ABSTRACT

Title of Dissertation: *CAPTURING SOUND: THE METHODS OF ARRANGING AND EXECUTING INSTRUMENTAL SOUNDS BETWEEN ORCHESTRA AND PIANO*

Christopher Koelzer, Doctor of Musical Arts, 2020

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The piano stands today as a romantic instrument, designed to produce large amounts of sound, a wide range of dynamic contrasts, and infinite voicing possibilities. The piano's ability to create and sustain harmonies across its over seven-octave range provides composers a single instrument to express the harmonic expanses of an entire orchestra. Through the nineteenth century, composers around the world imbued orchestral characteristics into their pianistic writing. In contrast, some composers took the opposite route and began orchestrating solo piano works. This dissertation explored several orchestral works transcribed for piano across selected genres in order to portray the techniques necessary to most accurately represent the intricate collaboration of orchestral textures and production of sound through the piano.

The pieces performed were as follows: Claude Debussy's *Nocturnes*, arranged by Maurice Ravel for two piano, four-hands; Igor Stravinsky's *Le sacre du printemps*, arranged by the composer for one piano, four-hands; Johannes Brahms' *Variations on a Theme of Haydn*, originally scored for two pianos, four-hands; and Sergei Rachmaninoff's *Symphonic Dances*, arranged by the composer for two pianos, four-hands. Collaborators included pianists Dr. Nadežda Mijatović-Sekicki and Dr. Alexei Ulitin. These works were presented at the University of Maryland's Gildenhorn Recital Hall on September 30, 2018, and December 8, 2019. In lieu of performing the third D.M.A. lecture recital, this dissertation encompassed additional chapters of detailed processes and suggestions on how to facilitate transcriptions and reductions at the piano. Recital recordings can be found in the Digital Repository at the University of Maryland (DRUM).

CAPTURING SOUND: THE METHODS OF ARRANGING AND EXECUTING INSTRUMENTAL SOUNDS BETWEEN ORCHESTRA AND PIANO

by

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Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
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Preface

I was fourteen when I was hired for my first professional opera job as a pianist with Mission City Opera in Santa Clara, California. The opera was Mozart's *Così fan tutte*, and I was hired to play as rehearsal accompanist and harpsichordist for the performances. I continued their season as rehearsal pianist for Johann Strauss' *Die Fledermaus*. This time, I was the pianist in the reduced orchestra for performances, my job being to fill in for the missing instruments in the community orchestra. I had to disseminate the vocal score, reference my first full orchestral score, and transcribe what instruments and sounds were missing from the reduced orchestra, while listening to what needed support and balance. Little did I know back then that this was a glimpse into my future work and career as a collaborative pianist.

The repertoire of the classically trained pianist is divided into two broad categories both covering a wide expanse of works: first, the solo piano repertoire; and second, the collaborative piano repertoire. Music written specifically for solo piano comes from a rich and virtuosic tradition. Over the last three centuries, the piano's voice grew expressive and romantic, capable of wide-ranging dynamics and harmonies due to improved materials used in the building of the instruments as well as acoustic design. Works for collaborative piano have grown alongside solo repertoire, employing one or more instruments or vocalists, combinations of either, and even when utilized as a texture in the symphonic orchestra.

Although both solo and collaborative pianists balance technique and tone as tenets of sound production, the collaborative pianist becomes orchestral arranger and

transcriber in much of the standard collaborative repertoire. As a post-graduate student, most of my collaborative piano repertory was learned alongside instrumental and vocal colleagues. I realized that the largest amount of orchestral repertoire I had learned was instrumental concertos and pieces, choral works, solo vocal repertoire, and operas. Each came with its own challenges of transcribing and choosing prominent instruments to bring out using only ten fingers. It became clear that despite the meticulous transcription and arranging necessary for rehearsals or performances, the final product must result in each pianist's unique and educated voice.

My research into the realm of piano reductions showed me that there is little in the way of written sources on how to prepare and execute these transcriptions. This dissertation has taken me on a journey filled with trial and error as I developed my own methodology, a task which the collaborative pianist faces daily. Across two recitals and detailed research, I explored works that composers had transcribed and arranged to and from the piano and investigated their choices of sounds. From each composer's individual compositional style, the comparison of orchestral and piano scores showed me how they each viewed the ways in which the piano captures the orchestral sound.

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Christopher Koelzer, piano

Nocturnes (1903) — Claude Debussy (1862-1918)
Arr. by Maurice Ravel (1873-1937)

I. *Nuages*
II. *Fêtes*
III. *Sirènes*

INTERMISSION

Le sacre du printemps (1913) — Igor Stravinsky (1882-1971)

Part I – L'Adoration de la Terre (The Adoration of the Earth)
Part II – Le Sacrifice (The Sacrifice)

Recital Program II

December 8, 2019, 5:00PM

Joseph & Alma Gildenhorn Recital Hall, Clarice Smith Performing Arts Center,
University of Maryland, College Park

Dr. Alexei Ulitin, piano
Christopher Koelzer, piano

Variations on a Theme of Haydn (1873) Johannes Brahms (1833-1897)

INTERMISSION

Symphonic Dances (1940) Sergei Rachmaninoff (1873-1943)

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III. *Lento assai – Allegro vivace – Lento assai – Come prima – Allegro vivace*

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Claude Debussy, *Nocturnes*

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Chapter 1: The Piano as Orchestra

The piano has remained a constant favorite in Western music since its popularization in the mid- to late-eighteenth century. It was Mozart's preferred instrument, pushed for development and improvement by Beethoven, and a powerful medium of expression from Franz Liszt to Elton John. Mixing extreme levels of dynamic contrast and an abundance of harmonic possibility, the piano can produce the highest standard in virtuosic solo, chamber, and orchestral works in performance.

The word *clavier* comes from the Latin root *clavis*, meaning key, and was used during the Baroque period to define keyboard instruments. During the Baroque, two main stringed keyboard instruments were available – the clavichord (also known as the virginal) and the harpsichord (It. *cembalo*). One more keyboard invented in 1709 but developed over the next 60 years was the *pianoforte*, though its popularity was not very high at the time of its invention. The organ was also widely used but does not operate using the same method of sound production that led to the invention of the piano.

The modern piano stands as a grand instrument that has come a long way from its precursors. Its grandfather was the *pianoforte*, a crude invention built in 1709 in Florence by Bartolommeo Cristofori, who created this primitive piano to achieve the dynamic control lacking in other popular keyboard instruments.[1] The action of this piano used felt hammers and dampers to create sound. This was similar to the

[1] Albert Weir, *The Piano: Its History, Makers, Players and Music* (London: Longmans, Green, 1940), 31.

Hungarian cimbalom and Irish dulcimer, and unlike the plucking mechanism found in the harpsichord. The unprecedented development of a hammer that hit the string and immediately relaxed was the key to its advancement.[2] Johann Sebastian Bach was at first hesitant to approve it, and subsequently did not find it a worthwhile medium for any composition, though thirty years later he expressed some interest in the instrument.[3] Although the *fortepiano* was not by any means as powerful or had the tone quality of today's piano, it had developed enough by the 1770s that it started to become more popular. The innovation of science and physics, along with industrial advances and higher quality materials, resulted in the constant revision of piano manufacturing. It developed through technological and musical innovations, gaining respect as an instrument in the Classical period (1750-1830).

The development of the piano in the eighteenth and nineteenth centuries was driven in part by the growth of range and expression which culminated in the Romantic period. The piano's status grew in the nineteenth century because of its potential for dynamic variation and an improved structural stability with a cast iron frame[4] –a product of the Industrial Revolution. Its size and sound increased to satisfy the introduction of the concert hall the in the late-nineteenth century.[5] A modern Steinway concert grand piano creates a much larger sound than the *fortepiano*

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[2] Arthur Loesser, *Men, Women and Pianos: A Social History* (New York: Simon and Schuster, 1954), 23.

[3] Erwin Bodky, *The Interpretation of Bach's Keyboard Works* (Cambridge, MA: Harvard University Press), 13.

[4] Oscar Bie, *A History of the Pianoforte and Pianoforte Players* (New York: Da Capo Press, 1966), 188.

[5] Loesser, 23.

because of greater string tension from iron strings, a steel frame and sound board encased in wood, and accelerated key action that uses laws of physics to increase key speed. In fact, the tuning pins and frame of a modern grand piano hold over twenty tons of tension, resulting in increased sound duration and quality.[6] Redesigned key action allowed the piano to create rapid repetitive attacks and extended dynamic range. As a result of its advances, Romantic era piano compositions fully employ the spectrum of sounds that the piano creates. One of today's most important aspects of piano performance is to have developed a rich variety of sound in playing.

In addition to the wealth of compositions for solo piano, the wide range of piano arrangements, including transcriptions and reductions for the piano, is massive. The genre of piano transcription is a subset of arrangements, which are broadly defined as any piece of music written with pre-existing material.[7] Transcriptions are works created from notating and arranging another sound, work, or genre into a new piece of music. Writer and pianist Rian de Waal explains that, "…every new transcription constitutes a new original."[8]

The sources of music transcription are as broad as the variety of sound itself. Many composers have created transcriptions as a major part of their *opus*: Olivier Messiaen (1908-1992) was a composer, organist, and ornithologist who compiled volumes of transcribed birdsongs into notated pitch and rhythm; Béla Bártok (1881-

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[6] Wier, 50.

[7] Malcolm Boyd, "Arrangement," *Grove Music Online* (2001), https://www-oxfordmusiconline-com.proxy-um.researchport.umd.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000001332 (accessed April 14, 2020).

