THE BASSOON MUSIC OF GORDON JACOB:
AN ANALYSIS OF THE CONCERTO FOR BASSOON AND STRINGS AND THE
PARTITA FOR SOLO BASSOON

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BY
LINDSEY WIEHL

DISSERTATION ADVISORS: DR. BRETT CLEMENT AND DR. KEITH SWEGER

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ABSTRACT

DISSERTATION: The Bassoon Music of Gordon Jacob: An Analysis of the Concerto for Bassoon and Strings and the Partita for Solo Bassoon

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This dissertation offers a detailed analysis of two works by Gordon Jacob: The Concerto for Bassoon and Strings (1947) and the Partita for Solo Bassoon (1970). In the first chapter, I discuss pertinent information about the change in system from French to German bassoons and how this relates to Jacob’s compositional techniques and the performance of these works. The Concerto is analyzed with emphasis on the use of the (016) and (027) pitch-class sets, demonstrating how Jacob’s balancing of these sets contributes to the aural accessibility of this work. In the analysis of the Partita, I research how Jacob exploits melodic patterns and classical forms in order to create five balanced and somewhat symmetrical movements. Performance suggestions based on the analysis are also given in order to aid performers in making more informed musical decisions. In sum, this study explores the ways in which Jacob manipulates patterns within his music and how that may increase listener accessibility.
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Chapter 1: Introduction

London-born composer Gordon Jacob (1895–1984) had an eventful life.¹ During the Great War, he was captured by the Germans and put in a prison camp where he created and organized a small orchestra.² He composed and arranged pieces for the musicians there, which shaped the way he practiced composition. His works written during this time were created to be playable and practical for the musicians to which he had access.³ Following his captivity, he decided to study music formally at the Royal College of Music.

Similar to other composers of his generation, including Vaughan Williams, Howells, and Bax, Jacobs studied with Charles Villiers Stanford at the Royal College of Music. Stanford was known for being skeptical regarding modernism, and much of his instruction was based on classical music.⁴ While other composers of his time and location were experimenting with new compositional techniques, Jacob claimed that he could make new music without the “intellectual snobbery” of the new progressive artists.⁵ As a result, Gordon Jacob’s compositions seem to be more accessible to the listener while still containing modern compositional techniques.

The topic of Gordon Jacob’s bassoon music first piqued my interest when I heard Jacob’s *Partita for Solo Bassoon* performed at a recital.⁶ I became curious about how Jacob managed to write in a contemporary style that retained listener accessibility. This interest led me to research his works and organize a lecture recital on his music, which focused on the analysis of three of Jacob’s works featuring bassoon, including discussion of performance practice.

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³ Ibid.
choices that I myself made as a result of this analysis. For my lecture recital, I chose to study select movements of three works by Gordon Jacob, including his Concerto for Bassoon and Strings (1947), the Suite for Bassoon and String Quartet (1968), and the Partita for Solo Bassoon (1970). In this dissertation, I will analyze two of those three works, the Concerto and the Partita, in their entirety from both structural and performance standpoints.

During Jacob’s compositional career, the bassoon underwent significant changes in London, as the German system bassoon became more popular than the French system bassoon. Along with the physical changes of the instrument in shape, dimension, and key structure came differences in tone and range of the instrument. Jacob’s compositions from 1947–1970 seem to be influenced by the physical changes in the instrument. One may also observe how the different tone colors and characteristics of the French and German systems may affect style and production of sound within performance.

Information gained from this research can aid a performer in interpreting Jacob’s pieces. The practice of deeply analyzing and researching a piece of music naturally develops a sharper awareness for pitch and rhythm patterns within the music. I hope that the analytical techniques used in this dissertation will further interest other performers to the possibilities of incorporating structural analysis into their own preparation of compositions in order to make the most informed performance choices.

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7 Gordon Jacob, *Concerto for Bassoon and Strings* (St. Louis: Galaxy Music Corporation, 1947).
Review of Literature:

Several dissertations and theses have been written on Gordon Jacob’s music, and furthermore there are a few that discuss his bassoon music. I will explain how my research differs from these sources and how my topic is structured differently. Most of the dissertations and research projects done on Jacob’s bassoon music involve comparing one of his works to another bassoon piece by a different composer. For example, Wade J. Irvin’s 1990 dissertation, “An Analysis and Comparison of Two Contrasting Bassoon Concertos by Johann Nepomuk Hummel and Gordon Jacob,” limits its scope to comparative analysis between Jacob’s Concerto for Bassoon and Strings and Hummel’s bassoon concerto. Irvin’s dissertation describes general similarities between the two concerti regarding form and length of sections in the movements, as well as dissimilarities between the two including some traits of melody that differ between the composers. Overall, this dissertation does not go into great detail regarding the reasons behind the author’s claims. Additionally, the two composers of these works come from different time periods and locations. The author tends to observe the traits of the works rather than analytically decipher why those traits are, and the purpose behind them, which is what my research addresses.

Van Klompenberg’s dissertation, “Characteristics of the School of British Bassoon Music of the Early and Mid-Twentieth Century, with Analysis of Representative Works,” does a great job of comparing bassoon works from several British composers, including William Hurlstone, Thomas Dunhill, Ralph Vaughan Williams, Malcolm Arnold, and Gordon Jacob. However, because Van Klompenberg’s work focuses on an array of composers, the analytical detail is not as comprehensive. Each movement of each piece included in his dissertation is described in three

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13 Martin J. Van Klompenberg, “Characteristics of the School of British Bassoon Music of the Early and Mid-Twentieth Century, with Analysis of Representative Works,” (DMA diss., The University of Arizona, 2015).
sections: form, melody/rhythm, and range/role. For my analysis, I plan to explore in greater detail the compositional techniques used by Jacob (primarily using set theory and Neo-Riemannian theory) and relate the works to their role in the change of system from the French to German systems.

The dissertation of Donald Thomas Munsell, “A Comprehensive Survey of Solo Bassoon Literature Published After CA. 1929 with Analyses of Representative Compositions,” is useful as a compilation of 20th-century bassoon music. However, most of the dissertation serves as a catalogue of the compositions that have been written, and the analyses of the works are rather limited in depth and detail. My analysis investigates in more detail the specifics of Jacob’s compositions and examines the patterns and techniques he uses to create contemporary music that is accessible to the listener.

The previously noted dissertations neglect to mention the differences between the German system of bassoon, which is used almost exclusively in modern times, versus the French system of bassoon that would have been predominantly used at the time of Jacob’s compositional career. To better understand the French system of bassoon, books about the French bassoon were consulted, as well as books written by twentieth-century bassoonists who used the French system. I have researched details about the specific works chosen for this dissertation, including dedicatees of the works: Archie Camden (1888–1979) and William Waterhouse (1931–2007). Their playing styles are important in discovering more about the performing styles that Jacob envisioned for his bassoon pieces. Archie Camden, for whom one of Jacob’s works was written, was a prominent English bassoonist who primarily used the German system of bassoon. He and his teacher, William Waterhouse, both wrote books on their instruments, and Waterhouse had a

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14 Donald Thomas Munsell, “A Comprehensive Survey of Solo Bassoon Literature Published After CA. 1929 with Analyses of Representative Compositions”, (PhD diss., The University of Iowa, 1969).
great collection of bassoons, as shown in his book *The Proud Bassoon*.\(^{16}\) Archie Camden played an important role in the acceptance of the German system bassoon in place of the French.\(^{17}\) Other books that include information about the bassoon’s evolution and creation include Gunther Joppig’s book *The Oboe and the Bassoon*\(^{18}\) and James Kopp’s book *The Bassoon*.\(^{19}\)

Gordon Jacob wrote several textbooks about composing and music, including *The Elements of Orchestration* (1962), *The Composer and His Art* (1955), *Orchestral Technique: A Manual for Students* (1931). These books offer insight into his philosophy on composing, as well as on how Jacob believed the bassoon should be employed. Given the shift being made from the French to German system bassoons, Jacob’s books outline how the bassoon was utilized during these changes, and how expectations for the instrument may have altered.

Jacob’s *Orchestral Technique: A Manual for Students* is organized by instrument areas (string orchestra, woodwinds and horn, small orchestra, etc.) and outlines different compositional techniques that may best suit varying orchestrations and specific instruments.\(^ {20}\) Jacob shares his wealth of knowledge in the characteristics of each individual instrument including ranges that are best used for solos versus those that are duller, notes in which trills should be avoided, and the best way to incorporate notes that may be more difficult for the performer. Jacob’s care for the performer’s ease of facility and the accessibility of his compositions for the performer are highlighted in this book.

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\(^{17}\) S.S. “Archie Camden”, https://www.jstor.org/stable/pdf/962025.pdf?refreqid=search-gateway%3Aff0d3968564d88a03943fab1a01b3723


Jacob delves into his thoughts on varying instrumentations and compositional techniques for such in his book _The Composer and His Art_.\(^{21}\) Elements including melody, harmony, and texture are discussed in a variety of chamber instrumentations, including chamber music for strings and wind instruments. Structure and development of his works are examined in another chapter of the book, and Jacob stresses the importance of timing and detail in the form of the work, knowing when to adhere to a specific form (usually sonata form), and when to allow for more flexibility.

Jacob continues his thoughts on orchestration and instrumentation in his book, _The Elements of Orchestration_.\(^{22}\) Published ten years after _The Composer and His Art_, this book is organized in two main sections: theory and practice.\(^{23}\) While this text is more concerned with full orchestral orchestration, the use of individual instruments, and sections within the orchestra, much of the information can be applied to Jacob’s works through what Jacob mentions within the general principles of orchestration. He mentions the changes in tone, volume, and color of the bassoon in its different ranges.\(^{24}\) Jacob was clearly knowledgeable of the idiosyncrasies and characteristics of all the standard orchestral instruments, including the bassoon.

I have referenced several books about the analysis of 20th-century music to aid in my analysis of Jacob’s pieces. Joel Lester’s book, _Analytic Approaches to Twentieth-Century Music_, outlines many of the techniques used by neo-classical composers.\(^{25}\) Topics of the book include trends in harmony and the impact of analysis in neo-classical works, definitions of 20th-century terms, texture and timbre in unaccompanied works, and changes in form. These concepts and ideas will be used in my analysis of the selected works.

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\(^{22}\) Gordon Jacob, _The Elements of Orchestration_, (New York: October House, 1965).
\(^{23}\) Ibid., 3.
\(^{24}\) Ibid., 190.
\(^{25}\) Joel Lester, _Analytic Approaches to Twentieth-Century Music_, (New York: W.W. Norton & Company, 1989).
To aid in my Neo-Riemannian-related sections of analysis, I consulted several articles by Richard Cohn, who is a music theorist specializing in Neo-Riemannian theory and metric dissonance, among other music theory topics. Cohn’s article, “Introduction to Neo-Riemannian Theory: A Survey and a Historical Perspective” is an article I referred to throughout my analysis and research, and is a useful introduction to Neo-Riemannian theory.\textsuperscript{26} Cohn’s article, “Weitzmann’s Regions, My Cycles, and Douthett’s Dancing Cubes” also contains valuable research and information about Neo-Riemannian theory, as well as numerous figures which aid in understanding the theory behind chord relationships.\textsuperscript{27} Cohn also wrote a book, \textit{Audacious Euphony: Chromatic Harmony and the Triad’s Second Nature}, in which he further delves into romantic harmony and the relationships that chords share with each other in their voice-leading properties.\textsuperscript{28}

For my analysis of metrical dissonance, I referred to the analysis of Harald Krebs, and his book, \textit{Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann}.\textsuperscript{29} The book discusses various types of rhythmic and metrical dissonance including that of grouping dissonance, displacement dissonance, direct and indirect dissonance, subliminal dissonance, and surface-level dissonance. These types of dissonance describe how layers of rhythms interact: either in agreement with each other or in conflict. Using some of Krebs’ concepts, I will discuss the role of metrical and rhythmic dissonance in discussion of both of Jacob’s works.

\begin{itemize}
\item\textsuperscript{28} Richard Cohn, \textit{Audacious Euphony: Chromatic Harmony and the Triad’s Second Nature} (London: Oxford University Press, 2012).
\item\textsuperscript{29} Harald Krebs, \textit{Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann} (London: Oxford University Press, 1999).
\end{itemize}
Another valuable text on musical analysis is *Music of the Twentieth Century: Style and Structure* by Bryan R. Simms. Simms’s book has chapters focused on the transitions within tonality and the role of motives in 20th-century music. Other chapters explain the use of melody and modes, as well as rhythmic elements— all of which will be integrated into the analysis of Jacob’s music. Elliott Antokoletz’s text *A History of Twentieth-Century Music in a Theoretic-Analytical Context* is organized by elements of music and stylistic trends throughout the 20th-century. Antokoletz’s book also provides relevant historical information and context to help the reader gain information about what was happening politically, socially, economically, and culturally through the changes and transformation of musical styles. This text aids in the contextualization of Jacob’s music and the varying trends that led to and cultivated the neoclassical style of composing in England, as well as in other parts of the world.

Elliott Schwartz and Daniel Godfrey’s book *Music Since 1945: Issues, Materials, and Literature* is also a useful reference. This text provides insight on composers’ changing attitudes towards their music in relation to the world around them. This book largely focuses on seven musical concepts (pitch logic, time, sound color, texture, process, performance ritual, and historicism) and how these concepts play different roles in 20th-century music. Schwartz and Godfrey’s survey of post-World War II music examines how the listener might have perceived the changing aspects of music.

A useful guide for some of the other analytical systems I will be using (namely the use of different scales, harmonies, pitch collections, and set theory) is Edward Pearsall’s

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book *Twentieth-Century Music Theory and Practice*.\(^{33}\) This book acts as a guide to the common analytical systems and organizational schemes used in 20th-century music. This work also provides insight to other musical structures and systems such as Neo-Riemannian theory and parsimonious voice leading, operations of ordered and unordered pitch sets, and analysis of rhythm and meter.

Because most of my analytical research will be spent with set theory and pitch-class sets, I also used analysis techniques found in Joseph N. Straus’s textbook *Introduction to Post-Tonal Theory*.\(^{34}\) While Gordon Jacob’s music is largely tonal, he nevertheless employs pitch-class sets in ways that can be modeled with set theory. Straus’s book contains a multitude of graphics and analytical examples and diagrams, which helped me to determine the clearest ways to graphically show my analysis. Throughout the analyses of the works, musical pitches will be referred to using the system used by the International Standards Organization (ISO). Therefore, “middle C” will be referred to as C4, and the lowest note played on the bassoon (“low B-flat”) would be B-flat 1.

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Methodology:

This dissertation incorporates several types of analysis, including set theory, analysis of styles, and analysis of physical changes in the instrument. Gordon Jacob is considered to be a neo-classical composer. Neo-classical composers sought to revive the “balanced forms and clearly perceptible thematic processes of earlier styles to replace what were, to them, the increasingly exaggerated gestures and formlessness of late Romanticism.” Neoclassic works also tend to modify tonality from typical classical works, hence the addition of the prefix “neo” in the style’s name. Jacob often stretches the limits of classical tonality into the realms of modality or occasionally atonality, which is typical of a neo-classical composer. As part of my research, I have studied other notable neo-classical composers, including works by Stravinsky and Schoenberg, although Jacob’s works tend to be more conservative in tonal and rhythmic elements than their works.

