

A Survey on Trumpet Articulation

by

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Prominent trumpet pedagogue David Hickman states “Precision and speed of articulation are paramount to accuracy, rhythm, and musical style, and a beautiful tone depends on a clear and quick attack.”¹ Articulation is a vital component of successful trumpet performance. By paying close attention to how one articulates on the instrument, a trumpeter can unlock the key to expressing their own personal musical ideas and convey the message of composers. “All aspects of playing are inextricably bound to the attack. The importance of a good attack cannot be emphasized enough...It is the one technique above all others that must be as natural, as uncomplicated, and as much a reflex action to the player as breathing or walking.”²

The trumpet underwent major technological developments in the eighteenth century and nineteenth centuries that had a direct impact on what was possible to play. These developments presented numerous challenges that significantly affected the world of trumpet playing. Once the valve mechanism was invented, the trumpet/cornet finally had the ability to play chromatic tones and became an instrument that could be used in numerous styles of music.

The trumpet is primarily known for its noble and brilliant tone quality, but the pure vocal expressiveness of the trumpet is often overlooked. With the evolution of the valve mechanism, the trumpet has evolved into a versatile solo instrument in the hands of an exquisite musician. Today, the trumpet is utilized in numerous musical genres that call for a vocal and diverse approach to articulation, such as jazz, classical, funk, salsa, and pop. The famous trumpet soloist

¹ Hickman, David, and Amanda. Pepping. *Trumpet Pedagogy : A Compendium of Modern Teaching Techniques*. Chandler, Ariz.: Hickman Music Editions, 2006, 133.

² Davidson, Louis. *Trumpet Techniques*. Bloomington, IN: Wind Music, Inc., 1970, 1.

Rafael Mendez “The tongue might be likened to the violinist’s bow in that we use it to start our notes and, by using various degrees of force, to express different moods in the music we play.”³

Most trumpet players articulate with the tongue releasing air with the tip of the tongue behind the upper front teeth. While performing, trumpeters generally pronounce the vocal syllables *tu, du, ku* with the airstream. Saint Jacome, “Place the lips together in a smiling position, leaving a small opening for the tongue; put the tongue against the upper teeth and articulate the syllable *tu*, jerking the tongue back quickly and blowing through the lips and at the same time vibrating the lips-this will produce a buzzing sound.”⁴

Another tonguing technique that is used on trumpet is called dorsal or “anchor tonguing”. Instead of striking the upper gums or teeth with the tip of the tongue, the tip of the tongue remains behind the bottom teeth and the middle portion of the tongue is used to articulate. David Hickman, “Players naturally adopt this method when this tongue motion is limited because of a short frenulum or a severe jaw underbite. It is also preferred by some players who specialize in the upper register because the front of the tongue is arched in the upper register, making it easier to articulate with the dorsum.”⁵ This technique leaves the tongue in a natural arch position that reduces the tongue’s movement while performing. This technique is not very common though is used by some notable trumpeters such as Wynton Marsalis and former principal trumpet of the Boston Symphony Armando Ghitalla.

Multiple tonguing allows trumpeters to articulate at amazing speeds and faster than single tonguing. The most common types of multiple articulation include double tonguing and triple

³ Hickman, 133.

⁴ Saint-Jacome. *Saint-Jacome's Grand Method for Trumpet or Cornet*. New York: C. Fischer, 1894, 110.

⁵ Hickman, 135-136.

tonguing. Double tonguing consists of the syllables, “ta-ka” or “da-ga”. Triple tonguing consists of the syllables, “ta-ta-ka”, or “da-da-ga”.

Former principal trumpet of the New York Philharmonic and Professor at The Juilliard School William Vacchiano wrote two method books on multiple tonguing. *The Art of Double Tonguing* and *The Art of Triple Tonguing* contains multiple tonguing exercises that challenges students in unique ways. By mixing up the multiple tonguing syllables, students are prepared to approach some of the most difficult orchestral trumpet literature. This includes works by Stravinsky, Ravel and Rimsky-Korsakov where unorthodox multiple tonguing techniques are used occasionally. “These were the tools Vacchiano gave his students that enabled them to perform any type of composition. Even though a specific articulation might be used only a handful of times, it was still a critical component of the complete musician Vacchiano molded.”⁶