[8] Rian de Waal, *Metamorphoses: The Art of the Virtuoso Piano Transcription* (Delft, Netherlands: Eburon Academic Publishers, 2013), 7.

1945) was a composer and early ethnomusicologist interested in transcribing Eastern European folk songs; and Franz Liszt (1811-1886) famously composed virtuoso arrangements, transcriptions, paraphrases, and fantasies on existing works from many genres for the piano.

Many piano transcriptions of the nineteenth century were written with melodic and *cantabile* vocal lines in mind, a heightened expression and quality that is not inherent to the percussive nature of the piano.[9] A major influence on the piano composers of the era, opera composer Vincenzo Bellini (1801-1835) was best known for his *bel canto* (beautiful singing) compositional style which emphasized the lyrical and expressive qualities of the human voice. This style highlighted the melody supported by a simple harmony and rhythm. The *cantabile* style was translated by many composers into early Romantic works and can easily be seen in works by pianist and composer Frédéric Chopin (1810-1849). Chopin composed his solo piano works to be performed in intimate Parisian salons.

While Chopin's iconic style draws from the *bel canto* expression, it contrasts with Liszt's flashy and extroverted virtuoso piano transcriptions.[10] Franz Liszt is widely regarded as the father of infusing orchestral and vocal qualities into the piano through his arrangements of symphonic and operatic works. His virtuoso piano transcriptions and arrangements of orchestral and vocal music exist as standard works for today's concert pianist. Conquering technical obstacles and building on the

[9] *Ibid*., 179.

[10] *Ibid*., 18.

repertoire of vocal and instrumental music brought a new and higher standard to the increasingly virtuosic development of the concert pianist.

The growing awareness of the piano's ability to imitate orchestral-level sound as well as access to an expanded repertoire opened a new form of transcription: the piano reduction. The less-recognized art of piano reduction remains relatively elusive in the realm of research and musicology. Reduced orchestral arrangements and opera scores are used daily by pianists in rehearsals and performances, from young students to seasoned professionals. The widespread distribution of these scores touches every instrument and genre yet hides in plain sight.

The sheer volume and far-reaching content of the piano transcription and reduction is too broad to be contained to this single dissertation, and is best suited to be catalogued and analyzed in its own mammoth project; therefore, the purpose of this dissertation will be to discuss the processes of preparation and execution of piano reductions in terms familiar to the musician and pianist. In doing so, the pianist reaches the highest caliber of performer, imbuing the wide range of tone capable of the piano.

Chapter 2: Program Notes on Recitals I and II

Through its rise in popularity, affordability in price, and standardization in production, the piano became an essential item in growing middle- and working-class homes. Hector Berlioz described the demand for publishers to produce new works for the piano as "[a] rain of albums, an avalanche of romances, a torrent of airs with variations, a spout of concertos, cavatinas, dramatic scenes, comic duos, soporific adagios, diabolic evocations, classic sonatas, and rondos romantic, fantastic, frenetic, fanatic, and fluoric".[11]

By the mid-nineteenth century, the piano had united the voices of all varieties of music. In becoming an instrument mixing upper-class themes with folk tunes, it became a symbol of power to the lower- and middle-classes. An explosion of piano lessons during this time made available to all classes the ability to read and play from notation.[12] Familiar symphonies in both solo and four-hand arrangements could now be performed on the home piano.

Musicologist Marc-André Roberge suggests three general authors of such transcriptions or reductions, who are not mutually exclusive: professional arrangers, performers who arrange, and composers who arrange both theirs and others' works. Each author of these reductions has written for a specific purpose, depending on the piece. Professional arrangers create reductions for publishers, for example vocal scores and instrumental concerto reductions. Performers may arrange their own works in order to satisfy an accompaniment or collaborative need. Composers have long

[11] Loesser, 392.

[12] *Ibid*., 429.

written transcriptions for a variety of reasons, including pedagogical exercise, employment by another composer or publisher, or simply for their own enjoyment.[13] The Romantic era brought a flourish of expressive arrangements, linking old and new materials in a new wave of compositions.

Johannes Brahms, Variations on a Theme of Haydn

German pianist and composer Johannes Brahms (1833-1897) became a renowned figure of the Romantic era. Brahms' early relationship with composer, music critic, and pianist Robert Schumann (1810-1856) and his wife, pianist Clara Schumann (1819-1896) fueled Brahms' long-lived career as a musician. He earned his place as one of the most famous composers of all classical music by combining traditional elements of composition from Renaissance, Baroque, and Classical eras with new and original content. Brahms' interest in Classical and Baroque forms and themes pervades his entire compositional output.

Well known for his perfectionist tendencies, Brahms destroyed his early works or versions of works that he did not deem suitable for publishing. His compositional output includes several works for orchestra, instrumental concertos, chamber music, and solo piano works. Brahms' works for piano are virtuosic and melodic and include both solo and collaborative works. He transcribed many works to and from the piano in both two-hand and four-hand settings, including his *Hungarian Dances* and *Liebeslieder Waltzer*.

[13] Marc-André Roberge, "Composers' Works," *Notes* 49, no. 3 (March 1993), 926, https://www.jstor.org/stable/898925 (accessed April 13, 2020).

Brahms published his work *Variations on a Theme of Haydn* in both a two-piano (Op. 56b) and an orchestral setting (Op. 56a), the former version published in 1873, the latter published the following year. The distinct form of theme and variations has been used since the sixteenth century, where a theme or melody is changed with melodic and harmonic techniques and combined into a series, forming a single work.[14] As the theme and variations form developed through the eighteenth century, composers continued to expand the range and method of variation in these works. Ludwig van Beethoven explored thematic development as a centerpiece of most of his works, especially in his late sonatas and quartets. In the same manner, Brahms employed variation techniques from Baroque, Classical, and Romantic eras.

Brahms admired past composers, including Franz Joseph Haydn (1732-1809). Haydn championed many classical forms and mentored both Mozart and Beethoven in their compositional studies. As a court musician for the wealthy Hungarian Esterházy family, Haydn had the time and resources to devote to composing. He pioneered chamber music, such as the piano trio, and developed the form of the symphony; he is often titled the "Father of the Symphony." It is no wonder that Brahms kept a porcelain bust of Haydn in his bedroom on the mantle opposite his bed.[15]

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[14] Elaine Sisman, "Variations," *Grove Music Online* (2001), https://www-oxfordmusiconline-com.proxy-um.researchport.umd.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000029050 (accessed April 20, 2020).

[15] Heather Platt, "Probing the Meaning of Brahms's Allusions to Haydn," *International Review of the Aesthetics and Sociology of Music* 42, no. 1 (June 2011), 33, https://www.jstor.org/stable/41228641 (accessed November 9, 2019).

The title *Variations on a Theme of Haydn* is inaccurate. The theme, titled "St. Anthoni Chorale" was one movement of a recently discovered woodwind octet thought to have been attributed to Franz Joseph Haydn. The original composer of this theme has not been confirmed, nor the origin of the chorale tune.[16]

Brahms' *Variations on a Theme of Haydn* consists of a theme, eight variations, and a finale. The structure of the B-flat Major theme is rounded binary, or ternary: the first part stating the opening theme in two irregular five-measure phrases; the second employing an eight-measure contrasting section (B), followed by a modified four-measure opening theme (A') with a seven measure coda. The resulting form is ||: A :||: B A' Coda :||, with each variation easily recognizable as Brahmsian in texture, harmony, and counterpoint. Brahms' interest in modified forms, repetitions, and irregular five measure phrases provides a rich ground for variation in many styles.

Variation I, *Andante con moto*, employs *hemiola*, where layers of duple and triple meters are shifted to change the perception of rhythmic durations. In addition, contrapuntal texture adds a Baroque element to the Classical variation form while also employing Romantic dynamic swells. Variation II, *Vivace*, is the first variation in parallel B-flat minor. With *subito* dynamics and string articulations, this variation conjures a folky gypsy theme. Variation III, *Con moto, dolce e legato*, embellishes the melody in very long phrases with a written-out repeat and redistributed ostinato between the two pianos. Variation IV, *Andante, dolce e semplice*, is another parallel

[16] Robert Philip, *The Classical Music Lover's Companion to Orchestral Music* (New Haven: Yale University Press, 2018), 134.

minor in slow triple meter also with a written-out repeat. The long legato melody contrasts the staccato bass, which is another highlight of Brahms' frequent orchestral use of bass pizzicato. Variation V, *Poco presto*, is a bright and fast compound-metered variation with unexpected accents, again shifting the metric pulse with an interesting rhythm. The written-out repeat transfers materials from one piano to the other, providing equal distribution of technical virtuosity. Variation VI, *Vivace*, employs rhythmic and articulative motives evoking horn calls. Variation VII, *Grazioso*, is a gently lulling variation in 6/8 time with light rhythmic variation and dynamic swells. Variation VIII, *Poco presto, piano sempre mezza voce e legato*, is the softest and fastest of all variations. The highest dynamic in this variation is *piano*, and employs the popular *scherzo* form, of which Brahms was quite fond.

The Finale, *Andante*, is a *chaconne*, also called ground bass, where the bass ostinato repeats with varied harmonic and melodic content above it. The *chaconne* in itself builds several sets of variations over the opening five-bar ostinato, encompassing Brahms' wide range of compositional styles and techniques.

