LECTURE RECITAL

METHODOLOGY FOR THE DEVELOPMENT OF AIR AND COMPRESSION FOR BRASS INSTRUMENTS USING ADAPTATIONS OF EXERCISES BY WILLIAM ADAM, CARMINE CARUSO, HERBERT L. CLARKE, MAX SCHLOSSBERG, JAMES STAMP, AND RICHARD SHUEBRUK

By

TYLER JONES

(Under the Direction of Brandon Craswell)

ABSTRACT

Throughout the field of brass pedagogy there proves to be a wide array of teaching and performing techniques to facilitate the individual needs of performers. David Hickman, in his text *Trumpet Pedagogy*, describes tone production on the trumpet as an equilibrium between the "4Ps": pucker (of the embouchure), pressure (of the mouthpiece against the lips), placement (or the tongue inside the mouth), and push (of the air). Within his text he asserts that the balance between the "4Ps" is essential to proper development of a brass musician. While all four areas are inarguably essential to the development of efficient performance on the trumpet, is apparent that many players lose balance between the "4Ps" by focusing too strongly on pucker/embouchure strength to accommodate the demands o trumpet performance. This technique often results in students producing a stressed, pinched, and thin

tone which is more susceptible to chipping and muscular fatigue. The goal of this research is to develop and implement a tactilely based method of performance by utilizing and adapting the existing pedagogical techniques of William Adam, Carmine Caruso, Vincent Chicowicz, Louis Maggio, Max Schlossberg, Richard Shuebruk, and James Stamp. These exercises isolate and work to develop a deeper awareness of the air and compression throughout all registers anddynamics when performing on a brass instrument.

INDEX WORDS: Pedagogy, Trumpet, Lecture Recital, Air Attack, Brass, Teaching, Method

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CHAPTER 1

INTRODUCTION

Inspiration

My inspiration for this project came during my years of study with Professor Philip Smith while pursuing my Master of Music and my Doctor of Musical Arts degrees. While I had always felt that I had developed a strong overall competency on the trumpet, I continued to struggle with two major areas: consistency in tone throughout all the ranges of the trumpet and consistency of note accuracy in the upper register. When faced with broad passages in the upper register, I always found that despite my best efforts the boldness of tone and consistency of pitch was lost in the upper register. While my initial instinct was to try to play louder or more aggressively in search of a bigger, more consistent tone, the result was always a loud, forced, and generally unpleasant tone.

From this frustration, I decided that for me to meet my goals on the trumpet, I would need to fundamentally change how I approached the trumpet. At this point I found that the best place to begin was with square one: the air. Through lessons with Mr. Smith I was taught that air is the most fundamental attribute of producing tone on the trumpet and that if the embouchure was blown into position rather than manufactured, that the resulting tone would be large, vibrant, and with maximum resonance. After weeks of experimentation with this

concept, I found that through the training of the airstream and the push of the air, all registers and dynamics of the trumpet could be executed with very little involvement of the lips.

Excited by this realization, I quickly turned to find new ways to practice and develop this skillset so that both myself and my students could eventually make this approach to the trumpet become second nature. The result of this search became the inspiration for this project. I found that by utilizing and modifying the exercises developed by William Adam, Carmine Caruso, Herbert L. Clarke, Max Schlossberg, Richard Shuebruk, and James Stamp, I could effectively train my airstream to facilitate the most demanding elements of trumpet playing while creating significant resonance in all facets of performance.

Delimitations

This project is focused on adaptations of exercises developed by William Adam, Carmine Caruso, Herbert L. Clarke, Max Schlossberg, Richard Shuebruk, and James Stamp. While there will be discussion about each of the mentioned pedagogues, the goal of this research is not to create an exhaustive comparison between them. Instead, the goal is to develop a method which utilizes and synthesizes various strengths of the exercises through my creation of a sequenced and developed approach for air development.

This project is not designed to further develop or improve upon the established methods discussed, rather, to apply new awareness to the use of air in the context of said exercises.

Considerations

The fundamental techniques developed throughout this method can apply to students of all ability levels, though this approach is best suited for intermediate to advanced students. In addition, I find that this method has the greatest impact on students who are struggling with excess tension and inconsistent tone production/articulation when performing.

"The 4P's"

Throughout the field of brass pedagogy there proves to be a wide array of teaching and performing techniques to facilitate the individual needs of performers. While most, if not all, camps of trumpet pedagogy work towards the same goals (beauty of tone, ease of performance, consistency throughout all registers etc.), the approach of pedagogues seem to vary widely. Pedagogues such as Jerome Callet[1] and, Richard Shuebruk,[2] for example, largely base their methodologies on the training and manipulation of lip position to advance on the trumpet. On the other hand, we find that pedagogues such Louis Maggio,[3] Claude Gordon,[4] and James Morrison,[5] teach development of air and tongue with little active attention given to lip manipulation during performance. While these approaches seem to be contradictory in nature, they all work to improve the same mechanics of trumpet playing: mastering the controlled vibration of the lips.

[1] Smiley, Jeff, *, The balanced embouchure: a dynamic development system that's easy to learn and works for every trumpet player, Garland, Texas,* 2001.
[2] Shuebruk, Richard, *The complete Shuebruk lip trainers* for trumpet, New York : Carl Fischer 2003, 4.
[3] Frederiksen, Brian, and John Taylor, Arnold Jacobs: song and wind, WindSong Press, 2006, 123.
[4] Gordon, Claude, Brass playing is no harder than deep breathing, New York, New York: Carl Fischer, 1987.
[5] Morrison, James, How to play trumpet: the James Morrison way: Alfred, 2007.

David Hickman, in his text *Trumpet Pedagogy*, describes tone production on the trumpet as an equilibrium between the "4Ps": pucker (of the embouchure), pressure (of the mouthpiece against the lips), placement (of the tongue inside the mouth), and push (of the air). Within his text he asserts that the balance between the "4Ps" is essential to proper development of a brass musician.[6]Despite the distinct differences between the "4Ps" each of them has a direct impact on the speed of vibration of the lips and as a result the pitch which is produced.

"Pucker," or the position of the embouchure, is responsible for creating the shape of the vibrating surface of the lip as well is its elasticity. Both variables are largely responsible for the speed of the vibration of the lips when playing a brass instrument. While the exact position and role of the embouchure tends to vary greatly between pedagogies, there is a consensus that a proper embouchure should be resilient, flexible, and strong.[7]

"Pressure" is necessary to form an effective seal on the mouthpiece. Although players are not generally aware of the use of varying pressures when performing on the trumpet, its usage has a close correlation with the range of the instrument.[8] This correlation is the result of the necessity of increased pressure required for the lips to seal against the mouthpiece in the upper register. While the usage of some pressure is necessary, it is often used by brass players (particularly younger players) as a primary mechanic for increasing range. By adding great

[6] Hickman, David, and Amanda Pepping, *Trumpet Pedagogy: A Compendium of Modern Teaching Techniques*, Chandler, Ariz.: Hickman Music Editions, 2006, 13-22.

[7] Noble, The Psychology of Cornet and Trumpet Playing; Scientific Principles of Artistic Performance. Printed by The Mountain Press, 1964, 55.

[8] Hickman and Pepping, *Trumpet Pedagogy*, 14.

amounts of pressure without providing equal support from the pucker of the embouchure, the lips will naturally spread and thin out, causing faster vibrations of the lip.[9] Using pressure in this manner can effectively take away from the requirements of the other 3P's of Hickman's model, and applying it in this manner is highly discouraged as it can quickly cause muscular/dental damage to a player, eventually hindering the development of the upper register over time.[10]

"Placement" of the tongue directly impacts the vibration of the lips by influencing the speed of the airstream. Just as placing one's thumb over the opening of a running water hose effects the speed of the water exiting, the position of the tongue within the mouth directly effects the speed of the air as it approaches the lips. By raising the arch of the tongue within the mouth to accelerate the air, the lips will vibrate at a quicker speed as a result, resulting in a higher pitch.[11]

Like the placement of the tongue, the "push" of the air from the lungs directly impacts the speed of the air approaching the lips, therefore informing the speed of vibration of the lips. Claude Gordon, in his book, *Brass Playing is No Harder Than Deep Breathing,* describes this mechanic as being the result of air position within the lungs and the isometric compression of the back muscles to pressurize the release of the air. Gordon attributes this push of the wind as a significant factor towards the development of easy trumpet playing.[12]

While all four areas of tone production are inarguably essential to the development of efficient performance on the trumpet, it is apparent that many hard-working players lose

[9] Morrison, *How to play trumpet.*
[10] Ibid.
[11] Hickman and Pepping, *Trumpet Pedagogy*, 106-109.
[12] Gordon, *Brass playing is no harder than deep breathing*, 14.

balance between the “4Ps”, focusing too strongly on the pucker/embouchure strength to accommodate the demands of trumpet performance. By disproportionately developing the strength of the pucker in relation to the other 3P’s of Hickman’s model, students often find themselves battling a pinched, and produce a thin tone which is more susceptible to chipping and muscular fatigue.

The goal of this project is to develop and implement a tactile method of performance by utilizing and adapting the existing pedagogical techniques of William Adam, Carmine Caruso, Herbert L. Clarke, Max Schlossberg, Richard Shuebruk, and James Stamp. These exercises isolate the air and develop awareness of its role through all registers and dynamics while playing a brass instrument. In developing a higher awareness of the air, compression, and “push", I aim to help students find greater ease, strength, resonance, and control throughout all aspects of their playing.

The Method

The method for the development of air strength is accomplished through a series of exercises which help students find a natural positioning of the embouchure while developing an awareness of the role of the airstream when playing the trumpet.

In the field of trumpet pedagogy students are often given a prescription for perfect embouchure, mouthpiece position, lip position, tongue position, jaw placement, tongue movement, air stream direction, etc. While these diagnoses are generally very well intended, I believe for many students the over-explanation of these mechanics often results in what Arnold Jacobs, former principal tuba of the Chicago Symphony, would refer to as a “paralysis through

analysis."[13]In attempt to prevent this occurrence, my goal is to not over-explain the complex mechanisms of the embouchure, tongue position, or articulation but to guide students through a method which requires them to discover these mechanics for themselves.

Because of the nature of this approach it is important to work chronologically, as this method greatly relies on the mastery of concepts to serve as building blocks for the following exercises. Working through the exercises out of order may negate the benefits of the exercises or may even result in injury due to excessive demands on underdeveloped muscle groups. Patience and proper rest between studies proves to be essential when adapting to this method. Please remember that this approach should provide the framework for long term performance goals and cannot be completely developed within a short time frame. The exercises included within this method are as follows:

Open Air Attacks, adapted from William Adam's leadpipe studies

The Six Notes, adapted from *Carmine Caruso's,* "The Six Notes"*,* from *Musical Calisthenics for Brass*

Intro to Flow, adapted from Carmine Caruso's "*2nds*/*3rds"*, from *Musical Calisthenics for Brass*

Flow Studies, adapted from Herbert L. Clarke's "Studies 1-3", from *Technical Studies for Cornet*

Low Blow, adapted from James Stamp's "Basic warm-ups #4*"* from *Warm-Ups + Studies*

[13] Frederiksen, Brian, and John Taylor, Song and Wind, 143.

Low Flow, adapted from James Stamp's "Basic warm-ups #3" from *Warm-Ups + Studies*

Broken Slurs, adapted from Max Schlossberg's "Long Note Drills #'s 11-15, 21", from *Daily Drill and Technical Studies for Trumpet*

Dynamic Expansion, adapted from Max Schlossberg's "Long Note Drills #'s 1, 2", from *Daily Drill and Technical Studies for Trumpet*

Compression Trainers, adapted from Richard Shuebruk's "Grade 2: Business Players, No. 2", from *The Complete Shuebruk Lip Trainers for Trumpet*

Articulation Trainers, James Stamp's "Staccato Control", from *Basic warm-ups #3* from *Warm-Ups + Studies*

CHAPTER 2

PREPARATIONS

Embouchure Shape

While it is a goal of this project to develop a system of performance based on individual discovery of the embouchure, I feel it is necessary to encourage the following concepts when forming the embouchure in order to accelerate success and prevent injury:

- Firm corners
- Slight forward placement of lips, as if slightly puckering
- Relaxed center of the lips to allow relaxed airflow
- Consistency of aperture size throughout various ranges
- Consistent support of the airstream from corners throughout all registers

In addition, one must avoid flattening or widening the vibrating surface of the lips while playing. While this technique may help produce the required pitches, as varying the size of the aperture impacts the speed of lip vibration, this approach is generally understood to cause a thinning of the sound and result in decreased endurance.[14] Additionally, performing on the resulting thinned-out lip structure could result in muscular damage over time.[15]

[14] Gordon, Claude, 1968, *Systematic approach to daily practice for trumpet: how to practice, what to practice, when to practice*, New York: C. Fischer, 5.
[15] Farkas, Philip, 1962, *The art of brass playing, Bloomington*, Ind: Brass Publications, 11.

A major focus of this method is the development of a 'universal setting' of the embouchure which can accomplish extraordinarily versatile tasks with very little adjustment. To develop a universal setting, it is important to consider mouthpiece pressure. I like to think about the pressure of the mouthpiece as a mechanism which locks the position of the lips to the mouthpiece. While it may be possible for the lips to easily relax/slide outwards under the pressure of the mouthpiece (as many players do when approaching the low register), pulling the lips inward while applying mouthpiece pressure proves to be extraordinarily difficult. This technique is why many players find themselves having to 'reset' their embouchure by removing and replacing the mouthpiece when working from the low range into the high range, but not as often when approaching the same pitches from high to low. For this reason, to ensure healthy embouchure development, it is important that players work to develop an embouchure structure which can perform in all ranges and dynamics of the trumpet without having to significantly manipulate the lips under the mouthpiece. Through the development of air strength, performers can intuitively discover an embouchure which can accomplish the many rigors of trumpet playing while requiring little manipulation of the lips.

Approach to Articulation

Although clarity and resonance of articulation is a significant focus in this method, I intentionally did not include detailed instruction as to the function of the tongue. While many pedagogues find benefit in thorough explanations of the tongue when articulating, it is my belief that great articulation is largely a byproduct of proper air support and superior audiation.

To simplify this method and encourage intuitive articulation, I utilize only two articulations throughout: air attack (hoo), and a standard articulation (too). Often throughout this method performers are asked to begin an exercise using the 'hoo' articulation quickly followed by 'too.' The quick transfer between air attacks and standard articulation, with an emphasis on equal tone production, is used to help performers discover a method of articulation in which the tongue does not negatively interfere with the quality of air support.

Adam's Intervals

When playing the adaptations of Clarke and Shuebruk, performers are asked to perform the exercises in a sequence which begins with G4 and systematically branches out lower and higher throughout the standard range of the trumpet. Due to the use of this progression of intervals in the long tone studies used by William Adam[16], I refer to this progression throughout this project as Adam's intervals. This system is used to center the embouchure towards the middle range of the trumpet to encourage a relaxed and open setting while also balancing the physical demands of the upper register through equal performance of the lower register. In addition, this technique effectively works to train audiation, as the intervallic relationship between each exercise proves to be quite difficult if an internal hearing of pitches is not strongly established. This technique of "spidering" around set pitches for embouchure balance has proven to be a staple in many pedagogies including Adam,[17]and Shuebruk.[18]

[16] Minasian, David, "The Bill Adam Daily Routine", 2000, *https://www.trumpetworx.com/wp-content/uploads/2016/07/271430394-Bill-Adams-Daily-Routine.pdf*, 1-2.
[17] Ibid, 1-2.
[18] Shuebruk, *Lip Trainers*, 20-21.

CHAPTER 3

UTILIZED TECHNIQUES

Air Attacks

Many of the exercises within this method utilize air attacks to either begin an exercise or to be used as a replacement for standard articulation. While the syllable used when approaching air attacks varies between pedagogues, the use of air attacks is found in the pedagogical approaches of Carmine Caruso,[19] and James Stamp.[20] When using air attacks throughout this method, the syllable "hoo" is recommended. When producing tone with this syllable, be sure not to bring the lips so far inward that excessive tension of the lips is created. Also, pay particular attention to the follow-through of air after the initiation of the tone. This approach should result in the embouchure structure being effectively blown into place to create the tone rather than creating the tone through unnecessary muscular tension. By developing the ability to easily begin a note using this technique, the performer is effectively refining a personalized approach for utilizing air speed and pressurization of the air column to produce desired tones. Be careful when working with these attacks to not utilize a "poo" syllable, as the consonance involved creates an artificial articulation which may negate the benefits of the exercises.

Nose Breathing

[19] Caruso, Carmine, *Musical calisthenics for brass*, Hollywood, Calif: Almo Publications, 1979, 9.
[20] Stamp, James, *Warm-Ups & Studies*, Bulle: Edition BIM, 1978, 3.

Occasionally within this method nose breathing within an exercise is required. While using this technique is not designed to be a substitute for standard breathing outside of these exercises, it allows for a performer to take the required amount of air for an exercise without disengaging the muscles in the embouchure when taking a standard breath.[21] By learning to effectively perform through the selected exercises without the necessity of 'resetting' the embouchure during standard breath, it is my goal that students can over time create an approach which will work with great versatility throughout all dynamics and ranges. This approach to embouchure development can also be found in the pedagogy of Carmine Caruso,[22] and Louis Maggio.[23]

Open Air Attacks

One of the more unique techniques utilized within this method of practice is the use of 'open air attacks' within exercises. Here, performers are asked to blow air through their trumpet while utilizing an active embouchure structure. The performer must be careful to not cause any actual vibration of the lips; this is a symptom of unnecessary tension in the embouchure. While simple in nature, in my teaching experience, students who perform with excessive lip tension have exceptional difficulty achieving this goal. Often exercises beginning with open air attacks will segue into vibration of the lips with minimal (if not unnoticeable) muscular movement and without any break in the airstream. It is my belief that the quality and 'warmth' of the air is ultimately what determines the quality of the tone produced. The use of

[21] Caruso, *Musical calisthenics for brass*, 8.
[22] Ibid, 8.
[23] MacBeth, Carlton, and Louis Maggio, *The original Louis Maggio system for brass*, North Hollywood, Calif: Maggio Music Press, 1968.

open air allows a performer the opportunity to musically assess and correct the quality of air before any vibration occurs.

Audiation

To experience success throughout this method, a strong understanding of audiation (or internal hearing of pitches) is crucial. Keith Johnson, former Professor of Trumpet at the University of North Texas, wrote to the importance of audiation in his book *The Art of Trumpet Playing*. Johnson describes the ability to conceive sound and the ability to judge whether or not that sound was replicated in performance as the two most crucial skills for any performer. He further suggests that it is only through the development of the aural concept that the body can effectively control the physical responses which create sound.[24] While audiation is impossible to assess outside of the mind of the performer, the use of expanding intervals and static lip placement throughout this method are used to develop this technique.

Pedal tones

[24] Johnson, Keith, *The Art of Trumpet Playing*, 1st ed. Ames: Iowa State University Press, 1981, 52-53.

Like the pedagogical approaches of Caruso,[25] Gordon,[26] Maggio,[27] and Stamp,[28] this method works to develop embouchure strength using pedal tones. While these notes aren't particularly practical, learning to properly form and support notes in the pedal range works to develop strength and security while using a large and free flowing aperture.[29] For this reason, these tones also work to strengthen the embouchure for strong upper register playing without requiring the physical demands of playing in the upper register.

While performing pedal tones, attention must be given to ensure that corners of the embouchure remain firm with a slightly forward placement of the lips. Flattening or widening the embouchure to facilitate these pitches greatly negates the benefits of the exercises. Be sure to follow the given fingerings to perform the written pitches. Due to the difficult nature of performing pedal C without the use of valves, many performers may benefit from using the 1,2,3 valve combination or work to find the pitch by performing the pitch below the pedal C and increasing the air velocity (without tightening the lips) until the desired pitch sounds, as suggested by Carlton Macbeth in *The Original Maggio System for Brass*.[30]

[25] Caruso, *Musical calisthenics for brass*, 31.
[26] Gordon, *Systematic approach,* 8.
[27] MacBeth, Carlton, and Maggio, *Louis Maggio system for brass*.
[28] Stamp, *Warm-Ups & Studies*.
[29] Gordon, *Systematic approach,* 8.
[30] MacBeth, Carlton, and Maggio, *Louis Maggio system for brass*.

CHAPTER 4

THE EXERCISES/ORIGINAL AND ADAPTATIONS

William (Bill) Adam (1917-2013)

William Adam is often regarded as one of the most influential pedagogues of modern trumpet playing and is largely remembered for his success as a teacher as well as the development of his highly regarded daily practice routine. Adam's approach to teaching has often been described as wholistic, due to his focus on not only trumpet playing but the lives of his students in general. In addition, audiation development and performance modeling proved to be staples of his teaching technique.

Pedagogically, Adam had a strong focus on easy and relaxed playing and regularly advocated against the practice of mouthpiece buzzing.[31] In lessons, he would often demonstrate the concept of "sympathetic vibration"[32] of the lips by blowing through the mouthpiece showing how the tone can be accomplished without adjusting the embouchure, rather by connecting the mouthpiece to the leadpipe. Based off this principal, Adam regularly utilized a technique within his practice routine he referred to as "blowing the leadpipe,"[33].

[31] Wilcox, Mark, "The Influence of the Teaching Concepts of William Adam on Four First Generation Students," Ann Arbor: University Microfilms International (UMI), 2009, 21.
[32] Ibid, 18.
[33] Ibid, 19.

which required students to practice basic tone production with just the leadpipe of the trumpet. Following Adam's leadpipe studies in his routine is his approach to long tones which require performers to begin with G4 and branch out chromatically higher and lower throughout the range of the trumpet.[34] This strategy for the branching out of intervals from G4 is used as the basis for the key progressions found in the Clarke and Shuebruk adaptations throughout my method.

Open Air Attacks, adapted from William Adam's leadpipe studies

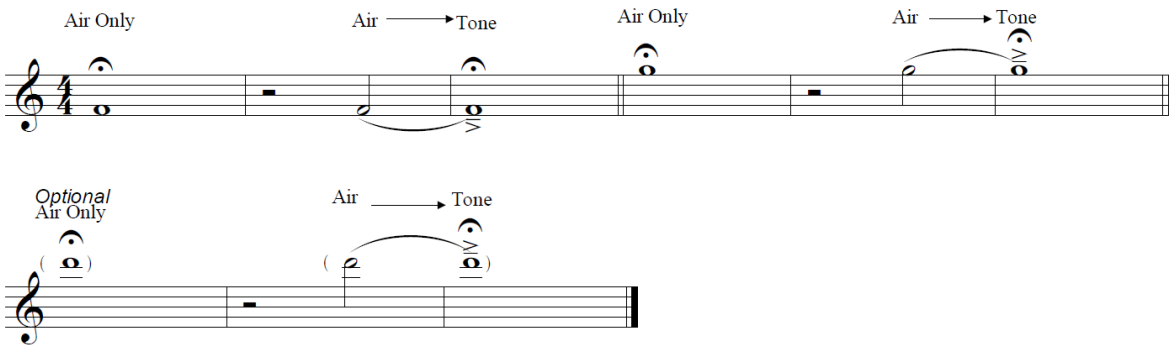
These exercises are greatly based upon Adam's use of leadpipe playing within his routine, although with a slightly more relaxed approach. These exercises are based on two main elements of performance: the development of just the timbre of the air and the production of tone.

To begin these exercises, the performer is asked to begin by blowing a full airstream through the leadpipe while forming a basic embouchure. The air used during this exercise should be as close as possible to the air used to perform F4, if using a standard Bb leadpipe. The performer should listen specifically to the timbre of the air and work to make the tone of the air as warm and full as possible. For players with a great amount of tension in their playing, this exercise can be very difficult to perform without a buzz coming through the leadpipe. Once the desired timbre of the air is achieved the performer is to continue to the next portion on the exercise.

[34] Ibid, 20.

Using the air established in the previous exercise the performer should use a “hoo” syllable to seamlessly transfer from air to sound with as little muscular movement as possible. The tone of the air, without vibration, should occur for several beats before vibration occurs. Similar to how a vocalist can draw out the H consonant in “hoo” before allowing the vowel “oo” to vibrate in the vocal cords with little movement, a brass musician can blow air through the leadpipe (h) and transform the air into a vibrant tone (oo), with little movement. While performing this exercise the performer should think of the volume of the air building to the tone, making sure that the air does not become more tense prior to the start of the note. If performed accurately, the tone should pop out of the leadpipe, almost as if accented. Once vibration begins, the performer should continue the blow to insure a driving tone through the end of the exercise.

If able, the performer should use this exercise to perform pitches higher up the harmonic series (approximately G5, D6, G6 etc.) While the speed of the air performed prior to the start of the note will be drastically different when approaching the upper register, the goal should remain to keep the tone of the air as warm and full as possible. Please note that differences in equipment and personal approach may result in slight variations from the notated pitches.



Adaptation of Adam's Leadpipe Studies [Figure 4.1]

Carmine Caruso (1904-1987)

Carmine Caruso is considered one of the greatest American brass teachers of the 20th century, remembered for his innovative approach to brass pedagogy as well as the development of his book *Musical Calisthenics for Brass*.[35]

Caruso was born in New York at the beginning of the 20th century and while he is most widely known today for his developments in brass pedagogy, up until the early 1940's Caruso made his living primarily as a professional saxophonist. In 1941 Caruso decided to devote his life to full time teaching, and within the first year after accepting his first trumpet student he was said to have had over 40 brass students.[36]

As a teacher Caruso greatly focused on the idea of "musical calisthenics." His teaching often focused on developing muscles and air to work in perfect coordination, without much

[35] Caruso, *Musical calisthenics for brass*.
[36] Utnes, Ole J, "Carmine Caruso - the Master Teacher," 2002, http://abel.hive.no/trompet/interview/caruso/.

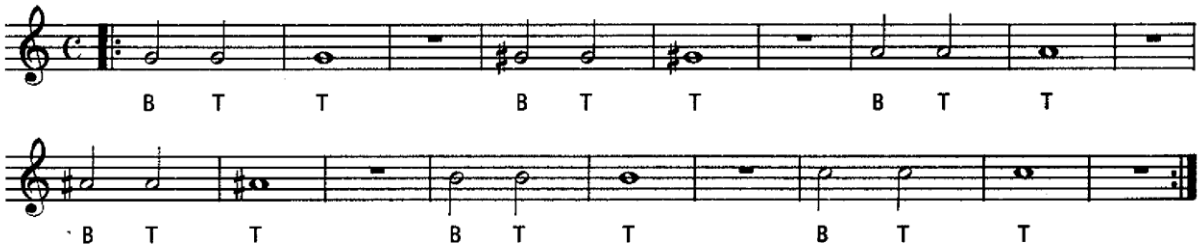
attention to the tone or intonation produced. Caruso's teaching rarely focused on the quality of sound achieved through his exercises, but more importantly on the ease and accuracy of the production of sound.[37] Through the development of ease and resonance in tone production, Caruso believed that he was supplying his students with the tools needed to be successful on the instrument and that musicality and development of a beautiful tone would come organically as students worked outside of his exercises.[38]

Due to the success of Caruso's methodology in teaching the strength of the airstream and how it correlates with the tongue, I have chosen two of Caruso's most well-known exercises to serve as the foundation for this method: "The Six Notes", and "Intervals in Seconds/Intervals in Thirds."[39]

Caruso's *The Six Notes* from *Calisthenics for Brass*

"The 6 notes"[40] is generally regarded as the staple of his pedagogical approach, featuring two half notes followed by a whole note all on the same pitch. The first note is to be air attacked and the following notes are to be lightly tongued using a process Caruso referred to as tongue brushing. The exercise is to be carried upward in a chromatic motion in six note groups.[41]

[37] Caruso, *Musical calisthenics for brass*, 4.
[38] Ibid, 9.
[39] Ibid, 9-11.
[40] Ibid, 9.
[41] Ibid, 9.

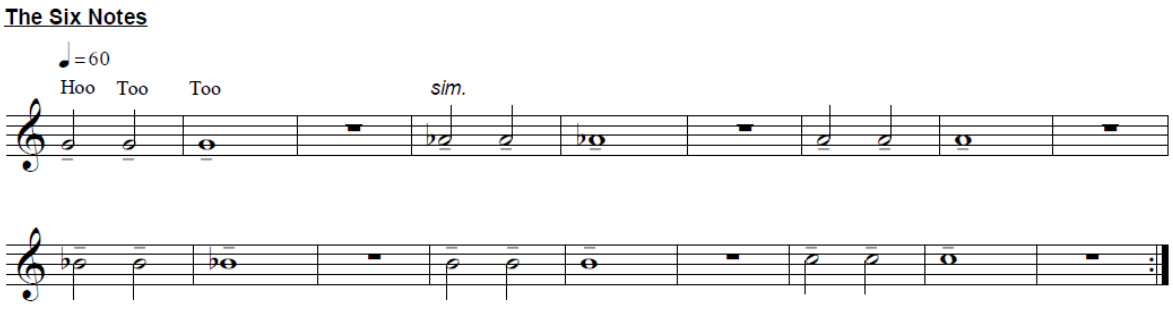


"The Six Notes"[42] [Figure 4.2]

The Six Notes, adapted from *Carmine Caruso*

For my adaptation of *The Six Notes*,[43] I utilize a nearly verbatim application of his exercise, but with a more relaxed approach. Rather than requiring students to maintain their embouchure firmness throughout all rests (as required by Caruso),[44] I encourage students to maintain their embouchure shape and mouthpiece contact but encourage the muscles to relax during the rests until activated by the airstream. While Caruso's approach of constant activation of the embouchure works well to develop muscular strength and endurance, I find that this approach may invite more tension than desired for this method. By allowing students to rest the embouchure during the rests, I find that students find more relaxation in their approach.

[42] Ibid, 9.
[43] Ibid, 9.
[44] Ibid, 7.

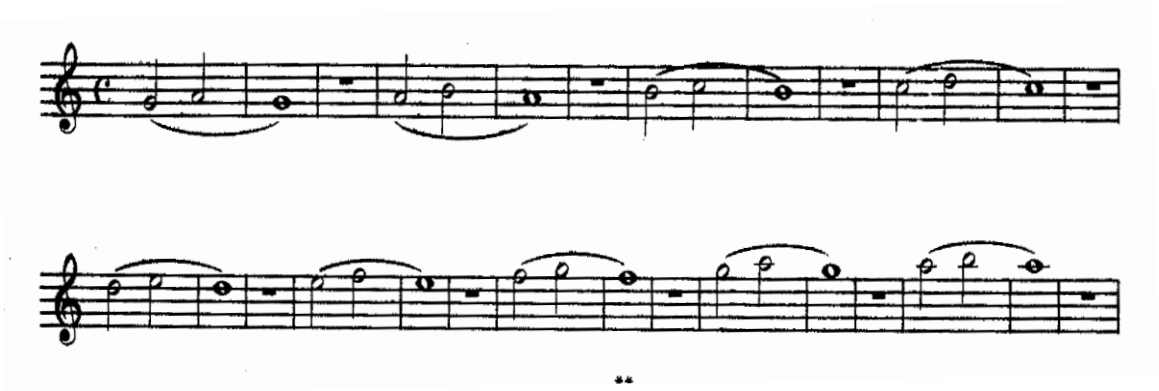


Adaptation of "The Six Notes" [Figure 4.3]

Caruso's Interval Training from *Calisthenics for Brass*

Caruso's interval training consists of two half notes followed by a whole note all slurred together, beginning on a g. The second half note in these exercises consists either of a 2nd or 3rd, depending on the exercise, and requires the performer to slur up to this interval and back down to arrive on the whole note.[45] After one measure of rest (during which the performer keeps their embouchure activated as if playing), this exercise is to be raised by a step. This pattern repeats until the performer reaches the top of their comfortable range.

[45] Ibid, 10-11.

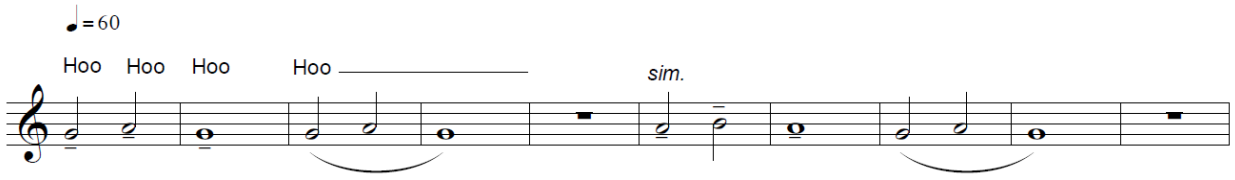


"Intervals in 2nds"[46] [Figure 4.4]

Intro to Flow, adapted from Carmine Caruso's "2nds," and "3rds"

For my adaptations of *2nds* and *3rds*,[47] I developed an introductory exercise to require students to actively find each note using air attacks before performing the slurs as written in the original exercise. Like the previous adaptation, students should allow their embouchure to relax during the rest while keeping placement and mouthpiece contact. Isolating the intervals in this manner it keeps students from inadvertently relying on lip movement to approach these intervals. After mastery of these intervals using this technique, I find students are more able to smoothly perform Caruso's original exercises with far greater flow and support.

[46] Ibid, 10.
[47] Ibid, 10-11.



Adaptation of "Intervals in 2nds" [Figure 4.5]

Herbert L. Clarke (1867-1945)

Herbert. L. Clarke is remembered today for his career as an American cornet Soloist, teacher, and composer. As a performer Clarke was regarded as one of the greatest soloists of his era, praised for his exceptional technical facility, endurance, range, and lyrical tone.[48] By the end of his career as a cornetist with Gilmore, Victor Herbert, and John Philip Sousa's bands, Clarke claims to have performed over six thousand programmed cornet solos, including 473 concerts in one season.[49]"

As a teacher Clarke was well known for his teaching of efficiency in technique. It was his belief that "endurance is 90% of cornet playing."[50] In order to develop efficiency in his students, it was his belief that the efficiency in air needed to be developed. In a letter written by Clarke to Claude Gordon, Clarke states his belief that Wind-Control is responsible for 98% of brass instruction, and it is not until this is developed that the muscles of the lips should be

[48] Gordon, *Brass playing is no harder than deep breathing*, 7.