Given the changes to the bassoon at the time of Gordon Jacob’s compositions, it is certainly important to understand the characteristics of the French bassoon for which Jacob was likely composing. The works are analyzed in order of composition, starting with his Concerto for Bassoon and Strings and ending with the Partita for Solo Bassoon. Each analysis is separated by movement, making connections along the way regarding any inner-relationships between movements. The analysis begins with a general overview of the movement’s form, including a diagram of which measures occupy each musical section. Following the form, I discuss elements of music in sections, including elements of rhythm, motives, tonality, key relationships, and pitch set groups. Relevant information having to do with the bassoon’s changes from French to

German systems will be mentioned as applicable to the sections of music, referring to the section of the bassoon’s general history and role in music, located in the section of chapter one, titled “A Brief Background of Gordon Jacob and the Two Systems of Bassoon.”

Set theory, which I use frequently throughout my analysis to discuss pitch patterns, focuses on the intervallic relationships between pitches. Each pitch is assigned a number, starting with 0 assigned to C, 1 assigned to C-sharp. This pattern continues throughout each semi-tone, with B-natural assigned 11. Octave equivalence is accepted as a postulate, and therefore the next C would return to being 0 rather than 12. All other enharmonically-equivalent notes would encompass a single pitch-class, and are assigned the same number (in the case of C-sharp/D-flat, both pitches may be expressed as 1).

A majority of analysis in this paper discusses observed patterns in the prime forms of pitch-class sets. The prime form of a pitch-class set is the most compact version of the pitches transposed so that the set begins on 0. Pitch-class sets that share the same prime form will share common aural elements. These prime form pitches also share the same number of pitches and the same collection of aurally perceived intervals, and therefore may be perceived similarly by the listener. For this reason, the prime forms of pitch-class sets will be a point of interest in several movements of Jacob’s works. For the ease of reading and to avoid redundancy, all pitch-class sets mentioned in this dissertation will be referring to the prime form of the set, marked in parenthesis. Several diagrams throughout this dissertation will be outlining two main pitch-class sets: the (016) set and the (027) set. In figures and diagrams, these will often be shown in colored brackets. Red brackets or circles will refer to (016) pitch sets and blue brackets or circles will refer to (027) pitch sets. Notes in green boxes are of importance due to their use of chromaticism.
The origins of Neo-Riemannian theory can be found in the 1982 essay, “A Formal Theory of Generalized Tonal Functions,” by David Lewin. The beginnings of the theory lie in mapping major and minor triads next to each other and defining the transformations that one chord goes through in order to create a different chord. Neo-Riemannian theory encompasses six concepts, including triadic transformations, common-tone maximization, voice-leading parsimony, “mirror” or “dual” inversion, enharmonic equivalence, and the “Table of Tonal Relations.”

Several tables and figures have been generated to map out the relationships between chords based on these transformations including Leonhard Euler’s Tonnetz, which translates to “tonal network” in German. Unlike analysis of typical classical music, Neo-Riemannian theory measures the distance between two triads on the number of common tones between two chords and the intervallic movement of non-common tones. This emphasis on parsimonious voice leading differs from the typical classical discussions of chords in terms of their root relations. Carol Krumhansl wrote an article suggesting that listeners, especially listeners that are non-musicians, are particularly sensitive to pitch proximity: one of the fundamental principles of Neo-Riemannian theory.

Regarding Neo-Riemannian theory, this analysis will largely focus on how several of Jacob’s chosen key areas are related via Neo-Riemannian transformations, and how that may affect the listener’s perception of the less-typical key areas.

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A Brief Background of Gordon Jacob and the Two Systems of Bassoons

Two of Gordon Jacob’s works featuring the bassoon will be discussed in the order of the date they were composed, starting with Jacob’s Concerto for Bassoon and Strings (1947) and ending with his Partita for Solo Bassoon (1970). Jacob composed many concerti and chamber works for wind instruments. These compositions demonstrate deep knowledge and understanding regarding the mechanics of the instruments and their individual technique. Interestingly, Jacob was composing at an important time in the development of the bassoon. Throughout the 1900s in England, the bassoon was undergoing a transition from the French to the German systems, and Jacob’s compositions show how writing music for the bassoon changed as result. Throughout the mid-1900s, Gordon Jacob also wrote several textbooks on composition and music, including Orchestral Technique: A Manual for Students in 1931, The Composer and His Art in 1955, and The Elements of Orchestration in 1962. These books provide insight into his philosophy on composing, as well as how Jacob believed the bassoon should be employed.

It is also helpful to realize that Jacob wrote his Orchestral Technique book before any of the aforementioned compositions were written. Jacob wrote The Composer and His Art as well as The Elements of Orchestration between the completion of the concerto and the partita. Content from these books, alongside analysis of his compositions, will be explored to discover how Jacob employs complex compositional techniques while maintaining accessibility to the listener, and how a performer can make informed decisions when interpreting these works.

Additional observations will be made as to how Jacob’s works cater to the evolution of the bassoon during the years of composition. In his 1962 book The Elements of Orchestration, Jacob identifies the bassoon’s range as low Bb, or Bb1, up to D5, even noting that “three more
semitones upward can be reached by expert soloists on the bassoon, giving a top note of F”.42 An important consideration into the use of notes in the bassoon’s high range is the existence of two, arguably three, systems of bassoons at the time Jacob was alive, composing, and writing books. The different bassoons consisted of the French system (Buffet), the German system (Heckel), and the English bassoons.43 By the early 1900s, the English bassoon was quietly yielding to the popularity of the French bassoon, which held its rank as the most popular system bassoon for decades.44

The French bassoon was most prominently used to accompany or fill out sound in an orchestral or chamber setting, but the deficiencies of the instrument in evenness of tone and the issue of difficult fingerings became more apparent as more technically-demanding passages were asked of bassoonists.45 Several remedies for the bassoon were attempted, but adding additional keys to make easier fingerings had a negative outcome on the tone and evenness of other notes.46 The German system was created when Karl Almenräder partnered with Johann Adam Heckel in 1824, with the mission to simplify fingerings and improve intonation by not only changing the keys of the bassoon, but also reconstructing the layout.47 After eleven years of experimenting and working, Almenräder and Heckel’s new German system of the bassoon was completed in 1835, though it failed to gain strong popularity until the 1900s, and not until the mid-1900s in Europe.48 The new Heckel system (also known as the German system) had a contrasting tone to the mellow, soft, and tender tone of the French bassoon, making acceptance of the German

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47 Ibid.
system more difficult.\textsuperscript{49} Through continual changes by Johann Adam Heckel’s son, William, the new German system bassoon grew to combine the best of both systems.\textsuperscript{50} What eventually resulted as part of the German system was a bassoon that produced a stronger, darker tone.

![Figure 1.1: The German system bassoon (a) and the French system bassoon (b).\textsuperscript{51}](image)

\textsuperscript{49} Julius Weissenborn, \textit{Der Fagott}, 8.
\textsuperscript{50} Ibid.
\textsuperscript{51} Ibid.
The French system was different from the German system we use almost exclusively today in a few ways. As illustrated in Figure 1.1, the French bassoon had a narrower bore than the German bassoon, especially within the bell. Compared to the German system bassoons, the French bassoon’s unkeyed tone holes were larger and spaced farther apart from each other, while its keyed tone holes were typically smaller and narrower. Many keys were added to the German system bassoon, resulting in a bassoon equipped with 17 keys. Some of the keys were moved to different locations than those found on the French bassoon, including keys for low C-sharp and low E, which were moved to the opposite side of the bass joint. Several of the changed extremely upper register notes were actually significantly easier to sound on the French system, but for the sake of the new German system tone were altered. The extreme high notes of the bassoon’s range were easier to play due to the structure of the French bassoons.

There was some animosity between the French and German system bassoonists. Maurice Allard (1923–2004), who began teaching at the Paris Conservatory in 1957, would not allow his students to play on the German-style instrument. In fact, the existence of a German bassoon in the Paris Conservatory’s music building was forbidden. Eventually, the tone of the German bassoon came to be favored in orchestras, partially due to the changes in the music business. With the rise in technology in orchestras around the 1930s, it was found that German bassoons recorded better than their French counterparts because the sound of the French bassoon would

52 James Kopp, The Bassoon, 156.
53 Daryn Zubke, 11.
54 Ibid.
57 James Kopp, The Bassoon, 162.
not record clearly on the microphones.\textsuperscript{58} In the nineteenth century, there were many firms that made French bassoons, including Gautrot, Adolphe Sax, and Mahillon.\textsuperscript{59} Today there are only two major companies: Buffet-Crampon and Selmer. Currently, the German system of bassoon is most commonly used.\textsuperscript{60} While some regions switched to the German bassoon earlier, it wasn’t until 1971 that the German system of bassoons were used more than the French in European countries.\textsuperscript{61} Given that most bassoonists performing Jacob’s pieces in the 21\textsuperscript{st} century will be performing on a German-system bassoon, the modern performer may want to keep in mind some of the qualities of the French bassoon, such as the ease of playing in the highest register and the light, free tone quality.\textsuperscript{62} These qualities can have an effect on a performer’s musical decisions and the interpretation of his works.

Several aspects of Gordon Jacob’s compositional situation make him a curious composer to study. Jacob’s role of mid-20\textsuperscript{th} century composer makes for an interesting interpretation of his bassoon works because of the changes that the bassoon underwent as result of its evolution from French to German systems. Additionally, Jacob’s categorization as neo-classical composer invites the performer and musical analyst to view his works from several lenses, including that of classical music as well as from a more modern, 20\textsuperscript{th}-century view.\textsuperscript{63} Jacob’s overarching goals of creating music that contained interesting melodies as well as compositional creativity is apparent in both the Concerto for Bassoon and Strings as well as the Partita for Solo Bassoon. Studying the several ways that Jacob creates complex compositions that appeal to the audience can bring

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\textsuperscript{58} Ibid., 158.
\textsuperscript{61} James Kopp, \textit{The Bassoon}, 163.
\textsuperscript{63} Frank Howes, \textit{The English Musical Renaissance} (New York, Stein and Day, 1966), 269.
to light several interesting compositional decisions that have been made in the quest of balancing complexity and accessibility in music composition.
Chapter 2: Concerto for Bassoon and Strings

Movement 1: Allegro

Gordon Jacob’s Concerto for Bassoon and Strings, written in 1947, was dedicated to Archie Camden (1888–1979), the solo bassoonist of the BBC Symphony. Camden was known not only for his famously long and distinguished career of 65 years, but also for being the “first native professional player of the German bassoon in England.” Camden was a professor at the Royal College of Music in London and taught several generations of bassoonists, spreading his influence and preference for the German bassoon throughout London. While Archie Camden was becoming a pioneer for the German bassoon, the French bassoon was still prominent in England during the work’s creation in 1947.

The Concerto for Bassoon and Strings was most likely written with the character and tendencies of the French bassoon in mind. The work opens with very limpid writing featuring staccato step-wise passages in the bassoon. These staccato passages are often featured in compositions for the bassoon of the early 1900s, as the French bassoon produces a dry, crisp staccato. Archie Camden, in his book Bassoon Technique, details how the French and German systems changed the character of the bassoon. He observes that the German bassoon is designed more for powerful expressiveness— and is less conducive to the delivery of effects such as the light staccatos found in this movement. To achieve the character that would be produced by a French bassoon, the performer should ensure that the staccatos are kept light, perhaps giving

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them a little bit more length so they do not sound choked. While a performer may not choose to perform in a way that imitates the French bassoon, the tendencies of the French bassoon should be taken into consideration when making performance decisions throughout the piece, as this was likely the instrument for which Jacob was writing, given the French bassoon’s reign until approximately 1970 in European countries.69

Gordon Jacob is considered a neo-classical composer by English music scholar Frank Howes, and several of Jacob’s compositional choices imitate the techniques and forms of classical-era music.70 For example, the forms and key relationships within the movements are rather standard for common-practice tonal music, beginning with the use of sonata form in the first movement of the concerto. As can be seen in Figure 2.1, the overarching key areas of this movement conform to those of the standard sonata form, including the second theme in the dominant key and the recapitulation and coda in the home key. However, as is common in the neo-classical style, Gordon Jacob’s compositions tend to feature extended tonalities, modalities, or other modern traits on the musical surface.71

69 James Kopp, The Bassoon, 163.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Primary Key Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–69</td>
<td>Exposition:</td>
<td>B-flat major</td>
</tr>
<tr>
<td>mm. 1–17</td>
<td>1\textsuperscript{st} Theme</td>
<td>Transitions through several key areas</td>
</tr>
<tr>
<td>mm. 18–33</td>
<td>Transition</td>
<td>F major</td>
</tr>
<tr>
<td>mm. 34–59</td>
<td>2\textsuperscript{nd} Theme</td>
<td>C-sharp major to B-flat major</td>
</tr>
<tr>
<td>mm. 60–69</td>
<td>Closing</td>
<td></td>
</tr>
<tr>
<td>mm. 69–101</td>
<td>Development</td>
<td>A major, E major, tonally ambiguous</td>
</tr>
<tr>
<td>mm. 102–118</td>
<td>Retransition</td>
<td></td>
</tr>
<tr>
<td>mm. 119–175</td>
<td>Recapitulation</td>
<td>B-flat major</td>
</tr>
<tr>
<td>mm. 119–137</td>
<td>1\textsuperscript{st} Theme</td>
<td>Transitions through several key areas</td>
</tr>
<tr>
<td>mm. 138–155</td>
<td>Transition</td>
<td>Modulatory, travels to F Major, to lead to B-flat</td>
</tr>
<tr>
<td>mm. 156–175</td>
<td>2\textsuperscript{nd} Theme</td>
<td></td>
</tr>
<tr>
<td>mm. 176–189</td>
<td>Coda</td>
<td>B-flat major</td>
</tr>
</tbody>
</table>

Figure 2.1: Sonata form in the first movement of the Concerto for Bassoon and Strings.

According to Gordon Jacob scholar Geoff Ogram, Jacob composed many of his musical works with an interest in memorable tunes and listener accessibility.\textsuperscript{72} In the Concerto for Bassoon and Strings, Jacob cleverly balances harmonic complexity with these interests. This can be seen in his handling of distantly related keys in the first movement. For example, in the opening of the movement, there is a digression from the home key to B-flat major to the tritone-related key of E major. The music continues to digress from the key of B-flat major throughout the movement, so much so that by the final several measures Jacob manages to shock the listener by doing what is expected of most conventional pieces: ending on the tonic, here a fortissimo B-flat major chord (Figure 2.2). That is, by this point, the listener is more comfortable in other keys than in the primary key of B-flat. Jacob’s goal of retaining accessibility to the listener is thereby achieved by successfully acquainting the listener with a more complex harmonic structure and allowing the listener to familiarize themselves with the less predictable changes.