As the Romantic era progressed, the advent of the scientific and industrial advancements drove a cultural initiative embracing a return to nature, emotion, and individualism. A wealth of poetry, art, and music flourished as expressive devices pervaded every social sphere. Concurrent with the late Romantic era, European culture entered *La Belle Époque*, leading to a time of great prosperity and flourishing of artistic expression. As iconic artistic movements gained traction, France experienced great artistic advancements, the most prominent being Impressionism. The developments by the end of the nineteenth century, or *fin-de-siècle*, were a

response to the great success and subsequent decadence of European culture. The start of World War I in 1914 would completely change European life.

Claude Debussy, Nocturnes

Claude Debussy (1862-1918) grew to be the voice of French Impressionism in music. Born into a lower-middle-class home in the suburbs of Paris with no specific musical associations, Debussy began piano lessons at an early age with Mme Mauté, mother-in-law to poet Paul Verlaine.[17] He was accepted into the Conservatoire de Paris where he eventually transitioned from pianist to composer. After winning Paris' most prominent musical award, the *Prix de Rome*, Debussy was destined to become an influential composer in post-Romantic French music. His works include several symphonic works, chamber music, piano works, vocal songs and operas.

Debussy grew disillusioned with the late-Romantic grandeur of orchestra and sound, the complexity and expansion of symphonic form, and the far-reaching gestures of the Austro-German tradition. After working in Italy for several years, Debussy returned to Paris in 1887. He first heard the Javanese gamelan at the Paris Exposition Universelle in 1889; the exotic tones and rhythms would influence the rest of his works and compositions. A new voice in French music emerged in his innovative compositions.

Debussy's compositional style followed the movement of Impressionism, a style easily recognized as seen in Claude Monet's paintings. The painter Edgar Degas (1834-1917) in explaining the movement said, "The drawing is not the form; it is the

[17] Graham Johnson and Richard Stokes, *A French Song Companion* (New York: Oxford University Press, 2000), 93.

manner of seeing the form."[18] Impressionism in art uses lights, colors, and blurred images to focus the perspective on the whole rather than particular objects or artistic style or form. By doing this, the artist encourages the observer to gather an impression of the art.

Impressionism in music discards the idea of motivic development, form, function, and line. Instead, composers use compositional devices and orchestration to create colors rather than depictions. In forming the *timbre* of a work, a composer focuses on the sound of an instrument instead a melodic or harmonic function and development. Though it might strike the listener as more stagnant than the well-developed German tradition, the effect of each piece as a whole paints a unique picture. Using non-functional harmonic progression, ambiguous tonalities, parallel motion, and exotic and modal scales, composers can evoke rather than depict.

Debussy's contemporary Maurice Ravel (1875-1937) was, along with Debussy, the other most influential French Impressionist composer. Ravel was born in the small village of Cibourne, a village near Saint-Jean-de-Luz in the Basque region of France close to the Spanish border. Ravel's father, a Swiss watchmaker, and his mother, having spent several years in Madrid, provided Ravel with two key elements of his compositional style: precise compositional engineering and Spanish influence. [19]

Ravel also attended the Conservatoire de Paris for several years studying under composer and teacher Gabriel Fauré. He too entered the *Prix de Rome* five

[18] James R. Briscoe, *Debussy in Performance* (New Haven: Yale University Press, 1999), 30.

[19] Johnson and Stokes, 400.

times before surpassing the age requirements. In 1905, Ravel's last attempt at the competition ended at the first round, much to the dismay of the public. When the public learned that all the finalists were under the tutelage of one professor on the jury panel, the scandal caused Ravel to leave the Conservatoire, and its administration reorganized.[20]

With Debussy's death in 1918, Ravel ascended as the prominent French composer from 1920s until his death in 1937. Concurrently, although Ravel's compositional output pales in comparison to some of his contemporaries, his works contain existing forms and musical ideas framed in a new and unique harmonic and rhythmic language, pioneering a fresh generation of compositional output.

Ravel's skill and success in orchestral transcribing to and from the piano revealed a new potential for instrumental colors through that instrument. Ravel masterfully arranged works for orchestra, piano, piano four-hands, and small ensembles – not only his own works, but also works by other composers, mostly by commission.[21]

Claude Debussy's orchestral work *Nocturnes* (1899) was arranged by Ravel for two pianos, four-hands. Ravel began working on transcribing *Nocturnes* in 1901, commissioned by Debussy himself, and refined transcriptions of each movement through the end of 1910. The first full performance of the completed project was given in 1911.[22] Ravel's own methodical and meticulous approach to instrumental

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[20] Louis Laloy and Deborah Priest, *Louis Laloy (1874-1944) on Debussy, Ravel and Stravinsky* (Aldershot, England: Ashgate Publishing, 1999), 239-40.

[21] Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 115.

[22] *Ibid.*, 124-125.

color and musical detail provides a rewarding result. As both Debussy and Ravel come from the Impressionist period, their emphasis on *timbre* is an ideal focus for this dissertation.

Each movement of Debussy's *Nocturnes* is not the representation of an object, but rather reflects an impression of the object. *Nuages* (Clouds) evokes clouds, in subtle shades of grey and white, floating slowly along in grandeur across the sky. *Fêtes* (Celebration) moves along in fast scales, textures, and unresolved harmonies, producing the whirlwind of movement and excitement one may feel at a procession. *Sirènes* (Sirens) is not the sound of an air raid or ambulance; rather, the Siren is an architype of Greek mythology. Sirens are the beautiful enchantresses singing from rocks in the water, luring sailors toward them, and inevitably shipwrecking them on those same rocks. Debussy's orchestration includes a choir of sixteen women singing wordlessly, perhaps the seductive sounds one might hear from the Sirens.

Debussy's *Nocturnes* is scored for three flutes (the third doubling piccolo), two oboes, English horn, two clarinets, three bassoons, four horns, three trumpets, three trombones, tuba, timpani, cymbals, snare drum, two harps, wordless female chorus (in *Sirènes* only), and strings.

As World War I ended, the extravagance of the pre-war sentiment was stripped from Europe as culture attempted to heal from the horrors of battle. A new culture emerged in Paris, which had remained a melting pot for musicians gathering from around the world. The culture of the city was found in the private circles of the

Parisian salon.[23] Composers gathered in these salons to socialize and perform music, ushering in new compositional styles and techniques. The breakup of European culture from The Great War would soon-enough lead to new social and political situations, including Art Deco, surrealism, and *avant garde* artistic movements.

Igor Stravinsky, Le sacre du printemps

When American composer George Antheil (1900-1959) met Stravinsky, the two discussed music at great lengths. Antheil wrote of it: "Stravinsky's music, hard, cold, unsentimental, enormously brilliant and virtuos [*sic*], was now the favorite of my postadolescence [*sic*]."[24] Russian composer Igor Stravinsky (1882-1971) was born on the outskirts of Saint Petersburg to a musical family. Stravinsky's career as a composer spans over six decades. His early style, influenced by composer Nikolai Rimsky-Korsakoff (1844-1908), drew upon Russian themes and continued the Nationalistic vein of many countries during the mid- to late-nineteenth centuries.

Stravinsky's entrance to the composition social scene came from several early ballets in collaboration with Sergei Diaghilev and his company, the *Ballets Russes*, the cutting-edge ballet of the European arts scene in the early twentieth century. These works, written for the Parisian cosmopolitan audience, combine the nationalism and grandeur of the folk Russian nationalistic sound with Stravinsky's

[23] Glenn Plaskin, *Horowitz: A Biography of Vladimir Horowitz* (New York: William Morrow, 1983), 89.

[24] Linda Whitesitt, *The Life and Music of George Antheil, 1900-1959* (Ann Arbor: UMI Research Press, 1983), 10.

innovative compositional style.[25] His first substantial work, *Feu d'artifice* (1908), settled his place in the compositional scene, and Stravinsky continued using this nationalistic style through his Early Period.

By the 1920s, Stravinsky had moved to France and ventured into his Middle Period. For this compositional period, his style of neoclassicism draws upon aesthetics of the Classical era with balance of form, texture, and harmony as a response to the grandeur and expansion of Romantic works. In 1939, Stravinsky moved to the United States, and settled in Beverly Hills, California by 1941. By the early 1950s, Stravinsky entered into his Late Period. These works feature atonality and serialism, both movements created and developed by the Second Viennese School to respond to the harmonic freedom developed during the Romantic era. He died in New York City in 1971.

Dating from Stravinsky's early period, his ballet *Le sacre du printemps* (The Rite of Spring) was premiered May 29, 1913 at the Théâtre des Champs-Élysées in Paris. Diaghilev had commissioned several new ballets from Stravinsky preceding *Le sacre du printemps*, including *L'Oiseau de feu* (Firebird) in 1910 and *Petrouchka* in 1911, both of which were received extremely well. *Le sacre du printemps* portrayed the fascination Russian artists of that era had with Pagan Russian and pre-Christian folklore and combined it with Stravinsky's ground-breaking compositional style to produce a masterpiece of the twentieth century.

[25] Richard Taruskin, *Russian Music at Home and Abroad* (Oakland, CA: University of California Press, 2016), 362.

Not only was *Le sacre du printemps* revolutionary in its compositional style, it was etched into musical history because of the riot that erupted at its premiere. Perhaps it was the *avant garde* music of its time, percussive and rhythmic with unprecedented yet palatable harmonies. It may have been the controversial ballet choreography, with turned-in feet, provocative poses, and a barbaric Pagan sacrifice mocking the centuries-old French institution of ballet. The performance was noted by many as the event that ushered in a new Contemporary era of music.