[49] Canada, Library and Archives, "Herbert L. Clarke, Cornetist (1867-1945)," Library and Archives Canada, February 29, 2016, https://www.bac-lac.gc.ca/eng/discover/films-videos-sound-recordings/virtual-gramophone/Pages/herbert-clarke-bio.aspx.

[50] Gekker, *Slow Practice*, 1.

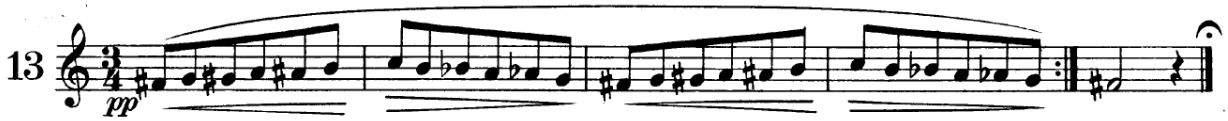
developed.[51] Throughout his pedagogy, you will often find that he asks performers to play at very soft dynamics for very long periods of time, thus developing a focused air stream and stable embouchure.[52]

As a composer, Clarke was known for composing many of his own cornet solos, band pieces, and exercises for the cornet, including his *Technical Studies for Trumpet*.[53] Due to the pedagogical significance of *Technical Studies for Trumpet* and its ability to train the efficient movement of the airstream, I chose to adapt the first three studies to be used within my method.

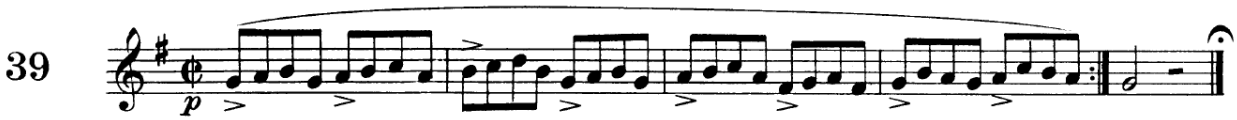
Clarke's "Studies 1-3", from *Technical Studies for Cornet*

Clarke's technical studies were developed to teach ease, efficiency, endurance, and flexibility in one's cornet playing. These exercises feature long, flow-based exercises which Clarke found to be superior to a standard long tone.[54] Through the performance of these exercises with an emphasis on performing many repetitions on one breath, ease and efficiency of performance are developed. It is important to note that the indicated dynamics are designed to be a goal and were not expected to be achieved until proper control of the sound and air were developed.[55]

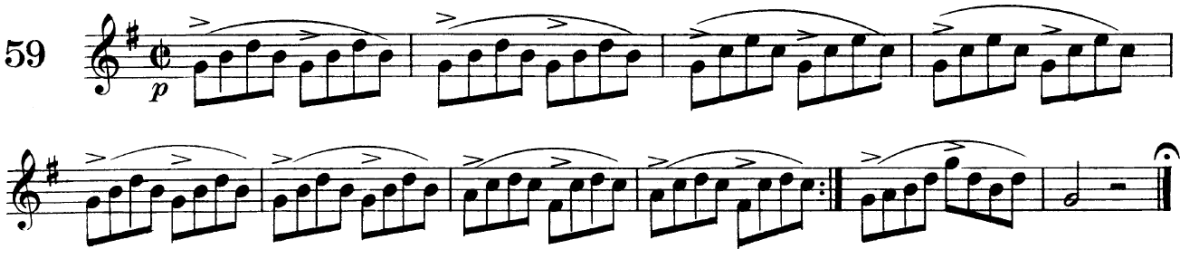
[51] Gordon, *Brass playing is no harder than deep breathing*, 29.
[52] Gekker, *Slow Practice*, 1.
[53] Clarke, Herbert Lincoln, *Technical studies for the cornet*, New York, NY: Fischer. 1984.
[54] Ibid, 3.
[55] Gordon, *Brass playing is no harder than deep breathing*, 28.



"Study #1"[56][Figure 4.6]



"Study #2"[57] [Figure 4.7]



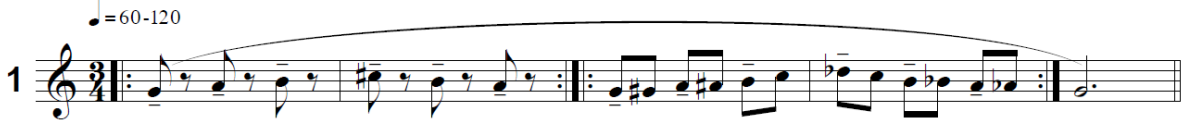
"Study #3"[58] [Figure 4.8]

Flow Studies, adapted from Clarke's "Studies 1-3", from *Technical Studies for Cornet*

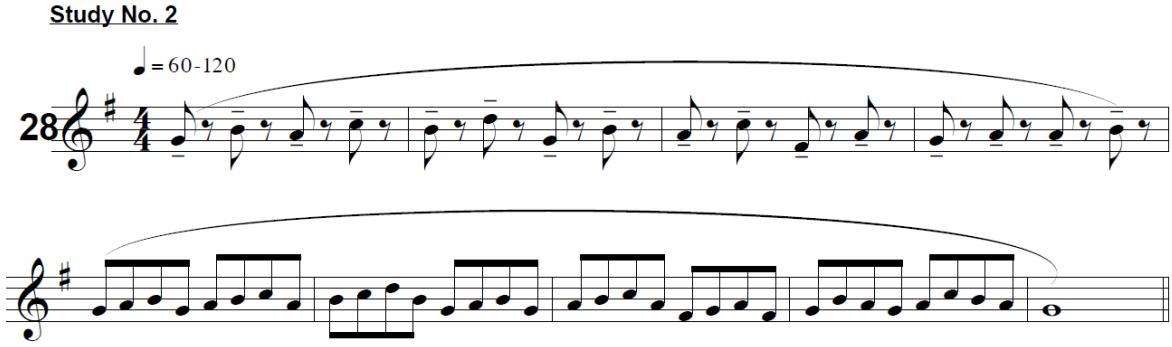
These adaptation of Herbert L. Clarke's studies #1-3 were developed to further advance the development of flow within an air-based approach to performance. It is my goal that performers develop a greater awareness of the movement of air by isolating the intervals throughout these studies. After mastering the transition between these intervals, the performer should work to smoothly transition between these intervals in the context of the full exercise with an awareness to the tactile checkpoints previously established. It is important

[56] Clarke, *Technical studies for the cornet*, 6.
[57] Clarke, *Technical studies for the cornet*, 9.
[58] Clarke, *Technical studies for the cornet*, 12.

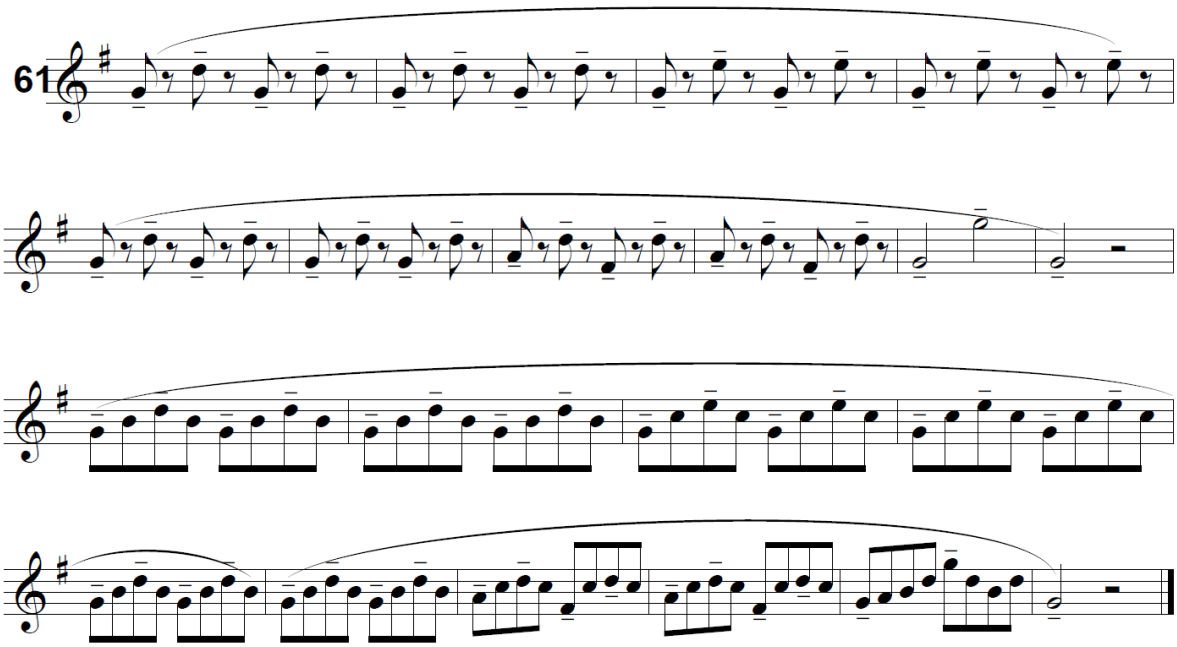
when approaching these studies to keep a feeling of connectivity between the attacked notes to insure a smooth approach.



Adaptation of “Study #1” [Figure 4.9]



Adaptation of “Study #2” [Figure 4.10]



Adaptation of “Study #3” [Figure 4.11]

James Stamp (1904-1985)

James Stamp is recognized as one of the most influential teachers of the trumpet, remembered not only for his contribution to trumpet pedagogy and, extraordinary student success, but also as a successful orchestral trumpeter.[59]

The pedagogical approach of Stamp focused on the mastery of the trumpet through developing an awareness to the pitch center of each note. According to Stanley Friedman, a former student of Stamp, his outlook on the trumpet was based around the notion that each pitch on the trumpet has a place where it produces a maximum resonance, known as the center

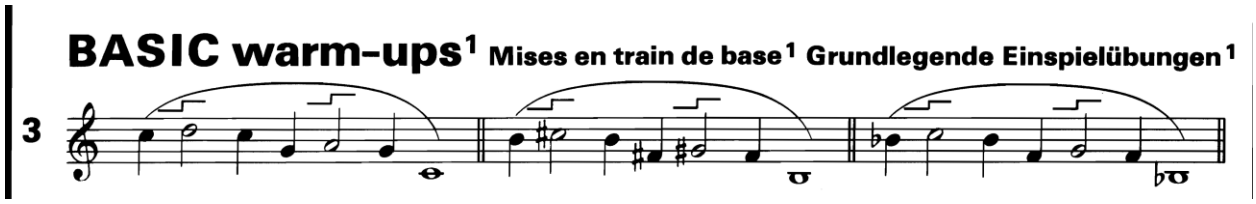
[59] King, Daniel, "An analysis and comparison of the brass methods by James Stamp, Donald Reinhardt, Carmine Caruso, and Claude Gordon," Electronic Thesis or Dissertation, Ohio State University, 2004, https://etd.ohiolink.edu/

of the pitch. By playing in the direct center of the pitch and avoiding bending or pushing notes out of the center of pitch, the trumpet proves to be quite easy to play.[60] To teach the skill of playing in the center of pitch, Stamp developed many unique exercises which later became the foundation of his book, *Warm-Ups + Studies*.[61] Due to the pedagogical strength of Stamp's method, I chose to adapt the "Basic Warm-Ups #3,4" and "Staccato Control" for this project.

Basic Warm-Ups #3 from *Warm-Ups + Studies*

Of the studies in this book the most recognizable is his "Basic Warm-Ups #3,"[62] referred to as "Stamp: Symphony No. 1"[63] by Swedish virtuoso and former Stamp student, Håkan Hardenberger. This study was designed by Stamp to help students find proper embouchure and air placement by utilizing basic flow pattern (found in the major seconds throughout) and adding them in the context of lowering harmonic shifts. This exercise should be played with an emphasis on centering the tone for each note. Within this exercise Stamp also included a bracketed marking above the major second intervals which serve as a reminder for students to not telegraph the transition to the next note through bending or loosening.[64] In addition, this exercise works to develop the pedal register to build versatility in the embouchure as well as relax the lips and improve blood circulation.[65]

[60] Stanley Friedman, "The Correct Way to Practice Stamp's Exercises (1/3): Introduction," 2016, www.trumpetLand.com.
[61] Stamp, James, *Warm-Ups & Studies*, Bulle: Edition BIM, 1978.
[62] Ibid, 5.
[63] King, "Brass methods by James Stamp", 29.
[64] Stanley Friedman, "The Correct Way to Practice Stamp's Exercises (2/3): Basic Warm-up," accessed June 19, 2020, www.trumpetLand.com.
[65] King, *Brass methods* by James Stamp, 32.

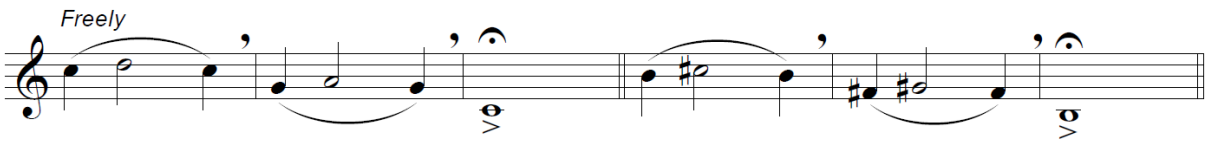


"Basic Warm-Ups #3"[66] [Figure 4.12]

Low Flow, adapted from Stamp's "Basic Warm-Ups #3*"* from *Warm-Ups + Studies*

This adaptation from Stamp's "Basic warm-ups #3" was developed for my method in order to take the skill of moving through major 2nds (established in "Intro to Flow") and expand upon it through the addition of large downward jumps into the pedal register. When performing this exercise students should use an air attack for each articulation. By requiring the embouchure to function during this exercise off the flow of air alone, it is my goal that students develop far more flexibility and security in their embouchure while also building strength which can be used in all registers. While this exercise mainly addresses the mid to lower register of the instrument, learning to develop the proper embouchure to perform these exercises provides a strong foundation for relaxed upper register playing. When playing these exercises, attention must be given to ensure that the embouchure remains consistent throughout range changes.

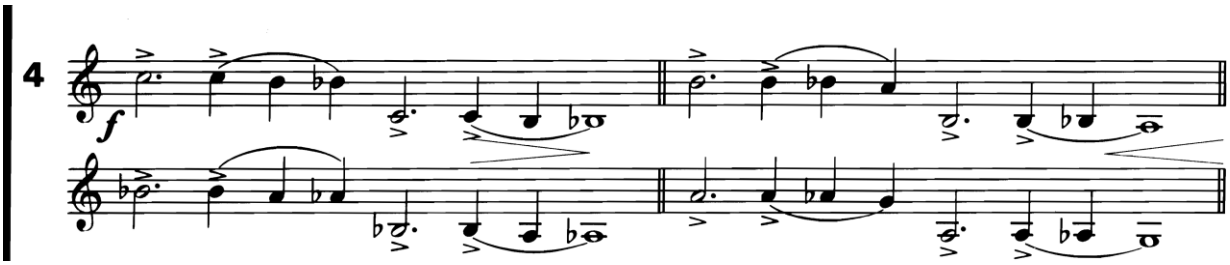
[66] Stamp, *Warm-Ups & Studies*, 5.



Adaptation of "Basic Warm-Ups #3" [Figure 4.13]

Basic Warm-Ups #4

Warmup #4 is designed similarly to Warmup #3, with a basic flow exercise (found in the chromatic descending figures) and adding them within the context of large harmonic shifts. This exercise was used by Stamp to check the balance of support and lip tension.[67] This exercise also works to add the use of articulation throughout which aids in solidifying the center of the tone.

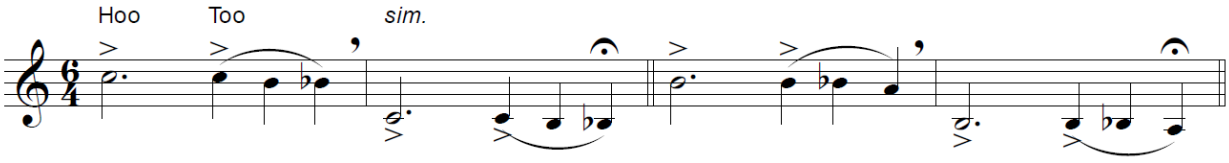


"Basic Warm-Ups #4"[68] [Figure 4.14]

[67] King, "Brass methods by James Stamp", 32.
[68] Stamp, *Warm-Ups & Studies*, 6.

Low Articulation, adapted from Stamp's "Basic Warm-Ups #4" from *Warm-Ups + Studies*

I used this adaptation of Basic Warm-Ups #4 to further solidify the correct air placement of notes using air attacks, with the inclusion of articulation. While the use of air attacks is an extraordinary tool for developing a relaxed approach for tone production, if approached without firm support in the embouchure clean articulation cannot be achieved. By adding the use of "too" attacks following the use of air attacks, this exercise works both to utilize the benefits of air attacks while also insuring proper technique. In addition, this exercise serves to inform the performer of the role of air in their articulation.

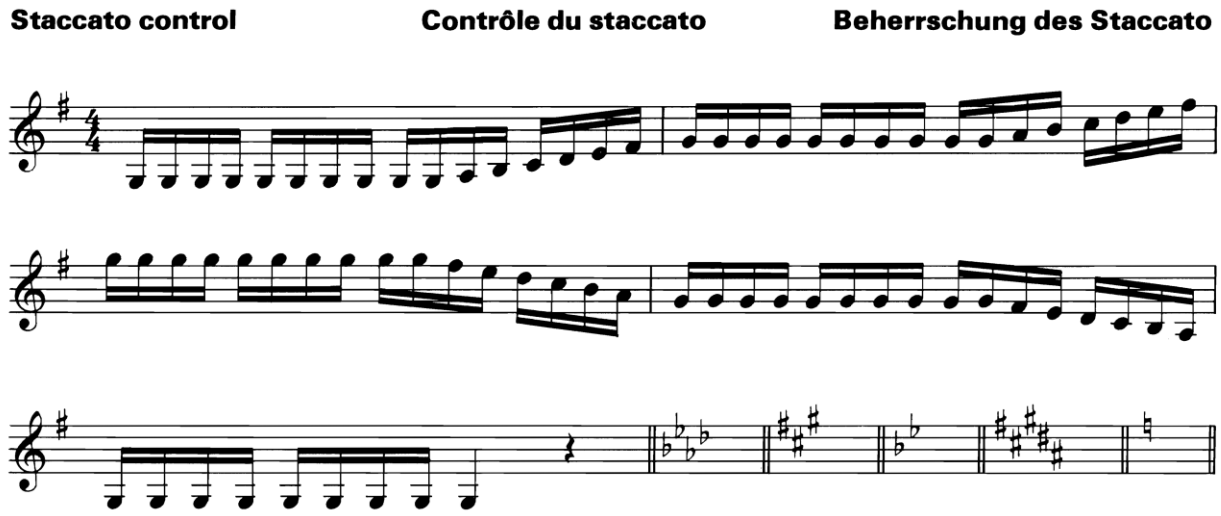


Adaptation of "Basic Warm-Ups #4" [Figure 4.15]

Staccato control

While Stamp doesn't include any information as to the goal of this exercise, it is understood by Roy Poper, long time student of Stamp, that the goal is to "develop a rapidly articulated sound that holds together at all volumes and all speeds."[69]

[69] King, "Brass methods by James Stamp", 81.



"Staccato Control"[70] [Figure 4.16]

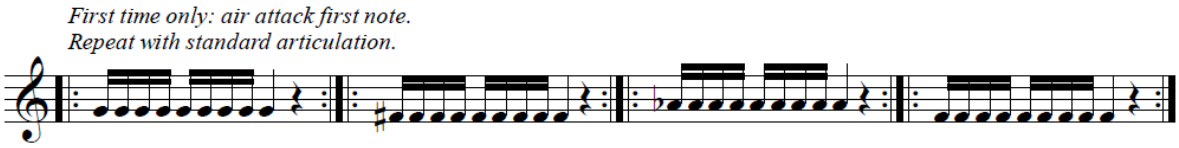
Articulation Trainers, James Stamp's "Staccato Control", from *Warm-Ups + Studies*

For my adaptation of "Staccato Control" I utilized a three-part approach to develop depth and security of tone when articulating.

Like the use of repeated tones in the original exercise, the first part of this adaptation is designed to build security of articulation and pitch through the proper centering of one repeating pitch. This exercise is to be played using an air attack for the first 16th note of each section and then repeated with a standard articulation. By beginning with an air attack and continuing with a quick standard articulation, the security of the embouchure and development of proper articulation technique is established. If any imbalance between any of the 4P's of Hickman's model exists when approaching this exercise, success proves to be quite difficult. Similar to other

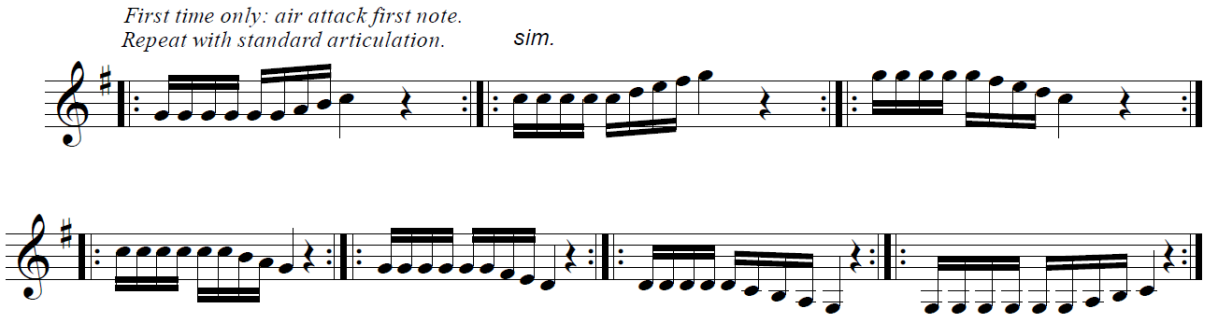
[70] Stamp, *Warm-Ups & Studies*, 29.

exercises within this method, the progression of intervals is designed to reflect William Adam's approach to long tones[71] in order to further encourage audiation and versatility.



Adaptation of "Staccato Control", Part 1 [Figure 4.17]

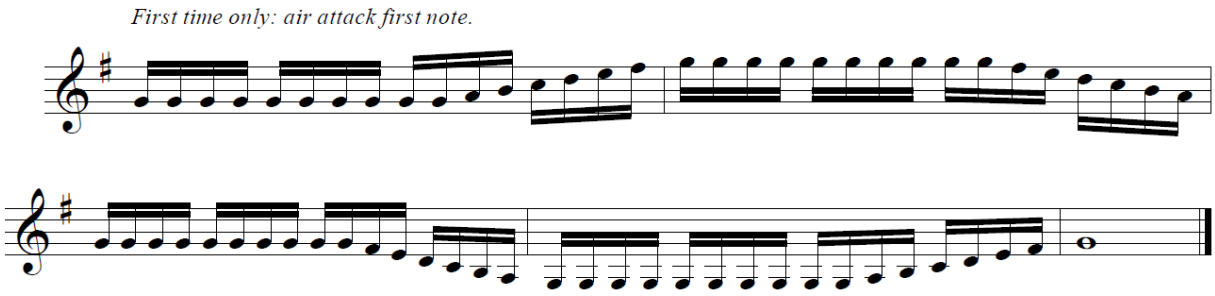
The second part of this adaptation transfers what was previously learned on one note, but now transitions through the various harmonic checkpoints.



Adaptation of "Staccato Control", Part 2 [Figure 4.18]

[71] Wilcox, "Teaching Concepts of William Adam", 20.

The final part of this adaptation is designed to closely reflect the exercise originally developed by Stamp, but with a greater focus on centering around the starting pitch. It is the goal that the skills developed in the previous two parts work to provide a significant feeling of security in tone and articulation, while working through two full octaves.



Adaptation of "Staccato Control", Part 3 [Figure 4.19]

Max Schlossberg (1873 - 1936)

Max Schlossberg is remembered today for his career playing trumpet in the New York Philharmonic (1910-1936) and his developments in the field of trumpet pedagogy. Through his extensive work in trumpet teaching, paired with the exceptional success and influence of his students, Schlossberg is often regarded as the "founder of the American school of playing".[72]

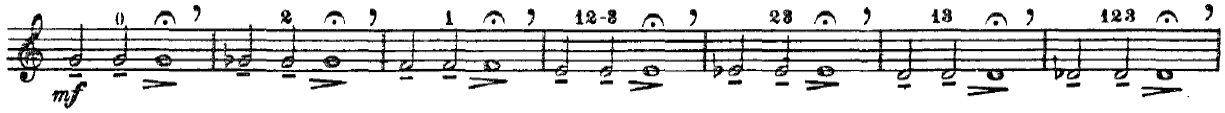
Schlossberg's pedagogical approach was often centered around the development of even tone production of the trumpet throughout all ranges and dynamics. As a means of

[72] Wallace, John, and Alexander McGrattan, 2012, *The trumpet*, New Haven: Yale University Press, 220.

developing these skills, Schlossberg's approach towards tone development was often centered around lip slurring exercises, with emphasis on dynamic flexibility. In addition, several of Schlossberg's exercises include the use of lip bending (or the bending of a note downwards to essentially produce a neighboring pitch with an incorrect fingering) to build the embouchure and develop tone.

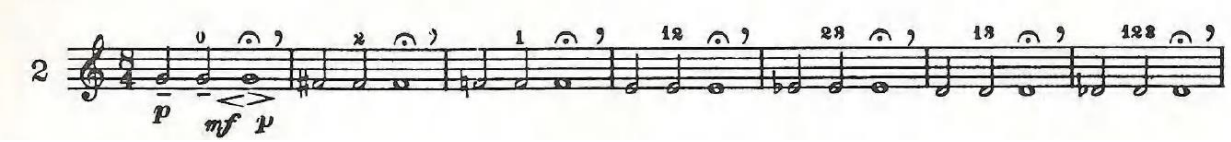
Schlossberg's "**Long Note Drills #'s 1,2"** from *Daily Drills and Technical Studies for Trumpet*

World renowned soloist and professor of trumpet at the University of Maryland School of Music, Chris Gekker, describes the first two studies from *Daily Drills and Technical Studies for Trumpet*[73] as being "the essence of aperture control and true flexibility."[74] Through these exercises, Schlossberg develops the fundamental skill of pitch centering with an emphasis on the flexibility of the aperture through expanding and contracting dynamics.



"Long Note Drills #1"[75] [Figure 4.20]

[73] Schlossberg, Max, *Daily drills and technical studies for trumpet*, New York ; Oyster Bay M. Baron Co, 1965.
[74] Gekker, Chris, *Slow practice*, 2016, Transition Publications, New York : distributed by Charles Colin Publications, 20.
[75] Schlossberg, *Daily drills*, 1.



"Long Note Drills #2"[76] [Figure 4.21]

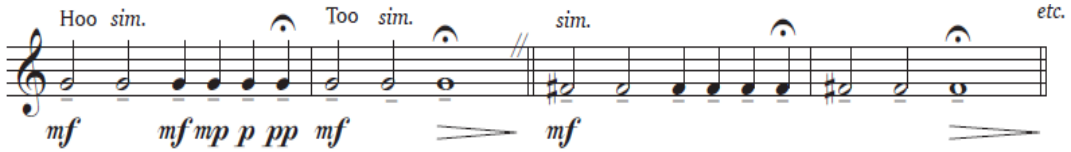
Dynamic Expansion, adapted from Max Schlossberg's "Long Note Drills #'s 1, 2", from *Daily Drills and Technical Studies for Trumpet*

One of the dangers of adopting an air-based embouchure (where the air works to blow the embouchure into position) is that many students find themselves only being able to produce tone at loud volumes. While this is a great starting point for tone production, it is vital that students learn how to produce tone using this technique at all volumes or students will quickly abandon this technique when approaching music which requires more dynamic contrast.

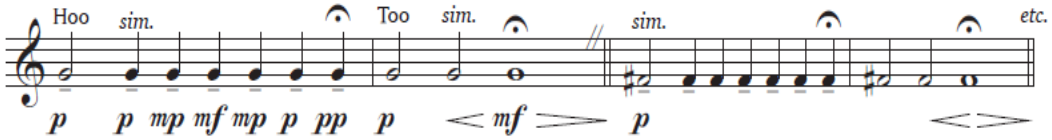
This adaptation of Schlossberg's "Long Note Drills #'s 1,2" was designed to teach performers how to perform with dynamic contrast while using an air-based embouchure. While this exercise may initially prove to be difficult for some, by learning to play the indicated dynamics without the need for embouchure adjustment the player can intuitively develop nuance within the embouchure/aperture to properly function at all dynamics. In order maximize the effects of this exercise, students should work to find all the dynamics notated in the first measure of the exercise while playing written crescendos/decrescendos in the

[76] Ibid, 1.

following measure. In addition, after should experiment with many different dynamic variations to build greater musical flexibility.



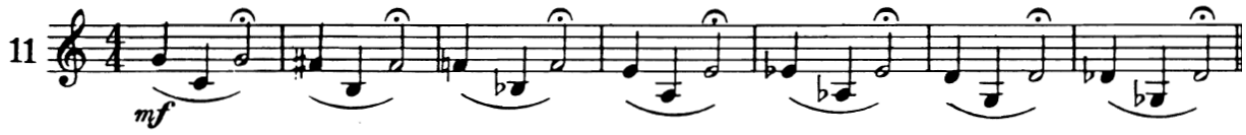
Adaptation of "Long Note Drills #s 1" [Figure 4.22]



Adaptation of "Long Note Drills #s 2" [Figure 4.23]

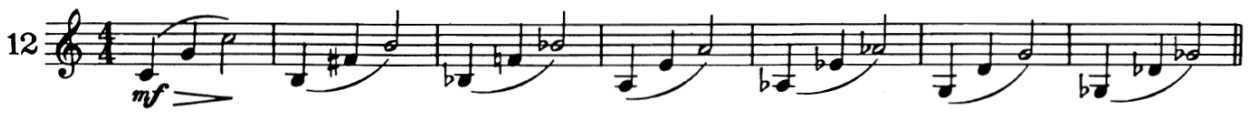
Schlossberg's "**Long Note Drills #'s 11-15, 21"**, from *Daily Drills and Technical Studies for Trumpet*

Long Note Drills # 11-15, 21 work to further develop the flexibility of performers through various slurring exercises throughout the register of the trumpet. While working through these studies, difficulty is gradually increased through increased intervallic range and speed.

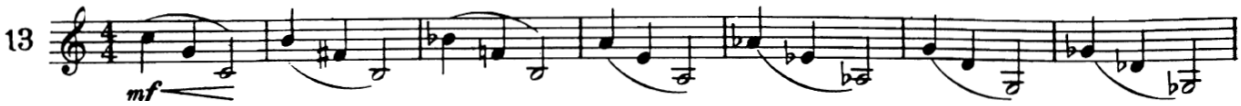


"Long Note Drills # 11[77] [Figure 4.24]

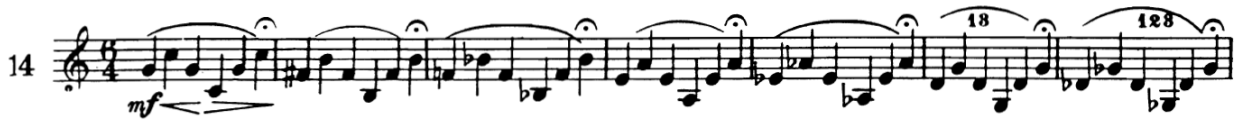
[77] Ibid, 3.



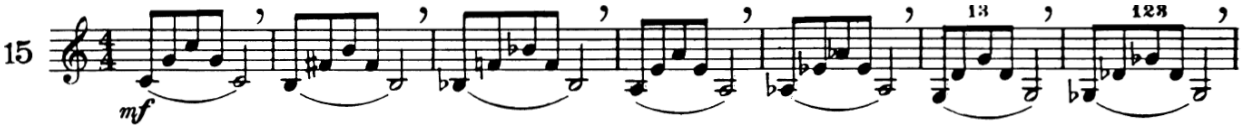
"Long Note Drills # 12"[78] [Figure 4.25]



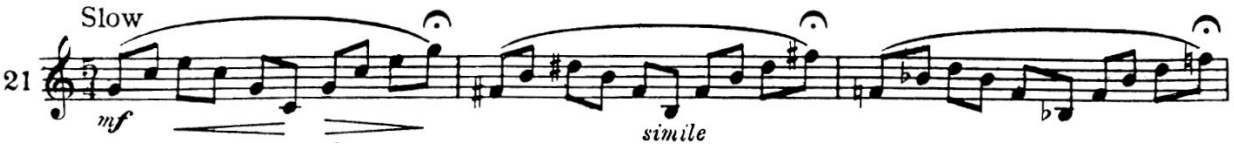
"Long Note Drills # 13"[79] [Figure 4.26]



"Long Note Drills # 14"[80] [Figure 4.27]



"Long Note Drills # 15"[81] [Figure 4.28]



"Long Note Drills # 21"[82] [Figure 4.29]

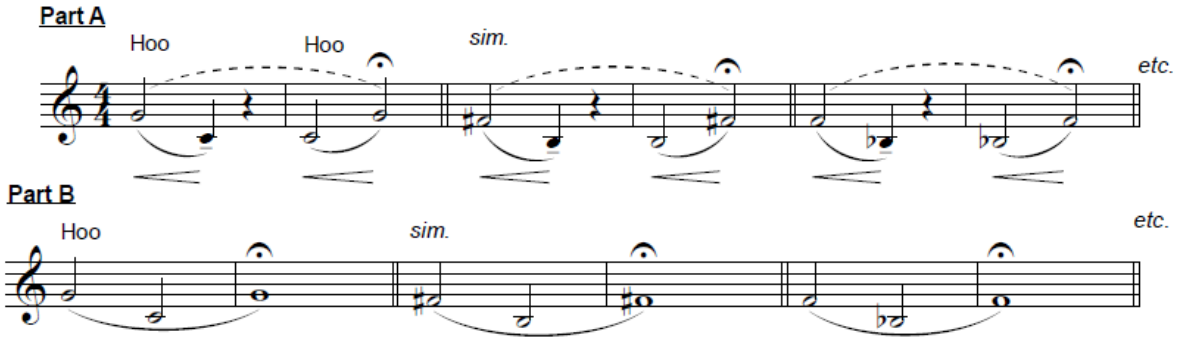
[78] Ibid, 3.
[79] Ibid, 4.
[80] Ibid, 4.
[81] Ibid, 4.
[82] Ibid, 6.

