arbitrary nature of its own ordering is neither linear nor closed; a structure that creates the impression that its length is contingent is not relying on autonomous structure as a legitimating force. But what about these strategies is specifically Postmodern; what about them relates to the research on Postmodernism that absorbed much of my effort during graduate school?

A possible answer is suggested by one of the more important texts in Postmodern theory: *Mille Plateaux (A Thousand Plateaus)*¹⁹ by Deleuze and Guattari (a book I had mostly overlooked during graduate school). The guiding concept of this work is the “rhizome.” Deleuze and Guattari present the rhizome as an alternative to the arborescent, hierarchical structures that are pervasive not only in Modernist thought, but also in science, government, culture, indeed all spheres of society. Reading their description of the rhizome, I was struck by the extraordinary correspondence between Deleuze/Guattari’s theories and Donatoni/Feldman’s formal strategies. To illustrate this correspondence, I present excerpts from Deleuze and Guattari’s initial six-point description of the rhizome with my comments below.

¹⁹ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987).

1 and 2. Principles of connection and heterogeneity: any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root, which plots a point, fixes an order.²⁰

For Deleuze and Guattari, a rhizomatic structure consists of a number of “nodes” which are more or less equal; visually, they can be imagined as objects on a single plane. Thus, any node can be connected to any other, in contrast to arborescent structures (think of a chart representing a family tree) in which orderly connections fan out from a point of origin. There is an obvious analogy here with the formal structures I have discussed in Donatoni/Feldman, in contrast to the tree-like analytical diagrams that are characteristic of Lerdahl’s analyses (interestingly, Lerdahl explicitly invokes Chomsky’s linguistic diagrams²¹, while Deleuze and Guattari criticize them²²).

3. Principle of multiplicity: it is only when the multiple is effectively treated as a substantive, “multiplicity,” that it ceases to have any relation to the One as subject or object, natural or spiritual reality, image and world. Multiplicities are rhizomatic, and expose arborescent pseudomultiplicities for what they are.²³

When Deleuze refers to multiplicity,²⁴ he is attempting to circumvent the dualistic opposition of the One and the Many (for example, the idea that all sheep can be subsumed into the single category of “sheep”) and posit a multiplicity that is

²⁰ Ibid. , 7.

²¹ Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge: The MIT Press, 1983).

²² Deleuze and Guattari, 91-93.

²³ Ibid. , 9.

²⁴ It is well known that the references to Multiplicity in *A Thousand Plateaus* derive from Deleuze’s earlier work on Bergson. For example: Gilles Deleuze, *Theory of Multiplicities in Bergson*, <http://deleuzelectures.blogspot.com/2007/02/theory-of-multiplicities-in-bergson.html>.

irreducible. As the last sentence indicates, multiplicity is yet another way for the authors to contrast the idea of the rhizome with arborescent, hierarchical thought. In a phrase that is strikingly reminiscent of my description of the “flat” hierarchies of Donatoni and Feldman, the authors write “all multiplicities are flat, in the sense that they fill or occupy all of their dimensions: we will therefore speak of a plane of consistency of multiplicities, even though the dimensions of this “plane” increase with the number of connections that are made on it.”²⁵

4. Principle of asignifying rupture: against the oversignifying breaks separating structures or cutting across a single structure. A rhizome may be broken, shattered at a given spot, but it will start up again on one of its old lines, or on new lines. You can never get rid of ants because they form an animal rhizome that can rebound time and again after most of it has been destroyed...²⁶

The point here is that sudden ruptures in a rhizome do not have the same significance that they would in a multi-leveled hierarchical structure, in which severe ruptures would tend to correspond to higher-level structural divisions. At the beginning of this section, I noted how both Donatoni’s and Feldman’s works were often characterized by abrupt breaks between sections of highly contrasted material; however, these “ruptures” are a pervasive feature, and thus do not facilitate the grouping of sections into higher-order “super-sections.”

²⁵ Deleuze and Guattari, 9.

²⁶ Ibid., 9.

A related idea, which is taken up later in the book, is that rhizomes may be ruptured at any point precisely because neither the rhizome itself, nor its constituent parts, has a fixed boundary. The authors write

A plateau is always in the middle, not at the beginning or the end. A rhizome is made of plateaus... a book composed of chapters has culmination and termination points. What takes place in a book composed instead of plateaus that communicate with one another across microfissures, as in a brain? We call a "plateau" any multiplicity connected to other multiplicities by superficial underground stems in such a way as to form or extend a rhizome. We are writing this book as a rhizome. It is composed of plateaus. We have given it a circular form, but only for laughs... Each plateau can be read starting anywhere and can be related to any other plateau.²⁷

Again, the parallels with my descriptions of Donatoni/Feldman should be clear. The 25 sections in *Thema* or the much larger number in *Patterns* can easily be thought of as "plateaus." Apropos of the first sentence above, it is interesting to note that Feldman once wrote "Usually my pieces begin maybe on the tenth measure, kind of getting into it. And then I would look at it and throw away the first ten measures."²⁸ Another passage evokes the last sentence of the quote above: "Another crucial difference is in making the distinction between constructing a "composition" and that of an assemblage... A "composition" for me forms sentence structures within a scenario of beginning, middle, and end... With assemblage there is no continuity of fitting the parts together as words in a sentence or paragraph."²⁹

²⁷ Ibid. , 22.

²⁸ Morton Feldman, *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, ed. B.H. Friedman (Cambridge: Exact Change, 2000), 163.

²⁹ Ibid. , 196.

5 and 6. Principle of cartography and decalcomania: a rhizome is not amenable to any structural or generative model. It is a stranger to any idea of genetic axis or deep structure.³⁰

In stating their opposition to “any structural or generative model,” Deleuze and Guattari affirm a basic principle of Postmodernism (Lyotard once wrote “Simplifying to the extreme, I define Postmodernism as incredulity toward metanarratives.”³¹), and it is here that the parallel with Feldman is most obvious, for the constant theme running through the composer’s many writings is the spurning of system and structure, and the celebration of intuition;³² it could be argued that Feldman’s stance on these issues is better known than his actual music.

The idea of the rhizome was not a direct influence on my evolving conception of musical form; I encountered Deleuze and Guattari too late for that. But it helped to confirm and solidify my concepts, and it provided the final impetus that allowed me to connect my strictly musical ideas, and my analytical/cognitive interests, with the philosophies of Modernism and Postmodernism, completing the conceptual triangle that I had tried, and failed, to construct during graduate school. It also allowed me to feel, for the first time in years, as though my musical ideas might have some resonance outside the rarified world of new music. Above all, Deleuze and Guattari’s theories are an ethical model: a utopian vision that argues for local action, greater social equality,

³⁰ Deleuze and Guattari, 12.

³¹ Jean-Francois Lyotard, introduction to *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis: University of Minnesota Press, 1984), xxiv.

³² For example, see Feldman, *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*, 33-36.

the dismantling of ossified institutions, and the devolution of power. While I don't think that a composition that reaches only a handful of people can have any direct effect on society, I believe it can at least, through its structure and its mode of interacting with the listener, serve as a metaphor for a changed set of social relations.

The purpose of the foregoing discussion has been to provide a context for how I approached the composition of $i \sin \theta$. From the beginning, I set out to write a piece composed of many, relatively short sections, too many to be amenable to a "precise mental representation." These sections would be largely static and clearly distinct from one another. Frequent, abrupt "ruptures" between sections would prevent these from being grouped into super-sections. The first few sections would introduce a handful of clearly identifiable types of material, and these materials would continually be recirculated, developed in nonlinear fashion, and crossbred with one another, the intent being to create a tangled web of relationships between nonadjacent sections. Systematic compositional techniques would be used not to create a deep structure, but merely to facilitate the act of composition. In fact, there would be no grand formal plan, and the length of the piece would not be predetermined; I would simply continue composing until I felt the piece had gone on long enough.

Next, I shall examine how, and to what extent, these ideas were concretely realized in the composition of $i \sin \theta$.

CHAPTER 2

The Composition of $i \sin \theta$

2.1 Rhythmic organization

Though my compositional process tends to proceed on multiple, simultaneous tracks, an explanation must start somewhere, so it will start with rhythm. There are three principal techniques used to organize rhythm. I will refer to these as the bar cycle, the tuplet grid, and the duration cycle.

The bar cycle is a set of twelve measures, as follows:

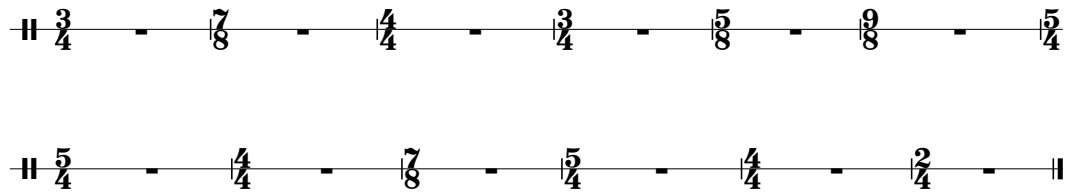


Figure 2.1: $i \sin \theta$, bar cycle.

The cycle consists of six short-long pairs, with the relationship reversed in every other pair. Measures in every eighth-note increment from five-eight to five-four are used, but not equally: for example, four-four is used three times, three-four is used twice, while five-eight is used only once. Throughout the piece, the cycle is used quite freely. Often, it is simply repeated. Other times, it is run backward. Frequently, the long-short relationship in pairs is freely reversed. Occasionally, a subset of the cycle is used to make a smaller cycle.

The purpose of the bar cycle is two-fold. First, it is a neutral vessel that helps me to make progress on a given section. Often, when if I have no idea what to do next, I will start by laying out a group of measures; the mere act of doing so gives me a physical, temporal space to fill and can help jump start composition. Second, the cycle helps to create a static but irregular time flow at a level just below the musical surface. As we shall see, bar lines play an important role in initiating and terminating events, so if the measures were all the same length, the effect would be very different.

The next technique I used is the tuplet grid. This is simply a constant stream of note values that fill a measure. These are never the actual note values used; rather, the actual note values are projected onto the grid. For example, here is the grid for m.29-30:

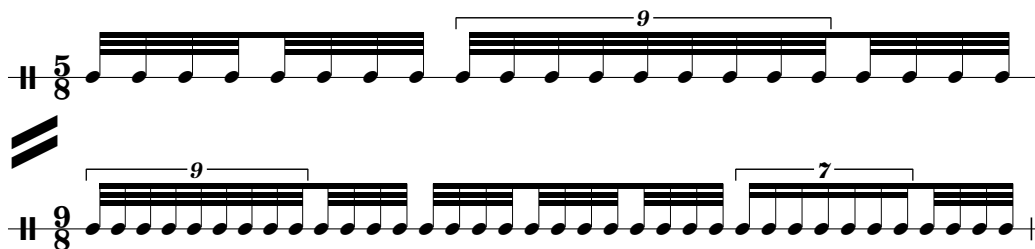


Figure 2.2: $i \sin \theta$, tuplet grid, mm.29-30.

And here is m.30 as it actually appears in the score:

Figure 2.3: $i \sin \theta$, m.30.

The tuplet grid plays an important role in determining the overall density of a section. For example, the tuplet grid above uses quarter-note beat-divisions of 7, 8, and 9. Other sections use slower divisions of the beat, or fewer/more divisions.

Furthermore, while most sections use only a single layer of beat-divisions, some use two or three layers.

Early in the compositional process, I used quasi-serial techniques to create tuplet grids for a given section. However, I soon abandoned these methods in favor of a random number generator (I used random.org). Typically, I would input a range of values (for example 5, 6, 7, 8) and the generator would create a random stream of values within these limits. Since I was generally attempting to create a static rhythmic feel, I found the random values to be quite satisfactory.

The last rhythmic technique is the duration cycle,” which is projected onto the tuplet grid to create the actual rhythms of the piece. The cycle consists of twelve pairs of durations (originally, there were eleven, but at some point I added a twelfth) as follows:

Table 2.1: $i \sin \theta$, tuplet grid, mm.29-30.

Pair	1	2	3	4	5	6	7	8	9	10	11	12
Durations	2, 4	3, 7	2, 6	2, 5	1, 4	3, 8	2, 7	1, 3	2, 8	1, 5	2, 6	3, 9

The construction of the duration cycle is analogous, but not identical, to that of the bar cycle. Each pair consists of a longer value and a shorter value; the order of these is always free. The short values are either one, two, or three, while the long values vary from three to nine.

The duration cycle is used in a wide variety of ways, depending on the desired effect. To obtain a fairly random distribution of attacks, I used the cycle in literal form.

Here is measure 59:

The musical score for measure 59 is written for seven instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Vibraphone (Vib.), and Piano (Pno.). The tempo is marked as $\text{♩} = 48$. The time signature is 7/8. The score is divided into two systems. The first system includes Flute, Clarinet, Violin, Viola, and Guitar. The second system includes Vibraphone and Piano. The Flute part begins with a *p* dynamic and features a series of eighth notes. The Clarinet part begins with a *p* dynamic and features a series of eighth notes. The Violin part begins with a *p* dynamic and features a series of eighth notes. The Viola part begins with a *p* dynamic and features a series of eighth notes. The Guitar part begins with a *p* dynamic and features a series of eighth notes. The Vibraphone part begins with a *mp* dynamic and features a series of eighth notes. The Piano part begins with a *mp* dynamic and features a series of eighth notes.

Figure 2.4: $i \sin \theta$, m.59.

The attacks may be reduced to a single line:



Figure 2.5: $i \sin \theta$, composite rhythm, m.59.

Superimposing this line onto the tuplet grid shows how the first three pairs of the duration series were used:

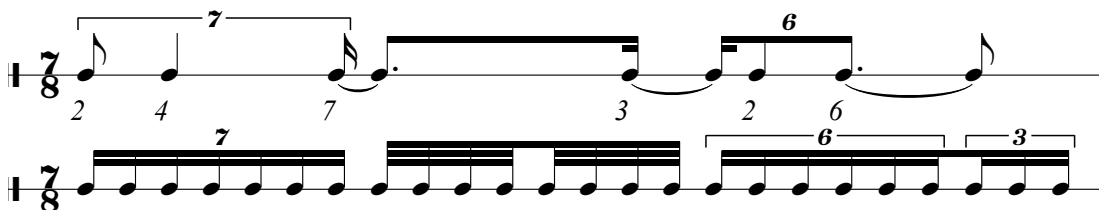


Figure 2.6: $i \sin \theta$, composite rhythm with tuplet grid, m.59.