Stravinsky set his own transcription of *Le sacre du printemps* for one piano, four-hands, as early as spring of 1913. Music scholar, musicologist, and critic Louis Laloy, an important figure in the early twentieth-century Parisian music scene, witnessed one of the first previews of the work, as he explains:

> "On a bright afternoon in the spring of 1913…Stravinsky had brought the piano-duet reduction of his new work, *Le sacre du printemps*. Debussy agreed to play the bass on the Pleyel piano which I still possess…When they had finished, it was no longer a question of embraces, or even of compliments. We were struck dumb overwhelmed as by a hurricane springing up from the depths of the ages to take our life by the roots."[26]

Stravinsky provides his own synopsis:

> "*The Rite of Spring* is a musical choreographic work. It represents pagan Russia and is unified by a single idea: the mystery and great surge of the creative power of spring. The piece has no plot.
>
> "First Part: The Kiss of the Earth. The spring celebrations … The piper's pipe and young men tell fortunes. The old woman enters. She knows the mystery of nature and how to predict the future. Young girls with painted faces come in from the river in a single file. They dance the spring dance. Games start … The people divide into two groups, opposing each other. The holy procession of the wise old men. The oldest and wisest interrupts the spring games, which come to a stop. The people pause trembling … The old men bless the spring earth … The people dance passionately on the earth, sanctifying it and becoming one with it.

[26] Laloy and Priest, 272.

> "Second Part: The Great Sacrifice. All night the virgins hold mysterious games, walking in circles. One of the virgins is consecrated as the victim and is twice pointed to by face, being caught twice in the perpetual dance. The virgins honor her, the chosen one, with a marital dance. They invoke the ancestors and entrust the chosen one to the old wise men. She sacrifices herself in the presence of the old men to the great holy dance, the great sacrifice."[27]

Although *Le sacre du printemps* is set for one piano, four-hands, the decision was made to perform the work on two pianos since it is very often performed that way. Spatially, this provides two convenient factors. Because Stravinsky's writing includes frequent hand crossings and note doubling, using two pianos allows each pianist access to the full range of the keyboard at any time. At the same time, it also allows for a more efficient redistribution of notated parts between players and provides the opportunity to add any omitted or displaced instrumental lines from the orchestral score with great ease.

Le sacre du printemps is scored for two piccolos, three flutes and alto flute, four oboes and two English horns, three clarinets, E-flat clarinet and two bass clarinets, four bassoons and two contrabassoons, eight horns, two Wagner tubas, four trumpets, high trumpet and bass trumpet, three trombones and two tubas, five timpani, bass drum, tambourine, cymbals, antique cymbals, triangle, tam-tam, güiro (a scraped gourd), and strings.

Stravinsky's musical content develops from the famous opening bassoon line of the Introduction. The high treble register, use of ornamentation, and modal minor inference outline the folk-like quality of the line. As each instrument joins in

[27] *Le Figaro* (May 17, 1913), quoted in Charles M. Joseph, *Stravinsky's Ballets* (New Haven: Yale University Press, 2001), 83-84.

succession, the texture thickens. Each instrument is grouped to provide distinct melodic and rhythmic content related to the opening statement; the A minor melodic outline of the bassoon's C-B-A-G soon joins the French horn's C-sharp, implying tonality. The Introduction employs quartal and quintal harmony, semitone relationships, chromatic scales, polytonality, modal demi-scales, and ostinato passages. These compositional devices outline the framework and revolutionary compositional techniques of the entire work.

The clarity of orchestration and harmony in *Le sacre du printemps* shines because of Stravinsky's orchestral registration, timbre, and texture of instrument groupings. With sharp attacks from brass, clarinets, and string pizzicato to blend with the English horn, he balances the texture so that ideas can be clearly heard. He uses rhythm and articulation to bring out specific harmonies and passages with an underpinning of motion to provide continuity. The thematic development unfolds organically, so that each voice is independent and distinct yet mixes in the cacophony of sound to create a new landscape never heard before in Paris or the world.

Although composers followed Stravinsky in developing new twentieth-century compositional techniques, the ever-expanding creative language of Romanticism continued to evolve through the late 1940s with composers like Richard Strauss (1864-1949) and Sergei Rachmaninoff (1873-1943).

Sergei Rachmaninoff, Symphonic Dances

Rachmaninoff was a Russian-born pianist, conductor, and composer. Even though he had been composing since the age of 16, he attended the Moscow

Conservatory specializing instead in piano.[28] Though his graduation exercise, the opera *Aleko* (1892), was received exceptionally well, his *First Symphony* composed the following year was received extremely poorly.[29] These highs and lows would pervade his compositional career. In addition to composition, Rachmaninoff was an avid touring pianist, and traveled around the world to perform. He emigrated to the United States in 1918 following the Russian Revolution where he remained for the rest of his life.

Rachmaninoff's compositional style follows that of Nationalistic Russian Romanticism, following in the footsteps of composers like Nikolai Rimsky-Korsakoff. His style is highly melodic and expressive, utilizing a unique harmonic language and melancholic ostinato that makes his compositions immediately identifiable.[30] Rachmaninoff explains about his own music that "A composer's music should express…the product of the sum total of a composer's experiences."[31]

Most of Rachmaninoff's works include or feature the piano. In addition to original works for piano duet and piano six-hands, Rachmaninoff wrote paraphrases for solo piano (both his own and others' works), as well as several transcriptions for piano duet. His orchestral output includes three symphonies and several works for orchestra the last of which is his *Symphonic Dances* (1940).

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[28] Max Harrison, *Rachmaninoff: Life, Works, Recordings* (London: Continuum, 2005), 22.

[29] Philip, 594.

[30] Glen Carruthers, "The (Re)Appraisal of Rachmaninov's Music: Contradictions and Fallacies," *The Musical Times* 147, no. 1896 (Autumn 2006), 44, https://www.jstor.org/stable/25434403 (accessed November 7, 2019).

[31] David Ewen, "Music Should Speak from the Heart: A Conference with Sergei Rachmaninoff," *The Etude Music Magazine*, December 1941, 804.

Following his *Third Symphony* in 1936, Rachmaninoff had all but quit composing due to relative lack of success of his recent works. The beginnings of his *Symphonic Dances* stemmed from his desire to write a ballet. Collaborating with Michel Fokine, principal choreographer for Sergei Diaghilev's notorious *Ballets Russes,* Rachmaninoff's *Rhapsody on a Theme of Paganini* (1934) for piano and orchestra had been set to a ballet with great success. Rachmaninoff quickly composed the *Symphonic Dances* (originally named *Fantastic Dances* with movements "Noon," "Twilight," and "Midnight") in the summer of 1940, and asked Eugene Ormandy, conductor of the Philadelphia Orchestra, to premiere the work. Of all his compositions, Rachmaninoff employed some of his richest harmonies and textures in this work.

The two-piano work manuscript is dated 10 August 1940 and was composed alongside the orchestral composition.[32] Though the work was first scored for orchestra, Rachmaninoff composed a two-piano version for a private party in Beverly Hills, California. Horowitz and his family had moved to Los Angeles in 1941 to be closer to the ailing Rachmaninoff. The close friends and former two-piano duo resumed their performances, and at one such concert in 1942, both virtuosos presented Rachmaninoff's transcription of *Symphonic Dances.*[33] Noted Rachmaninoff biographer Sergei Bertensson writes, "The brilliance of this performance was such that for the first time I guessed what an experience it must have been to hear Liszt and

[32] Harrison, 334-335.

[33] Plaskin, 222-23.

Chopin playing together, or Anton and Nikolai Rubenstein."[34] The transcription includes most of the original orchestral content spread across the two pianos yet is transcribed with Rachmaninoff's existing post-Romantic, notoriously difficult yet expressive pianistic language.

The first of the three dances is a three part *Non Allegro* with an ominous and foreboding march. A driving eighth-note staccato rhythm and short repeating sixteenth-note motifs drive the march onwards. The dark theme of the march brackets a contrasting melodic theme in C-sharp minor, one of Rachmaninoff's most lyrical and expressive. This nostalgic melody is first delivered by alto saxophone then transferred between woodwinds and strings, before reaching a climax and coming to near silence. Richard Taruskin expounds on Rachmaninoff's alto saxophone solo,

> "…after at first imagining Marian Anderson's voice as its ideal medium…Rachmaninoff, who had never written for the [saxophone], didn't know which saxophone to use, or how the various sizes were pitched. [Robert Russell] Bennett, a friend and trusted assistant to the recently deceased George Gershwin, was then the top Broadway and Hollywood arranger. He knew saxophones. The range of Rachmaninoff's melody suited the alto sax, pitched on E-flat, so that the melody, in C-sharp minor, needed to be transposed in the score to the improbable key of A-sharp minor, with seven sharps."[35]

This produces a unique voice by a rarely used instrument in classical orchestras.

The march slowly restarts and rises to its previous glory in the recapitulation. In the following coda, Rachmaninoff quotes the theme from his poorly-received *First*

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[34] Harold C. Schonberg, *Horowitz: His Life and Music* (New York: Simon and Schuster, 1992), 155-156.

[35] Richard Taruskin, liner notes to *Rachmaninoff Plays Symphonic Dances: Newly Discovered 1940 Recording*, Sergei Rachmaninoff and musicians, Marston Records 53022-2, CD, 2018, 8.

Symphony, a work which failed so badly at its premiere that the composer had debilitating writer's block for the subsequent three years. In the coda, Rachmaninoff's use of glockenspiel, harp, and piano provide a high treble chiming evoking bells to contrast with the rich deep harmonies and melody in the strings.