Broken Slurs, adapted from Schlossberg's "Long Note Drills #'s 11-15, 21", from *Daily Drills and Technical Studies for Trumpet*

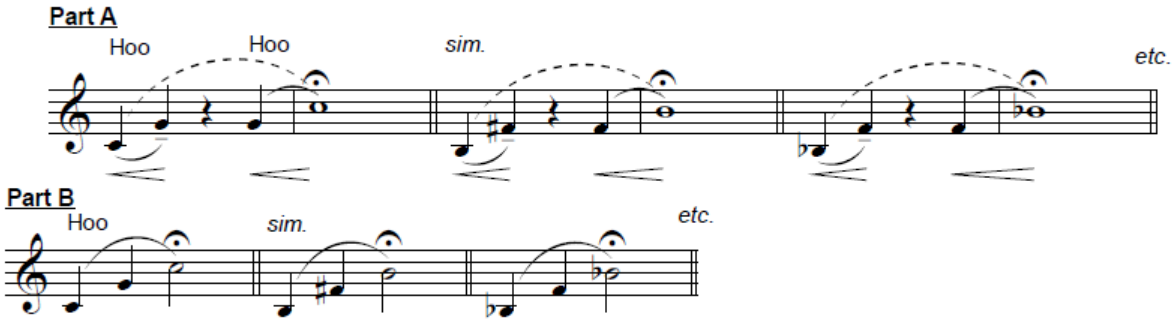
While slurs are extraordinarily important for the development of any brass musician, in my experience students tend to approach these exercises through the manipulation of the embouchure rather than the airstream. I have found that this approach, over time, works to develop a mechanism of tension when approaching the upper register, eventually resulting in difficulty with upper register playing. For these exercises I developed an approach to Schlossberg's slurring exercises which facilitates an air-based approach to these fundamental exercises using air attacks and guided air movement. While this approach can easily be applied to any slurring based exercise, for this project I am choosing to highlight the application of this technique to Schlossberg's Long Note Drills #'s 11-15, 21, from *Daily Drills and Technical Studies for Trumpet*.[83]

When performing these exercises attention should be paid to the marked crescendos to facilitate air movement between note changes. In addition, between interval changes the embouchure should remain activated to insure consistent embouchure approach. If breaths are needed to be taken between interval changes, a slow breath through the nose (while maintaining firm embouchure structure) should be used.

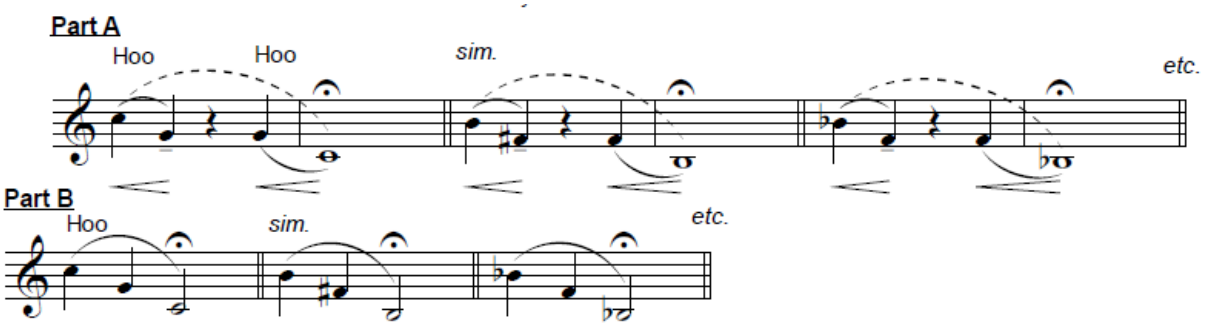
[83] Schlossberg, Max, *Daily drills and technical studies for trumpet*, 4-6.



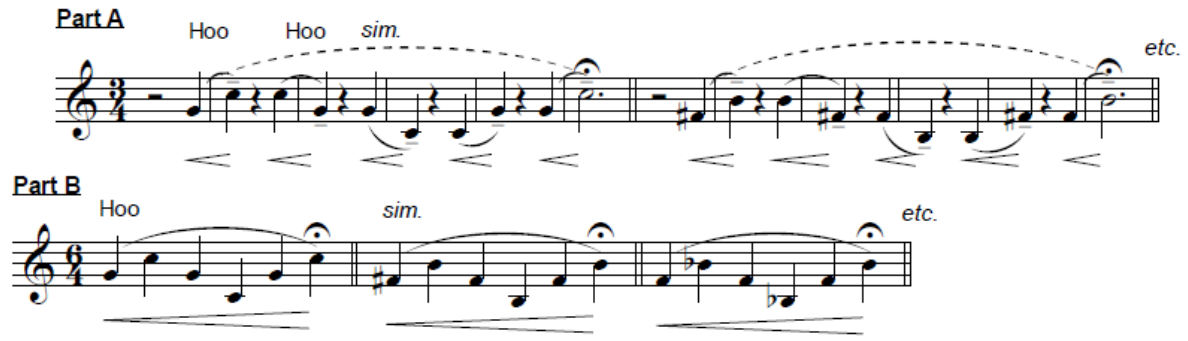
Adaptation of “Long Note Drills #11” [Figure 4.30]



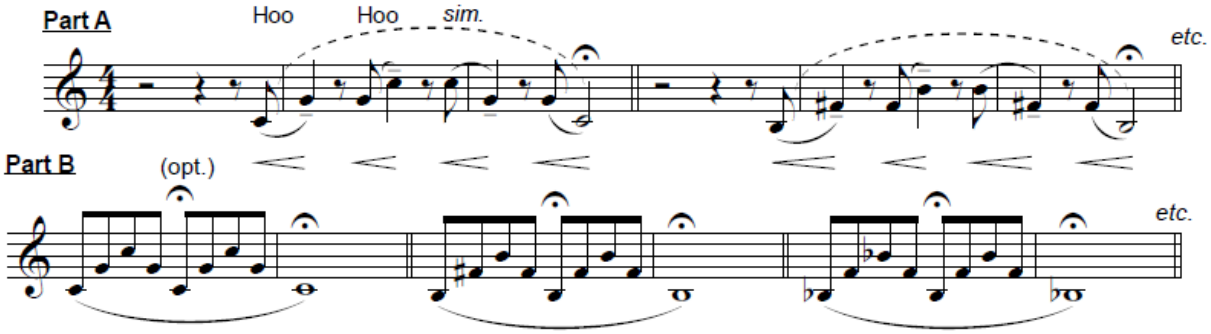
Adaptation of “Long Note Drills #12” [Figure 4.31]



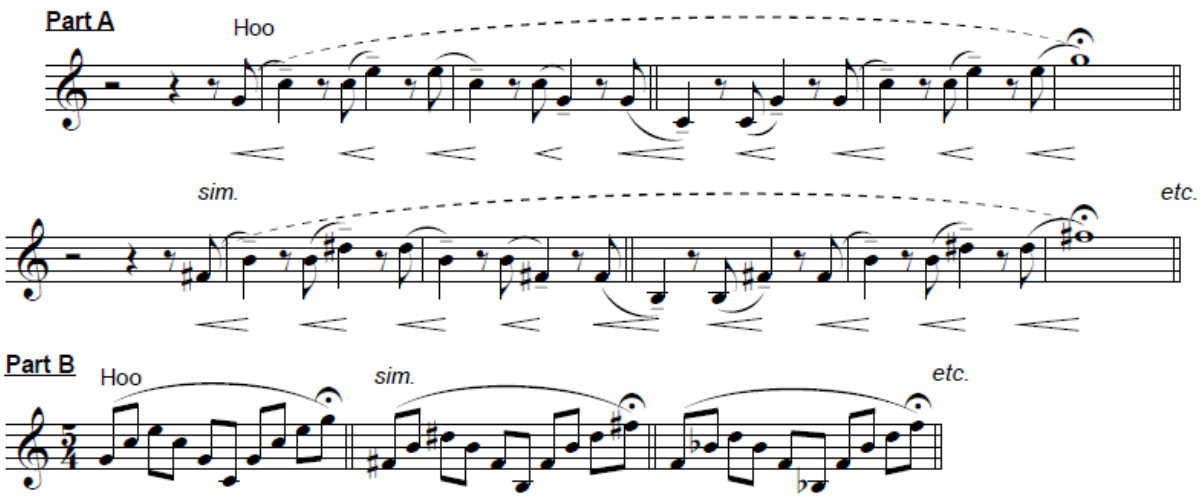
Adaptation of “Long Note Drills #13” [Figure 4.32]



Adaptation of “Long Note Drills #14” [Figure 4.33]



Adaptation of “Long Note Drills #15” [Figure 4.34]



Adaptation of "Long Note Drills #21" [Figure 4.35]

Richard Shuebruk (1854-1933)

Richard Shuebruk is remembered today both for his career with the Boston Symphony from 1885-1887 as well as his development of *The Complete Shuebruk Lip Trainer for Trumpet*,[84] and *The Complete Shuebruk Tongue Trainers for Trumpet*.[85] As a pedagogue Shuebruk was highly focused on the muscular development of musicians to facilitate ease and flexibility of performance. Throughout his book *The Complete Shuebruk Lip Trainer for Trumpet* Shuebruk worked to develop this skill through attention to attacks, intervals, and slurs.[86] By developing these skills in this order, Shuebruk believed that students could learn to properly develop their lips in a way which could control the range of the trumpet without the need to

[84] Shuebruk, Richard, 2003, *The complete Shuebruk lip trainers for trumpet*.
[85] Shuebruk, Richard, and Larry Clark, 2003, *The complete Shuebruk tongue trainers for trumpet*. New York: Carl Fischer.
[86] Shuebruk, *Lip Trainers, 5.*

force their airstream. For this approach, he is often remembered for his philosophy “Don't blow harder for the high notes; Pinch tighter.”[87] In *The Complete Shuebruk Tongue Trainers for Trumpet,*[88] Shuebruk details that developing speed in articulation is accomplished through the development of the power of the tongue. By pushing the tongue muscles to a place of tiredness, through repeated articulation, Shuebruk felt that the power of the tongue could be developed[89].

Shuebruk’s “Grade 2: Business Players, No. 2”, from *The Complete Shuebruk Lip Trainers for Trumpet*

“No. 2,” from “Business Players” was created as a method to train the position of the lips to reliably produce notes at all ranges and dynamics. When playing this exercise, Shuebruk asserts that it is essential that the mouthpiece is completely removed from the face as a means to train the embouchure to respond to audiation in order to produce the exact setting required for each pitch.[90] By working to develop this skill through careful practice of these exercises, Shuebruk felt that students would develop a reliable embouchure which would encourage confidence in performers.[91]

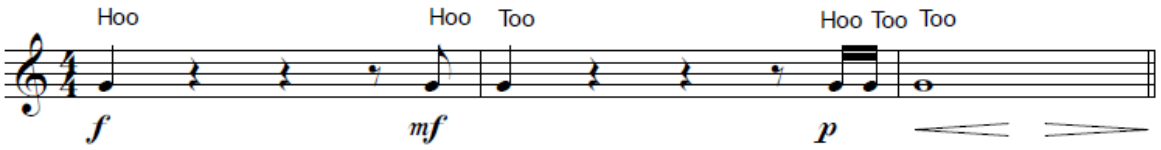
[87] “Principal Musicians of the Boston Symphony Orchestra,” Boston Symphony Orchestra Principal Musicians, accessed June 22, 2020, https://www.stokowski.org/Principal_Musicians_Boston_Symphony.htm.
[88] Shuebruk, Richard, and Larry Clark, *Tongue trainers.*
[89] Ibid, 3.
[90] Shuebruk, *Lip Trainers*, 19.
[91] Ibid, 19.

"Grade 2: Business Players, No. 2"[92] [Figure 4.36]

Compression Trainers, adapted from Richard Shuebruk's "Business Players, No. 2", from *The Complete Shuebruk Lip Trainers for Trumpet*

These exercises are adapted from "*Business Players*, No. 2*"*, from *The Complete Shuebruk Lip Trainers for* Trumpet. While the original goal of Shuebruk was to teach performers the proper lip position required to produce specific notes, this adaptation works to produce the same results but through the development of proper air placement. When performing these exercises, students should perform the initial notes with air attacks, followed by standard articulations. Through the initial use of air attacks, performers develop a tactile awareness to the proper air placement required for each pitch to properly resonate without the need for embouchure manipulation. In addition, by having students perform air attacks followed by standard articulations, students can work to encourage an approach in which the tongue does not influence the air stream. These exercises should be followed by performance of the original studies to reinforce standard articulation techniques, although with a heightened awareness of air placement. This exercise progresses using the intervals detailed in William Adam's long tone studies.[93]

[92] Ibid, 19.
[93] Wilcox, "Teaching Concepts of William Adam", 20.



Adaptation of “Grade 2: Business Players, No. 2” [Figure 4.37]

CHAPTER 5

SUMMARY

By the conclusion of this method, it is my goal that students will develop the skills required to adopt an air-based system of performance. By developing the air through long tone training, interval training, slur training, dynamic training, and articulation training, students can intuitively develop all the skills required to perform the trumpet with an air-based approach. In addition, through the process of learning this method, students will find that this approach can be easily applied throughout their daily practice to ensure easy and consistent tone production.

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APPENDIX A.

Air Strength, a Methodology for the Development of Air Efficiency

Air Strength

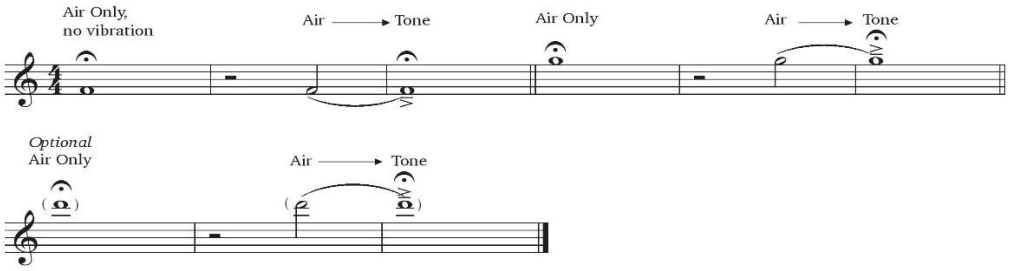
a methodology for the development of air efficiency

written and adapted by Tyler Jones

Open Air Attacks

adapted from William Adam's Leadpipe Studies

- While forming an embouchure work to blow a full airstream through the leadpipe.
- The air used during this exercise should be as close as possible to the air used to perform a G in the staff, if using a standard Bb leadpipe.
- Listen to the timbre of the air, working to make the tone as warm and full as possible.
- No vibration of the lips should occur until indicated.
- Using the syllable "Hoo", transfer from air to sound with as little muscular movement as possible.
- The volume of the air should lightly crescendo into the vibration.
- All tones produced should be produced with ease.
- The transfer from air to vibration should create and artificial accent as a result of the embouchure being blown into place. This accent will not naturally occur if the tone is reached through adding excess tension in the lips.
- Once vibration begins, continue the blow to the end of the note.
- If able, use the optional pitches to practice upper register technique.
- The embouchure/aperture should remain consistent throughout all ranges.
- If having trouble approaching the upper register, experiment with the syllable "hee" to accelerate the airstream.
- Be aware that the speed of the air performed prior to the start of the note will be drastically different as you approach the upper register, though the goal should remain to keep the tone of the air as warm and full as possible.
- The indicated pitches are approximate and may vary between performers.

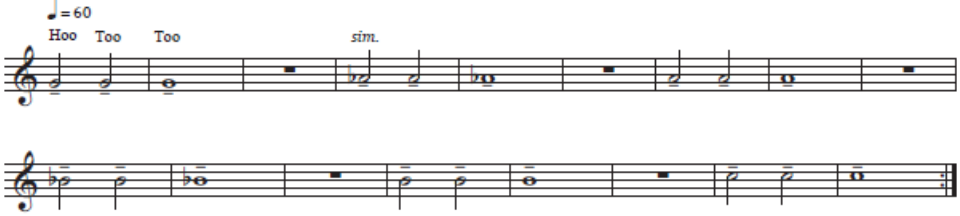


The Six Notes

adapted from Carmine Caruso's Musical Calisthenics for Brass

- Strict attention to time should be given
- Embouchure should never shift during any point of the exercise.
- Breathe through the nose during the rests, while mainainting mouthpiece placement.
- The embouchure should remain formed but relaxed during rests. Firm activation of the corners will occur as a reflex of the embouchure being activated by the air.
- Articulate very lightly with focus on maintaining a consistent airstream.
- Once mastered, experiment with additional six note groupings.

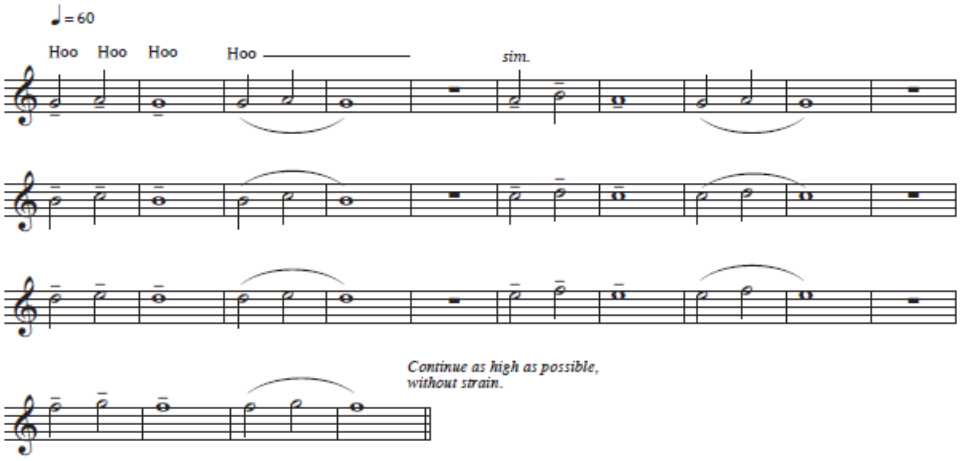
The Six Notes



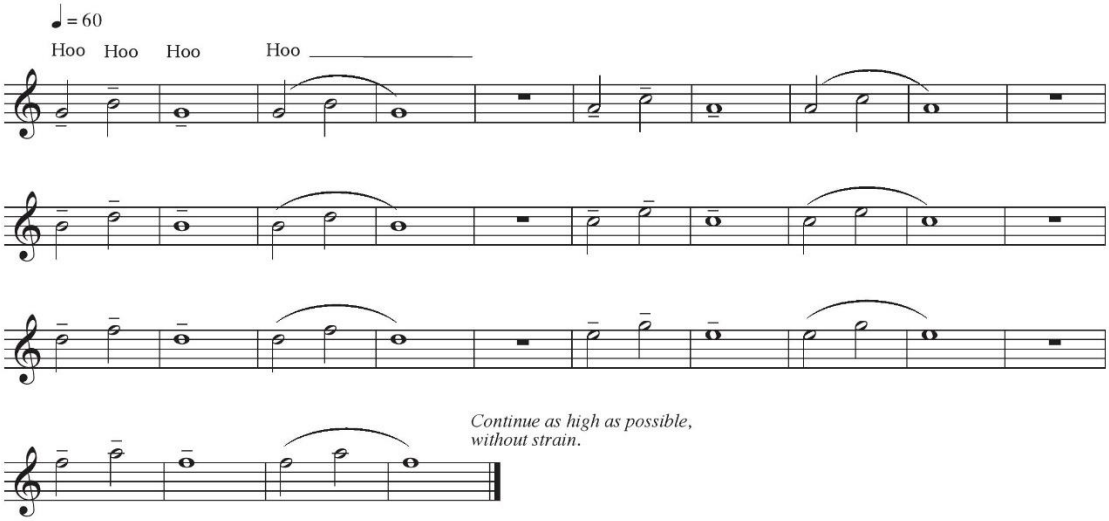
Intro to Flow

- All directions from the previous exercise apply.
- A brief space between adjacent air attacks is expected. Try to approach this as naturally as possible.
- While playing slurred portion of exercise, work to accomplish the same air movement as accomplished with air attacks.

Intervals in Seconds



Intervals in Thirds

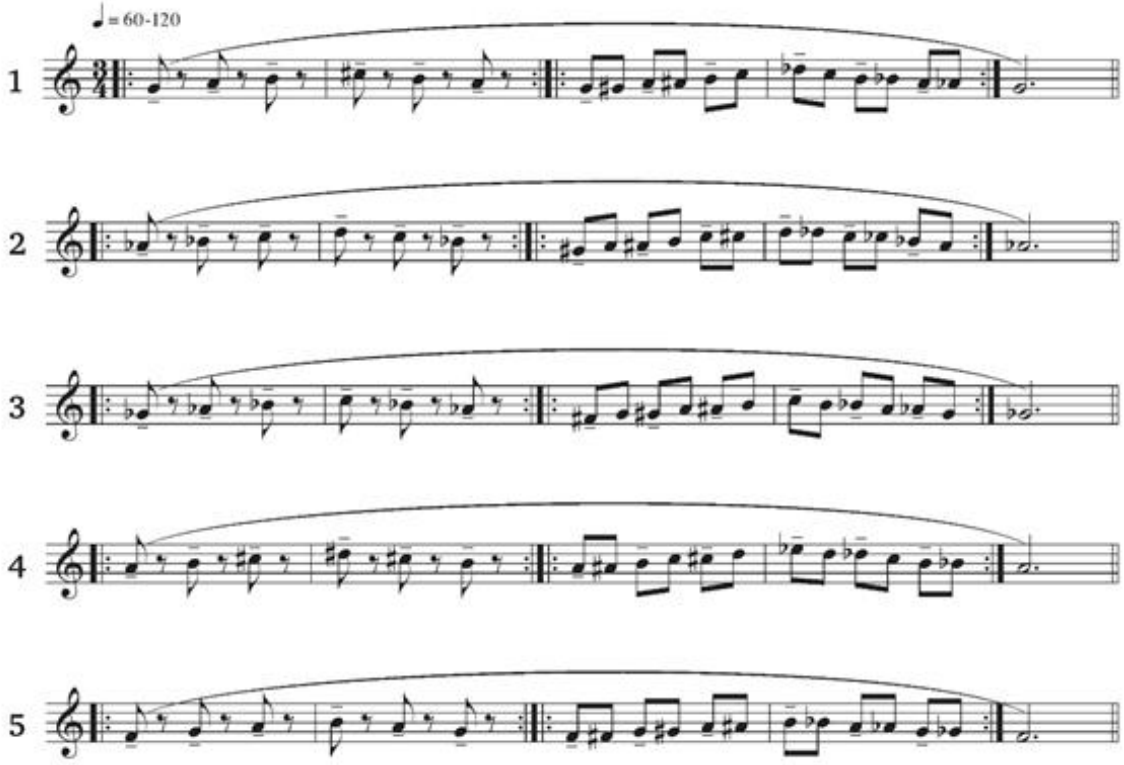


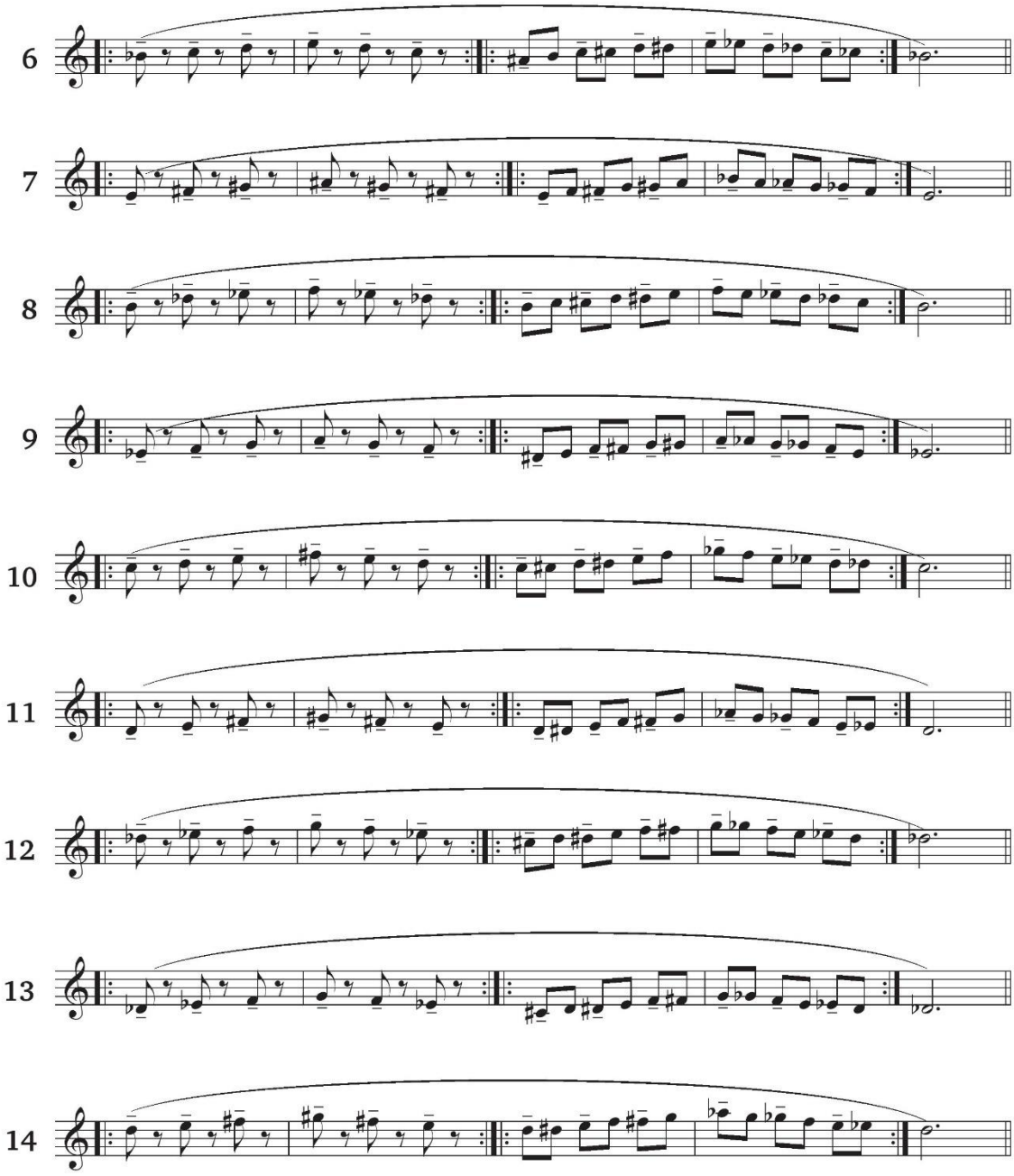
Flow Studies

adapted from Vincent Chicowicz's Studies 1-2, from Technical Studies for Cornet

- Air attacks should be used for all articulations.
- Embouchure should remain activated during all rests.
- If breaths are necessary during exercise, take a slow steady breath through the nose to ensure consistent activation of the embouchure.
- Practice at a comfortable volume until mastered. Upon mastery, extra benefit can be gained through practicing these exercises at softer and louder volumes.
- Only continue as high as can be performed comfortably.
- Only continue as low as can be accomplished with firm support given by the embouchure.

Study No. 1

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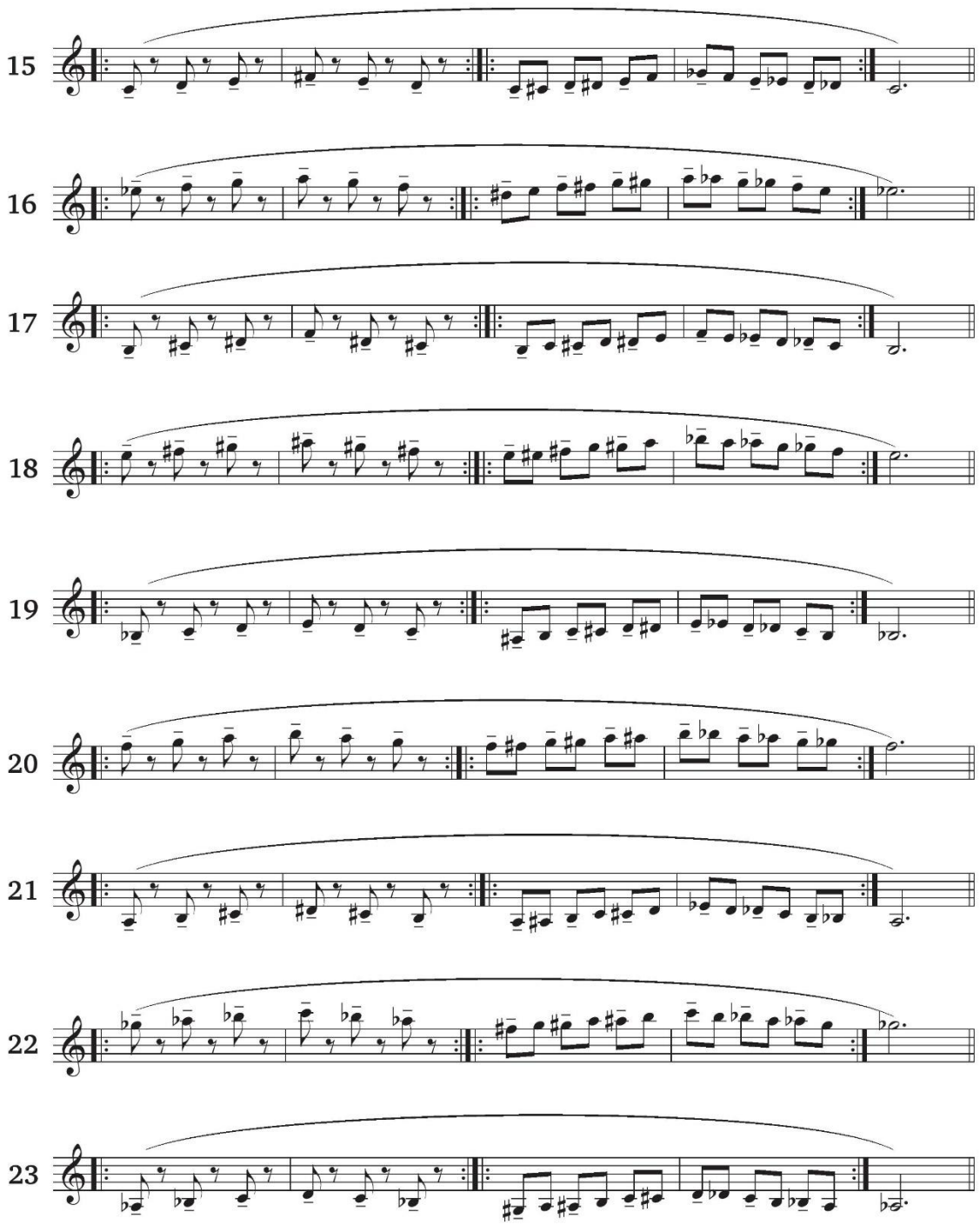
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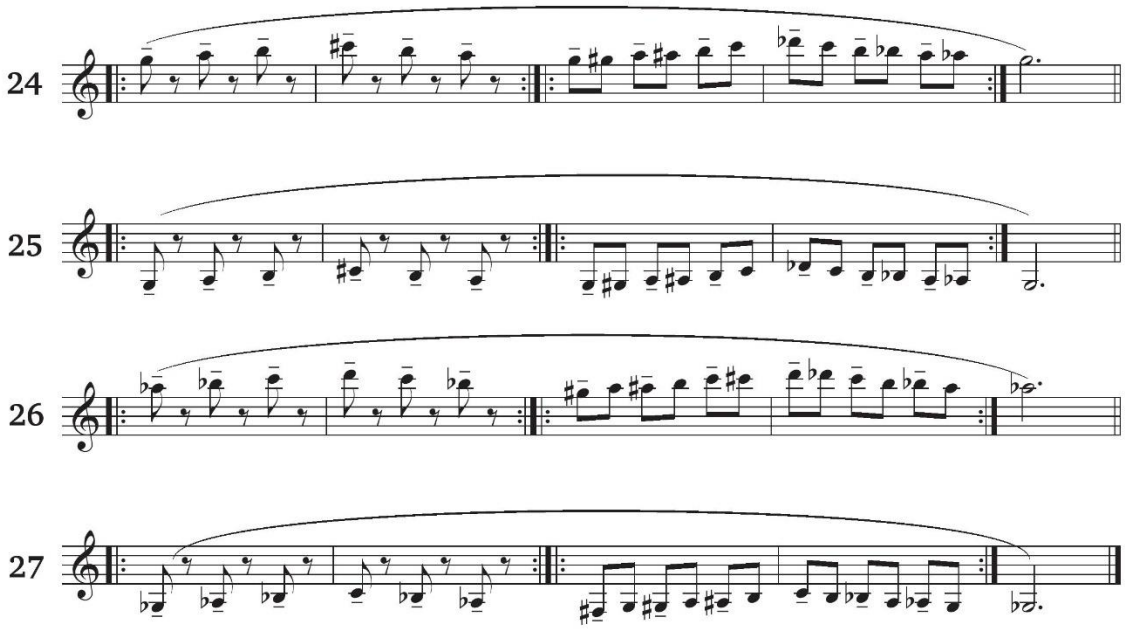
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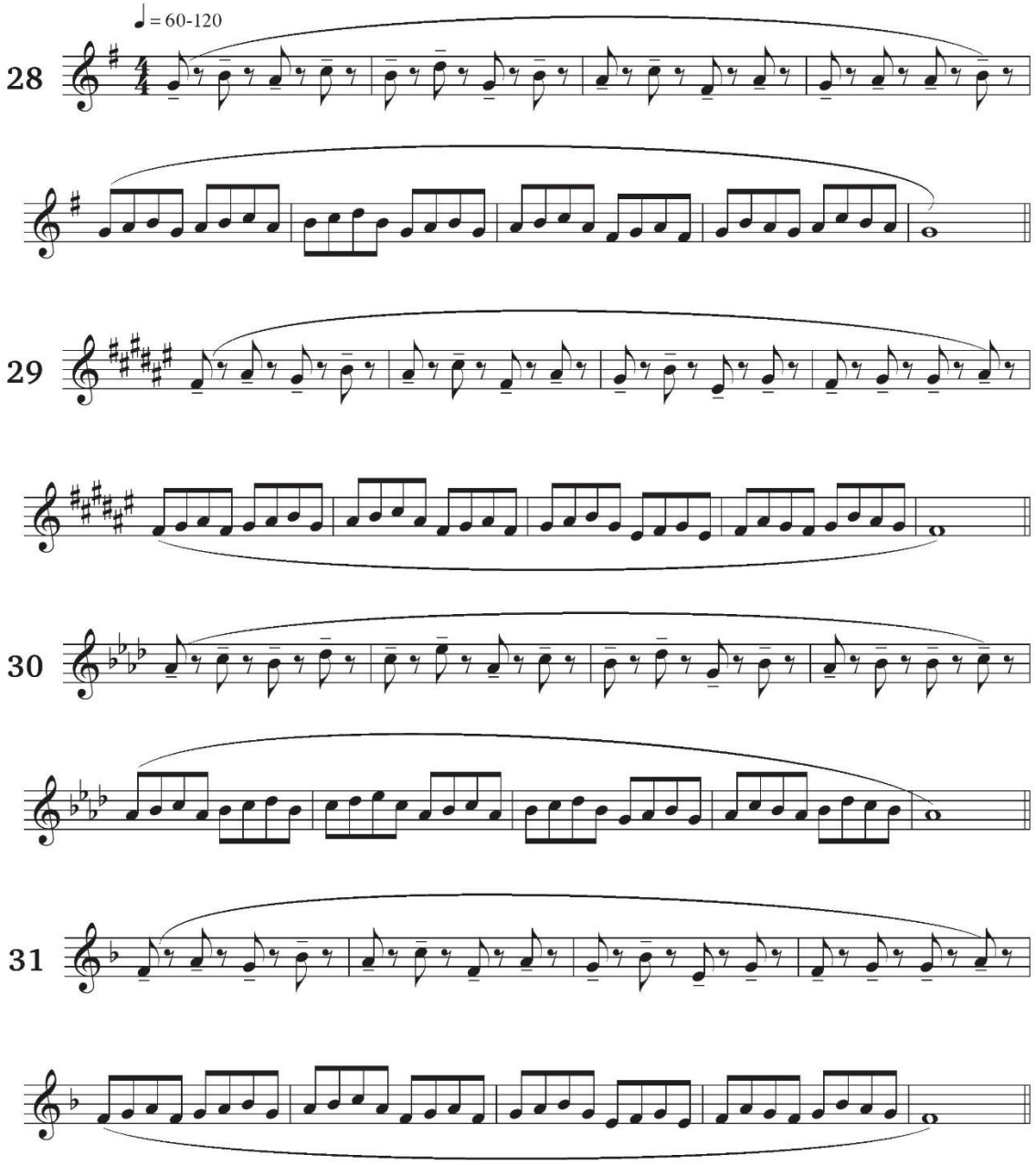