To obtain a slower-moving rhythm, the durations in a pair are simply added together. Here are measures 13-16:

Figure 2.7: $i \sin \theta$, mm.13-16.

Here is the rhythm reduced to a single line, showing how the first eleven duration pairs are used (the tuplet grid is constant 32^{nd} notes):

Figure 2.8: $i \sin \theta$, composite rhythm, mm.13-16.

To obtain even slower rhythms, larger groups of durations are added together. An example is the impassive chord progression that concludes the work:

Figure 2.9: $i \sin \theta$, mm.237-239.

Conversely, more rapid rhythms can be generated by filling in durations. To generate the rhythms in m.101, I begin by superimposing the beginning of my duration cycle onto a tuplet grid:

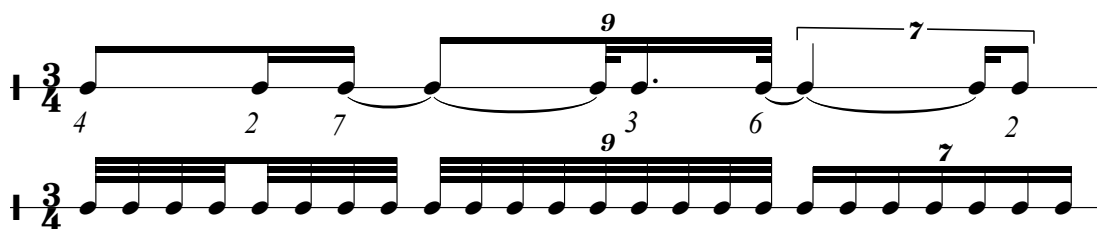


Figure 2.10: $i \sin \theta$, duration cycle and tuplet grid, m.101.

I then filled in the long durations. The first short duration was sustained, while the other two were rendered as rests.



Figure 2.11: $i \sin \theta$, composite rhythm, m.101.

Since I knew that each of these three figures would be played by a different instrument, I modified the second and third figures so that each would use a constant subdivision. Here is the final result:

101 ♩ = 66

The musical score for measures 101-102 is written for five instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), and Guitar (Gtr.). The time signature is 3/4, and the tempo is marked as ♩ = 66. The key signature has one sharp (F#).

- Flute (Fl.):** Measures 101-102. Dynamics: *fp* (fortissimo piano) at the start, *ppp* (pianissimo) in the middle, and *mp* (mezzo-piano) at the end. A long slur covers the entire phrase.
- Clarinet (Cl.):** Measures 101-102. Dynamics: *ppp* (pianissimo). Features a 7-measure rest in measure 101 and a 7-measure melodic phrase in measure 102.
- Violin (Vln.):** Measures 101-102. Dynamics: *pp* (pianissimo). Features two 9-measure rests in measure 101 and a 9-measure melodic phrase in measure 102. The phrase is marked *sul pont.* (sul ponticello).
- Viola (Vc.):** Measures 101-102. Dynamics: *p* (piano). Features a *pizz.* (pizzicato) marking in measure 101 and a 4-measure rest in measure 102.
- Guitar (Gtr.):** Measures 101-102. Dynamics: *p* (piano). Features a *sul pont.* (sul ponticello) marking in measure 101 and a 4-measure rest in measure 102. The phrase is marked with fingerings II, I, III, IV, V.

Figure 2.12: $i \sin \theta$, m.101.

A somewhat more complicated usage is illustrated by the piano part in mm.50-51.

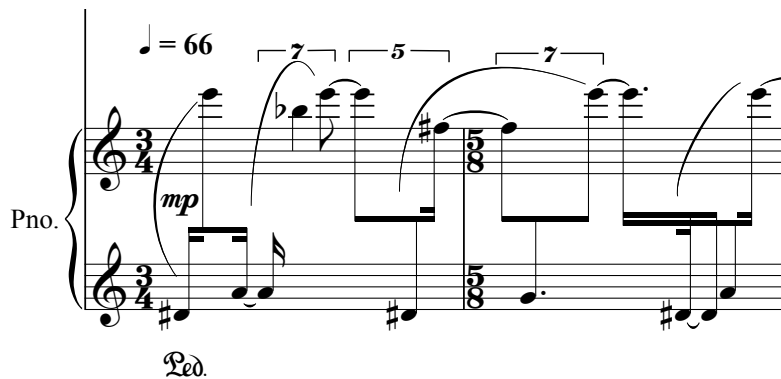


Figure 2.13: $i \sin \theta$, mm.50-51.

To construct this rhythm, I used the first five duration pairs to produce a series of ten durations: 2-4-3-7-2-6-5-2-1-4. The longest two durations (7 and 6) were subdivided into 4-3 and 3-3, respectively, and the eighth and ninth durations (2 and 1) were combined; the result of these operations was the duration series 2-4-3-4-3-2-3-3-5-3-4. The point of this rather tortuous exercise was simply to produce a quasi-even stream of similar durations (threes and fours), disturbed by the occasional shorter (2) or longer (5) duration.

The reader may have noticed that in the example above, the fifth duration does not match the series (it should have been 3, not 4). I do not wish to give the impression that my duration cycle was used faithfully and without error. There are many places where I made mistakes and did not bother to correct them, and others where I intentionally overrode my system. Furthermore, as the piece went on, I began incorporating other techniques as well; for example, performing filtering operations on a previous section to create a new one, or using my random number generator to create actual durations, rather than just the tuplet grid. Though I completed the piece only a

few months ago, there are already sections where it is impossible for me to retrace what I was doing. As I have stated, there is no “deep structure” that is intended to structurally validate this piece; devices such as the duration cycle are merely expedient techniques for generating self-consistent streams of material. What I hope is clear is that the duration cycle is a very plastic technique that allows for a wide variety of characteristic rhythms.

2.2 Tempo, Dynamics, and Instrumentation

Each of these three dimensions is used to help give a sense of identity to individual sections. Each section has its own tempo, drawn from a scale of six tempi: ♩ = 40, 44, 48, 54, 60, and 72. I did not assign tempi until after the piece had been completely written. There is no overall tempo structure: I simply chose a tempo, from the available choices, that seemed appropriate to each section.

Similarly, dynamics were not added to the final score until all the notes had been written (though I usually composed sections with particular dynamics in mind). A conscious decision, right from the beginning, was to restrict the overall dynamic range to *mp* or lower. Within this range, I assigned a sub-range for each section. For example, in the first section, only *pp* and *p* were used; in the second section, the range is *ppp* – *p*; in the third, it is *pp* – *mp*, and so on.

The instrumentation for each section was decided on a section-by-section basis. There are a larger number of different instrumental combinations used, but not all

sections are different, and there was no attempt to exhaust all the possibilities available.

2.3 Pitch Organization

2.3.1 The Complex Plane

The title $i \sin \theta$ refers to the complex plane, which is used in mathematics. For a long time, I have been interested in two pitch-organizational strategies: (1) gradually transforming dissonant, chromatic pitch sets into consonant, diatonic ones (and vice versa), and (2) gradually transforming tempered pitch sets into microtonal ones (and vice versa). However, finding ways of using *both* of these strategies in a single composition eluded me for years. In 2010, I was making most of my living tutoring math students. One day, taking the train back to Brooklyn after explaining the complex plane to a student, I realized that a system of pitch organization modeled on the complex plane was the solution to my problem.

In math, the complex plane is used to plot complex numbers in a Cartesian coordinate system (a complex number is one that has both a real and an imaginary component). In the complex plane, real numbers are placed on the horizontal axis, and imaginary numbers on the vertical axis. On the grid below, real numbers are in integer units, i.e. multiples of 1, while imaginary numbers are multiples of i (i is the square root of -1).

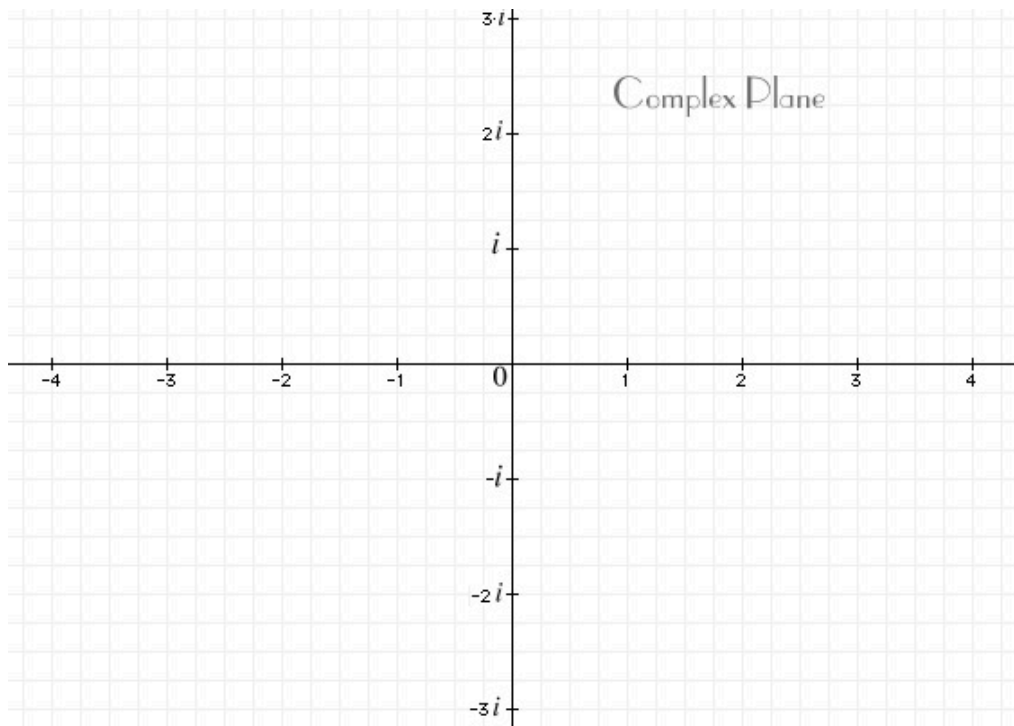


Figure 2.14: A representation of the complex plane.

The system I came up with is not algorithmic, and does not actually *use* complex numbers; it merely uses the complex plane as a metaphor. I envisioned a pitch space in which tempered pitches were plotted on the horizontal axis, and microtones were plotted on the vertical axis. Therefore, transforming a pitch set chromatically would be analogous to horizontal motion in the complex plane, transforming the set microtonally would be akin to vertical motion, and transforming a set chromatically *and* microtonally would be comparable to diagonal motion.

The figure below shows three pitch sets that eventually formed the basis of the first three sections of $i \sin \theta$. The first set is comprised of two 3-note clusters. In the second set, F-sharp becomes G-natural; in the third set, A-natural becomes A-flat.

Thus, by stepwise motion, the original set has been transformed into a fragment of the octatonic scale.



Figure 2.15: $i \sin \theta$, chromatic pitch material, section 1-3.

At the same time, the sets are transformed by modifying first one, then two of the pitches by a quarter-tone.



Figure 2.16: $i \sin \theta$, microtonal pitch material, section 1-3.

Thus, the original set is transformed in two ways: Microtones are introduced, and the underlying chromatic basis of the set is transformed.

Later in the piece (sections 17-19) there is a transformation from a microtonally-inflected diatonic pitch set to a chromatic set without microtones. The figure below shows the pitch sets for these three sections.



Figure 2.17: $i \sin \theta$, pitch material, section 17-19.

The first set is essentially an E-major scale with the root missing and two of the pitches microtonally altered. In the second set, one of the microtones is eliminated. In the third set, the underlying chromatic pitch content is altered (replacing G-sharp with C-natural), and the last microtone is eliminated. Thus, the piece returns to an all-chromatic pitch material, but one that is different than the pitch material that begins the piece; I envision this as analogous to the way a sine curve continually crosses the horizontal axis, but always in a different spot.

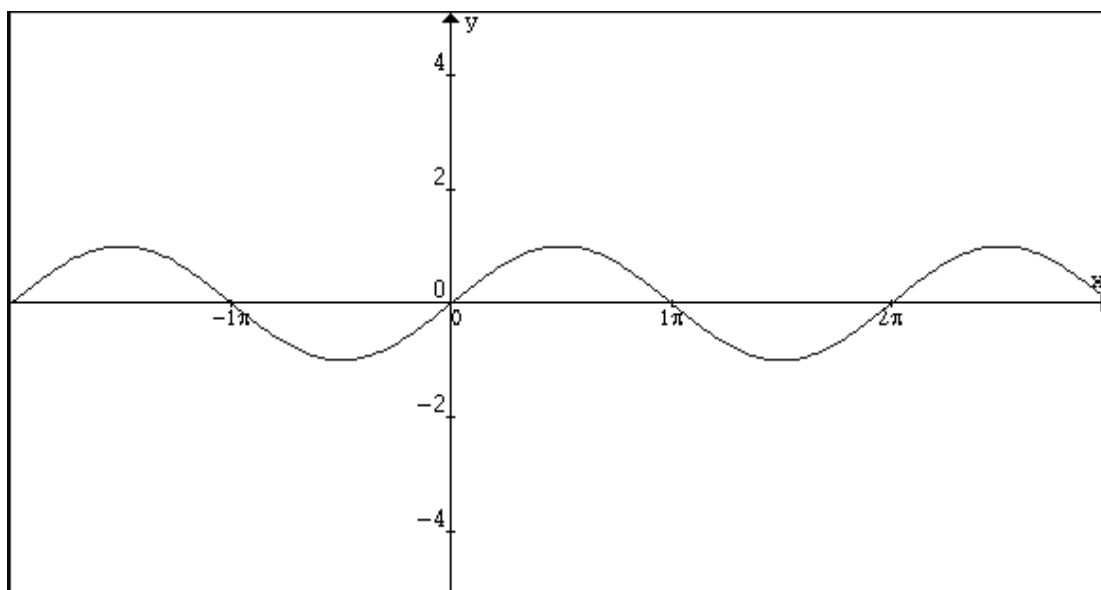


Figure 2.18: Graph of sine function.

