The Expressive Phrasing Concepts of Marcel Tabuteau Applied to Concerto in Eb Major for Horn and Orchestra, K. 417 by W.A. Mozart

D.M.A. DOCUMENT

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Abstract

The purpose of this document is to explore the musical concepts of Marcel Tabuteau, a pioneer of the new American tradition of oboe playing in the early twentieth century, and investigate the potential influence his ideas have on the interpretation and performance preparation of Mozart’s Concerto No. 2 in Eb for Horn and Orchestra, K. 417. This document summarizes the highly successful pedagogical method of Marcel Tabuteau and details how this method, when incorporated into a horn teacher's pedagogical method, will benefit their students who are preparing for performances and auditions.

Most notably, Tabuteau created a system of numbers to describe the shape and direction of a phrase in detail. He also had a keen interest in how notes should be grouped to maximize their expressive quality. Above all, he was fascinated by the concept of creating the sensation of forward motion in a musical line. He believed that motion was essential to performing expressively and was dedicated to teaching this art to his students.

Without expression, a musical performance becomes dull and lifeless. Even if the technique is dazzling, the emotion and passion of the music will remain untapped. The expressive quality of the music can be unlocked only through careful preparation and study of the inner workings and underlying harmonies of each phrase. Tabuteau
demanded that his students play more than just notes on the page and inspired them to look deeper into how each note is connected. His lifelong quest was to develop a method of fully expressing his musical intent, both verbally in lessons and through his oboe on the concert stage. Through careful and thoughtful utilization of his methods, Tabuteau’s legacy of inspiring musicians will continue to advance the artistry of our musical craft today.

While some recordings of lessons, interviews and master-classes exist; there is very little original material available. The subject of note grouping, which is the foundation of Tabuteau’s musical concepts, is also lacking in source material. By studying the material created by the students of Tabuteau, however, it is possible to piece together a working knowledge of his pedagogical process that was so highly successful, as evidenced by his students holding positions in many of the major symphony orchestras in the United States. This document incorporates Tabuteau’s musical concepts into a method of interpretation for horn players using Mozart’s Concerto No. 2 in Eb for Horn and Orchestra, K. 417 as an example.
Dedication

This document is dedicated to Mr. Bruce Henniss and the horn studio at The Ohio State University.
Acknowledgments

This document could not have been written without tremendous love, support and encouragement from my wife and best friend, Allyson. I also wish to express my deepest gratitude to my teacher, advisor, mentor, and friend, Bruce Henniss for his unfailing belief and faith in me. Thank you to committee members Joe Duchi, Dr. Daryl Kinney, and Dr. Russel Mikkelson, for their wisdom, inspiration, and advice through the entire DMA process.

Thank you to Dean and Jackie Merchant for providing me with a home away from home while completing my DMA and for their incredible generosity - You are wonderful role models to me and I am truly humbled and grateful for your love and support. Special thanks to Jonas Thoms for helping me figure out the frustrating world of Finale software, Reid Knuth for his expertise in harmonic analysis, and Fred Cohen for providing me with new material and a fresh perspective on the subject. Finally, to my family and friends: your unwavering love and enthusiasm through the years is truly a blessing to me.
Vita

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Fields of Study

Major Field: Music
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Chapter 1: Introduction and Survey of Literature

The purpose of this document is to create a performance guide for Mozart’s Concerto No. 2 in Eb for Horn and Orchestra K. 417, using the expressive phrasing concepts of the famous oboe performer and pedagogue, Marcel Tabuteau. The goal of this study is to enhance the expressive quality of performance among horn players and to foster an interest for further research into the subject of expressive performing.

Source material for studying Marcel Tabuteau and his teaching method is, unfortunately, quite scarce. The most significant primary source available is a recording entitled, *The Art of the Oboe*, made in 1966 shortly before his death, which features Marcel Tabuteau teaching and playing.\(^1\) On this recording, Tabuteau briefly demonstrates and discusses his number system, which is the foundation of his expressive phrasing concept. This LP was rereleased as a CD in 1996 under the title, *Marcel Tabuteau’s Lessons* and contains additional liner notes from his former students, Laila Storch, Wayne Rapier, and John de Lancie.\(^2\) Another short discussion of the number system is preserved on a CD that accompanies the biography of Tabuteau by Laila Storch entitled, *Marcel Tabuteau: How Do You Expect to Play the Oboe If You Can’t Peel a Mushroom?*.\(^3\) This

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book serves as the definitive and exhaustive biography of Tabuteau’s life and is certainly a valuable resource for this document. The only direct written source from Tabuteau is a short article, “Marcel Tabuteau of the Philadelphia Orchestra Summarizes Training” published in *Musical America* in 1944 which provides biographical background but little else.⁴

Fortunately, many former students of Tabuteau have taken it upon themselves to document and preserve the number system of their teacher. The most significant and complete compilation of Tabuteau’s teachings is found in David McGill’s book, *Sound in Motion: A Performer’s Guide to Greater Musical Expression*.⁵ McGill goes into great detail about the intricacies of note grouping and the number system. The book contains numerous musical examples that demonstrate how numbers and note grouping can be used to create expressive phrasing. Although the material presented in this book represents McGill’s own interpretation of Tabuteau’s ideas, it is extremely well organized and is a valuable resource that will be relied upon heavily in this study.

Other secondary sources on the subject of Tabuteau’s number system include published articles such as “Toward a Concept of Tabuteau’s Phrasing” by Dominique-Rene de Lerma⁶ and “The Phrasing Styles of Kincaid and Tabuteau” by Lois Herbine.⁷ These articles are not as comprehensive as McGill’s *Sound in Motion* but they do provide additional insight into the life as a student of Marcel Tabuteau.

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Several dissertations and academic documents have been written regarding the life and teachings of Tabuteau such as: *The Tradition of the Paris Conservatory School of Oboe Playing with Special Attention to the Influence of Marcel Tabuteau* by Donald Hefner, *Marcel Tabuteau: Pedagogical Concepts and Practices for Teaching Musical Expressiveness: An Oral History* by Melissa Stevens, and *Marcel Tabuteau and His Art of Phrasing Applied to Suite No. 6 for Cello (Transcribed for Viola) in G Major, By J.S. Bach* by Eliza Thomason. Each one of these documents serves to preserve and develop the musical concepts of Tabuteau in a unique way.

Although not directly associated with the teaching’s of Tabuteau, James Thurmond’s book entitled: *Note Grouping: A Method for Achieving Expression and Style in Musical Performance* is the primary resource available in the field of note grouping. As a horn player, Thurmond did not study directly with Tabuteau but he was a student of Mason Jones who was a colleague of Tabuteau at the Curtis Institute of Music and Principal Horn of the Philadelphia Orchestra. Many of Tabuteau’s ideas on note grouping can be found in Thurmond’s book.

Numerous other books and documents have been written regarding musical expression. Although these texts are useful in developing a background in the subject of

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expressive performance, this study will focus primarily on the sources that refer directly
to Tabuteau.
Chapter 2: Marcel Tabuteau- Background

Marcel Tabuteau was an oboe player and teacher who had a profound influence on the development of a national style of oboe performance in the United States. His concepts of tone color, musical expression, and phrasing have reached far beyond the realm of the woodwinds, however. Pianists, brass and string players have also benefited from his life-long passion for creating beautiful music.

Marcel Tabuteau was born in Compiègne, France on July 2, 1887. He began his musical studies at an early age and was performing with the local community band by the age of 9. Because the band was in need of woodwind players, Marcel was fatefully assigned to play the oboe.12 A very important early musical influence to Marcel was his brother-in-law, Émile Létoffé, an accomplished violin soloist. When Marcel started to show some talent with the oboe, it was Létoffé who urged him to apply to the Paris Conservatory.13 In 1902, Tabuteau began his studies at the conservatory with the famous Georges Gillet. In the early 1900’s, the French school of woodwind playing was regarded as the finest in the world.14 It was under Gillet’s tutelage that Tabuteau developed the sound and tone color concepts of the traditional French school of woodwind playing.

12 Storch, 8.
13 Storch, 14.
14 Hefner, 139.
In 1905, a young conductor named Walter Damrosch travelled to France in search of new talent for his orchestra in New York. He felt that the quality of musicians available to him from local sources was not enabling the New York Symphony to reach its full potential. Damrosch was “convinced that his New York Symphony needed an infusion of French woodwind players, whose style he had long preferred and that he particularly envied in the Boston Symphony.” Upon the recommendation of Gillet, Marcel Tabuteau was among the five musicians that Damrosch selected to bring back to New York.

After one season with the New York Symphony, Tabuteau was called back to France to fulfill his military duty to the country. All young Frenchmen were required to serve at least three years in the military. Tabuteau enlisted under a special provision for graduates from the Paris Conservatory, however, and after one year of performing with the national service band, he was allowed to return to New York to reassume his position as principal oboe.

After several more seasons with the New York Symphony, Tabuteau joined the Metropolitan Opera in 1908 under the direction of Arturo Toscanini. Shortly thereafter, he was invited to join the Philadelphia Orchestra by their conductor, Leopold Stokowski. Stokowski had been on a decade long quest to find a principal oboist that would elevate the musical standards of his orchestra. Upon hearing Tabuteau in a performance of

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16 Storch, 52.
17 Storch, 59.
Tristan and Isolde by Wagner at the Metropolitan Opera, Stokowski realized he had found his oboist.\textsuperscript{18}

It was here in Philadelphia that Tabuteau truly blossomed as a musician. Stokowski’s demand for individual musical integrity and blend across the orchestra was quite influential in the refinement of Tabuteau’s concepts of musical expression. Stokowski approached the interpretation of the music from a very unique viewpoint. He valued individual expression over any unified standard. In an interview late in his life, Stokowski reminisced on the instructions he used to give to his orchestra:

Each one of you must be a poet as well as a great player of your instrument, and through your poetic feeling, you can express every kind of music. Do not permit yourselves to become, as is the tendency in the world today, standardized, so that you all think and feel the same way. . . Do not be alike. Be different as you really are in nature. No two violins are alike. No two bows are alike. No two hands are alike. No two nervous systems are alike. No two minds are alike. No two emotional characters are alike. You are all different. Be different! Don’t standardize yourself. And put all those differences, all that richness of different coloring of personality into the music.\textsuperscript{19}

\textsuperscript{18} Storch, 89.
\textsuperscript{19} Storch, 89-90.
Stokowski had a passionate interest in the quality of tone color that his woodwind section produced and always demanded that the musicians pay particular attention to blend. In order to satisfy the conductor’s desires for a rich oboe color, Tabuteau began to experiment with various aspects of reed and oboe construction. By altering the shape of the reed surface and bore of the oboe, Tabuteau discovered that he could preserve the traditional aspects of the French woodwind method while at the same time emphasizing lower overtones and partials to create a richer, more stable tone. This remarkable deviation from the ubiquitous French oboe standards of the 19th century is often considered the dawn of the new “American School” of oboe playing. 20

In 1924, Marcel Tabuteau was invited to teach oboe at the newly established Curtis Institute of Music in Philadelphia, PA. Throughout Tabuteau’s thirty year tenure at the Curtis Institute of Music, he taught many of the country’s premier oboists. He also taught orchestral winds classes, percussion classes and string classes which greatly expanded the number of students who benefited from his passion for finding forward motion within a phrase to create an expressive musical line. It was during his tenure at the Curtis Institute of Music that Tabuteau developed his famed number system in order to more clearly describe his method for finding and creating the sensation of forward motion in music. Despite his profound success as a performer, Tabuteau is most famous for the development of this number system.