Jacob arrives at these distant keys in clever ways. Consider the steps taken in the initial shift from B-flat major to E major near the beginning of the movement (Figure 2.3). After the movement’s opening piano introduction, the bassoon soloist enters with scalar passages in the home key of B-flat major. The following two measures feature a melodic sequence (see black brackets in Figure 2.3), but one that does not follow a strict interval or root pattern. The melodic material in the black brackets convey a sequential pattern, but the intervals within the sequence are not identical, each slightly varying from the previous iteration. Despite the unpredictability of the sequence’s pitch content, the transitional use of sequence signals to the listener that they are to embark upon an atypical harmonic journey.
Figure 2.3: Gordon Jacob, Concerto for Bassoon and Strings, movement 1, mm. 9–15.

Continuing the journey into the tritone area of E major in m. 15, we begin to see patterns in pitch-class sets. Set theory assigns a number to each of the twelve chromatic pitches in a scale. Different combinations of these pitches can be organized into sets. When these sets are put into their most compact version, and then transposed so that the first pitch-class is zero, the result is the prime form of the pitch-class set. Two pitch patterns are prevalent throughout this movement: the (016) set and the tritone interval. These two elements are clearly related, as the (016) set has a tritone as a subset. The added trichordal pitch of (016) creates both a half step and a perfect fourth/fifth interval, both of which are the consonant pillars of tonal harmony. Perhaps Jacob employs the (016) set in order to normalize the use of the tritone for the listener.
The (016) pitch-class set is considered to be notably dissonant. This specific set has been named the “Viennese trichord” for its prominent use by composers in the second Viennese School, including Arnold Schoenberg and Anton Webern. The (016) set has also been called the “Viennese fourth” or the tritone-fourth chord, because it encompasses a tritone and a fourth. The level of dissonance or consonance within a set can be calculated through a multi-step mathematical equation discussed by Henry Martin in his article “Seven Steps to Heaven: A Species Approach to Twentieth-Century Analysis and Composition.” This equation takes into account the intervals within the trichord and the perceived consonance or dissonance within them, resulting in a number that indicates whether a given trichord is considered to be fully consonant, partially consonant, or fully dissonant. The (016) trichord is considered to be fully dissonant, with an average $cr$, or consonance rating, of 0.00. This rating may appear to be confusing, as the (016) set also encompasses a perfect fourth, or interval-class 5. However, the consonance rating system allows for a $cr$ to be a negative value. While the (016) set does not hold rank as the most dissonant trichord, it is categorized as “fully dissonant.” Martin’s rating system will continue to be of use in the third movement of the concerto, when Jacob incorporates a contrasting pitch-class set that contains an almost opposite consonance rating. Jacob’s use of (016) within the first movement of the concerto is manipulated in a way that creates familiarization to the listener, despite it being a trichord that is perceived to be fully dissonant.

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76 Henry Martin, “Seven Steps to Heaven,” 152.
The first presentations of the (016) set are introduced in a variety of ways. The first (016) is found when a new rhythmic figure in mm. 13–14 (Figure 2.3) interrupts the former metrical consonance with a 6/8 grouping, which in context sounds like a hemiola figure. This metrical dissonance between the 6/8 grouped notes (3 + 3) versus the previous 3/4 grouped notes (2 + 2 + 2) may hint to the listener that something else is of importance in the melodic line. In fact, these two measures with 6/8 groupings outline a (016) set that functions as a bridge to the figure in E major. Interestingly, the C–F# tritone of this (016) set is predicted by the chord succession of mm. 12–13: G-flat major moving to its tritone-related C chord on the downbeat of m. 13. Furthermore, the chord that precedes the G-flat chord is an F–minor chord, creating a (016) root progression of F, G-flat, and C. The end of the melodic figure to the downbeat of m. 13 also predicts the (016) pattern, since the G-flat, D-flat, and C in the bassoon line also create a (016) (Figure 2.3). The variety in the presentations of the (016) set can aid in maintaining interest throughout several motivically saturated sections of music.

While Jacob continues to employ the (016) set throughout this transition, the (016) set is presented in a variety of interval patterns (Figure 2.3). In this small section alone, the same pitch-class set can be found through means of descending P4 and ascending M9 interval (the first instance of (016) into m. 13), a descending half step and descending tritone (the grouping of three notes in mm. 13–14), and an ascending half step followed by an ascending tritone interval (found in the bass notes of mm. 12–13). Throughout mm. 13–14, the bassoon soloist continues the (016) pattern, with a final (016) comprising the notes B-flat, F-natural, and E-natural (the E-natural being the downbeat of m. 15), overlapping with the B, B-flat, F (016) set of m. 14. The piano’s punctuations every three eighth notes create a chromatic stepwise line, also leading into
the cadence in E major in m. 15. Through all of the tritone relationships and (016) sets, the chromatic line helps guide the expectations of the listener.

Jacob uses the (016) set in the solo bassoon line to facilitate the transition back into the original key, using the B-flat major scalar patterns found in the accompaniment. A clear example of this can be found in the transition of the A material in m. 15 back to the original key of B-flat major in m. 18 (Figure 2.4). The somewhat distant key relationships found in this movement are connected by retaining the previously presented elements in order to maintain familiarity within a new tonal territory. Musical elements such as the (016) set and the melodic motive of the staccato major scale have been present in the movement in several instances already, and for this reason, the new key area may be more readily accepted by the listener, despite the tritone distance.

![Figure 2.4: Gordon Jacob, Concerto for Bassoon and Strings, movement 1, mm. 16–19.](image)

Throughout the exposition of the movement, Jacob explores several unanticipated key areas. While Jacob’s neo-classical style often explores elements that are associated with the classical era, his music also features shifts to key areas that are atypical for this era. The harmonic changes starting at m. 9 are a case in point, but they may still be perceived as
accessible to the listener due to various similarities between the key shifts. To track these shifts to less common key areas, I will employ Neo-Riemannian transformations in my analysis.

Neo-Riemannian theory models the transformational relations between harmonies by tracking the voice leading of individual notes, thus capitalizing on the similarities between keys/chords that may or may not follow norms of classical tonal relations. For example, to move from a chord to its parallel major or minor (such as F major to F minor), the third of the chord moves by one half step while the root and the fifth of the chord remain as common tones. In Neo-Riemannian theory, this would be described as a P (parallel) transformation. Several transformations in Neo-Riemannian theory focus on the presence of parsimonious voice leading, or the retention of common tones and the movement of tones by small intervals such as a half step or whole step. This analysis includes the aforementioned P, the R (relative) transformation, which takes a triad to its relative major or minor (ex. C major to A minor), and the leading-tone exchange (L), by which a major triad moves one voice to its leading tone (ex. C major to E minor) or a minor triad moves its fifth by half step to the sixth (ex. A minor to F major). The N (nebenverwandt, or next-related) transformation takes a major triad to its minor subdominant (ex. C major to F minor) or a minor triad for its major dominant (ex. A minor to E major). Additionally, transformations can be combined into compound transformations such as PL, PR, RP, and LR, by successively transforming a chord through the basic transformations.

79 Richard Cohn, “Introduction to Neo-Riemannian Theory,” 171.
80 Ibid., 174.
As Figure 2.5 shows, the various tonal centers of this movement are related to each other either by the tritone interval (such as B-flat major to E major) or by some Neo-Riemannian transformation (such as B-flat major to B-flat minor). Each new key is achieved either through standard practices such as scalar motion or cadence or through the use of a (016) set, which is found more often when journeying to a key that is distanced by a tritone. The combination of shifts found in classical music and those that feature the (016) set thereby balance the classical and modern techniques of the movement.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Key Center</th>
<th>Neo-Riemannian transformation/ Relationship to the previous tonal center</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>B-flat major</td>
<td>Original key area</td>
</tr>
<tr>
<td>15</td>
<td>E major</td>
<td>Tritone (arrives by use of (016) set)</td>
</tr>
<tr>
<td>18</td>
<td>B-flat major</td>
<td>Tritone (arrives by use of (016) set)</td>
</tr>
<tr>
<td>22</td>
<td>B-flat minor</td>
<td>P (arrives by stepwise, scalar motion)</td>
</tr>
<tr>
<td>26</td>
<td>D minor</td>
<td>PL (arrives by stepwise, scalar motion)</td>
</tr>
<tr>
<td>34</td>
<td>F major</td>
<td>R (arrives by ornamented scalar motion)</td>
</tr>
<tr>
<td>42</td>
<td>C major</td>
<td>LR (arrives by V-I, authentic cadence)</td>
</tr>
<tr>
<td>46</td>
<td>F minor</td>
<td>N (arrives by stepwise, scalar motion)</td>
</tr>
<tr>
<td>50</td>
<td>B major</td>
<td>Tritone (arrives by chromatic scalar motion)</td>
</tr>
</tbody>
</table>

Figure 2.5: Neo-Riemannian transformations and key relationships from mm. 9–50.

The use of key areas related by Neo-Riemannian transformations naturally creates an opportunity for the composer to capitalize upon the common notes of two keys/chords. For example, the musical phrases found at m. 18 in the key of B-flat major and the phrases found at m. 22 in the key of B-flat minor both employ the same scalar stepwise patterns, rhythms, and melodic motives. The only element that has changed is mode (from major to minor), and the continuation of these other elements accentuates the similarities between the two keys. The only differences (such as the alteration from using D-naturals to D-flats, for example, and the similarly lowered sixth and seventh scale degrees) are quickly detected by the listener and
readily accepted by the ear. The presence of parsimonious voice leading (usually retaining at least one common tone between two chords, or in this case, several common tones between key areas) and the shifting of non-common tones by a small interval (a half or whole step) capitalizes upon the resemblances of the keys through which we travel.

Sections that are seemingly unrelated to the (016) pitch-class set or Neo-Riemannian transformations contain allusions to these compositional techniques. While the transformation-related key changes have ceased by the second part of the second theme (beginning at m. 50), it is interesting to note that a (016) set is formed from the roots of the final three key areas transitional to this new section: C, F, and B (Figure 2.5). In a similar fashion, the final phrase of the exposition ends with a (016) set in the bassoon solo line, which functions as a transitioning figure to the development (Figure 2.6). The persistent allusions to these techniques and specific pitch-class sets appear to deepen the connections of the compositional choices made between sections of music.

Figure 2.6: Gordon Jacob, Concerto for Bassoon and Strings, movement. 1, mm.67–70.

Compositional techniques such as chromaticism and the omission of mode-defining tones are employed to create tonal ambiguity throughout the development section. The open perfect-
fifth intervals beginning at m. 70 create tonal ambiguity by omitting the third of the chord, leaving the listener to infer whether the mode of this section is major or minor (Figure 2.7). The contrasting characteristics of chromatic lines and descending-fourth intervals are often traded off between the solo bassoon and the accompaniment. Although the bassoon solo has octave leaps, the performer should be sure to play them very smoothly to provide added contrast to the accented descending-fourth intervals found in the accompaniment.

Figure 2.7: Gordon Jacob, Concerto for Bassoon and Strings, movement 1, mm. 71–74.

The (016) sets are used again within the retransition to lead to a new idea. (016) patterns begin in the bassoon melody in m. 109 in a 6/8 grouping (3 + 3) (Figure 2.8), creating a hemiola effect similar to the music in mm. 13–14 (Figure 2.3). (016) sets continue to be found throughout this transitional section in the piano’s chromatic accompaniment lines, leading to a phrase of overlapping (016) sets from mm. 116–118, which functions as a retransition into the recap (red circled items in Figure 2.9). The first (016) set on the downbeat of m. 117 comprises an F-natural, B-natural, and C-natural. The next (016) set is created by using the latter of the two notes (B-natural and C-natural) and then incorporating the next note, F-natural. This pattern of overlapped (016) sets results in various interval patterns (Figure 2.9), which continue until the music arrives in the home key of B-flat major. From the recapitulation to the end of the
movement, the harmonic and melodic figures hearken back to the previously employed patterns and progressions with harmonic and melodic material identical to the opening’s A section. Jacob employs the (016) set in order to move into less typical key areas with ease, while maintaining accessibility to the listener having aurally familiarized the listener with the (016) set.

Figure 2.8: Gordon Jacob, Concerto for Bassoon and Strings, movement 1, mm. 107–114.

Figure 2.9: Gordon Jacob, Concerto for Bassoon and Strings, movement 1, mm. 116–118.
As mentioned before, the movement’s concluding B-flat major chords are somewhat stunning to the listener. The music finally arrives on the fifth scale degree in B-flat by means of another (016) set in the bassoon line. However, in the final notes of the accompaniment, the most-perceptible tones (F, C, B-flat) create an ending with the tonic B-flat chord by means of a (027) pitch-class set (blue circled notes in Figure 2.10). Similar to the (016) pitch-class set, the (027) set contains its own unique qualities. The (027) will become an increasingly important pitch-class set in the third movement of this piece.

In sum, Gordon Jacob finds success in this movement in composing music that achieves balance between utilizing complex modernist compositional techniques and maintaining accessibility to the listener. By itself, the use of pitch-class sets does not ensure that the music will be easy for the listener to process. However, Jacob’s repeated use of the (016) pitch-class set in its various forms further acquaints the listener with the intervals within the set, including the half step and tritone intervals. The (016) set is also used throughout the first movement to aid in transitioning to less typical keys. In this first movement, the manipulation of pitch-class sets
generates melodic motives, aiding in the perception of pitch similarity. Additionally, by using a consistent familiar pitch-class set, Jacob is able to travel with ease to unexpected harmonic areas. Therefore, the recurrent use of related interval patterns to create melodic and harmonic material generates more accessible, logical, and comprehensible aural patterns for the listeners.
Movement 2: Adagio

The second movement of the Concerto for Bassoon and Strings is slow with a melancholy character. While this movement contains compositional complexities as in the first movement, the techniques employed are quite different. While some pitch-class set patterns are detected throughout the second movement, Jacob focuses more on other musical elements to create its character. Compositional features such as the use of bitonality, quartal harmony, and seventh chords contribute to the harmonic interest in this movement. Jacob also makes choices in the tone and register of both solo and accompaniment parts to balance the compositional complexities and perceived harmonic familiarity.

The form of the second movement of the concerto is ABA (Figure 2.11). The A section comprises the first 16 measures, with the opening four measures employing bitonality between the keys of B-flat minor and G minor. The contrasting B section also begins bitonally, employing C minor and A minor before continuing into a large section of tonal ambiguity. The closing A’ section returns to the same bitonal scenario as the beginning, comprising B-flat minor and G minor, closing in B-flat minor. The number of measures within each section is similarly balanced, with the opening and concluding A sections being of identical length and the contrasting B section being nearly the length of the two A sections combined.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Primary Key Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–16 (16 measures)</td>
<td>A</td>
<td>B-flat minor and G minor (bitonal mm. 1–4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B-flat minor (mm. 5–16)</td>
</tr>
<tr>
<td>mm. 16–45 (30 measures)</td>
<td>B</td>
<td>C minor and A minor (bitonal mm. 18–20)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tonally ambiguous (mm. 21–44)</td>
</tr>
<tr>
<td>mm. 46–62 (16 measures)</td>
<td>A’</td>
<td>B-flat minor and G minor (bitonal mm. 45–52)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B-flat minor (mm. 53–62)</td>
</tr>
</tbody>
</table>

Figure 2.11: ABA form in the second movement of the Concerto for Bassoon and Strings.
From the outset of the movement, Jacob’s stated intentions to “write music full of poetry and feeling” in his slow movements are evident in the wide ascending leaps combined with the chromatic high notes, which contribute to the gloomy quality, mimicking that of sobbing. The beginning phrases are stated in the extreme high register of the bassoon (from B-flat 3 to E-flat 5). In his 1931 book Orchestral Technique: A Manual for Students, Jacob mentions that the bassoon’s higher notes portray an “eerie” effect, and describes the bassoon’s qualities as melodic, expressive, and at times agile, deeming it unfair that the bassoon is so often described as the “clown of the orchestra.” This movement, especially located between two light-hearted movements, seems to be a direct stab at that oversimplification with its yearning melodies and a morose character.