As with some of the other techniques I've discussed, the purpose of this method is not to create a self-consistent system, nor is it to provide a rational justification for my pitch choices; rather, the purpose is to create a malleable technique that allows for transformations between a wide variety of pitch materials that have clear identifying characteristics.

2.3.2 Transpositions and harmonic motion

There are only a few sections in the piece that use a single pitch set throughout; most sections use one or more transpositions of a set. My normal procedure at the beginning of a section was to choose a basic pitch set, then create a matrix of transpositions of that set. To do this, I used a two-step method, stolen from Boulez³³ (who probably stole it from Stravinsky, who stole it from Krenek³⁴), of rotation followed by transposition onto a common starting pitch. For example, the pitch set for the first section is A, B ♭, B, E, F, F♯. I began by rotating the set:

Table 2.2: $i \sin \theta$, matrix for section 1, un-transposed.

A	B ♭	B	E	F	F♯
B ♭	B	E	F	F♯	A
B	E	F	F♯	A	B ♭
E	F	F♯	A	B ♭	B
F	F♯	A	B ♭	B	E
F♯	A	B ♭	B	E	F

³³ Antoine Bonnet, "Ecriture and Perception: on *Messagesquise* by Pierre Boulez," Contemporary Music Review 2 (1987): 174-175.

³⁴ Joseph N. Strauss, *Stravinsky's Late Music* (Cambridge: Cambridge University Press, 2001), 26-32.

And then transposing all sets after the first onto A-natural.

Table 2.3: $i \sin \theta$, matrix for section 1, transposed.

A	B $\flat$	B	E	F	F $\sharp$
A	B $\flat$	E $\flat$	E	F	G $\sharp$
A	D	E $\flat$	E	G	G $\sharp$
A	B $\flat$	B	D	D $\sharp$	E
A	B $\flat$	C $\sharp$	D	D $\sharp$	G $\sharp$
A	C	C $\sharp$	D	G	G $\sharp$

Note that the same pitch material can be obtained by transposing the set onto its own inversion:

Table 2.4: $i \sin \theta$, matrix for section 1, rotated.

A	B $\flat$	B	E	F	F $\sharp$
G $\sharp$	A	B $\flat$	E $\flat$	E	F
G	G $\sharp$	A	D	E $\flat$	E
D	D $\sharp$	E	A	B $\flat$	B
C $\sharp$	D	D $\sharp$	G $\sharp$	A	B $\flat$
C	C $\sharp$	D	G	G $\sharp$	A

Since I regard the pitch sets as unordered collections (rather than rows), it makes no difference which method is used. As time went on, I tended to use the second method, primarily out of convenience.

The number of transpositions used in a section depends on the type of harmonic motion desired. In general, I use four types of motion: (1) fixed (unchanging), (2) gradually evolving, (3) localized chord progressions, and (4) full-measure chord progressions. Following are examples of each type.

The section that begins in m.88 illustrates static harmony: the entire section uses a single 5-note pitch set.

28

88 $\text{♩} = 44$

Fl. *non vibrato*
mp

Cl. *mp*

Vln. *arco*
non vibrato
mp

Vc.

Gtr.

Glock.

Vib.

Pno. $\text{♩} = 44$
mp

Figure 2.19: $i \sin \theta$, mm.88-91.

The first section of the piece offers an example of gradually evolving harmonic motion. In m.5 – 12, I transition from one set (A, B $\flat$, B, E, F, F $\sharp$) to a closely-related transposition (A, B $\flat$, E $\flat$, E, F, G $\sharp$). M. 5 uses only the first set. M.7 adds the G $\sharp$ from the second set.

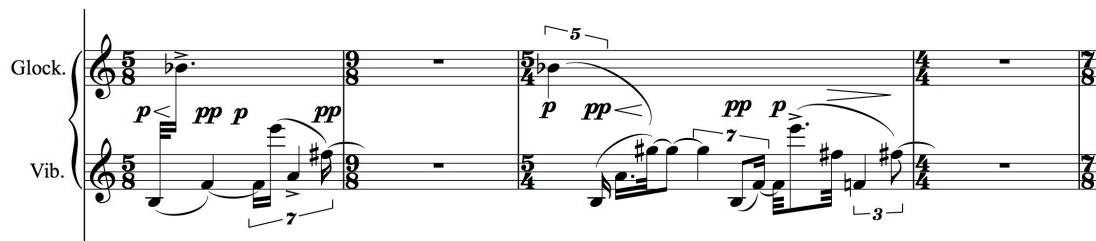


Figure 2.20: $i \sin \theta$, mm.5-8.

M.9 adds the D $\sharp$ (E $\flat$) from the second set, and drops the B-natural from the first set. Finally, M.11 drops the F $\sharp$ from the first set, completing the transition.

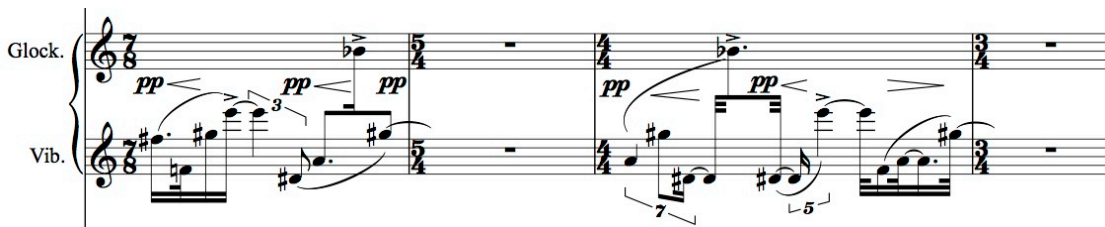


Figure 2.21: $i \sin \theta$, mm.9-12.

The section beginning in m.133 illustrates the use of transpositions as local chord progressions, and also shows how I sometimes modified my transpositional scheme to fit the musical requirements of a section. I envisioned the section as a series

of ascending arpeggios, spread across four instruments, with all arpeggios ending on the minor third $G \frac{1}{4}\sharp - B \frac{1}{4}\flat$. I began by creating a matrix:

Table 2.5: $i \sin \theta$, initial matrix for section 13.

$B \frac{1}{4}\flat$	$C\sharp$	$D \frac{1}{4}\sharp$	$E \frac{1}{4}\sharp$	$G \frac{1}{4}\sharp$	A
$A \flat$	$B \frac{1}{4}\flat$	C	D	F	$G \frac{1}{4}\flat$
$G \frac{1}{4}\flat$	A	$B \frac{1}{4}\flat$	$C \frac{1}{4}\sharp$	$E \frac{1}{4}\flat$	F
$E \frac{1}{4}\sharp$	G	$A \frac{1}{4}\flat$	$B \frac{1}{4}\flat$	$D \frac{1}{4}\flat$	$E \flat$
$D \frac{1}{4}\flat$	E	$F \frac{1}{4}\sharp$	$G \frac{1}{4}\sharp$	$B \frac{1}{4}\flat$	C
C	$D \frac{1}{4}\sharp$	E	$F\sharp$	A	$B \frac{1}{4}\flat$

Notice that the 1st, 2nd, 4th, and 5th transpositions contain four microtones and two tempered pitches, while the reverse is true of the remaining sets. I liked the idea of using only the sets that had a majority of microtones, because I knew that I would reintroduce the piano and vibraphone in the next section, and I wanted their tempered pitches to sound alien in comparison to the preponderance of microtones. So, I rejected the 2nd and 6th transpositions. I also rejected the 3rd, because it did not contain anything close to $G \frac{1}{4}\sharp$. Note that the 4th transposition does not have $G \frac{1}{4}\sharp$, but does have G-natural. I could have simply altered the G-natural (I did this sort of thing

frequently), but I liked the idea of the $G \frac{1}{4}\sharp$ being variable within a range of plus or minus a quarter-tone, so I kept the G-natural.

At this point, I was left with three usable sets, which was fewer than I wanted. So, I tried the opposite of my normal technique: Instead of transposing the original set onto each member of the inverted set, I transposed the inversion of the set onto each member of the original set. This yielded six new sets, from which I selected the following three:

Table 2.6: $i \sin \theta$, inverted pitch sets for section 13.

$B \frac{1}{4} \flat$	$A \flat$	$G \frac{1}{4} \flat$	$E \frac{1}{4}\sharp$	$D \frac{1}{4} \flat$	C
$G \frac{1}{4}\sharp$	F	$E \frac{1}{4} \flat$	$D \frac{1}{4} \flat$	$B \frac{1}{4} \flat$	A
$E \frac{1}{4}\sharp$	D	$C \frac{1}{4}\sharp$	$B \frac{1}{4} \flat$	$G \frac{1}{4}\sharp$	$F\sharp$

This gave me six usable sets. All have $B \frac{1}{4} \flat$, and four have $G \frac{1}{4}\sharp$. Of the two that do not have $G \frac{1}{4}\sharp$, one has G and one has $G\sharp$; I quite liked the symmetry of this situation.

Next, I chose chord voicings that I liked, connected the sets in an order that sounded good, and wrote them out in ascending form:



Figure 2.22: $i \sin \theta$, chord voicings for section 13.

Obviously, all of these sets have six notes. In actual practice, I decided that I wanted the number of notes to vary from five to seven notes, so in certain instances I either omitted one note, or added another from an adjacent set. I also decided that as the section progressed, the ascending order would become gradually more corrupted.

Below are the first two measures of the section:

48

132

$\text{♩} = 54$

(non vib.)

p

5

7

Cl.

p

5

7

Vln.

(8)-----|

(non vib.)

p

7

Vc.

p

(non vib.)

7

Figure 2.23: $i \sin \theta$, mm.132-134.

Followed by the last three measures of the section:

The musical score for measures 139-141 is presented for four instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), and Violoncello (Vc.). The key signature is one sharp (F#) and the time signature is 4/4. The score includes various musical notations such as slurs, ties, and fingerings (e.g., 5, 3, 7, 5, 6). The Flute part is marked with a circled 'F' and a '5' below the first measure. The Clarinet part is marked with a '5' below the first measure. The Violin part is marked with a '5' below the first measure. The Violoncello part is marked with a '3' above the first measure. The score concludes with a final measure marked with a '5' and the instruction '(non vib.)'.

Figure 2.24: $i \sin \theta$, mm.139-141.

The final type of harmonic motion is what I have called full-measure chord progressions, meaning that that changes of transposition are aligned with the metric structure of a section. Here is the matrix for the 10th section of the piece:

Table 2.7: $i \sin \theta$, matrix for section 10.

B	CD	$E^{1/4} \flat$	$E^{1/4} \sharp$	$F^{1/4} \flat$	$B \flat$
$G \sharp$	B	$C^{1/4} \sharp$	$D^{1/4} \flat$	$G^{1/4} \flat$	G
$G^{1/4} \flat$	$A^{1/4} \sharp$	B	C	F	$F^{1/4} \sharp$
$F^{1/4} \sharp$	$A^{1/4} \flat$	$B \flat$	B	E	$E^{1/4} \sharp$
$C^{1/4} \sharp$	$E^{1/4} \flat$	F	$F \sharp$	B	$B^{1/4} \sharp$
C	$E \flat$	$E^{1/4} \sharp$	$F^{1/4} \sharp$	$B^{1/4} \flat$	B

The first measure of the section uses only the first set in the matrix:

101 $\text{♩} = 66$ 31

Fl. *fp* *ppp* *mp*

Cl. *ppp*

Vln. *pp* *sul pont.*

Vc. *pizz.* *p*

Gtr. *sul pont.* *p*

Figure 2.25: $i \sin \theta$, m.101.

The next measure uses only the fourth set:

32

102

The musical score consists of five staves: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), and Guitar (Gtr.). The key signature has two flats (B-flat and E-flat), and the time signature is 7/8. Measure 102 is marked with a rehearsal mark '102'. The Flute part begins with a forte-piano (*fp*) dynamic, followed by a piano-piano (*ppp*) section, and ends with a mezzo-piano (*mp*) section. The Clarinet part has a piano-piano-piano (*ppp*) section. The Violin part has a piano-piano (*pp*) section. The Viola part has a whole note rest. The Guitar part has a piano (*p*) section. The score ends with a double bar line and a 7/8 time signature.

Figure 2.26: $i \sin \theta$, m.102.

And the rest of the section continues in similar fashion.

Note that when discrete harmonic motion (that is, abrupt changes from one set of pitches to another) happens within a section, it is never slower than a rate of one harmonic unit per measure. This rate of change is rapid enough to be perceived as a foreground phenomenon. On the other hand, there is often a palpable sense of harmonic change from one *section* to another, which is definitely a background phenomenon. I experimented with intermediate rates of change, such as having harmonies last for three or four measures at a time. However, I rejected this approach,

because I found that this created the sense of a middleground structure mediating between the foreground and background; this is exactly the sort of situation I wanted to avoid, in order to create the “flat” hierarchies I described earlier.

2.3.3 Registral Fixing and Octaves

A final aspect of pitch organization to consider is the use of register and octave doublings. A pervasive strategy throughout the piece (and in my music generally) is to fix each pitch in a particular register for the duration of a given section. For example, in the first section, only eight pitches, spanning three octaves, are used:

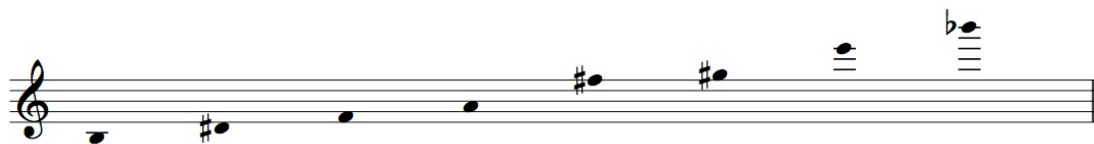


Figure 2.27: $i \sin \theta$, registral fixing, section 1.

In the fourth section, the total range is less than an octave:



Figure 2.28: $i \sin \theta$, registral fixing, section 4.

