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THE HISTORY AND CURRENT USE OF BASSOON SPEAKER KEYS

by

Cody Steven Hunter

A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Musical Arts

Major: Music

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DEDICATION

I would like to dedicate this project to my wife, mother, and entire family who continue to be my strongest supporters and best source of inspiration. Additionally, I would also like to dedicate this project to all of the bassoon students I worked with while in Memphis. Without you, it is very likely this project would not have even been thought of. Lastly, this project is dedicated to Lecolion Washington, John Miller, Norbert Nielubowski, and Patricia Holland. They are the finest teachers and performers I will ever have the pleasure of knowing.

ABSTRACT

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One of the largest challenges that beginning bassoonists are faced with is developing proper technique, especially with using the thumb keys. The bassoon requires the right hand thumb to operate up to five keys, while the left hand thumb may operate up to ten. There are three keys in particular that the left hand thumb must activate on a regular basis, and they are known as the speaker keys. Although it is essential, most beginning bassoonists do not learn about the speaker keys at the appropriate time.

The purpose of this research project is four-fold: (1) provide the reader with a historical context of the bassoon and the speaker keys, (2) survey current bassoonists on their experiences with the speaker key technique, (3) to determine if current practices are effective in teaching beginning bassoonists, and (4) to propose a new resource for beginning bassoonists to develop the speaker key technique.

The need to explore and research this topic came from the author's personal experience in teaching beginning bassoonists. Every student demonstrated a relatively good understanding of the bassoon, but the speaker key technique was a mystery common to all of them. This observation prompted the need to understand why the students did not know of this important technique.

This research project is significant not only because it provides insight on the historical aspects of the speaker keys, but also because the reader will be able to understand current practices of teaching the speaker key technique. Through literature,

journal articles, and survey responses from over 100 bassoonists, it is clear that the use of the speaker keys is an indispensable part of bassoon technique. The findings clearly demonstrate this importance, along with inconsistencies in how it is learned, and that a speaker key resource is needed for beginning students. This project will provide a resource to performers, teachers, and students alike in the use of the speaker keys.

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CHAPTER I

INTRODUCTION

Since my arrival at the University of Memphis, I have had the privilege of teaching a large number of private bassoon students in my three-year residency. One thing that was almost immediately clear to me was that the Memphis area offered many strong music programs within their massive public school system. During the first lesson, the middle school and high school aged bassoonists were able to demonstrate a characteristic tone and good technical control over the instrument. The success of the student can most certainly be attributed to the perseverance of their director and the selection of repertoire selected to be performed. While there were signs of deficiency in more common aspects of musicianship (i.e., rhythm, scales), one major technical aspect of bassoon playing seemed to have a consistent issue.



Fig. 1: The keys employed by the left hand thumb of the bassoonist.¹

¹ Photograph taken by the author.

When asking the student about the speaker keys², several responses were heard: “What?”, “I don’t know what those are” , and “Isn’t that what we use to (insert non-related bassoon activity).” However, once in a while, this would be stated: “Aren’t those the keys we need to play this note (Bb 3)?”

Yes! Somewhere, the correct information is being relayed to the young bassoonist and they were able to retain it. However, those timid explanations were usually the extent of their knowledge. Rarely could these students demonstrate using the keys successfully. The music these students were asked to perform demanded that they used the speaker keys, but it had not yet been built into their technique.

After reliving this moment with all of my students, I began to question the manner in which the essential speaker key technique is learned and if it is the most effective manner for all bassoon students and teachers. As a result, my research question is as follows, broken into two segments: 1) Do current bassoon teaching practices and the assigned repertoire effectively cover the technique of speaker key usage for beginning bassoon students? 2) Does the current bassoon repertoire validate the need for a new, specialized method that focuses only on the technique of speaker key usage?

1. *Do current bassoon teaching practices and the assigned repertoire effectively cover the technique of speaker key usage for beginning bassoon students?*

Through reading these pages, it will become evident that the speaker key technique was not a common (arguably, even accepted) practice amongst American bassoonists for the better part of the 20th century. The technique itself was unknown and

² The term *speaker key(s)* refers to a mechanism operated by the left hand of the bassoonist. Refer to figure 1.

American bassoonists were becoming accustomed to hearing notes at the top of the bass clef crack, ultimately losing a clean articulation. Even after the technique became familiar, it was only used amongst west coast bassoonists prior to spreading to the east coast. This situation is similar to how beginning bassoonists function today: characteristic sound without a full understanding of the speaker key technique. The method in which the students are taught this technique, if at all, and the method books used are two important things to consider.

The bassoon method by Julius Weissenborn, most likely a part of any bassoonist's library, does not truly clarify the technique in terms used today. In the Fred Bettoney edition of the Weissenborn, the following translation can be found on the topic of using the speaker keys to slur octaves between Bb3 and Bb4, B3 and B4, and so on: "To the these open the binding valves for a brief space."³ The German text of the same exercise uses the word *Schleifklappe*, which actually translates to "abrasive flap." This would be the best explanation of the speaker key technique those who use that particular edition of the Weissenborn method would receive. With the concept of the technique not being clearly explained in standard method books, it would not be surprising to discover that most beginning bassoonists do not have teachers that are aware of this technique or how it works. In Chapter V, in a review of survey responses of over 100 bassoonists, most list method books that do not actually fully address the speaker key technique. Additionally, most of the responses indicate their beginning lessons do not incorporate the technique, which led that bassoonist to relearn it years later. Considering the vast bassoon repertoire

³ Julius Weissenborn, *Method for Bassoon*, rev. and ed. by Fred Bettoney (New York: Carl Fischer, 1940), 32.

and availability of quality teachers, the fact that beginning bassoonists are not learning this technique until much later raised the need to address this question.

2. *Does the current bassoon repertoire validate the need for a new, specialized method that focuses only on the technique of speaker key usage?*

The second portion of the research question will be approached according to the survey responses received. The responses may indicate that, even though the most of the current repertoire does not directly address the speaker key technique, bassoonists still want to teach their students through one-on-one instruction or self discovery. The responses may also indicate that the few available resources that do address the speaker technique are all that is needed. However, the responses will also suggest that bassoonists would benefit from having a specialized method on speaker key technique. Through understanding the experiences of the survey participants and the method books that were used, this second question can be more clearly answered. Additionally, survey participants were asked directly if having a new method book would be useful. Based on the survey responses discussed later, it is clear that a new method book would certainly be a welcome addition to the bassoon repertoire.

This project will begin with a historical background of bassoon developments, outlining major additions to the mechanism that eventually turned into the speaker keys. Then a modern definition of the speaker keys will be explained in detail, offering the reader a better understanding of the keys in use and the notes that they affect. Following that, a discussion on the pioneers of speaker keys in America will be presented with a special focus on three prominent bassoonists: Frederick Moritz, Norman Herzberg, and

Arthur Weisberg. These three gentlemen led the way for establishing and modifying the speaker key technique for American bassoonists. Common issues with using the speaker keys will be discussed and musical examples will provide further context. The final chapters of this paper will be dedicated to the *Speaker Key Survey*, the proposed method book, and thoughts on how an audio and visual component would be beneficial.

CHAPTER II

THE SPEAKER KEYS

Historical Background: The Bassoon and the Speaker Keys

The modern bassoon, as can be seen today, is the product of many, many years of changes and innovation. The aulos, a double pipe wind instrument with a singular mouthpiece, was being used by the Greeks during the Antiquity. The shawm, a loud double reed instrument, was in use during the Middle Ages. Though these instruments could not be classified as “bassoons,” they certainly shared characteristics that may have led to its eventual development. Former musicologist and bassoon enthusiast Lyndesay Langwill (1897-1983) believed that though it is likely the first signs of a bassoon-like instrument appeared in the 16th century, its actual origin is somewhat of a mystery.¹ Langwill writes on an instrument called the *phagotum*, which used two side-by-side wind tubes (called a fagotto): “The Phagotum had bellows, single reeds of metal and twin U-tubes with cylindrical bore.”² Though the term fagotto was used, the only similarities between the phagotum and the modern bassoon is that they both employ the idea of a U-tube.

Throughout the 15th and 16th centuries, another instrument that contained bassoon-like similarities was the *pommer*, a straight tube instrument with a double reed. Almost like a larger version of a shawm, the pommer was built in various sizes. Most

¹ Lyndesay Langwill, “The Bassoon: Its Origin and Evolution.” *Proceedings of Musical Association*, 66th Sess. (1939-1940): 2, <http://www.jstor.org/stable/765812> (accessed May 25, 2015).