Many of Tabuteau’s students hold prominent positions in the major orchestras of the U.S. today; a lasting testimony to the brilliance of his teaching method. He retired

20 Hefner, 147.
from the Philadelphia Orchestra and the Curtis Institute of Music in 1954 and moved to
the south of France. Marcel Tabuteau passed away from a heart attack at his home in
Nice, France on January 4, 1966 at the age of 78.\textsuperscript{21}

\textsuperscript{21} Hefner, 155.
Chapter 3: Musical Expression

For many years, it was a common belief that expressive playing was impossible to teach. It was regarded as an element that was divined from a musician’s imagination only after mastering all of the technical challenges of the instrument. While theorists and philosophers have argued for centuries on the expressive qualities of music, very few concrete rules have been devised as to how a phrase should be interpreted in order to be expressive. In Adolph Christiani’s book from 1885 titled, *The Principles of Expression in Pianoforte Playing*, he asks: “What is the use of writing volumes on musical emotion, and then being obliged to confess that no rules can be laid down for its expression?”22 He contends that many musicians perform by feel rather than by intellect leading to misinformed and overly exaggerated performances that lack nuance and artistry.23 Without any overt rules governing how phrases should be interpreted expressively, a growing and unsettling trend began to emerge in early 20th century performances that produced technically dazzling renditions of the classics that were emotionally and expressively dull. Mathis Lussy, a 19th century Swiss music theorist, begins the preface to his book, *Musical Expression*, by stating: ”Expression – the essence of music- seems to

23 Christiani, 23.
remain the property of a few gifted spirits, and brilliant execution is still oftener met with than expressive playing.”

While progress has been made in the development of methods and concepts to teach musical expression, there is still a trend among musicians today of technically brilliant performances that fail to move the audience. Marcel Tabuteau noticed this same tendency while teaching at the Curtis Institute of Music. Tabuteau was obsessed with finding a way to train his students to play more expressively. In order to do that, he first had to define for himself what it meant to play expressively.

The Oxford English Dictionary describes expression in regards to music as, “The manner of performance suited to bring out the feeling of a musical passage.” This indicates that expressive playing is closely associated with feelings or emotions. This concept alone did not satisfy Tabuteau in his quest to define musical expression. He noticed that simply telling his students to play with more feeling yielded mixed results at best and was far too vague to describe in detail.

Tabuteau argued that simply feeling the music wasn’t good enough. For him, playing by feel during a performance was too unpredictable and unreliable; feelings and emotions were fleeting and unstable, and, therefore, could not be relied upon to create consistently expressive performances night after night. David McGill addresses this dilemma in his book that summarizes the teachings of Tabuteau entitled, Sound in Motion:

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26 McGill, 17.
Sadly, most young musicians are not taught that there are musical principles that can guide one’s phrasing choices. They are most often led to believe that in order to be a good musician, all one needs to do is get control of the instrument, learn how to read music, and then just feel it. Because of this lack of understanding, many musicians have very little to say about the music itself in performance. They make guesses at how best to express emotion. But there is a better way to make music than simply groping for ‘what feels good.’

Tabuteau offers this concept as an alternative: “I have always been in favor to play as I think. Of course, the ideal combination would be to play with thinking and intelligent feeling.” This viewpoint echoes the opinions of Adolph Christiani:

When fire and impulsiveness of emotion are held in check by the restraining and regulating influence of intellect; when the repose and positiveness of the latter are stirred by the spontaneous inspiration of the former, the one supplying what the other lacks, both going hand-in-hand; then this blending of soul and brain, accompanied by faultless technique, results in the highest attainable executive perfection and artistic beauty.

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27 McGill, 33.
28 McGill, 17.
29 Christiani, 19.
To play as you think requires much more academic preparation. Each phrase must be carefully thought out and prepared according to its musical structure. Furthermore, when asked why a particular phrase was played in such a way, the musician will have a logical and well thought out answer. In this method of expression, the musician is still permitted to generate a personal emotional response to the music, but these feelings are always moderated by a concrete, intellectual plan based on a structural analysis of the musical phrases. Tabuteau always told his students, “If [you] think beautifully, [you] will play beautifully. For it is what you have to say in music which determines the quality of your performance.”

Understanding and presenting the structure of a phrase is critical in creating a musically expressive performance. Clark’s *Pronouncing Dictionary of Musical Terms* defines musical phrasing as:

> The art of dividing a melody into groups of connected sounds so as to bring out its greatest musical effect, including also the placing of accent-cres. and decres., rall. and accel., rubato, etc., -and in pianoforte music, the varieties of touch. In vocal music, it refers chiefly to the breathing places; in violin music, to the bowing.

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This definition seems to define Tabuteau’s concept of phrasing completely. Of greatest concern to Tabuteau in creating an expressive musical phrase were the groupings of notes and how they were connected, clear presentation of the direction of the phrase, the qualities of the up bow and down bow inflections, and the placement of breaths.

Tabuteau often borrowed terminology and concepts from other instruments in his teaching. He taught his students to play scales while internalizing the nuances of the up and down bow of a string instrument. As a result, each note of the phrase (in this case, a scale) had an assigned function. Often, that function was to lead to the next note and the next. These were considered to be “up” bows. Other notes served as arrival points or “down” bows. This bowing terminology was used by Tabuteau to describe the stress/release or anticipation/culmination of a musical phrase. Since the intensity of the sound naturally grows on an up bow as the weight of the bow increases toward the frog and then releases on the down bow as the weight diminishes, there is a natural rise and fall or stress and release to the pattern. By imitating this sensation on a wind instrument, the musician can benefit from the forward motion or anticipation that this creates. However, once the anticipation has been created, it is vital to not breathe in between the up and down-bow inflections so as not to disrupt the natural progression. When these functions are fully appreciated and realized, music becomes much more expressive and enjoyable both to the audience and to the performer.

A phrase in music is essentially equivalent to a poetic verse. Poetic prose has a natural progression of rising and falling; pushing and pulling; stressing and releasing. In a

32 Stevens, 137.
33 McGill, 79.
written language, this is all governed by a complex system of punctuation that indicates the beginning and end of a phrase and where to pause or breathe. Without attending to the rules of the punctuation, a performance of a poem lacks the clarity to effectively express the emotion of the work.

Music notation does not utilize a comparable system of punctuation. Modern music notation actually obscures the musical grammar and does little to show the true expressive qualities of a phrase. It is, therefore, the responsibility of the musician to develop an informed interpretation in order to successfully decipher and express the intended emotions of the music.

Tabuteau believed that expressive playing is created by motion, or rather creating the sensation of forward motion. This motion is created by the natural attraction of the upbeat to the downbeat or from action to rest. Tabuteau firmly believed that “music has lift and resolution, motion and rest.”34 How each note leads to the next is crucial to the communicative power of a phrase. McGill writes: “Changing pitches alone is not enough to create forward motion. The power to communicate resides in forward motion thoughtfully applied to the notes. Music is not notes. Music is what the notes do.”35

The printed music on the page, however, does little to encourage a musician to play with forward motion. Notes and bar lines do not visually mimic the shape of a phrase. When the notes are performed as they appear, there is no connection from one note to the next and any semblance of musical line is lost. These dots must somehow be transformed into a continuous, unbroken line. Modern music notation groups notes into

34 Herbine, 22.
35 McGill, 29.
beats and measures to insure that there is a unified interpretation of the rhythm. If music is performed according to these divisions, it becomes devoid of expression and static. Care must be taken to not let these divisions influence the natural structure and flow of the musical phrase.

In an effort to look beyond the expressive limitations of music notation, Tabuteau established several methods of phrasing in an attempt to be as specific as possible in his teaching. In particular, he developed a profound interest in how notes are grouped together.
Chapter 4: Note Grouping

The basic notion of note grouping is to link notes that have an upbeat function with notes that fulfill a downbeat function, wherever they may fall within a measure or phrase. The natural tendency for the upbeat to pull forward to the downbeat is what Tabuteau believed creates the sensation of forward motion in music. Modern music notation places a large emphasis on rhythmic and metric uniformity. While this is important when looking at a large, polyphonic score, it does little to aid the performer in understanding the true structure of a phrase. Since the downbeat is the most unifying moment in music, and therefore, the most valuable to a conductor attempting to keep everything in order, it has become the structural keystone of music notation. The beaming system groups the downbeat to the upbeat, which looks very organized, but visually breaks the important bond of the upbeat leading to the downbeat.

![Figure 4.1](image-url)  
Traditional notation
However, to beam the notes in a manner that visually links the upbeat subdivisions with the following downbeat creates notation that is difficult to read and would be disastrous in an ensemble setting.

![Figure 4.2 Note grouping with brackets](image)

By avoiding the tendency to play notes as they are metrically grouped on the page, the performer is exposed to entirely new vocabulary of expression. The terms *upbeat* and *downbeat* do not necessarily refer to the metrical placement of a note, but rather the inflection and function of a note. While each musical passage must be treated uniquely, there are several principles that can be used to guide the note grouping process and provide an effective framework from which to work. Tabuteau strived to find a better way to communicate the expressive qualities of the music both through his playing and his teaching. He believed that the key to enhancing the expressive quality of the music was through note grouping.

In the most basic grouping, an upbeat leading to the downbeat; there is a natural pull; a tendency of forward motion that is universally felt by both the performer and the audience. The upbeat inflection creates an expectation that is satisfied only by the arrival of the downbeat inflection. This up/down motion feels inherently natural because it can,
in fact, be found throughout nature. David Blum discusses this topic in his book titled, *Casals and the Art of Interpretation*: “Nature is permeated with an unceasing ebb and flow, manifest in the change of seasons, the alternation of day and night, the movement of tides. Perpetual oscillation is at the core of biological life.”\(^{36}\) Breathing, the most basic and necessary motion in life, moves in and out. Waves rise up and crash down. Even the sun and moon rise and set. Expressive music follows the same natural progression from stress to release, from dominant to tonic, and from upbeat to downbeat. It is important to note, however, that each downward/outward motion only occurs following the upward/inward motion. The intensity or character of the downward motion is directly influenced by the intensity or character of the upward motion. Therefore, if more intensity and energy is given to the upbeat, the forward motion created by the natural pull to the downbeat will be greater and the musical performance will be more expressive.

This idea of motion being necessary in music does not originate with Tabuteau. The ancient Greeks intuitively regarded music as an art of movement. James Thurmond discusses this in his book entitled *Note Grouping*:

In ancient Greece, the arts were classified into two groups: (1) architecture, sculpture, and painting; and (2) music, poetry, and the dance. The Greeks thought that the “beautiful,” the goal of all art, was achieved by the first group in a *state of repose*; that the different elements composing this group – juxtaposed in *space* – were perceived at one

particular moment of their existence. In the second, however, the “beautiful” was realized in a state of movement; by a succession of its elements during time. It is this quality of movement, or motion, presented during the succession of its elements that is the basis of the enjoyment that we receive from listening to music.\textsuperscript{37}

The Greeks studied this phenomenon with great interest. They equated the pull from the upbeat to the downbeat to dance steps. The time during which the foot was raised to take a step was called the arsis (Gk.: raising) and the time when the foot was on the ground was called the thesis. (Gk.: lowering)\textsuperscript{38} The movement from one step to the next feels very natural and any interruption in the progression from one step to the next often results in the person tripping or stumbling. In music, the progression from one note to the next should feel as natural and easy as taking a step and care should be taken to avoid any missteps or interruptions in the movement from one note to the next.

\textsuperscript{37} Thurmond, 35.
When we speak out loud, we are essentially grouping letters into words, words into sentences and sentences into paragraphs. Without such groupings, the letters on the page would appear jumbled and without meaning as in the example below:

THEWEATHERISNICETODAY

Figure 4.3
Words without groupings

By grouping these letters into words, suddenly a clear and understandable sentence emerges:

THE WEATHER IS NICE TODAY.

Figure 4.4
Words with groupings

In any spoken language, there is a grammatical system in place to arrange letters and punctuation into words, sentences and phrases that can be easily understood and comprehended. These punctuation marks and letter arrangements are intended to inform the reader where to breath, pause, inflect, and stress. In the modern musical language, however, there is no written grammatical system. The conundrum of deciding where to breathe or inflect is left up to the performer with little or no visual assistance from the printed music. Marcel Tabuteau had a profound interest in finding the hidden grammar of
music. He realized that printed music is often misleading as to how the notes should be grouped to form coherent phrases.