A muted trumpet and horn fanfare introduces the second movement, a dark symphonic waltz. The waltz finally begins, developed and passed through the entire orchestra, and punctuated by the returning brass figures of the opening. The near halts and extreme climaxes remind one of the ghostly and atmospheric textures of Ravel's *La valse* or Sibelius' *Valse triste.* With a final acceleration and climax, the movement suddenly draws to a close as mysteriously as it began.

The third movement begins with a *Lento assai*, quickly becoming an *Allegro vivace* springing into action with diabolic energy. Rachmaninoff uses several themes including the ominous Gregorian plainchant *Dies irae* from the Catholic Mass for the Dead. This famous melody has been inserted famously in works like Hector Berlioz' *Symphonie fantastique* (1830), and Rachmaninoff's own *Variations on a Theme of Paganini*. Rachmaninoff uses it as a motivic phrase to construct many of the melodic phrases of the third movement. Also quoted is Rachmaninoff's *All-Night Vigil*, not as subtly as his own self-reference in the first movement; Rachmaninoff even wrote "Alliluya" in his manuscript of the *Symphonic* Dances at the point where the choirs originally sing. The third movement once again includes a middle lyrical section, full of expansive and unresolved harmonies, creating turbulence and instability. Suddenly the movement restarts from a pianissimo with swells and sudden drops in dynamics, endlessly growing, before coming to an explosive end.

Chapter 3: Preparing Transcriptions

Reductions of Instrumental Concertos and Orchestral Repertoire

The twenty-first-century collaborative pianist faces a wide range of necessary skills to successfully prepare a score for piano reduction. Most reduced works are available as reduced piano scores; the necessity of playing a work from a full score at the piano rarely occurs. Strictly using the reduction is too frequently the only step of research for the ill-prepared pianist to start practicing a new work. Each pianist's taste and technical abilities will differ, but this dissertation will help the pianist in how to methodically develop their own skills to find an individual and authentic language in recreating the orchestral nature of a reduction. This chapter will explain the steps to properly prepare a reduction for rehearsal or performance.

Collaborative pianists train themselves to function in many capacities. Today, the collaborative pianist often serves as a reduced orchestra. The idiomatic writing for orchestral instruments and textures often exceeds the piano's technical abilities; therefore, the pianist is forced to adapt. The importance of fully preparing a reduction is essential. The pianist plays an integral role in preparation and execution of the reduction, giving orchestral cues and sounds to which the instrumentalists, vocalists, or other group members will respond.

Of course, the piano is not an orchestra, and does not create the same amount or manner of sounds. The pianist must make many choices, some self-evident and others individualistic and highly nuanced. These choices will develop as the pianist encounters more orchestral reduction repertoire. Translating the reduction often does

not result in a clean edition with new typeface. Instead, the newly created score acts as a guideline for interpretation.

Reduction Editions and Full Scores

The first step in preparing a reduction is to select a reputable reduction edition. The wide availability of publishers and editions, especially among works in the public domain, requires the pianist to research the genre and biographical information about the work.

Reductions of orchestral works are typically composed near the work's original publishing date. While some composers reduced their own works, professional arrangers reduced works to the piano, often with errors and subjective stylistic interpretations. Before the institution of copyright, composers struggled to retain the intellectual rights of their works, as unauthorized pirating and copying of compositions mixed with authentic editions.[36]

During the nineteenth century, an interest grew in the preservation and revival of compositions, including an attention to detail that grew into historical and scholarly editions of music. These editions are often referred to as *urtext* editions, which are critically reviewed original sources by reputable editors. These publications are designed to most accurately notate a composer's intentions from their autograph (manuscript) or closest facsimile to the autograph. A good edition will investigate possible errors, revisions, articulation, and dynamics amongst many other factors.

[36] Paul Henry Lang, "Editorial," *The Musical Quarterly* 42, no. 3 (July 1956), 377, https://www.jstor.org/stable/740432 (accessed April 14, 2020).

Pianists who work frequently using piano reductions may prefer one edition over another. Editions most common today include: Bärenreiter Urtext, useful for critical interpretation of works across all genres and frequently updated editions; Henle Verlag Urtext, which currently produces editions with research by experienced and scholarly musicologists; Wiener Urtext Edition, which includes text on historical information and interpretation; and Durand Edition, the reputable original publisher of many French composers from the Romantic and Impressionist periods and beyond.

Opera reductions are a common source of headache. Many companies will set a standard edition for a given production to be used by vocalists, coaches, and directors in order to standardize and improve the efficiency of the limited rehearsals. If a pianist has a preferred edition from which to play, the risk of wasting time in rehearsals can outweigh the benefits of preparing a new edition.

Bärenreiter Urtext vocal scores are often chosen because they provide clean and clear typography, text, and critical commentary. An exception is Casa Ricordi, most commonly referred to as Ricordi. Ricordi is the standard edition of Italian operas from the nineteenth century onward. Durand Edition is the counterpart for French operas of the same era. These editions generally include poetic translations of texts into German (for Bärenreiter) and into English (Ricordi, Schirmer, and others) often brazenly placed above the original and italicized text. This may provide some confusion and other notational inconveniences which will be addressed later.

Most works copywritten before 1925 are considered in the realm of public domain, as copyright in the United States has most likely expired. One of the largest virtual collections of public domain works and arrangements of classical music is the

collection hosted by the International Music Score Library Project found at the website IMSLP.org. Much of this music is easily accessible for research, but is user-uploaded, and includes works that are public domain in other countries before their copyright expires in the United States. This makes general reference and research available for most classical works but can be unreliable for legal and reputable reductions from which to work.

The next step in preparation of the reduction is to obtain the full score of the reduced work. Many reputable and conducting-worthy scores are expensive to obtain, but much cheaper options are available. Dover Publications are iconic clothbound, sewn-page facsimiles of original editions. They provide full-size full scores to compositions in the public domain for a reasonable price. Other options include finding a miniature score, or study score. Being a fraction of the size, both provide a useful reference tool that is not as bulky as the full-size score. Certain publishers are the sole distributers of some composers, and these scores can be expensive to obtain, but are nevertheless necessary.

Looking at a full score can be daunting at first attempt. There are many lines of music grouped by instrument families, and often transposed according to each instrument's specifications. Each instrument has a unique quality. There will almost certainly be new articulations and expressive terms describing an instrumental technique that appear foreign to a pianist. Having a music dictionary and language translator makes the reduction process more efficient.

Orchestral Instrumentation

The first thing one sees when looking at an orchestral score is the order of the organized instruments. The grouping of instruments is standardized from top to bottom by instrument family. Generally, highest to lowest pitched instruments are listed from top to bottom of each section:

Woodwinds
Horns
Brass
Percussion
Other instruments (vocal, or other solo instruments)
Strings

Each language has a different term for each instrument. Becoming familiar with these instruments in different languages is essential. Even in familiar languages an obscure instrument may play once in a while. Although the order of the staff never changes, instruments which are not playing may disappear from the page if they are *tacet* for a brief amount of time. Often, the names of instruments are truncated to save space; these also are specific to each language. There are also many percussive instruments, which vary by genre and period.

Most full scores are notated in the transposition for each instrument. For example, clarinets in B-flat mean that when a C is played on the instrument, a concert pitch B-flat sounds. The pitch of a B-flat instrument will therefore sound down an M2 interval, as an instrument in D will sound an M2 above. Some instruments have octave transpositions. Examples include the double bass, always one octave lower than written, and the piccolo one octave higher. Transposing varies between instruments but becomes familiar after some time.

Often, instruments' transpositions are explained in different languages. German notation systems follow the American note system (A, B, C, etc.) with the exception that "B" refers to B-flat, while "H" refers to B-natural. Instruments in sharps have the suffix "-is" while flats are "-es", so that an instrument playing in D-flat becomes "Des" while D-sharp becomes "Dis". French instrumentation generally relies on a *solfège* system (*do*, *ré*, *mi*) to denote the pitch of a transposing instrument. Flat and sharp are denoted as "*dièse*" and "*bemol*", respectively. The horn in F would be "*cor en fa*", and trumpet in B-flat would be "*trombe en si bemol*".

When notating instrumentation in the reduction score, abbreviate instrumental names in order to save space. It is wise for the pianist to adopt their own system of shorthand in order to save precious space on the reduction. Octave transpositions may be useful to write in either at pitch, or marked with standard *8va*/*8vb* notation, practical for including in the revised edition. One must be diligent in adding at-pitch missing instrumentation into the reduction; it will greatly assist in the many decisions required of preparation and execution of the reduction.

Errors occur in most reductions. These can range from missing accidentals to blatant additions of non-original material. Notational errors must be carefully checked, as the quality of a complex harmony may be difficult to condense from several lines of transposed instruments. Common errors also include tied notes, use of misrepresented tremolo, incorrect dynamic and articulation markings, and bass octaves marked with grace notes or arpeggiated ornamentations. These errors are editorial in order to assist in making a reduction more orchestral but are often a hinderance to a truly orchestral sound.

While piano articulations are easy to identify and execute, the same articulations create different sounds in the orchestra. In preparing the reduction, capturing the specific articulations is essential. Details of instrumental articulations differ just by the nature of each instrument and will be outlined in the next chapter in accordance with instrumental execution.