² Langwill, “Origin and Evolution,” 2.

instruments during the Renaissance period were constructed in different sizes so that a broad range of notes could be achieved with a singular instrumental choir:

“The outcome was a whole family of straight-tubes instruments, the shawms, named ‘Pommers’ or ‘Bomhards’ in central Europe. They were made in a ‘chord’ of instruments, ranging from the high-discant to the two very large ones, the ‘Baszpommer’ and the still larger ‘Groszbasspommer,’ the latter an unweildy instrument.”³

In the 17th century, the *dulcian* would be developed. It was an instrument similar to a pommer, but one that is now doubled back on itself by connection of a U-tube between the two bores. Still only comprised on one piece, the dulcian had up to three keys. Additionally, the tone holes allowed for the “half-hole”⁴ technique on dulcian, though it was not yet a fully chromatic instrument.⁵ In the later portion of the Renaissance, Michael Praetorius (1571-1621) wrote his *Syntagma Musicum* and described in detail the dulcian (bassoon): “For while the tube of the bombards is straight and is open at the bottom, that of the bassoons is bent double, such that the bell is at the top.”⁶ Praetorius seemed to be in favor of the subdued sound that would be created by having the bell facing up.

Eventually the dulcian would come in three, and later four, different parts. More keys would be added to extend the range of the instrument and to reduce cross-fingerings.

³ Will Jansen, *The Bassoon: Its History, Construction, Makers, Players, and Music*, (Buren, The Netherlands: Uitgeverji Fritz Knuf, 1978), 28.

⁴ The half-hole technique is used even on the modern bassoon today. By allowing the finger to vent only half of a specific tone hole, different pitches would be possible.

⁵ Jansen, “The Bassoon,” 31.

⁶ Michael Praetorius, *De Organographia* (Since 1618), vol. 5 of *The Syntagma Musicum*, trans. Harold Blumenfeld (Liechtenstein: Barenreiter, 1962), 38.

Additionally, the different parts of the dulcian (wing joint, long joint, boot, and bell) would be refined and tone holes would be placed in more suitable locations to produce better sounds. These changes would be marked along with the different musical periods, where bassoons all play a different role: Baroque, Classical, Romantic, and the modern bassoon. In terms of the speaker keys, Jansen describes how one must approach determining when the keys were added. One must consider the time period rather than a specific year:

“Rather we must attribute an added key to a *period*: and try to frame it, by trying to ascertain on which bassoon and from which period the key appeared first; and when, on bassoons of more or less defined age, we see the key everywhere so that we are in a position to say: ‘from about that date, this key appears on all bassoons we see.’”⁷

The purpose for adding keys was simple: make it easier to play notes, usually ones that were higher in pitch. Bassoons with fewer keys and more tone holes could still play high, but only with the use of complicated cross fingerings. According to Jansen, the speaker keys (wing joint keys) were added in the following order: the A key (7th) was added between 1740 and 1780, the C key (8th) was added before 1800, and the D key was first experimented with Christian Gottfried Geisler between 1860 and 1870. Later, the D key was an addition that the Heckel firm would install by special request.⁸ The firm itself began in Biebrich, Germany in 1831 with innovator Carl Almenraeder (1786-1843) and Johann Adam Heckel (1812-1877).⁹

⁷ Jansen, “The Bassoon,” 81-82.

⁸ Jansen, “The Bassoon,” 82, 166.

⁹ Jansen, “The Bassoon,” 549, 552.

Jansen provides further insight on the overall developments of the bassoon. Beginning in 1550, as that is when there is evidence of the dulcian being in existence, the timeline ends as of 1870. Here, the evolution of the bassoon comes to an end and everything else is a “refinement of details.”

“1550-1670 first stage, dulcian period;
1640-1680 appearance of the bassoon of 3 or 4 wooden parts;
1680-1750 bassoon period with very little improvements;
1750-1800 bassoon period with somewhat more evolution;
1800-1870 the real and most important evolution period;
1870-1960 (date of publication) no further evolution; refinement of small details.”¹⁰

In later chapters, through both commentary from Arthur Weisberg and participants of the survey, the realization that the bassoon has not had any new developments since 1870 is quite frustrating. This is particularly true when discussing the speaker keys. Jansen classified this frustration amongst bassoonists into three different categories: 1) bassoonists that could deal with it, 2) bassoonists that would be upset but still not really change anything, and 3) bassoonists who were frustrated enough to change something.¹¹ It would appear that after its initial creation into a dulcian in 1550, where it was doubled back on itself, the instrument had since been locked in a place that made it an acoustical challenge and a mechanical nightmare. Prior to Arthur Weisberg and his double octave key system, there had been attempts to make the key mechanism of the bassoon more manageable. However, in all cases, the ease of the mechanism drastically changed the tone quality to the point that it no longer held the same tonal characteristics of an actual

¹⁰ Jansen, “The Bassoon,” 33.

¹¹ Jansen, “The Bassoon,” 803.

bassoon. One such effort is known as the “Boehm” bassoon. Theobald Boehm (1794-1881) was known for his superior key systems that had been applied to other woodwinds, such as the oboe, flute, and clarinet. Instrument makers realized that this system did away with nonsense mechanisms, however this caught the attention of only a few bassoon makers. During the early 1800’s, a handful of instrument makers attempted to create a bassoon that used Boehm’s system: Charles Joseph Sax created an all-keyed bassoon in 1825, followed by Adolph Sax in 1849, and Cornelius Ward in 1853.¹² Finally, Boehm himself tried his luck:

“...after first letting others try out to apply his system to the bassoon and more or less silently, watching their antics, Boehm in 1854 took matters in his own hands: he visited Triebert¹³ and induced him to make a bassoon for which this time Boehm himself made the calculations and sketches. Like its predecessors, the instrument became a flop.”¹⁴

The attempts to improve the bassoon’s key mechanism distorted the tone color through heavy mechanical additions and, in some cases, bassoons that were all metal. In retrospect, it appears that these attempts were simply an effort in trial and error as opposed to making a legitimate bassoon. In 1976, Jerry Voorhees¹⁵ compiled patent sketches on these systems and shared his insight on his findings: “I believe that this instrument must have been intended more for experiments in the placement and size of

¹² Jansen, “The Bassoon,” 137-138.

¹³ Frederick Triebert (1813-1878), instrument maker in Paris.

¹⁴ Jansen, “The Bassoon,” 139.

¹⁵ Dr. Jerry Voorhees, Professor of Bassoon Emeritus from Southeastern Louisiana University.

tone-holes than as a fully operational instrument.”¹⁶ Another interesting attempt at simplifying the key mechanism came years later in the 1960’s. Dr. Giles Brindley had also fallen in Jansen’s third category of bassoonists and decided to make changes. However, it was through the means of electricity. The “Logical” bassoon was a single piece instrument that, based on simple finger patterns, could be programmed to have tone holes automatically open or shut. To be clear, it does not produce an electronic sound but an acoustic one, by means of a bocal and a bassoon reed. Brindley specifically designed this bassoon to have the best possible sound with the easiest fingering.¹⁷ While an impressive creation, similar to the others that came before, the “Logical” bassoon was unable to become the standard solution to the bassoon key mechanism. Specifically with this electronically operated bassoon, performers may actually feel disconnected from the experience: “This means, firstly, that the ‘logical bassoon’ is not an independent instrument of music, handled by an artist only and being, as every good instrument should be, part of himself.”¹⁸

To understand where the bassoon currently stands, it is equally important to have a general idea of where it came from. Mysterious origins, slow evolution, and then the developmental peak was reached (according to Jensen) about 145 years ago. An original part to that design that has seen virtually no standard change, are the speaker keys.

¹⁶ Jerry L. Voorhees, “Notes on the Fingering Systems of ‘Boehm’ Bassoons,” *The Galpin Society Journal* 29 (1976): 53, <http://www.jstor.org/stable/841861> (accessed May 19, 2015).

¹⁷ Giles Brindley, “The Logical Bassoon,” *The Galpin Society Journal* 21 (1968): 152, <http://www.jstor.org/stable/841438> (accessed May 19, 2015).

¹⁸ Jansen, “The Bassoon,” 150.

The Speaker Keys Today

As they were left after their addition to the bassoon in the 1800's, the speaker keys were actually meant to extend the range of the instrument to meet the demands set forth by composers. In figure 2, a diagram¹⁹ of the left hand thumb keys can be viewed. The colored in keys are those that are the speaker keys.



Fig. 2: The bassoon speaker keys.

To avoid awkward, technically challenging fingerings, keys and corresponding vents were added on the wing joint of the bassoon. As mentioned earlier, it took over 100 years for the A, C, and D keys to become a regular part of the bassoon mechanism. This makes sense when one considers the need for how high the bassoon needed to play during the middle of the Classical period as opposed to the mid to late 19th century. In figure 3, a notated diagram of the true notes that the three keys were meant for can be viewed.²⁰

¹⁹ All fingering diagrams created with Bret Pimentel's diagram builder (under a Creative Commons License) at fingering.bretpimentel.com.