Words on a page require very little thinking to understand their meaning because the grouping has been done for us. Printed music, on the other hand, is grouped into equal beats and bars that are helpful for rhythmic clarity within an ensemble but do little to inspire the performer to play with forward motion. In order to play expressively, a musician must look past the printed groupings in order to find the true function of each note.

In order to efficiently and accurately describe his ideas, Tabuteau developed a system of numbers to show the hidden groupings of notes and their inherent forward motion from beat to beat. Using numbers to count music is certainly not a new concept. For instance, counting the following passage out loud feels perfectly natural because we have been taught to count this way from the beginning of our musical training:

![Figure 4.5 Counting with numbers](image-url)
However, Tabuteau observed that there is a common tendency for the intensity of the numbers to diminish as we count from 1 to 4, thus creating an unprepared, repetitive, and punchy accent on the down beat of each grouping.\textsuperscript{39}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4_6.png}
\caption{Diminishing intensity}
\end{figure}

As the intensity diminishes, the sensation of forward motion (i.e.: the quality of musical expression) also diminishes. Tabuteau noticed that if these subdivisions were interpreted as leading to the next beat instead, the expressive quality of the phrase was greater. In contrast to how we typically think of using numbers, Tabuteau offered a different method of counting subdivisions.\textsuperscript{40}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4_7.png}
\caption{Note grouping with rhythm numbers}
\end{figure}

\textsuperscript{39} McGill, 39.
\textsuperscript{40} McGill, 39.
The figure always begins with one, which should not be interpreted as the beginning of a phrase but, rather, a starting point. Each subdivision within the beat then serves to lead to the next down beat. This manner of interpreting the subdivisions sufficiently prepares the arrival of the down-beat and resolves the issue of repetitive punchiness and over-accenting. The basic principle that Tabuteau sought to explain to his students with the use of these numbers was to “use the inner notes of each beat to lead to the next beat or use the inner beats of a bar of music to lead to the next downbeat.”

An excellent example of how this method of counting the subdivisions can directly apply to music written for horn comes from the 2nd horn part of Symphony No. 31 by Franz Joseph Haydn. This excerpt is often played in both performances and auditions in the following manner:

![Figure 4.8](image)

F.J. Haydn, Symphony No. 31: Mvt. 4, mm. 65-68, Horn 2 - Traditional

By just looking at the groupings of notes on the page, it is easy to see where this style of performance with unprepared downbeat accents comes from. However, when a student performs this excerpt as it appears on the page, it becomes too punchy and does

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41 Herbine, 22.
42 McGill, 40.
little to support the expression of the solo line in the Horn 1 part. If the method of subdividing this excerpt is slightly altered to allow the subdivision to lead through the measure, the emphasis on the downbeat is prepared, thus reducing the monotony of the downbeat accent, and there is a heightened sense of forward direction within the phrase.

![Figure 4.9](image)
F.J. Haydn, Symphony No. 31: Mvt. 4, mm. 65-68, Horn 2 – With note grouping

This pattern of counting also can be applied to other meters as demonstrated in Figure 4.10 below.

![Figure 4.10](image)
Note grouping in various meters
Chapter 5: Bowings

In his lessons and master-classes, Tabuteau often borrowed terminology from string methods, almost certainly due to his early beginnings on the violin. He used the notion of up-bow and down-bow to describe the necessary inflection and tone color of a group of notes. Obviously, a wind instrument does not utilize a bow to create sound, but by making the bow analogous to the air column, the up-bow/down-bow technique becomes highly relevant to wind players. Using bow movement as an analogy for the air column also provides a helpful visual cue to an otherwise invisible action of wind production. In the example below, arrows are used in place of traditional bowing markings for the sake of clarity among non-string players.

![Bowing pattern](image)

Figure 5.1
Bowing pattern

As demonstrated here, Tabuteau essentially assigns an up-bow function to the internal subdivisions that lead through the beat and a down-bow function to the arrival
points of these forward leading subdivisions. Tabuteau was absolutely insistent that a 

breath should never be taken in between up and down inflections. To do so would 

interrupt the forward motion that is created by the up to down attraction. Adhering to this 

rule greatly reduces the mystery of where to breathe in many musical examples.

Although the teachings of Tabuteau are not very well documented, we do have the 

opportunity to study the same materials that he used to develop and adapt his musical 

concepts throughout his life. One book that was highly influential in the development of 

Tabuteau’s number system and thoughts on phrase distribution was Le Technique 

Supérieure de l’Archer (Superior Bowing Technique) by Lucien Capet. Capet devised a 

similar system of numbers to indicate the distribution of the bow within a phrase. By 

regulating the use of the bow, a string musician avoids the “tasteless fluctuation of sound 

due simply to faulty division of the bow.”

While consistency of bow use is important to string players, consistency of the air 

stream is equally important for wind players in creating an even, well-proportioned 

phrase. If there are bumps or unintended surges in the air stream (or bow stroke), the 

musical line is interrupted and forward motion is impeded. Capet’s method for equal bow 

distribution certainly had an impact on the development of Tabuteau’s musicality. The 

primary goal of his number system was to create a smooth musical phrase that was both 

expressive and forward moving. Using bowing terminology was a perfectly natural way 

for Tabuteau to communicate this concept to his students.

43 Tabuteau, Art of the Oboe. Liner notes.
44 Stevens, 143.
It isn’t necessary to completely understand the technique of bowing to utilize Tabuteau’s analogy but a general idea of its function is useful. String players spend a great deal of time learning to create a consistent sound regardless of the direction of the bow. However, the physics of the interaction between the bow and the string dictates that the down-bow; beginning at the frog of the bow; will have a greater weight than an up-bow that begins at the tip and is further away from the weight of the hand and frog. Therefore, it is customary for an orchestral string section to play the first beat of the measure (or wherever the strongest beat lies within the measure) as a down-bow. Conversely, the notes leading up the strongest beat of the measure are traditionally played as up-bows.

By mimicking the up-bow and down-bow inflection with the air stream, wind players can produce similar nuances in their sound, which vastly increases the variety of sound colors available to them. Capet writes: “One must have at one’s disposal as complete a musical palette as possible in order to obtain the greatest variety in interpretation…” It is clear that Tabuteau took these words to heart. His teaching was infused with finding ways to diversify our musical palettes through gentle manipulation of the air stream, often using the terms up and down to indicate the desired inflection. In his recording *The Art of Oboe* from 1963, after having worked intensely on this concept with a student, Tabuteau says: “You will excuse me with my up and down, but to me it is very important.”

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46 Capet, 29.
It is essential to understand that the rules of bowing are flexible and should react to the musical phrase being played. Just as soon as a rule is stated about bow direction, an example arises in which that rule must be broken. However, there are a few basic principles that are helpful in establishing a basic foundation. Elizabeth Green suggests in her book titled, *Orchestral Bowings and Routines*, that there are two “axioms” or truths about bowing that should consistently govern our choices of bow (or in our case; air) direction: 48

**Axiom No. 1:** Bow direction (down-bow or up-bow) is the foundation of correct musical and rhythmic accent.

**Axiom No. 2:** Bowing is chosen…for the purpose of causing the bow to arrive at such a place in its present stroke that the next note, or group of notes, may be easily and correctly played.

By substituting the string player terminology with the appropriate wind player vocabulary, these two rules still hold true. This helps wind players create several truths of our own:

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1) *Air inflection* is the foundation of musical and rhythmic accent.

2) *The location of the breath* is chosen...for the purpose of causing the *air supply* to arrive at such a place in its present *breath* that the next note, or group of notes, may be easily and correctly played.

The manner in which a wind player inflects their air stream is the primary opportunity for true artistry in interpretation. In music, the notes, rhythms and intonation are universal and are not typically up for interpretation. These are aspects of a performance that will be quite similar from one excellent performance to another. It is in the up/down inflections and the resulting variations in color and intensity that the musical artist’s mark is found. This is where Tabuteau found the source for his forward motion and the means for an expressive performance.
In order for his students to develop the necessary skills to effectively perform with the greatest amount of expression, Tabuteau also developed what he called “the drive.”49 These long tone and scale exercises were intended to address the most difficult aspects of Tabuteau’s concepts. The three fundamental ingredients that Tabuteau believed were essential to performing with peak musical expression were: dynamics, articulation and tone color or intensity.50 The drives developed and reinforced these skills so that the performer would have the broadest assortment of options available to bring to a performance. Each of Tabuteau’s lessons began with a long tone drive intended to expand the student’s range of intensity and dynamics. There is little adjustment needed to adapt these exercises for horn or any other instrument. While the exact exercise varied, the basic premise is depicted in Figure 6.1.

49 Lerma, 44.
50 Lerma, 44.
In this exercise, the numbers could be used to indicate either intensity of dynamic or tone color. Tabuteau stressed repeatedly that it was possible to intensify the tone without growing louder by simultaneously speeding up the air stream and focusing the embouchure. The number 1 in this case, indicates the least amount of intensity or dynamic possible. The numbers in the exercise grow to number 5, which indicates the maximum amount of intensity or dynamic possible, and then diminish back to 1. Learning to successfully proportion the intensity of a long tone prepared Tabuteau’s students to effectively employ his number system, which relied heavily on this concept. By separating intensity from dynamic, the performer is no longer reliant solely on dynamic to establish the forward motion of a musical line.

Tabuteau believed that the long tone contained the essence of all musical expression. In order to play a long tone with expression and intensity, a musician must have individual control of all three of the previously mentioned elements. Often, musicians unknowingly mistake an accent for *forte* or mistake growing intensity for *crescendo*. Therefore, all three skills must be carefully and individually combined in order to successfully perform this exercise. Sometimes, after the student became comfortable with this 1-5-1 drive, the numbers were expanded to 1-9-1 or even 1-13-1 to
make the change in intensity much more gradual. Various articulations could also be added to each number to add one more element into the exercise.\textsuperscript{51}

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{Figure6.2.png}
\caption{Long tone drive 1-9-1}
\end{figure}

After the long tone drives, Tabuteau moved on to scales. Tabuteau used scales to reinforce the up-bow and down-bow inflections that are the foundation of his method. The goal was not speed, but extremely clear “up” and “down” undulations creating forward motion regardless of the level of dynamic or intensity.\textsuperscript{52} The scales utilized the basic technique of note grouping with the addition of bowings. This resulted in an exercise as such:

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{Figure6.3.png}
\caption{Scale drive 1-9-1}
\end{figure}

\textsuperscript{51} Hefner, 161.
\textsuperscript{52} Hefner, 164.
Tabuteau often talked about the importance of playing a true piano in the low register and a true forte in the high register of these scales, which is contrary to the acoustical tendencies of the oboe. The horn presents the opposite tendency as the music ascends. While it is easier, as a horn player, to crescendo on the way up a scale, the musical line doesn’t always follow this rule. This provides an interesting variation to Tabuteau’s scale exercise for horn players. It is beneficial to practice a decrescendo as a scale ascends without losing the forward motion of the line. The pull from each number to the next is the same, regardless if the numbers are increasing or decreasing in intensity.

![Scale drive 9-1-9](image)

**Figure 6.4**
Scale drive 9-1-9

In the orchestral horn repertoire, playing a decrescendo as the line ascends occurs frequently. The famous horn solo from Symphony No. 5 by Pytor Tchaikovsky is an excellent example of the necessity for this skill. The pickup triplet to measure 11 is a wonderfully expressive moment that must have all of the energy and emotion of a pickup but decrescendo at the same time. Practicing the above drive will enable the horn player to successfully diminuendo without losing the forward motion of the phrase.