Some sections use registral fixing with occasional octave doublings. In the third section, selective doublings of $A^{\flat}$, $D^{\sharp}$, and $G^{\sharp}$ are used. In particular, the octave doubling of $A^{\flat}$ serves to emphasize the metric structure.

Figure 2.29: $i \sin \theta$, mm.23-25.

The seventeenth section of the piece is the only one that does not use registral fixing at all. The pitch set for this section— $A^{\flat}$, $B^{\flat 1/4}$, $C^{\sharp}$, $D^{\sharp}$, $F^{\sharp}$, $G^{\flat 1/4 \sharp}$ —is quite distinctive;

as previously mentioned, it is an E-major scale that has been microtonally altered. I felt that this harmony was distinctive enough that registral fixing was not necessary.

The musical score is for measures 181 to 183. It features the following instruments and parts:

- Fl. (Flute):** Measure 181 starts with a quarter note (♩ = 66) and a sixteenth note (♩ = 66) marked *p*. Measure 182 has a quarter note marked *ppp*. Measure 183 has a quarter note marked *ppp*.
- Cl. (Clarinet):** Measure 181 has a quarter note marked *pp*. Measure 182 has a quarter note marked *ppp*. Measure 183 has a quarter note marked *pp*.
- Vln. (Violin):** Measure 181 has a quarter note marked *pp* with a *(sul ord.)* marking. Measure 182 has a quarter note marked *pp* with a *pizz.* marking. Measure 183 has a quarter note marked *p* with an *arco sul pont.* marking.
- Vc. (Viola):** Measure 181 has a quarter note marked *pp* with a *pp* marking. Measure 182 has a quarter note marked *pp* with a *pizz.* marking. Measure 183 has a quarter note marked *pp*.
- Gtr. (Guitar):** Measure 181 has a quarter note marked *p*. Measure 182 has a quarter note marked *p*. Measure 183 has a quarter note marked *p*.
- Crot. (Crotchet):** Measure 181 has a quarter note marked *p*. Measure 182 has a quarter note marked *p*. Measure 183 has a quarter note marked *p*.
- Vib. (Vibraphone):** Measure 181 has a quarter note marked *p*. Measure 182 has a quarter note marked *p*. Measure 183 has a quarter note marked *p*.
- Pno. (Piano):** Measure 181 has a quarter note marked *ppp*. Measure 182 has a quarter note marked *pp*. Measure 183 has a quarter note marked *pp*.

Figure 2.30: $i \sin \theta$, mm.181-183.

In keeping with my general approach to this piece, there is no overarching structural plan with regards to register. I determined the registral fixings (or lack thereof) for each section one at a time, based on what I wanted for that section, what had come immediately before, and what would come immediately after.

2.4 Material and form

In my compositions, material fulfills a similar function, within an atonal, athematic context, that themes fulfilled in tonal music. Material is what gives a section its distinctive identity. In *i sin θ*, all of the techniques I have described, and some that I haven't, help determine the identity of material.

I began composition of this piece by writing the first five sections, each of which constituted a different type of material. From then on, each new section was a development, or variation, of existing material. Some of these developments are clearly and obviously related to the original forms of each type, while others are quite abstract and may not be obvious or even audible. At times, it may be that relationships *across* types of materials are stronger than relationships *within* a type of material. My intention was not to create a clear lineage (as in a tree structure) for each type of material, but rather to create an allusive web of relationships so that the listener could make his/her own connections between sections. At the time of composition, I did not have names or labels for the types of material, but it will be helpful here to label them simply as types A – E. Here are a few examples of each type.

The piece starts with what I will call type “A” material. Here are the first four measures of the piece:

The musical score shows two staves: Glockenspiel (top) and Vibraphone (bottom). The time signature is 3/4. The key signature has one flat (B-flat). The first measure (3/4) contains a half note G4 (piano, *p*) and a quarter note A4 (pianissimo, *pp*). The second measure (3/4) contains a half note B-flat4 (piano, *p*) and a quarter note C5 (pianissimo, *pp*). The third measure (3/4) contains a half note D5 (piano, *p*) and a quarter note E5 (pianissimo, *pp*). The fourth measure (3/4) contains a half note F5 (piano, *p*) and a quarter note G5 (pianissimo, *pp*). The score includes various musical notations such as slurs, ties, and dynamic markings (*p*, *pp*). There are also some handwritten annotations like 'Red.' and '5'.

Figure 2.31: $i \sin \theta$, mm.1-4.

Type “A” material invariably consists of two-measure units in which the second measure is always empty (though not silent). Rhythmically, the material is a single line with a fairly random-sounding distribution of attacks. Harmonically, the material tries to project a melodic line as harmony; this harmony evolves very gradually, with no abrupt changes.

The “A” material next appears in the sixth section of the piece, the first section that uses the full ensemble. Here is a two-measure excerpt:

63

Fl. p ppp

Cl. p ppp

Vln. p ppp

Vc. p ppp

Gtr.

Glock.

Vib.

Pno.

Figure 2.32: $i \sin \theta$, mm.63-64.

The “A” material appears once more in the 12th section of the work, with a more dramatic use of dynamics, timbre, and register. Here is a four-measure excerpt:

The musical score excerpt shows five staves for measures 123-126. The Violin (Vln.) and Viola (Vc.) parts are the most active, featuring complex rhythmic patterns with slurs and ties, marked with piano (pp) dynamics. The Guitar (Gtr.) part is mostly rests. The Crotales (Crot.) part has a more active melody with triplets and slurs. The Vibraphone (Vib.) part is mostly rests.

Figure 2.33: *i sin θ* , mm.123-126.

The “B” material appears more frequently, and in more varied guises, than the “A” material. It is characterized by chords in rhythmic unison, with longer note values than those used in the “A” material. Here is the first appearance of “B” material, in the second section:

Figure 2.34: $i \sin \theta$, mm.13-16.

This material returns in the seventh section. Note that the guitar starts to “fill in” some of the durations:

Figure 2.35: $i \sin \theta$, mm.73-76.

In the 11th section, the material is more drastically transformed: The chords have turned into animated polyrhythmic flurries.

72

195

Fl.

Cl.

Vln.

Vc.

Gtr.

Figure 2.37: $i \sin \theta$, mm.195-198.

The “B” material appears once more in the final (21st) section of the work, this time as thick, claustrophobic chords that change one note at a time.

Pno.

Figure 2.38: $i \sin \theta$, mm.237-239.

The “C” material, in its initial form, consists of repeated notes on the downbeat of every measure, ornamented by brief, fluttering interjections. Here is the beginning of section three:

Figure 2.39: $i \sin \theta$, mm.23-25.

Here are two measures from section 10. The resemblance should be quite clear, though the texture is much drier, and the melodic figures slightly more extended.

The musical score is written for five instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), and Guitar (Gtr.). The score is divided into two systems, measures 103 and 104. The key signature is one flat (B-flat), and the time signature changes from 4/4 in measure 103 to 3/4 in measure 104. The Flute part features a melodic line with dynamics *fp*, *ppp*, and *mp*. The Clarinet and Violin parts play rapid sixteenth-note passages with *pp* dynamics. The Viola part has a sustained note in measure 103 and a melodic line in measure 104. The Guitar part plays a complex chordal texture with *p* dynamics.

Figure 2.40: $i \sin \theta$, mm.103-104.

The first measure of the 16th section seems to have characteristics taken equally from the two previous iterations of “C” material. The sustained A^b in the cello is reminiscent of the third section, while the dry texture is similar to that of the 10th section. Here is the beginning (m.168):

167

Fl. $\text{♩} = 60$ pp 9

Cl. mp 7

Vln.

Vc. *vib. norm.* $\text{fp} \rightarrow \text{ppp}$

Gtr. p 5 I II III II

Crot.

Vib. 7 *

Pno. $\text{♩} = 60$ (no pedal) p 7 *

59

Figure 2.41: $i \sin \theta$, mm.167-168.

However, this time, the cello does not keep repeating $A^{\flat}$, but ascends in stepwise motion. Here are the next two measures.

60

169

Fl.

mp

3

Cl.

mp

Vln.

sul pont.

pp

7

Vc.

fp *ppp* *fp* *ppp*

Gtr.

p

II I III II IV III I

Crot.

Vib.

(no pedal)

p

7

Pno.

pp

9

Figure 2.42: $i \sin \theta$, mm.169-170.

Over the course of 13 measures, the cello plays the following scalar pattern, one note per measure:

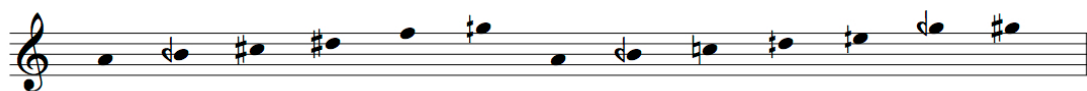


Figure 2.43: $i \sin \theta$, scalar patterns, section 16.

The final appearance of “C” material is in the penultimate (20th) section. Here, the repeated, sustained notes have disappeared entirely, leaving only chords and fluttering interjections.

Figure 2.44: $i \sin \theta$, mm.212-214.

The “D” material initially has two layers: an ascending, arpeggio-like melodic line, accompanied by nervous, constricted chords based on the notes of the melodic

line. Here is the beginning of section five. Note how both layers are trapped between a low $D\sharp$ and a higher $E\flat$.

50 $\text{♩} = 66$ 15

Fl. p

Cl. p

Vln. p

Vc. p

Gtr. -

Glock. -

Vib. -

Pno. mp

Ed.

Figure 2.45: $i \sin \theta$, mm.50-52.

In the eighth section, the melodic layer has been reduced to simply permuting the order of an eight-note pitch sequence (violin, cello, guitar), while the chordal layer, greatly slowed down, consists only C# doubled at the octave (piano).

The musical score for Figure 2.46, mm. 80-81, consists of five staves. The Violin (Vln.) staff shows a melodic sequence of eighth notes with a 'pp' dynamic marking and a fingering of 5. The Cello (Vc.) staff shows a similar melodic sequence with a 'pp' dynamic marking and a fingering of 7. The Guitar (Gtr.) staff shows a melodic sequence of eighth notes with a 'pp' dynamic marking and a fingering of 7. The Glockenspiel (Glock.) and Vibraphone (Vib.) staves are silent. The Piano (Pno.) staff shows a single C# note with a tempo marking of quarter note = 60 and a 'p' dynamic marking.

Figure 2.46: $i \sin \theta$, mm.80-81.

In section 13, which I have already discussed in another context, the chordal layer disappears entirely. The idea of an ascending, arpeggio-like melody returns, albeit in a very different orchestration.

48

132

♩ = 54

(non vib.)

p

5

Fl.

Cl.

p

5

(8)-----|

(non vib.)

p

7

7

Vln.

Vc.

p

(non vib.)

7

Figure 2.47: *i sin θ*, mm.132-134.

The last appearance of “D” material, in section 19, closely resembles section 6:

74

203

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Figure 2.48: $i \sin \theta$, mm.203-204.

The “E” material may be thought of as a “double-time” version of the “A” material: A few attacks in the first half of the measure, followed by sustain-filled pause in the second half. This material tends to be even more harmonically static than the “A” material. Here are the first four measures of section four:

12

$\text{♩} = 44$

non vibrato

pp

Fl.

pp

Cl.

pp

non vibrato

pp

Vln.

pp

non vibrato

Vc.

Figure 2.49: $i \sin \theta$, mm.36-39.

The material is used again in section 9:

28

88 $\text{♩} = 44$

Fl. *non vibrato*
mp

Cl. *mp*

Vln. *arco non vibrato*
mp

Vc.

Gtr.

Glock.

Vib.

Pno. $\text{♩} = 44$
mp

Figure 2.50: $i \sin \theta$, mm.88-91.

In its last appearance, in section 15, the material has a more overtly chordal flavor, owing to the instrumentation.

The musical score for Figure 2.51, measures 156-159, is written for three instruments: Guitar (Gtr.), Crotales (Crot.), and Piano (Pno.). The music is in 8/8 time and consists of four measures. The Guitar part starts with a *pp* dynamic and features a melodic line with a 'I' marking. The Crotales part is mostly silent, with some notes in the final measure. The Piano part starts with a *ppp* dynamic and features a melodic line with a tempo marking of quarter note = 44. The music is characterized by a more overtly chordal flavor in this section.

Figure 2.51: $i \sin \theta$, mm.156-159.

I do not wish to convey the impression that every section can be neatly assigned to a category of material; some sections of the piece are quite enigmatic in that regard. For example, the 14th section looks much like “D” material in its two-layer, melody-and-accompaniment structure, but the resemblance is superficial. The rhythm of the melodic line is actually taken from the “B” material, and there are only two pitches, incessantly repeated. The chordal layer, meanwhile, bears an obvious resemblance to “A” material in its two-measure structure.

52 $\text{♩} = 48$

142 *vib. norm.*

Fl. *p*

Cl. *pp mp pp p pp*

Vln. *vib. norm.* *pp mp*

Vc. *p*

Gtr.

Crot.

Vib. *(mallets)* *mp* *Red.*

Pno. $\text{♩} = 48$ *mp* *Red.*

Figure 2.52: $i \sin \theta$, mm.142-145.

The 17th section proceeds by performing radical surgery on the previous (16th) section: The sustained cello line disappears, and the scalar lines are hollowed out with rests, turning the more fluid gestures of the 16th section into jittery, pointillistic figures. Thus,

while the section could nominally be considered “C” material, I doubt than anyone other than I could spot the resemblance.

The musical score is for measures 181 to 183. The tempo is marked $\text{♩} = 66$. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.).