²⁰ Specifically, in terms of pitch registers, A4-D5 chromatically.

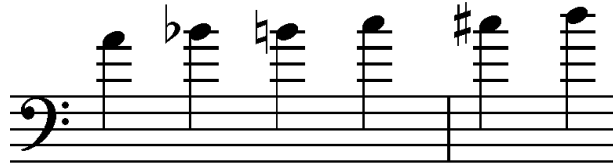


Fig. 3: Notes on the bassoon originally intended with the A, C, and D keys.

The method of using these particular keys as octave keys is actually a secondary purpose, one not originally intended for the instrument. Once it was discovered that they could be used in such a way, then each key was assigned a particular note that it could be used with. The A key works for A3, which is an octave lower than the originally intended pitch. The C key works Bb, B natural, and C4. Lastly, the D key works for D4 just above the bass clef. Where saxophones, clarinets, flutes, and oboes have automatic octave keys that facilitate slurs and clean attacks in the upper register, the bassoon uses three different octave keys, the *speaker keys*. When used, the bassoonist not only gains clarity in articulation (without the keys, the notes are much more susceptible to cracking), but also the ability to slur between the registers of the bassoon with greater ease. The speaker keys are applied at the very beginning of the articulation or slur. If they are applied too late, after the note has begun, a change in tone color or pitch of the note will be detected.

Generally speaking, there are two different methods that can be used when utilizing the speaker keys: flicking or venting. When the term “flick” is used, it implies a quick motion of the thumb that slightly depresses a speaker key and then quickly releases it. This creates a true “flicking” motion. The term “vent” is used when the thumb

depresses the speaker key for the duration of the note, literally creating a vent the entire time. Both motions serve different purposes and must not be mistaken as synonymous terms. As will be discovered when discussing the survey responses, clarity in terminology is essential with beginning bassoonists. In figure 4, a notated representation of the “speaker key notes” can be viewed.

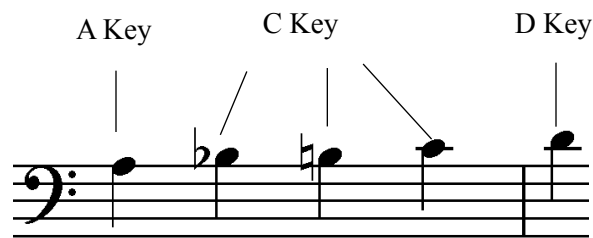


Fig. 4: The speaker key notes.

The need to learn and correctly use the speaker keys is essential. Very few pieces keep the bassoon below the speaker key range, and clarity of articulation or slurs in these notes must be taught as early as possible. Repertoire that is selected for auditions of any kind (school ensembles, honor groups, or professional) is intended to allow the performer to demonstrate their abilities, both musically and technically. Coincidentally, these two concepts are not mutually exclusive when considering the notes that are remedied by using the speaker keys. For example, the bassoon concerto by W.A. Mozart is one of the most standard pieces of music for bassoon and is quite recognizable by non-bassoonists. The opening of the solo has the bassoonist playing two, beautiful Bb3's in a row. Without the use of the speaker keys, the Bb will most likely crack. If it cracks, the musical phrase

is already broken up with strange, non-musical sounds that also show the bassoonist is not technically proficient in that register. Bassoonist Norman Herzberg, who will be discussed in later pages, had a similar experience as a beginner but with the third movement of the same concerto. While writing on how easy the bassoon appeared to be when he was beginning, his performance of the concerto brought on some unpleasant surprises:

“Once, at a performance in a church, after the piano introduction, my first note was a strange squawk instead of the opening Bb. I never had that experience before, and it so unnerved me that I suffered through the whole performance. When I returned home that night, I repeated the opening passage many times, and I was unable to repeat the sound of that first note. However, that event undermined my confidence in the predictability and the simplicity of playing the bassoon. Now, when I reconstruct that instance, I think it was my first experience with my ignorance of speaker key functions.”²¹

Our European counterparts in the realm of bassoon do not have this concern. It is common knowledge that the French *basson* is an instrument designed to perform technically demanding music with ease. The French School of bassoon is even designed with that concept in mind: “The teaching philosophy that Audin²² favors focuses on the mastering of two specific areas - tone color and technical mastery.”²³ However, it is not the French *basson* that found a new home in America. Rather, it is the German-born Heckel system that is being used. Therefore, it makes sense that when German bassoonist

²¹ Norman Herzberg, “Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon,” *The Double Reed* 18, no. 3 (1995): 53, http://www.idrs.org/publications/controlled/DR/DR18.3.pdf/DR18.3/53_sprk.pdf (accessed December 30, 2014).

²² Gilbert Audin, bassoon professor at the Paris National Conservatory of Music.

²³ Svetoslav Atanasov, “The French School of Bassoon Practice and Pedagogy,” *The Double Reed* 29, no. 3 (2006): 101, http://www.idrs.org/publications/controlled/DR/DR29.3/DR29_3.pdf (accessed February 14, 2015).

Frederick Moritz found his way to the United States in 1923, American bassoonists began to take notice of his technique which was unique to the Viennese/Austrian School of bassoon. Where musicality takes precedence over all other elements, the concept of articulation (which falls under the category of tone quality) is a very close second: “One of the most distinctive characteristics of the Austrian school is its use of articulation. The strong tradition of orchestral playing in Austria has created a variety of articulation techniques among professional bassoonists.”²⁴

The Austrian School and Frederick Moritz can be credited with showing American bassoonists the speaker key technique for the first time. Since it is their bassoons being used, it only makes sense that their technique and mastery of the speaker keys would also be adopted. However, as is evident through reviewing the survey responses, this seemingly necessary technique is still something of a mystery today. Beginning bassoonists are not introduced to this technique at the appropriate time, which is a mix between not having appropriate resources or an instrumental music teacher that does not know the fine points of every key on the bassoon. The opportunity to study with a bassoon specialist is also not the same for every beginner. Even when the technique is finally introduced, a mix of terminology is used and may further confuse the point of the speaker keys.

²⁴ Svetoslav Atanasov, “The Austrian School of Bassoon Practice and Pedagogy,” *The Double Reed* 29, no. 4 (2006): 77, http://www.idrs.org/publications/controlled/DR/DR29.4/DR29_4.pdf (accessed February 14, 2015).

CHAPTER III

MUSICAL EXAMPLES TO DEMONSTRATE THE SPEAKER KEYS

In order to more fully understand when the speaker keys should be applied on the bassoon, this chapter will further explore the technique with the use of notated musical examples. There will be a clarification on when to use each individual key, a combination of keys, or when one key would work for a variety of notes. Additionally, the speaker key technique will be applied using slurs and articulations. The first musical example, figure 5, is a standard C major scale for bassoon. The “+” symbol indicates when the appropriate speaker key should be applied. Given a slower tempo, or speed, the bassoonist should follow the Vienna School method and use the specific speaker key for the note indicated in the music.

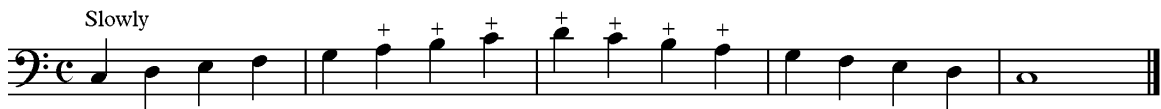


Fig. 5: C major scale with appropriate speaker key notes indicated.

As the concept of the technique requires, standard fingerings for the “+” notes should include one of the three speaker keys. In figure 6, bassoon fingering diagrams are presented, demonstrating the need for thoughtful thumb placement on the correct speaker key. Note A3 will not sound as full when played with the C speaker key. Likewise, note C4 will not sound the way it should when played with the A speaker key. When the

bassoonist's technique allows, it is imperative that the specific keys are used for the appropriate notes.