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53 Hefner, 164.
By practicing scales in this way, we are expanding our musical language and developing one more manner of inflection to bring to our performances. Variety of inflection is extremely important in any performance in order to avoid boring the audience. In his treatise titled On Playing the Flute, Johann Joachim Quantz summarizes the importance of learning the ability to diversify inflection:

Good execution [must] be varied. Light and shadow must be constantly maintained. No listener will be particularly moved by someone who always produces the notes with the same force or weakness and, so to speak, plays always in the same colour, or by someone who does not know how to raise or moderate the tone at the proper time.\(^{54}\)

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Chapter 7: Number system

Tabuteau is perhaps most famous for his development of a number system to describe his concepts of color intensity, phrasing, and forward motion in music. Unfortunately, Tabuteau’s ideas were never fully documented, despite efforts by his former students to tape record conversations with him after his retirement. The recording entitled, *The Art of the Oboe*, features Tabuteau discussing various applications of the number system, always saying he will go into greater detail in future lessons. (Tragically, these future lessons never happened due to his untimely and sudden passing.) Nevertheless, we are fortunate to have this documentation to provide some clarity in the application of the multi-faceted number system. Other primary sources for studying Tabuteau’s number system come from his students who have diligently sought to preserve their teacher’s ideas through recordings and publications. Perhaps the most beneficial source is David McGill’s book titled *Sound in Motion*, which is referenced frequently in this document.

Tabuteau felt that numbers were much more accurate than adjectives when attempting to describe a musical phrase. While there is some value in picturing a majestic mountain range or a colorful sunset while performing, there is no exact way to translate this into the musical language. Numbers, on the other hand, provide an accurate and exact
concept of the hierarchy of notes in a phrase and clearly define the shape of the phrase. Perhaps the most important quality that Tabuteau wanted to get across with his number system was the realization of proportion within the phrase. A student of the number system has a clear idea of how much more or less a certain note should rank within the hierarchy of the phrase structure. The high and low points of the phrase are clearly outlined and the process of presenting a logical and musical interpretation is much more effective.

The most confusing part of Tabuteau’s number system was that he used the numbers in many different ways, each demonstrating a different aspect of phrasing. Often, numbers were used to indicate intensity of tone, which should not be confused with dynamics. He states, “The progression of numbers is not exactly a crescendo or decrescendo. It is rather a scaling of color. To understand this point, think of the bowing distribution on the violin – in the space between the fingerboard and the bridge. With the oboe, the speed of the wind [is] equivalent to the potential existing on the violin for producing tone color.” These numbers do not have a specific value or intensity assigned to them. They are simply a means of showing proportion and should be interpreted as such.

Numbers were also used to indicate the forward motion of the subdivisions within a beat. He often used repeated numbers to heighten this sense of motion in passages that contained repeated notes or rhythms. Accurate realization of odd numbered rhythms also

benefitted from the addition of numbers as the emphasis was placed on playing the downbeat at the correct moment.

Tabuteau developed this system over his entire tenure at the Curtis Institute of Music with college level students being the primary stimulus. To fully utilize the number system as Tabuteau intended, a great deal of knowledge of music theory and history is necessary. Younger students will still benefit from learning the fundamentals of proportion and tone color, but some aspects may be too advanced for them. It is up to the individual teacher to determine what parts of the number system are appropriate for their students.

In *Sound in Motion*, McGill labeled the four ways in which Tabuteau used numbers as follows: Scaling Numbers, Motion Numbers, Rhythm Numbers and Phrasing Numbers.\(^56\) For ease of comprehension and congruence, these terms will be used in this document as well.

**Scaling Numbers**

The simplest way that Tabuteau used numbers was to indicate intensity or volume within a group of notes. The long tone and scale drives made use of these numbers by indicating the relative proportion of intensity of each note within a phrase.\(^57\)

\(^{56}\) McGill, 71-78.
\(^{57}\) McGill, 72.
Typically, the value of the numbers would grow from the beginning of the phrase, peak at the high point of the phrase and then diminish as the phrase concluded. It is also important to note that when using numbers to describe intensity and dynamics, Tabuteau primarily used consecutive numbers in order to keep the scaling of the phrase smooth and to insure that notes didn’t pop out of the texture. By thinking of these numbers while playing, students had a clear diagram of the shape and proportion of the phrase. Once the students mastered the drives, they were able to apply the same concept to other music. With a clear understanding of scaling numbers, the performer is able to deliberately and artistically shape the phrase.

In the *Poco Adagio* section at the end of the 1st movement of Symphony No. 3 by Saint-Saëns, the 3rd horn is asked to play a beautiful melody with very long musical lines. This melody seems very simple on paper but requires tremendous attention to detail in order to create the appropriate expressively smooth quality. The scaling numbers assigned below show that the first three quarter notes are pickups to measure 367 followed by a slight release on beat 3. The pickup sequence begins again on beat 4 of
measure 367 and leads all the way to the downbeat of measure 369. Each one of these quarter notes fulfill their function of leading to the next note in order to create the sensation of consistent forward motion through the entire line. The numbers insure that the proportion of intensity is rationed appropriately through the entire musical line.

Figure 7.2
C. Saint-Saëns, Symphony No. 3, op. 78: Mvt. 1, mm. 366-369, Horn 3 – Scaling numbers

Motion Numbers

Tabuteau used motion numbers to show the progression of forward motion within a phrase. This was perhaps his best-known method of using numbers and is demonstrative of the note grouping concepts discussed in Chapter 3. Motion numbers are typically applied to note values of an eighth note or smaller to show the motion within the subdivision to the following downbeat. As discussed previously, Tabuteau believed that this forward motion through the subdivisions was the key to more expressive playing.
Motion numbers show groups of upbeats leading to the downbeat as in the example above. Each triplet grouping has internal motion through its subdivisions. By stringing a number of internally energized triplets together as in the short call, consistent forward motion is created. These numbers are very similar in appearance to rhythm numbers, the primary difference being the intended function. Tabuteau used motion numbers when he was primarily interested in demonstrating how one note moves to the next to create forward motion. He used rhythm numbers when he was interested in achieving an accurate rhythmic realization by playing with the following downbeat in mind. In this document, these two sets of numbers are often used in conjunction.

Rhythm Numbers

As discussed previously in the rhythmic note grouping section, a rhythm is not clearly defined until the second unit of the subdivision sounds. Tabuteau often used rhythmic numbers to encourage his students to play each group of notes with the following downbeat in mind. By grouping the subdivisions this way, the performer is more likely to play each individual rhythmic cell accurately and in time regardless of the
change in meter or rhythm. This is especially useful when there are a larger number of subdivisions in a beat, such as in the Brandenburg Concerto No. 1 by Bach (Figure 7.4) or in rhythmically complex passages prevalent in the music of Brahms. (Figure 7.5)

![Figure 7.4](image1)

J.S. Bach, Brandenburg Concerto No. 1, BWV 1046: III. Allegro, mm. 8-11, Horn 1 – Rhythm numbers

![Figure 7.5](image2)

J. Brahms, Symphony No. 4, op. 98: I. Allegro non troppo, mm. 354-357, Horn 1 – Rhythm numbers

### Phrasing Numbers

Greater musical expression was always the driving factor of Tabuteau’s number system. His desire to better articulate his concepts of expressive playing led to constant adaptations and variations of the number system throughout his teaching career. The pinnacle of the number system (and perhaps the most complex) was the phrasing numbers, which combine the properties and functions of scaling, motion, and rhythmic...
Phrasing numbers are a combination of scaling and motion numbers. They show the forward motion of the phrase by visually demonstrating the upbeat and downbeat function of each note as well as the shape of the phrase and level of intensity for each note. When counting aloud, consecutive numbers have a natural tendency to move to the next number. This expectation for the arrival of the next number (or note) is the forward motion that Tabuteau believes is the root of expressive playing and phrasing numbers use these consecutive numbers to demonstrate forward motion within the phrase. In order for phrasing numbers to simultaneously show scale, it is important to understand that consecutive phrasing numbers show motion even when they are getting smaller. For instance, at the beginning of a phrase, when 1 progresses to 2, it is showing the forward motion to the next note, as well as an increase in intensity or volume. At the end of a verse, as the phrase comes to a close, the numbers may move from 2 to 1. While the intensity is diminishing, the same expectation that linked 1 to 2 at the start of the phrase also applies from 2 to 1 at the end. In the following example, the numbers rise and fall to indicate that the G on beat 3 is the peak of the phrase. After the peak, the motion continues from note to note, but the intensity or scale of each note diminishes. (This method of phrasing is discussed in greater detail in Chapter 6: Drives)

Figure 7.6
Scaling numbers
To visually reinforce the consistent forward motion throughout the phrase, it is helpful to simultaneously see the phrasing numbers with the rhythm/motion numbers. The phrasing numbers show scale and note groupings and the rhythm/motion numbers show the forward progression from beat to beat. When used in conjunction, we can be confident that forward motion will occur regardless of the level of dynamic or intensity.

![Figure 7.7](image1)

**Figure 7.7**
Scaling numbers with rhythm numbers

When using phrasing numbers this way, it is very easy for them to grow beyond a reasonable proportion of scale, especially in longer phrases. To avoid this problem, we can assign phrasing numbers that only change to the next consecutive number (up or down) when a progression from an upbeat inflection to a downbeat inflection occurs. This creates a hybrid numbering system that essentially incorporates motion, scaling, and rhythm numbers into one process. For the sake of clarity, in this document, both phrasing and rhythm numbers will be used in conjunction.

![Figure 7.8](image2)

**Figure 7.8**
Phrasing numbers
Chapter 8: Application of the Numbers

In regards to the analysis and application of numbers to this concerto, it is important to understand that Tabuteau’s number system does not attempt to replace or ignore the traditional musical practices of any certain musical period. It is, however, a system that can be used to clearly define and project the musical interpretations of a phrase. By considering both the traditional musical phrasing practices and Tabuteau’s passion for finding forward motion within a phrase, the numbers can then be used to visually demonstrate the intentions of the performer. The beauty of music is that there are many unique and valid interpretations. One person’s application of the numbers may be different from another’s and it is each individual musician’s responsibility to create their own interpretation. A deeper study of the grammar of the music is necessary in making these decisions. “Interpretation is integral to musical performance, but, as with language, before becoming an interpreter one must first understand the words and phrases of the language being translated.”58 Therefore, in preparing the numbers for Mozart’s Concerto No. 2 in Eb for Horn and Orchestra, the first step was to complete a harmonic analysis from the score. This is the foundation of the musical grammar and enables the performer

58 McGill, 131.
to understand the true structure of the music. The numbers are intended to define forward motion and the harmonic progression is part of what creates this forward motion.

The next three chapters will highlight the most important parts of each movement but may not discuss every note for the sake of brevity and to avoid redundant explanations. The examples provided in these chapters are taken from the complete analysis of the score found in Appendix A. Each example has several layers of numbers, each utilizing a different method of application. In most examples (and in the complete score) the top line contains a combination of scaling and phrasing numbers. These are most similar to the numbers Tabuteau uses when singing a phrase for his students in the recordings. The second line contains a combination of rhythm and motion numbers while the third line contains the harmonic analysis. For a brief historical background of the concerto, refer to Appendix B.
Chapter 9: Allegro

Upon first glance, the opening phrase of the 1st movement in the solo horn part appears to be a very simple melody. Perhaps due to its simplistic appearance on paper, the shape and direction of this phrase is often not given enough thought. As a result, the phrase often sounds awkward and disproportioned with unnatural swells and accents that do nothing to accentuate the expressive quality of the music. The use of Tabuteau’s numbers, however, eliminates the unwanted swells by visually defining a well-proportioned phrase.

![Figure 9.1](image.png)

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 25-28

The top row of numbers indicates the scaling/phrasing intensity. By scaling the growth of intensity evenly through the first two measures of the phrase, the momentum evenly builds to the down beat of measure 27 followed by a slight release of the intensity.
on the weaker subdivision of the beat and then builds again to the resolution in measure 28.