- Flute (Fl.):** Measure 181 has a half note G4 with a p dynamic. Measure 182 has a half note A4 with a ppp dynamic. Measure 183 has a half note B4 with a ppp dynamic.
- Clarinet (Cl.):** Measure 181 has a half note G4 with a pp dynamic. Measure 182 has a half note A4 with a ppp dynamic. Measure 183 has a half note B4 with a pp dynamic.
- Violin (Vln.):** Measure 181 has a half note G4 with a $pp <$ dynamic. Measure 182 has a half note A4 with a pp dynamic. Measure 183 has a half note B4 with a $p >$ dynamic.
- Viola (Vc.):** Measure 181 has a half note G4 with a $pp >$ dynamic. Measure 182 has a half note A4 with a pp dynamic. Measure 183 has a half note B4 with a pp dynamic.
- Guitar (Gtr.):** Measure 181 has a half note G4 with a p dynamic. Measure 182 has a half note A4 with a p dynamic. Measure 183 has a half note B4 with a p dynamic.
- Crotchet (Crot.):** Measure 181 has a half note G4 with a pp dynamic. Measure 182 has a half note A4 with a pp dynamic. Measure 183 has a half note B4 with a pp dynamic.
- Vibraphone (Vib.):** Measure 181 has a half note G4 with a pp dynamic. Measure 182 has a half note A4 with a pp dynamic. Measure 183 has a half note B4 with a pp dynamic.
- Piano (Pno.):** Measure 181 has a half note G4 with a ppp dynamic. Measure 182 has a half note A4 with a pp dynamic. Measure 183 has a half note B4 with a pp dynamic.

Figure 2.53: $i \sin \theta$, mm.181-183.

Clearly, there is no simple way of describing the overall form of this piece: No deep structure, no overarching process, or reduction to familiar paradigms. There are simply a large number of individual sections, some of which relate to each other in obvious ways, others in obscure ways. The piece is highly organized, and uses many systematic techniques, but the organization is on the level of the individual section, and not an overall structure. My goal, as indicated in the first part of this essay, was to create a piece that would present a compelling listening experience, while resisting attempts to comprehend it as a single large structure: Something that would present itself more as an experience than as an object. I will leave to readers and listeners to determine whether I have succeeded.

BIBLIOGRAPHY

- Bonnet, Antoine. "Ecriture and Perception: on 'Messagesquise' by Pierre Boulez." *Contemporary Music Review* 2 (1987): 173-209.
- Boulez, Pierre. *Troisième Sonate*. London, Universal Edition, 1963.
- Carter, Elliott. *Night Fantasies*. New York: Associated Music Publishers, 1982.
- Deleuze, Gilles. *Theory of Multiplicities in Bergson*.
<http://deleuzelectures.blogspot.com/2007/02/theory-of-multiplicities-in-bergson.html>.
- Deleuze, Gilles, and Guattari, Félix. *A Thousand Plateaus*. Translated by Brian Massumi. Minneapolis: University of Minnesota Press, 1987.
- Donatoni, Franco. *Tema*. Milano: Ricordi, 1981.
- Feldman, Morton. *Give My Regards to Eighth Street: Collected Writings of Morton Feldman*. Edited by B.H. Friedman. Cambridge: Exact Change, 2000.
- Feldman, Morton. *Patterns in a Chromatic Field*. London: Universal Edition, 1981.
- Lerdahl, Fred. "Cognitive Constraints on Compositional Systems." *Contemporary Music Review* 6 no.2 (1992): 97-121.
- Lerdahl, Fred, and Jackendoff, Ray. *A Generative Theory of Tonal Music*. Cambridge: The MIT Press, 1983.
- Link, John. "The Composition of Elliott Carter's 'Night Fantasies.'" *Sonus* 14 no. 2 (Spring, 1994): 67-89.
- Lyotard, Jean-Francois. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press, 1984.
- Schiff, David. *The Music of Elliott Carter*. London: Eulenberg Books, 1983.
- Stockhausen, Karlheinz. *Klavierstück XI*. London: Universal Edition, 1957.

Strauss, Joseph N. *Stravinsky's Late Music*. Cambridge: Cambridge University Press, 2001.

Subotnick, Rose. *Developing Variations*. Minneapolis: University of Minnesota Press, 1991.

Ulman, Erik. *On Patterns in a Chromatic Field*.
<http://www.gardenvariety.org/projects/feldman/notes.html>.

$i \sin \theta$

for

Flute

B-flat Clarinet

Violin

Cello

Piano

Percussion

Guitar

by

Steven A Voigt

PERFORMANCE NOTES

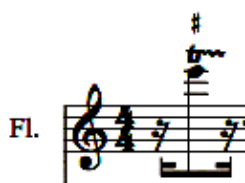
Quarter-tones:

♯ = ¼ tone sharp

♭ = ¼ tone flat

Trills: tempered trills are to the next letter-name above, with the appropriate accidental indicated above the note. For example,

the trill below is from an E[♭] to an F[♯]. For quarter-tone trills, the trill note is indicated in parentheses.



Guitar scordatura: The guitar is tuned as indicated below. In the guitarist's part, the desired string is indicated for each note (I = highest, VI = lowest), and notes are fingered as if the guitar were normally tuned. For example, an A[♭] on the first string would sound as an A quarter-flat.



Guitar harmonics: a diamond-shaped note with a ° above indicates a harmonic.

The note always indicates the playing position, not the sounding pitch.

Violin/Cello harmonics: Natural harmonics are indicated with a ° above the note only and are given at the sounding pitch. Artificial harmonics are indicated in standard fashion.

Vibrato: winds and strings should play non vibrato unless indicated otherwise.

isinØ

♩ = 54

Flute

Clarinet in B♭

Violin

Violoncello

Guitar

Glockenspiel

Vibraphone

Piano

The musical score is for a piece titled "isinØ". It is written for an ensemble of instruments: Flute, Clarinet in B♭, Violin, Violoncello, Guitar, Glockenspiel, Vibraphone, and Piano. The time signature is 3/4, and the tempo is marked as ♩ = 54. The score is divided into two systems. The first system contains the parts for Flute, Clarinet in B♭, Violin, Violoncello, Guitar, Glockenspiel, and Vibraphone. The second system contains the parts for Piano. The Vibraphone part in the first system features a melodic line with dynamic markings of *p*, *pp*, and *p*, and includes a triplet of eighth notes. The Piano part in the second system is currently silent, indicated by whole rests.

3

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for page 81, measures 1-4, is as follows:

- Flute (Fl.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Clarinet (Cl.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Violin (Vln.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Viola (Vc.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Guitar (Gtr.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Glockenspiel (Glock.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.
- Vibraphone (Vib.):** Measures 1-4 contain a melodic line. The time signature changes from 4/4 to 3/4 at the start of measure 3. Dynamics include *p*, *pp*, and *p*. A slur with a '5' is present in measure 1, and a slur with a '7' is present in measure 4.
- Piano (Pno.):** Measures 1-4 contain whole rests. The time signature changes from 4/4 to 3/4 at the start of measure 3.

6

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Measure 6: 5/4 time. All instruments have whole rests.

Measure 7: 5/4 time. All instruments have whole rests.

Measure 8: 4/4 time. All instruments have whole rests.

Glockenspiel and Vibraphone details:

- Measure 6: Rest.
- Measure 7: Glockenspiel has a half note G4 (5th line, flat) with a slur and '5' above it. Vibraphone has a half note G4 (5th line, flat) with a slur and '5' above it. Dynamics: *p* for Glockenspiel, *pp* for Vibraphone.
- Measure 8: Glockenspiel has a quarter note A4 (6th line, natural) with an accent. Vibraphone has a quarter note A4 (6th line, natural) with an accent. Dynamics: *pp* for Glockenspiel, *p* for Vibraphone.

9

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

pp

pp

pp

3

II $\text{♩} = 48$

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

$\text{♩} = 48$

The musical score for measures 84-86 is as follows:

- Flute (Fl.):** Rest in 4/4, 3/4, and 3/4 time.
- Clarinet (Cl.):** Rest in 4/4, 3/4, and 3/4 time.
- Violin (Vln.):** Rest in 4/4, 3/4, and 3/4 time.
- Viola (Vc.):** Rest in 4/4, 3/4, and 3/4 time.
- Guitar (Gtr.):** Rest in 4/4 and 3/4 time. In measure 86, it plays a sequence of notes corresponding to Roman numerals II, V, and VI, with a dynamic marking of *p*.
- Glockenspiel (Glock.):** Rest in 4/4 and 3/4 time. In measure 86, it plays a sequence of notes with dynamic markings *p*, *ppp*, and *pp*.
- Vibraphone (Vib.):** In measure 84, it plays a sequence of notes with fingerings 7 and 5, and dynamic markings *pp* and *ppp*. In measure 86, it plays a sequence of notes with dynamic markings *p*, *ppp*, and *pp*.
- Piano (Pno.):** Rest in 4/4, 3/4, and 3/4 time.

14

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

IV I II V IV V II V IV II

p pp ppp pp ppp p ppp pp ppp

17

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Measure 17: Flute, Clarinet, Violin, and Viola are silent. Guitar plays a series of notes with fret numbers I, IV, II, and a vibrato mark. Glockenspiel and Vibraphone play a melodic line. Piano is silent.

Measure 18: Flute, Clarinet, Violin, and Viola are silent. Guitar plays a series of notes with fret numbers IV, II, IV, II, II. Glockenspiel and Vibraphone play a melodic line. Piano is silent.

19

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

ppp *p* *pp* *p* *ppp* *ppp* *pp* *ppp*

21

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

IV II III II III II

pp *ppp*

23 ♩ = 60

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

ℳ.

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

ℳ.

25

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 25, 26, and 27. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The key signature has one sharp (F#) and the time signature is 3/4. Measure 25 begins with a key signature change to one sharp and a time signature change to 3/4. Measure 26 begins with a key signature change to one sharp and a time signature change to 3/4. Measure 27 begins with a key signature change to one sharp and a time signature change to 3/4. The Flute, Clarinet, and Violin parts are mostly rests. The Viola part has a melodic line with a slur and a fermata. The Guitar part has a melodic line with a slur and a fermata. The Glockenspiel part has a melodic line with a slur and a fermata. The Vibraphone part has a melodic line with a slur and a fermata. The Piano part has a melodic line with a slur and a fermata.

27

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 27-28 is written for a chamber ensemble. The score is divided into two systems, each containing two measures. The key signature is one sharp (F#), and the time signature changes from 4/4 to 3/4 between measures 27 and 28. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Flute, Clarinet, and Violin parts are mostly rests. The Viola part features a melodic line with a fermata in measure 27 and a repeat sign in measure 28. The Guitar part has a melodic line with a fermata in measure 27 and a repeat sign in measure 28. The Glockenspiel part has a melodic line with a fermata in measure 27 and a repeat sign in measure 28. The Vibraphone part has a melodic line with a fermata in measure 27 and a repeat sign in measure 28. The Piano part has a melodic line with a fermata in measure 27 and a repeat sign in measure 28. The score includes various musical notations such as notes, rests, fermatas, repeat signs, and dynamic markings like *p*, *mp*, and *p*.

29

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 29-32 is written for a chamber ensemble. The key signature has one sharp (F#) and the time signature is 3/4. Measures 29 and 30 are marked with a repeat sign. The instruments and their parts are as follows:

- Flute (Fl.):** Rests in measures 29 and 30; plays a half note G#4 in measure 31 and a half note A4 in measure 32.
- Clarinet (Cl.):** Rests in measures 29 and 30; plays a half note G#4 in measure 31 and a half note A4 in measure 32.
- Violin (Vln.):** Rests in measures 29 and 30; plays a half note G#4 in measure 31 and a half note A4 in measure 32.
- Viola (Vc.):** Plays a half note G#4 in measure 29, a half note A4 in measure 30, a half note G#4 in measure 31, and a half note A4 in measure 32.
- Guitar (Gtr.):** Plays a half note G#4 in measure 29, a half note A4 in measure 30, a half note G#4 in measure 31, and a half note A4 in measure 32. Fingering is indicated: I, II, III, I.
- Glockenspiel (Glock.):** Plays a half note G#4 in measure 29, a half note A4 in measure 30, a half note G#4 in measure 31, and a half note A4 in measure 32. Dynamics: *mp* in measure 29, *p* in measure 31.
- Vibraphone (Vib.):** Rests in measures 29 and 30; plays a half note G#4 in measure 31 and a half note A4 in measure 32.
- Piano (Pno.):** Plays a half note G#4 in measure 29, a half note A4 in measure 30, a half note G#4 in measure 31, and a half note A4 in measure 32. Dynamics: *pp* in measure 31.

31

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

p

mp

p

7

9

11

VI

33

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

III V

III I

p

mp

p

35 $\text{♩} = 44$

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

pp

pp

mp

p

$\text{♩} = 44$

Detailed description: This page contains a musical score for measures 35, 36, and 37. The tempo is marked as quarter note = 44. The score is for an 8-piece ensemble. Measures 35 and 36 are in 5/4 time, while measure 37 is in 4/4 time. The instruments and their parts are: Flute (Fl.) has rests in measures 35 and 36, and a whole note in measure 37. Clarinet (Cl.) has rests in measures 35 and 36, and a triplet of eighth notes in measure 37, marked *pp*. Violin (Vln.) has rests in measures 35 and 36, and a whole note in measure 37. Viola (Vc.) has a long note in measure 35, a half note in measure 36, and a whole note in measure 37, marked *pp*. Guitar (Gtr.) has a rest in measure 35, a triplet of eighth notes in measure 36 (marked with fingerings II, I, and III), and a whole note in measure 37. Glockenspiel (Glock.) has a triplet of eighth notes in measure 35, a half note in measure 36, and a whole note in measure 37, marked *p*. Vibraphone (Vib.) has a half note in measure 35, a half note in measure 36, and a whole note in measure 37, marked *mp*. Piano (Pno.) has a half note in measure 35, a half note in measure 36, and a whole note in measure 37, marked $\text{♩} = 44$.

37 *non vibrato*

Fl. *pp*

Cl. *pp*

Vln. *non vibrato*

Vc. *non vibrato*

Gtr.

Glock.

Vib.

Pno.