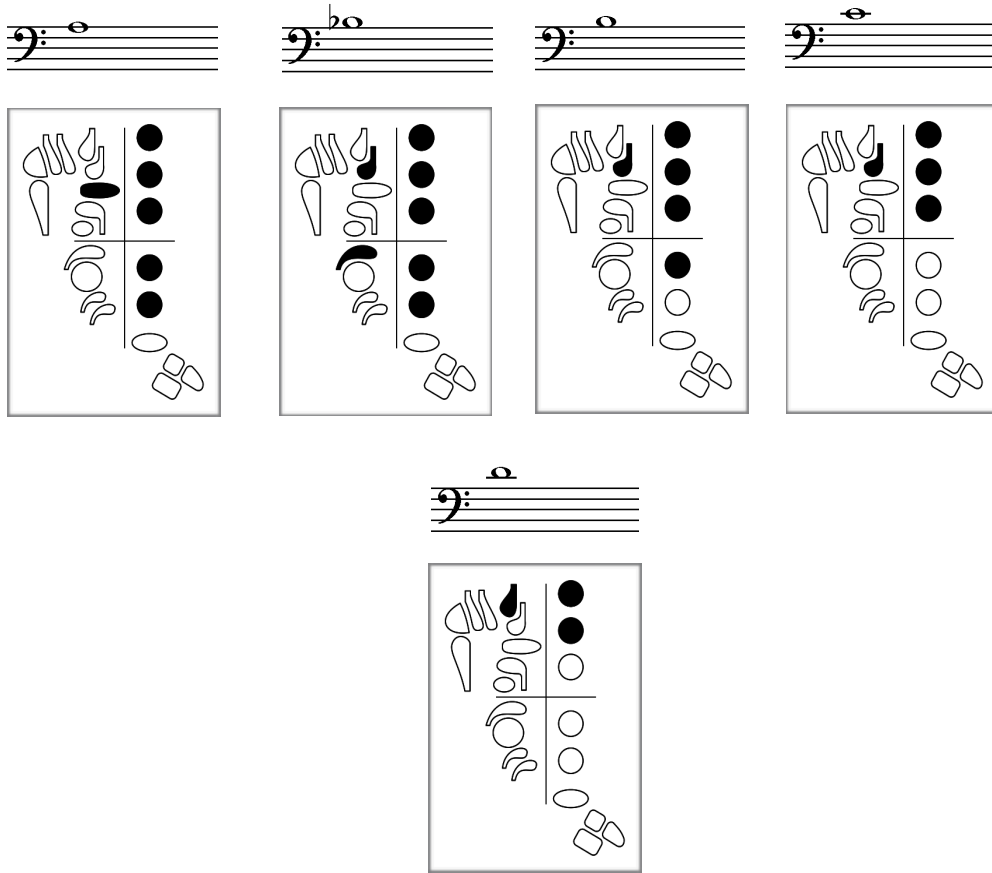


Fig. 6: Standard speaker key fingerings.

In instances when the tempo of the piece of music does not allow for the thumb to travel between all of the speaker keys with technical proficiency, using one speaker key works for combinations of certain notes. The C key can also accommodate A3, in addition to its standard notes. In general, the pitch for A3 will rise more when using the C key and must be voiced properly so that it blends as well as it would when the A key is used. Figure 7 shows a musical example that would suggest the need to only use the C

speaker key. A fast set of articulated 16th notes in the speaker key range must require careful consideration on how to best execute the technique.



Figure 7: Fast passage of articulations using the C speaker key.

In figure 7, the “+” indicates that the C speaker key should be held down (vented) when quickly articulating the passage. For cases like this, the C key should be used as opposed to the A key in order to achieve the best possible sound on all of the notes. Another example that may require thoughtful consideration is when the note D4 is heavily involved in a particular passage that requires much articulation. In figure 8, a musical passage is shown that would utilize the D key.

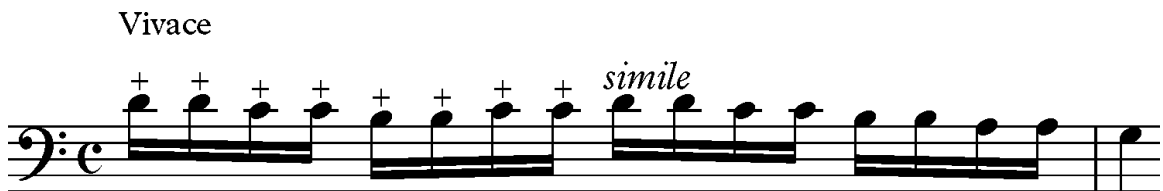


Figure 8: Fast articulations using the D key.

As can be seen through the previous examples, the speaker keys are not only essential with their respective notes, they may also be the most suitable option when

trying to simplify the overall technique in faster passages. In figure 9, a notated diagram of what was previously stated for the additional notes a particular speaker key can take on can be viewed. Though it may not be as ideal as using the specified keys in figure 6, the following diagram may offer new ideas in how to play these notes in a technically efficient manner.

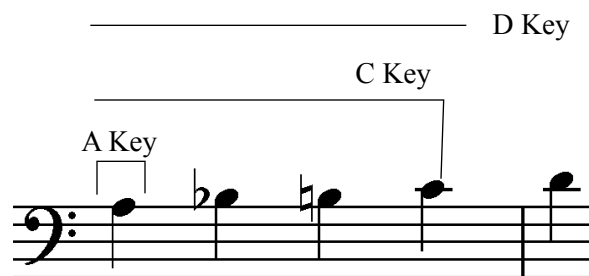


Figure 9: Consolidated speaker key notes

Another common use for the speaker keys is to create smooth, even slurs. Whether they are in close or far apart, in terms of their intervals, the appropriate speaker key will make the transition seamless and will in turn allow the player to feel more confident. In his testimony-like article, Norman Herzberg writes on his discovery of using the speaker keys for the purposes of slurring: “Whenever you descend from a distance of a fifth or more to middle Ab or G, application of the A speaker key used simultaneously with the fingering for Ab or G, and its quick release so that it will not distort the tone or intonation, will assure a clean slur to the middle Ab or to the middle

G.”¹ Herzberg goes on to mention that the same is true when ascending to middle Ab, as well. However, a major point addressed in his writing deals with the final moments of the Hummel Concerto.² Herzberg confirmed that if the speaker keys are used, the passage could be performed with greater accuracy. Figure 10 shows the passage, with added “+” symbols to indicate where quick speaker application (flicking) is necessary.

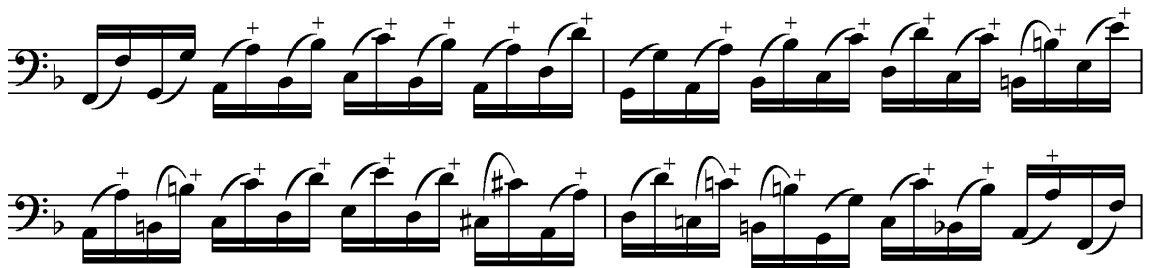


Figure 10: Ms. 300-303 of the Hummel Concerto, with indication for speaker keys.

Without the use of the speaker keys, the performer must either rapidly articulate the passage or find a way to quickly adjust embouchure and air pressure. Otherwise it would be virtually impossible to play the notes accurately. In the survey responses, participants commented on how they injured their jaw while trying to slur or cleanly play notes prior to learning about the speaker keys. Clearly, to not use them is simply not an option when building proper technique.

¹ Norman Herzberg, "Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon," *The Double Reed* 18, no. 3 (1995): 58, http://www.idrs.org/publications/controlled/DR/DR18.3.pdf/DR18.3/53_spkr.pdf (accessed December 30, 2014).

² Grand Concerto for Bassoon in F Major, by Johann Nepomuk Hummel (1778-1837).

CHAPTER IV

LEADERS OF THE SPEAKER KEY REVOLUTION IN AMERICA

The use of speaker keys in America is a relatively new idea, especially when compared to the European tradition of bassoon performance. Even when the concept arrived on the west coast of the United States, it slowly traveled over to the East Coast and was not ready to be incorporated as part of the regular bassoon teachings.¹ Despite how slowly the technique spread across America, the initial introduction, advocacy, and further developments would not have occurred without three bassoonists: Frederick Moritz, Norman Herzberg, and Arthur Weisberg. This chapter will explore these three pioneers and their contributions to the use of the speaker keys, without which today's bassoonists could still be struggling with the same technical issues in the speaker key range.