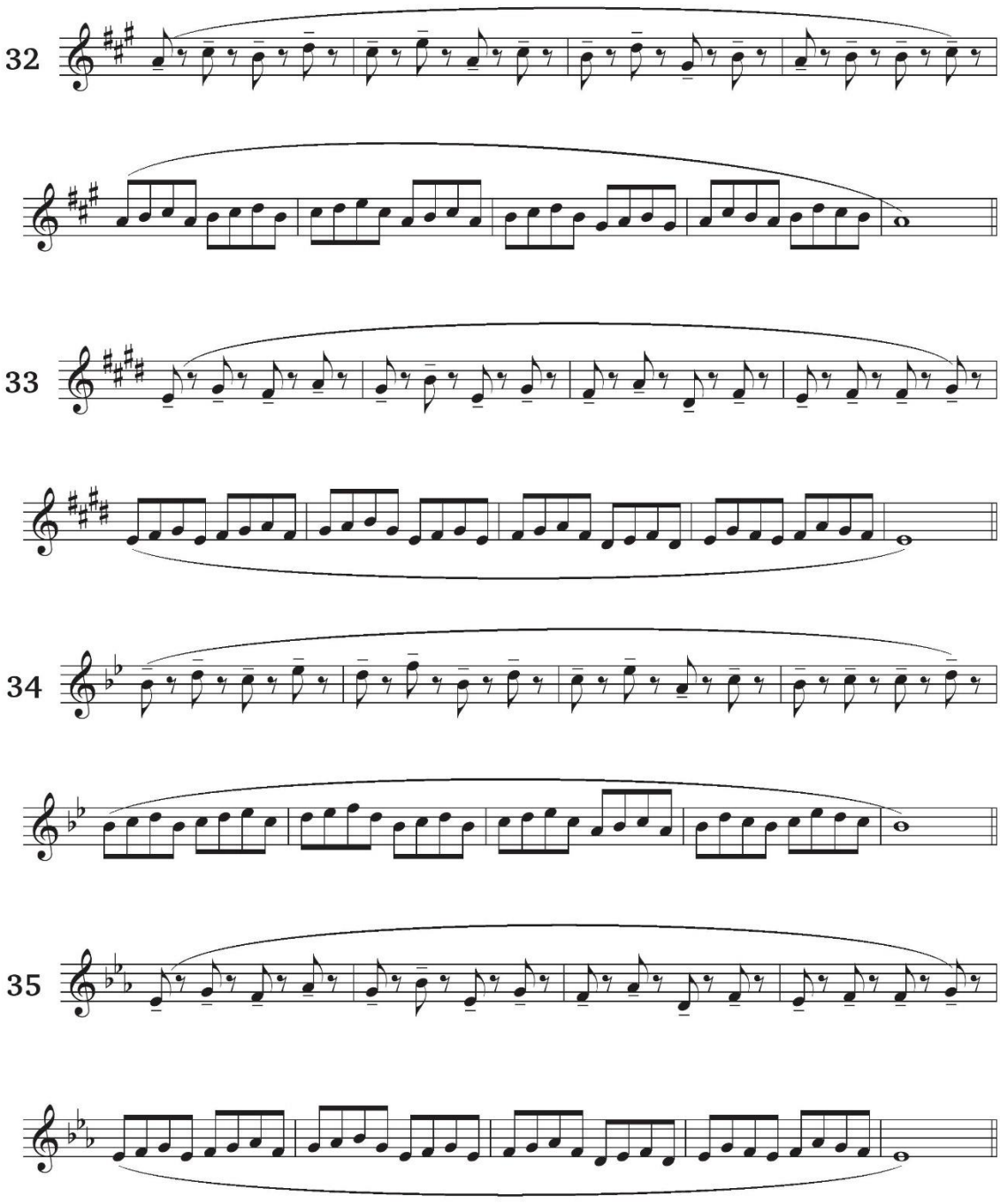
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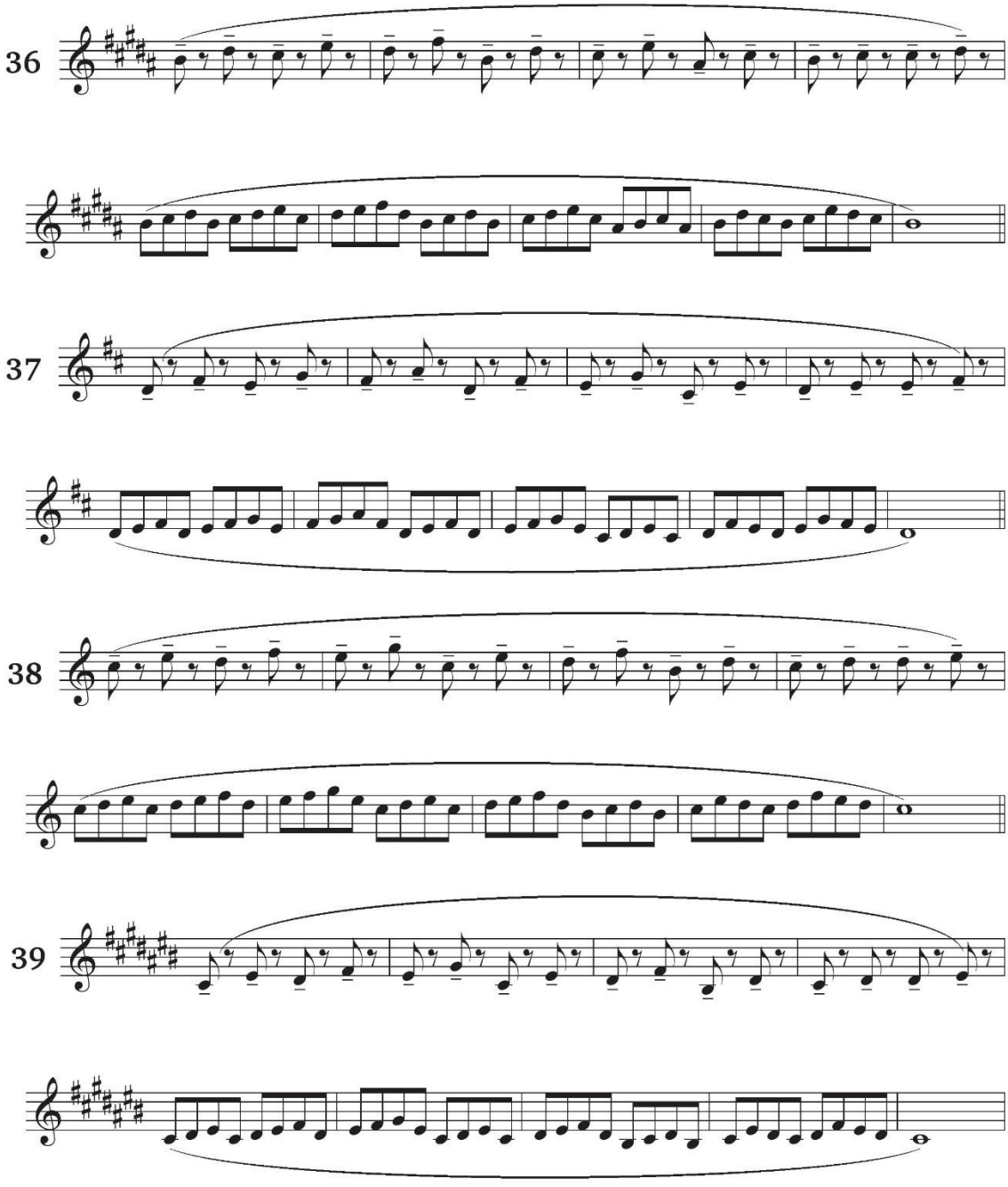
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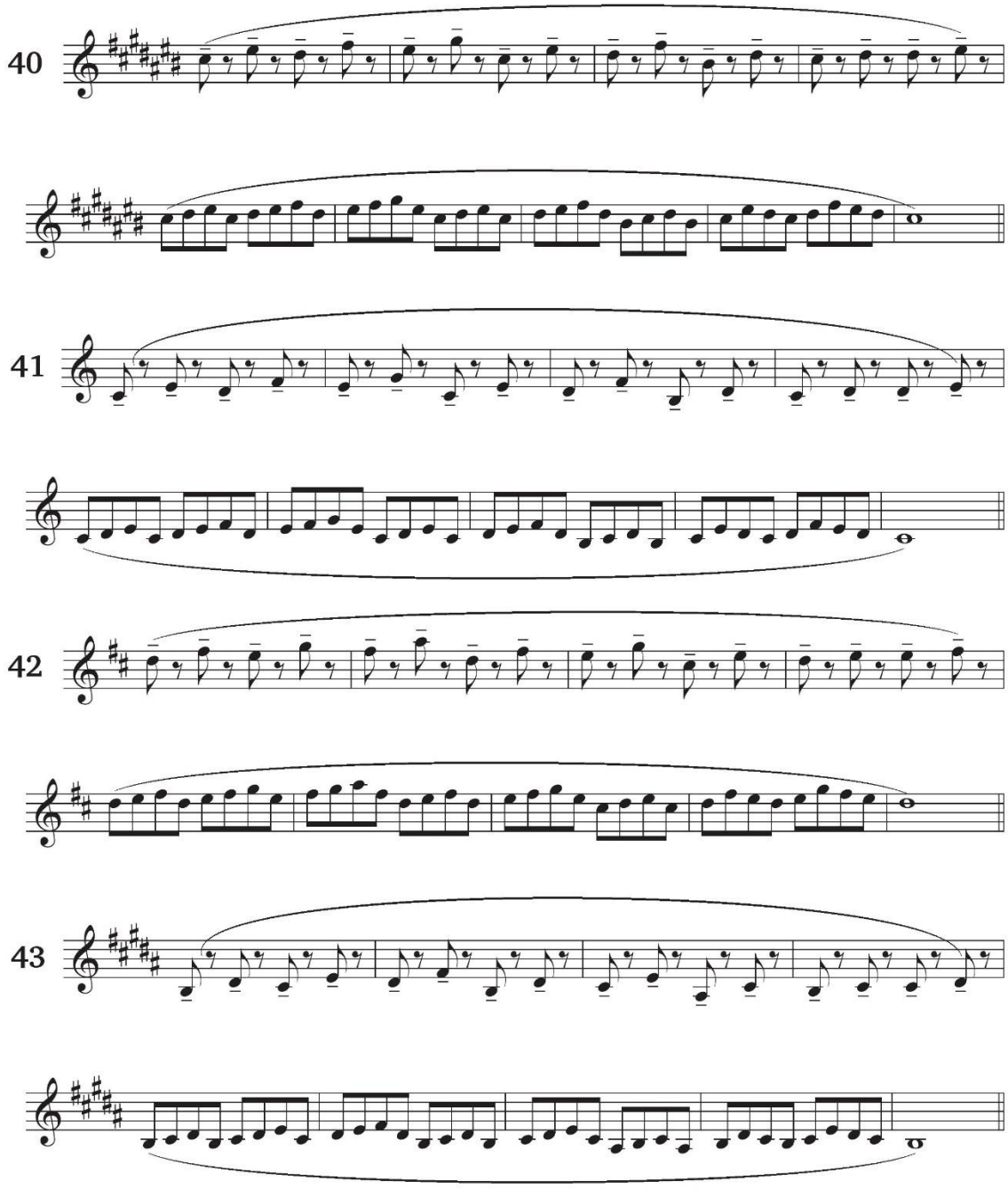
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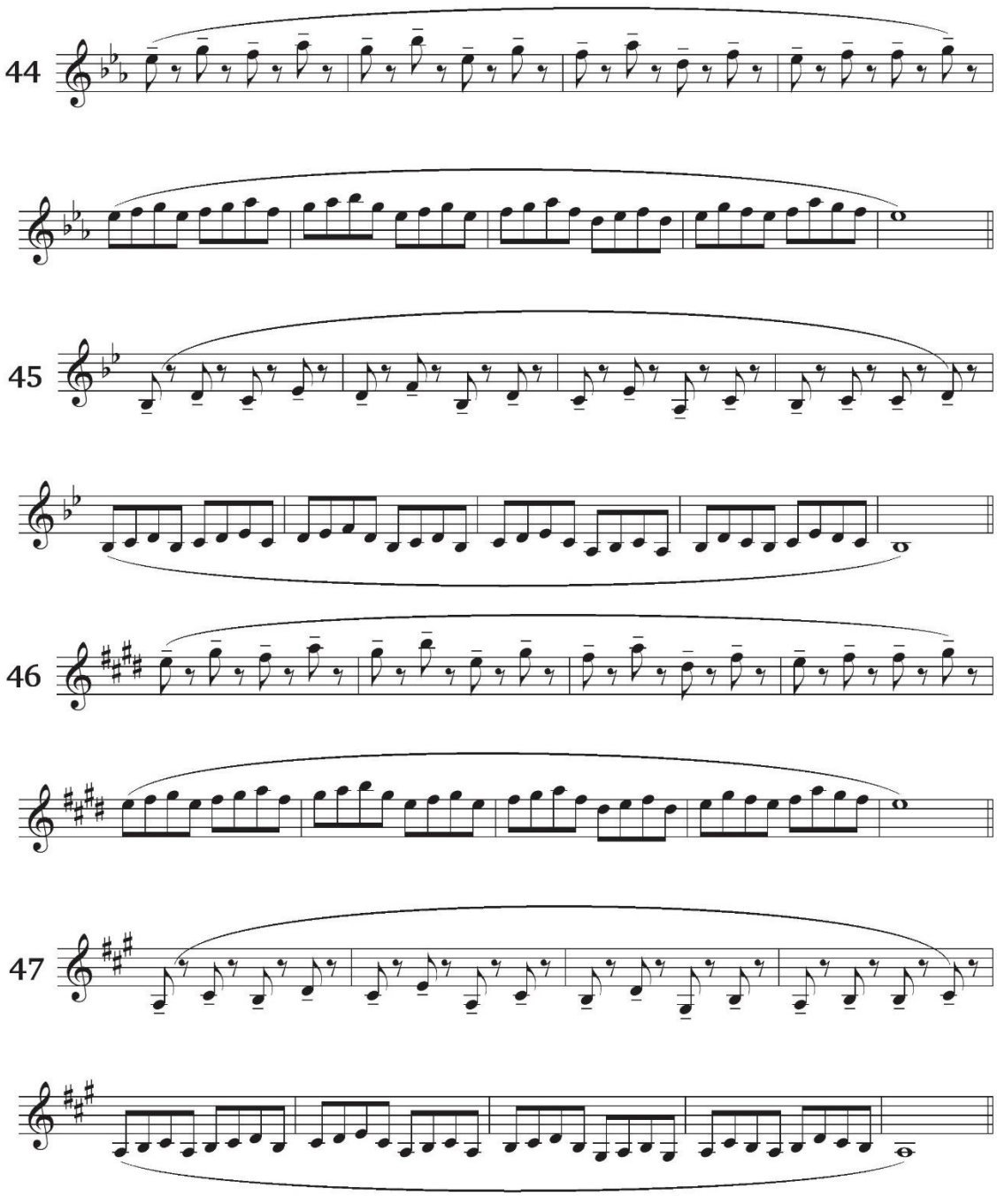
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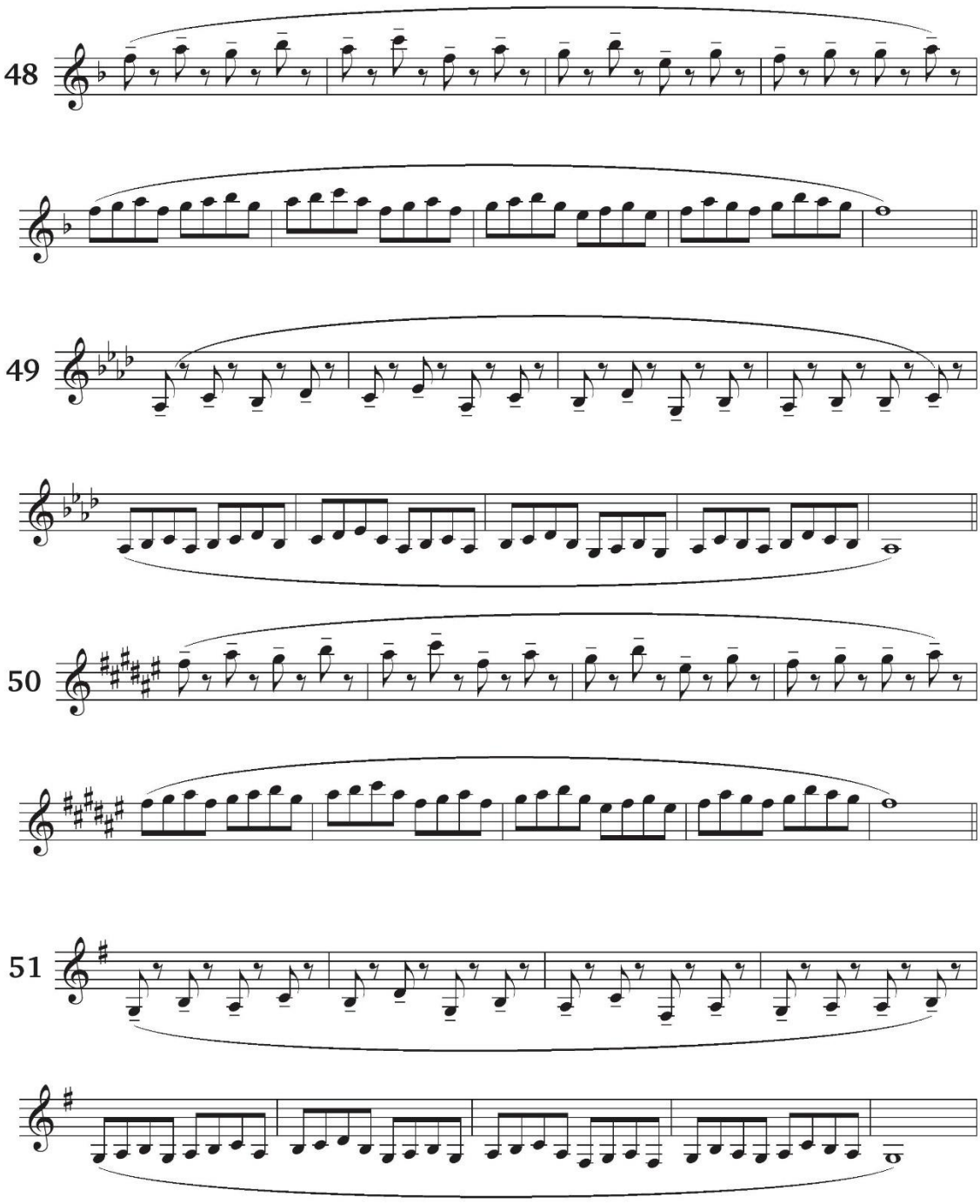
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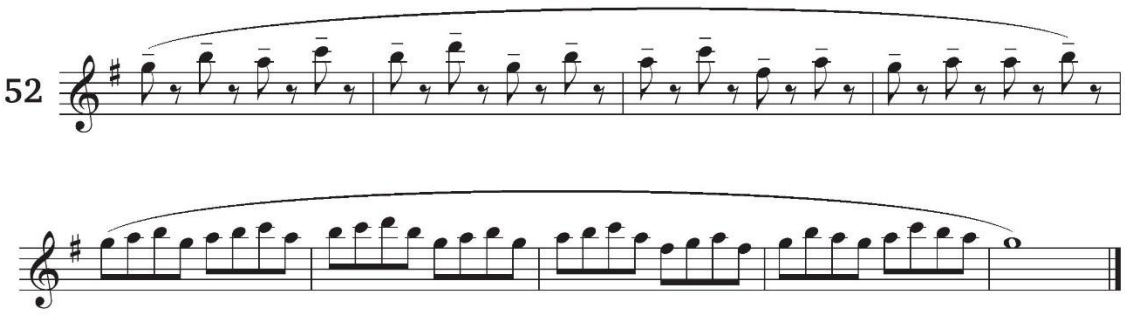
14 Air Strength



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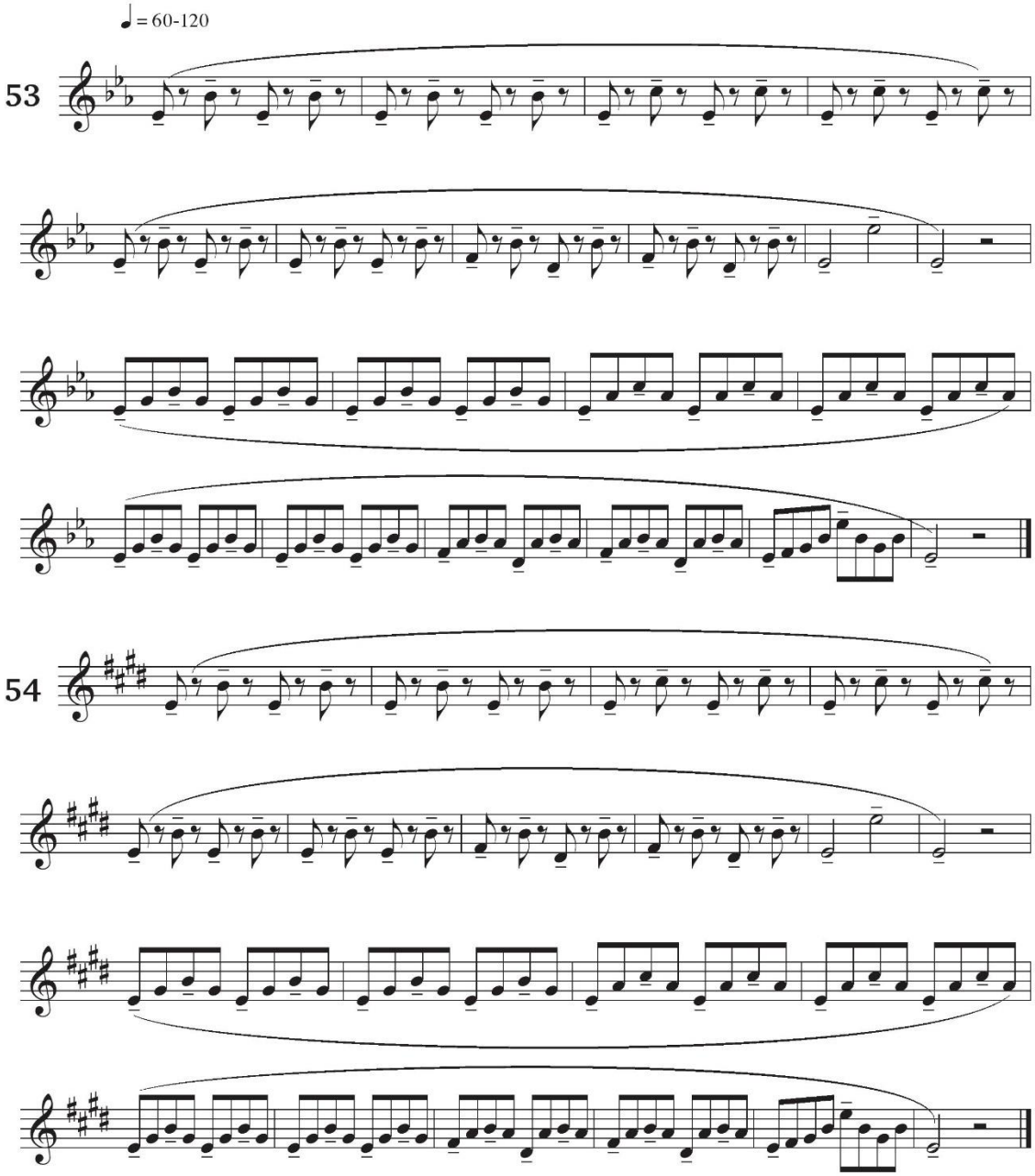