The beginning melody in this movement is certainly located in the highest register of the instrument, which is of interest considering that an element of Jacob’s compositional mission was to compose music that contained an appealing character and attainable performance levels. While this movement does not fit into the ideal performance range on the bassoon, the concerto was written in 1947, and the French bassoon, which was more popular at the time, would have had an easier time facilitating the highest notes. With the rise of the German bassoon, Jacob did add an ossia, or an alternative melody to play instead of the very high register opening solo (Figure 2.12). The ossia is essentially the same part but written down an octave, which would be much more comfortable to play with the increasingly popular German system bassoon. However, the lower octave ossia would lack the eeriness that Jacob talks about in the bassoon’s extreme high register, and therefore may alter the perception of the movement’s mood and diminish the

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83 Ibid., 26.
84 Ibid., 32.
effect of the employed bitonality. According to Archie Camden’s book *Bassoon Technique*, the French bassoon had a different quality of tone between the high, middle, and low registers.\(^{86}\) This difference would continue to be very effective in this movement, which drops to the lowest note on the bassoon, B-flat 1, immediately following the opening solo (m. 5) in the extreme high register (Figure 2.12). While a modern performer will likely not be performing on a French bassoon, the tendencies of the instrument should be kept in mind to best inform the soloist of the desired instrumental characteristics.

Figure 2.12: Gordon Jacob, Concerto for Bassoon and Strings, movement 2, mm. 1–7.

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\(^{86}\) Archie Camden, *Bassoon Technique*, 2.
According to Jacob, the use of bitonality should “appeal to the ear and through the ear to the emotions,” and therefore contribute to the temperament of the music.\footnote{Jacob, \textit{The Composer and His Art} (London: Oxford University Press, 1955): 16.} Jacob discusses in his writings the ways that highly contrasted tone colors and timbres can make it easier for the ear to accept the simultaneous use of different keys and modes.\footnote{Ibid., 26.} In this opening section of music, bitonality is used to convey dramatic and sad emotions, with the accompaniment in a very low register and the bassoon employing its extreme high register, with the difference in register and tone making it easier for the listener’s ear to accept the simultaneous use of the different keys.\footnote{Ibid., 15.} Bitonality continues until m. 5, where the bassoon diverts from its extreme high register to playing the lowest note on the instrument, a low B-flat (Figure 2.12). At this point, both the piano and the bassoon unite in playing in the key of B-flat minor.

From the beginning of the movement, the bassoon’s solo is in the key of B-flat minor, yet the accompaniment part emphasizes G minor (Figure 2.12). These chromatic-third related keys share very few common tones. Surely it is no coincidence that the most commonly sounded tone shared by these two keys is B-flat, alluding to the concerto’s overall key of B-flat major or this movement’s overall key of B-flat minor. However, B-flat is not the only pitch shared by the two opposing key areas. B-flat, C-natural, and F (depending on whether or not the leading tone is raised in the G-minor melody) are all shared tones throughout this beginning section in mm. 1–4. It is interesting to observe that these three shared notes create a (027) pitch-class set, being the same exact pitches employed as the final notes of the first movement (Figure 2.10). The B-flat–C–F (027) pitch-class set has other appearances in this movement. As shown in Figure 2.12, the bassoon’s melodic notes comprise a (027) set which employs the same exact pitches, but in a
contrasting setting. The (027) melodic figure does not last particularly long (mm. 5–7), but the location of this set is of importance. Since the bassoon and the accompaniment are now joined together in the key of B-flat minor, the intervals and pitches used in this particular melodic figure can be perceived more clearly. This (027) set is a pattern that will be further discovered in the third movement of this concerto.

Why would Jacob consider using the (027) set? The (016) set has proven to be useful in its function of traveling to distant keys and normalizing the interval of the tritone, but what does the (027) set have to offer? The (027) set contains the intervals of a whole step between the 0 and 2, a perfect fourth between the 2 and 7 pitches, and encompasses a perfect fifth between the 0 and 7 pitches. Unlike the (016) set, the (027) set presents itself as much more tonally stable, yet the lack of a half step or a third denies the listener any clues as to the tonal center of a phrase consisting solely of (027) sets. The open fourth and/or open fifth in the (027) is an important building block for the quartal and quintal harmonies throughout this movement. The (027) set’s several unique qualities make it an optimal pitch-class set choice to incorporate in tandem with the (016) set within this final rondo movement.

Jacob ensures that the uneasy character continues through to the end of the concerto by employing previously encountered techniques to round out the form of the movement and remind the listener of the melancholy beginning. Starting in m. 45, bitonality returns with the melody this time in the high treble notes of the accompaniment and the bassoon accompanying it in a lower range. The bassoon line contains many D-naturals, clashing with the D-flats in the accompaniment’s part in B-flat minor (Figure 2.13). While this presentation of bitonality does share a closer range than the initial instance in m. 1–4 (Figure 2.12), the listener has already become acquainted with the use of bitonality from the formerly presented bitonal melodies in the
same keys. Recalling the previously employed melodies and harmonies can further familiarize the listener with the more complex compositional techniques, allowing the contrasting bitonal keys to exist in a more similar range.

Figure 2.13: Gordon Jacob, Concerto for Bassoon and Strings, movement 2, mm. 49–52.

To conclude the movement, Jacob again employs bitonality and modal borrowing to create harmonic ambiguity (Figure 2.14). The piano plays the notes G-natural + B-flat, as if it is in the key of G minor, followed by the notes D-natural + F, which are notes found most naturally in a B-flat major chord or a D minor chord. Yet, these chords lead to a final B-flat minor chord. Jacob uses modal borrowing to incorporate notes from the relative-major mode, in this instance B-flat major, within the ending phrases of the movement in B-flat minor. Immediately preceding these chords in m. 59, the bass arpeggiation of a B-flat chord supports the bassoon’s F whole note. The exclusion of the third scale degree forces the listener to infer whether the mode is major or minor. Containing a similar number of occurrences of D-naturals and D-flats, this leaves the listener with an ambiguous sense of tonality.
The choice of key areas B-flat minor and G minor in the opening bitonal section (Figure 2.12) is of interest, as these keys are related by a Neo-Riemannian transformation PR. This involves transforming the key of B-flat minor to its parallel key B-flat major and then transforming this key to its relative minor, G minor. This PR relation returns at m. 18 in the B section. This section begins with a key signature change to three flats, with bitonality occurring in the accompaniment (Figure 2.15). The upper melodic voices support the key of C minor while the lower melody suggests the key of A minor, again two keys related by a PR transformation. While these keys share only few common tones, they can be thought of as closely related through the lens of Neo-Riemannian theory.
In contrast to the bitonal sections of music, Jacob allows the bassoon to have figures in which it plays unaccompanied. In mm. 10–11, the accompaniment drops out and the bassoon’s solitary melody conveys a sense of pure loneliness, leading into a section at m. 12 marked *piangendo*, a musical term instructing the performer to play the music in a tearful, mournful, or plaintive manner (Figure 2.16). This marking is found at a phrase consisting of high chromatic and stepwise notes, which contributes to the unstable tonality. These high notes aid in conferring the mournful character of the movement and the large ascending leaps mimic wailing and sobbing. Jacob’s use of unaccompanied solo bassoon contrasts the movement’s bitonality, presenting several contrasting tone colors in the beginning of the movement, as well as later in the movement.

In Jacob’s 1955 book *The Composer and His Art*, he further discusses his philosophy of composition and what elements he takes into consideration when writing music. His second chapter begins with the statement “fashions come and go, but melody continues to be the most
important factor in any musical work”. In the BBC TV documentary “Gordon Jacob” (directed by Ken Russell in 1959), Jacob says “I personally feel that the day that melody is discarded, you may as well pack up music altogether.” Given his high esteem for melody, Jacob also admits the difficulty of avoiding melodic clichés. Jacob continues to describe how he uses dissonance to produce tension, and how he relaxes that tension later with resolutions. He also discusses how he uses suspensions to convey expressive emotion and uses unexpected modulations to keep the listener interested. Additionally, Jacob uses rhythm and accents to add “spicy and intense harshness”, but only sparingly. The compositional techniques employed in this movement seem to solidify Jacob’s philosophy on composition, especially with the focus on melody and emotion.

Jacob emphasizes the impact that tension and resolution can have on conveying emotions in music. The described processes are best demonstrated in this second movement at the only forte section, from mm. 21–25 (Figure 2.17). The use of the suspensions creates tension that is soon relaxed by the resolutions of the suspensions. The performer should be certain to maintain energy throughout these suspensions, to continue the drive throughout this section, despite the pulse remaining relatively slow and unhurried. This may be best accomplished through the use of vibrato and subtle dynamic changes, to reflect the forward motion inspired by the suspensions in the melody. The suspensions and resolutions, united with the performer’s interpretive decisions on generating energy throughout the long and expressive musical lines, can be combined very effectively to create the tearful and mournful disposition of the movement.

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90 Jacob, The Composer and His Art, 7.
92 Jacob, The Composer and His Art, 9.
93 Ibid., 11.
94 Ibid., 13.
95 Ibid., 9.
Additional character is generated by adding more complex rhythms in the solo and accompanimental lines. Throughout the B section, Jacob subtly obscures the beat by incorporating polyrhythms between the soloist and the accompaniment, aligning triplets against duple rhythms and other divisions of the beat, including quintuplets (Figure 2.17). The beginning of the movement, on the other hand, featured more of a homo-rhythmic relationship between the solo melody and the accompaniment. This change in rhythmic coordination prepares the audience for a shift in character in the B section, where the solo line becomes more rhythmically independent. The heightened emotion starting in m. 21 can be capitalized upon through obedience to the dynamics written into the parts (Figure 2.17). While the bassoon part contains a greater range in its melody’s dynamics, the accompaniment is marked with only piano and pianissimo dynamics. The range in dynamics and contrast in rhythmic figures can aid the
performers to make the most effective and emotional performance. The performer should take care to perform the rhythmic divisions precisely—not only to keep in time with the accompaniment, but also to accentuate the rhythmic diversity of this section of music. The use of polyrhythms creates a more complex character for this emotional second movement.

Jacob also incorporates meter changes into this movement to increase musical diversity. Jacob’s intermittent use of 5/4 phrases in a movement largely comprised of measures in 4/4 meter contributes to the mourning attitude in this adagio movement (Figure 2.18). The first measure of the phrase often consists of a four-beat musical idea. The second measure seems to be a reiteration and continuation of the musical idea, but in a 5/4 meter. Stretching a phrase for a beat longer than the listener would anticipate is an effective device for conveying the lonesome and forlorn disposition.

Harmony plays an interesting role throughout the second movement. While the presence of bitonality has been discussed, there are some alluring aspects of the non-bitonal sections of music as well. This movement contains many seventh-chord figures in the accompaniment (Figure 2.19). Seventh chords perform two main roles in music: (1) functional (as in leading to another chord, such as a dominant V7 to I) and (2) coloristic. In the instance of Figure 2.19, the seventh chords are used primarily for color, as they are built exclusively from the diatonic notes.
of the key, creating seventh chords of varying qualities (largely Mm7 and mm7 chords), and
avoid the dissonance-resolution patterns of functional harmony. In a manner reminiscent of
Impressionist music, the seventh chords harmonize the melody, creating a richer tonal
vocabulary and contributing to the tonal ambiguity of the movement.

Figure 2.19: Gordon Jacob, Concerto for Bassoon and Strings, movement 2, mm. 5–7.

Using these seventh chords, Jacob realizes various pitch-class set patterns. While the
pitches in the bassoon melody create a clear (027) set, the accompaniment presents several less
easily detected statements of both (027) and (016) sets (Figure 2.19). For example, the roots of
the first three seventh chords state the notes G-flat, C, and F, which create a (016) set. The thirds
of those same three chords in m. 5 are B-flat, E-flat, and A-flat, which together make a (027) set.
Following the same pattern, the fifths (D-flat, G-flat, and C) create another (016) set and the
sevenths (F, B-flat and E-flat) contain a (027) set. The placement of these intertwined sets
highlights the similarities between these characteristically contrasting (016) and (027) pitch-class
sets. The simultaneous employment of the dissonant (016) set with the consonant (027) in the
seventh-chord accompaniment lines contributes to the conflicting mood of the movement.
Other accompanimental figures throughout the second movement contain instances of quartal harmonies. The avoidance of thirds and leading tones in these sections ensures that the tonality remains obscured. For example, in mm. 13–16, the chromatic bassoon melody is accompanied by homorhythmic stacks of parallel fourths (Figure 2.20) which have a similar effect and melodic contour as the seventh chords in mm. 5–7 (Figure 2.19). As shown in the red and blue circled chords in Figure 2.20, the quartal accompanimental figures are created with the use of stacked (016) and (027) sets.

The influence of quartal harmonies can also be observed, perhaps less obviously, in the melody that ends the movement beginning at m. 53. The soloist presents two melodic ideas, each two measures in length. The first idea, in mm. 53–54, begins on B-flat and ascends and descends using stepwise motion, ending on B-flat. Immediately following this idea is another two-bar phrase, this time starting and ending on E-flat. These two melodic phrases are accompanied by harmonic features very similar to the aforementioned accompaniment figures, this time comprising of seventh chords supported by a low B-flat drone. The quartal harmonies of the second movement continue the harmonic ambiguity created earlier in the movement from the opening A section’s use of bitonality.
In sum, while the first movement contained more complex compositional techniques in the realm of pitch-class sets in the melodic material, the second movement focuses on the creation of a specific character. The harmonic use of ambiguous quartal and seventh chords in several of the sections of music contributes to the mellow and mournful mood. Jacob also employs modal mixture and the mild use of Neo-Riemannian-related key areas to present effective modal ambiguity and bitonality. In addition, Jacob makes deliberate decisions regarding the tone and range of the instruments during sections of bitonality, thereby continuing to realize musical complexity in ways that are easier for the listener to process. The continued involvement of pitch-class sets allow for the ideas presented in the first movement to continue to be significant in the second movement. The shared elements of (016) and (027) sets will have continued importance in the final movement of the concerto.
Movement 3: Rondo

As the title suggests, the third movement of Jacob’s Concerto for Bassoon and Strings uses rondo form, but may be more completely described as a sonata-rondo form (Figure 2.21). A standard rondo form alternates between two main types of musical sections: the rondo “refrain” (A), which occurs always in the home key, and the episodes, which contrast the refrain in both key and theme. These alternating sections create forms such as A B A C A D A. Sonata-rondo form combines aspects of rondo form and sonata form, using a seven-part A B A C A B A structure in which the initial A B functions as an exposition, the middle A C as a development, and the closing A B as a recapitulation. The repetitions of the rondo refrain are always iterated in the original key. However, when the B material returns, it does so a perfect fourth away, which soon transitions back to the coda in the home key. This third movement also contains a coda with a solo bassoon cadenza, followed by the refrain, making the overall form A B A C A B (with a coda of A D A).