Frederick Moritz

Moritz (1897-1993) became a successful bassoonist at a young age and began to build his legacy: “Born in the small hamlet of Sulzthal near the famous Spa ‘Bad Kissingen’ in Germany, the youngest son of a well-known bandleader, he entered music

¹ Bassoonist John Miller included informative survey commentary on this matter, which can be viewed in Chapter V.

school in 1910 in Coburg, where he studied with Emil Hoffman who was then 1st bassoon of the Coburg court-theater orchestra.”² During his European career, Moritz was the principal bassoonist for the Dortmund Philharmonic and the Berlin Philharmonic. In 1923, Moritz became the principal bassoonist for the Los Angeles Philharmonic³, where he also performed with the Columbia Symphony Orchestra.⁴

Along with being an accomplished bassoonist, Fred Moritz was also technically proficient in holding down the speaker keys for certain notes. In a memorial article for Moritz, Ronald Klimko even mentioned this particular contribution: “His influence on important aspects of bassoon playing, such as venting of the middle register notes, double tonguing, etc., gave him a leadership role in American bassoon playing that persists to the present day.”⁵ At some point during his bassoon training, Moritz was introduced to the Viennese School (Austrian School) of bassoon playing. As mentioned in Chapter III, along with stressing the importance of musicality, venting the bassoon speaker keys was essential to the overall technique. As he traveled to America in 1923, Moritz brought along with him this tradition.

In an apparent effort to learn from the masters of their instruments, American bassoonists would turn to Fred Moritz to learn how to make reeds and take lessons. This

² Gerald Corey, “Bassoonist Biography: Frederick Moritz - Los Angeles,” *To The World's Bassoonists* 2, no. 2 (1971), <http://www.idrs.org/publications/controlled/TWBassoonist/TWB.V2.2/moritz.html> (accessed January 15, 2015).

³ Corey, “Bassoonist Biography.”

⁴ The author suggests finding the recording of Beethoven’s Fourth Symphony by the Columbia Symphony Orchestra and to listen to the 4th movement bassoon solo, executed wonderfully by Moritz.

⁵ Ronald Klimko, “Honorary Members of the IDRS: Frederick Moritz,” *Journal of the International Double Reed Society* 26, no. 2 (1998): 33.

was the case with professional studio musician Don Christlieb (1912-2001) who wanted to learn the craft of bassoon reed making. At the time, Moritz “was one of only two bassoonists who were around in the 1930’s who knew how to make reeds.”⁶ As Christlieb learned how to make reeds, he also studied the bassoon with Moritz. After each lesson, Christlieb would make note of what he learned:

“Moritz also used a system of flip-fingering he learned from his teacher Hoffman, often called the Vienna System.⁷ Instead of flicking the high A, and Bb, B, and C thumb keys (left hand), he would depress them partially, incorporating them into the regular fingering. It was a device that insured the basic note from cracking and meant that the note would be devoid of premature multi-phonics.”⁸

In 1966, Norman Herzberg, who shall be further discussed later in this chapter, was another bassoonist who took notice of this technique through his interactions with Moritz. Although he initially did not wish to partake in the technique, he could not deny its importance: “Moritz insisted that A normally had to be played with the A thumb key held down all the time, so there was no difficulty in playing it clearly as far as his system of playing was concerned.”⁹ Though Herzberg recognized many European players held

⁶ Don Christlieb, *Recollections of a First Chair Bassoonist: 52 Years in the Hollywood Studio Orchestras* (Los Angeles: Christlieb Products, 1996), 4-5.

⁷ Christlieb would include these fingerings into his publication *Pictorial Fingerings for Bassoon* (see bibliography).

⁸ Christlieb, *Recollections*, 5.

⁹ Norman Herzberg, "Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon," *The Double Reed* 18, no. 3 (1995): 53-63, http://www.idrs.org/publications/controlled/DR/DR18.3.pdf/DR18.3/53_spkr.pdf (accessed December 30, 2014).

the speaker keys down, he wasn't interested in it as he had never heard of it before during his professional career. Eventually, Herzberg realized what Moritz was talking about and never looked back.

Clearly one of the first pioneers of this "Viennese School" of bassoon playing that introduced the technique to the United States, Frederick Moritz changed the lives of the bassoonists he interacted with on the west coast. Without Moritz disseminating the speaker key technique when he did, the delay would have ultimately altered the progress American bassoonists were making in comparison to their European counterparts.

Norman Herzberg

Though it can be assumed that any bassoonist that studied with Moritz noticed his technique, Norman Herzberg was one of the few bassoonists who wrote about it at length and was its strongest advocate. This is evident in his article "Years of Innocence, Ignorance, Neglect, and Denial: The Importance of Speaker Key Use on the Bassoon," published in *The Double Reed* in 1995. This article is essentially a testament to how successful and necessary the speaker keys are, and is the only one quite like it on the topic.

Herzberg (1916-2007) had a very successful career as a performer and teacher. To his credit, he performed with the St. Louis Symphony, Los Angeles Chamber Orchestra, and Warner Brothers Studios. Additionally, he taught at the University of Southern

California between 1953 and 2001.¹⁰ Prior to his life out in California, Herzberg experienced the same technical issues other bassoonists at the time were having: the cracking, unclear notes of the middle register.

In his “Years of Innocence” article, Herzberg describes his preliminary attitudes to this situation in the 1930’s:

“I learned how dangerous the consecutive ‘A’s’ in the middle register solo for bassoon could be. It was like being on a tightrope without a net! My only remedies were to make my reed softer in the middle of the tip and the sides, extreme caution, and hesitancy. None of them could assure me of the desired results. Inevitably my playing of that solo¹¹ was cautious and quite inhibited. I ‘got away with it,’ but it did little to give me confidence that I would be able to duplicate the feat with certainty.”¹²

It was only after the aforementioned encounter with Fred Moritz that Herzberg began to realize how important the speaker keys actually were. Following the initial session in which Herzberg only sought advice on the quality of his bassoon (the same where Moritz insisted on the speaker keys), Herzberg expressed his delight in his article:

“After closely listening to my playing, the light began to dawn. He was right! The end of thirty years innocence, ignorance, neglect, and denial was at hand! What I had been taking for a normal attack on the notes in the middle register *included* the cluck that should never have been there! Once I cleaned up the attack on the A with its appropriate speaker key, the Bb had the same defect. I

¹⁰ Carol Lowe, “Norman Herzberg: An Icon of Bassoon Pedagogy” (DMA diss., University of North Carolina at Greensboro, 2008) vi. libres.uncg.edu/ir/uncg/f/umi-uncg-1629.pdf (accessed February 20, 2015).

¹¹ In his article, Herzberg is referring to the bassoon solo in Ernst Bloch’s *Schelomo Rhapsody for Cello and Orchestra*.

¹² Herzberg, “Years of Innocence,” 53.

fixed the Bb with the high C key, and so on until I was using the proper speaker keys for A, Bb, B natural, C, and D.”¹³

Herzberg immediately created exercises that he could practice to further incorporate the speaker keys into his technique. Allowing the speaker keys to become a part of the standard fingerings for their respective notes was necessary in his eyes, which also allowed him to better notice when other students or professionals would not use the keys: the familiar clucking sound of the beginnings of those speaker key notes would be entirely evident. Therefore, he was always sure to express the following sentiment to his students: “I have often told my students that one cannot write with precision and meaning without a strong foundation in grammar and a well developed vocabulary. Similarly, proper use of the speaker keys is required in order to express musical ideas with subtlety, clarity, purity, and eloquence.”¹⁴

Arthur Weisberg

Moritz and Herzberg were adamant in their beliefs in the speaker keys and their proper use. Arthur Weisberg (1931-2009), on the other hand, recognized the technical issues of learning the speaker keys and wanted to do something about it. Weisberg perfectly expressed the ideas of learning and executing technical passages in his book *The Art of Wind Playing*: “The problem of moving only one finger on a key or a hole is relatively simple and rarely causes difficulties. However, when we have to deal with all the possible combinations of the fingers, changing in rapid succession, the situation

¹³ Herzberg, “Years of Innocence,” 56.

¹⁴ Herzberg, “Years of Innocence,” 62-63.

becomes quite complicated.”¹⁵ One cannot help but imagine that he was thinking about the speaker keys while writing this out.

Instead of following in the paths of Moritz, Christlieb, or Herzberg, Weisberg decided to take a different route all together: developing a mechanism that eliminates the need for the speaker keys altogether.