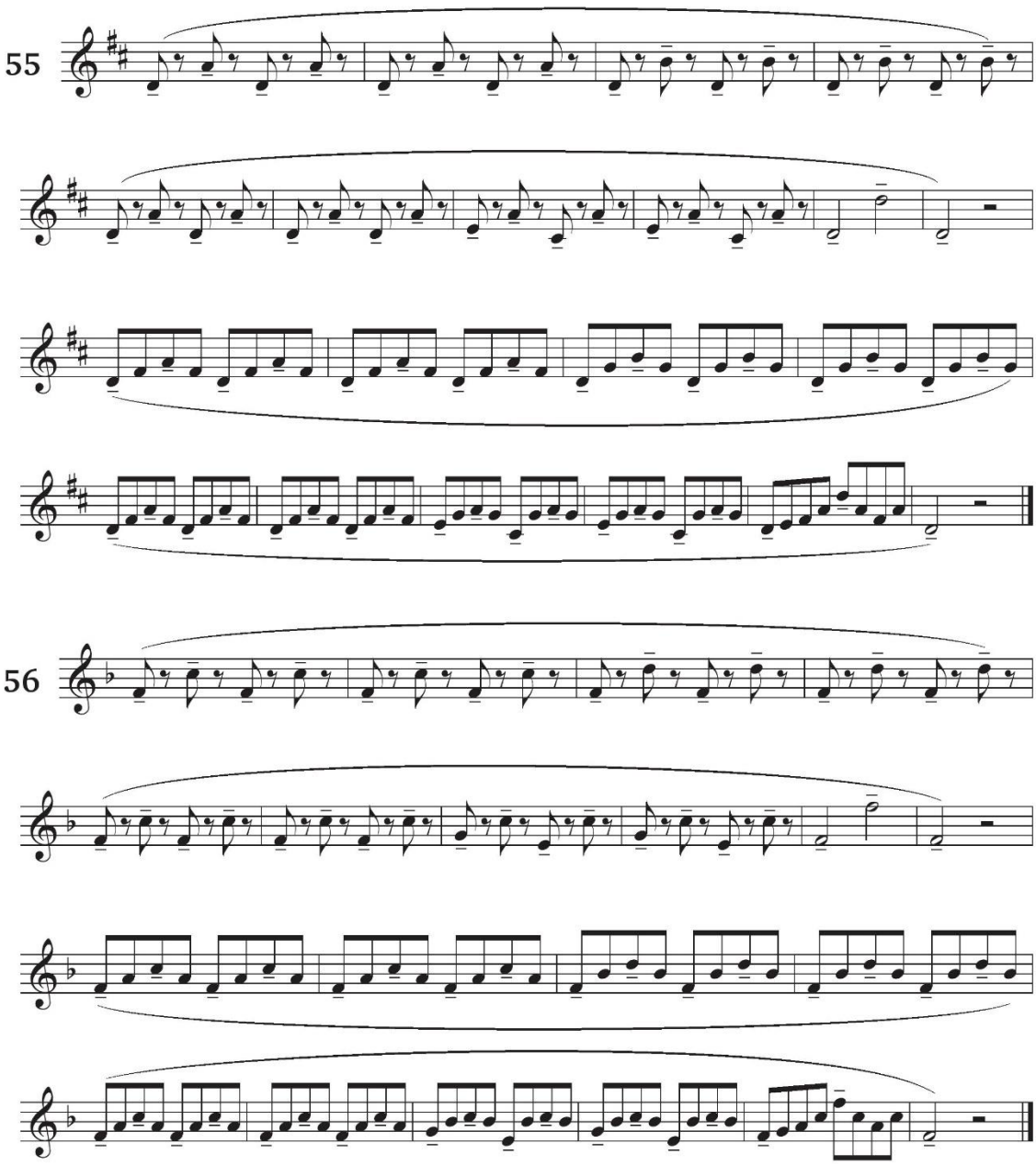
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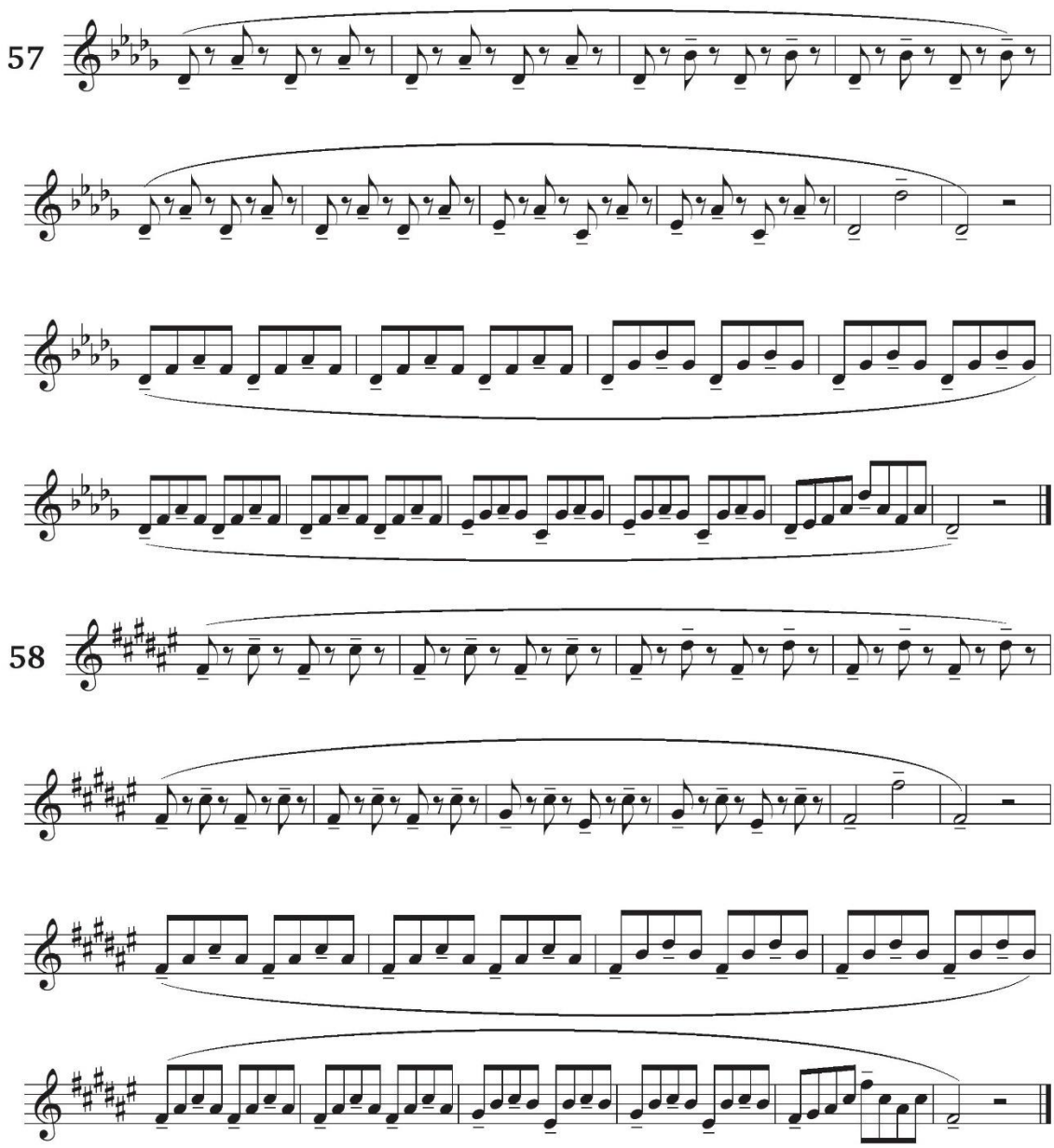
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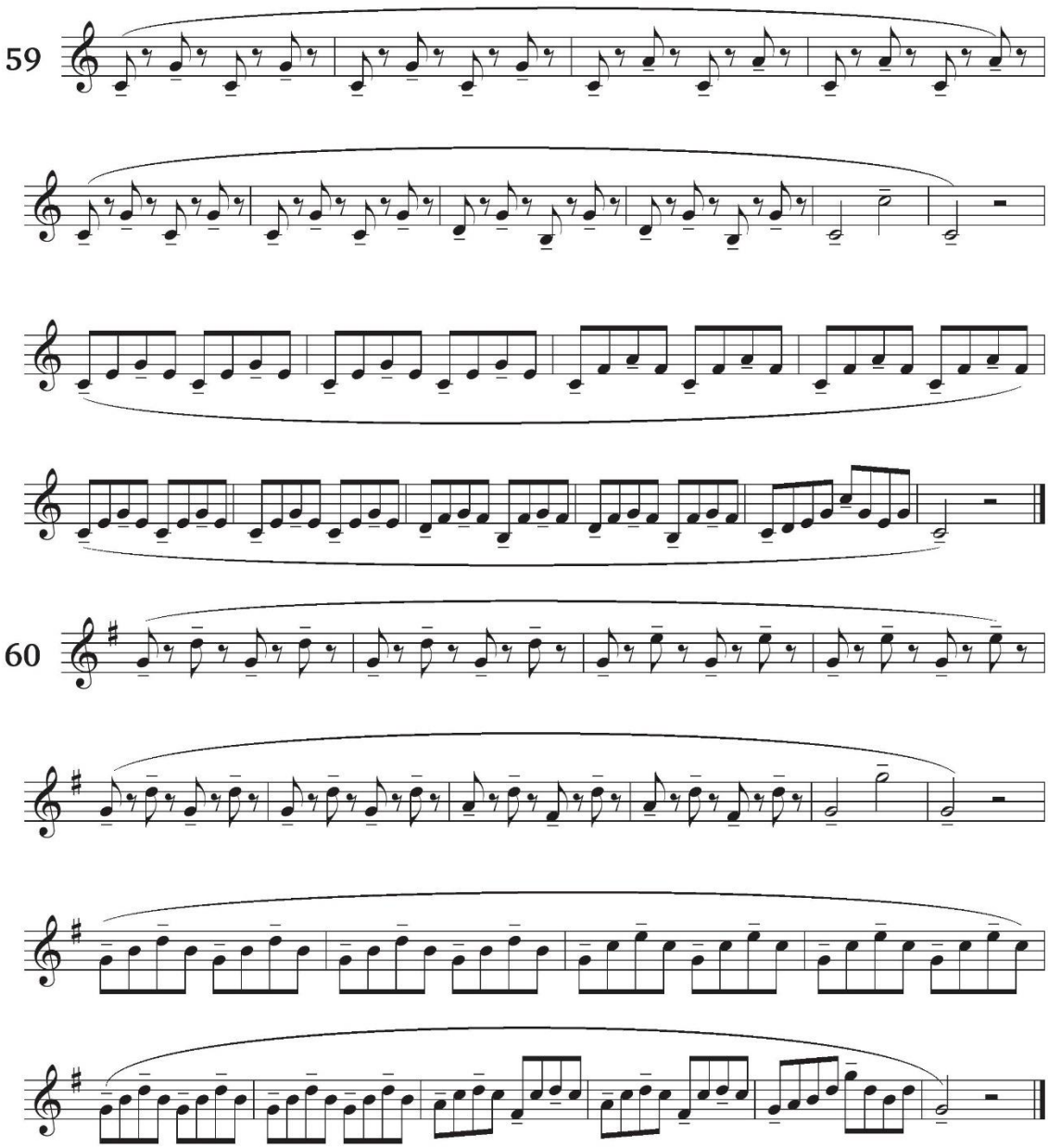
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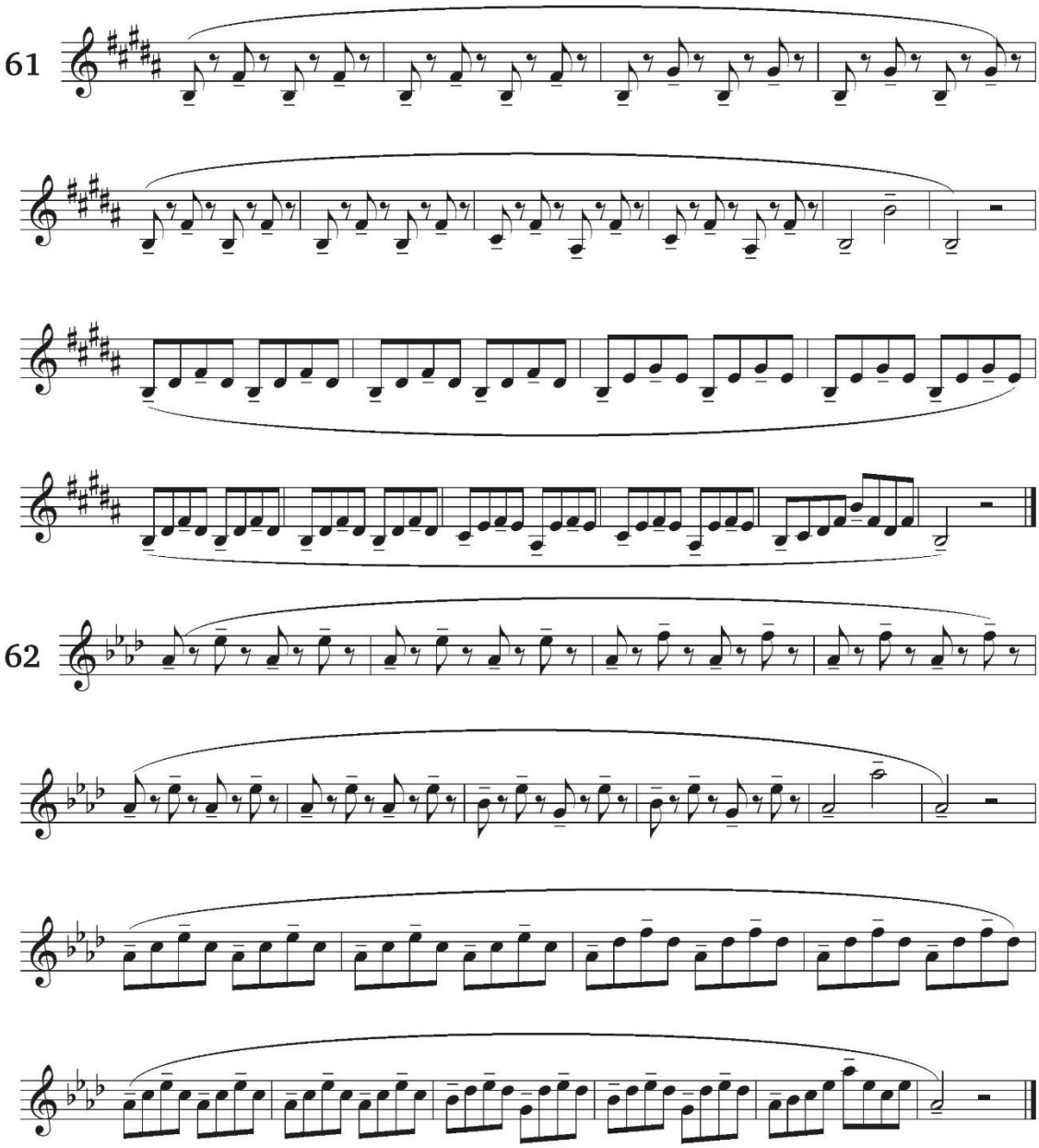
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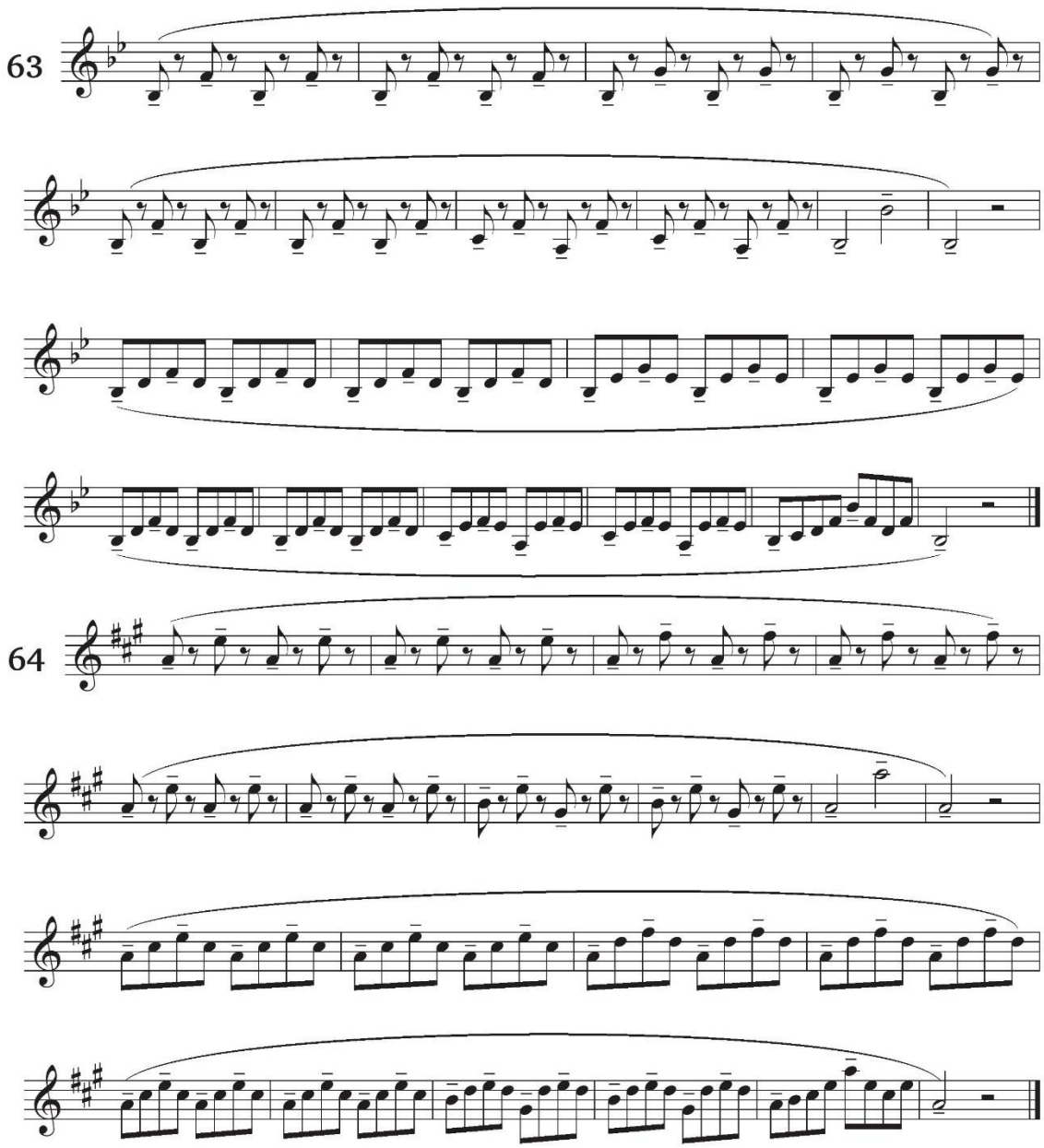
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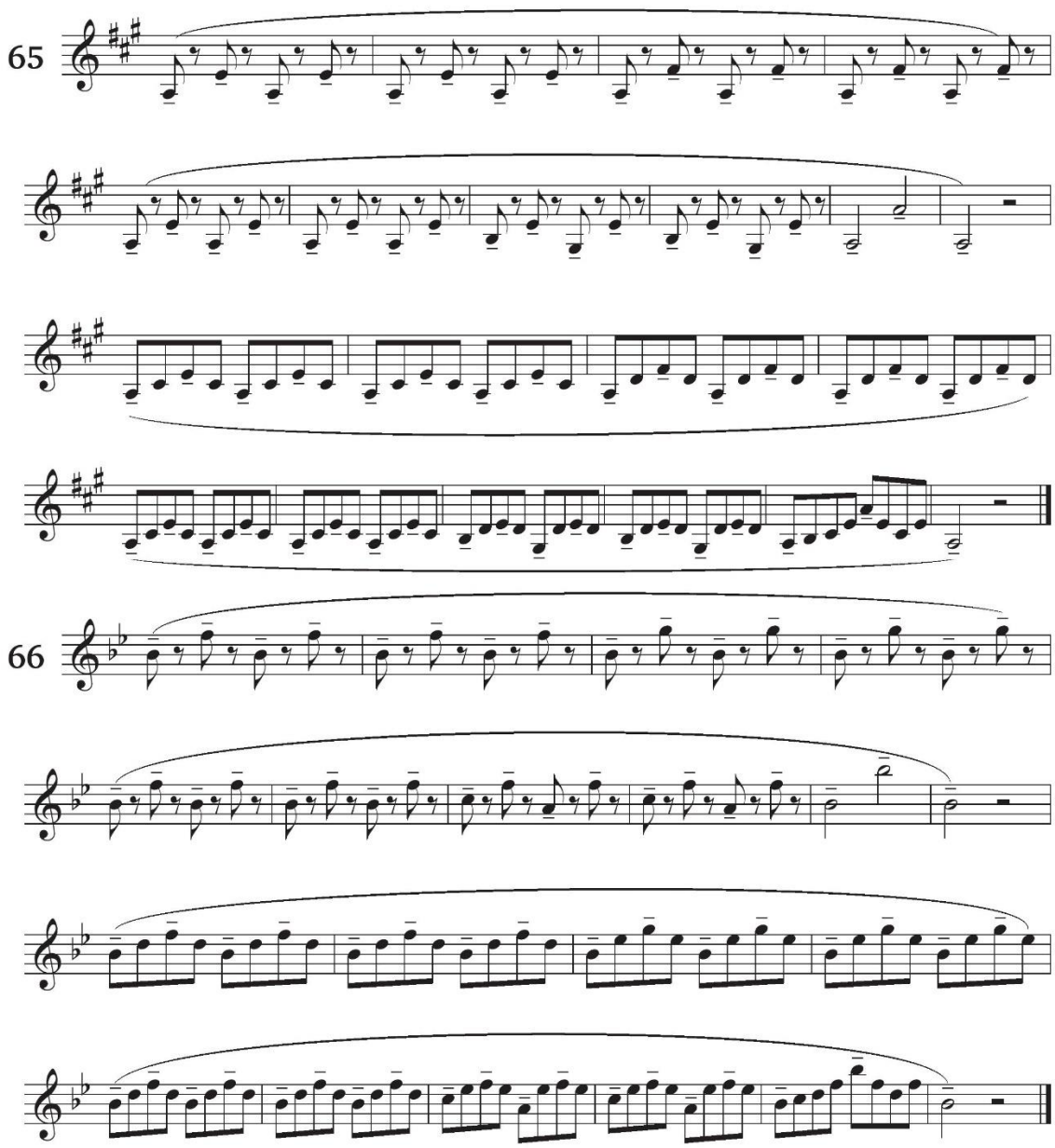
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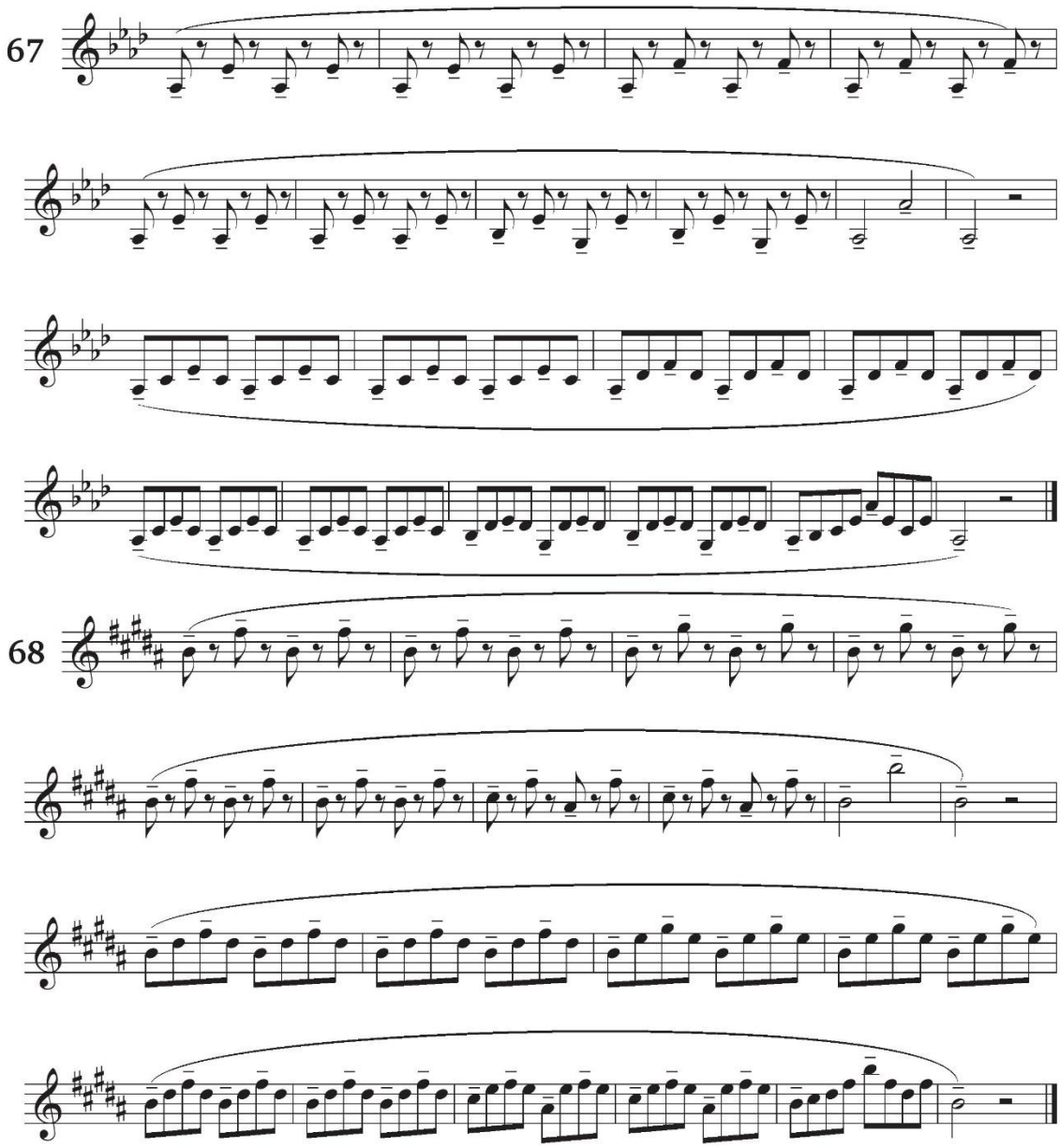
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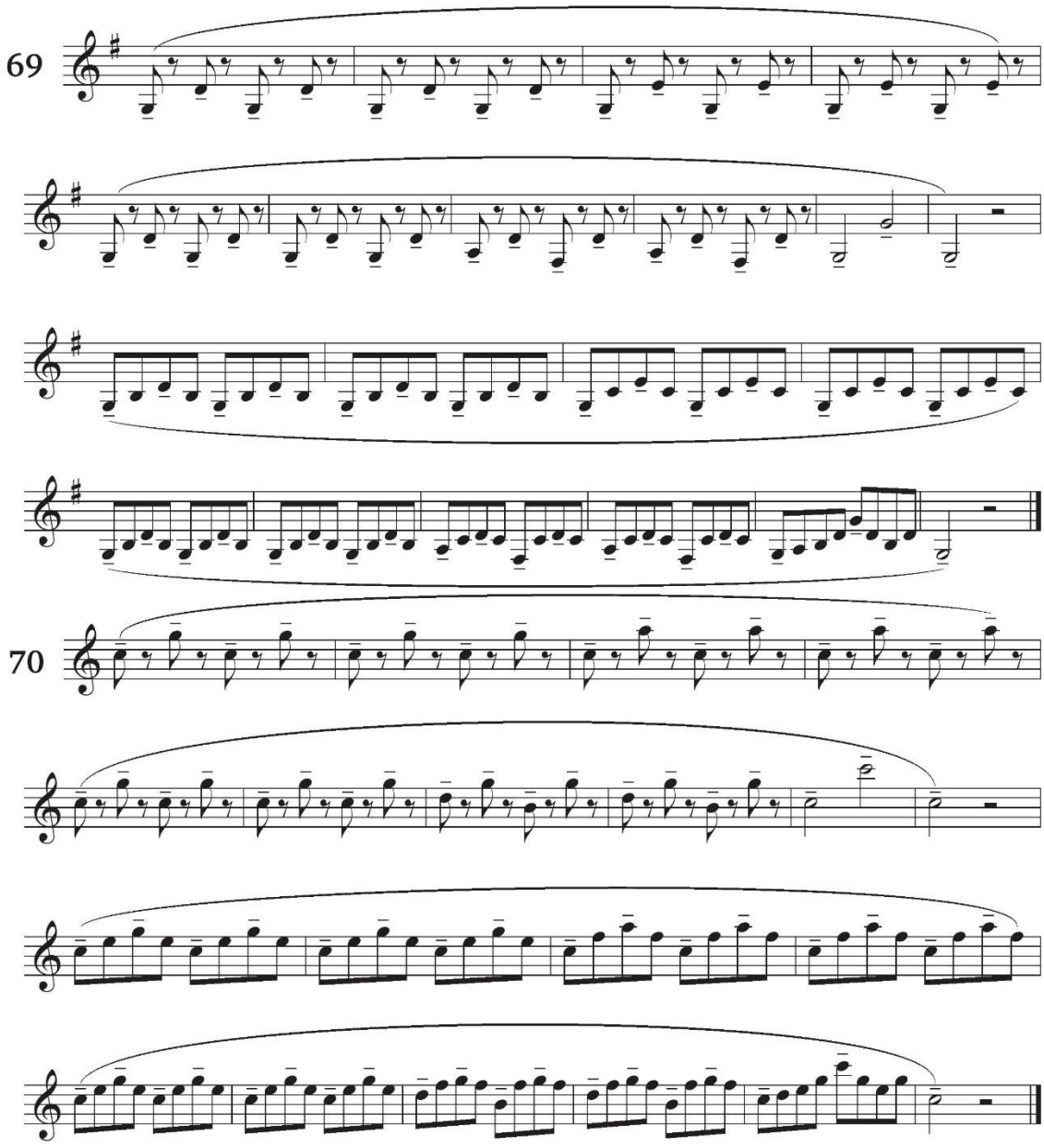
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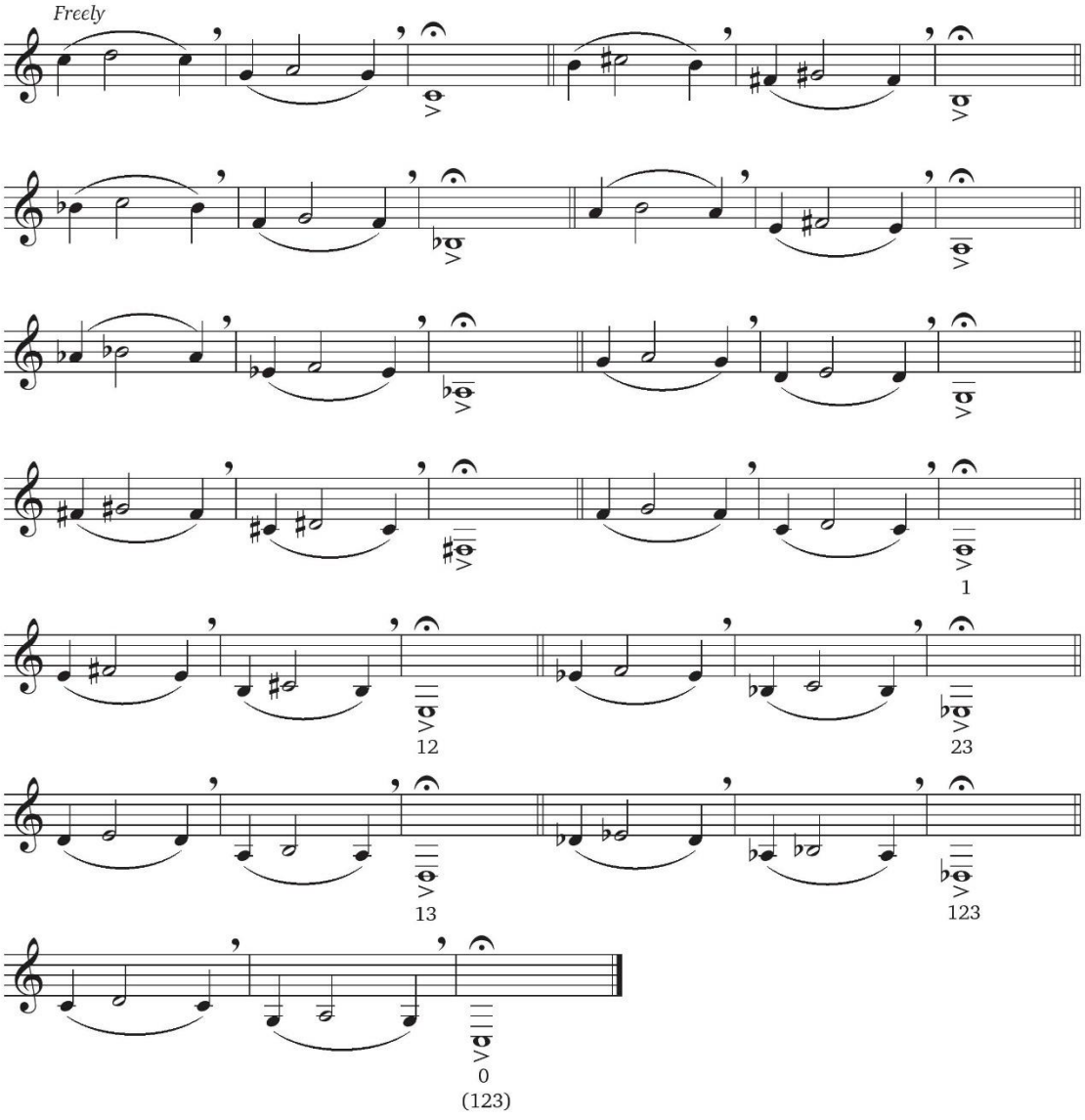
Low Flow

adapted from James Stamp's Basic Warm-ups #3 from Warm-Ups + Studies

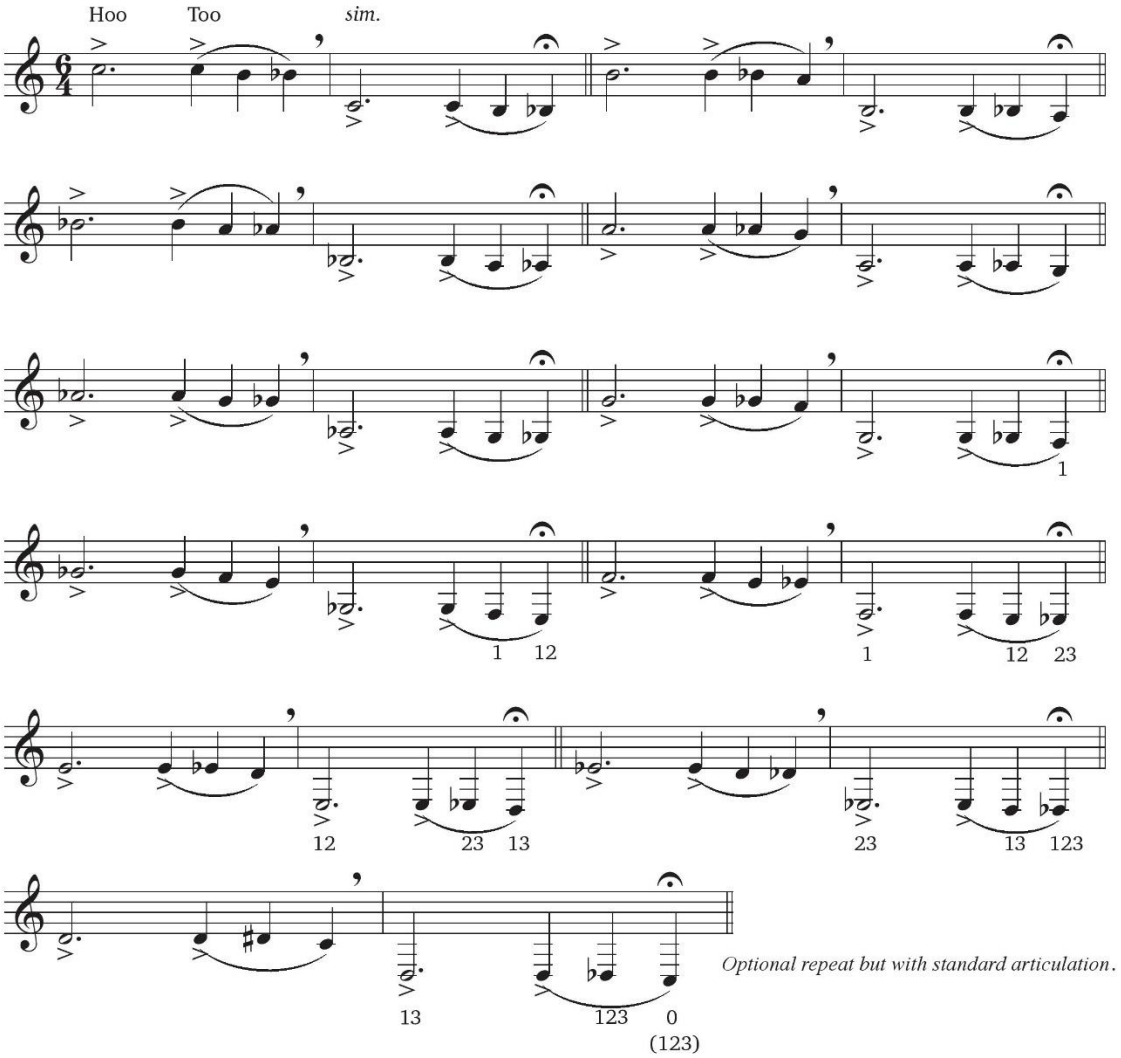
- All attacks should be accomplished utilizing air attacks.
- Embouchure should remain engaged and never shift during any point of the exercise.
- If breaths are necessary during exercise, take a slow steady breath through the nose to ensure consistent activation of the embouchure.
- All notes should be full bodied and centered in pitch.
- The follow-through of each note is more important than the initial attack.
- Only continue as low as can be accomplished with firm support given by the embouchure.
- If the pedal C is too difficult to perform without the use of valves, the valve combination "1, 2, 3" can be used.



Low Articulation

adapted from James Stamp's Basic warm-ups #4 from Warm-Ups + Studies

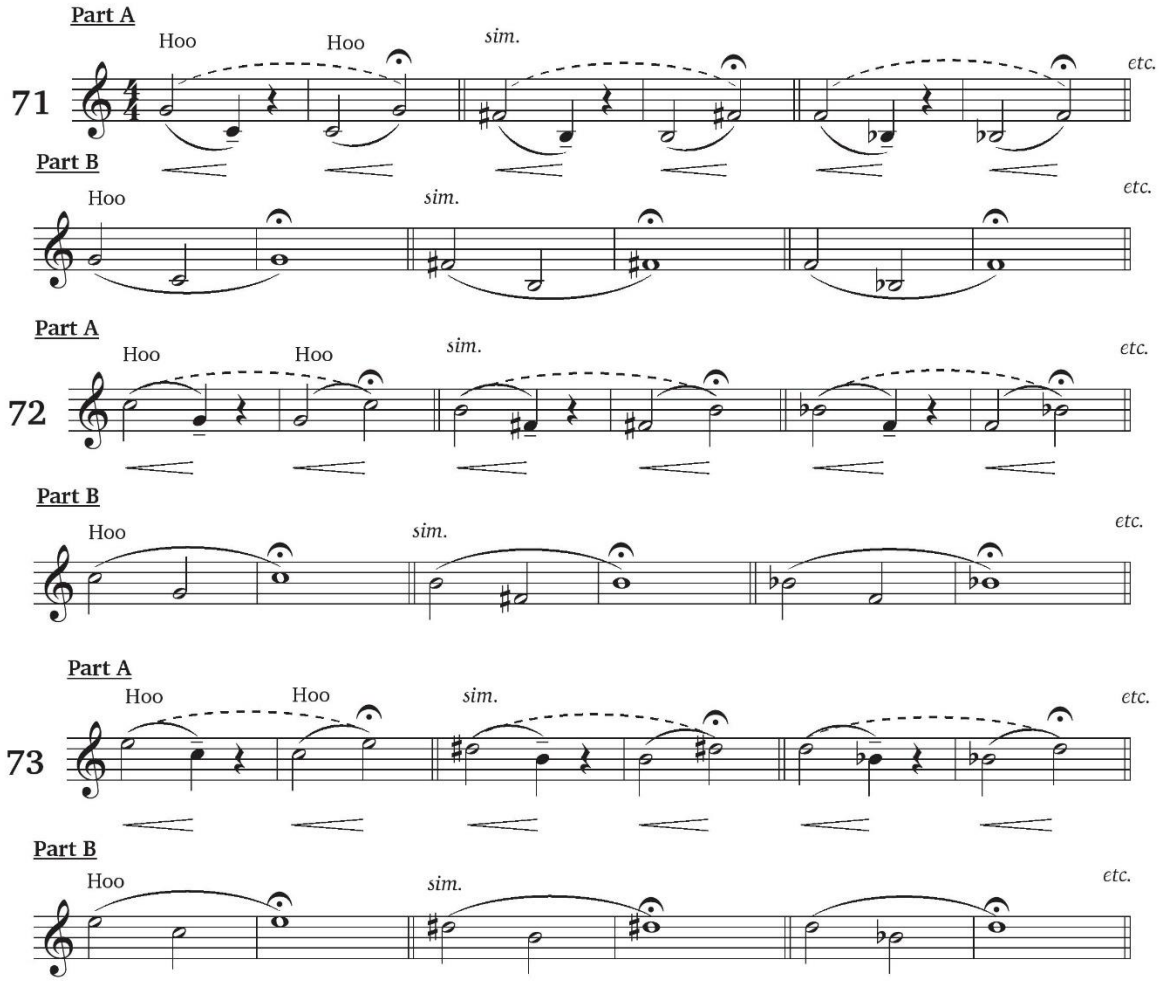
- All attacks should be accomplished utilizing air attacks.
- Embouchure should remain engaged and never shift during any point of the exercise.
- If breaths are necessary during exercise take a slow steady breath through the nose to ensure consistent activation of the embouchure.
- All notes should be full bodied and centered in pitch.
- The follow-through of each note is more important than the initial attack.
- Only continue as low as can be accomplished with firm support given by the embouchure.
- If the pedal C is too difficult to perform without the use of valves, the valve combination "1, 2, 3" can be used.
- Dotted half notes should be played full-length as to connect with the articulated quarter.