Baroque Era

The Baroque is often regarded as the Golden Age of the natural trumpet. Trumpeters imitated the human voice with legato phrasing and varied emphasis on different notes. This style of articulation was obtained by using different syllables within a melodic line. These syllables include *tia*, *da*, *la*, *le*, *re*, *ra* and *di*. In terms of tonguing, modern day orchestral trumpet articulation is generally equal. According to Edward Tarr, “ In earlier days, however, unequally tonguing was taught. This was the principal method of articulation on all wind instruments, woodwind and brass, since the late Renaissance.”⁷

Ornamentation was heavily used in the Baroque era. Composers started to write trills for the natural trumpet on certain notes in the harmonic series. Girolamo Fantini is credited for

⁶ Shook, Brian A. *Last Stop, Carnegie Hall: New York Philharmonic Trumpeter William Vacchiano*. Denton, Tex.: University of North Texas Press, 2011

⁷ Tarr, Edward H. *The Trumpet*. Chandler, AZ: Hickman Music Editions, 2008.

imitating a vocal ornament called the messa di voce on the trumpet. According to Tarr, “It was performed on long sustained notes by making a crescendo to the middle of the note and then a diminuendo until the end...”⁸ Trills were then performed on the natural trumpet by alternating rapidly between two notes. Tarr testifies that, “Trills could be performed on all notes in the fourth octave of the harmonic series, generally beginning with the upper note.”⁹

Classical Era

The natural trumpet’s role in the Classical Era diminished due to a number of factors. Orchestras started to increase in size and performed with louder dynamics. The natural trumpet suffered because the clarino register was limited volume. Composers of the Classical Era utilized the trumpet as a harmonic device to establish key changes. They felt that the strings could perform with wider range of expression and dynamics in orchestral writing. Trumpet writing assisted the timpani by providing a sense of rhythmic drive. Articulation throughout this era drifted away from the unequal legato tonguing of the Baroque Era.

For example, the only piece that contained prominent trumpet solos was Beethoven’s *Leonore Overture No.3*. The offstage trumpet call was not written in the clarino register; rather it is a literal military bugle call. Composers generally focused on the lower octaves of the harmonic series until the valves were invented in the nineteenth century.

Romantic Era

The Industrial Revolution had a profound impact on the trumpet and cornet. In the early 1800s, these instruments were transformed with the invention of the valve mechanism. Heinrich Stolzel is known for inventing the piston valve. When a trumpeter is performing, the piston valve contains holes that direct the airstream in two different ways. While pressing the valve down, the

⁸ Tarr, 65.

⁹ Tarr, 65.

airstream is directed through the rest of the instrument or another valve slide depending on the immediate valve combination. When the valve is not pressed, the airstream is dispersed to the rest of the instrument without going the more tubes. “As every trumpeter knows, this system yields seven different valve combinations that in turn produce even different series of harmonic overtones; it’s like having seven different natural trumpets built into one”.¹⁰

The first valved trumpet/cornet type instrument was the cornopean, which started with one valve only. The first use of valved cornopeans in the orchestra was at the Paris Opera in the 1830s. “Most of the earliest cornets featured a deep looping design with bells pointing to the front and two valves. To distinguish these early cornets with Stolzel valves from later cornets, they are referred to as cornopeans.”¹¹

With inclusion of the valve system, the cornet slowly became an accepted instrument in the orchestra. Military bands however accepted the cornet at a faster rate and took advantage of a brass instrument that was capable of performing chromatic passages. “military-music circles were more ready than art-music ones to accept valved brass instruments of whatever type, presumably because bands, regardless of their various instrumentations, profited greatly from the inclusion of brass instruments no longer natural, but capable of carrying a chromatic melodic line.”¹²

The Cornet

The trumpet is a cylindrical brass instrument that projects louder in volume and brightness in tone quality. The cornet is a conical brass instrument that has a darker tone quality compared to the trumpet and does not project as well.

¹⁰. Koehler, Elisa. *Fanfares and Finesse : A Performer's Guide to Trumpet History and Literature*. Bloomington and Indianapolis, Ind.: Indiana Univ Press, 2014, 49.

¹¹ Koehler, 63.

¹² Tarr, Edward. "The Romantic Trumpet." *Historic Brass Society Journal* 5 (1993): 234

French composers started to use cornets in their orchestral works with the standard combination of two cornets and two natural trumpets. Composers were able to write more technically demanding passages that often featured multiple tonguing, dexterity, slurring and single tonguing. Also, composers started to write lyrical solos for the cornet.