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Figure 2.21: Sonata-rondo form in the third movement of the Concerto for Bassoon and Strings.

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97 Ibid.
Sonata-rondo form has been used throughout musical compositional history, first appearing in the works of classical-era composers, but also in works of 19th-century composers Schumann, Brahms, and Mendelssohn and in several 20th-century works, including those of Bartok and Hindemith. Besides being an example of neo-classicism, Jacob’s use of sonata-rondo form allows him to familiarize the audience with the melodies and pitch-class sets of the refrain through its continual repetition. The several episodes, on the other hand allow for the clever manipulation of the pitch-class sets first presented in the refrain.

Though the third movement features a key signature of two flats, as one would expect for a final movement in the work’s main tonality of B-flat major, Jacob begins the movement with tonal ambiguity (Figure 2.22). While the opening melody does contain some B-flats, it does not contain any other strong scale-degree indicators of a specific tonality, lacking any successive half step leading tones and tonal-defining harmonic patterns. The accompaniment line begins with eighth-note patterns that leap up and down by fourth from the pitch A-flat. The unclear tonality in both the solo and accompaniment further complicates the establishment of tonality for the movement. The downbeat of m. 15 seems to be an arrival point of some kind, which ends the refrain and transitions to the first episode. Again, between the accompaniment and melody portions, the music lacks the third scale degree to clarify the mode, and the melody leaping in fourths does not give many clues. As we will find, this opening manifestation of tonal ambiguity establishes the premise for a movement that will continue to toy with the listener’s perception of tonality.

The same harmonic and melodic elements that contribute to tonal ambiguity in the third movement allude to those explored within the first and second movements of the concerto. Jacob

98 Ibid.
continues use of specific pitch-class sets and incorporates harmonic devices similar to those used in the second movement, such as quartal harmonies. As in the first movement, repeated use of pitch-class sets throughout unites many of the sections. For example, the bassoon’s opening melody features the quartal structure C, F, and B-flat, creating a (027) set (shown in the blue brackets in Figure 2.22). These exact pitches have already been shown to be significant in the first and second movements. In m. 3 (027) appears in the new pattern of G descending a whole step to an F, returning to the G, and ascending by perfect fourth to C. After this, the new pattern is transposed up to the pitch A (m. 4) and B-flat (m. 5).

In similar fashion to the first movement of the concerto, the (016) set appears throughout this movement’s transitional moments (Figure 2.23), such as in the transition to the bassoon’s rondo theme melody at m. 128. The pitches in red ovals indicate (016) sets in the octave figures of the accompaniment. The first (016) set is formed by the first three pitches (C, F, B-natural) and the next (016) overlaps the latter two pitches of the first set (F and B-natural) with an added E-natural. This pattern continues until the downbeat of m. 128. Although the pitch intervals used to create the (016) pitch-class sets are different from that used within the similar first movement
transition, the overlapped sets have a similar tone and function, here signaling to the listener that a change is coming, which in this case is the return of the rondo theme.

Figure 2.23: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm.126–129.

The use of (016) and (027) sets create compositional interest in part due to the perceived dissonance and consonance of these sets. The consonance rating system mentioned in the discussion of the first movement can be applied as well to the (027) trichord in the third movement. As noted earlier, the (016) trichord received a consonance rating of 0.00, and therefore was labelled as a fully dissonant trichord. Using the same mathematical equation, the (027) trichord scores a 7.00 consonance rating, and is labelled as a fully consonant trichord. This is largely due to the lack of dissonant intervals within the (027) set such as half steps or tritones, both of which are found in the (016) trichord.

The interaction of one fully dissonant trichord and one fully consonant trichord creates an interesting balance of consonance and dissonance throughout the movement. For example, the initial setting of the rondo theme presents a combination of (027) and (016) sets, accompanied by eighth note interjections containing both (016) sets as well as chromatic lines (Figure 2.24). In this figure, the red brackets outline patterns containing (016) sets, the blue brackets outline where
(027) sets are found, and the green-boxed section outlines a figure of chromatic movement. The use of the (016) set has already been introduced to the audience throughout the first movement of the concerto, and now Jacob is presenting a contrasting setting, involving both the (016) and the (027) sets intertwined with each other.

![Figure 2.24](image_url)  
*Figure 2.24: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 6–11.*

Jacob continues to incorporate the (027) set in several of the movement’s episodes. Investigating the first episode (mm. 19–41), the (027) set can be found as a result of the melodic development. A (027) set is found within the first two sixteenth notes and eighth note figure at the beginning of m. 19 (the notes E-natural and D-natural), and the set would be completed by the A-natural on the second beat of m. 20 (Figure 2.25). In this instance, the other notes in these two measures that do not belong to the (027) set create a chromatic line (green circles) that function to delay the A-natural, which completes the set. This pattern repeats itself in mm. 21–22 with added ornamentations. Therefore, this first episode combines chromaticism with statements of the (027) set.
Throughout the Rondo movement, not all episodes are structured the same. The second episode (mm. 68–91) features the (016) set as its foundation rather than continuing to employ the (027) set. Similar to the first episode, Jacob includes some tones outside of the set to create new melodies. However, the first several notes comprise an (016) set (red oval in Figure 2.26), and the overall skeleton of the (016) set remains as a part of the episode with the notes on the downbeats (red circles in Figure 2.26). An additional (016) set can be detected by selecting the non-downbeat notes between the red-circled notes, D, G, and A-flat, as shown in the black outlined notes. Jacob includes (016) sets in a variety of clever ways, contributing to the collection of aural patterns heard within the melodies throughout the episodes.

Figure 2.25: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 18–22.

Figure 2.26: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 68–69.
Performance decisions can be helpful in highlighting many of the pitch-class set patterns of the movement. The (027) set is incorporated into several settings, including the most serene section of the movement at m. 92, which begins the second part of the second episode (see Figure 2.27). The (027) set continues to be exhibited, but now exists in a less visually and aurally obvious context. The soloist should take care to bring out the crescendo and diminuendo figures marked throughout the slurred phrases. The bassoon solo displays harmonic and melodic (027) sets while the accompaniment is largely stepwise with chromatic figures. The overarching melodic line in the bassoon line is F-sharp, E-natural, F-sharp, E-natural, D-natural, and C, as illustrated by the yellow circles in Figure 2.27. The performer should add inflection to this descending line and may consider adding a little bit of length or weight to these notes to combat the tenancy to rush off from the first note in the slurred set of notes (especially in mm. 95–97).

The various settings of the pitch-class set can be highlighted in part through awareness of the pitch set combinations that Jacob is manipulating, and viewing these notes as connected parts of intervallic patterns.

Figure 2.27: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 92–97.
The change in focus from (027) to (016) can influence the character of the performance. The *espressivo* (027) set melody continues for several measures until the pattern changes to a (016) set in the bassoon melody (Figure 2.28). The performer can exaggerate this change in character by altering the speed of their vibrato during the held A-natural in mm. 101–102, hinting at the variation in pitch-class set. Jacob also indicates a *poco crescendo* in m. 102, where the (016) once again presents itself to contrast the former (027)-dominated melody. The accompaniment aids in the change of character in its use of chromaticism and half steps, foreshadowing the use of the half step contained in the (016) set. Additionally, one may notice that in m. 101, the C-sharp and B-sharp over the sustained bass note F-natural create their own (016) set. Therefore, these moments of transition from (027) to (016) have a significant impact on the mood of the music.

![Figure 2.28: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 98–103.](image)

The final repetition of the rondo material before leads to a substantial solo bassoon cadenza. This solo cadenza contains many instances of (016) and (027) sets. In Figure 2.29, the (027) sets are indicated by blue brackets or circles and the (016) sets are indicated by red brackets or circles. Lines that are primarily outlined by a chromatic figure are outlined in green. Of additional interest is the use of PL transformations between arpeggiations of major triads (with added sixths), indicated by the yellow arrows. The culmination of these patterns is a
creative way to showcase the compositional techniques that Jacob has been incorporating throughout the concerto’s three movements.

Figure 2.29: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, bassoon cadenza.
The final measures of the movement contain several quartal figures in the piano line, creating (027) sets in mm. 189–190. Every three notes in each voice create overlapping (027) sets. For example, all of the top notes in each chord create successive (027) sets, as well as all of the bass notes. The inner-voices similarly all create successive (027) sets as well. The bass notes of the accompaniment’s final (027) pitch-class set are comprised of the pitches F, C, B-flat. These are the same pitches that created the first significant (027) set found in this concerto (see the end of the first movement in Figure 2.10). The remainder of these pitches further deepens the pitch-class connections between the three movements. The movement ends with a B-flat 7 arpeggiated figure in the bassoon line, ending on a fff B-flat major chord. This is a way for Jacob to balance the ambiguous tonal situation that results from the quartal (027) with a tonally unambiguous ending figure (Figure 2.30).

![Figure 2.30: Gordon Jacob, Concerto for Bassoon and Strings, movement 3, mm. 187–193.](image)

In sum, the third movement of the concerto ties together several central techniques from the prior two movements, such as the use of (016) sets and quartal harmonies. The formal structure of the movement as a sonata rondo allows Jacob to return often to the refrain, consisting largely of (016) and (027) sets, thereby reacquainting the listener with the building blocks of the music. These elements are then varied in the successive episodes. Employment of
several compositional techniques that evoke clarity, including the recurring melody’s interval
patterns, allow Jacob to also employ more complex compositional elements such as tonal
ambiguity, the use of pitch-class sets, and quartal harmonies while retaining the aural
accessibility to the audience.

Overall, the Concerto for Bassoon and Strings proves to be an interesting case study for
Jacob’s compositional style, showing his interest in balancing modernist compositional
techniques while maintaining tuneful and complex melodies that can connect with the audience.
Although the melodic and harmonic associations between the three contrasting movements may
be subtle, Jacob cleverly connects the movements by using specific pitches, such as the pitches
C, F, and B-flat, and through employment of the (016) and (027) pitch-class sets. Even the
organization of the three movements reflect the balance for which Jacob strived in his
compositions, with the outer two fast movements being dominated by pitch-class set patterns and
the adagio middle movement acting as contrast by focusing on character and mood. The music in
the Concerto for Bassoon and Strings blurs the line between what is musically, compositionally,
and aurally complex and that which is simple, making it an alluring 20th-century work to listen
to, analyze, and perform.
Chapter 3: Partita for Solo Bassoon

Jacob composed the Partita for Solo Bassoon in 1970, which he dedicated to William Waterhouse (1931–2007), a significant English bassoonist and scholar of the 20th-century. Waterhouse studied at the Royal Conservatory of Music with Archie Camden (1888–1979), to whom Jacob dedicated the Concerto for Bassoon and Strings. Waterhouse performed with many of the highest-level ensembles in London, including the Royal Opera House Orchestra, the London Symphony Orchestra, and the BBC Symphony Orchestra. Waterhouse owned and organized one of the largest collections of bassoons, and he traced the historical development of the instrument in his book *The Proud Bassoon*.

Waterhouse’s later book, *The Bassoon*, offers some insight into his personal views related to bassoon performance, some of which can be directly applied to the performance practice of Jacob’s Partita for Solo Bassoon. Waterhouse discusses that in the case of unaccompanied music, it is of utmost importance for the performer to relay elements of music to the listener, including that of meter and tonality, while balancing musicality with clarity. Waterhouse suggests that while rubato certainly has a role in performing unaccompanied music, it should be avoided until the meter and tonality of the section of music is established for the listener, thereby making the rubato more effective. Waterhouse also claims that vibrato is most effective in highlighting significant elements of a phrase, and that it should be a deliberate ornament rather than employed...

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to every note. Considerations in the use of vibrato may include the speed and intensity of the vibrato and determining whether to vibrate an entire phrase or a single note. Several of Waterhouse’s views on bassoon performance may be put into practice by the performer within Jacob’s Partita.

By the time the Partita for Solo Bassoon was written in 1970, the German system bassoon was now certainly the favored instrument in England, as well as in every other major country besides France, which remained biased toward the French bassoon. As a student of Archie Camden, Waterhouse agrees with his teacher’s description of the French bassoon tone as “reedy, and rather nasal” with more obvious differences in tone between high, middle, and low registers. The German bassoon, however, is described as sounding “full, round and even throughout.” Jacob continues to employ compositional techniques in the 1970 Partita similar to those found in his 1947 Concerto for Bassoon and Strings. However, given the likelihood that the German bassoon was the instrument for which that work was written, it is clearly less important for the performer to observe the tendencies of the French bassoon in preparing a performance.

The Partita consists of five short movements, each exhibiting its own unique character. While the movements are unaccompanied, they seem to be more accessible to the listener due to the high number of recognizable patterns found within each movement. Some movements focus on pitch-class set patterns, others more on intervallic or melodic patterns, and then others contain clearer rhythmic patterns. Additionally, the short length of each movement contributes to the

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105 Ibid., 163.
106 Ibid., 166.
108 Ibid.
109 William Waterhouse, Bassoon, 158.
listenability of the work, given that none of the five movements are much longer than a minute, resulting in an entire work that is just over five minutes long.

The movements of the Partita contain segments that hearken back to the techniques and characters Jacob used in the bassoon concerto. Throughout the Partita, Jacob continues to employ complex compositional techniques that normalize the tritone interval. This is achieved in a slightly different manner in each of the Partita’s movements. Compositional forms in several of these movements are similar to typical forms of classical music, but are often compressed into shorter versions. This type of compression of form is typical in the works of other twentieth-century composers and fits into Jacob’s neo-classical style.\(^{110}\) The movements reference traditional suite forms, dance styles, and character styles, including a prelude, a waltz, and capriccio. Alongside these more traditional forms and memorable melodies, Jacob incorporates 20th-century harmonic devices such as the use of pitch-class sets and Neo-Riemannian transformation-related chords and key areas.\(^{111}\) While my analysis will continue to highlight elements previously mentioned in my discussion of Jacob’s Concerto for Bassoon and Strings, the Partita for Solo Bassoon is nevertheless written in a different style. Rather than all of the movements being connected by pitch-class sets, they each contain their own unique personality and musical elements. Jacob does, however, continue his trend of writing music that maintains accessibility to the listener while employing complex compositional techniques.