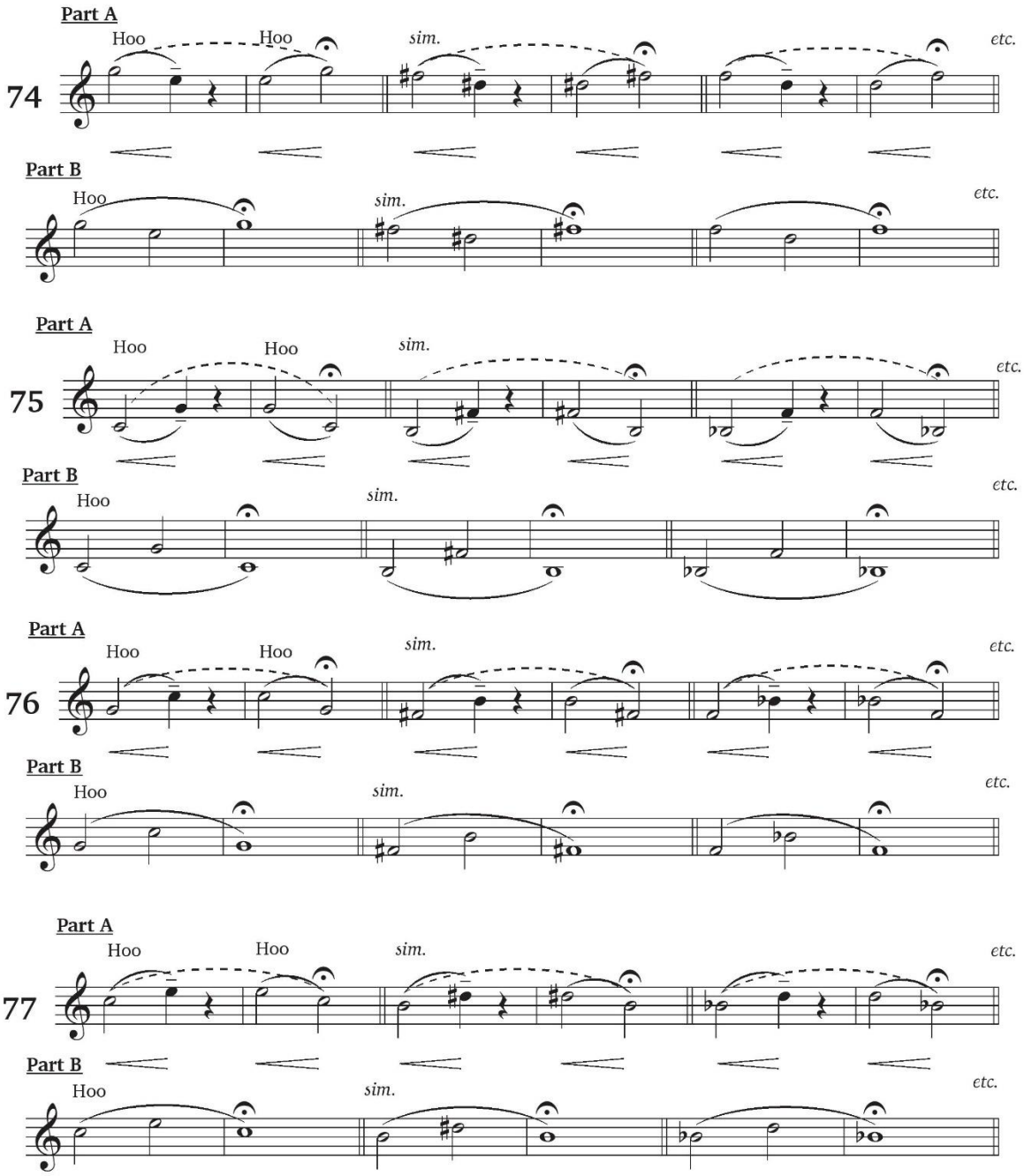


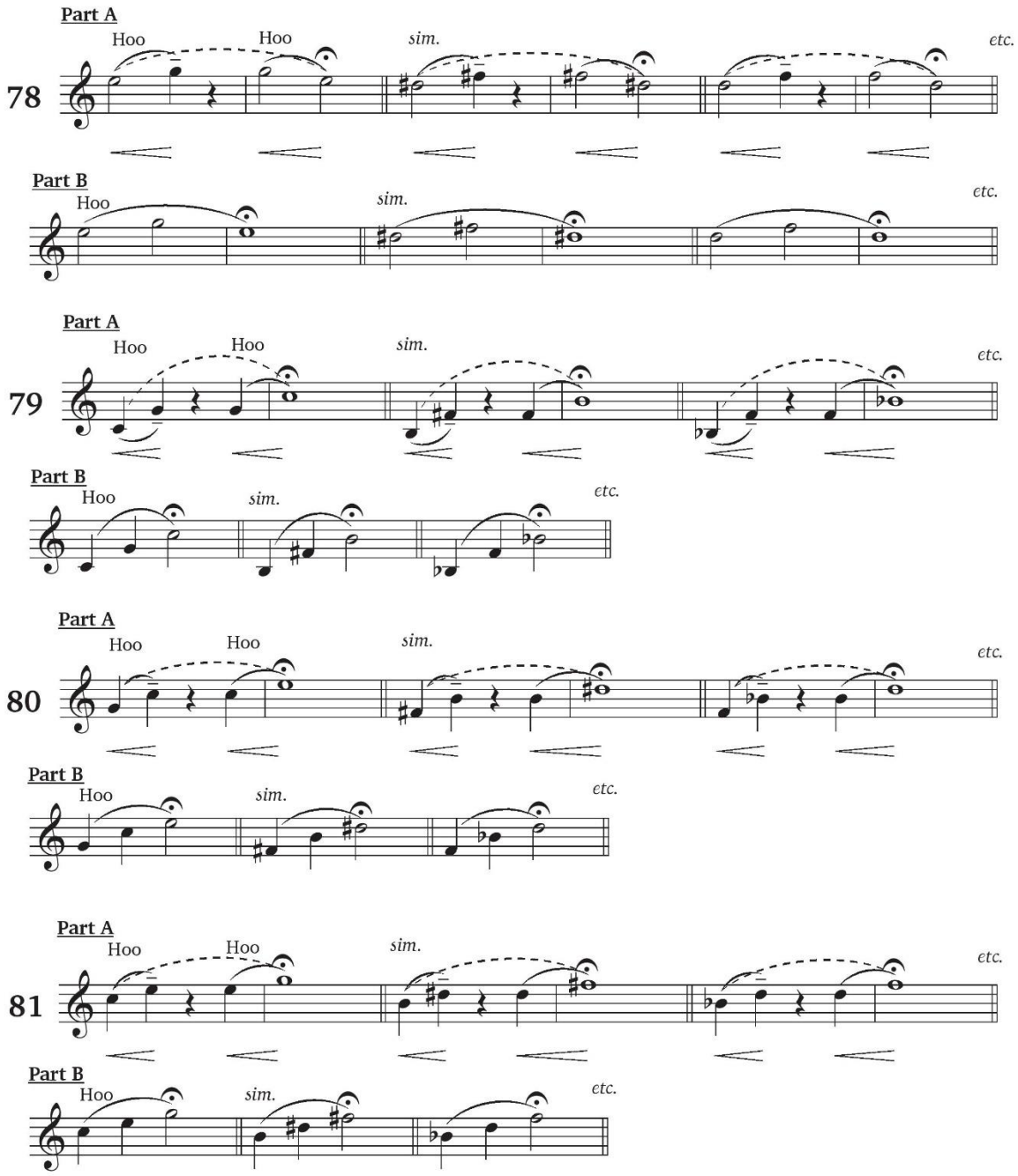
Broken Slurs

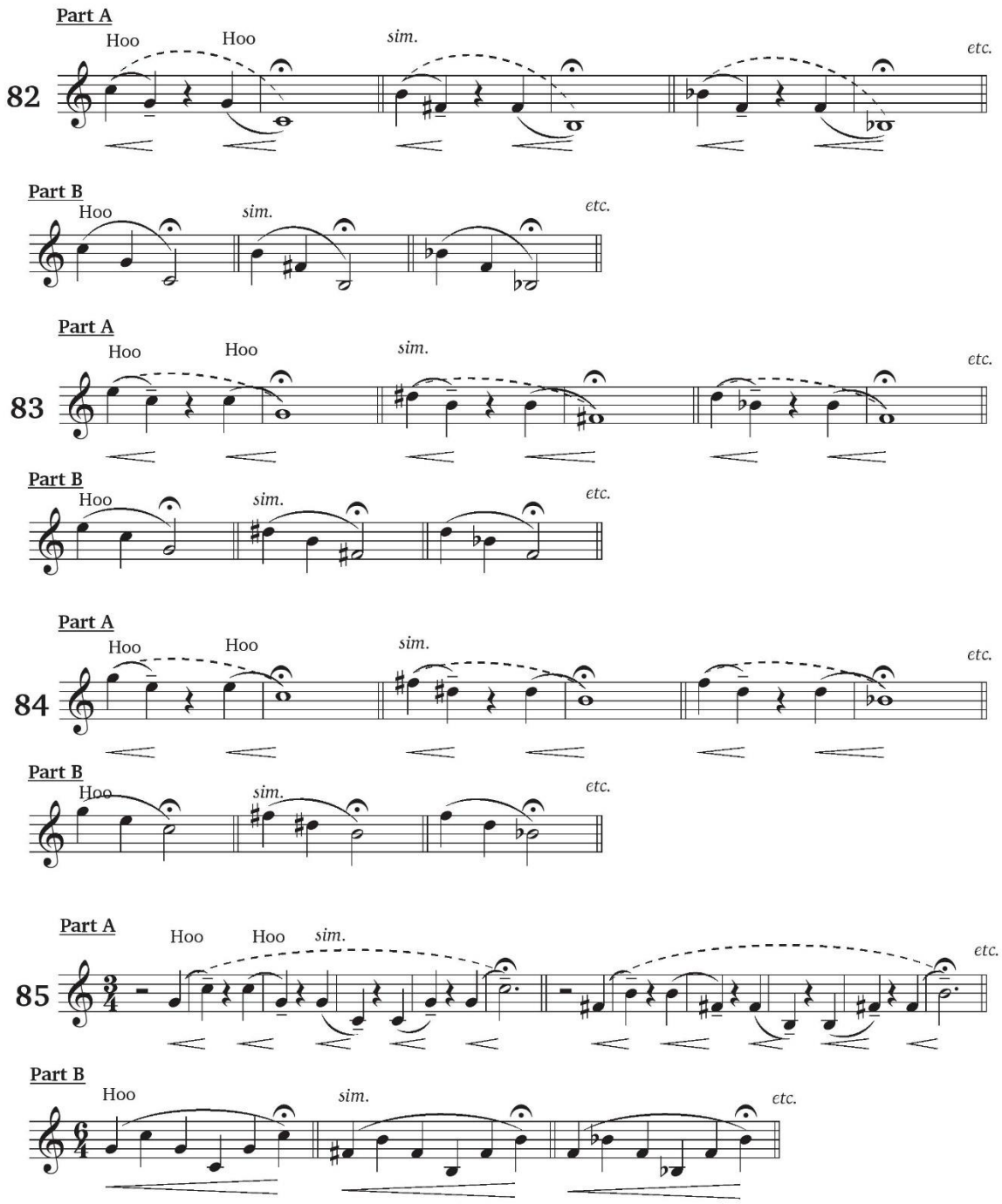
adapted from Max Schlossberg's Long Note Drills #11-15, 21

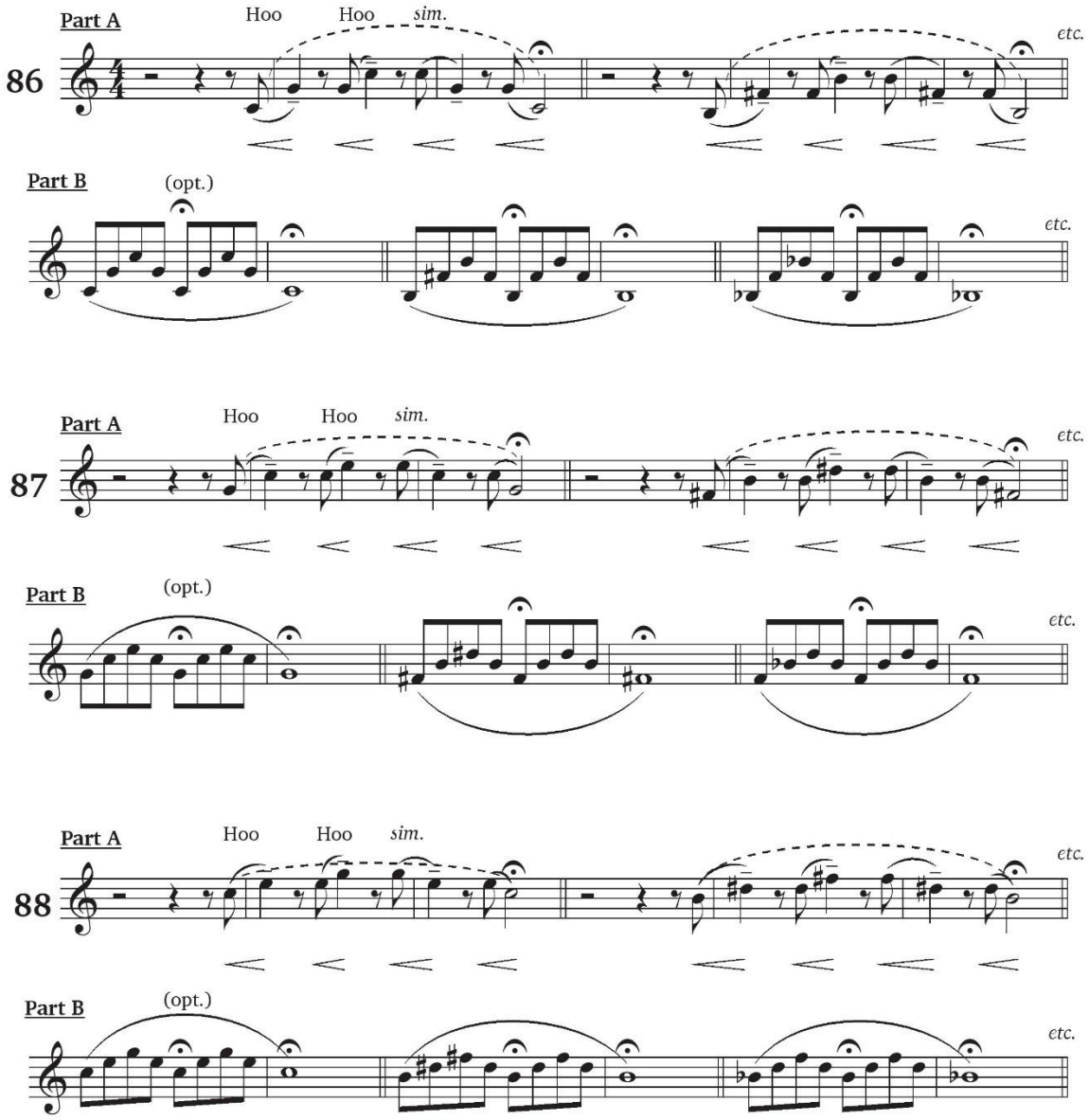
- Air attacks should be utilized throughout.
- Each exercise can optionally be repeated with standard articulation.
- Written crescendos should be emphasized to insure proper air movement.
- All notes should be full duration.
- Blow to the end of each note. This is particularly important when performing the written 8ths.
- All notes should be full bodied and centered in pitch.
- Upon mastery, exercises should be directly repeated with standard articulation. In this instance, it is vital that the approach of the air and resulting tone is identical to that achieved when using air attacks.
- Part A and B should always be played in sucession.

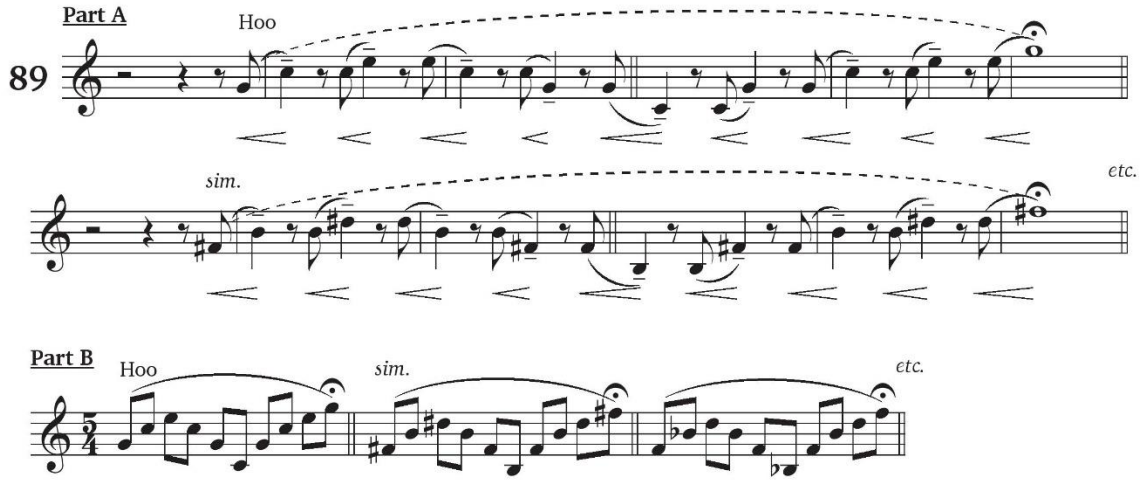



Part A
Hoo
Hoo
sim.
etc.
74
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
75
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
76
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
77
Part B
Hoo
sim.
etc.


Part A
Hoo
Hoo
sim.
etc.
78
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
79
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
80
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
81
Part B
Hoo
sim.
etc.


Part A
Hoo
Hoo
sim.
etc.
82
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
83
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
84
Part B
Hoo
sim.
etc.
Part A
Hoo
Hoo
sim.
etc.
85
Part B
Hoo
sim.
etc.

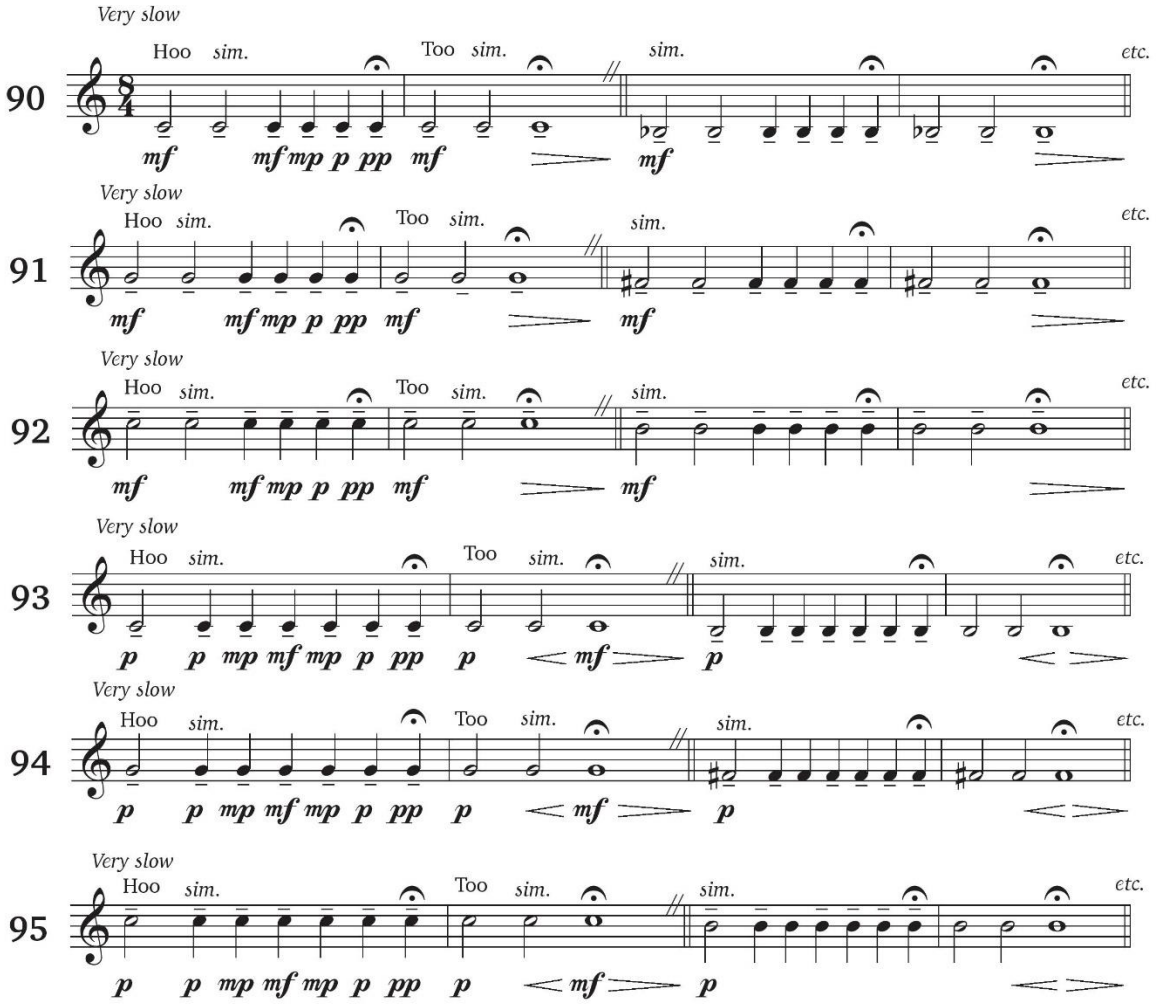

Part A
Hoo
Hoo
sim.
etc.
86
Part B
(opt.)
etc.
Part A
Hoo
Hoo
sim.
etc.
87
Part B
(opt.)
etc.
Part A
Hoo
Hoo
sim.
etc.
88
Part B
(opt.)
etc.


Part A
89
Hoo
sim.
etc.
Part B
Hoo
sim.
etc.

Dynamic Expansion

adapted from Max Schlossberg's Long Note Drills #1-2 from Warm-Ups + Studies

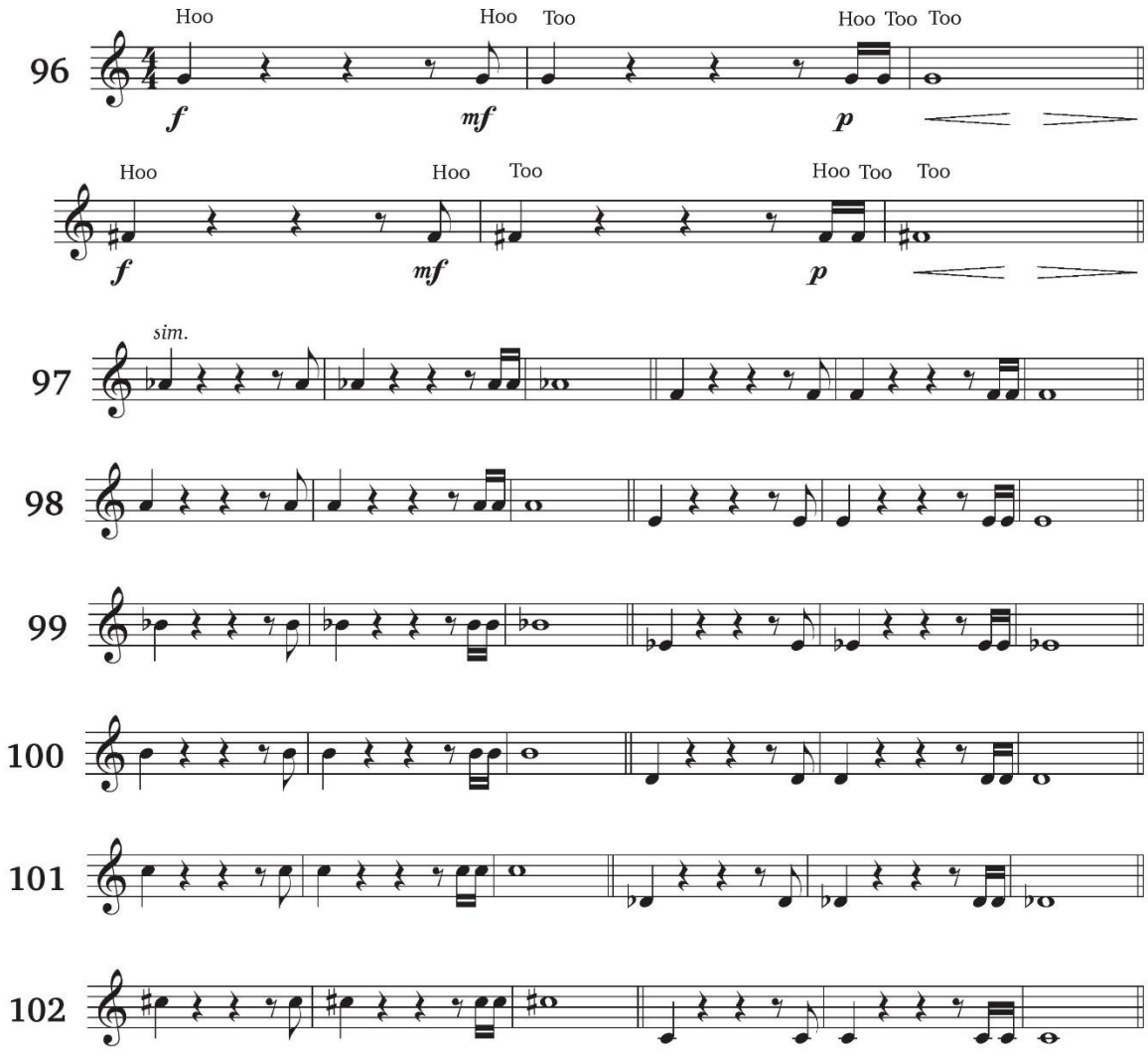
- Initial attacks should all be accomplished utilizing air attacks.
- Mouthpiece must remain on the face throughout each exercise, with no adjustment or shifting of its placement.
- All dynamics can be accomplished through air attacks. While performing throughout various dynamics, pay close attention to the position of the embouchure and the flow of the air to inform consistent placement.
- Work to perform the dynamics detailed in the first measure within the context of the crecendos/decrecendos in the following measure.
- After mastery, consider the indicated dynamics as only a suggestion. Experiment with many different dynamic shapes.
- If practicing at a loud volume, make sure to keep the airstream supported by the corners at all times (dont overblow!)

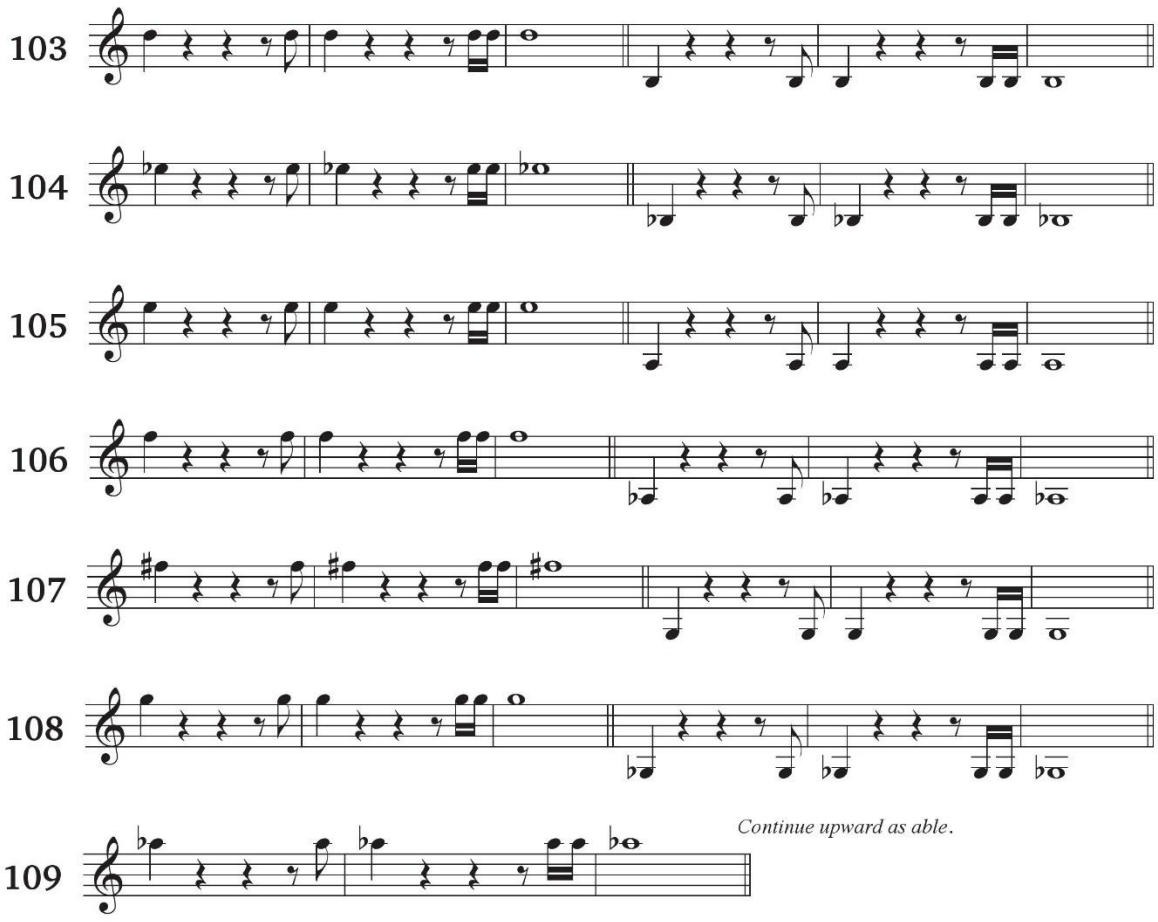


Compression Trainers

adapted from Richard Shuebruk's Grade 2: Business Players, from The Complete Shuebruk Lip Trainers for Trumpet No. 2

- Audiation of pitches throughout this exercise is key for informing the body to produce the proper air stream for each note. If the airstream is not exact, notes will not resonate properly and articulations can not be produced cleanly.
- Initial attacks should all be accomplished utilizing air attacks.
- Mouthpiece must remain on the face throughout each exercise, with no adjustment or shifting of its placement.
- The embouchure should remain formed but relaxed during rests. Firm activation of the corners will occur as a reflex of the embouchure being activated by the air.



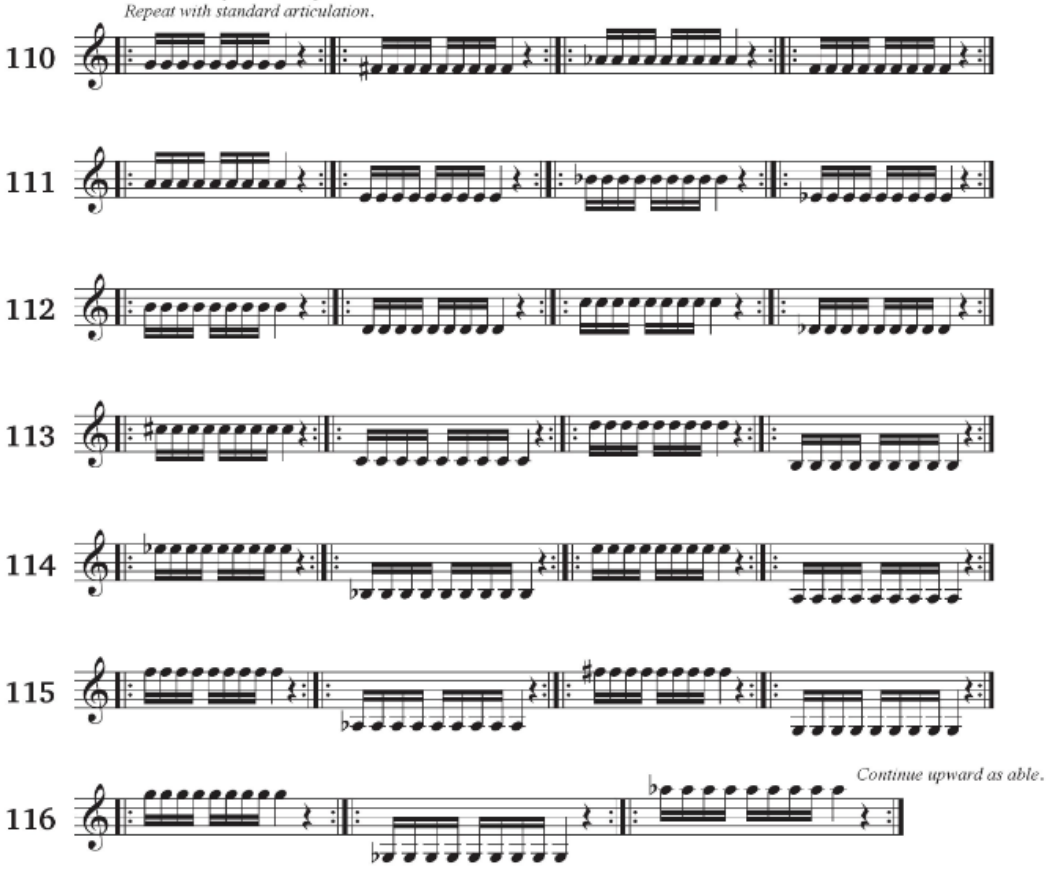

103
104
105
106
107
108
109
Continue upward as able.