Prior to specifically mentioning his new system, Weisberg expressed his concerns about the bassoonist and the massive responsibility the left thumb has:

“By far, the single most difficult part of the bassoon fingering concerns the use of the thumb, particularly the left thumb. Imagine, one finger having to deal with 9 keys - 10 if you count a lock. The other thumb only has to deal with 5 or 6. The left thumb is involved with the highest and most difficult fingerings on the bassoon as well as with the ‘flick’ keys. Whoever said a bassoonist was all thumbs wasn’t kidding. All of the other instruments, by the way, require practically no use of the thumb.”¹⁶

Considering all of these limitations, Weisberg teamed up with renowned bassoon repair technician James Keyes¹⁷ and started to consider how this new system could be built without changing any of the original fingerings. The double automatic octave key system, or the Weisberg System, was born:

“Before actually drilling the holes, it was necessary to devise a way to open and close them automatically, without changing the standard fingering. Of course, if we all had six fingers, that might not have been necessary. As I said, my goal has been to simplify the fingering, not to change it. What this means, for

¹⁵ Arthur Weisberg, *The Art of Wind Playing* (Galesville: Meredith Music Publications, 2007), 69.

¹⁶ Arthur Weisberg, "Bringing the Bassoon into the 21st Century," *The Double Reed* 21, no. 2 (1998): 86.

¹⁷ James Keyes is currently residing in Tennessee, and is the only bassoon repair technician that currently installs the “Weisberg System.”

example, is that when one plays the tuning A,¹⁸ one of the new octave vents opens automatically. This is accomplished by simply fingering the A in the normal way, but without using the thumb on the flick key.”¹⁹

By taking the speaker keys, or “flick keys” as Weisberg refers to them by, out of the technical equation, the ease of playing the bassoon is greatly enhanced. Fingers will be able to move with greater facility and difficult passages will no longer cause the bassoonist to worry about their thumbs. Since the new octave vents would be placed in the best acoustically best position on the bassoon, intonation and tone quality for those notes are greatly improved. As it currently stands, the speaker keys are actually meant for the high range notes with which the key names are associated with. Weisberg commented on the original keys in their current positions:

“In fact, they are much better located for the 6 notes²⁰ than either of the others. However, they are still not located or sized properly at all. Their real purpose on the bassoon is to facilitate the playing of the high notes. They are used as octave keys because there is nothing else to use them for. It is obvious that they are incorrectly placed, because they change the pitch and tone of the 6 notes.”²¹

The Weisberg System is truly remarkable in its mechanics and in how it serves its purpose. The author of this dissertation has played on a bassoon with the system and can certainly attest to its ease of use. However, if one is already used to using speaker keys, there will be a need for adjustment as applying the speaker key on a bassoon *with* the system will not produce the desired result. Currently, the system can come standard from

¹⁸ The tuning A is A3, the top line of the bass clef.

¹⁹ Arthur Weisberg, "A Double Automatic Octave Key System for the Bassoon," *The Double Reed* 24, no. 3 (2001): 94.

²⁰ Weisberg is referring to A3 up to D4, chromatically.

²¹ Weisberg, "Octave Key System," 93.

select bassoon dealers or manufacturers, and is otherwise available upon special request as an addition from Keyes. Bassoonist and teacher Robert Jordan is currently working with James Keyes in continuing the innovations of the Weisberg System,²² advocating for it to become the standard system for the bassoon mechanism.²³ The largest issue facing this revolution is that public school students, those who are actually starting out on bassoon, will be in a situation where their school may have perfectly functioning bassoons, but may not have the resources to acquire the system. Until that time comes, the students and their teachers are left with but a few options: use the speaker keys, or don't.

In summation, these three gentlemen altered the course of the American bassoon player. Moritz introduced to the west coast the concept of the Viennese School of bassoon: musicality was of primary importance and to achieve that was to use the speaker keys. The use of the speaker keys would ensure a continuously flowing musical line. Though there were others, Herzberg was a prominent bassoonist who came to understand the technique and would consider it to be an essential tool for every bassoonist. "In addition to practicing the fundamentals (scales, intervals, and long notes), Herzberg was a firm believer, actually a west-coast convert, in the use of the *speaker keys*."²⁴ However, as is evident through the survey in chapter VI, the use of speaker keys added technical

²² Information on the Weisberg System can currently be found at www.futurebassoon.com.

²³ Robert Jordan, "Putting the Know in Innovation: My Role in the Weisberg Systems for Bassoon," *The Double Reed* 32, no. 3 (2009): 85-90. http://www.idrs.org/publications/controlled/DR/DR32.3/DR32_3.pdf (accessed May 10, 2015).

²⁴ Lowe, "Herzberg: Icon of Bassoon," 25.

challenges, especially if they were not initially introduced as part of the standard fingering.

In his wonderful book *The Bassoon*, James Kopp commented on how even bassoonists from the Viennese School realized these keys caused technical issues: “(Wolfgang) Koblitz added that double tonguing was discouraged as detracting from timbre, and that speaker keys were held open on A3, Bb3, B3, and C4; he conceded that the special fingerings were technically difficult and problematic in intonation.”²⁵ Arthur Weisberg recognized this and did not wish to settle for a technique that also causes additional issues. Therefore, the Weisberg System was a logical step to pursue. Robert Jordan explains why, even if speaker key is executed perfectly, this system is still necessary: “What we failed to realize, because we have probably never heard it, is the particular flicked note did not resonate like it should. Acoustically speaking, it is impossible for the note to resonate properly without an appropriate vent hole on the bassoon.”²⁶ Considering all of this, it is the teacher’s responsibility to make sure the student receives the correct training, regardless of their instrument set up, based on what these three gentlemen were trying to advocate.

²⁵ James Kopp, *The Bassoon* (New Haven: Yale University Press, 2012), 169.

²⁶ Jordan, “Know in Innovation,” 90.

CHAPTER V

SURVEY OF CURRENT METHODS AND PRACTICES

This chapter is dedicated to the responses from the survey of *Bassoon Speaker Key Technique*. The concept of this survey was inspired by the work of late bassoonist Ronald Klimko,¹ who compiled significant data on straight forward questions related to bassoon performance². An online survey was posted for general view on several online forums connected through the social media site Facebook. The forums were as follows: *Bassoonists United*, *Internationality Bassoon*, and the *International Double Reed Society*. As of September 2015, the members associated with these forums are at a combined total of over 9,000. Using the internet as the sole source of communication, the *Bassoon Speaker Key Technique* survey was able to reach this very large population of bassoonists in only one day. After a period of 26 days, 114 voluntary participants submitted responses. In addition to obtaining a general understanding of how all of these participants use the speaker keys, it also provides insight on whether or not the speaker key method should be developed for bassoonists learning the technique.

The questions on the survey collected general information about the participant as well as specific data on the speaker keys. The questions covered a range of topics, including how the technique was learned, positive or negative aspects of the technique, and how the participant may teach it to their students. Participants included amateurs to

¹ Dr. Ronald Klimko (1936-2012) was a bassoonist and professor at the University of Idaho.

² Ronald Klimko, *Bassoon Performance Practices and Teaching in the United States and Canada* (Moscow: School of Music Publications, 1981).

professionals, teachers to performers, and even enthusiasts. The major requirement was that the participant be at least 18 years of age and that they have had bassoon experience of some kind. By keeping an open interpretation of “experience” the responses will more clearly demonstrate who learns about the speaker key technique. Additionally, the participants listed method books they felt were useful in learning speaker key technique. This list has been compiled and can be explored in APPENDIX B.

On the following pages, each question will be addressed individually along with their respective findings.³ The participants had the opportunity to supplement their responses with more information if they desired, and select responses will be included. In some cases, not all participants are accounted for in each question. This is due to their answer not falling within the parameters of the options provided or they only provided an answer in the “additional comments” section. A wide variety of responses will be evident, as every possible viewpoint is represented from the participants. Some have never used the technique, some acquired the technique late, some find it indispensable, and some are very much indifferent. However, they all come from entirely different backgrounds, making the responses that much more captivating. The entire list of participants are in APPENDIX A, for the reader’s reference.

³ The complete collection of responses to the survey can be found at <http://www.codyhuntermusic.com/speaker-key-tutor/>.

QUESTION ONE

What is your profession?

Though the survey is directed towards any bassoonist, this question had specific responses for professional musicians, collegiate instructors, music teachers, and students attending a university. Out of 114 participants, the largest category were those listing themselves as professional musicians. The next largest group of participants were college students, followed by college instructors. The smallest group were instrumental music teachers. Several participants listed themselves as both a professional musician and instructor and many others are freelance bassoonists or amateurs that hold another occupation of some type. The four main music professions break down as follows:

1. Professional musician - 45
2. University/College student - 17
3. University/College instructor - 16
4. Instrumental music teacher - 8

The remaining participants listed their profession under the “other” option in the survey. This provides positive evidence that bassoonists from very diverse backgrounds want to partake in the discussion of speaker keys, not just professionals or bassoon students. While it is not a complete list, the following are examples of responses received:

1. College instructor and professional musician
2. Information technology
3. Aviation consultant
4. Elementary school teacher
5. Legal assistant
6. Lawyer
7. Software quality assurance
8. Mathematician

9. Psychologist
10. Pipe organ builder
11. Visual designer
12. Explosives and radiation safety

As is evident through this first question, there is a varied population of bassoonists. There are a surprising number of freelance bassoonists who work non-musical jobs but still demonstrate a desire to perform. Ronald Klimko wrote of this double life that bassoonists must live very eloquently: “Obviously most bassoonists must, because of the fewer number of bassoon students, often perform other roles than that of being a bassoonist.”⁴

⁴ Klimko, 8.