Hector Berlioz's *Symphonie Fantastique* is the first symphonic compositions to use the cornet. Berlioz claims that the cornet sounds better in certain keys because of intonation and tone quality. According to Joyce Davis, "Berlioz wrote in his Treatise on Instrumentation, that the cornet sounds its best when pitched in A, A flat and B flat and that the cornet should be used almost exclusively in these keys. Low keys, such as G, F, E, and D were generally thought to possess poor tone quality and intonation."¹³

Pedagogues

Professor of Cornet at the Paris Conservatory, Jean Baptiste Arban, wrote his famous pedagogical Conservatory Method for Cornet that was published in 1864. He wrote a compilation of exercises for the cornet that eventually become the Method for Cornet. "Arban's influence extends to the modern day, not only directly because his method of 1864 is still used as the standard instruction book (for the cornet and the trumpet), but also indirectly because the cornet pitch of Bb induced trumpeters to switch during the second half of the 19th century from F trumpets to ones pitched in Bb (or even C)."¹⁴

This method includes scale patterns, chord study, and more importantly, articulation exercises. His prominence as the Professor of Cornet at the Paris Conservatory and celebrated cornet soloist are both reasons his method resides as the leading trumpet/cornet method today. "Arban, the most important soloist of his day, established the agile cornet for once and for all as

¹³ Davis, Joyce F. *The Cornet À Pistons in French and French-Influenced Orchestration from 1830 to 1936*.

¹⁴ Tarr, 238.

the true solo instrument, replacing the trumpet with its mellow tone but cumbersome deportment.”¹⁵

Single tonguing has been one of the most misunderstood concepts from Arban’s Method Book. English speakers must realize that Arban originally wrote this method in French. The “tu” syllable that Arban uses throughout his method translates into “too” in English. This has a dramatic difference in the embouchure and air speed going into the mouthpiece.

Arban explained that proper tonguing is achieved when tongue releases air into the mouthpiece instead of striking the tongue. “It should never be lost sight of, that the expression *coup de langue* (stroke of the tongue) is merely a conventional expression; the tongue does not strike; on the contrary, it performs a retrograde movement; it simply supplies the place of a valve.”¹⁶

Merri Franquin studied with Jean Baptiste Arban in 1872 and later succeeded Arban as Professor of Trumpet and Cornet at the Paris Conservatory. He then wrote a method book that contributes greatly to the art of trumpet playing. Franquin’s method places a huge emphasis on articulation, or *tonguing in the sound (coup de langue dans le son)*.¹⁷

Unlike Arban, Franquin allowed different syllables for multiple tonguing. He substituted the syllables *tu* and *ku* with *da* and *ga*. *Da* and *ga* are softer consonants that smooth out multiple

¹⁵ Tarr, 238.

¹⁶ Arban, J.-B, Edwin F. Goldman, Walter M. Smith, Claude Gordon, and John Walker. *Arban's Complete Conservatory Method: For Trumpet (cornet) or E ♭ Alto, B ♭ Tenor, E ♭ Baritone Saxophones, Euphonium and B ♭ Bass Tuba in Treble Clef*. New York, NY: C. Fischer, 2005.

¹⁷ Franquin, Merri. *Méthode complète de trompette moderne, de cornet et de bugle*. Paris: Enoch, 1908, 84.

tonguing with great effect. Franquin stressed the importance connecting the notes and tonguing gently for multiple tonguing.¹⁸

Saint Jacome was an accomplished cornetist who published his famous Grand Method for the cornet in 1870. Unlike the coveted Arban Method book, the Grand Method introduced a section on portato tonguing. Portato tonguing is an articulation style that connects tones without slurring or separating them. This is accomplished with a soft “d” tongue stroke. Portato tonguing is often written with dots above notes with a slur. Although this section in the Grand Method was only one page, portato tonguing is essential in legato-based phrasing. “The Portato is executed by carrying the sounds one on to another without slurring or separating them, and by giving very soft strokes of the tongue, pronouncing the letter d. This articulation is shown by dots surmounted by a slur.”¹⁹

While much attention was being placed on these cornet method books, orchestral trumpet playing began taking great strides with the addition of the piston valves. Max Schlossberg moved to the United States in 1902 and began an influential teaching career as well joining the trumpet section in the New York Philharmonic. His *Daily Drills and Technical Studies for Trumpet* was compiled by his former students into a book after his death. These drills consist of articulation, long tones, ornaments, multiple tonguing, register leaps, arpeggios and scales. This book is a huge resource for trumpeter’s daily practice. Schlossberg focused on improving student’s overall fundamental technique rather than learning extremely difficult etudes until they were mastered.²⁰

Louis Armstrong

¹⁸ Franquin, 229.