*

*

The musical score for measures 37-39 is as follows:

- Measure 37 (9/8):**
 - Flute: *non vibrato*, *pp*. Notes: quarter rest, quarter note (G4), half note (A4).
 - Clarinet: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Violin: *non vibrato*, *pp*. Notes: quarter note (G4), half note (A4).
 - Viola: *non vibrato*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Guitar: Rest.
 - Glockenspiel: Rest.
 - Vibraphone: Rest.
 - Piano: Rest.
- Measure 38 (9/8):**
 - Flute: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Clarinet: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Violin: *pp*. Notes: quarter note (G4), half note (A4).
 - Viola: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Guitar: Rest.
 - Glockenspiel: Rest.
 - Vibraphone: Rest.
 - Piano: Rest.
- Measure 39 (5/4):**
 - Flute: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Clarinet: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Violin: *pp*. Notes: quarter note (G4), half note (A4).
 - Viola: *pp*. Notes: quarter note (G4), eighth note (A4), eighth note (B4), quarter note (A4), half note (G4).
 - Guitar: Rest.
 - Glockenspiel: Rest.
 - Vibraphone: Rest.
 - Piano: Rest.

39

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 39 through 42. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The key signature has one flat (B-flat), and the time signature changes from 5/4 to 4/4 in measure 40, then to 2/4 in measure 41, and finally to 3/4 in measure 42. The Flute and Clarinet parts feature melodic lines with slurs and fingerings (7, 6, 3, 7). The Violin part includes a triplet in measure 41. The Viola part has a single note in measure 40. The Guitar, Glockenspiel, Vibraphone, and Piano parts are marked with rests throughout the entire passage.

42

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

This musical score page contains measures 42 through 45. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The key signature has one flat (B-flat) and the time signature is 3/4. Measure 42 features a half note in the Flute and Clarinet, and a quarter note in the Violin. Measure 43 features a half note in the Flute and Clarinet, and a quarter note in the Violin. Measure 44 features a half note in the Flute and Clarinet, and a quarter note in the Violin. Measure 45 features a half note in the Flute and Clarinet, and a quarter note in the Violin. The Piano part is silent throughout the measures.

45

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 45 through 49. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The music is in 3/4 time and features a complex, changing time signature: 3/4, 5/4, 7/8, 2/4, and 5/4. The Flute part begins with a melodic line in measure 45, marked with a '6' and a slur. The Clarinet part enters in measure 46 with a melodic line marked with a '7' and a slur. The Violin and Viola parts also have melodic lines. The Guitar, Glockenspiel, Vibraphone, and Piano parts are mostly silent, with some rests and occasional notes. The score is written in a standard musical notation style with a key signature of one flat (Bb).

49

♩ = 66

Fl.

6

p 3 7

Cl.

p 3 7

Vln.

p 3 7

Vc.

p 3 7

Gtr.

8

Glock.

Vib.

Pno.

mp 7 5

Red.

51

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score is arranged in a system with eight staves. The first four staves (Fl., Cl., Vln., Vc.) contain melodic lines with various ornaments and articulations. The fifth staff (Gtr.) is empty. The sixth and seventh staves (Glock. and Vib.) are also empty. The eighth staff (Pno.) contains a complex arpeggiated figure with 7-measure rests. The score is divided into three measures: measures 51-54, measures 55-58, and measure 59. The time signature is 5/4. The key signature has one sharp (F#).

53

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

53

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1000

54

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

54

55

56

56

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

57

The musical score for measures 57-60 features six staves. The top five staves are for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), and Guitar (Gtr.). The bottom two staves are for Glockenspiel (Glock.) and Vibraphone (Vib.), which are mostly silent. The Piano (Pno.) part is at the very bottom, spanning both staves of its system. Measures 57 and 58 are in 4/4 time, while measures 59 and 60 are in 2/4 time. The key signature has one sharp (F#). The Pno. part includes complex figures with slurs and fingerings (6, 3, 5, 7) indicated above the notes. The woodwinds and strings play rhythmic patterns with various articulations like accents and slurs. Measure numbers 57, 58, 59, and 60 are placed below their respective measures.

59 $\text{♩} = 48$

Fl. *p* *ppp*

Cl. *p* *ppp*

Vln. *p* *ppp*

Vc. *p* *ppp*

Gtr.

Glock.

Vib. *mp*

Pno. *mp*

61

Fl. *p* *ppp*

Cl. *p* *ppp*

Vln. *p* *ppp*

Vc. *p* *ppp*

Gtr.

Glock.

Vib. *Red.*

Pno.

62

This musical score is for the 'The Swan' movement from the Suite for Piano and Orchestra by Camille Saint-Saëns. The score is written for a full orchestra and piano, spanning measures 63 to 65. The key signature is one flat (B-flat major or D minor), and the time signature is 4/4. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The music is characterized by its lyrical and expressive nature, with the piano part playing a central role. The score features various musical notations, including dynamics (p, ppp), articulation (accents, slurs), and performance instructions (crescendo, decrescendo). The woodwinds and strings provide harmonic support and texture, while the piano part is the primary melodic focus.

65

Fl. *p* *ppp*

Cl. *p* *ppp*

Vln. *p* *ppp*

Vc. *p* *ppp*

Gtr.

Glock.

Vib.

Pno.

This musical score page contains measures 65 through 67. The music is written for a full orchestra, including Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The key signature has one sharp (F#), and the time signature is 4/4. Measure 65 begins with a 4/4 time signature. In measure 66, the time signature changes to 7/8. In measure 67, the time signature changes to 5/4. The Flute part starts with a half note G5, followed by a quarter note A5, and then a half note B5. The Clarinet part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Violin part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Viola part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Guitar part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Glockenspiel part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Vibraphone part starts with a half note G4, followed by a quarter note A4, and then a half note B4. The Piano part starts with a half note G4, followed by a quarter note A4, and then a half note B4. Dynamics include *p* (piano) and *ppp* (pianissimo). Articulation includes accents and slurs. The score is written in a standard musical notation style with a clean, professional layout.

67

Fl.

p *ppp*

Cl.

p *ppp*

Vln.

p *ppp*

Vc.

p *ppp*

Gtr.

8 6

Glock.

Vib.

Pno.

5/4 4/4 3/4

69 $\text{♩} = 48$

Fl. p ppp

Cl. p ppp

Vln. p ppp pizz. p

Vc. p ppp pizz. p

Gtr. p

Glock.

Vib. *

Pno. $\text{♩} = 48$ *

72

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

5 6 3 7 5

pp p *pp p* *pp p*

5 6 3 7 5

pp p *pp p* *pp p*

5 III I II IV III I V II I V II

pp p *pp < p* *pp p* 5

75

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 75-78 is written for Violin (Vln.), Viola (Vc.), and Guitar (Gtr.). The key signature has one flat (B-flat) and the time signature is 3/4. Measure 75 begins with a 7-measure rest for the Violin and Viola, and a 7-measure rest for the Guitar. In measure 76, the Violin and Viola play a series of eighth notes, with the Violin part marked *pp* and the Viola part marked *pp*. The Guitar part in measure 76 is marked *p*. In measure 77, the Violin and Viola play a triplet of eighth notes, with the Violin part marked *pp* and the Viola part marked *p*. The Guitar part in measure 77 is marked *pp*. In measure 78, the Violin and Viola play a series of eighth notes, with the Violin part marked *pp* and the Viola part marked *pp*. The Guitar part in measure 78 is marked *pp*. The score includes various dynamics (*pp*, *p*) and articulations (accents, slurs, triplets, and fingerings).

78

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Measure 78: 5/4 time. Violin and Viola parts begin with a triplet of eighth notes (p), followed by a quintuplet of eighth notes (pp), and then a single eighth note (p). The Guitar part begins with a triplet of eighth notes (p), followed by a quintuplet of eighth notes (pp), and then a single eighth note (p). The Violin and Viola parts end with a triplet of eighth notes (pp). The Guitar part ends with a triplet of eighth notes (pp).

Measure 79: 5/4 time. Violin and Viola parts continue with a triplet of eighth notes (pp), followed by a quintuplet of eighth notes (p), and then a single eighth note (pp). The Guitar part continues with a triplet of eighth notes (pp), followed by a quintuplet of eighth notes (p), and then a single eighth note (pp). The Violin and Viola parts end with a triplet of eighth notes (pp). The Guitar part ends with a triplet of eighth notes (pp).

Measure 80: 7/8 time. Violin and Viola parts begin with a triplet of eighth notes (pp), followed by a quintuplet of eighth notes (p), and then a single eighth note (pp). The Guitar part begins with a triplet of eighth notes (pp), followed by a quintuplet of eighth notes (p), and then a single eighth note (pp). The Violin and Viola parts end with a triplet of eighth notes (pp). The Guitar part ends with a triplet of eighth notes (pp).

80 ♩ = 60

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

80 ♩ = 60

pp

pp

pp

p

Red.

81

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score is written for measures 81 through 89. The key signature is one sharp (F#) and the time signature is 5/4. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). Measures 81-84 and 85-88 are marked with a 5/4 time signature, while measure 89 is marked with a 4/4 time signature. The guitar part features a complex rhythmic pattern with triplets and sixteenth notes. The piano part has a simple harmonic accompaniment.

82

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 82, 83, and 84. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). Measures 82 and 83 are in 4/4 time, and measure 84 is in 3/4 time. The Flute and Clarinet parts are mostly rests. The Violin part features a five-measure phrase in measure 82 and a six-measure phrase in measure 83. The Viola part has a single note in measure 82 and a half note in measure 83. The Guitar part has a seven-measure phrase in measure 82 and a three-measure phrase in measure 83. The Glockenspiel and Vibraphone parts are mostly rests. The Piano part has a five-measure phrase in measure 82 and a three-measure phrase in measure 83.

84

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score is written for measures 84, 85, and 86. The key signature is one sharp (F#), and the time signature is 3/4. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). Measures 84 and 85 are in 3/4 time, and measure 86 is in 4/4 time. The Flute and Clarinet parts are mostly rests. The Violin and Viola parts feature sixteenth and thirty-second notes with slurs and fingering (6, 7). The Guitar part includes chords, slurs, and a triplet. The Glockenspiel and Vibraphone parts are rests. The Piano part features a melodic line with slurs, a quintuplet (5), and a triplet (3).

86 $\text{♩} = 44$

Fl.

Cl.

mp

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

$\text{♩} = 44$

86 $\text{♩} = 44$

Fl.

Cl.

mp

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

$\text{♩} = 44$

89

Fl. *non vibrato*
mp

Cl.

Vln. *arco*
non vibrato
mp

Vc.

Gtr.

Glock.

Vib.

Pno.

5/4

91

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

This musical score page contains measures 91 through 94. The key signature is one flat (B-flat), and the time signature changes from 5/4 to 4/4 in measure 92, then to 2/4 in measure 93, and finally to 3/4 in measure 94. The instruments are arranged in a standard orchestral layout. The Flute (Fl.) part is the most active, featuring a melodic line with a triplet in measure 91, a slur in measure 92, and a triplet in measure 93. The Clarinet (Cl.) part has a few notes in measure 91 and then rests. The Violin (Vln.) part has a melodic line in measure 91 and a slur in measure 92. The Viola (Vc.) part has rests in all measures. The Guitar (Gtr.) part has rests in all measures. The Glockenspiel (Glock.) and Vibraphone (Vib.) parts have rests in all measures. The Piano (Pno.) part has a complex accompaniment with a triplet in measure 91, a slur in measure 92, and a triplet in measure 93.

94

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

This musical score page contains measures 94 through 97. The instruments are arranged in a standard orchestral layout. The Flute (Fl.) and Clarinet (Cl.) parts feature melodic lines with slurs and accents. The Violin (Vln.) part has a melodic line with slurs and accents. The Viola (Vc.) part is mostly silent. The Guitar (Gtr.) part is mostly silent. The Glockenspiel (Glock.) and Vibraphone (Vib.) parts are mostly silent. The Piano (Pno.) part has a melodic line with slurs and accents, including a triplet in measure 96.

Measures 94-97 are shown. The key signature is one flat (B-flat). The time signature is 3/4. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.).

97

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

This musical score page contains measures 97 through 100. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The score is written in 5/4 time, with measures 98 and 99 subdivided into 7/8 and 2/4 respectively. The Flute part begins with a sixteenth-note triplet in measure 97, followed by a quarter note and a half note. The Clarinet part has a quarter note, a half note, and a quarter note in measure 97, followed by a quarter note and a half note in measure 98. The Violin part has a quarter note, a half note, and a quarter note in measure 97, followed by a quarter note and a half note in measure 98. The Viola, Guitar, and Vibraphone parts are silent throughout. The Glockenspiel part is silent throughout. The Piano part has a quarter note, a half note, and a quarter note in measure 97, followed by a quarter note and a half note in measure 98. The Piano part also has a quarter note, a half note, and a quarter note in measure 99, followed by a quarter note and a half note in measure 100.

[illegible]

101 ♩ = 66

Fl. *fp* *ppp* *mp*

Cl. *ppp*

Vln. *pp* *sul pont.*

Vc. *pizz.* *p* *sul pont.*

Gtr. *p* II III IV V

Glock.

Vib.

Pno. ♩ = 66

*

The musical score is for measures 101 and 102 of a piece. The tempo is marked as 66 beats per minute. The key signature has one sharp (F#). The time signature is 3/4. The Flute part begins with a fortissimo piano (fp) dynamic, followed by a pianissimo (ppp) dynamic, and then a mezzo-piano (mp) dynamic. The Clarinet part has a pianissimo (ppp) dynamic. The Violin part has a pianissimo (pp) dynamic and a sul ponticello (sul pont.) instruction. The Viola part has a pizzicato (pizz.) instruction and a piano (p) dynamic. The Guitar part has a piano (p) dynamic and a sul ponticello (sul pont.) instruction. The Glockenspiel and Vibraphone parts are silent. The Piano part is silent. Measure 102 ends with a repeat sign.

102

Fl. *fp* *ppp* *mp*

Cl. *ppp* 7

Vln. *pp*

Vc.

Gtr. *p* 7

Glock.

Vib.

Pno.

103

Fl. *fp* *ppp* *mp*

Cl. *pp*

Vln. *pp* *pp*

Vc.

Gtr. *p*

Glock.

Vib.

Pno.

Measure 103: Flute (Fl.) plays a long note, starting with *fp* (forte-piano) and *ppp* (pianissimo) dynamics, then *mp* (mezzo-piano). Clarinet (Cl.) and Violin (Vln.) have complex rhythmic patterns with 9 and 7 measures of rests. Guitar (Gtr.) has a short melodic phrase. Glockenspiel (Glock.) and Vibraphone (Vib.) are silent. Piano (Pno.) is mostly silent.