The second row of numbers in Figure 9.1 shows the rhythmic motion of the phrase. As discussed previously, these numbers also demonstrate the progression of forward motion to the following downbeat. The commas within the rhythm numbers indicate the end of one group and the beginning of the next. The 1 on the downbeat of measure 27 simply indicates a starting point, rather than a singular grouping.

These scales often present many difficulties to the developing performer. One of the most common technical problems in performing this concerto is a lack of direction in the air support through the scales. The air column tends to become constricted as the scale ascends and the tongue becomes lethargic because it takes on the bulk of the work without support from the air. Fortunately, through regrouping the sixteenth notes to lead to the next beat, the performer can take advantage of the inertia and energy of the rhythm by imitating the forward motion with the air column. The performer does not need to work as hard to produce sufficient air support and the tongue is then free to function properly as a note defining factor and not a note-creating factor. With an energized and less compressed air stream, the scales become much easier to execute and have much more musical expression.

The second half of the opening phrase is shaped in a similar manner as the first half with a few minor differences. The numbers successfully ration the growth of the phrase so the peak of the intensity arrives at the resolution of the chord progression. The numbers also even out any unnecessary or unintentional swelling by governing the stress...
and release on the downbeat of each measure. In order for the stress/release pattern to be effective, the stronger accents have to be prepared properly or an unnatural swell occurs. The following rebound notes must retain some semblance of energy or all of the previously built up intensity is lost. For example, in measure 30, the stress release pattern in the first 2 beats is 3-2-2. While the 2’s are functioning as the release, notice that they simultaneously fit within the line of pickups to the following stress/release pattern in measure 31. The dual function of these notes insures that the forward motion is not lost, even when the intensity diminishes, such as in the rebound notes.

![Musical notation](image)

**Figure 9.2**
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 29-33

It is beneficial at this point to step back and look at the numbers on a larger scale again. The number 1 on the downbeat of measure 29 does not relate in intensity to the 5 and 4 of the previous measure. There should not be a dramatic drop in intensity between measures 28 and 29. The number 1 is simply used to indicate the start of the next part of the phrase and to prevent the numbers from becoming too large. This will be a general rule throughout this analysis.
Measures 34 and 35 present an interesting phenomenon that occurs occasionally within the numbers. Notice that the phrasing numbers in the top row diminish through each group of quarter notes while the bottom row of numbers, indicating the rhythmic motion, increases.

![Figure 9.3](image)

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 34-35

This is actually a common occurrence but the significance is easy to miss. Essentially, the musical line peaks on the first note and then diminishes in importance on each subsequent note. However, the forward motion must continue despite the tapering quality of the phrase. If dynamics are used to create forward motion in the above passage, the third beat of each measure becomes the strongest. However, when we consider the composite score consisting of the orchestra and horn lines together, it becomes clear that the downbeat of measures 34-35 in the horn part is the arrival point of the forward motion created by the orchestra and therefore must be the strongest beat. The following two quarter notes in the solo horn part must act as rebound notes in order to provide room for the next orchestral pickup to grow in intensity. The downbeat of measure 36 is the beginning of a new melodic section and so the phrasing numbers in the
solo horn line start over at 1 instead of continuing the numerical line from the
accompaniment. For the sake of clarity, Figure 9.4 shows the piano reduction rather than
the full orchestral score.59

![Musical note](image)

Figure 9.4
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 34-36

Tabuteau frequently discussed the importance of developing the necessary skills
to create forward motion in a musical line even when it is decreasing in intensity. Many
hornists understand the importance of keeping the musical line moving forward as this is
a fundamental rule of musical expression. However, their ability to separate forward
motion and dynamics must be developed through the use of the drives discussed in
Chapter 6. By tapping into the rhythmic motion of this simple phrase, the second quarter

59 Mozart, Wolfgang Amadeus. *Konzert in Es für Horn und Orchester Nr. 2 KV 417*. 1783. Piano
note of the group becomes a pickup to the third quarter note, thus producing the desired expressive quality while still maintaining the tapering function within the line.

In measures 38-40, there is a sequence of scales that have many different options of how to number and phrase them. In this analysis, the desired overall effect of each scale is to taper towards the quarter note at the top. As the highest and longest note in the scale, it has a natural tendency to pop out of the texture and unintentionally become the skeletal melody of the passage. To avoid a redundant and awkward melody consisting of three printed G’s in a row, the emphasis of each scale should be placed on the first note of each scale. When taken out of the texture of the phrase, these notes create a simple melody of an ascending scale from a printed B to D. This will be the melody that dictates each step up in intensity. The following flourishes of scales are only meant to ornament this melody.

In order to provide room to taper the scales, the beginning of each scale must be stronger. If we start with 1 as indicated above, there is no room to shape or taper the scale. Initially, the easy solution was to begin numbering from the top and work backwards to determine the rate of taper. However, due to the length of the scale, this
method made it necessary to begin each scale with tremendous intensity and there was little room left to shape the skeletal three note melody. The solution is to begin the taper at a later point in the scale. This enables the intensity to build through part of the scale and then release towards the top. The effect of the taper is still achieved without running out of room to expressively shape the scale. The first note of each scale is still quite strong in order to emphasize the melody and to provide room for the release of the stress on the downbeat. The scale then builds in intensity towards beat 2 before beginning the taper into beat 3.

Figure 9.6
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 38-40

A new phrase begins in measure 45 and provides the performer with a chance to showcase a different color or character. The melodic material suddenly changes from rapid sixteenth note passages to more sustained and melancholy phrasing. As a result, the movement from one number to the next becomes prolonged. In measure 47, the numerical action increases as the harmonic action increases.
The numbers function in essentially the same manner in measures 49-52 although the melodic material is ornamented slightly. In the analysis of the entire piece at the end of this chapter, this section is treated as a new phrase and is numbered the same; however, the scale of intensity assigned to these numbers should not be equivalent to the previous passage. Since this second passage is comprised of very similar melodic material, it should be played with a different color or character depending on personal taste.

In measures 57 and 58, care must be taken to highlight the skeletal structure of the melody to avoid sounding monotonous. When the rhythmic numbers are considered, the melodic notes are prepared and connected as opposed to punchy and fragmented. The underlying melody of measures 57-58 is:

Figure 9.8
Skeleton melody
In order to have room for an even taper, the run of sixteenth notes must begin stronger. As opposed to the previous dilemma with tapering sixteenth note runs in measures 38-40, the length of the complete musical line in this section is shorter and so the issue of proportion is less problematic. Although it appears there is a dramatic increase in intensity from measure 56 to measure 57 and from measure 57 to 58, this increase is adequately prepared by the orchestra interludes and is not problematic.

![Musical notation](image)

**Figure 9.9**

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 56-58

Occasionally, a dramatic drop in intensity is intended in order to provide variety between sections of similar melodic content. It is traditional in this concerto to play certain sections as an echo in order to display a different color and to avoid redundancy. Measure 61 contains a series of sixteenth notes that become quite repetitive if played with the same intensity. The drop from 6 on the downbeat to 1 on beat 2 is intentional. Unlike previous sections that start over at 1 to begin a new section, the intensity assigned to the numbers in this instance should be relative to one another to achieve the desired echo effect.
The next phrase beginning with the pickup to measure 68 contains a set of four eighth notes that all must function together as an upbeat to the downbeat of measures 68 and 69. This is indicated in the second line of numbers which shows the rhythmic drive across the bar line.

The single eight notes in measure 69 -70 create a motive that is repeated several times in the first movement. While I will discuss this motive only once, the same numerical tendencies can apply to the other similar passages as well. Without carefully considering the direction of the phrase, this section can easily become vertical and musically dull. By interpreting the eighth notes on beats 2 and 4 as a pick up to beats 1
and 3, forward motion is created across the rests and bar lines, which creates an interesting and expressive phrase out of relatively dull melodic material.

In order to avoid over inflating the numbers, it is sometimes necessary to break a long phrase into several smaller sections. The passage from measure 73 to 78 is one phrase but the numbers begin again in measure 76 in order to keep the scale of the numbers reasonable. This certainly does not indicate a substantial drop in intensity or volume. Therefore, the proportion of the intensity assigned to each number should be adjusted accordingly to maintain a consistent level of intensity. The quarter notes in this passage fulfill a similar function to the eights in measures 69 and 70. The quarter notes on beats 2 and 4 serve as pickups to beats 1 and 3.
Occasionally, the rhythm of a phrase begins on the second subdivision of a beat and therefore, the rhythmical numbers do not need to repeat the number 1. The three eighth notes in measure 79 function together as pickups to the first sixteenth on beat 3. Therefore, the rhythmic numbers in the second line for these eighth notes are not 1 2, 1 2, but 1 2 3 4. In the following sixteenth note run, the second subdivision of each beat is scaled back slightly in order to emphasize and provide room for the forward motion created through the subdivisions to the following beat.
The final flourish of the exposition in measures 79 through 83 follows similar numerical functions established earlier in the movement. Each beat leads to the next and the intensity grows steadily to the final down beat. Measure 80 contains a similar passage to measure 61 where it is traditional to play the first run of ornamented sixteenths as an echo and, therefore, the drop to 1 on this beat should be interpreted as a dramatic drop in volume to achieve this echo effect.

Figure 9.15
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 80-83

The first phrase of the development is an excellent example of how Tabuteau’s number system serves as a visual cue for proportion. Measures 91 and 92 contain very similar material to measures 93 and 94. Upon careful cross-examination of the numbers, each number is one degree higher on the second iteration of the melodic material, indicating that there should be a slight difference in color from one statement to the next.
A similar analysis of the numbers in the following section from measure 99 to 112 establishes a proportionate growth in intensity over a long melodic line:

Figure 9.16
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 91-94

Figure 9.17
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 99-112

60
The beginning of each four measure cell is raised in intensity by one degree and thus all of the following numbers in that cell are one degree higher as well. As a result, each group is shaped similarly, yet with a slightly more intense tone. The regulation of intensity growth through the progression of the phrase insures that the arrival at the peak of the phrase on the downbeat of measure 110 is timed appropriately. By inflecting the last note of each section as a pickup to the next melodic iteration, the forward motion of the entire phrase is maintained across the half measure rest as well. (Mm. 102 and 106)

The four half notes in measures 110 and 111 have a tendency to sound repetitive, punchy, and uninteresting if performed as the notation suggests. The upbeat/downbeat link between these notes creates an expressive conclusion to the phrase that continues to have a sense of forward motion despite the longer note durations.

The previous discussion of the exposition applies to the recapitulation as well. There is tremendous freedom in how the numbers can be used and each individual performer is certainly encouraged to creatively interpret the numbers in their own way. In the provided analysis, the assigned numbers are largely the same in the recapitulation as in the exposition. This is not to encourage a performer to perform both sections exactly the same. The tone color and proportion of intensity assigned to each number can be varied to personal taste while still maintaining the expressive qualities of the phrase outlined by the numbers.

In the recapitulation, new melodic material is introduced in measure 151. This is a phrase that is quite challenging for many performers due to the extreme range and delicate quality. However, many of the difficulties are manufactured by a lack of forward
motion in the phrase, which is the result of a lack of direction in the air column. By energizing the three eighth note upbeats in measure 151, the forward momentum of the air support carries the energy through the printed C6 and reduces the tendency of developing horn players to restrict and compress the air stream as the range expands into the high register.

![Musical notation]

**Figure 9.18**
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 151-154

There are several ways to interpret measures 155 through 158. In the analysis for this document, each measure of eighth notes has been broken into two groups of upbeats that essentially follow the rhythm numbers. The first three eighth notes in measure 155 are pickups to beat three. The next three eighth notes function as pickups to the downbeat of measure 156. Measure 157 and 158 follow the same pattern, although for variety, a lower level of intensity is assigned the second time. In both instances, the first group leads to the downbeat while the second retreats into an elegant arrival at the following downbeat. This creates a natural feeling up → down progression that serves to heighten the expressive quality of the overall phrase.
These two groups of notes are linked together harmonically. The first group ends on a relatively unstable $ii^6$ chord. The second group ends on a more grounded $I^6$ chord. Another phrasing option for this section would be to highlight this unstable → stable chord progression by accentuating the more active $ii^6$ chord. Then, the second group could start stronger and then ease into the resolution.