¹⁹ Saint-Jacome. *Saint-Jacome's Grand Method for Trumpet or Cornet*. New York: C. Fischer, 1894.

²⁰ Smith, André. “Max Schlossberg: Founder of the American School of Trumpet Playing in the Twentieth Century.” *Journal of the International Trumpet Guild* 21 (May 1997): 23-41.

Louis Armstrong helped shift the focus of collective improvisation into solo performance with his legendary trumpet solo on West End Blues. After performing frequently in Harlem with Henderson's big band, Armstrong brought jazz with him to Chicago and recorded the Hot Five and Hot Seven records that featured West End Blues. The tune begins with an improvised cadenza by Armstrong. Many jazz musicians commenced to use cadenzas in their compositions. His playing more than revolutionized jazz, it established virtually the whole structure and technique of jazz improvisation. According to jazz author Max Jones: "Staccato solos, harmonically naive, and full of simple, jerky syncopations were the hall marks of early 'hot' improvisations. They were superseded by the creative majesty of Louis' phrasing. Solos with undreamed-of emotional and technical range flowed effortlessly from his horn. His creativity and harmonic sense revealed new potentials to arrangers; his rhythmic phrasing influenced every jazz instrumentalist."²¹

Louis Armstrong married King Oliver's Creole Jazz Band's pianist, Lil Hardin in early 1924. Lil Hardin was instrumental in convincing Louis Armstrong to showcase his talent to the world. Armstrong was playing second cornet in King Oliver's Creole Jazz Band. According to Gene Anderson, "Upon their return to Chicago in June, Lil talked her husband into leaving Oliver, with whom he was playing second cornet, to seek a more suitable showcase for his burgeoning talent."²²

Fletcher Henderson's big band introduced the greatest jazz innovator, Louis Armstrong. Armstrong joined Henderson's band in 1924. He changed the culture of brass playing, by switching from cornet to trumpet. This made the trumpet the common instrument instead of the

²¹ Max Jones, and John Chilton, *Louis The Louis Armstrong Story, 1900-1971*, Boston: Little, Brown, 1971, 221.

²² Anderson, Gene. "The Origin of Armstrong's Hot Fives and Hot Sevens." *College Music Symposium* 43 (2003): 13-24.

cornet. As determined by Fish: “Armstrong left King Oliver’s band in 1924 and soon joined the Fletcher Henderson Orchestra in New York City. Henderson led one of the most famous jazz ensembles of the day, and Armstrong switched from cornet to trumpet to fit in better.”²³

Tongue-Slur System

The general approach to jazz articulation on trumpet has been to articulate the upbeats within an eighth-note line. However, a trumpeter cannot rely on this pattern and must use their creativity to make a particular phrase easier to execute. “When improvising, you cannot rely on a preconceived and consistent pattern of articulation, but must deal with new situations as they arise.”

When tonguing the upbeats and slurring to the downbeats, this may make modern jazz eight-note lines sound as if they are dotted eighth-sixteenth notes of the swing era. Charlie Parker revolutionized the even eight-note line with upbeat accents and his use of chromatic passing tones. Accord to John McNeil, Louis Armstrong played even eighth notes as well. “However I subscribe to a theory which holds that Charlie Parker’s main rhythmic influence was none other than Louis Armstrong. Consider this: Louis’ approach to an eighth-note line was primarily to play the notes evenly.”²⁴

Jazz has brought the emphasis of vocal interpretation and individualistic articulation back to the trumpet. Along with the challenges of performing in the swing style, trumpet players must develop their own artistic choices while addressing problematic articulation concerns on the instrument. Trumpet players cannot execute passages as easily as saxophone players due to a lack of an octave key, the harmonic series and endurance. Jazz trumpet players however were

²³ Fish, David L. *Jazz: Then & Now*. White Plains, NY: In Tune Partners, 2011, 35.