Vocal Orchestral Works

The collaborative pianist working within the genres of opera and orchestral song cycle will encounter text as an integral part of the work. The text for opera is called a *libretto*, which is a compilation of all the words and stage direction. Most often, *libretti* from the eighteenth and nineteenth centuries encompass stories from other authors adapted by the librettist and composer into an opera. For example, the text of Wolfgang Amadeus Mozart's *Le nozze di Figaro* (The Marriage of Figaro), completed in 1786, was written by librettist Lorenzo da Ponte. The four-act *opera buffa* (comedic opera) in Italian was collected and translated from French playwright Pierre Beaumarchais' comedy titled *La Folle Journée, ou Le Mariage du Figaro* (The Mad Day, or the Marriage of Figaro), written in 1778. This opera is the second of Beaumarchais' *Figaro* trilogy, preceded by *The Barber of Seville*, and followed by *The Guilty Mother*. Understanding the history of the libretto gives insight to the often-outdated terminology or word play that cannot come from direct word-to-word translation.

Singer, coach, and linguist Nico Castel (1931-2015) worked throughout his career translating and phoneticizing most of the common *oeuvre* of opera. His publications comprehensively cover opera and operetta *libretti* in English, French,

Italian, and German. They use the International Phonetic Alphabet to clearly demarcate pronunciation, full English translations, with synopses and footnotes for plot, word, and historical clarification. These compilations are good references for translations, but often contain phonetic errors and other misspellings. Because languages evolve over time, the best way to translate these works accurately is to use a dictionary to search unfamiliar words or idioms in order to fully understand a concept. *Langensheidt* dictionaries provide valuable information into the gendered and nuanced aspects of language less familiar to English speakers.

As mentioned previously with translations, editors often will include notation in the staff for variants of rhythm and syllabification if applicable to the translated text. This is by no means sanctioned by the composer whose intention was to carefully select rhythmic values that capture the meaning of the original language. Striking through or whiting out irrelevant translated text or notation provides a cleaner score with consistent information to produce the correct result.

Stylistic Considerations

Stylistic traits must be taken into account when working from a reduced score. Depending on the period, different textures and accompanimental patterns become more or less prominent. The following guide gives general advice on ways to reduce and approach stylistic features across each period of music.

In general, comparing keyboard works from each corresponding era provides familiar and accessible alternatives to cumbersome reductions. By employing similar textures from comparative piano works, the pianist is able to make orchestral sounds with familiar technical material rather than overworking cumbersome passagework.

Works from the Baroque period (1685-1750) are almost entirely reductions or transcriptions. The invention of the *fortepiano* was not until near the end of the period; therefore, most keyboard works from this time were written for the harpsichord. Typical Baroque reductions include operas, oratorios, and instrumental concertos. Each of these works employs stylistic characteristics, such as contrapuntal polyphonic textures, an emphasis on dissonance and consonance, and advancements in harmony by use of basso continuo. Large vocal works developed during this era with great advancements in opera, oratorios, and cantatas.

In Classical works, from 1750 to 1830, harmonic and formal structure became standardized. The Classical era exploded with symphonies, new operas, and chamber music. Concurrently, the orchestra standardized into the general design seen today. Many new instruments were introduced into the orchestra, including the clarinet and horns. The texture grew homophonic with accompanimental patterns like Alberti bass to provide harmonic outlining.

Romantic and Impressionist works explore sonorities and harmonies that had previously not been composed. They also break from tenets of classical works, expanding and breaking into new forms, harmony, and expression. It has been mentioned several times that the piano is a romantic instrument, as the piano exhibits these stylistic traits in its works of the time.

Impressionist and Contemporary works are frequently found as well-prepared transcriptions, and include detailed reductions compiling the extended harmonies and rhythms of the period. Often, these works create difficulty in reduction to piano, as new orchestral sounds came from new instrumental techniques. While Contemporary

works developed into many compositional styles, new tonal and non-tonal sounds emerged. These may or may not be idiomatic to the piano and will be explained in the following chapter.

Of course, all of these suggestions are adjustable and depend on the stylistic traits of composers during each period. Keeping these ideas in mind will make reducing the new score more easily attainable.

Final Considerations

The final step in editing the reduction is to listen to several prominent recordings of well-known conductors and high-quality orchestras. Many orchestral works and styles are captured in an aural history; that is, some composer's stylistic choices are traditional and can only be notated to a certain extent in current notational systems. Conductors also have unique traits, often approved by the both the composer and the court of public opinion. Tempos vary widely, and the pianist must be prepared to play the reduction at a variety of speeds, which will play an integral part of adjusting the reduction. The pianist's ears and intuition provide extremely important information on the creation and quality of sound to be reproduced.

It is essential and informative that the pianist attend live rehearsals and performances, and listen to high-quality audio recordings (and to watch corresponding video if available). This gives the pianist insight into the qualities of each instrument, as well the balance and blend of an orchestra as a whole. Composers frequently orchestrate their harmonies and melodies in predictable patterns, giving a recognizable *timbre* to their works. By compiling and researching these patterns, the

pianist can build a database of composers' attributes in order to improve time and efficiency of future work of reductions.

Chapter 4: Executing Reductions

Once the reduction has been prepared, the pianist must begin to execute the new work. In order to achieve a sustaining tone on the piano, every effort must be taken by the pianist to overcome the immediate decay of tone upon attack. This unavoidable task may seem impossible, but with some techniques and practice, the piano can effectively imitate orchestral instruments. These techniques include judicial employment of pedals, modification of attack, adjusting dynamic levels, and allocating octave displacement for increased resonance, among others. Above all, the most important aspect of preparing reductions is balancing efficiency with the ability to execute an orchestral sound. This may encompass both adding and eliminating content in the reduction in order to achieve the desired result.

In presenting different qualities of the orchestral instruments, it is important for the pianist to recognize the function and sound of each family. Even though the sound production of each instrument is different from that of the piano, the piano can imitate the quality of tones. This serves two purposes: to express the full sonorities of the piano; and to give the collaborator orchestral cues.

Pedaling

While a key is pressed on the piano, that note will continue to resonate until the key is released. The damper pedal, furthest right on the piano, lifts all dampers from the strings, allowing full resonance across every note. This allows the piano to sustain sound after a key is released. The piano is designed to expand acoustic resonance with a resonant soundboard and strategically placed bass strings of lower

register. These thicker strings lie above higher pitched strings, catching and resonating the higher harmonic overtones.

The damper pedal is not an on and off switch; rather, it is an adjustable fulcrum. In addition to fully engaged or fully disengaged, the damper pedal can hover just above the strings, and with delicate adjustments, manipulate the sustain of certain frequencies over others. This technique, termed half pedaling, is especially useful in sustaining a lower-pitched harmony over a higher moving melodic line and increases the pianist's ability to insert additional musical content into a reduction.

The use of the damper pedal in orchestral reductions is the subject of much consternation among collaborative pianists and teachers, as heavy usage and reliance on the damper pedal creates a pianistic and non-orchestral effect. With proper technique and frequent clearing of the damper pedal, the orchestral effect can be gained with minimal tonal bleed across melodic and harmonic shifts.

Often, the pianist can open the damper pedal before playing a note. The tone produced on the piano sharply decreases after initial attack; therefore, even if the intended attack is short and sharp and the damper pedal is closed immediately after, the resonance captured by the open strings will mimic the rounder attack of most other orchestral instruments. In order to clear any muddy tones or for rapid passagework, a technique of fluttering the pedal around the "half pedal" damper pedal point can provide both sustain and clarity.

The sostenuto pedal is the grand piano's last significant development. It was standardized and produced on all Steinway & Sons pianos starting in 1874, and soon

adopted by nearly every quality piano maker.[37] It is located between the damper and *una corda* pedal and is designed to hold open only the keys that are depressed as the pedal is opened. This allows for the held notes to sustain, while the other notes function normally where dampers are engaged upon release of the key. The sostenuto pedal is useful for held notes and chords while other instruments are playing, legato or non-legato. The pedal is operated with the left foot, leaving the right foot to freely use the damper pedal. When pressing the sostenuto pedal, the left foot cannot use the *una corda* pedal.

Because of the sostenuto pedal's rare usage by composers and performers, some pianos do not contain this pedal. It is only found on grand pianos, and its dependability is often dubious. The standardization of the pedal varies across different instruments. On upright pianos, the sostenuto pedal may open a part of the lower range of keys for sustain, while the upper registers operate normally. Often, on upright pianos, the manufacturer will attach to it a felt damper, which can be lowered between the hammer and string to mute the sound for practicing purposes. The pianist must be familiar with the piano to rely on the sostenuto pedal or have comparable solutions to execute the reduction.

The *una corda* pedal on the grand piano is designed to shift the hammers slightly to one direction (usually to the right). When a key is depressed and the *una corda* pedal is activated, the hammer hits only one string instead of all three, resulting in a modified tone and decreased volume. There is a common misnomer that the *una corda* pedal is a "soft" pedal. In principal, the effect can render the volume of an

[37] Loesser, 564.

identical attack lower, but the attack speed remains the same. The exception is the upright piano where the effect is similar, but the hammers are instead moved closer to the strings, thus reducing momentum and creating a softer attack.[38]

Strings and brass are both commonly muted instruments. The string effect of *con sordino* employs a rubber or metal mute placed on the bridge of the instrument to reduce the vibration of harmonic overtones and creates a muted effect. This, with an adjustment of attack, is a generally appropriate employment of the *una corda* pedal. The muted qualities of brass instruments generally decrease in volume, but more prominently alter the *timbre* of the instrument, based on a variety of materials and shapes. This is not the best time to engage the *una corda* pedal, as an adjustment in attack is most effective. More detail about individual instruments' sound qualities is explained later in this chapter.