Similar to the previous example, this up → down or question → answer progression creates a heightened sense of anticipation or expectation for the arrival of the resolution. Both options are effective in creating an expressive phrase and it is up to the performer to make this musical decision.
The remainder of this movement contains melodic material or number patterns that have already been discussed in this chapter with one exception. Due to the length of the musical line in measures 179 through 183 and the lack of an ideal location to restart the numbers to stay within a reasonable scale, the downbeat of measure 181 serves as a bridge between the two numerical sequences. There should not be a dramatic drop in intensity from 8 to 1 at this point. The intensity previously indicated by the number 8 is simply reassigned to the number 1 in order to keep the numbers from growing out of proportion as the phrase continues.

Figure 9.21
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Allegro, mm. 179-183

Another interesting aspect of this final phrase that becomes clear once the numbers are assigned is the dual function of the quarter notes in measure 180. These notes are often grouped with the previous eighth note as a rebound from the stronger downbeat inflection. This leaves only the following eighth note to prepare the next downbeat accent on beat 3 and beat 1 of the following measure. Without adequate preparation of the stronger inflections on beat 3 of measure 180 and beat 1 of measure 181, the phrase can easily sound choppy and turbulent.
In deciding how to assign the rhythm numbers in measure 180, it became clear that the quarter notes fulfill two functions. The phrasing numbers in the top row show the rebound quality of these notes through a slight decrease in intensity. (Dotted bracket) The phrasing numbers, in coordination with the rhythm numbers in the second row, also show the upbeat quality of the quarter notes by grouping them forward to the downbeat inflections. (Solid bracket) Once the quarter notes in measure 180 are re-interpreted as upbeats, there is more time to adequately prepare the stronger downbeat inflections in this phrase and the expressive quality of the musical line is enhanced.
The second movement of *Concerto No. 2* is a lyrical serenade that has tremendous potential for expressive playing. However, due to its relative simplicity, it also has potential to sound boring and musically dull if not prepared effectively. By employing Tabuteau’s number system, many of the beautiful and expressive qualities of this movement can be realized in a methodical and reproducible manner.

The first phrase in the solo line begins in measure 11 and is simply echoing the opening statement of the theme by the string section. The phrase can be broken down into four small groupings, each fulfilling their primary purpose of creating forward motion through their upbeat – downbeat progression.

![Figure 10.1](image)

*W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Andante, mm. 11-14*
Notice that the phrasing and rhythm numbers grow in intensity throughout the first three sub-groups of the phrase. This serves to prepare each downbeat while at the same time regulating the growth of the overall phrase. However, the music very quickly expands beyond a reasonable scale if it is continually pushing forward. This is remedied by decreasing the intensity slightly at the beginning of the third group. By scaling back slightly, the motion created by beats two and three of this measure is emphasized and is more effective in showing the progression to the end of the group. The last two beats of this phrase (measure 14) decrease in intensity away from the peak of the phrase. However, the forward motion must continue to develop to the end of the phrase. Even though the phrasing numbers are decreasing, beat two of measure 14 still functions as a pickup to beat three. By linking these two notes together, forward motion is created without the need for an increase in intensity and the end of the phrase benefits from an elegant and expressive resolution.

Measure 17 is really a continuation of the phrase from measures 11-14 after a brief interlude from the strings. This continuation must be considered when assigning intensity levels to each number. There should not be a dramatic drop in intensity from beat three of measure 14 and beat one of measure 17. The number 1 in measure 17 merely indicates a beginning point for the next section. The last note of measure 18 serves a dual purpose by ending the first group and acting as a pickup to the next group. This is an important link to create though because it continues the motion between the two groups and enhances the expressive quality of the entire phrase.
The next phrase of this movement also contains several notes that fulfill a dual function. If the phrasing numbers are considered only, the tapered second beats of measures 30, 32, 34, and 35 appear to be the end of each sub group in the phrase as displayed in Figure 10.3.
By adding rhythm numbers to this phrase, however, the last two eighth notes of measures 30, 32, 34, and 35 are grouped together and clearly lead to the following downbeat. Therefore, the second beat of these four measures acts as a tapered conclusion of the previous group while simultaneously serving as the beginning of the following group of pickup notes. By doing so, there is greater potential for the creation of forward movement and the connection between the groups within the phrase is more expressive.

![Figure 10.4](image)

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Andante, mm. 28-36

The next solo line in measures 38-40 serves as an introduction to the return of the main theme in measure 41. The first three notes lead to the downbeat of measure 39 as indicated in the rhythm numbers. There is a temptation in the following sextuplet to label the rhythm numbers as 1-6 leading to the downbeat of measure 40. However, Mozart was very clear with his phrasing marks that he intended there to be a break between the first three notes and the last three notes in measure 39. Therefore, the rhythm numbers reflect
this break by starting over with the number 1 on the second group of sixteenth notes in this measure. To accentuate Mozart’s intended phrasing even further, the phrasing numbers lead towards the downbeat of measure 39 and then rebound through the next three sixteenths. This rebound of the melodic line creates room to energize the next three note pickup into the downbeat of measure 40.

Figure 10.5
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Andante, mm. 38-40

If a performer is not careful, the forward momentum and energy created in measures 38 and 39 is easily lost in the following measure because of its relative melodic simplicity and the implied diminuendo back into the theme. By interpreting each printed C# as pickup to the following printed D, this problem is entirely remedied and the diminuendo is rationed out effectively to arrive at the desired dynamic in measure 41.

In measures 47-52, the key of Eb Major is temporarily tonicized and the V/IV – IV progression should be treated as a V-I cadence. While the preparation of each cadence can and should be treated uniquely, the method that is widely used in this interpretation is to create more intensity of color or dynamic on the dominant chord and then ease into the resolution to the tonic chord. The dominant chord is the more active chord because it has a strong desire to resolve toward the tonic. By adding more intensity to this chord, the
desire of the chord to resolve energizes the forward motion of the phrase. Easing into the relatively passive tonic chord creates a natural stress and release progression that is musically expressive and highlights the elegant and graceful qualities of this movement. This approach of easing into the resolution is applied again in measures 51 and 52; this time back in the key of Bb Major. Mozart clearly wrote a grace note in measure 51, which indicates that he desired this note to be highlighted within the phrase. By playing a slight agogic accent on this note, more intensity is created which then gracefully diminishes into the resolution at the downbeat of measure 52.

Figure 10.6
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Andante, mm. 47-52

The rest of this movement is comprised of repeated material that has already been discussed. To avoid redundancy, this document will not go over these numbers again. However, a wonderful attribute of the numbers is that they can be adjusted and altered to produce different results based on personal interpretation and preferences. When the
performer chooses to highlight a different part of a phrase or assign a different level of intensity to the same number when the material is repeated, they now have the tools to present those choices to their audience in a dependable and reproducible manner.
Chapter 11: Rondo- Allegro

The finale movement of this concerto is a dancelike rondo that showcases the soloist and orchestra equally with tremendous virtuosity. This movement is in 6/8 and has strong metrical movement that benefits greatly from the use of numbers. Triplets, as music students are traditionally taught, consist of a strong down beat followed by two weaker subdivisions. The problem with this strong-weak-weak pattern is the lack of energy within the subdivisions of the beat. There is a tendency for the triplet to become punchy and static due to a lack of preparation of the downbeat. An alternative would be to think in terms of bowings. The downbeat should still receive the heaviest inflection followed by a release on the second subdivision. The third subdivision should be stronger but still in the up-bow inflection. The pattern would look like: DOWN – up - UP. By energizing the third subdivision of the beat with a stronger upbeat inflection, the downbeat is prepared and has more weight to it without sounding abrupt. Of course this is not a universal pattern and there should be variation depending on the structure or emotion of the music. However, this pattern of stress and release will prove to be quite useful from the very beginning of the third movement.

In staying with the traditional rondo form, the opening phrase of movement 3 is repeated multiple times throughout the movement. While the rhythm and melody should
not be altered, a difference in intensity or color assigned to the numbers each time is certainly appropriate to avoid playing the phrase the exact same way each time. For the sake of brevity and to avoid redundancy, this phrase will be discussed only once.

The phrasing numbers of the first phrase clearly display the stress and release pattern discussed earlier. Although it appears on paper that the first and third subdivisions of each triplet are equals, there is a difference in inflection between the two notes. The first subdivision is clearly a downbeat or down-bow inflection with a substantial amount of weight. The third subdivision, although assigned an equal number in this analysis, functions as an upbeat within the hierarchy of subdivisions and must have an upbeat or up-bow inflection. The second subdivision of this beat fulfills two functions: 1) as a rebound from the weight of the downbeat and 2) as a weaker member of the two note pickup to the next downbeat. These two functions are shown clearly by the phrasing and rhythm numbers. The second beat of measure 1 follows a similar pattern, although the phrasing numbers are one degree higher to indicate more intensity as the phrase progresses. When all of the above tendencies are observed, a graceful, yet buoyant character is expressed with in the music and a tremendous amount of forward motion is created within the subdivisions.
In measures 16-18, the first instinct is to simply assign increasing numbers to every note from 1-4 due to the seeming simplicity of the phrase. However, upon further inspection this does not accurately define the up and down beat groupings hidden within the arpeggio. The eighth note pickup is clearly a pickup to the first dotted quarter note in measure 17. The second dotted quarter note in measure 17 also functions as a pickup to the downbeat of measure 18. The break between these two groups lies in between the two dotted quarter notes of measure 17 as depicted in the rhythm numbers in the second line. Therefore, the phrasing numbers that most accurately display this grouping are:

Figure 11.2
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 16-18
This build-up of intensity into the downbeat of measure 18 requires a slight release on the following eighth note pickups into measure 19. By releasing the energy, there is room to shape the next several measures without growing out of a reasonable proportion. Again, the DOWN - up - UP triplet pattern that was discussed previously is employed to keep the phrase within an acceptable scale while continuing to create a sensation of forward motion.

![Musical Staff Image](image)

**Figure 11.3**
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 18-20

The second half of this eight measure phrase also benefits from scaling back slightly after the build-up of intensity through the arpeggio up to the printed C6 so that there is room to shape the phrase towards the final V-I cadence. Notice that the greatest intensity in this entire eight measure phrase occurs on the V chord of this final cadence, rather than at the C6 which is where a young performer typically peaks. By reducing the significance of this relatively more difficult “high” note, the mental approach to playing this passage is predominantly musical and less technical.

Tabuteau’s success as a teacher is largely due to his unrelenting push for his students to think musically. While technical aspects of the instrument should be addressed to some degree, it has been the experience of many great teachers that the
technical issues of an instrument are often overcome by having a clear musical intent.

This opinion was shared by the great Arnold Jacobs, former principal tuba of the Chicago Symphony Orchestra. Jacobs often associated playing an instrument to driving a car. In a book of Jacobs teachings compiled by Bruce Nelson titled: *Also Sprach Arnold Jacobs: A Developmental Guide for Brass Wind Musicians*, Jacobs outlines this comparison:  

> In driving a car, you use the simple controls like the steering wheel, accelerator, brakes, etc. to arrive at your destination, not by manipulating the complex machinery under the hood. If you want to change directions while driving, don’t look under the hood; just turn the steering wheel. Emphasize the mental work—sing, imitate, and don’t get bogged down in the physical aspects by turning inward. Speaking is a complex operation, yet we speak with ease. It is the same in playing. Awareness should be on the product (music), not mechanics.