²⁴ John McNeil, *The Art of Jazz Trumpet Complete Edition*. Brooklyn, N.Y.: Gerard & Sarzin, 1999, 7.

able to perform virtuosic lines by articulating and accenting any time without hesitation while performing slurs and awkward leaps. This is called cross-accents.

Extended Articulation Techniques

Jazz trumpet legend, Clark Terry, was known for his unique style of articulation. This style is called doodle tonguing. Doodle tonguing is a type of multiple tonguing technique that uses the syllables *da* and *la*. This technique allows trumpeters to articulate every note in fast passages in a legato manner. In order for the doodle tongue to be effective, the *la* syllable in trumpet playing sounds very undefined and unclear; so the *da* syllable must be strong and present.

Clark Terry influenced many prolific trumpet players with his doodle tonguing technique, such as Miles Davis and Clifford Brown.²⁵ Jazz Trumpeter, John McNeil, acknowledges that Davis and Terry had a family type of relationship that also appeared in his playing during the 1950s. “I feel that Clark must have been something of a big brother/uncle figure to Miles, showing him some of the ropes of the music business and what have you. If you listen to Clark play a medium blues on fluegelhorn, you can hear a fairly direct link to Miles’ playing on the fifties recordings with J.J. Johnson on Blue Note.”²⁶ McNeil also mentioned Clark Terry’s influence on jazz trumpet legend, Clifford Brown. “I also hear a Clark Terry influence in Clifford Brown. Clifford used some characteristic Terry phrasing and articulation on *Blues Walk*, for example.”²⁷

²⁵ McNeil, 11.

²⁶ McNeil, 11.

²⁷ McNeil, 11.

Doodle tonguing is very difficult tonguing technique to master on the trumpet. Many jazz trumpet players are comfortable with using the tongue and slur system for their personal improvisation style. "Doodle tonguing presents the same challenges common to any traditional multiple tonguing technique: reaching the desired speed and maintain control of the tongue. A light and legato sound is the goal; it can become difficult to maintain the speed without allowing the articulation to get too harsh."²⁸

Flutter Tonguing has been implemented in classical and jazz playing in the twentieth century. This manner of producing the rolled R while playing the trumpet creates a unique sound effect that trumpeters and composers have come to utilize in their compositions. Paul Smoker wrote that, "There are two ways to produce the flutter tongue, and both involve the use of the moving air stream to produce a vibration of (1) the tip of the tongue (the most common procedure) or (2) the uvula."²⁹

Trumpet players often use flutter tonguing as a tool to improve their single tonguing placement and train the tongue to relaxed as much as possible. Just like in rolling our Rs, the tongue must be relaxed in order to create the desired effect. David Hickman utilizes flutter tonguing in his teaching. "Trumpeters capable of tip-tonguing may find flutter-tonguing to be an excellent guide to their most efficient and fast tongue stroke. If done with the front of the tongue and without struggle, flutter-tonguing provides a guide for where the tongue should touch when

²⁸ Cherry, Amy. "Extended Techniques in Trumpet Performance and Pedagogy." Electronic Thesis or Dissertation. University of Cincinnati, 2009. *OhioLINK Electronic Theses and Dissertations Center*. 18 Jul 2016, 74.

²⁹ Paul A. Smoker, "A Comprehensive Performance Project In Trumpet Literature With a Survey Of Some Recently Developed Trumpet Techniques And Effects Appearing In Contemporary Music" DMA Thesis, University of Iowa, 1974), 38.

single tonguing because it its incredible speed is based on the body's most efficient and natural tongue stroke."³⁰

Conclusion

I believe that articulation is one of the most important aspects of being a successful trumpeter. By having the ability to perform music of multiple genres, this gives trumpeters the chance to learn about other cultures around the world and how to communicate musically with anyone at anytime. The trumpet has finally gone back to being a solo instrument instead of just a fanfare noble instrument. Solo literature has vastly expanded since the concertos written by Joseph Haydn in 1796 and Johann Nepomuk Hummel in 1803. Orchestral literature in the Romantic Era showcased the trumpet and cornet in with lyrical solos. Louis Armstrong became an icon and changed the world musically and culturally with his trumpet and voice. Trumpeters continue to find ways to express themselves musically in a wide variety of genres.

³⁰ Hickman, 138.

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