Pedaling is an individual skill possessed by every professional pianist with many habits engrained from years of use. Adjusting from subconscious habits takes an increased focus beyond traditional pianistic voicing, tone production, and sound management.

General Orchestral Techniques

While the pianist manages resonance by hitting a felt hammer to a resonating string, most instruments sustain a pitch in a different manner. Most instruments play legato and non-legato articulations yet have distinctive qualities and articulations when employed.

[38] *Ibid.*, 172-173.

Pianists, like all musicians, are taught from a very early point that management of tone and balance are tenets of sound production. The technique allows the pianist to manage sounds of every style and era of piano repertoire, balancing voice, register, and tone in a developed and expressive manner. The most direct manipulation of tone comes from the attack of the key. Modifying the attack involves both voluntary and involuntary adjustments; the techniques suggested here are compatible with most schools of technique.

Imitating certain instruments on the piano varies according to their corresponding tones with a sharper or softer attack of the key. Playing with the pad or tip of the finger will drastically alter the tone, as well as adjustments of finger placement on the key, and decision of fingering for each instrument or texture. Pianist Josef Lhevinne writes, "…the smaller the surface of the…finger touching the key, the harder and blunter the tone; the larger the surface, the more ringing and singing the tone…if you find a passage requiring a very brilliant, brittle tone you employ a small striking surface, using only the tips of the fingers."[39] In addition, close attention must be paid to the speed of attack for tone variation, and every key must be fully depressed to the bottom of the key bed; this is proper piano technique across all genres and styles.

In general, instruments of each family play similar passagework and textures ideal to each instrument. For example, the piccolo is often scored to double the flute at one octave higher. The flute, in turn, often plays unison with the oboe, which may

[39] Josef Lhevinne, *Basic Principles in Pianoforte Playing* (New York: Dover Publications), 18-19.

be scored either at pitch with the flute, or one octave lower. In order to achieve a balanced orchestral sound, the pianist in this scenario must choose to "voice out" the middle or lower octave, as these higher instruments are tuning and balancing to the principle lower instrument. The same situation applies to voicing to the cello while it is frequently joined one octave lower with the double bass. The double bass is frequently a complimenting instrument to the cello because of its dark *timbre* and harmonic reinforcement in the orchestra.

The piano's Romantic and expressive design produces a wide range of dynamic and voicing possibilities. Few individual instruments encompass the dynamic range of the piano, as the piano can in turn mimic the dynamic expanses of the orchestra. Pianistic voicings generally extend high and low in pitch for clarity of voice and resonance; however, the majority of orchestral melodic content is not found at the ends of registers, rather it is in the center registers.

The general rule of thumb is to be aware of how you use the thumbs. By hearing the center notes well, the highest and lowest tones blend inward to create an orchestral balance of tone. This type of voicing requires a shift in most pianists' technique where the focus is on the outer fingers of both hands (5, 4, and 3) which are often voiced out to denote the highest and lowest lines as bass and melody with the other fingers providing harmony. Due to the natural weight distribution of the musculature of the hand, pianists tend to shy away from inner finger voicings of the right hand (1 and 2) while simultaneously playing harmonic or octave passages for the piano. In a parallel manner, the left hand generally emphases a deep and robust bass tone when playing the lowest registers (4 and 5). The opposite is generally

standard for producing an orchestral tone; the highest and lowest instruments generally tune and voice to center pitches, which play more prominent tones.

Orchestral dynamics eclipse the piano's capabilities in terms of decibels and sustain, but the piano can create the orchestral gradual and terraced dynamics. In interpreting piano repertoire, pianists allow for *subito* (sudden) dynamic shifts from *forte* to *piano* in order to dampen the strings for subsequent soft passages. Orchestras often do not utilize this method of *subito* dynamics. Attention should be paid so that the subsequent *piano* passage enters with accurate rhythm and minimum pedal bleed from the previous passage. The same principle of adjustment applies to orchestral rhythm.

The spacial design of the keyboard means that it takes time to move across the keyboard. In addition, solo pianistic technique and style through the Romantic era incorporated *rubato* and dynamic intervention to highlight this inherent quality of pianism. By not allowing a stretch of tempo or rhythm sufficient to accurately land at the desired interval, the pianist risks an uncontrolled tone or note error to be produced.

Orchestral rhythm cannot be treated the same way. Most non-keyboard instruments have methods of shifting registers not directly correlated to pitch distance: strings may change to a different string, or travel a significantly shorter distance than the piano; woodwinds may use an octave key and a change of breath pressure to achieve large leaps; and brass will change valve length, or harmonic lip buzz to a different partial.

In managing large leaps, the pianist must employ one of three options. First, redistribution of notes. Reassignment of hand is preferred where the pianist plays lower content with the left hand, and the higher content with the right hand. This minimizes the margin of error with rapid movement across the keyboard. Second is adjusting the fingering. Traveling the least distance minimizes error and controls the tone. It is unwise for the pianist to end a passage on the right hand fifth finger, leaping upward to begin on the thumb, as this is the largest possible distance for hand travel. Traveling the shortest distance is ideal. With the natural strength and topography of the hand, fingers 3 or 5 are best suited for upward leaps in the right hand and downward leaps in the left. Third is the least desirable solution, which is rewriting melodic content not at pitch. Occasionally a phrase may end on a low note while a new phrase begins on a higher note. If no other options are available, omitting a note that is doubled in order to travel without breaking the rhythm may be permitted.

In a similar manner, each pianists' hands will be intrinsically different in reach, resulting in a varying technique and treatment of larger intervals. Commonly found in orchestral reductions is a bass note attached to a harmony of a M10 or greater. If possible, avoid breaking intervals over an octave, or redistribute into other hands or octaves, as they disrupt the horizontal alignment of the orchestral sound.

Sustaining across long note durations is nearly impossible on the piano. First, the ideal situation involves no restrike of the held note. Once the sustain has finished, listen to and connect the tone of the following note at the same dynamic and texture as that of the previous note. This blending dovetails nicely to create an illusion of

sustain. All efforts should be made to not reattack the sustain. In the same vein, the double bass and cellos often operate simultaneously with the double basses an octave below. Playing the lower octave offers both warmth and sustain, as the lower registers on the piano can resonate longer than the treble register. Often the lower octave is omitted from the reduction; therefore, the pianist must be judicious in its use, especially with lighter stylistic characteristics as part of the Classical era.

Strings

Strings comprise the majority of the members of the orchestra. The standard order of strings is Violin 1, Violin 2, Viola, Cello, and Double Bass. Most often the melody comes from the violins because of the quantity and range of the section. Combined with the rest of the string family, the violins' *timbre* and unity provide a foundation of sound for the orchestra.

Known for their *legato* and expressive sound, strings by default play with the bow (*arco*) using the designation of upbow and downbow. The size and resonance of each string instrument varies in its sound qualities. A violin bows across thinner strings that require less pressure to grip and can lightly bounce the bow for rapid articulation and virtuosic elements in its playing. The cello and double bass require more pressure and slightly more time to produce a lower and richer sound on their thicker strings.

The bow and string provide a multitude of tones and sounds. Becoming familiar with common bow strokes is essential and, at the piano, must be paired correctly in order to imitate the articulation. The general tone of bowed strings is best

recreated at the piano by using a slow, weighted attack with the pad of the finger. This softens the attack and creates a round, sustained tone that best imitates the string quality.

In contrast to sustaining notes, the string family's frequent rapid and often successive repetition of notes poses an obstacle to all pianists, regardless of dexterity. The light bouncing of the bow across the string creates a light articulation that is difficult to replicate on the piano. With advancements of key action on the piano, it is possible to repeatedly and rapidly attack a single piano key. Pianists should be detailed and consistent with repetitive alternating fingers, accommodating the number of repetitions, especially in other rapid passagework. The less reliable, alternative methods of producing repetitive notes include splitting repeated notes across an octave, omitting certain repeated notes, or alternating right and left hands to play.

Pizzicato is a non-bowed percussive technique which involves plucking the string, resulting in a harp-like resonance that quickly dissipates. The execution of a *pizzicato* effect at the piano involves no pedal, with a swiping motion to attack the key. This keeps the contrasting tone round and duration shortened. *Pizzicato* passages should always be struck together, though many reductions represent this texture with grace notes or arpeggiated figures.

Tremolo, in the strings, is a rapid alternation of upbow and downbow on a single note or interval to create an energized and sustained sound. A *tremolo* on the piano occurs between two notes and is executed by rotating the wrist. Trill and tremolo are executed in the same manner, though a trill technically involves the interval of an M2 or m2. The orchestral *tremolo* should be struck as a chord or

interval, unbroken, with a lighter and rapid alternation after the initial attack. At the same time, if the *tremolo* involves rapid note or chord changes, it is best to avoid cumbersome and error-inducing complications. In the treble register of the piano, a *tremolo* can sound more pianistic than instrumental. This can be overcome by attacking the chord in its octave and follow by playing the *tremolo* in the middle register. Employing the damper pedal will assist the pianist in creating the *tremolo* texture of sustain and rapid alteration.

Other techniques are commonly employed in orchestral string playing. *Con sordino* involves the use of a mute, usually rubber, placed on the bridge of the instrument. This collects and reduces certain frequencies, creating a distinctly quieter tone. As previously mentioned, the *una corda* pedal provides a gentle assist to this *timbre*. In addition, *ponticello* is a common *timbre* created by playing with the bow close to the bridge, resulting in less string vibration and a diffuse sound. If this sound is prominent, employ a half-pedal and flutter frequently to diffuse the sound through damper management.