Jacobs urged his students to focus on the destination (the music) and not the manner in which we take to get there (the technique). The number system being employed in this analysis can be misconstrued as being very technical in application due to its tedious preparation. However, the primary goal of this system is to teach expressive phrasing and is therefore a musically oriented system. By implementing this system, the

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performer is focusing primarily on musical decisions and a wonderful byproduct of this mindset is that many technical issues will be resolved.

Returning to the analysis, the next section of movement 3 has a simple progression of intensity. If we take out all of the subdivision numbers the progression of intensity from beat to beat is clear:

![Figure 11.4](image)

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 25-27

The same progression occurs in measures 28 and 29 leading up to the peak of intensity on measure 30. Notice that the progression of numbers continues through the rest indicating that the musical line must continue through the orchestral interlude in measure 28.

![Figure 11.5](image)

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 25-30
There are many ways to interpret the musical intent of measures 30-36 and subsequent similar passages. As encountered elsewhere in this concerto, the musical material appears to be very simple on paper, which can be deceiving. After applying phrasing and rhythm numbers to this section, it becomes clear that there are many expressive possibilities available. In this analysis, this passage functions as a long decrease in intensity accompanied by a diminuendo over the full seven measures. While the musical line decreases in intensity and dynamic, each individual cell leads through the sixteenths to the eighth note to create forward motion. The numbers are extremely helpful to ration the rate of diminuendo to avoid getting too soft too quickly. They also help to keep the rate of diminuendo steady through the orchestral interlude in measure 33.

![Musical notation]

Figure 11.6
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 30-36

Another aspect of this passage that contains many possibilities is found in the rhythm numbers. In the preparation of the analysis provided at the end of this document, multiple options were considered before settling on the following for the sake of simplicity:
Figure 11.7
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 30-36

Other options would yield similar results while highlighting other rhythmical aspects of the groupings. By labeling each individual grouping as 4 5 6, the continuation of rhythmical motion through the eighth rest is encouraged but the value of the numbers are slightly confusing until they are explained. Yet another option is to label the groupings as 1, 1 2. This example brings the upbeat function of the second sixteenth note in each group to our attention.

Figure 11.8
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 30-36
After careful consideration, the assignment of 1 2 3 to these groupings seemed to provide the most beneficial demonstration of the pickup function fulfilled by each three note cell. By combining the motion created by the rhythm numbers and the regulated decrease in intensity governed by the phrasing numbers, a detailed and effective plan is created to perform this passage expressively.

The phrase in measures 42-46 leads into the return of the A theme in measure 47. Harmonically, this section acts as a prolongation of the dominant by alternating with a cadential 6-4 chord, which increases our expectation and desire for the harmony to resolve to the tonic. As discussed previously, this expectation is one of the primary ways in which the sensation of forward motion is created in music. The numbers can be used to increase this expectation by regulating the speed of moving from one intensity level to the next. Initially, the numbers increase by one degree each beat until arriving at the first trill. The trills intentionally highlight the downbeat of each measure, and the pace at which the intensity grows through the phrase is elongated, thus creating more emphasis on each trill.

![Musical notation]

Figure 11.9
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 42-46
Removing the subdivision numbers from this example demonstrates the progression and pacing much clearer:

![Musical notation](image)

**Figure 11.10**
W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 42-46

After another statement of the A theme, there is a passage that appears very similar to measures 30-36. In order to avoid playing these two sections the same, measures 62-68 are interpreted as a prolonged crescendo and increase in tone color intensity. This decision was made based on the harmonic progression through this passage from the tonic in Eb major (a relatively passive chord) to the dominant of c minor (a more active chord). Again, the numbers serve to remind the performer that the rate of crescendo from 1 to 6 remains relevant through the rest and each individual cell leads through the sixteenth notes to the eighth note.
The following lyrical section in c minor employs many of the same phrasing techniques already discussed. By interpreting each eighth note as a pick up to the following quarter note, the sensation of constant forward motion is achieved. This holds true even when the phrasing numbers transition from growing in intensity in measures 66 - 71 to diminishing from measures 71 - 73. In the same way that we consider the connection between notes labeled 1 2 3, we can link notes labeled 4 3 2 in the same manner to continue the forward progression of the musical line. The only difference is that the volume or intensity is diminishing. This is another instance where the drive exercises discussed in Chapter 6 prove to be useful.
This theme of shifting minor tonal centers contains several important leading tones that, when utilized appropriately, have tremendous potential for the development of harmonically expressive forward motion. The printed D# in 75 is over a viio4-3 chord in the orchestra which is a very active chord and develops a great amount of pull to the resolution. Again, the act of assigning more intensity to the harmonically active note and then easing into the more passive note accentuates the pull of the diminished chord to the resolution and provides an elegant close to the musical line.

The next important leading tone occurs in measure 78 on beat 2. This leading tone is towards the beginning of the phrase, however, and the musical line is not quite ready to
begin a diminuendo and so the intensity continues to grow through the imperfect authentic cadence in f minor rather than ease into the resolution. The release of this built-up intensity is then more effective at the more emphatic perfect authentic cadence in measures 80 and 81. The same approach is taken in measures 81-85.

![Musical notation](image)

Figure 11.14

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 77-85

The notation in measures 85-89 indicates through the slurs that each eighth note belongs to the previous quarter note. This often leads to a bumpy and pulsing musical line because the skeletal melodic notes are not adequately prepared. If we assume that the melody lies within the quarter notes as shown below, performing the eighth notes as notated does little to enhance this melody.
Once we add numbers to this phrase, it is clear that the printed notation is entirely misleading as to where the groupings should be to create a musically expressive phrase. The rhythm numbers clearly show that the eighth notes function as upbeats to each quarter note. This grouping is reinforced by the phrasing numbers, which demonstrate the forward motion creating pull from the eighth note to the quarter note. Once the eighth note is reassigned to the following quarter note, each note of the previously mentioned skeletal melody is more expressive because it is effectively prepared by the pickup note which energizes the forward progression of the phrase.

After another statement of the A theme, a sweeter, more lyrical melody is introduced. Notice that the previously discussed phrasing method of easing off the second
beat of each triplet is not employed here. This melody, due to its primarily step wise motion, requires a smoother line to express the lyrical style. Therefore, the numbers remain equal throughout the triplet and are only used to show the growth of intensity from one measure to the next. Even though the scaling numbers are less active in this phrase, the rhythm numbers continue to demonstrate the forward motion created by the subdivisions of the triplet.

Figure 11.17
W. A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 112-115

In the initial draft, the phrasing number sequence started over in measure 116 in order to remain within a reasonable scale. However, upon further consideration, the numbers also need to demonstrate the continuation of the musical line across the rest in measure 115. The grouping in the rhythm numbers further reinforces this link between notes. The eighth note in measure 115 serves as the conclusion of the first half of the phrase while at the same time functioning as a pickup across the rests to the second half of the phrase in measure 116. The dotted quarter note in measure 116 is marked as 3/1 in the phrasing numbers to demonstrate the link across the rest while still adjusting to keep the numbers within a reasonable scale.
This interpretation divides measures 116-120 into four groups as shown below, each fulfilling the purpose of leading to the downbeat. At the beginning of each group, the phrasing numbers are scaled back slightly to provide room for the musical line to intensify. Once the groupings are defined, the skeletal melody of this passage becomes obvious. The phrasing numbers demonstrate the forward motion through each group as well as the overall progression and proportion of this melody.

![Figure 11.18](image)

W. A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 116-120

The number pattern in measures 135 through 141 is very similar to the previous example. The lyrical triplets that contain primarily step-wise motion (such as in measure 136) receive less active phrasing numbers. The downbeat of measure 137 is approached by a leap, which increases its intensity. This build up of intensity must have a slight release on the second eighth note of measure 137 so as to fulfill the natural stress-release progression.
The following interjection in the horn functions as a short cadenza with flourishing trills. Each eighth note receives an up-bow inflection, which increases the anticipation for the arrival of the down-bow on the quarter note trills. As is illustrated below, each trill becomes gradually more energized. The phrasing numbers enable the performer to clearly see the proportion this growth so that the arrival of the final quarter note is the peak of intensity for the cadenza. In measure 144, the sixteenth note following the dotted eighth note receives a slight release in intensity to exaggerate the motion to the following downbeat.

Although the next statement of the A theme contains a small interruption, many of the same numbering methods apply from previous statements. The main difference is the
treatment of the sixteenth notes in measure 147. There are several options for how to interpret this break in the musical line. Mozart intended this misstep in the phrase as a joke on the performer. It was supposed to sound as if they had lost their place in the music or forgot how the theme went. If we embrace this joke and want to enhance the intended comical nature of the phrase, we should treat the sixteenth notes exactly the same as the normal statement of the theme and increase the intensity towards the downbeat followed by a sudden break in the musical line. Another option, which is slightly more elegant, is to pull back slightly through the sixteenths and possibly even add a *ritard* leading into the downbeat. This creates a graceful preparation for the upcoming break. The unexpected change in the familiar theme is unavoidable and the audience will certainly notice it. The degree to which the surprise happens depends entirely on the intent of the performer. For this analysis, the latter musical choice has been employed and the phrasing numbers diminish through the sixteenths in measures 147 and 152. In order to avoid repeating the same idea twice in a row, the second break occurring in measure 152 is prepared with a greater amount of intensity and should have a slightly more exaggerated *ritard*.
While the phrasing numbers in the final statement of the A theme appear to be the same as the previous four versions, this version is much more energetic (as indicated by the *piu allegro* and *forte* markings) and represents the final push to the end of the concerto. The degree of intensity assigned to the phrasing numbers in this final section does not relate to previous versions and can be considerably higher. The switch from number 6 to 1 in measure 163 does not indicate a significant drop in intensity. This is only intended to keep the scale of the numbers within a reasonable proportion.

**Figure 11.21**

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 145-155
There are several musical options for the last three measures of the concerto. This sixteenth note passage has been used several times previously. As was discussed earlier, the two main options available to a performer are to increase or decrease the intensity between the sixteenth note groupings. Each individual grouping has a rhythmic energy that acts as a pickup to the eighth note. The gradual increase of decrease of intensity occurs in between each upbeat motive. This entire movement is a celebration of the hunting heritage of the horn and so, in this analysis; the final passage diminishes as if the hunting party is galloping away into the distance.
Figure 11.23

W.A. Mozart, Concerto No. 2 in Eb Major, K. 417: Rondo, mm. 165-168
Chapter 12: Conclusions

The goal of this document is to enhance the expressive quality of horn performance and to foster an interest for further research in the field of musical expression. Due to the focused nature of this study, the musical expressive techniques of other successful musicians were not discussed. Although Tabuteau certainly pioneered a new method of performance, many other performers throughout history have performed and recorded expressive performances without the use of the number system or following the practice of note grouping. A cross examination of these performances and the methods employed for phrasing could be beneficial to further expand our collective ability to express emotion and meaning through music.

Tabuteau’s ideas for what constitutes musical expression is heavily focused on creating the sensation of forward motion and evenness of tone and line. While these are certainly valid components, other elements such as rubato and articulation play an equally important role in the creation of expressive phrasing. During the course of research for this document, it has become apparent that the effectiveness of the number system is limited by its inability to demonstrate other components of musical expression. A next step in this research could be to adapt the number system to incorporate a broader range of expressive techniques.
After undergoing such a detailed analysis and study of the phrasing choices, a wonderfully expressive method of performing Mozart’s *Concerto No. 2* has been revealed. Each note of the solo line has been carefully considered as to how it musically functions within the phrase. Armed with a deeper understanding of the grammatical and harmonic structure of the concerto, a performer is able to make logical phrasing choices to bring out the most expressive characteristics of the music. It would be easy to assume, given the amount of preparation involved, that there is only one way to interpret or utilize Tabuteau’s number system to effectively produce an expressive performance. After all, Tabuteau did develop this system in order to be as specific as possible in describing his concepts of phrasing and expression. However, upon learning this method of phrasing, it is truly astounding how many more expressive phrasing options and choices become available to a performer. Beyond just being available, though, the tools provided by Tabuteau’s number system and note grouping concepts enable a musician to clearly communicate their expressive intent more effectively. The beauty of music is that it’s subjective. Each individual performer will interpret a piece of music differently just as they will interpret the numbers in their own unique way.