Partita for Solo Bassoon, Movement 1: Preludio

The first movement, Preludio, in the key of A minor, could be described as a large period: antecedent from mm. 1–14, ending in a half cadence, consequent from mm. 15–32, ending with PAC (Figure 3.1). The internal construction of each phrase is reminiscent of a sentence (basic idea, basic idea, continuation/cadence), and therefore supports the analysis that Jacob was writing this short movement with the structure of a large period. Another way of describing the form in the Preludio is that it uses a compressed form of A A’ coda (Figure 3.1) Each of the A sections comprises 14 measures in length, with a very short four-bar coda to conclude the movement, ending with an authentic cadence in the key of A minor. The first A section ends with a half cadence in m. 14 before continuing to the A’ section. The half cadence may be perceived as a brief tonicization of E minor because of the preceding harmonies, of which I will discuss more in detail within the chapter, but in the overall analysis this arrival functions more prominently as a half cadence in the home key of A minor. The first several measures of the A’ material starting at m. 15 are identical to the measures that begin the movement. However, in the seventh bar of the repeated A material, the melody takes an unexpected turn and emphasizes E-flat, the tritone, before continuing the rest of the phrase and ending with a short coda, featuring some complex compositional techniques. The music does return to the key area of A minor to end the movement in the home key.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Section</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–14</td>
<td>Antecedent (ending on HC)</td>
<td>A</td>
<td>(016) pitch-class sets</td>
</tr>
<tr>
<td>mm. 15–28</td>
<td>Consequent</td>
<td>A'</td>
<td>Same characteristics as the A section, but with an altered melody</td>
</tr>
<tr>
<td>mm. 29–32</td>
<td>Coda</td>
<td>Coda</td>
<td>Sixteenth notes slurred to eighth notes to create a final cadence</td>
</tr>
</tbody>
</table>

Figure 3.1: Form in the first movement of the Partita for Solo Bassoon: Preludio.

Most of the movement’s melody is comprised of half steps and perfect-fifth intervals, balancing the consonance of the fifths with the dissonance of the minor seconds. The opening melodic line may be described a cycle of ascending perfect fifths (T7 cycle): A-E-B-F# with lower-neighbor slurred minor seconds. The (016) pitch-class set, which had a crucial role in the first and third movements of the Concerto for Bassoon and Strings, continues to present itself in the Preludio, as the pattern of the T7 cycle and lower-neighbor notes produces (016) sets when overlapped. These patterns are shown in the red circles of Figure 3.2, beginning with the first three notes of the Preludio, encompassing an ascending half step followed by an ascending tritone. The second, third, and fourth notes of the melody also form a (016) set, this time with the ascending A natural to D sharp encompassing the tritone, followed by a half step to E. This figure is created by including the final two pitches in the first (016) set and by adding a final note to create the next set. The (016) set continues to be overlapped to create several measures of (016) sets.
In addition to (016) pitch-class sets, Jacob continues to employ other melodic figures that were present within his Concerto for Bassoon and Strings. The descending lines that follow the (016) set patterns are comprised of (014) sets. Perhaps more applicable to the patterns that Jacob has already established in his music, the third and fourth measures are comprised of slurred minor thirds, which are cyclically transposed down a half step. As shown in the green squared notes of Figure 3.2, these thirds create two chromatic lines. One chromatic line is found within the first of the slurred notes and the other chromatic line from the second of the slurred notes. The presence of the chromatic lines continues Jacob’s compositional pattern of pairing the (016) set with chromaticism of some kind.

Jacob incorporates other (016) sets as a transitional technique between the melodic phrases: for example, the end of the first phrase (m. 4) and beginning of the second phrase (m. 5) (Figure 3.3). This connecting set includes the final note of the slurred minor thirds pattern (D-natural), the final sixteenth note of m. 4 (G-sharp), and the downbeat of m. 5 (A-natural). Combined, this (016) pitch-class set links the two phrases. This same pattern can be found at the endings and beginnings of select succeeding phrases throughout the movement, including between mm. 18–19. This trend of using the (016) set to transition from the end of a phrase or section to the next is a technique that Jacob used numerous times within the Concerto for Bassoon and Strings and that will continue to be employed throughout the Partita.
Jacob continues to use the (016) within transitions between key areas, and through the familiar pitch-class set, the music is able to transition between maximally-distant key areas (Figure 3.5). The final note of an E-flat minor arpeggio (a tritone away from the home key of A minor) is used to create a (016) set comprised of the pitches E flat, A, and E natural. The latter two notes of that set welcome the beginning of an A–minor arpeggiated phrase, returning to the home key of A minor. Jacob cleverly employs the (016) set to travel into distantly related keys relatively simply and through a figure that, by this point in the movement, is somewhat familiarized to the listener.

This technique of overlapping (016) sets may have performance implications. While the performer of an unaccompanied piece has some additional liberties regarding tempo, the relationship between the phrases just discussed should not be discarded. Though a deceleration may occur at the end of the phrase, the performer should take care to observe the pitch overlap between the phrases. Often, bassoonists chose to accelerate through the ascending portion of the phrase and decelerate through the descending slurred thirds to create interest. Perhaps most importantly, the soloist ought to preserve forward energy throughout the slowing down that may
be done toward the end of the phrase and into the next phrase (such as in Figure 3.3). The connection of notes between the phrases may further display the specific details of the composition to the listener. Additionally, although the Partita is an unaccompanied work, the performer should be sure to phrase the music in such a way that sets up the implied cadences appropriately to convey the form of the work. This may be done through a slight placement of given notes or through deceleration near a cadential moment. For example, the arrival at the E on the downbeat of m. 13 (Figure 3.4), which may be interpreted either as a half cadence or a brief tonicization of E minor, may be prepared by the performer by slightly slower grace notes preceding it. Then, the reiteration of the melody in m. 14 might be performed a tempo, to show the continuation onto the next section of the music. Slight push-and-pull of the tempo is stylistically expected of the performer, but the exact amount and timing of such can make a difference in the way the audience perceives the form and overall structure of the movement.\textsuperscript{112}

![Figure 3.4: Gordon Jacob, Partita for Solo Bassoon, movement 1: Preludio, mm. 10–15.](image)

The established elements of the (016) set and tritone relationships remain important throughout the movement. From mm. 21–26, the solo bassoon melody progresses from the tonic key of A minor to the tritone-related key of E-flat minor. In this instance, we arrive at the tritone

by a combination of half steps, perfect intervals, and tritones, while the measures between the E-flat minor-6 harmony and the A minor harmony are connected by several overlapping (016) sets. This is the same technique Gordon Jacob used to arrive at a key the tritone away in the first movement of his Concerto for Bassoon and Strings. Additionally, the first iteration of the A-minor melody also traveled to E-flat, although the E-flat key area was not emphasized. Observe the similarities between the first iteration of the melody and the second, in which the melodic material travels to the key area of E-flat minor, a tritone away from the home key of A minor. All the notes are identical (see music outlined in black rectangles in Figures 3.6 and 3.7) until arriving on the E-flat. In the second iteration, Jacob then takes this opportunity to accentuate the presence of the tritone relationship by continuing a descending E-flat minor arpeggio.

![Figure 3.6: Gordon Jacob, Partita for Solo Bassoon, movement 1: Preludio, mm. 4–8.](image_url)

In sum, the Preludio finds Jacob continuing his blending of complex compositional techniques and accessibility, utilizing listening aids in the familiarization of the otherwise
dissonant (016) pitch-class set motives. The playful repeated rhythmic motive of a sixteenth note slurred to an eighth note creates a recognizable pattern and groups the (016) into chunks of half steps separated by perfect fifths. The use of classical form within the Preludio, such as antecedent-consequent, aids in the predictability of the music. Additionally, the music of the Preludio largely remains in the key of A minor and travels to expected key areas, such as E minor, to act as a half cadence before the consequent section, as would be typical in a classical compound period. Further, the method of traveling to the tritone-related key area of E-flat minor, through a (016) set allows the new key area to be more easily assimilated. Additionally, Jacob primes the listener for this transformation by arriving at the atypical key area by means of the A section melody, which has already been introduced at the beginning of the movement. Through several deliberate compositional choices, Jacob ventures to compose complex music while retaining accessibility to the audience.
Partita for Solo Bassoon, Movement 2: Valse

The second movement, Valse, is a stylized dance in ABA’ form. The A sections feature a clear melody with emphasis on beat one, which is typical of a waltz. This section is in the key of F major but incorporates Lydian borrowing by raising the fourth scale degree. The contrasting B section from mm. 17–24 features chromatic runs and slightly emphasizes the note B-natural, which is the tritone of the overall key area of the movement, F major. These two separate characters are combined for the final section, which I have labeled A’ from mm. 25–44. In the A’ section, the original melody is apparent but is ornamented in the style of the B material, using many chromatic figures to connect the notes of the A theme melody. The ABA’ form thereby allows Jacob to introduce the listener to both the A theme melody and the B theme chromatic figures separately before combining them for a more complex A’ section to end the movement.

In similar fashion to the Preludio movement, the form of the Valse movement has elements related to classical form, including the period containing antecedent and consequent phrases. For example, the initial period has an antecedent from mm. 1–8, which is answered by a consequent from mm. 9–16. The consequent ends in the key of C minor, which is a minor substitute for the typical I–V modulation. Additionally, each phrase in the movement creates a sentence, which follows the general pattern of a two-measure basic idea, followed by another two-measure basic idea, followed by a four-measure continuation and cadence.
<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Section</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–8</td>
<td>Antecedent</td>
<td>A</td>
<td>In the key of F major Lydian borrowing (inclusion of B-naturals/raised fourth scale degree/tritone)</td>
</tr>
<tr>
<td>mm. 9–16</td>
<td>Consequent</td>
<td></td>
<td>Starts in F major in similar harmonic fashion to beginning Ends in C minor (v of F major)</td>
</tr>
<tr>
<td>mm. 17–20</td>
<td>Antecedent</td>
<td>B</td>
<td>Chromatic runs Emphasizes B-natural</td>
</tr>
<tr>
<td>mm. 21–24</td>
<td>Consequent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mm. 25–32</td>
<td>Antecedent</td>
<td>A’</td>
<td>A section’s melody ornamented with B section’s chromatic figures</td>
</tr>
<tr>
<td>mm. 32–44</td>
<td>Consequent</td>
<td></td>
<td>Similar phrase structure as in mm. 1–16</td>
</tr>
</tbody>
</table>

Figure 3.8: Form in the second movement of the Partita for Solo Bassoon, Valse.

Jacob incorporates several stylistic elements into the Valse movement that create aural interest. The movement is in the style of a waltz, as seen in its triple meter and emphasis on the first beat, but, due to it being unaccompanied, it allows for the performer to take more liberties in tempo and pulse than a typical waltz would permit. One interesting segment occurs at mm. 9–12, where Jacob writes a melody and an accompaniment into the bassoon’s solo line, notated in the music to show the two lines separated by distinct articulations and opposite note stems (Figure 3.9). The performer has an important role in illustrating what Jacob has written in the music to the listener, and may choose to make a stark contrast between the tenuto and slurred portions of the melody and the staccato portions of the line that imply the harmonic accompaniment.

Figure 3.9: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm. 7–12.
As in the first movement, Jacob works to normalize the tritone. In the opening phrase, the Lydian raised fourth is the first such tritone relationship (Figure 3.10). In the key of F major, the B-natural on the downbeat is significant, especially since the key area of B major returns later in the movement during a reiteration of the melody, containing this time the entire B natural scale (Figure 3.11). Through these various techniques through the movement, the tritone interval and its key area are normalized to the listener.

Figure 3.10: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm. 1–2.

Another important performance consideration in the piece is the role of ornamentation. As summarized in Figure 3.12, each reiteration of the melody is ornamented in a different way. The melody is stated unembellished at the beginning of the piece, then is expanded upon each time it recurs. It seems that the music becomes more complex with every successive addition of ornaments, presenting the melodic ideas in the simplest manner at the beginning and increasing the complexity of the melody by adding ornaments at every recurrence of the theme. The soloist should observe which pitches are part of the original melody and which portions of the phrases
are ornaments. Retaining the inflection of the melodic line can ensure that the melody comes across to the listener throughout the increasingly ornamented reiterations.

<table>
<thead>
<tr>
<th>Reiteration of Melody</th>
<th>Measures</th>
<th>Change/Ornamentation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Melody</td>
<td>1–8</td>
<td>n/a</td>
</tr>
</tbody>
</table>
| 2<sup>nd</sup> melody (1<sup>st</sup> reiteration) | 9–16 | • Added eighth notes to fill out harmony (accompaniment-like)  
• Additional notes for a busier melody |
| 3<sup>rd</sup> melody (2<sup>nd</sup> reiteration) | 25–32 | • Tritone emphasis with B-natural followed by a B major sixteenth note scalar run |
| 4<sup>th</sup> melody (3<sup>rd</sup> reiteration) | 33–41 | • Altered pitches, signals the ending of the movement  
• Infused with chromatic runs (influence of the B section) |

Figure 3.12: Melody reiteration and ornamentation in the Valse movement.

Neo-Riemannian theory continues to be of use in documenting the succession of chords throughout the piece. Although they outline rather non-traditional harmonic progressions, all of the chords within the A section (and therefore each of the reiterations of the A melody) are related to the tonic chord and overall key of F major via Neo-Riemannian transformations (Figure 3.13). In the first iteration of the melody from mm. 1–9, the implied harmonies are presented every two measures. Their Neo-Riemannian transformations in relation to the home key of F major are of importance because they are all related by transformations that contain at least one common tone with the F major chord (in this case, PL, RP, and N). The common tones between the implied harmonies and the notes of the F–major chord aid in listenability due to the shared notes to the home key. In the second iteration of the melody from mm. 9–14, the added ornaments include notes that better flesh out the harmonies that are implied by the melody. In these measures, more complex relationships are added such as a tritone relationship with the B-
major chord in m. 10 and an S transformation to produce the F-sharp major harmony in m. 12. While the first several harmonies of the melody’s recurrence (starting at m. 9) remain the same, one change that does become apparent is the use of a B-flat major chord in m. 12 rather than the expected B-flat minor chord outlined in m. 7. This change in harmony may clue the listener into the coming change in melodic material and rhythmic patterns to come in the B section.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Implied Harmony/Chord</th>
<th>Neo-Riemannian Transformation/ Relationship from key/chord F Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>F Maj</td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>Ab Maj</td>
<td>PL</td>
</tr>
<tr>
<td>5</td>
<td>D Maj</td>
<td>RP</td>
</tr>
<tr>
<td>7</td>
<td>Bb min</td>
<td>N</td>
</tr>
<tr>
<td>9</td>
<td>F Maj</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>B Maj</td>
<td>TT</td>
</tr>
<tr>
<td>11</td>
<td>Ab Maj</td>
<td>PL</td>
</tr>
<tr>
<td>12</td>
<td>Bb Maj</td>
<td>RL</td>
</tr>
<tr>
<td>13</td>
<td>F# min</td>
<td>S</td>
</tr>
<tr>
<td>14</td>
<td>C min</td>
<td>PRL</td>
</tr>
</tbody>
</table>

Figure 3.13: Diagram of the chords and transformations or relations to the tonal center (F major) in the A section of the Valse movement.