Articulation Trainers

adapted from James Stamp's "Staccato Control", from Basic Warm-ups #3 from Warm-Ups + Studies

- Initial attacks should all be accomplished utilizing air attacks.
- Air stream should remain consistent and with forward direction.
- Full duration of all notes should be played.
- Standard articulations should be very precise.
- All notes should be full and resonant.

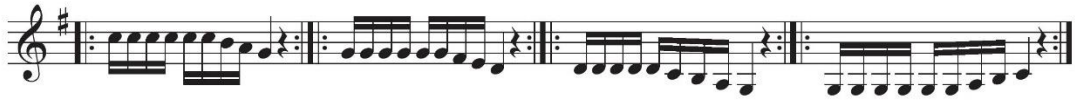
First time only: air attack first note.
Repeat with standard articulation.



First time only: air attack first note.
Repeat with standard articulation. *sim.*

117

118

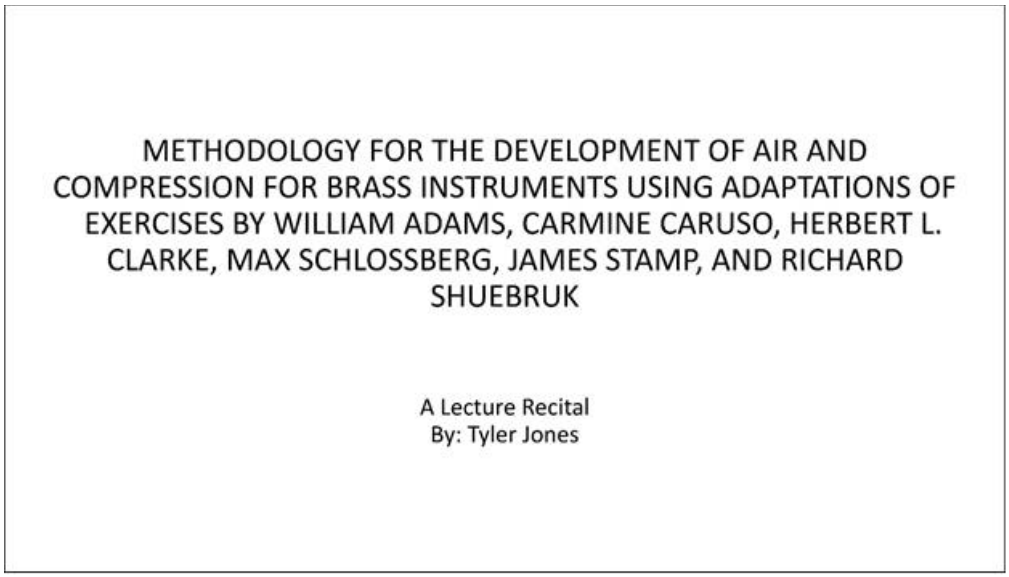


First time only: air attack first note.

119

APPENDIX B

Script for Lecture Recital



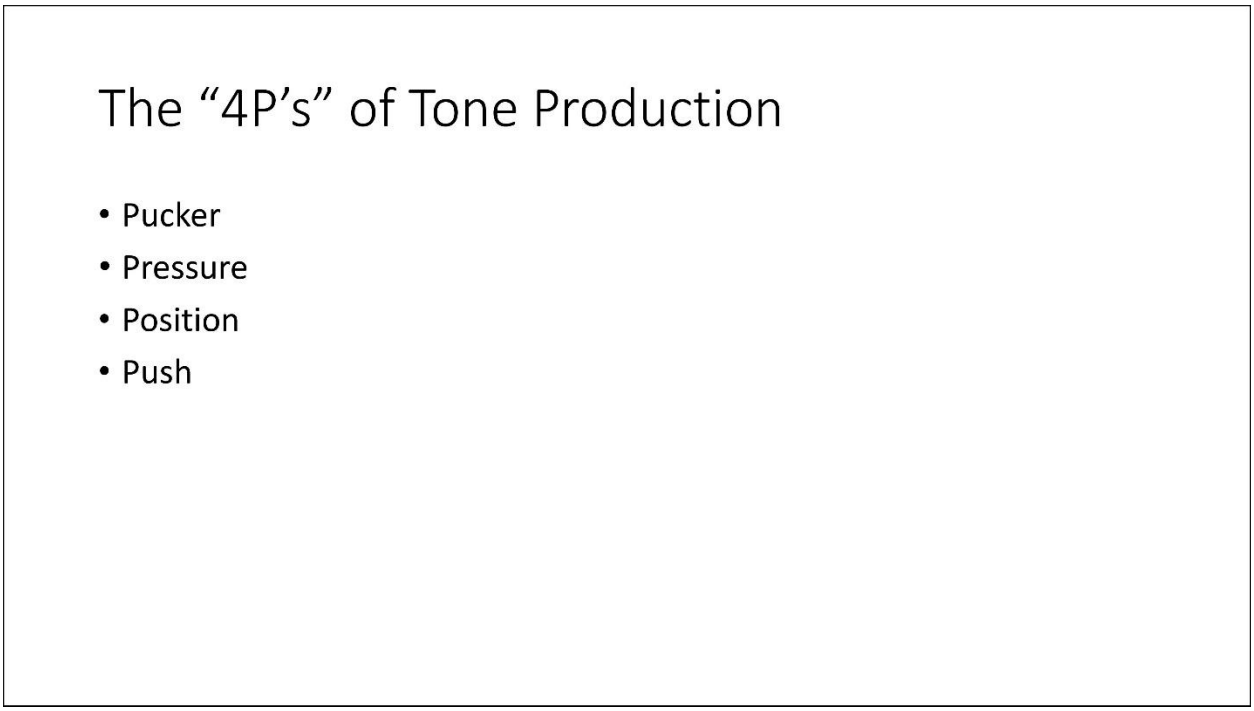
Introduction

Hi Everyone, thank you for logging and attending my DMA Lecture recital! My inspiration for this project came during my years of study with Professor Philip Smith while pursuing my Master of Music and my Doctor of Musical Arts degrees. While I had always felt that I had developed a strong overall competency on the trumpet, I continued to struggle with two major areas: consistency in tone throughout all the ranges of the trumpet and consistency of note accuracy in the upper register. When faced with broad passages in the upper register, I always found that despite my best efforts, the boldness of tone and consistency of pitch was lost in the upper register. While my initial instinct was to try to play louder or more aggressively in search of a bigger more consistent tone, the result was always a loud, forced, and generally unpleasant tone.

From this frustration, I decided that for me to meet my goals on the trumpet, I would need to fundamentally change how I approached the trumpet. At this point I found that the

best place to begin was with square one: the air. Through lessons with Mr. Smith I was taught that air is the most fundamental attribute of producing tone on the trumpet and that if the embouchure was blown into position rather than manufactured, that the resulting tone would be large, vibrant, and with maximum resonance. After weeks of experimentation with this concept I found that through the training of the airstream and the push of the air, all registers and dynamics of the trumpet could be executed with very little involvement of the lips.

Excited by this realization, I quickly turned to find new ways to practice and develop this skillset so that both myself and my students could eventually make this approach to the trumpet become second nature. The result of this search became the inspiration for this project. I found that by utilizing and modifying the exercises developed by William Adam, Carmine Caruso, Herbert L. Clarke, Max Schlossberg, Richard Shuebruk, and James Stamp, that I could effectively train my airstream to facilitate the most demanding elements of trumpet playing while creating significant resonance in all facets of performance.



To start with this method, I think it is important to begin by discussing exactly what it requires to make a sound on a brass instrument. The 4 P’s was a developed by trumpet pedagogue, David Hickman, and effectively describes the 4 main elements which inform how the lips vibrate when playing the trumpet. When playing the trumpet, basically put, the speed of the vibration of the lip dictates the pitch produced. (quicker vibration, higher note, slower vibration, lower note). In order to most effectively produce sound on the trumpet a balanced usage of all of the 4P’s is essential.

*“Pucker”, or the position of the embouchure, is responsible for creating the shape of the vibrating surface of the lip as well is its flexibility. The shape produced by a performer directly effects the speed of the vibration of the lips when air is introduced. While the exact position and role of the embouchure tends to vary between players, there is a consensus that the embouchure should be resilient, flexible, and strong. A common misconception is that playing in the upper register needs to be accomplished by shrinking the aperture. While this can cause the pitch to raise, as it causes the lips to vibrate at a faster rate, the size of the aperture

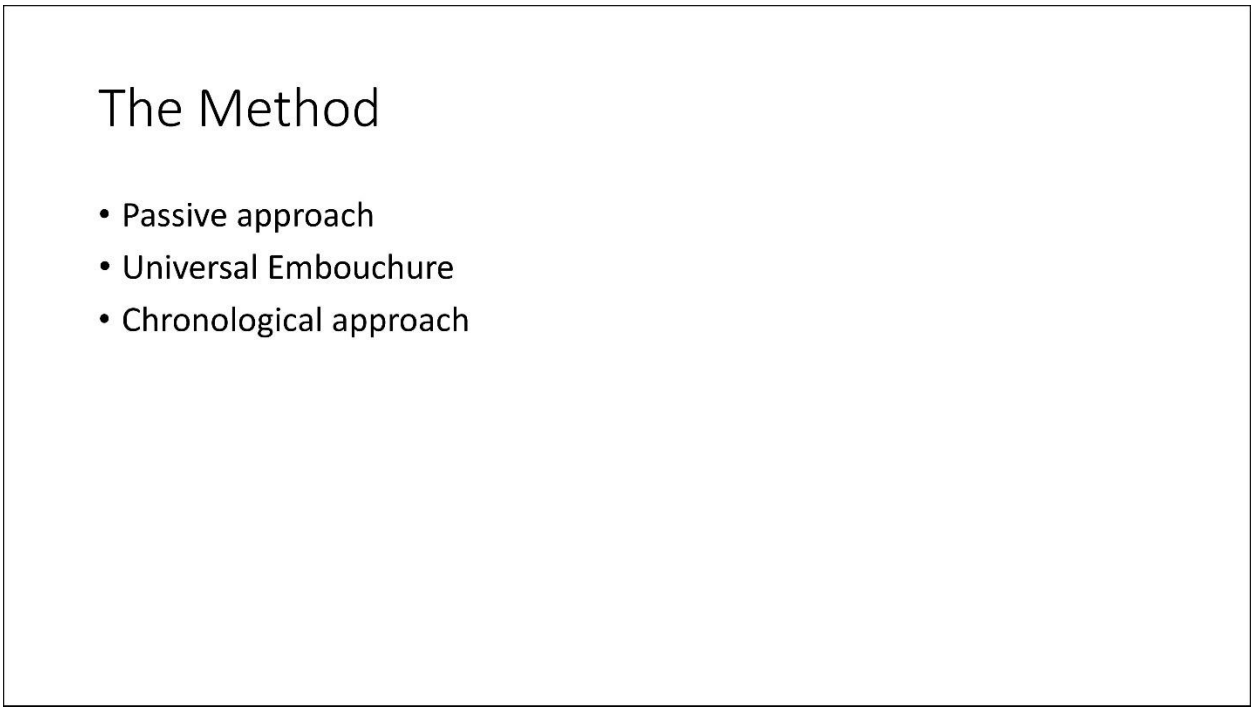
can only get so small before no air at all can pass through the lips. Many players who overuse this mechanic will find that their tone becomes thinner and thinner as they move up the range of the trumpet, and have great difficulty pushing air through notes at the top of their range.

*“Pressure” is necessary for forming an effective seal of mouthpiece against the lips when playing the trumpet and corresponds directly with the range of the trumpet. This is because the pressure within the mouth increases as the range of the instrument gets higher. In order to keep a seal between the lips and the mouthpiece when playing in the upper register, more pressure is required. Luckily this pressure is often unnoticed by performers as the pucker of the embouchure intuitively pushes back against the pressure of the mouthpiece as the register increases. This keeps performers from damaging their lips and teeth despite the increased pressure. If the pucker of the embouchure is not strong enough to match the pressure against the lips, however, the lips can actually stretch apart causing the pitch to raise. This approach to playing in the upper register is often used by younger students and while it can initially help to get the notes out, in the long run it can actually hurt range development and cause all kinds of damage to the lips and teeth.

*“Placement” of the tongue directly impacts the vibration of the lips by influencing the speed of the airstream. This mechanic is very similar to a person placing their thumb over the opening of a running water hose. The more a person covers the opening of the hose, the faster the water shoots out of the hose. This is exactly like how the tongue effects the airstream when playing. The higher the tongue placement, the quicker the air exits the lips without having to push more air. Because of the role of the tongue, many pedagogues (such as Earl Irons, and

Louis Maggio for instance,) rely on the training of the tongue and the usage of various syllables to make performance easier.

*The “push” of the air directly impacts the speed of the air approaching the lips, therefore informing the speed of vibration of the lips. Using the hose analogy mentioned before, this is like using the spicket of the hose to change the water speed by adjusting the amount of water coming out of the hose. Claude Gordon, in his book, *Brass Playing is No Harder Than Deep Breathing,* describes this mechanic as being the result of air pressure within the lungs and the compression of the back muscles to pressurize the release of the air. Gordon attributes this push of the wind as a significant factor towards the development of easy trumpet playing. While this mechanic does require balance (just like all of the other P’s in Hickman’s model) I find that for most students this mechanic is the least developed of the 4P’s resulting in difficulty producing even and consistent tone throughout the range of the trumpet. Because of this, for my project I chose to develop various approaches to build this essential skill.



This method for the development of air strength is accomplished through a series of exercises which help students find a natural positioning of the embouchure while developing an awareness the airstream when playing the trumpet.

*In the field of trumpet pedagogy students are often given a prescription for perfect embouchure, mouthpiece position, lip position, tongue position, jaw placement, tongue movement, air stream direction, etc. While these diagnoses are generally very well intended, I believe for many students the over-explanation of these mechanics often results in what Arnold Jacobs, would refer to as a “paralysis through analysis.” To prevent this, it is my goal to not over-explain the complex mechanisms of the embouchure, tongue position, or articulation but to guide students through a method which requires them to discover these mechanics for themselves.

*A major focus of this method is the development of a ‘universal setting’ of the embouchure which can accomplish all of the demands of the trumpet with very little adjustment. To develop a universal setting, it is important to consider mouthpiece pressure. I like to think about the pressure of

the mouthpiece as a mechanism which locks the position of the lips to the mouthpiece. While it may be possible for the lips to easily relax/slide outwards under the pressure of the mouthpiece (as many players do when approaching the low register), pulling the lips inward while applying mouthpiece pressure is very difficult. This is why many players find themselves having to 'reset' their embouchure by removing and replacing the mouthpiece when working from the low range into the high range, but not as often when approaching the same pitches from high to low. For this reason, to ensure healthy embouchure development, it is important that players work to develop an embouchure structure which can perform in all ranges and dynamics of the trumpet without having to significantly manipulate the lips under the mouthpiece. Through the development of air strength, performers can intuitively discover an embouchure which can accomplish the many rigors of trumpet playing while requiring little manipulation of the lips.

*During my lessons with Mr. Smith, many times I would ask him about his approach to warming up. He would always say something along the lines of "I like to get the air moving, the fingers moving, and then get the tongue going." For this method, I chose to sequence the exercises in a very similar manner. I begin with getting the air moving through static notes, get the air moving with interval training/flow training, get the fingers moving, and then add in articulation. Because of the nature of this approach it is important to work chronologically. Working through the exercises out of order may negate the benefits of the exercises or may even result in injury due to excessive demands on underdeveloped muscle groups. Patience and proper rest between studies proves to be essential when adapting to this method. Please remember that this approach should provide the framework for long term performance goals and cannot be completely developed within a short time frame.

In this method, several extended techniques are used to get the most benefit out of the exercises.

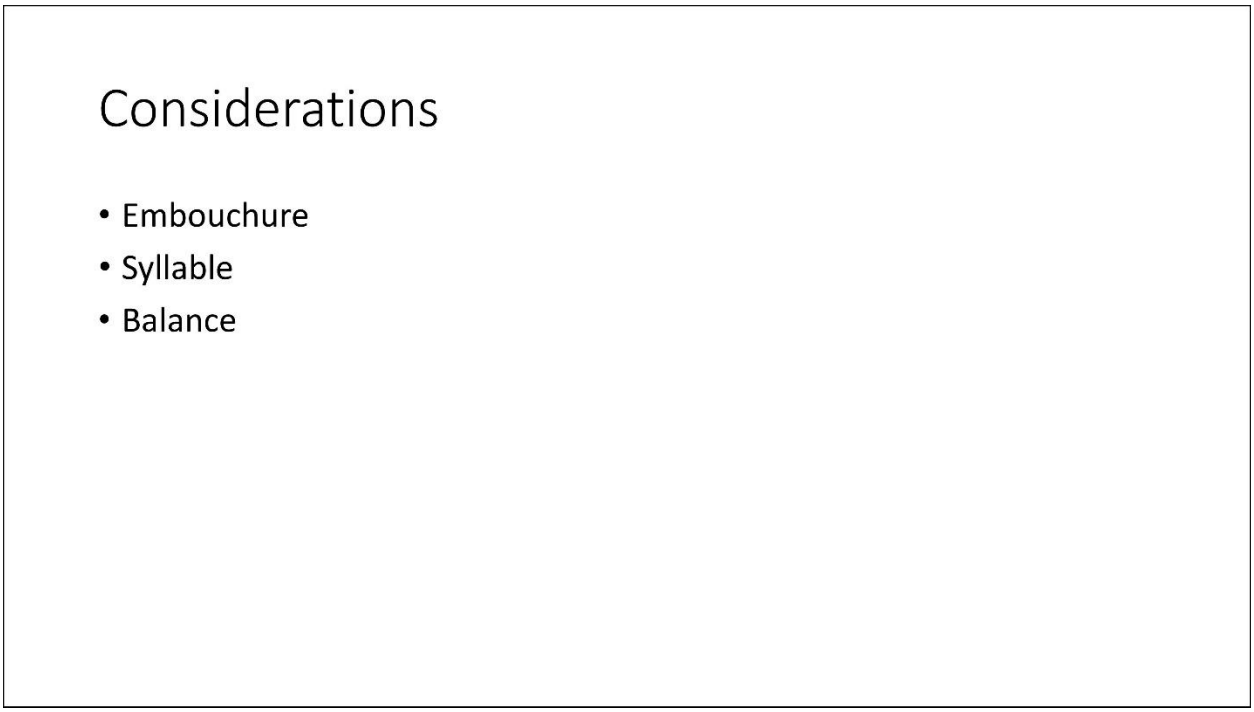
*One of the most unique techniques used is the use of 'open air attacks'. Here, performers are asked to blow air through their trumpet while keeping their embouchure intact. When blowing air through the trumpet in this fashion it is important that no actual vibration goes through the trumpet. In my experience, students who tend to play with a lot of tension have a very hard time doing this. Exercises beginning with an open air attack will segue into vibration of the lips with minimal (if not unnoticeable) muscular movement and without any break in the airstream.

*Many of the exercises within this method utilize air attacks (or notes started with the air rather than the tongue). When using air attacks throughout this method, the syllable "hoo" is recommended. This approach should result in the embouchure structure being effectively

blown into place to create the tone rather than creating the tone through muscular tension in the embouchure. By developing the ability to easily begin a note using this technique, performers can intuitively develop a highly efficient method for tone production.

*Occasionally within this method nose breathing is used. This is not be used as a substitution for a standard breath, but as a means of allowing players to breathe in the middle of an exercise without resetting the embouchure.

*Within this method players are at times asked to play pitches lower than the standard range of the trumpet, known as pedal tones. While these notes do not have a great practical importance to trumpet players, pedal tones work to build corner strength, relax the center of the embouchure, and develop audiation.



*While it is a goal of this project to develop a system of performance based on individual

discovery of the embouchure, I feel it is necessary to encourage the following concepts when forming the embouchure to accelerate success and prevent injury:

- Firm corners
- Slight forward placement of lips, as if slightly puckering
- Relaxed center of the lips to allow relaxed airflow
- Consistency of aperture size throughout various ranges
- Consistent support from corners throughout all registers
- Also, the player should avoid flattening or widening lips while playing

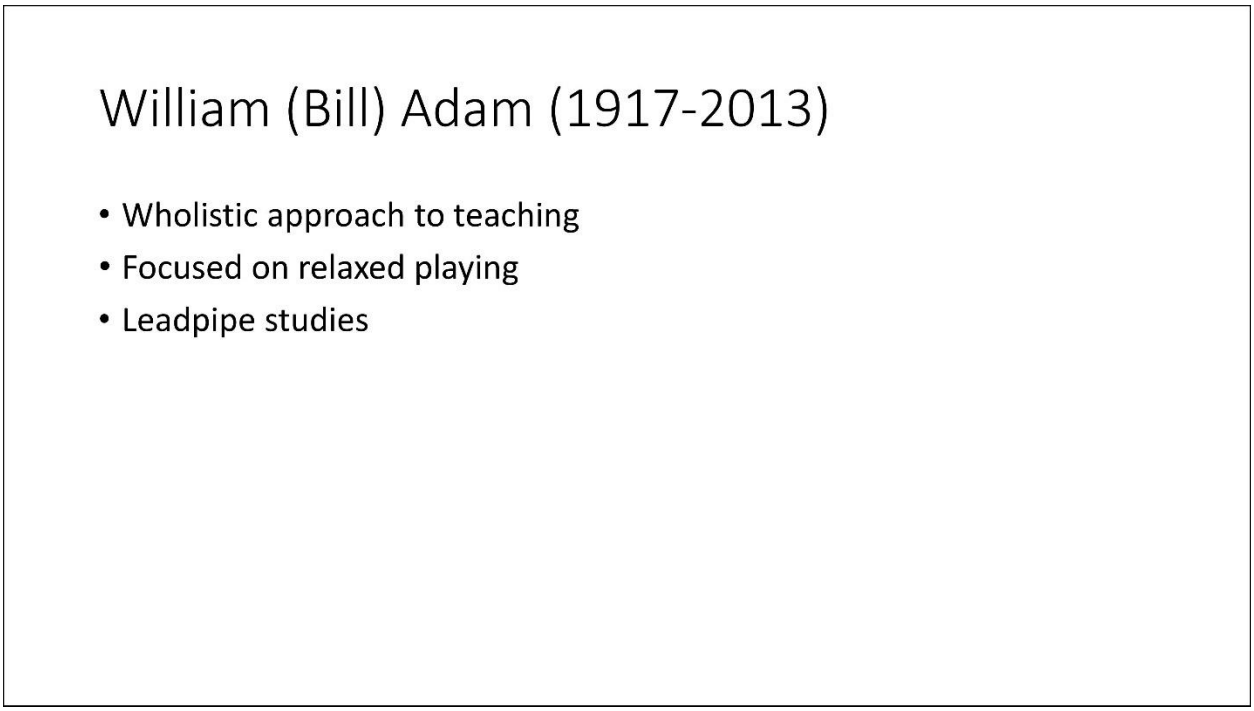
*Throughout this method the syllables “Hoo” (for air attacks) and “Too” (for standard articulations) are used. These are designed to be just suggestions and should be substituted if helpful to a player. Some players for example find syllables like Haa/Taa or Hii/Tii to be more helpful. For me I like to use Hoo/Too to help keep the embouchure in a strong position, with more support from the corners.

*This methodology is designed to be like a medicine for helping students develop the “push” of the air when playing the trumpet. While I feel that most students will greatly benefit from this method, it is important to remember that for some students a little can go a long way. The push of the air can only do so much if a student doesn’t have the embouchure strength to support the air! Make sure that all of your “Ps” are in order when approaching your daily practice!

The Exercises

- **Open Air Attacks**, adapted from William Adam's leadpipe studies
- ***The Six Notes***, adapted from *Carmine Caruso's,* "The Six Notes"*,* from *Musical Calisthenics for Brass*
- **Intro to Flow**, adapted from Carmine Caruso's "*2nds/3rds"*, from *Musical Calisthenics for Brass*
- **Flow Studies**, adapted from Herbert L. Clarke's "Studies 1-3", from *Technical Studies for Cornet*
- **Low Blow**, adapted from James Stamp's "Basic warm-ups #4*"* from *Warm-Ups + Studies*
- **Low Flow,** adapted from James Stamp's "Basic warm-ups #3" from *Warm-Ups + Studies*
- **Broken Slurs**, adapted from Max Schlossberg's "Long Note Drills #'s 11-15, 21", from *Daily Drill and Technical Studies for Trumpet*
- **Dynamic Expansion**, adapted from Max Schlossberg's "Long Note Drills #'s 1, 2", from *Warm-Ups + Studies*
- **Compression Trainers**, adapted from Richard Shuebruk's "Grade 2: Business Players", from *The Complete Shuebruk Lip Trainers for Trumpet No. 2*
- **Articulation Trainers,** James Stamp's "Staccato Control", from *Basic warm-ups #3* from *Warm-Ups + Studies*

Here are the exercises, listed in performance order throughout the method. During this presentation, for the sake of continuity I have decided to discuss some of the exercises out of order, but please note that this is the "official sequencing" of this method, designed to most effectively teach the use of air when playing the trumpet.



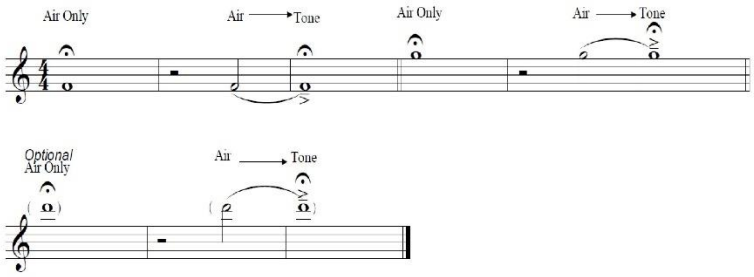
William Adam is often regarded as one of the most influential pedagogues of modern trumpet playing and is largely remembered for his success as a teacher as well as the development of his highly regarded daily practice routine. Adam's approach to teaching has often been described as wholistic, due to his focus on not only trumpet playing but the lives of his students in general. In addition, audiation development and performance modeling proved to be staples of his teaching technique.

*Pedagogically, Adam had a strong focus on easy and relaxed playing and regularly advocated against the practice of mouthpiece buzzing. In lessons, he would often demonstrate the concept of "sympathetic vibration" of the lips by blowing through the mouthpiece showing how the tone can be accomplished without adjusting the embouchure, rather by connecting the mouthpiece to the leadpipe.

[DEMONSTRATE]

Adam- Adaptations

- **Open Air Attacks**, adapted from William Adam's leadpipe studies



These exercises are greatly based upon Adam's use of leadpipe playing within his routine, although with a slightly more relaxed approach. These exercises are based on two main elements of performance: the development of just the timbre of the air and the production of tone.

To begin these exercises, the performer is asked to begin by blowing a full airstream through the leadpipe while forming a basic embouchure. The air used during this exercise should be as close as possible to the air used to perform F4, if using a standard Bb leadpipe. The performer should listen specifically to the timbre of the air and work to make the tone of the air as warm and full as possible.

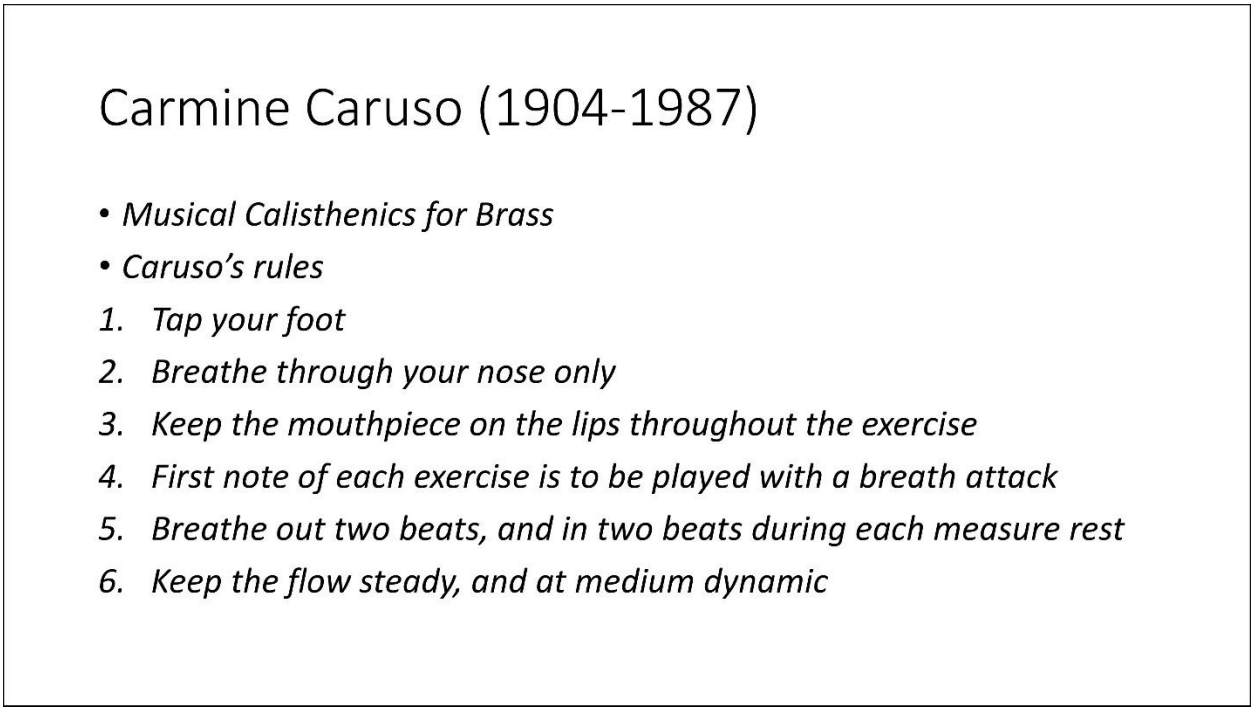
[DEMONSTRATE]

After finding the ideal timbre of the air, work to segue this air to the sound with little to no muscular movement or change of the airstream.

[DEMONSTRATE]

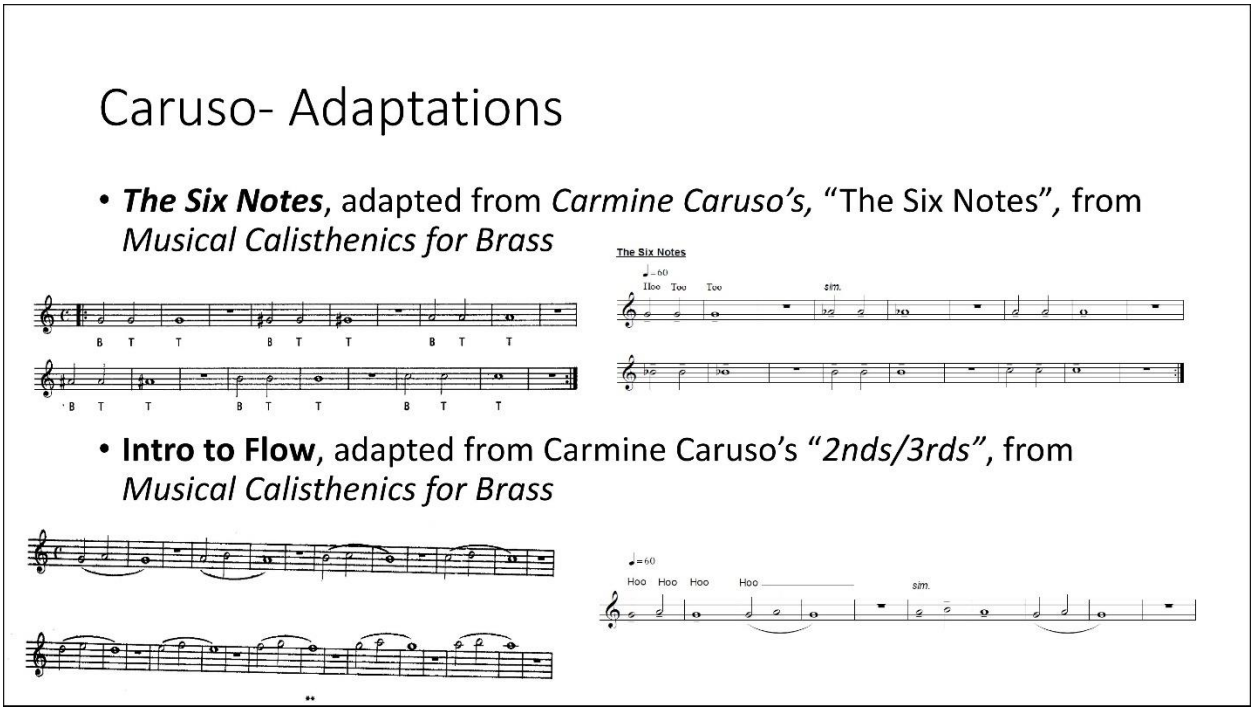
If possible, this approach should be used on all of the harmonics available on the leadpipe. Please note that these pitches are approximate and can be slightly different for each player.

[DEMONSTRATE]



*Carmine Caruso is considered one of the greatest American brass teachers of the 20th century, remembered for his innovative approach to brass pedagogy as well as the development of his book *Musical Calisthenics for Brass*. His book, *musical calisthenics* worked to train the muscles and air to work in perfect coordination, without much attention to the tone or intonation produced. Caruso's teaching rarely focused on the quality of sound achieved through his exercises, but more importantly on the ease and accuracy of the production of sound. Through the development of ease and resonance in tone production, Caruso believed that he was supplying his students with the tools needed to be successful.

*Caruso's teaching heavily relied on students performing his exercises, while following a strict set of rules. [read rules from slide] You will notice that many of these rules are used throughout the exercises in this method.



Throughout this presentation you will see two columns, The left column will show the original exercise, and the right column will show my adaptations.