QUESTION TWO

How long have you been playing or studying the bassoon?

This question offered four different time spans to accommodate the wide variety of bassoonists that were discussed in the previous question. The four choices on the survey were: 0-4 years, 5-8 years, 9-12 years, and 13 or more years. There are bassoonists that may have started late in their high school education, those that have been playing since elementary school, or those that only played for a few weeks during a double reed techniques course. The time span with the most responses were those that have played for 13 or more years. Following that, the second largest category were bassoonist that have played for 9-12 years. The smallest groups were those who have been playing (or have played) for 5-8 years and 0-4 years.

1. 13 or more years - 81
2. 9 - 12 years - 20
3. 5 - 8 years - 10
4. 0 - 4 years - 5

Participants had the opportunity to provide additional commentary along with their answer, which clarified exactly how long they have been playing or to indicate if they took a break from bassoon at any point. Many bassoonists who responded have been playing for more than 20, several for more than 30, and a few that have more than 40 years of playing experience. One participant, John Miller of the Minnesota Orchestra, indicated that he has been playing for 62 years.⁵ Additional responses included the following:

⁵ *Speaker Key Responses* row 115, column E.

“Oddly enough, I took up bassoon at the encouragement of my professors. I loved the instrument instantly.” -*Steve Brown, retired Navy musician.*⁶

“I studied for 6 months in the middle of my long-term oboe-playing career.” -
*Anonymous participant.*⁷

“Although my current full-time occupation is that of a public school band director, I have been a professional bassoonist for continuously for 45 years: 2 years in a full-time capacity, and the remaining 43 years with active, contracted and uninterrupted part-time employment with smaller-budgeted orchestras. This 45-year period started the year after graduating from high school, so my actual total years playing the bassoon would include grades 9-12 (49 years), after a year of playing clarinet in beginning band.” -*Anonymous participant.*⁸

While having representation from all categories is beneficial, the experienced bassoonist who has both performed and taught will be able to provide more commentary than questions on the manner of speaker key technique. Essentially, the experienced bassoonists will corroborate the concerns expressed by those who have been performing or studying fewer years. The responses from the various experience levels of bassoonists will be reflected within the proposed speaker key method.

⁶ *Speaker Key Responses* row 17, column E.

⁷ *Speaker Key Responses* row 74, column E.

⁸ *Speaker Key Responses* row 98, column E.

QUESTION THREE

What make of bassoon do you play on?

The type of bassoon one uses may affect how well the speaker keys work. By obtaining this information, connections could be made between issues, positive or negative experiences, and the bassoon that is causing them. For instance, an older student model bassoon may not have as good of a response with the flick keys as a new Heckel bassoon would. Upon reviewing 114 participants, there is a clear champion as far as which make of bassoon is used most. Beyond this, several other makes of bassoon were listed. The responses indicate that the participant may have chosen their respective instrument because of superior quality or because it was it was more economical. The different types of bassoons represented in the responses are as follows:

1. Fox, Renard - 52
2. Heckel - 25
3. Puchner - 13
4. Moosman- 8
5. Bell - 3
6. Moennig - 3
7. Schreiber - 3
8. Takeda - 2
9. Yamaha - 2
10. King - 1
11. Masi - 1
12. Walter - 1
13. Mollenhauer (contrabassoon) - 1

As previously mentioned, each participant has their own individual reasons for choosing their equipment: greater ease of playing, more economical, or simply because it

was what was available and worked well. Though there were fewer additional comments for this questions, several are certainly worth mentioning:

“Fox Model II made in 2006 in conjunction with a Heckel CC2XL, Leitzinger E-SL-1, and Yamaha PN1 Hamilton plated bocals. Consistent rotation of bocals per ensemble specific situations.” - *Dylan Myers, Graduate Student at Michigan State University.*⁹

“I played on old Heckels until 2012, and have found that for me, it's easier to get a good sound on the Walter. The need for flicking is the same.” - *David Savige, 2nd bassoon, Virginia Symphony Orchestra.*¹⁰

“Hey, it’s paid.” - *Sheryl Wittig, Elementary School Music Teacher & Librarian.*¹¹

The last piece of commentary is certainly something that all bassoonists must consider, particularly when the cost of the instrument can be quite high. Public school instrumental music programs often times have limited budgets and finding bassoons of high quality or good repair is a difficult task.

⁹ *Speaker Key Responses* row 4, column G.

¹⁰ *Speaker Key Responses* row 64, column G.

¹¹ *Speaker Key Responses* row 101, column G.

QUESTION FOUR

How would you best describe the general shape of your bassoon reeds?

Since the bassoon reed can greatly affect the general technique of the bassoonist, it seemed appropriate to inquire of the participants what shape of reed they perform on. In addition to being an interesting topic of discussion, the purpose of this question is to find out which general reed shape is used most. A medium reed shape is used most often, and may also be the best choice for a beginning bassoonist. If it is too wide or too narrow, producing a good sound and building technique may become a greater challenge than if a medium reed shape were selected. For some bassoonists, the exact name of the reed shape may be unknown, but the general shape of the blade¹² could be recorded: narrow, medium, or wide. If the participant knew their reed shape, they were asked to record it within this question. The generic shape responses are as follows:

1. Narrow - 10
2. Medium - 71
3. Wide - 9
4. Unsure - 3

Based on the responses, the majority of the participants prefer to have a medium shape to their reeds. Many responses included the exact shape used for the reed. The following are those shapes or reed models, listed alphabetically and including different model numbers when indicated:

1. Christlieb
2. Dicker
3. Fox 2

¹² Specifically, the width at the tip of the bassoon reed.

4. Herzberg
5. Kopp 3A
6. Prestini 2
7. Rieger (1A, 5, 13, 16)
8. Sharrow
9. VanHoesen

Additional comments were also made by several participants, further explaining their process in selecting reeds and shapes that work best for them:

“I often experiment with different size shapers. I currently use the William Winstead straight shaper manufactured by the PCD Company.¹³ It has a wider throat than the Rieger 1A but a narrower tip. I also have used consistently the Rieger 1A, Rieger 2, and Ishikawa straight shaper by Fox.” - *Benjamin Coelho, The University of Iowa.*¹⁴

In general, it appears that a narrower shape is not as commonly used, as this survey indicates. Experimentation between reed shapes is a regular practice and something that may benefit a particular bassoonist who is stuck in a rut in terms of sound or technique. For a beginning bassoonist, a medium reed shape may be the best choice.

¹³ The PCD Company is a machining company and can be explored at pcd-company.com.

¹⁴ *Speaker Key Responses* row 113, column I.

QUESTION FIVE

In what capacity did you take bassoon lessons?

Understanding how a bassoonist, or any instrumental music student, learned to play their instrument is an important piece of information when considering where they are currently in their instrumental careers. This question allowed the participants to select all general methods in which they learned the bassoon: self taught, private lessons, collegiate studio lessons, lessons with a K-12 instrumental music teacher, or through a collegiate methods course for aspiring music educators. Almost all of the participants indicated that they took lessons privately, or associated with an academic environment. Out of five participants that indicated they were self taught at some point, three were solely self taught. One participant commented as follows:

“Took music lessons through college, but no bassoon teachers available.” - *David Huber, Radiation and Explosives Safety Manager.*¹⁵

Other participants had a combination of private lessons, college lessons, and instruction from their public school teachers. Prominent bassoon instructor at the University of Wisconsin-Stevens Point added this to her initial response:

“Began lessons when I first started playing bassoon. First lessons were with an area band director (8th and 9th grades); high school lessons with a teacher at a nearby university (10th-12th grades), then in music school.” - *Dr. Patricia Holland, Professor of Bassoon, University of Wisconsin-Stevens Point.*¹⁶

¹⁵ *Speaker Key Responses* row 83, column K.

¹⁶ *Speaker Key Responses* row 58, column K.