Within this section, the chords that lie outside of the F-major orbit are also related through simple Neo-Riemannian transformations. In mm. 6–7, the bassoon arpeggiates chords outside of the orbit of F major including a G-minor chord and an E-minor chord (Figures 3.14 and 3.15). Rather than relating to F major, these chords are related to each of their proceeding chords. That is, the G-minor chord is an N transformation from the D-major chord, and then the following E-minor chord is a PR transformation from the previous G-minor chord. The next harmony outlined is a B-flat major chord, which brings us back to the orbit of F major by the transformation N. It is also worth noting the tritone relation between the E-major chord and the B-flat harmony, which creates a gap that allows for the return of F-major relations. Because this
leads directly to a reiteration of the beginning melody in m. 9, this harmony has added significance as the transition into a thematic repetition. Although this may not be an obvious use of the tritone to the listener, it is certainly interesting to have that connection integrated into the form.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Implied Harmony/Chord</th>
<th>Neo-Riemannian Transformation/ Relationship to previous chord</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>D Maj</td>
<td>-</td>
</tr>
<tr>
<td>beats 1–2 of m. 6</td>
<td>G min</td>
<td>N</td>
</tr>
<tr>
<td>beat 3 of m. 6–beat 1 of m. 7</td>
<td>E min</td>
<td>PR</td>
</tr>
<tr>
<td>beats 2–3 of m. 7</td>
<td>Bb min</td>
<td>Tritone</td>
</tr>
</tbody>
</table>

Figure 3.14: Diagram of the chords and transformations or relations to the previous chord between mm. 5–8 of the Valse movement.

Figure 3.15: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm. 4–10.

Jacob’s use of rhythmic patterns also helps to encourage listener expectation. When the rhythmic figure deviates from the established pattern, the change signals to the listener that there may be other harmonic or melodic changes present. Rhythmically, the melody that outlines the arpeggiation of these Neo-Riemannian related chords results in a hemiola-like figure that sounds as if it is in a 2/4 meter \((2 + 2)\) rather than a 3/4 meter \((2 + 2 + 2)\) (Figure 3.15). The slurred groupings within these measures also support this inflection, slurring every two beats. The performer may bring out these special harmonic changes by accentuating the different
articulations and slur patterns by emphasizing the first note of each of these harmonic changes. For example, a performer could add a slight inflection on the downbeat G of m.7, the E on beat three of m. 7, and the B-flat on the second beat of m. 8.

While the entire movement has a time signature of 3/4, some portions of the A section melody may be aurally interpreted by the listener as a 6/8 meter. Using Harold Krebs’s ideas on metrical dissonance, one encounters several different types of dissonance in the Valse movement, including direct and indirect dissonance as well as surface-level and subliminal dissonance.113 To summarize these ideas briefly: within a musical phrase or section, there may be several layers of motion, including a quickly-moving pulse layer and a slower “interpretive” layer. In the case of the Valse movement, the pulse layer is the eighth note, since eighth notes encompass the smallest division of the beat that is found regularly throughout the movement. The interpretive layer is the grouping of the pulse layer that is most clearly aurally interpreted by the listener. Metrical dissonance exists when there is a conflict between different interpretive layers.

This movement most clearly exhibits what Krebs describes as subliminal dissonance. Subliminal dissonance results when the elements heard in the music lead the listener to hear one interpretive layer of meter, while the notation suggests a conflicting interpretive layer. This happens in the Valse movement in the second iteration of the melody from mm. 9–11 because the audience might likely interpret the music to be in 6/8 meter, although it is actually notated in 3/4 (Figure 3.16). In comparison to the original iteration of the melody (Figure 3.17), the phrase starting in m. 9 is grouped in a way that implies more of a 6/8 meter due to the notated beaming as well as the articulations, which change every three eighth notes. By the time the listener hears

the possibility for 6/8 meter in m. 9, they may second guess their initial perception of the starting meter of the movement in 3/4, resulting in a sort of retrospective subliminal dissonance.

Figure 3.16: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm. 9–12.

Figure 3.17: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm. 1–4.

The decisions a performer makes regarding note inflections may help clarify the meter of the music throughout the movement. Following Waterhouse’s suggestion for performers to be particularly diligent about relaying meter in accompanied works, the performer may decide to avoid any accent on the fourth eighth-note division of any given measure. The performer may instead choose to give more emphasis on the first beat and the third beat of every measure, as is more typical of a waltz style. In the opening phrase (Figure 3.17), therefore, the performer would emphasize the A on beat one and beat three of m. 1 rather than the F on the second half of beat two. Conversely, performers wishing to exploit metrical ambiguity may place the accent on the first and fourth eighth notes, as would be typical in a 6/8 meter. Waterhouse suggests that while fluctuations in time and tempo may certainly have a role in performing unaccompanied music, it should be avoided until the meter and tonality of the section of music is established by the

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listener, as to orient the listener first, making the rubato more effective.\textsuperscript{115} A performer may heed this advice in the Valse by establishing a clear sense of meter prior to incorporating significant accelerando or ritardando in musical phrases.

Although the music deviates from the pattern of transformation-related chords in the B section, there are other compositional patterns that continue. The bassoon solo line largely consists of chromatic sixteenth-note figures in groups of five or nine, usually with the last sixteenth note falling on a downbeat (Figure 3.18). These figures contrast the rhythmic norms of the A section, which include eighth notes and quarter notes. Throughout the B section, the chromatic figures establish some rhythmic patterns to retain listenability through a tonally unstable section. These chromatic figures will continue to be employed throughout the A’ section, functioning as ornaments for the original A theme melody. Consequently, the Neo-Riemannian transformations related to the F-major chord again return throughout the A’ section. The somewhat predictable rhythms featured in this movement create accessibility in that rhythm becomes an element of music that the listener can more easily predict as the music continues.

![Figure 3.18: Gordon Jacob, Partita for Solo Bassoon, movement 2: Valse, mm.18–22.](image)

In sum, the Valse is a compelling movement for its inclusion of melodic elements such as Lydian borrowing and substantial involvement of the tritone note (B-natural) in the home key of F major while incorporating classical elements within the form. The use of antecedent-

\textsuperscript{115} Ibid., 178.
consequent phrases within the Valse aid in listener accessibility by increasing predictability through a familiar formal pattern. While the A sections of the music travel through several somewhat unanticipated chords, the general key-area structure is not unlike what may be expected in a classical work (such as the A section traveling from the tonic area to minor dominant). Within the A section, the use of chords that are related to F major via Neo-Riemannian transformations prevents any chords from sounding too distant from the home key. To further acquaint the listener with the tritone area, as Jacob tends to do in several of his movements, Jacob only strays from using Neo-Riemannian transformation-related chords when traveling to a tritone area, strategically incorporating tritones among more familiar sounding chord relations. Part of the performer’s role is to avoid rhythmic and metric ambiguity by adding or avoiding inflection on certain notes and beats. In this movement, the performer can aid in listener accessibility by emphasizing notes that best reflect the written meter of 3/4, honoring the waltz-style.
Partita for Solo Bassoon, Movement 3: Presto

The third movement of the Partita for Solo Bassoon is in ABA’ form (Figure 3.19). The A sections of the movement feature stepwise sixteenth-note figures and arpeggiated chords. While the movement is in the key of C major, the B section of the movement explores several different key areas including F-sharp major and B major. The B section features several Neo-Riemannian transformations and implied harmonies. The second iteration of the A material returns for fewer measures and alters the melody soon after it has begun, before leading to the short coda, which in a similar fashion to the first movement’s coda, only consists of two arpeggiated figures that outline an authentic cadence.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–24 (24 measures)</td>
<td>A</td>
<td>C major, staccato stepwise scalar 16th note passages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neo-Riemannian related chord transformations</td>
</tr>
<tr>
<td>mm. 25–40 (16 measures)</td>
<td>B</td>
<td>B major centered B theme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some use of Neo-Riemannian relations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased chromatic half step figures</td>
</tr>
<tr>
<td>mm. 41–53 (13 measures)</td>
<td>A’</td>
<td>C major, staccato stepwise scalar 16th note passages</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neo-Riemannian related chord transformations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arpeggiated figures outline cadential chord figures at the end</td>
</tr>
</tbody>
</table>

Figure 3.19: ABA’ form in the third movement of the Partita for Solo Bassoon: Presto.

The third movement is, as labeled, a speedy movement full of staccato scale-wise passages, similar to that of the first movement of Jacob’s Concerto for Bassoon and Strings (Figure 3.20). The character is presumably a bit different from that of the concerto, given that the Partita was written in 1970, during the secured reign of the German-system bassoon. For that reason, and the tempo marking “presto assai,” the soloist would likely perform the staccato notes shorter in this context than they would perform the staccato notes in the concerto’s Allegro
Bassoonists often perform this movement at a very fast tempo and double tongue the sixteenth note runs, which also has the effect of drier staccato figures.

There is a change in style and articulation in the B section, creating a stately and broad character (Figure 3.21). The performer can capitalize on these two distinct characters by using a wider vibrato in the B section. The Partita’s dedicatee, William Waterhouse, claims that the use of vibrato is most effective in highlighting significant elements of a phrase. Considering Waterhouse’s suggestion, the performer should alter their use of vibrato in the phrases of the B section and decide on an appropriate speed and intensity of the vibrato. Additionally, the performer may choose to take the B section phrases at a slower tempo to create an even more contrasting character. The soloist’s careful thought and preparations can result in a clearer contrast between the two unmistakably different characters in the Presto movement. The clear organization of two distinct scopes may aid the audience’s perception of the contradictory musical elements encompassed within the movement.

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117 Waterhouse Bassoon, 163.
118 Ibid., 166.
In a similar fashion as the second movement of the Partita, Valse, Neo-Riemannian theory may be incorporated into the analysis of the Presto. Rather than relating all of the chords and harmonies of the movement to the tonic chord, as done in the Valse, each of the Neo-Riemannian transformations in the Presto movement occurs in relation to the chord that immediately precedes it (Figure 3.22). Neo-Riemannian theory can be used to map out Jacob’s harmonic decisions (and since it is an unaccompanied work, consequently the melodic choices as well) for a great majority of the movement. The only measures of music that are not clearly described by Neo-Riemannian transformations are the sections that move to the tritone key area. In the C-major A section, the tritone would be F-sharp and in the B section, which is in the key of B major, the tritone would be F major. Both the A and B sections run into their respective tritone key areas and deviate from the Neo-Riemannian transformation patterns. This inclusion of the tritone chords amongst other patterns of more alike chords results in an association of the tritone chords with other chords that are more traditionally accepted as consonant.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Implied Harmony/Chord</th>
<th>Neo-Riemannian Transformation/ Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C Maj</td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>G Maj</td>
<td>LR</td>
</tr>
<tr>
<td>5</td>
<td>Eb Maj</td>
<td>PR</td>
</tr>
<tr>
<td>7</td>
<td>G Maj</td>
<td>LP</td>
</tr>
<tr>
<td>9</td>
<td>C Maj</td>
<td>RL</td>
</tr>
<tr>
<td>11</td>
<td>F# Maj</td>
<td>Tritone</td>
</tr>
<tr>
<td>13 (13 sixteenth notes)</td>
<td>B min</td>
<td>N</td>
</tr>
<tr>
<td>13 (46 sixteenth notes)</td>
<td>G# min</td>
<td>PR</td>
</tr>
<tr>
<td>13-14 (7th, 8th, and 1st sixteenth notes)</td>
<td>F min</td>
<td>PR</td>
</tr>
<tr>
<td>14 (24 sixteenth notes)</td>
<td>D min</td>
<td>PR</td>
</tr>
<tr>
<td>14 (57 sixteenth notes)</td>
<td>B min</td>
<td>PR</td>
</tr>
<tr>
<td>15</td>
<td>E min</td>
<td>LR</td>
</tr>
</tbody>
</table>

Figure 3.22: Diagram of the chords and transformations between them in the A section of the Presto movement.

In relation to chord choice, following two measures of F-sharp major harmonies from mm. 11–12, the music retreats from the use of Neo-Riemannian transformations through a chromatic run of sixteenth notes. If the latter two notes of each three-note group are analyzed as mini-harmonies, with the first note of each group being a half-step neighbor into the second two, then the chords outlined would fit into a sequence of PR-related Neo-Riemannian transformations. PR transformations occur through means of a parallel (P) then a relative (R) transformation (see both Figure 3.23 and Figure 3.24). The use of notes that create PR transformation-related chords allows for each three-note figure to contain a common tone, increasing the aural accessibility of the phrase despite the complexity of notes.
These three-note figures can also be analyzed in a different way. Perhaps the figures are perceived to fit into a pattern where the groups in yellow circles in Figure 3.25 are paired together instead of those in the black circles in Figure 3.23. The Neo-Riemannian relationships still hold true in this interpretation. This possibility involves three-note figures that form full triads. However, instead of several combinations being related to each other through PR transformations, we come across several figures related to each other through RP transformations, created by taking a chord, transforming to the relative (R), then to the parallel (P). The RP related chord arpeggiations (yellow circles in Figure 3.25) also share one common tone per grouping while the other two tones move by half step and whole step, resulting in groups of notes that are also very closely related.
The two measures that follow (mm. 15–16) function as a transition back into the C-major tonic key, with four full measures of C-major scales and arpeggiated figures, delaying a final transformation into an E-minor cadence at m. 24, which starts the B theme. Within the B section, in the key of B major, Neo-Riemannian transformations continue until the melody reaches the note F-natural in m. 35, the tritone in B major. From mm. 35–39, Jacob composes descending chromatic sixteenth-note figures between the tritone notes F-natural 4 and B-natural 3, which eventually lead to the restatement of the A theme in m. 41. This is another instance in which the tritone functions as a signal to a change in a musical element: more specifically in this particular case, a change in melodic material. The performer can highlight this relationship by ensuring that the ascending B–F slurs increase in volume. While it may be tempting to lighten the air pressure prior to an ascending leap, the performer should do the opposite and increase air speed and support, ensuring that the tritone leap is clear and present.
In sum, though the Presto movement contains chord choices that journey far from the home key of C major. Jacob’s use of chords related by Neo-Riemannian transformations aids in a smoother experience of these key/chord shifts. The use of the tritone area, F-sharp, comes directly from two measures in the home key of C major, treating the tritone area in a similar fashion as in the Valse movement. This is the only time that Jacob strays from his use of Neo-Riemannian related chords and scales. The rhythmic clarity within both the A and B sections help to unite the contrasting melodic motives by somewhat–predictable rhythmic ideas, mainly consisting of sixteenth note figures. Throughout this rather contrasting movement, Jacob continues to create balance between what is musically and aurally expected and unexpected.
Partita for Solo Bassoon, Movement 4: Aria Antiqua

The fourth movement of the Partita for Solo Bassoon, Aria Antiqua, has quite a different mood and style than the surrounding movements. The fourth movement’s title, Aria Antiqua, refers to the use of modal music popular during the Ars Antiqua, a term used by modern scholars to refer to European Medieval music. The most important musical form of the Ars Antiqua was the motet, which was a sung composition containing two texts: one being the slower moving, original sacred text, and the addition of the new text in the upper voices. Several elements included in this movement mimic elements of the motet, such as the addition of notes over an original melody and an echo-like rhythmic imitation during some of the melodic phrases. The ABA’ ternary form allows for the musical ideas to be presented in the A section, deviated from in the B section, and then presented in a highly-ornamented fashion in the return of the A section (Figure 3.27).

<table>
<thead>
<tr>
<th>Measures</th>
<th>Section</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm. 1–8 (8 measures)</td>
<td>A</td>
<td>Modal melody, emphasis on the notes C-sharp and E-natural Overall key of d minor, more similar to A Phrygian dominant</td>
</tr>
<tr>
<td>mm. 9–14 (6 measures)</td>
<td>B</td>
<td>Tied notes, syncopation, leads to the A’ section</td>
</tr>
<tr>
<td>mm. 15–22 (8 measures)</td>
<td>A’</td>
<td>Highly ornamented version of the A section melody Rhythmically complex, contains many divisions of the beat Contrasting dynamic markings included</td>
</tr>
</tbody>
</table>

Figure 3.27: ABA’ form in the fourth movement of the Partita for Solo Bassoon: Aria Antiqua.