Measure 104: Flute (Fl.) continues the melody. Clarinet (Cl.) and Violin (Vln.) have complex rhythmic patterns with 9 and 7 measures of rests. Guitar (Gtr.) has a short melodic phrase. Glockenspiel (Glock.) and Vibraphone (Vib.) are silent. Piano (Pno.) is mostly silent.

104

Fl. *fp* *ppp* *mp*

Cl. *ppp*

Vln.

Vc.

Gtr. *p*

Glock.

Vib.

Pno.

Measure 104: Flute (Fl.) plays a half note with dynamics *fp*, *ppp*, and *mp*. Clarinet (Cl.) has a rest. Violin (Vln.) has a rest. Viola (Vc.) has a half note. Guitar (Gtr.) plays a chord with fingerings I, II, IV, V, III and dynamic *p*. Glockenspiel (Glock.) has a rest. Vibraphone (Vib.) has a rest. Piano (Pno.) has a rest.

Measure 105: Flute (Fl.) plays a half note with dynamic *mp*. Clarinet (Cl.) plays an eighth note. Violin (Vln.) plays an eighth note. Viola (Vc.) has a half note. Guitar (Gtr.) plays a chord. Glockenspiel (Glock.) has a rest. Vibraphone (Vib.) has a rest. Piano (Pno.) has a rest.

105

Fl. *fp* *ppp* *mp*

Cl. *pp*

Vln. *pp*

Vc.

Gtr. *p* 9

Glock.

Vib.

Pno.

106

Fl. *fp* *ppp* *mp*

Cl. *pp* *ppp*

Vln. *pp*

Vc.

Gtr. *p*

Glock.

Vib.

Pno.

Detailed description of the musical score: The score is for measures 106 and 107 in 3/4 time. The Flute part (Fl.) begins with a half note G4 (fingering 1) marked *fp*, followed by a slur over a half note A4 (fingering 2) marked *ppp*, and ends with a quarter note B4 marked *mp*. The Clarinet part (Cl.) has a quarter rest, followed by an eighth-note triplet (fingering 7) marked *pp*, a quarter rest, and another eighth-note triplet (fingering 9) marked *ppp*. The Violin part (Vln.) has a quarter note G4 (fingering 1) marked *pp*, followed by a slur over an eighth-note triplet (fingering 9) marked *pp*, a quarter rest, and another eighth-note triplet (fingering 7) marked *pp*. The Viola part (Vc.) has a half note G4, a quarter rest, and a half note A4. The Guitar part (Gtr.) has a half note G4 (fingering 1) marked *p*, followed by a quarter rest and a half note A4. The Glockenspiel (Glock.) and Vibraphone (Vib.) parts have a half note G4. The Piano part (Pno.) has a half note G4. The score ends with a double bar line at the end of measure 107.

107

The musical score is written for measures 107 through 110. The key signature has one sharp (F#) and the time signature changes from 3/4 to 2/4 at measure 108, then back to 3/4 at measure 109, and finally to 4/4 at measure 110. The instruments and their parts are as follows:

- Fl. (Flute):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *fp*, *ppp*, and *mp*. Measures 109 and 110 continue this pattern with a final *mp* dynamic.
- Cl. (Clarinet):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *pp*. Measures 109 and 110 continue this pattern with a final *pp* dynamic.
- Vln. (Violin):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *ppp*. Measures 109 and 110 continue this pattern with a final *ppp* dynamic.
- Vc. (Viola):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *ppp*. Measures 109 and 110 continue this pattern with a final *ppp* dynamic.
- Gtr. (Guitar):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *p*. Measures 109 and 110 continue this pattern with a final *p* dynamic.
- Glock. (Glockenspiel):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *ppp*. Measures 109 and 110 continue this pattern with a final *ppp* dynamic.
- Vib. (Vibraphone):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *ppp*. Measures 109 and 110 continue this pattern with a final *ppp* dynamic.
- Pno. (Piano):** Measures 107 and 108 feature a melodic line starting on a half note, followed by a quarter rest, then a quarter note, and a quarter rest. Dynamics include *ppp*. Measures 109 and 110 continue this pattern with a final *ppp* dynamic.

109

Fl. *fp* *ppp* *mp*

Cl. *pp*

Vln. *pp* *ppp* 9

Vc.

Gtr. II IV V VI *p*

Glock.

Vib.

Pno.

7 8

7 8

7 8

7 8

7 8

7 8

7 8

7 8

110

Fl. *fp* *ppp* *mp*

Cl. *ppp* *pp*

Vln. *pp*

Vc.

Gtr. *p*

Glock.

Vib.

Pno.

III

Fl. *fp* *ppp* *mp*

Cl. *ppp* *pp*

Vln. *pp* *ppp*

Vc.

Gtr. *p*

Glock.

Vib.

Pno.

112 ♩ = 60

Fl.

Cl.

sul tasto

Vln.

pp arco
sul tasto

Vc.

pp

Gtr.

Glock.

Vib.

Pno.

♩ = 60

[illegible]

114

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

7

7

9

9

8

4/4

4/4

4/4

4/4

4/4

4/4

4/4

4/4

115

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

116

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 116, 117, and 118. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The key signature is one flat (B-flat major or D minor), and the time signature is 3/4. Measure 116 begins with a 3/4 time signature. Measure 117 changes to a 7/8 time signature. Measure 118 returns to a 4/4 time signature. The Flute and Guitar parts are mostly rests. The Clarinet, Violin, and Viola parts feature complex rhythmic patterns, including triplets and sixteenth notes. The Piano part is also mostly rests.

118

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

119

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

7

9

7

9

8

[illegible]

122

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

pp < pp < pp <

pp < pp < pp <

pp < pp < pp <

[illegible]

[illegible]

[illegible]

131

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

133 ♩ = 54

Fl. *(non vib.)* *p* 7 5

Cl. *p* 5

Vln. *(non vib.)* *p* 7

Vc. *p* *(non vib.)* 7

Gtr.

Crot.

Vib.

Pno. ♩ = 54

Detailed description: This is a page of a musical score, page 148, showing measures 133 and 134. The tempo is marked as ♩ = 54. The score includes staves for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.). The Flute, Clarinet, Violin, and Viola parts have melodic lines with dynamics (p) and articulation (non vib.). The Guitar, Crochet, Vibraphone, and Piano parts are mostly rests. The Flute part has a 7-measure phrase in measure 133 and a 5-measure phrase in measure 134. The Clarinet part has a 5-measure phrase in measure 133 and a 7-measure phrase in measure 134. The Violin part has a 7-measure phrase in measure 133 and a 7-measure phrase in measure 134. The Viola part has a 7-measure phrase in measure 133 and a 7-measure phrase in measure 134. The Guitar, Crochet, Vibraphone, and Piano parts are mostly rests.

[illegible]

[illegible]

137

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains measures 137 through 140 of a musical score. The score is written for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.). Measures 137 and 138 are in 4/4 time, while measures 139 and 140 are in 5/4 time. The Flute part features a melodic line with a triplet in measure 137 and a 6th fingered note in measure 138. The Clarinet part has a similar melodic line with a 7th fingered note in measure 138. The Violin part has a melodic line with a 6th fingered note in measure 138. The Viola part has a melodic line with a 3rd fingered note in measure 139 and a 7th fingered note in measure 140. The Guitar, Crotchet, Vibraphone, and Piano parts are all marked with a whole rest in measures 137 and 138, and a whole rest in measures 139 and 140.

139

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Musical score for measures 141-144. The tempo is marked $\text{♩} = 48$. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.).

Measure 141: Flute and Clarinet play a melodic line with a 5th interval. Violin plays a 6th interval. Viola plays a 3rd interval. Guitar, Crotchet, and Vibraphone are silent. Piano plays a sustained chord.

Measure 142: Flute and Clarinet play a melodic line with a 7th interval. Violin plays a 7th interval. Viola plays a 3rd interval. Guitar, Crotchet, and Vibraphone are silent. Piano plays a sustained chord.

Measure 143: Flute and Clarinet play a melodic line with a 5th interval. Violin plays a 5th interval. Viola plays a 3rd interval. Guitar, Crotchet, and Vibraphone are silent. Piano plays a sustained chord.

Measure 144: Flute and Clarinet play a melodic line with a 5th interval. Violin plays a 5th interval. Viola plays a 3rd interval. Guitar, Crotchet, and Vibraphone are silent. Piano plays a sustained chord.

Dynamics: *p* (piano), *pp* (pianissimo), *mp* (mezzo-piano), *Red.* (Reduction).

144

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

The musical score is written for measures 144, 145, and 146. The key signature is one sharp (F#) and the time signature changes from 4/4 to 3/4 in measure 145 and back to 4/4 in measure 146. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.).

- Flute (Fl.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *pp* in measure 146.
- Clarinet (Cl.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *pp* in measure 144, *p* in measure 145, *pp* in measure 146.
- Violin (Vln.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *mp* in measure 144.
- Viola (Vc.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *mp* in measure 144.
- Guitar (Gtr.):** Measures 144-146. Silent throughout.
- Crochet (Crot.):** Measures 144-146. Silent throughout.
- Vibraphone (Vib.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *mp* in measure 144.
- Piano (Pno.):** Measures 144-146. Starts with a quarter note G4, followed by a quarter rest, then a quarter note A4. In measure 145, it plays a quarter note G4. In measure 146, it plays a quarter note G4. Dynamics: *mp* in measure 144.

147

Fl. *mp*

Cl. *mp*

Vln. *pp* *pp*

Vc. *5*

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 147 through 150, written in 5/4 time. The score is for a woodwind and string ensemble. The Flute (Fl.) part begins in measure 147 with a half note G4, followed by a half note A4 in measure 148, and a half note B4 in measure 149, all tied together. The Clarinet (Cl.) part also begins in measure 147 with a half note G4, followed by a half note A4 in measure 148, and a half note B4 in measure 149, all tied together. The Violin (Vln.) part begins in measure 147 with a half note G4, followed by a half note A4 in measure 148, and a half note B4 in measure 149, all tied together. The Viola (Vc.) part begins in measure 147 with a half note G4, followed by a half note A4 in measure 148, and a half note B4 in measure 149, all tied together. The Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.) parts are all silent throughout the measures. The score is written in 5/4 time, with a key signature of one flat (B-flat). The measures are numbered 147, 148, 149, and 150. The Flute and Clarinet parts are marked *mp* (mezzo-piano). The Violin part is marked *pp* (pianissimo) in measures 147 and 148. The Viola part is marked *5* in measure 149. The Guitar, Crotchet, Vibraphone, and Piano parts are all silent throughout the measures.

148

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

pp *mp* *pp*

pp *mp*

mp *pp* *mp*

b *p* *#* *p*

150

Fl. *mp* *pp* *mp*

Cl. *pp* *pp*

Vln. *pp* *mp*

Vc. *5* *7*

Gtr.

Crot.

Vib.

Pno.

7/8 5/4 4/4

[illegible]

155 $\text{♩} = 44$

Fl. *mp*

Cl. *mp*

Vln. *mp* *pp*

Vc. *pp*

Gtr. *pp*

Crot.

Vib. *ppp*

Pno. *ppp*

$\text{♩} = 44$

157

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains the musical notation for measures 157, 158, and 159. The score is written for a large ensemble. Measures 157 and 158 are in 7/8 time, while measure 159 is in 4/4 time. The key signature has one flat (B-flat). The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotales (Crot.), Vibraphone (Vib.), and Piano (Pno.). In measures 157 and 158, the woodwinds and strings are mostly silent, while the guitar and vibraphone play rhythmic patterns. In measure 159, the guitar and vibraphone continue their patterns, and the piano enters with a melodic line in the right hand and a bass line in the left hand. The guitar and vibraphone parts feature complex rhythms with triplets and sixteenth notes. The piano part features a melodic line in the right hand and a bass line in the left hand, with some chords and single notes.

159

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

6

7

3

7

6

162

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 162 through 165. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotales (Crot.), Vibraphone (Vib.), and Piano (Pno.). The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 4/4. Measures 162 and 163 are in 9/8 time, while measures 164 and 165 are in 4/4 time. The Flute, Clarinet, Violin, and Viola parts are mostly rests, with some notes in measure 165. The Guitar part has a melodic line in measures 162 and 163, and a chord in measure 164. The Crotales part has a melodic line in measures 162 and 163, and a chord in measure 164. The Vibraphone part has a melodic line in measures 162 and 163, and a chord in measure 164. The Piano part has a melodic line in measures 162 and 163, and a chord in measure 164.

165

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This musical score page contains measures 165, 166, and 167. The measures are divided by a 2/4 time signature change at the start of measure 166 and a 4/4 time signature change at the start of measure 167. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotales (Crot.), Vibraphone (Vib.), and Piano (Pno.). The Flute, Clarinet, Violin, and Viola parts are mostly rests. The Guitar part has a melodic line in measure 165 and a single note in measure 166. The Crotales part has rests. The Vibraphone part has a melodic line in measure 165 and a single note in measure 166. The Piano part has a complex melodic line in measure 165 and a single note in measure 166. The Piano part is written in a grand staff with a bass clef in the right hand and a treble clef in the left hand.

♩ = 60

168

Fl. *pp* 9

Cl. *mp* 7

Vln.

Vc. *vib. norm.*
fp > *ppp*

Gtr. *p* 5
I II III II

Crot.

Vib. *

Pno. ♩ = 60
(no pedal) *p*

*

169

Fl. *mp* *3*

Cl. *mp*

Vln. *sul pont.* *pp* *7*

Vc. *fp > ppp* *fp > ppp*

Gtr. *p* *II I III II IV I*

Crot.

Vib. *(no pedal)* *p* *7* *7*

Pno. *pp* *9*

171

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

7

fp *ppp*

p

8

9

mp

172

Fl. *mp* 9

Cl. *p* 5

Vln. 9 *p*

Vc. *fp* *ppp*

Gtr. 8

Crot.

Vib.