Woodwinds

The woodwind family of instruments is made up of the flutes and reeds. These instruments operate on the principle that splitting air across an edge, whether metal or a reed, creates an oscillation of the air column through the instrument that is controlled into pitches using keys placed down the length of the instrument.

The standard woodwind instruments for the orchestra are flutes, clarinets, oboes and bassoons, and often include piccolo, English horn (also called by its French

terminology, *cor anglais*), bass and E-flat clarinets, contrabassoon, and sometimes the saxophone. Members of the woodwind section number far less than the string section.

Flutes create sound by splitting airflow over a metal lip (the same principle of sound production as that of the organ) to vibrate the air inside a tube. In the lower and middle registers, these qualities give the flute a warm and rich tone that may be called “breathy” while the higher registers create a more sharp and piercing tone. Clarinets function as the main instrument of the single reed orchestral family. A large number of clarinets appear in the orchestra, including the E-flat, B-flat, A, and bass clarinets. Each has a slightly different range and sound quality but function similarly. As a stream of air passes between a single reed and the mouthpiece, the vibration resonates in the instrument to create pitch, generating a clear tone with a wide dynamic range.

Double reed instruments in the orchestra include the oboe, *cor anglais* (English horn), bassoon, and contrabassoon. These instruments create sound by blowing air through two reeds bound together, resonating in the body of the instrument. These instruments are the "reediest" sound of the orchestra because of their characteristic buzz.

The unique *timbre* of woodwinds creates a sound of clean attack, even sustain, clean and clear legato, and an abundance of higher overtone series. The individual characteristics of each family are slightly nuanced, but the pianist should always approach the attack with the tip of the finger to give a crisp attack and avoid overpedaling to catch lower resonances and bleed through legato passages. The soloistic qualities of the woodwinds requires close management of fingering and particular attention to combat tone decay without creating accents. Of similar

importance is the precision of attack in woodwind ensemble. Because of the clean attack of the woodwinds, the pianist must be attentive to simultaneous attack of ensemble. Often there are one to three players per instrument, and each has a distinct prominence in the orchestral timbre. It is important to note when woodwinds are playing unison, divisi, or solo in order to gauge the relative prominence of each voice; however, the general treatment of featuring woodwinds in ensemble is to play the section with clarity and prominence.

Brass

The brass section of an orchestra includes French horns, trumpets, trombones, and tubas. Each player buzzes their lips in a metal mouthpiece attached to the instrument creating a prominent and warm tone. Depending on the length and design of the instrument, the sound quality changes.

The brass have a long history in the orchestra. Modern French horns are valved brass instruments capable of a wide range of chromatic pitches. The French horn uses one hand inside the bell of the instrument that can be altered to change the *timbre* of the instrument. Horns play with a wide range of dynamics, and often play in intervals complimentary to the harmonic series. French horns without valves were used in early orchestral settings, playing a distinct harmonic series that imitate hunting calls. When French horns are not playing solo or prominent parts, they generally provide sustain and support to other orchestral families and provide a consistent and blended tone that can be achieved at the piano with a flat finger and deliberate attack.

Trumpets are on the louder side of orchestral brass, and primarily play for melodic or rhythmic support. The virtuosity and prominence of the solo trumpet calls for a brighter attack using the tip of the fingers with a very legato sound. The legato allows for control of tone of each initial attack in relation to the previous tone.

Overall, the orchestral brass often play in ensemble, and, at the piano, their sound can be achieved with a flat finger and legato articulation to emphasize the sustained, projecting tone. The key to playing brass parts is equal and legato voicing, with the repetition of notes taking a relatively short break between notes; doing so provides the pianist a continuous and consistent sound.

Harp and Percussion

The remainder of standard orchestral instruments includes the harp and a wide range of percussion instruments. All of these instruments involve similar methods of sound production as the piano: they are percussive instruments that produce sound with an immediate decay. The pianist can create these sounds without worrying about the piano's lack of sustain.

The harp is an ancient instrument that has evolved into an expressive and resonant instrument, with a soft, plucked sound capable of rapid arpeggios and glissandos. Although the dynamic level is not relatively loud, the unique round tone of the harp is often featured and distinct in the orchestral *timbre*. As there are no dampers to mute the sound, the harpist must stop the sound with hands or fingers. The pedal should be fully used, and half-changed to create the bleed of sound distinct to the harp.

Percussion instruments have also existed for thousands of years and are extremely varied in design and tone. The range of percussion instruments in the orchestra varies depending on the repertoire and compositional period. Generally, the later the composition was written, the greater range and types of percussion instruments. For the purposes of this dissertation, percussion instruments will be categorized into pitched and non-pitched.

The timpani is the most common pitched percussive instrument found in the standard orchestra. It consists of one to four pitched drums, creating a rumble and bang in the bass register by hitting the drum with mallets. The pitch is adjusted by pedals on the instrument, stretching the drum to vibrate at higher and lower frequencies, and usually compliments the harmony of the musical material of the rest of the orchestra. The pianist may play the timpani at pitch but adding or lowering by an octave and slowing the attack can reduce the bright, resonant overtones of the piano to create a deeper timpani sound.

Other pitched percussion instruments live in the higher registers, such as the triangle, glockenspiel, crotales, celesta, and orchestral bells. These instruments create a clear and bright pitch, and the pianist should play these notes with a fast attack and plenty of pedal. This captures the high harmonic tones associated with hard mallets hitting these metal instruments.

Many other percussion instruments are unpitched and create a variety of sounds, including the gong, snare drum, bass drum, and cymbals. Once again, the high harmonics and clarity of pitch of the piano draw the ear to hear a defined tone and avoiding this is essential with unpitched instruments. Every undefined pitch

should be created in the lowest register of the piano with special attention given to the duration and volume of the percussion. The gong creates a long and undefined ringing and is best replicated with clusters of semitones of the lowest notes of the piano. The snare drum and bass drum give less reverb and require a lighter touch and less pedal for this extremely resonant range of the piano.

On a final note, the pianist should be open to using extended techniques to represent non-pitched percussion, including non-piano sound production. The sliding of a metal material over a cymbal could be created by scraping a piano string with the fingernail or vocalized with a "shhh". A slapstick or a whip can be made by clapping the hands together, or by slapping the side of the piano. Woodblocks can be recreated by drumming the key lid with the knuckles. Investigating each of these solutions allows the pianist to be creative in their approach to orchestral reductions.

Conclusion

The piano remains a multi-faceted instrument for composers and performers alike. Composers wrote with one purpose in mind: to explore harmonies and sounds, using the piano as an accessible medium for an orchestral perspective. The iron skeleton and reverberant wood box create an unparalleled instrument capable of enduring the strength of virtuoso techniques. Composers responded to these improvements with an outpouring of louder, longer, and more expressive compositions, as well as accessing the piano's ability to substitute for orchestral works. In addition to solo repertoire, pianists have access to a wide range of orchestral works, preserving and making accessible a wealth of musical compositions from all genres.

The transcription of melody and harmony is an early form of recording musical ideas. Arrangements of these symphonic works led one step closer to the advent of the era of recordings around the turn of the nineteenth century. In capturing the exact notes across the expanse of the piano's keyboard, one or two players could now make available old and new works in the home setting. With the rise of mechanical sound production by cylinder, LP, and other recording devices, the purpose of the piano in the home started to become obsolete as a means of musical production.[40] The genre of transcription faded into the past as the recording became the sound of the future.

The genre of transcription paralleled the voice of the piano, embodying orchestral characteristics and creating new expressive voices. It is vital for pianists to learn from orchestral sounds for two reasons. First, capturing the extreme range of orchestral tone and harmony relates directly to piano repertoire. Second, piano virtuosity is not solely dependent on extreme technical proficiency, but is the result of reproducing nuanced, balanced, and controlled tones. Every pianist will gain immeasurably by understanding the methods of how sound is translated from the orchestra to the keyboard and back again. However, for the collaborative pianist, this information is an indispensable and vital component of their skill-set and will enhance their ability to function in many more areas of today's musical world. It can also help each person in finding their own special and unique pianistic voice.

[40] de Waal, 8.

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A detailed biography and compilation of Rachmaninoff's personal and professional life. Harrison captures details of the composer's varied and personal life to give insight to his development as a composer, pianist, and conductor.

Joseph, Charles M. *Stravinsky's Ballets*. New Haven: Yale University Press, 2001.

A survey of the numerous ballets of Stravinsky's oeuvre. Joseph combines in-depth biographical information with the innovative advances of Stravinsky that led him to become one of the greatest twentieth-century composers. His ballets encompass groundbreaking compositional advancements and contributions to the Classical music repertoire.

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A series of articles investigating performance practice of Brahms' works. Musgrave and Sherman compile essays on the relatively new aspect of public musical performances developed during Brahms' professional career.

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Biography of renowned virtuoso and concert pianist Vladimir Horowitz. Plaskin details the good, bad, and ugly parts of Horowitz' life in as an icon. The details of the "last great romantic" include friendships and encounters with the greatest musicians and composers of his lifetime.

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A compilation of major reductions and transcriptions for the piano. An under-researched topic, piano reductions remain an elusive, secondary topic of discussion for composers and performers. Roberge compiles a list of familiar orchestral works, reduced by the composer for a number of pianistic settings, while outlining the processes and history of the genre.

Taruskin, Richard. Liner notes to *Rachmaninoff Plays Symphonic Dances: Newly Discovered 1940 Recording*. Sergei Rachmaninoff and Musicians. Marston Records 53022-2. CD. 2018.

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