It is interesting to note the limited range of the bassoon’s notes in this movement. The lowest note of the movement is a D2, and the highest is a G4. Compared to other movements

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which have a more expanded range, such as the third movement Presto (ranging from C2 to D-flat 5) or the fifth movement “Capricietto” which follows it (ranging from B-flat 1 to E5), the fourth movement’s range is rather compact. This stylistic choice could be hearkening back to the range of an earlier, more “antique” type of bassoon, of which one of the most knowledgeable scholars of older bassoons was the dedicatee, William Waterhouse. As mentioned above, Waterhouse was the owner of one of the most comprehensive historical bassoon and bassoon reed collections ever assembled.

Influence of the motet is manifest in the presence of an original melody at the start of the movement (A section), and the addition of ornaments on top of the existing melody in subsequent reiterations. This mimics a quality found in Renaissance motets, in which additional text with melismatic flourishes was sung over original texts. Figure 3.29 illustrates this ornamentation within the latter half of the movement, with circled common tones from the original melody, showing how the original melody, first presented in mm. 1–4 (Figure 3.28) is the core of the rather rhythmically and melodically complex ending to the movement. While there is extensive use of chromaticism in the second half of the movement, the fact that it is all an ornamentation of the opening melody contributes to the accessibility of the music.

Figure 3.28: Gordon Jacob, Partita for Solo Bassoon, movement 4: Aria Antiqua, mm. 1–4.

Imitation is another element of the motet that seems to have influenced portions of the Aria Antiqua. Several phrases employ repetition of rhythmic elements in an echo-like fashion. From mm. 5–7, the rhythmic motive of an eighth note and two sixteenth notes followed by several eighth notes is repeated with similar slur markings (Figure 3.30), leading to the first cadence in D minor. Later in the movement, a segment of the melodic phrase in m. 18 is repeated twice in m. 19 (Figure 3.31) with similar articulations. Both of these instances involve the use of imitation, which is a common element of the motet, contributing to the ancient character of this movement.

Figure 3.30: Gordon Jacob, Partita for Solo Bassoon, movement 4: Aria Antiqua, mm. 5–7.

The movement’s overall key is D minor, as implied by the key signature of one flat and by the final cadence of the movement on D. However, the tonal center is rather ambiguous throughout the movement. The beginning of the Aria Antiqua heavily emphasizes E-natural, the second scale degree, and C-sharp, the raised seventh scale degree. This expanded tonality thereby emphasizes scale degrees 2 and sharp 7, while downplaying the actual tonic. Additionally, the tonal center seems to fluctuate throughout the movement. In the A section (mm. 1–8, Figure 3.32), the clearest indicator of the D-minor tonal center is found at the cadence where the C-sharp and E (scale degrees 7 and 2) finally move to D. Otherwise, one encounters a focus on G minor in m. 5.

Jacob avoids typical resolutions of certain notes throughout this movement. For example, the leading tone of the D-minor key, C-sharp, so often does not lead to any given note. The
opening measures may be analyzed as encompassing a tonality of an A–Phrygian mode in which the third scale degree is raised, also referred to as an altered Phrygian scale.\textsuperscript{126} The Phrygian mode was also used by Jacob’s contemporaries, including Vaughan Williams, in compositions written to imitate English Renaissance music with its distinctive sound, containing an augmented second interval between scale degrees two and three.\textsuperscript{127} The A-Phrygian scale encompasses the notes A, B-flat, C-sharp, D, E, F, and G. Reordered to begin on D, these same pitches create a D harmonic minor scale (D, E, F, G, A, B-flat, C-sharp, D), which is reflected by the key signature. Jacob’s use of modal scales and tonal ambiguity is not only aurally interesting, but is also a reflection of the style of the Renaissance and English folk music.\textsuperscript{128}

Several phrases in the B section employ the octatonic scale. The first octatonic scale is found from mm. 9–11, which is the second measure of the B section (black bracket in Figure 3.33). This scale uses the pitches C, D, E-flat, F, F-sharp, G-sharp, A, and B. The next phrase features a different octatonic scale from mm. 14–15 (black bracket in Figure 3.34), encompassing the pitches C, D-flat, E-flat, E, F-sharp, G, A, and B-flat. This octatonic phrase segues directly into the return of the A theme at m. 15. The use of octatonic scale has the effect of increased tonal ambiguity within the B section. In combination with the use of modality in the A section, the Aria Antiqua contains a great deal of harmonic interest.

![Figure 3.33: Gordon Jacob, Partita for Solo Bassoon, movement 4: Aria Antiqua, mm. 9–11.](image)

\textsuperscript{126} Dave Hunter, \textit{Play Acoustic} (Milwaukee: Hal Leonard Corporation, 2005), 226.
\textsuperscript{127} Elliott Antokoletz, \textit{A History of Twentieth-Century Music in a Theoretic-Analytical Context} (New York: Routledge, 2014), 133.
\textsuperscript{128} Ibid., 134.
Rhythmic complexity also plays an important role in the movement. The third movement Presto, which directly precedes the Aria Antiqua, is largely comprised of sixteenth notes and eighth notes. In contrast, the Aria Antiqua has rhythms that involve several divisions of the beat including eighth notes, sixteenth notes, eighth note triplets, sixteenth note triplets, and dotted quarter notes (see Figure 3.35). The saturation of the rhythms is due to the heavy ornamentation of the original melody in the A’ section. While the increased rhythmic intensity contributes to the complexity of the music, the music remains accessible since the core of the melody derives from the previously presented A melody.

The Aria Antiqua contains several compelling compositional elements that work together to create intriguing melodies. Much of the complexity of the movement derives from the presence of modality in the A section, creating harmonic ambiguity. However, the use of the Phrygian-dominant scales and harmonic-minor scales results in the scales being tied together by a single pitch collection. The B section features phrases that use octatonic scales. The use of different octatonic scales (which use varying pitches from each other) in nearby phrases
contribute to the tonal ambiguity of the movement. Additional complexity is found within the increasingly complex rhythms of the melody as the movement continues. The rhythmic and melodic complexity within the A’ section does not seem too difficult to process, mainly because the A’ section is simply an ornamented version of the opening A melody from mm. 1–8. The process of stating melodic ideas in a simple and clear manner allows for increased perceived aural clarity in highly ornamented restatements of the melody. Through the several complex compositional techniques incorporated in the Aria Antiqua, the movement is effective in communicating the essence of antiquity.
Partita for Solo Bassoon, Movement 5: Capricietto

The form of the final movement, Capricietto, does not seem to conform to a conventional classical form. The movement encompasses two musical characters: one is quick and playful (A sections), and the other slower and heavier (B sections) (see Figure 3.36). The first A section (mm. 1–14) establishes the characteristics of the A theme, including 2/4 time, melodic (016) pitch-class sets, and a rhythmic motive of two slurred sixteenth notes followed by a staccato eighth note. The B section, first occurring from mm. 15–26, contrasts with the A section through its less-active character and 3/8 meter. Like the A theme, the B theme also contains (016) sets, but states them in varied forms. Following the B section is a shorter version of the A section, followed by a shortened B section, ending with a substantial coda from mm. 40–51. This layout of sections could be seen as some sort of a Rondo form, especially since the coda begins in the character of the A section. Thus, the movement could be interpreted as having a form of A B A’ B’ Coda. However, if the A and B sections are considered to simply be two contrasting characters (A and B), partaking in a musical conversation, the movement could be interpreted as having an overall form of A A’ Coda (see black bracketed sections in Figure 3.36). This form has been used before in this work within the first movement, Preludio. The employment of this specific form for a second time creates an overall symmetry between the movements of the Partita.
Figure 3.36: Form of the Partita for Solo Bassoon, movement 5: Capricietto.

Similar to the first movement of the Partita, this final movement emphasizes half steps and fifth relationships, but here many of the fifths are tritones rather than perfect fifths (blue arrows denote tritone relationships in Figure 3.37). The use of half-step slurs between the tritone-distanced notes creates the perfect fourths within the (016) sets. The use of (016) sets have certainly now been familiarized to the listener through their important roles in several of the previous movements. Jacob manipulates two contrasting themes in the Capricietto. The first character is spritely and energized in 2/4, with a rhythmic motive of two sixteenth notes followed by an eighth note. The other character is heavier and slower in 3/8, with a rhythmic motive of a quarter note slurred to an eighth note. Through the distinct sections, the audience can better aurally interpret the many elements Jacob included in the final Capricietto movement. The (016) pattern is consistent throughout both the A sections as well as the B sections, though in different contexts. To start the B theme, Jacob outlines a standard chord progression of I, ii, V, I in the key of B-flat (Figure 3.38). However, it is interesting to observe that Jacob creates (016) sets through the pitches that occur on the downbeats: E-flat, A, and B-flat (Figure 3.38).
The familiarity of the (016) set ties the two characters together nicely, despite their differences in articulation, rhythm, and meter. As a result of the continued melodic interval pattern, the notable changes in the other elements allow for more accessibility to the listener. From mm. 21–26, Jacob again uses the technique of overlapping (016) sets in order to aid in transitioning to the A material in m. 26 (Figure 3.39). In similar fashion to previous instances of this technique throughout the Partita and the Concerto for Bassoon and Strings, the (016) sets are created by borrowing the latter two notes of the first (016) set to create the first two notes of the next (016) set.
As illustrated in Figure 3.40, the melodic material of the coda employs yet again (016) sets (outlined in red brackets), but ends with a *pianissimo* F major arpeggio. The use of an arpeggio in 6/4 inversion ensures that the last note the listener hears is the note F, which is the overall home key of the Partita for Solo Bassoon. It is also worth mentioning that the F major arpeggio occurs immediately after the two most common (016) sets in the movement (D, E-flat, A-flat, and B-natural, C, F). This makes for a quaint and charming end to not only the movement, but to the entire Partita.

![F Major 6/4](image)

Figure 3.40: Gordon Jacob, Partita for Solo Bassoon, movement 5: Capricietto, mm. 45–51.

The completion of the Capricietto serves a larger purpose in the overall scheme of forms in the Partita. The movements of the Partita create symmetry in their employed forms (Figure 3.41). The first and the last movements of the Partita (Preludio and Capricietto) have similar forms and similar use of pitch-class sets. The three middle movements also have similar musical forms (ABA’) and some similarities in musical elements. The second and fourth movements both have historically-linked styles (Valse and Aria Antiqua), which may contribute to the sense of symmetry in the Partita. The middle movement, Presto, does break up the slow second and fourth movements in its tempo, but also adds a sense of clarity in its composition of mostly scalar runs, arpeggiated chords, and chromatic runs. The overall symmetry of the movements cleverly creates balance and clarity within form.
<table>
<thead>
<tr>
<th>Movement</th>
<th>Form</th>
<th>Melodic Points of Interest/ Theoretical Patterns</th>
</tr>
</thead>
</table>
| 1. Preludio   | A A’ Coda                | • Pitch-class sets  
                    • (016) set patterns  
                    • Many P5s and m2s |
| 2. Valse      | ABA’                     | • Neo-Riemannian transformations  
                    • Use of tritone  
                    • Modality- Lydian mode  
                    • Historical “waltz-like” components |
| 3. Presto     | ABA’                     | • Neo-Riemannian transformations  
                    • Use of tritone  
                    • Many scalar runs, chordal arpeggios, and chromatic runs |
| 4. Aria Antiqua | ABA’                   | • Modality- tonally ambiguous  
                    • Historical “antique-aria-like” components |
| 5. Capricietto | A B A’ B’ Coda (or A A’ Coda) | • Pitch-class sets  
                    • (016) set patterns |

Figure 3.41: Symmetry in the forms of Gordon Jacob’s Partita movements.

In conclusion, by incorporating elements used in the first movement, Preludio, Jacob finishes the trend of symmetry within the Partita’s five movements. The symmetrical movement scheme results in the outer movements (Preludio and Capricietto) comprising similar elements and forms, while the inner movements, especially movement 2 and 4, Valse and Aria Antiqua, contain similar elements in the incorporation of modal scales and passages as well as form. The middle movement also shares a similar form as its surrounding movements as well as shares elements that are found in other movements such as Neo-Riemannian transformation-related patterns between chords.
Chapter 4: Conclusion

Jacob’s use of a variety of techniques in rhythm, meter, style, articulation, and melody work together to create a very effective collection of short movements with unique characters. While not the most prolific literature in the bassoon repertoire, Jacob’s contributions to bassoon literature are significant on their own as enjoyable, characteristic pieces that are not too difficult for the bassoonist to perform. Jacob’s compositional sensitivity in reaction to the physical changes in the bassoon from French to German systems paints an interesting portrait framing the shift towards use of the German bassoon.

Compositionally, Jacob manipulates specific compositional techniques in order to create music that is not only compositionally interesting and complex, but also accessible to the listener. Pitch-class sets play an important role in bridging the gap between complex compositions and listener accessibility in his Concerto for Bassoon and Strings. Jacob’s use of pitch-class set motives, especially those based on (016) and (027) sets, help familiarize the audience with the intervallic patterns that comprise the individual sets. While by itself, the use of pitch-class sets does not ensure that the music will be easy for the listener to process, Jacob’s repeated use of specific pitch-class sets in various forms and settings further acquaints the listener with the specific intervals within the set. The (016) pitch-class set, encompassing a half step and a tritone, is primarily used throughout the first movement within the melody, harmony, and transitions to less typical key areas. The (027) pitch-class set is also found throughout the Concerto for Bassoon and Strings, often manipulated to create melodic motives and harmonic themes. By employing familiar patterns, or in this instance, familiar pitch-class sets, Jacob is able to travel to unfamiliar or unexpected harmonic territory and create complex music that remains accessible to the listener.
Analysis of Gordon Jacob’s Partita for Solo Bassoon showed similar results regarding the creation of listener accessibility through the manipulation of compositional techniques. Through the recurrent use of related interval patterns, comprehensible aural patterns are generated for the listener. Additionally, Jacob generates interest by using classical formal techniques in collaboration with his neo-classical style, such as the use of antecedent-consequent structure in phrases. Cultivating unique styles within the work gives each movement its own character, such as the triple-meter Valse and the Aria Antiqua movement, which makes use of the Phrygian-dominant scale. The overall use of symmetry in the forms of the Partita’s individual movements tie together the work into a larger scheme, creating a more fluid and balanced collection of movements.

The reader can utilize the information found in this dissertation in several ways. Through in-depth music analysis, one naturally becomes a more aware performer. Therefore, this knowledge can be employed for increased musicality, helping the performer become more invested in the music, and hopefully leading to a better overall performance. Additionally, being able to better explain what is happening in the music can lead to a more informed audience. Because a musician’s ability to identify pitch-set patterns aurally and visually in music strengthens with practice, the performing musician should be encouraged to analyze music more comprehensively, knowing that the results will be worth the effort in their understanding of the composer’s intentions and the listener’s perception.
Bibliography