Some will find the number system to be quite tedious and perhaps microscopic in nature. While closely examining each note and how it functions within a phrase is certainly time-consuming and quite taxing mentally, a performer’s ability to know exactly what they want to say with each note and phrase when they walk out on stage to perform is both comforting and empowering. While this is not the only way to prepare a piece of
music for performance or teach phrasing to a student, it is at the very least a valuable tool to incorporate into a vast array of other successful approaches with the ultimate goal of improving our craft both as a performer and a teacher.

Every young horn player reaches a point in their development where they are comfortable enough with the notes and the fingerings and they begin to try and do more with the music. This is a perfectly natural progression and it is healthy for musicians to foster a desire to be expressive with their music. As with any language, however, lacking a clear understanding of the grammar and structure of a phrase makes the execution of expressive parameters difficult. In musical language, this often leads to unintended swells at the end of notes and large bulges in the musical line that do little to accurately portray the expressive character of the underlying musical structure. In order to play more expressively, the performer must first develop a concept of proportion within the larger context of the phrase and how each note functions under the umbrella of that phrase. This is where Tabuteau’s number system can benefit a younger student the most. Having a well-established knowledge of music theory and harmony is necessary to fully realize the artistry of Tabuteau’s method, but simply addressing the quality and character of how each note moves to the next can have a profound impact on a young student’s ability to play expressively.

Tabuteau consistently stressed that we must first learn the numbers and then forget them. They, along with our instruments, are only a means to an end and should not be the focus of the music. His primary concern was always the expressive quality of the
music and the powerful effect it could have on the listener. As was often the case, Tabuteau summarized this philosophy eloquently:

“I always tell my students that if they think beautifully, they will play beautifully. For it is what you have to say in music, which determines the quality of your performance. The instrument is like the artist’s pencil—merely a means of an expression and not an end in itself.”

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Bibliography


Appendix A

Complete Number System Analysis

Concerto No. 2 in Eb for Horn and Orchestra, K. 417

W.A. Mozart

Mvt. 1: Allegro
Mvt. 2; Andante
Mvt. 3: Rondo, Allegro
Concerto No. 2 in Eb
For Horn and Orchestra

W.A. Mozart

KV 417

I.

Allegro

Horn in E♭

24

Phrasing: 1 2 2 2 3 2 2 2 3 3 4 4 5 5
Rhythm: 1, 1 2, 1 2 3 4, 1 2 3
Harmonic: E♭: I VⅦ V VⅦ I⁰

Hn.

28

6 5 1 1 1 2 3 2 2 3 3 4 3 3 4 4 4 5 6 6 6 6 6 6 7
4, 1 1 2, 1 2, 1 2 1 1 2, 1 1 1 2, 1 2 3 4, 1 2 3

I IV ii⁶ VⅦ I⁰

Hn.

32

8 7 6 7 8 8 7 7 6 3 2 1 1 4 3 2
4, 1 2, 1 2, 1 2 3 4 1, 1 2, 1 1 2,
I V 1

V I VⅦ

Hn.

36

1 1 2 2 3 2 1 2 3 1 2 3 2 3 2 2 1 2 3 2 3 3 4 4 3 3 2
1, 1 2, 1 2, 1 2, 1 2 3 4, 1 2 3 4, 1, 1 2 3 4, 1 2 3 4,

B♭: viiⅦ VⅦ I V/IV IVⅦ

Hn.

40

5 3 4 5 4 3, 1 2 2 3 2 2 3 4 3 4 3 4 5 4 5 6 7
1, 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 2 1 2 1 2, 1 1 2 3 4
I⁰ IV V/IV IVⅦ viiⅦ/Ⅱ ii VⅦ/V

101
I. Allegro

Hn.

96

\[ \begin{array}{c}
4 & 4 & 4 & 4 & 5 & 4 & 3 & 2 & 1 & 1 \\
4, & 1, & 1 & 2, & 1 & 2 & 3 & 4, \\
vi^7 & i^5 & \text{V}_3^7/4 & iv^6 & \text{I}^6 & \text{V} & \text{D} & \text{V}^7 & \text{I} \\
\end{array} \]

100

\[ \begin{array}{c}
2 & 2 & 2 & 3 & 2 & 3 & 4 & 3 & 2 & 2 \\
1, & 1 & 2, & 3, & 1 & 2, & 1, & 2, \\
n & \text{ii} & \text{V}^7 & \text{vi} & \text{es}: & \text{V}^7 & \text{i} \\
\end{array} \]

104

\[ \begin{array}{c}
3 & 3 & 3 & 4 & 3 & 4 & 5 & 4 & 3 & 3 \\
1, & 1 & 2, & 3, & 1 & 2, & 1, & 2, \\
n & \text{ii}^6 & \text{V}^7 & \text{i} & \text{es}: & \text{V}^7 & \text{i} \\
\end{array} \]

108

\[ \begin{array}{c}
4 & 4 & 4 & 5 & 4 & 5 & 6 & 5 & 4 & 3 \\
1, & 1 & 2, & 3, & 1 & 2, & 1, & 2, \\
iv & \text{V}^7 & \text{i} & \text{VI} & \text{es}: & \text{Vii}^7/\text{ii} \\
\end{array} \]

112

\[ \begin{array}{c}
2, \\
4, \\
\text{V/VI} \\
\text{I} & \text{II} & \text{I} & \text{II} \\
\text{V/VI} & \text{V/VI} & \text{Vii}^7/\text{VI} \\
\end{array} \]
I. Allegro

Hn.

\( \text{E}_5: \ vi \quad \text{V}_7/V \)

Hn.

V \quad I^{6} \quad V^{7} \quad I \quad \text{vii}^{7}/IV

Hn.
I. Allegro

Hn.

147

4

1 2 3 4,
1 2 3 4

1 2 3 4
1 2 3 4

I
vi ii\(^6\) V

154

2, III
1 2 3 4
1 2 3 4

I IV

iv/ii ii\(^6\) iii iv

158

3

2, III
1 2 3 4
1 2 3 4

I IV

162

I\(^6\)

1, 1 2, 1 2 3 3

1, 1 2, 1 2 3

ii V

168

4, 1 2, 1 2 3 3 2

4, 1 2, 1 2 3 3 2

V7 I

172

3 3 3 2
3 4 3 3 2

1 1 2 2 3 3 4
1 1 2 2 3 3 4

vii\(^7\)/iii I\(^6\) vii\(^9\)/V V

1 1 2, 1 1 2, 1 2 3 3 4
1 1 2, 1 1 2, 1 2 3 3 4

vii\(^9\)/V V7 I\(^6\)
I. Allegro

Hn.

176

8, 1, 1 2 2 3 3 4 4 5, 1 2 2 3 3 4 4 5 5
4, 1, 1 2, 1 2, 1 2 3 4, 1 2 3 4, 1 1 2, 1 2 3

Hn.

vi
I IV V I IV I IV

Hn.

180

6 5 6 7 6 7 8/1 1 2 2 3 3 4 4 4 5
4, 1 2 3, 1 2 3, 1 2 3 4, 1 1 2,

I Cad.6

Hn.

184

7

V7 I
III.

W.A. Mozart

Rondo - Allegro

Phrasing: 1 2 1 2 3 2 3 4 3 2 3 4 3 4 5 4 5 6 5 4, 1
Rhythm: 1 2, 1 2 3, 1 2 3, 1 2, 1 2, 1 2 3, 1 2 3, 1 2, 1
Harmonic: E♭ I V I♭ vii6/V V

Hn.

2 1 2 3 2 4 4 3 5 5 5 6 6 7 6 7 8 8 8 8
2, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3,
I V I♭ ii6 V I

Hn.

1 2 2 3 2 2 3 2 3 4 3 4 5 4 5 4, 1
1 2, 1 2, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1
I V IⅢ I V V7

Hn.

2 1 2 3 2 3 4 3 2 3 4 3 4 5 4 5 6 5 4, 1
2, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1
I VⅢ I V I

Hn.

2 1 2 3 3 4 3 4 5 5 6 6 7 7 8 8 9 9 7 7
2, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2
V7/V V I V6 V/V V vii/V V7/V

Hn.

8 6 6 7 5 5 6 4 4 5 3 3 4 2 2 3 1 1
3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2 3, 1 2
VⅢ V/V V7 IⅢ
III. Rondo - Allegro

Hn.

71

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III. Rondo - Allegro

Hn.

101

1 1 2 3, 2 2 3, 1 2 3, 1 2 3,

Es: 1 4 4 3, 4 4 3, 4 4 3, 4 4 3,

Hn.

116

3/1 2, 3/1 2, 3/1 2, 3/1 2,

I 4 4 3, 4 4 3, 4 4 3, 4 4 3,

Hn.

121

1 2 3, 1 2 3, 1 2 3, 1 2 3,

V 7 7 7, 7 7 7, 7 7 7, 7 7 7,

Hn.

127

5 4 4 5, 3 3 4, 2 2 3, 1 1 2,

V 7 7 7, 7 7 7, 7 7 7, 7 7 7,

Hn.

131

5 4 4 5, 3 3 4, 2 2 3, 1 1 2,

I 7 7 7, 7 7 7, 7 7 7, 7 7 7,

Hn.

136

2 2 2 3, 2 2 2 3, 3 3 3 2, 3 3 3 2,

ii 7 7 7, 7 7 7, 7 7 7, 7 7 7,
III. Rondo - Allegro

Hn.

\[ \begin{array}{cccccccccccc}
\text{115} \\
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
1 & 2 & 1 & 2 & 1 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{116} \\
2 & 1 & 2 & 3 & 2 & 3 & 4 & 3 & 2 \\
2 & 1 & 2 & 3 & 2 & 3 & 4 & 3 & 2 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{117} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{118} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{119} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{120} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{121} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{122} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{123} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{124} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{125} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]

\[ \begin{array}{cccccccccccc}
\text{126} \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
2 & 1 & 2 & 3 & 4 & 3 & 2 & 1 \\
\end{array} \]
Appendix B

History

Concerto No. 2 in Eb Major for Horn and Orchestra, K. 417
Wolfgang Amadeus Mozart

Mozart composed his *Concerto in E flat major for Horn and Orchestra, K. 417* in 1783 in Vienna, Austria. It follows the traditional classical concerto form beginning with a fast movement containing separate solo and tutti passages. The second movement is a slow serenade that features the string section and uses the horn more for color than as a solo instrument. The final movement is in rondo form and is an homage to the hunting horn or *corno da caccia*; the direct ancestor of the 18th century natural horn for which this work was written.

The Mozart family had been long-time friends with a particular horn player named Ignaz Joseph Leitgeb (or Leutgeb) who was a soloist in the courts of Salzburg for many years before retiring to Vienna in 1777 to open a cheese shop. Wolfgang Mozart wrote a number of concerti for his old friend including *K. 417*. While it is clear that Leitgeb was an accomplished musician, he was not very well educated and spent most of his life in poverty. His decision to become a cheese monger certainly didn’t improve his

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social status. Mozart, who had a reputation as a mischievous prankster, could not ignore
the misfortune of Leitgeb and the heading to K. 417 reads: “Wolfgang Amadé Mozart has
taken pity on Leutgeb, ass, ox and fool, in Vienna 27 May 1783.”63 All teasing aside,
Mozart wrote at least three horn concerti as well as a Quintet for Horn, Violin, 2 Violas
and Bass, K. 407 for Leitgeb which suggests a great deal of respect by Wolfgang Mozart
for the artistry and musicianship of his horn playing friend.