Pno. *pp*

4/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4

Detailed description: This page of a musical score covers measures 172, 173, and 174. The key signature has one sharp (F#) and the time signature is 4/4. The score includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.). Measure 172 features a 9-measure phrase in the Flute and a 5-measure phrase in the Clarinet. Measure 173 shows a 9-measure phrase in the Violin. Measure 174 contains a piano part with a *pp* dynamic. The Viola part has a dynamic change from *fp* to *ppp*. The Guitar part has an 8-measure rest. The Crochet and Vibraphone parts have rests. The Piano part has a 9-measure phrase.

173

Fl. *pp*

Cl. *pp*

Vln. 9

Vc. *fp* *ppp*

Gtr. 8

Crot.

Vib. 7 *mp*

Pno.

Detailed description: This page contains a musical score for measures 173 and 174. The score is for an orchestra and includes parts for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.). The key signature is one sharp (F#) and the time signature is 3/4. Measure 173 begins with a rest for the Flute, followed by a melodic line starting on F#4, marked *pp*. The Clarinet enters in measure 174 with a similar melodic line, also marked *pp*. The Violin plays a sixteenth-note figure in measure 173, marked with a bracket and the number 9. The Viola plays a single note in measure 173, marked *fp*, and then a sustained note in measure 174, marked *ppp*. The Guitar plays a single note in measure 173, marked with an 8. The Crotchet plays a single note in measure 173. The Vibraphone plays a melodic line in measure 174, marked with a bracket and the number 7, and *mp*. The Piano part is silent throughout.

174

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

p

fp *ppp*

9

7

[illegible]

176

Fl. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ mp pp 9

Cl. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$

Vln. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ mp 7

Vc. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $fp > ppp$ $fp > ppp$

Gtr. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ IV III I II III

Crot. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$

Vib. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$ $mp >$ 7

Pno. $\frac{3}{4}$ $\frac{2}{4}$ $\frac{4}{4}$

178

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

pp

mp

p

fp *ppp*

pp

9

9

9

7/8

7/8

7/8

7/8

7/8

7/8

[illegible]

180

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

pp

mp

ppp

p

7

9

IV I III II

7

7

181 $\text{♩} = 66$

Fl. p ppp

Cl. pp

(sul ord.)

Vln. pp $pizz.$ pp

Vc. pp

Gtr. p

Crot.

Vib.

Pno. ppp pp

183

Fl. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$ p

Cl. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$ ppp pp ppp

Vln. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$ *arco sul pont.* p pp

Vc. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$ *pizz.* pp

Gtr. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$

Crot. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$

Vib. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$

Pno. $\frac{3}{4}$ $\frac{7}{8}$ $\frac{4}{4}$ pp

Detailed description: This musical score page contains measures 183, 184, and 185. The key signature has one sharp (F#) and the time signature changes from 3/4 to 7/8 in measure 184, and back to 4/4 in measure 185. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.). The Flute part has a melodic line in measure 183, a rest in 184, and a triplet in 185. The Clarinet part has a triplet in 183, a trill in 184, and a triplet in 185. The Violin part has a rest in 183, a note in 184, and a triplet in 185. The Viola part has a triplet in 183 and rests in 184 and 185. The Guitar part has a rest in 183 and a note in 184. The Crotchet and Vibraphone parts have rests in all three measures. The Piano part has a rest in 183, a triplet in 184, and a note in 185. Dynamics include *ppp*, *pp*, *p*, *arco sul pont.*, *pizz.*, and *pp*.

185

Fl. *p* *ppp*

Cl. *p* *pp*

Vln. *pp* *pizz.*

Vc. *p*

Gtr. *p* *pp*

Crot.

Vib.

Pno. *pp* *ppp* *p*

Detailed description: This musical score page contains measures 185, 186, and 187. The key signature has one sharp (F#) and the time signature changes from 4/4 to 3/4 between measures 185 and 186. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.).
- Measure 185 (4/4): Flute has a whole rest. Clarinet plays a quarter note F#4 and a quarter rest. Violin plays a quarter note F#4 and a quarter rest. Viola plays a quarter note F#3 and a quarter rest. Guitar plays a quarter note F#4 and a quarter rest. Crotchet and Vibraphone have whole rests. Piano plays a quarter note F#3 and a quarter rest.
- Measure 186 (3/4): Flute plays a quarter note F#4, a quarter rest, and a quarter note F#4. Clarinet plays a quarter note F#4 and a quarter rest. Violin plays a quarter note F#4 and a quarter rest. Viola has a whole rest. Guitar plays a quarter note F#4 and a quarter rest. Crotchet and Vibraphone have whole rests. Piano plays a quarter note F#3 and a quarter rest.
- Measure 187 (3/4): Flute plays a quarter note F#4, a quarter rest, and a quarter note F#4. Clarinet plays a quarter note F#4 and a quarter rest. Violin plays a quarter note F#4 and a quarter rest. Viola has a whole rest. Guitar plays a quarter note F#4 and a quarter rest. Crotchet and Vibraphone have whole rests. Piano plays a quarter note F#3 and a quarter rest.

187

Fl. *pp* *ppp* *p*

Cl. *p* *pp*

Vln. *p* *pp* *arco sul pont.*

Vc. *pp* *pp*

Gtr. *ppp* *p*

Crot.

Vib.

Pno. *pp* *p*

Detailed description: This musical score page contains measures 187, 188, and 189. The key signature has one sharp (F#) and the time signature is 3/4. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crotchet (Crot.), Vibraphone (Vib.), and Piano (Pno.). Measure 187 starts with a treble clef and a key signature of one sharp. The Flute part begins with a half note F#4, marked *pp*. The Clarinet part has a half note F#4, marked *p*. The Violin part has a half note F#4, marked *p*. The Viola part has a half note F#4, marked *pp*. The Guitar part has a half note F#4, marked *ppp*. The Crotchet and Vibraphone parts are silent. The Piano part has a half note F#4, marked *pp*. Measure 188 continues with the Flute part having a half note F#4, marked *ppp*. The Clarinet part has a half note F#4, marked *pp*. The Violin part has a half note F#4, marked *pp*. The Viola part has a half note F#4, marked *pp*. The Guitar part has a half note F#4, marked *ppp*. The Crotchet and Vibraphone parts are silent. The Piano part has a half note F#4, marked *p*. Measure 189 ends with the Flute part having a half note F#4, marked *p*. The Clarinet part has a half note F#4, marked *pp*. The Violin part has a half note F#4, marked *pp*. The Viola part has a half note F#4, marked *pp*. The Guitar part has a half note F#4, marked *p*. The Crotchet and Vibraphone parts are silent. The Piano part has a half note F#4, marked *p*.

189

Fl. *pp* *p* *pp*

Cl. *ppp* *pp* *p*

Vln. *pp* *sul ord.* *tr*

Vc. *pizz.* *3* *pp*

Gtr. *pp*

Crot.

Vib.

Pno. *p* *pp*

191

Fl. *ppp*

Cl. *p* *pp* 9

Vln. *pizz.* *p* *arco sul pont.* *p*

Vc.

Gtr. 3 *I_d*

Crot.

Vib.

Pno. *tr* *p*

[illegible]

♩ = 54

193

Fl.

p

3 7 9 3

tr

Cl.

p

3 7 9 3

(tr)

Vln.

p

3 7 9 3

gettato

Vc.

p

3 7 9 3

gettato

Gtr.

p

3 III 7 V III 7 9 3

Crot.

Vib.

♩ = 54

Pno.

196

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

This musical score page contains measures 196 through 200. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.). The key signature has one sharp (F#) and the time signature changes from 4/4 to 3/4, then to 7/8, and finally back to 4/4. The Flute and Clarinet parts feature trills (tr) and triplets (3). The Violin and Viola parts also feature triplets. The Guitar part includes fingering numbers (I, III, V) and a triplet. The Crochet, Vibraphone, and Piano parts are marked with rests throughout the measures.

199

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

The musical score for measures 199-201 is written for a woodwind quintet and a percussion section. The key signature is one flat (B-flat major/D minor). The time signature changes from 4/4 to 3/4 to 7/8. The woodwinds (Flute and Clarinet) and strings (Violin and Viola) play a melodic line with trills and triplets. The guitar plays a bass line with triplets and chords. The percussion section (Crotchet, Vibraphone, and Piano) is silent.

202 $\text{♩} = 66$

Fl. *mp*

Cl. *mp*

Vln. *pizz.* *mp*

Vc. *pizz.* *mp*

Gtr.

Crot.

Vib. *p* *Ped.*

Pno. $\text{♩} = 66$

204

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 204, 205, and 206. The score is written for eight instruments: Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.). The key signature is one flat (B-flat), and the time signature changes from 4/4 in measure 204 to 2/4 in measure 205, and finally to 3/4 in measure 206. The Flute, Clarinet, Violin, and Viola parts are marked with accents and fingerings (7 and 6). The Guitar part is marked with an 8. The Crochet part is marked with a 6. The Vibraphone part is marked with a 6, a 3, a 5, and a 7. The Piano part is marked with a 4. The score is written in a standard musical notation style with a grand staff for the Piano and individual staves for the other instruments.

206

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This page contains a musical score for measures 206 and 207. The score is written for a woodwind and string ensemble. The woodwinds (Flute, Clarinet) and strings (Violin, Viola) have parts for both measures. The Guitar, Crochets, Vibraphone, and Piano parts are present but contain rests for both measures. The key signature has one flat (B-flat), and the time signature is 3/4. Measure 206 features a half note for the woodwinds and a dotted half note for the strings. Measure 207 features a half note for the woodwinds and a dotted half note for the strings. The Vibraphone part in measure 206 includes a triplet of eighth notes and a fifth fingered note. The Piano part in measure 206 includes a triplet of eighth notes and a fifth fingered note.

[illegible]

209

Fl.

Cl.

Vln.

Vc.

Gtr.

Crot.

Vib.

Pno.

Detailed description: This musical score page contains measures 209 through 212. The key signature has one flat (B-flat), and the time signature is 5/4. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Crochet (Crot.), Vibraphone (Vib.), and Piano (Pno.). Measures 209 and 210 are marked with a repeat sign. In measure 209, the Flute, Clarinet, Violin, and Viola play a half note B-flat. The Guitar, Crochet, and Piano are silent. The Vibraphone plays a half note B-flat. In measure 210, the Flute, Clarinet, Violin, and Viola play a half note B-flat. The Guitar, Crochet, and Piano are silent. The Vibraphone plays a half note B-flat. In measure 211, the Flute, Clarinet, Violin, and Viola play a half note B-flat. The Guitar, Crochet, and Piano are silent. The Vibraphone plays a half note B-flat. In measure 212, the Flute, Clarinet, Violin, and Viola play a half note B-flat. The Guitar, Crochet, and Piano are silent. The Vibraphone plays a half note B-flat. The score ends with a double bar line in measure 212.

210

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score is for measures 210, 211, and 212, marked with a rehearsal symbol. The key signature has one flat (B-flat) and the time signature is 4/4. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Flute, Clarinet, Violin, and Viola parts are identical, featuring a melodic line with eighth notes and a sixteenth-note triplet in measure 211. The Guitar and Glockenspiel parts are silent. The Vibraphone part features a melodic line with eighth notes and a sixteenth-note triplet in measure 211. The Piano part is silent.

[illegible]

213

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

9 7 7

mp *p* *mp*

p *pp* *pp* *p*

215

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

p

mp

pp

p

pp

p

217

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

p

pp

9

7

p

pp

p

mp

9

7

219

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

7

9

mp

pp

pp

p

221

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

pp

mp

p

7

7

9

The musical score for measures 221 and 222 is presented in a system of eight staves. The first five staves (Fl., Cl., Vln., Vc., Gtr.) are mostly empty, indicating rests for these instruments. The sixth staff (Glock.) and seventh staff (Vib.) contain melodic lines. The Glockenspiel part starts with a measure of rest, followed by a melodic line in measure 221, and then a measure of rest in measure 222. The Vibraphone part starts with a measure of rest, followed by a melodic line in measure 221, and then a measure of rest in measure 222. The eighth staff (Pno.) contains a sustained chord in the right hand and a moving line in the left hand. The dynamics are marked as *mp* for measures 221 and 222, *pp* for measure 221, and *p* for measure 222. The measures are marked with a '7' and a '9' respectively.

222

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

9

p

pp

The musical score for measures 222-224 is written for a full orchestra. The key signature is one sharp (F#) and the time signature is 5/4. The score includes staves for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). Measures 222-224 are shown. The Glockenspiel and Vibraphone have a melodic line with a 9-measure phrase. The Piano has a bass line with a 9-measure phrase. Dynamics include *p* and *pp*.

223 ♩ = 40

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

mp

p

pp

p

p

7

9

9

♩ = 40

225

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 225-228 is presented. Measures 225 through 227 are in 2/4 time, and measure 228 is in 3/4 time. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Piano part is the only one with notation, featuring complex chords and arpeggios with fingerings 5, 3, and 5 indicated. A double asterisk (*) is placed below the Vibraphone staff in measure 227.

228

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 228-231 is presented. Measures 228, 229, and 230 are in 7/8, 4/4, and 3/4 time signatures, respectively. Measure 231 is in 6/8 time. The score includes staves for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Piano part features triplets and quintuplets in measures 228-230 and a quintuplet in measure 231.

231

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 231-233 is presented. Measures 231 and 232 are in 5/8 time, and measure 233 is in 4/4 time. The score includes staves for Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Piano part features complex chords and arpeggios, with a 7-measure rest in measure 232.

234

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

The musical score for measures 234-237 is presented. Measures 234, 235, and 236 are in 2/4 time, while measure 237 is in 3/4 time. The instruments are Flute (Fl.), Clarinet (Cl.), Violin (Vln.), Viola (Vc.), Guitar (Gtr.), Glockenspiel (Glock.), Vibraphone (Vib.), and Piano (Pno.). The Piano part is the only one with notation, featuring complex chords and arpeggios. Fingerings 5 and 3 are indicated for the right hand, and 5 is indicated for the left hand. The key signature has one sharp (F#).

237

Fl.

Cl.

Vln.

Vc.

Gtr.

Glock.

Vib.

Pno.

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