"The 6 notes" is generally regarded as the staple of Caruso's method. The first note is to be air attacked and the following notes are to be lightly tongued using a process Caruso referred to as tongue brushing. During the rests, the embouchure should remain firm and activated. The exercise is to be carried upward in a chromatic motion in six note groups. All of Caruso's rules apply throughout.

[DEMONSTRATE]

For my adaptation of *The Six Notes* I utilize a nearly verbatim application of his exercise, but with a more relaxed approach. Rather than requiring students to maintain their embouchure firmness throughout all rests I encourage students to maintain their embouchure shape and mouthpiece contact but encourage the muscles to relax during the rests until activated by the airstream. While Caruso's approach of constant activation of the embouchure works well to develop muscular strength and endurance, I find that this approach may prove to invite more tension than desired for this method.

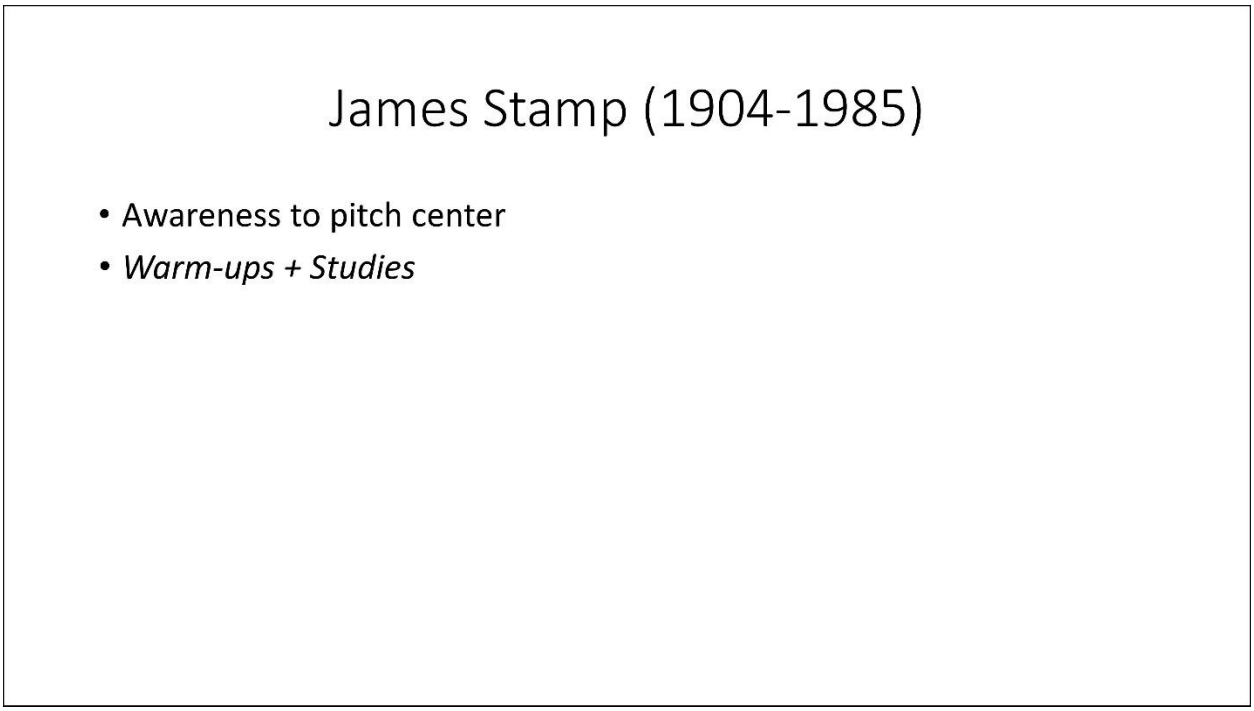
[DEMONSTRATE]

For Caruso's following interval training exercises, all of the same rules apply, although the performer should continue upwards to the top of their range. For the sake of this presentation, I will only be performing the interval training featuring 2nds. The exercise '3rds" is much like "2nds" but with movement through major thirds throughout.

[DEMONSTRATE]

For my adaptations of *2nds* and *3rds*, I developed an introductory exercise to require students to actively find each note using air attacks before performing the slurs as written in the original exercise. By isolating the intervals in this manner, I feel that it keeps students from inadvertently relying on lip movement to approach these intervals. After mastery of these intervals using this technique, I find students are more able to smoothly perform Caruso's original exercises with far greater flow and support.

[DEMONSTRATE]



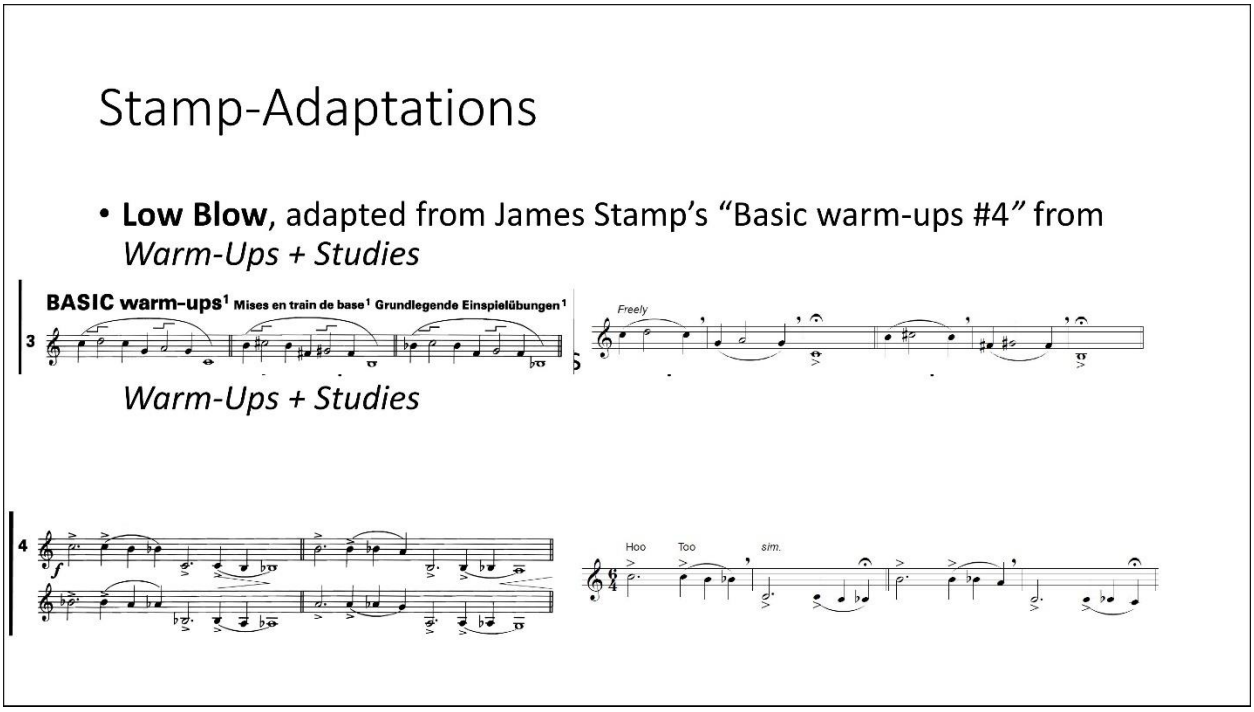
James Stamp is recognized as one of the most influential teachers of the trumpet, remembered not only for his contribution to trumpet pedagogy and, extraordinary student success, but also as a successful orchestral trumpeter.

*The pedagogical approach of Stamp focused on the mastery of the trumpet through developing an awareness to the pitch center of each note. According to Stanley Friedman, a former student of Stamp, his outlook on the trumpet was based around the notion that each pitch on the trumpet has a place where it produces a maximum resonance, known as the center of the pitch. By playing in the direct center of the pitch and avoiding bending or pushing notes out of the center of pitch, the trumpet proves to be quite easy to play.

[Demonstrate]

To teach the skill of playing in the center of pitch, Stamp developed many unique exercises which later became the foundation of his book, *Warm-Ups + Studies.* Three of the

exercises included my personal method, come from adaptations of studies found in this book.



Of the studies in this book the most recognizable is his "Basic Warm-Ups #3," referred to as "Stamp: Symphony No. 1" by Swedish virtuoso and former Stamp student, Håkan Hardenberger. This exercise should be played with an emphasis on centering the tone for each note. Within this exercise Stamp included a bracketed marking above the major second intervals which serve as a reminder for students to not telegraph the transition to the next note through bending or loosening. In addition, this exercise continues into the pedal register to build versatility in the embouchure, relax the lips and improve blood circulation.

[DEMONSTRATE]

This adaptation from Stamp's "Basic warm-ups #3" was developed for my method in order to take the skill of moving through major 2nds (established in "Intro to Flow") and expand upon it through the addition of large downward jumps. By requiring the embouchure to function during this exercise off the flow of air alone, it is my goal that students develop far

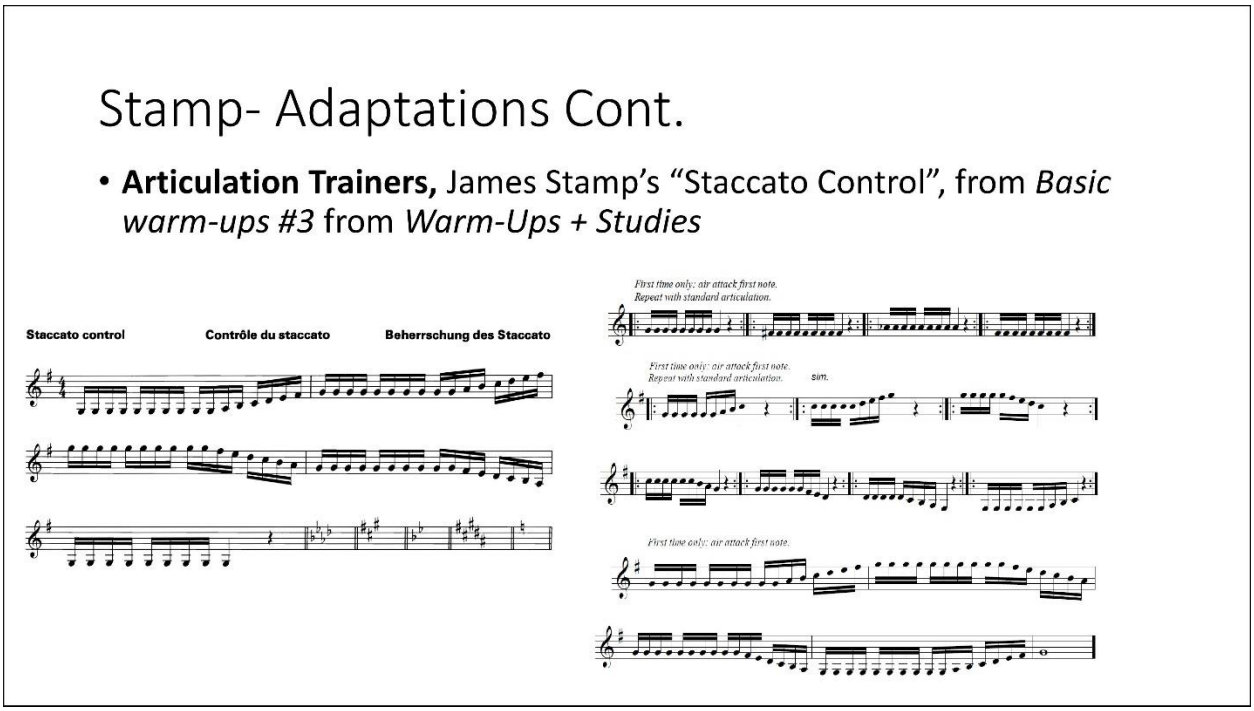
more flexibility and security in their embouchure while also building strength which can be used in all registers. While this exercise mainly addresses the mid to lower register of the instrument, learning to develop the proper embouchure to perform these exercises provides a strong foundation for relaxed upper register playing.

[DEMONSTRATE]

Warmup #4 is designed similarly to Warmup #3, with a basic flow exercise (found in the chromatic descending figures) and adding them within the context of large harmonic shifts. This exercise was used by Stamp to check the balance of support and lip tension. This exercise also works to add the use of articulation throughout which aids in solidifying the center of the tone.

[DEMONSTRATE]

I used this adaptation of Basic Warm-Ups #4 to further solidify the correct air placement of notes using air attacks, with the inclusion of articulation. While the use of air attacks is an extraordinary tool for developing a relaxed approach for tone production, if approached without firm support in the embouchure clean articulation cannot be achieved. By adding the use of “too” attacks following the use of air attacks, this exercise works both to utilize the benefits of air attacks while also insuring proper technique. In addition, this exercise serves to inform the performer of the role of air in their articulation.



While Stamp doesn't include any information as to the goal of this exercise, it is understood by Roy Poper, long time student of Stamp, that the goal is to "develop a rapidly articulated sound that holds together at all volumes and all speeds." By centering the exercise around the repeated Gs, in three octaves, I infer that Stamp was working to help players gain security in articulation on these repeated pitches with the goal that students work to maintain tone and control when moving between these 'checkpoint pitches'.

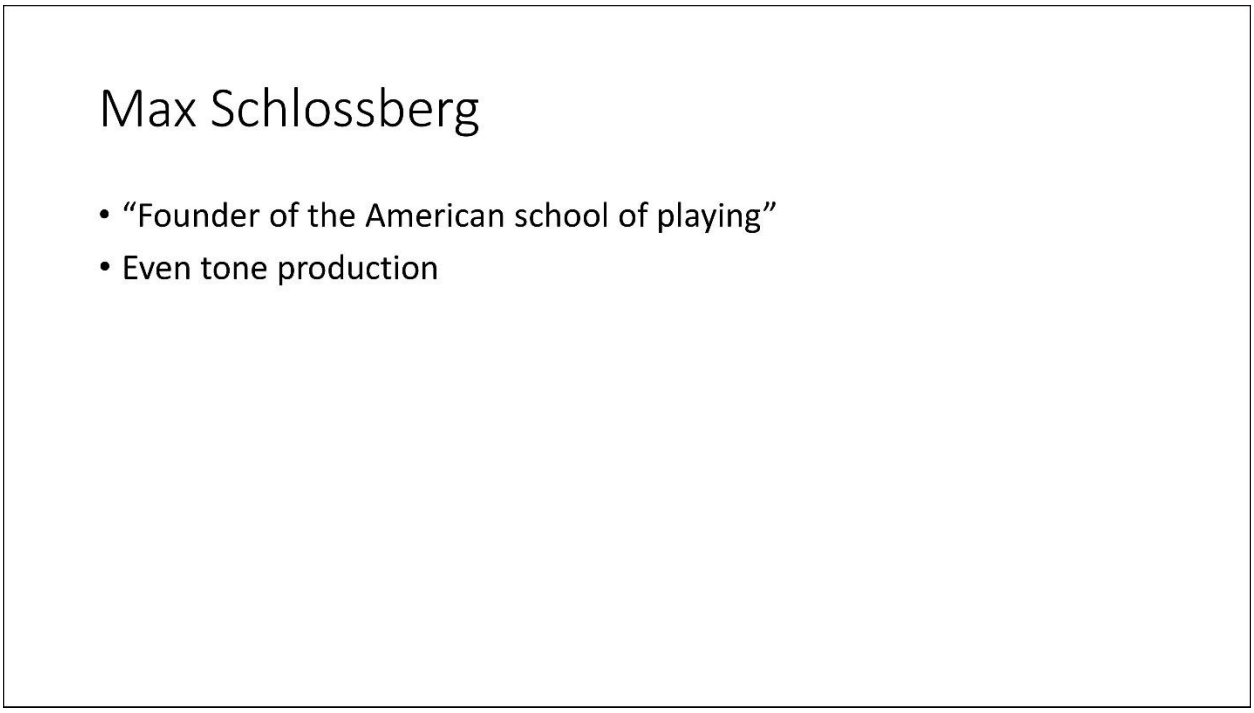
[DEMONSTRATE]

For my adaptation of "Staccato Control" I utilized a three-part approach to develop depth and security of tone when articulating.

Like the use of repeated tones in the original exercise, the first part of this adaptation is designed to build security of articulation and pitch through the proper centering of one repeating pitch. This exercise is to be played using an air attack for the first 16th note of each

section and then repeated with a standard articulation. By beginning with an air attack and continuing with a quick standard articulation, the security of the embouchure and development of proper articulation technique is established.

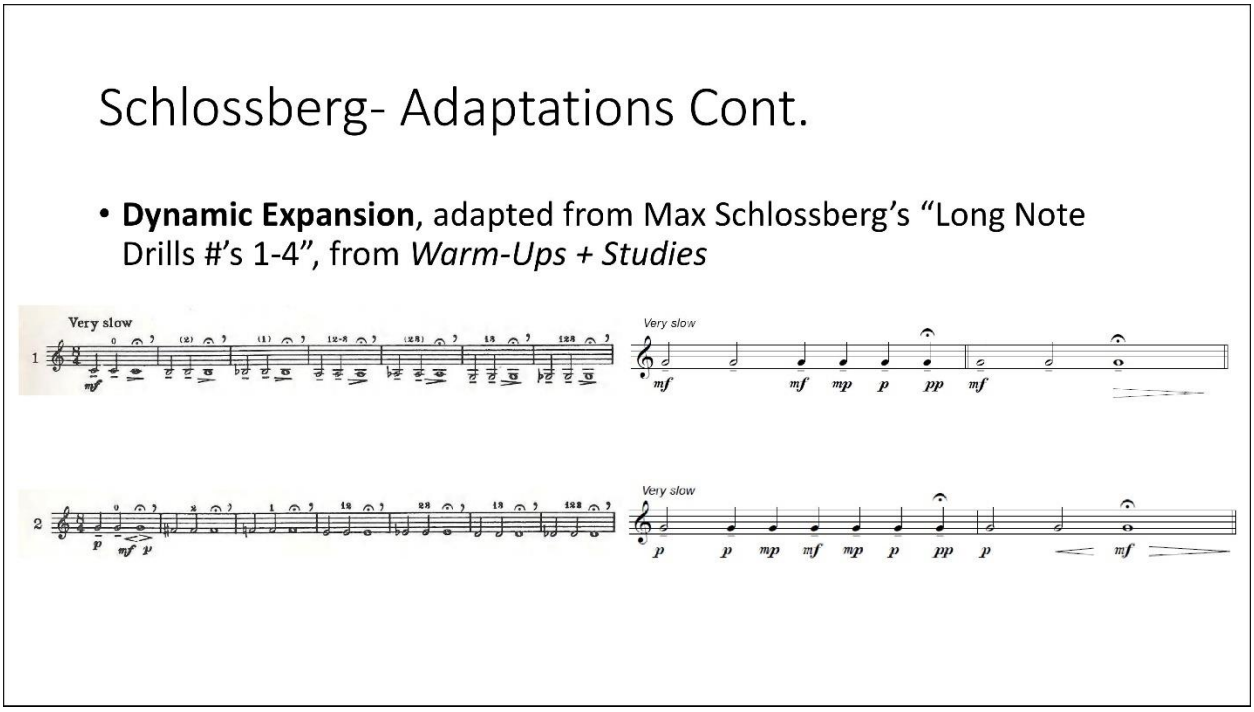
[DEMONSTRATE]



Max Schlossberg is remembered today for his career playing trumpet in the New York Philharmonic (1910-1936) and his developments in the field of trumpet pedagogy. Through his extensive work in trumpet teaching, paired with the exceptional success and influence of his students, Schlossberg is often regarded as the “founder of the American school of playing”.

*Schlossberg’s pedagogical approach was often centered around the development of even tone production of the trumpet throughout all ranges and dynamics. As a means of developing these skills, Schlossberg’s approach towards tone development was often centered around lip slurring exercises, with emphasis on dynamic flexibility. In addition, several of

Schlossberg's exercises include the use of lip bending (or the bending of a note downwards to essentially produce a neighboring pitch with an incorrect fingering) to build the embouchure and develop tone.



World renowned soloist and professor of trumpet at the University of Maryland School of Music, Chris Gekker, describes the first two studies from *Daily Drills and Technical Studies for Trumpet* as being "the essence of aperture control and true flexibility." Through these exercises, Schlossberg develops the fundamental skill of pitch centering with an emphasis on the flexibility of the aperture through expanding and contracting dynamics.

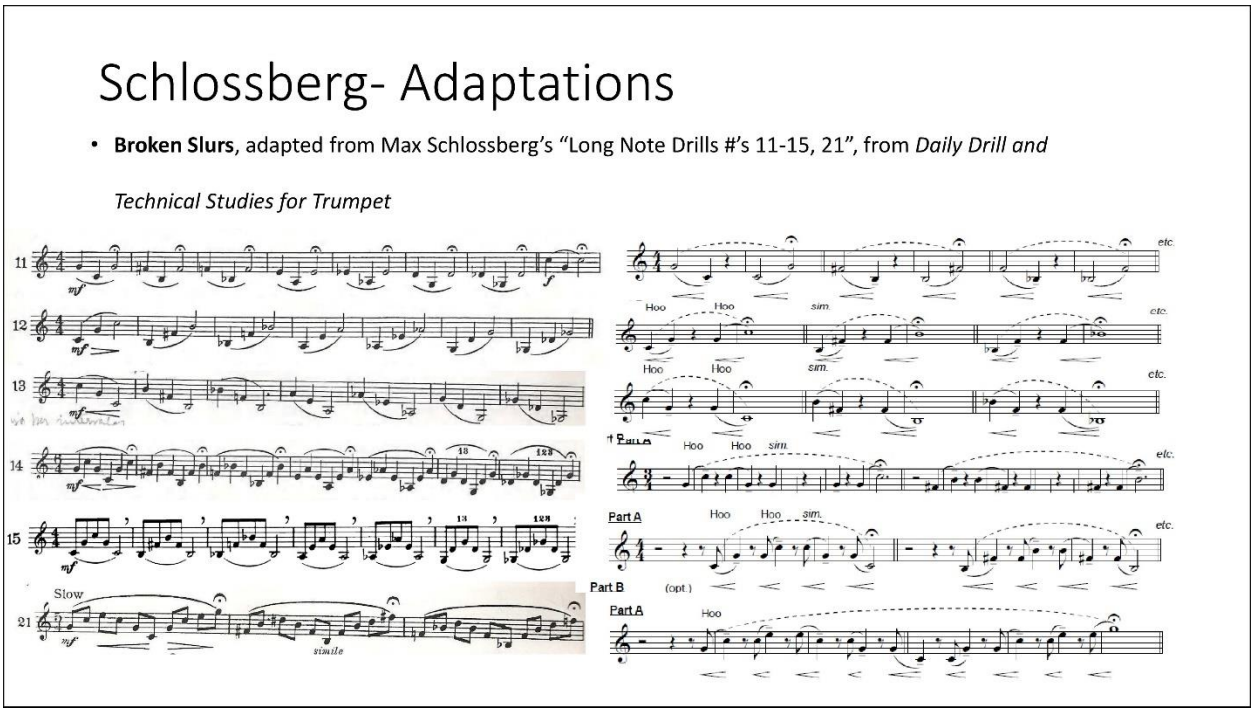
[DEMONSTRATE]

One of the dangers of adopting an air-based embouchure (where the air works to blow the embouchure into position) is that many students find themselves only being able to produce tone at loud volumes. While this is a great starting point for tone production, it is vital

that students learn how to produce tone using this technique at all volumes or students will quickly abandon this technique when approaching music which requires more dynamic contrast.

This adaptation was designed to teach performers how to perform with dynamic contrast while using an air-based embouchure. While this exercise may initially prove to be difficult for some, by learning to play the indicated dynamics without the need for embouchure adjustment the player can intuitively develop nuance within the embouchure/aperture to properly function at all dynamics.

[DEMONSTRATE]



Long Note Drills # 11-15, 21 work to further develop the flexibility of performers through various slurring exercises throughout the register of the trumpet. While working through these studies, difficulty is gradually increased through increased intervallic range and speed.

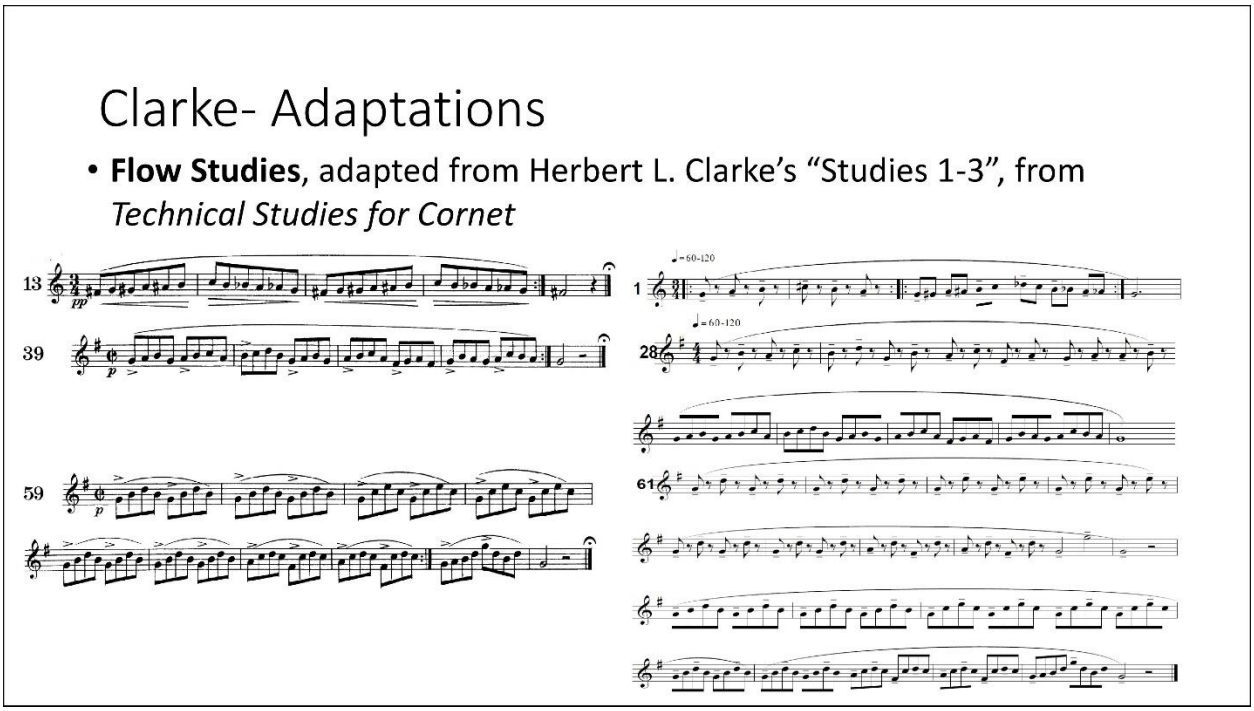
While slurs are extraordinarily important for the development of any brass musician, in my experience students tend to approach these exercises through the manipulation of the embouchure rather than the airstream. I have found that this approach, over time, works to develop a mechanism of tension when approaching the upper register, eventually resulting in difficulty with upper register playing. For these exercises I developed an approach to Schlossberg's slurring exercises which facilitates an air-based approach using air attacks and guided air movement. This approach to practice can be applied to any slurring exercise.

When performing these exercises attention should be paid to the marked crescendos to facilitate air movement between note changes. In addition, the embouchure should remain activated during rests to insure consistent embouchure approach. If breaths are needed to be taken between interval changes, a slow breath through the nose should be used.

[DEMONSTRATE] SIDE BY SIDE

Herbert. L. Clarke is remembered today for his career as an American cornet Soloist, teacher, and composer. As a performer Clarke was regarded as one of the greatest soloists of his era, praised for his exceptional technical facility, endurance, range, and lyrical tone. By the end of his career as a cornetist with Gilmore's, Victor Herbert's, and John Philip Sousa's bands, Clarke claims to have performed, over six thousand programmed cornet solos, including 473 concerts in one season.

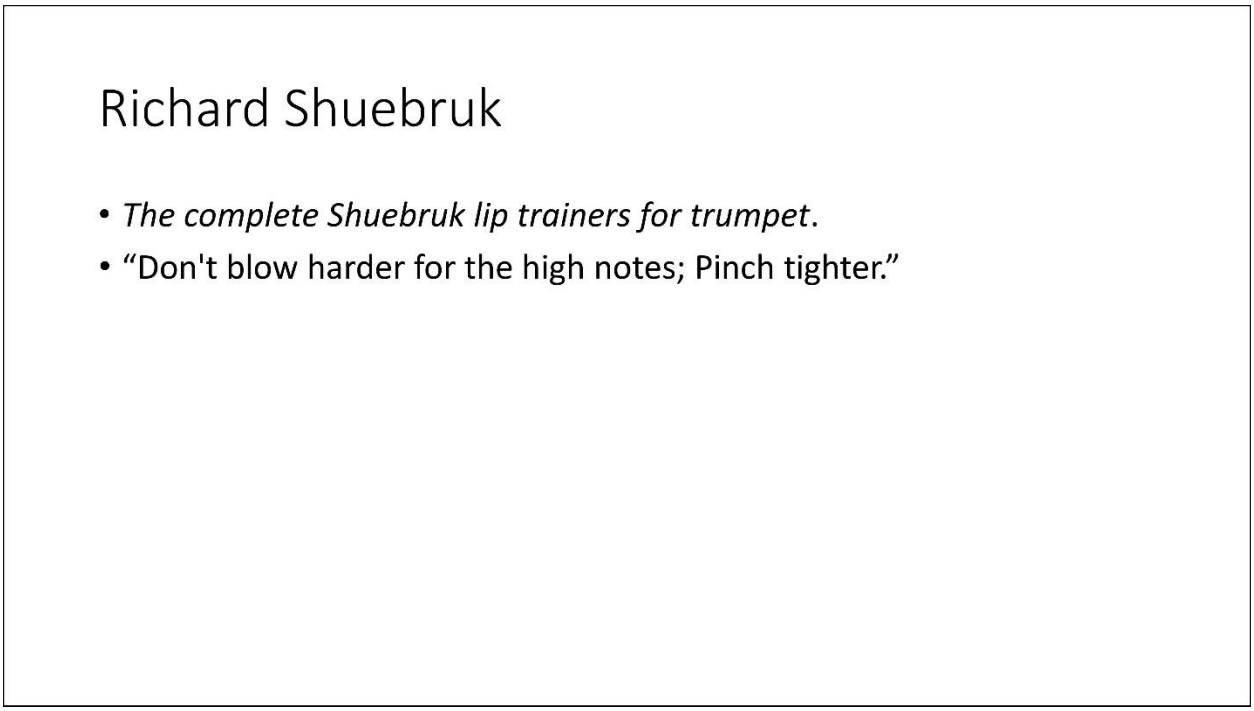
As a teacher Clarke was well known for his teaching of efficiency in technique. It was his belief that "endurance is 90% of cornet playing." In order to develop efficiency in his students, it was his belief that the efficiency in air needed to be developed. In a letter written by Clarke to Claude Gordon, Clarke states his belief the Wind-Control is responsible for 98% of brass instruction, and it is not until this is developed that the muscles of the lips should be developed. Throughout his pedagogy, you will often find that he asks performers to play at very soft dynamics for very long periods of time as a means to build focus of the air and the develop the embouchure.



Clarke's technical studies were developed to teach ease, efficiency, endurance, and flexibility in one's cornet playing. These exercises featured long, flow-based exercises which Clarke found to be superior to a standard long tone. Through the performance of these exercises with an emphasis on performing as many repetitions on one breath, ease and efficiency of performance will be developed. It is important to note that the indicated dynamics were designed to be a goal and was not expected to be achieved until proper control of the sound and air have been developed.

These adaptations of Clarke's studies were developed to further advance the development of flow within an air-based approach to performance. By isolating the intervals throughout these studies, performers develop a greater awareness of the movement of air . After mastering the transition between these intervals using air attacks, performers should work to perform the original study with attention to the placement of the air throughout.

[DEMONSTRATE] SIDE BY SIDE



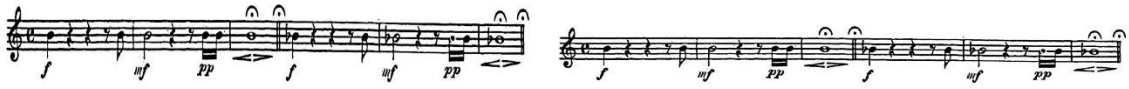
*Richard Shuebruk is remembered today both for his career with the Boston Symphony from 1885-1887 as well as his development of *The Complete Shuebruk Lip Trainer for Trumpet*, and *The Complete Shuebruk Tongue Trainers for Trumpet*

*As a pedagogue Shuebruk was highly focused on the muscular development of musicians to facilitate ease and flexibility of performance. Throughout his book Shuebruk worked to develop this skill through attention to attacks, intervals, and slurs. By developing these skills, in this order, Shuebruk believed that students could learn to properly develop their lips in a way which could control the range of the trumpet without the need to force their airstream. For this approach, he is often remembered for his philosophy, “Don't blow harder for the high notes; Pinch tighter.” In his book *The Complete Shuebruk Tongue Trainers for Trumpet,* Shuebruk details that developing speed in articulation is accomplished through the

development of the power of the tongue. By pushing the tongue muscles to a place of tiredness, through repeated articulation power of the tongue could be developed.

Shuebruk- Adaptations

- **Compression Trainers**, adapted from Richard Shuebruk's "Grade 2: Business Players", from *The Complete Shuebruk Lip Trainers for Trumpet No. 2*



"No. 2," from *Business Players* was created as a method to train the position of the lips to reliably produce notes at all ranges and dynamics. When playing this exercises, Shuebruk asserts that it is essential that the mouthpiece is completely removed from the face to train the embouchure to respond to audiation in order to produce the exact setting required for each pitch.

While the original goal of Shuebruk was to teach performers the proper lip position required to produce specific notes, this adaptation works to produce the same results but through the development of proper air placement. When performing these exercises, students should perform the initial notes with air attacks, followed by standard articulations. Through the initial use of air attacks, performers develop a tactile awareness to the proper air placement required for each pitch to properly resonate without the need for embouchure manipulation. In

addition, by having students perform air attacks followed by standard articulations, they work to encourage an approach in which the tongue does not influence the air stream. These exercises should be followed by performance of the original studies to reinforce standard articulation techniques, although with a heightened awareness of air placement.