Some participants did not have available resources initially, but were able to begin lessons further into their musical studies:

“Did not have band growing up, so picked up bassoon midway into university degree. Self taught for half a year than began taking private lessons with a principal in an orchestra.” - *Alyssa C., freelance bassoonist.*¹⁷

Every participant shared similar responses, but few recorded the exact same response. This provides evidence that there is not necessarily one correct way to learn the bassoon, but also suggests that the more varied path provides the bassoonist with more opportunities to learn. This can also be applied to method books or teaching strategies: only one method may not provide every answer, but it will certainly be an important part of the complete collection of methods used.

¹⁷ *Speaker Key Responses* row 56, column K.

QUESTION SIX

Indicate the general school age group in which you first learned about the bassoon speaker key technique.

The responses to this question are varied, especially when considering the diverse learning methods that were mentioned in the previous question. To clarify, this question does not address how old the participant was when they first began bassoon lessons in a general sense. Specifically, this asks the age group for when the speaker key technique was introduced to them. As was previously mentioned, the late bassoon pedagogue Norman Herzberg thought that using the speaker keys is an essential and indispensable technique.¹⁸ Through this question's responses, one can better ascertain when this technique is commonly introduced to bassoon students.

1. 6th grade or earlier - 11
2. 7th to 8th grade - 18
3. 9th to 12th grade - 49
4. University or college - 29
5. As an adult - 5

This question offered the participant an opportunity to explain their first experiences with the speaker key technique. Many were introduced to the concept between grades 9 and 12, but only realized the benefits when they continued their studies at the collegiate or adult levels. John Miller, of the Minnesota Orchestra, included a comment that is very intriguing in considering how this technique was introduced across

¹⁸ Norman Herzberg, "Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon," *The Double Reed* 18, no. 3 (1995): 53-63.

America.¹⁹ While responses were varied, it is clear that this essential technique is being introduced relatively later on in the bassoonist's studies when professionals provided the lessons.

“I was introduced to venting during private lessons in 10th grade. However, it wasn't until college that I understood and full incorporated it into my technique.” -

*Leonard Martin, private double reed lesson teacher.*²⁰

“For my middle school years I was taught ‘flicking’ and for my collegiate years, my professor (originally from Russia) taught me ‘venting’ in addition to flicking.” - Dr.

*Shannon Lowe, Associate Professor of Bassoon, Valdosta State University*²¹

“I did not use this technique until I was almost 40. Speaker keys were not used by most professionals on the East Coast prior to the 1970s.” - *John Miller, Principal*

*bassoon, Minnesota Orchestra.*²²

¹⁹ See following comment in this section.

²⁰ *Speaker Key Responses* row 82, column M.

²¹ *Speaker Key Responses* row 109, column M.

²² *Speaker Key Responses* row 115, column M.

QUESTION SEVEN

List the method books you used or were assigned when you learning the basic technical fundamentals (including the use of speaker keys, if possible) of the bassoon.

A total of 29 methods (including scale studies and etudes) were recorded by the participants for this question. Some participants commented on how the method books did not demonstrate flick keys²³ or that they were avoided entirely,²⁴ but were still useful in applying the technique to that particular exercise later on. The most mentioned book was the Weissenborn method,²⁵ which was listed by 99 of the participants. A complete listing of the of method books recorded in this question can be found in APPENDIX B.

²³ *Speaker Key Responses* rows 41, 42, 79, 114, and 115, column O.

²⁴ *Speaker Key Response* row 115, column O: “My teachers ignored the parts in Weissenborn about vent keys.” - *John Miller, Principal Bassoon, Minnesota Orchestra.*

²⁵ Julius Weissenborn, *Method for Bassoon* (Rev. ed. New York: Carl Fischer, 1940).

QUESTION EIGHT

Briefly list or describe the positive or negative aspects that you experienced while learning the technique of bassoon speaker keys.

This question offered the participant an opportunity to share their personal experiences with learning the speaker key technique. Select responses are included here for the reader to gain a broad perspective on how, upon reflecting, participants viewed the process of learning the technique. Some did not have any issues at all,²⁶ while others needed time to become acclimated to the general motion of the thumbs.²⁷ Several participants commented on how having the appropriate reed and voicing, there is no need for the speaker keys.²⁸ In general, for better or worse, participants of the survey learned to use the technique:

“It was hard to remember to use the speaker keys after having gone without them for 5-6 years.” - *David Wells, Lecturer of Bassoon, California State University - Sacramento.*²⁹

“Flicking was introduced to me as a ‘vener,’ well after I had learned the notes in the ‘flicking register,’ to help remedy the excessive cracking. While I was told what keys to use originally I was not told ‘how’ to use them--this I learned much later. Because it was an ‘add-on’ technique it was not well integrated into my overall technique (until much later). A later experience was while studying

²⁶ *Speaker Key Responses* rows 32 and 38, column P.

²⁷ *Speaker Key Responses* rows 2, 55, and 115, column P.

²⁸ *Speaker Key Response* row 103, column P: “It is a pain in the ass that can often be avoided with better air support and a really good reed.” - *Anonymous participant.*

²⁹ *Speaker Key Response* row 5, column P.

with Leonard Sharrow³⁰ for my MM. He advocated a 'windshield wiper' flicking technique: swipe upwards over ALL of the speaker keys when ascending to the flick register and swipe down through all keys when descending. This never worked for me as you would hear several different pitches and timbres as you passed over each different speaker key.” -*Dr. Michael Burns, Professor of Bassoon, University of North Carolina - Greensboro.*³¹

“I did not develop good speaker key technique as a young player. It wasn't emphasized or given much importance. As an adult, I studied briefly with Yoshi Ishikawa³², who led me down the path of speaker-key-righteousness. I am now a devoted left thumber.” - *Tom Bittinger, Principal bassoon, Fort Collins and Cheyenne Symphony.*³³

“My early teachers didn't enforce my flicking. I developed severe jaw dislocation when playing because I used tension to play in the correct octave. I basically had to start over during my doctorate.” - *Dr. Allison Buck, bassoonist.*³⁴

“I have learned multiple methods of using speaker keys. The negative aspects were in the relearning of the technique. I was first taught only to use them in long slurs from below. I then needed to switch to using them as often as possible in tongued

³⁰ Leonard Sharrow (1915-2004) was the former principal bassoon of the Chicago Symphony Orchestra and teacher (informational article from the *Chicago Tribune* listed in bibliography).

³¹ *Speaker Key Response* row 99, column P.

³² Dr. Ishikawa is the professor of bassoon at the University of Colorado-Boulder College of Music.

³³ *Speaker Key Response* row 67, column P.

³⁴ *Speaker Key Response* row 46, column P.

passages. The changing of old habits was the most negative aspects of learning the technique.” - *David Oyen, Professor of Bassoon, Morehead State University, Kentucky.*³⁵

In general, based on the responses, the speaker key technique was introduced later in the participant’s studies as a remedy to solve the issue of unclear articulations or slurs. These responses also indicate that the task of relearning the technique required greater attention after the notes within the speaker key range had already been learned. Other participants commented on how clarifying the difference between flicking and venting made a difference in how they approached the technique. They were first taught about flicking, and then incorporated venting at a later time.³⁶ Another issue that was consistently mentioned was the matter of coordinating the thumb motion and the correct keys.³⁷ Eventually, it appears that using the speaker keys was adapted into the playing of participants who felt it improved their overall technique.

³⁵ *Speaker Key Response* row 34, column P.

³⁶ *Speaker Key Response* row 95, column P.

³⁷ *Speaker Key Response* row 14, column P.

QUESTION NINE

If applicable, list the method books you would assign/recommend to your bassoon student to learn the basic technical fundamentals (including the use of speaker keys) of the bassoon.

To draw comparisons with question seven, the list compiled from question nine is specifically for methods that participants would recommend to their students. While many of the texts are listed again, such as the Weissenborn, there are new sources that are mentioned as well. Methods composed by Curtis, Huddleston, Klutsch, and Satzenhofer³⁸ were listed by the participants as excellent supplements for learning bassoon technique and the use of speaker keys. The revised Weissenborn method³⁹ was also mentioned, as it contains a clear approach to using the speaker keys. Although not originally intended for instrumentalists, one participant suggested the Ottman text⁴⁰ for reinforcing technical concepts of the bassoon and reading in different clefs. Taking a path of originality, some participants commented on how they create their own etudes or exercises to supplement what their students are working on. A compilation of all methods listed by the participants can be found in APPENDIX B.

³⁸ Refer to APPENDIX B.

³⁹ Dr. Doug Spaniol, currently professor of music at Butler University, created a new method based on the Weissenborn.

⁴⁰ Robert Ottman, *Music for Sight Singing* (Pearson, 9th ed., 2013).

QUESTION TEN

If applicable, briefly list or describe the positive or negative aspects that you experienced while teaching the speaker key technique to a bassoon student.

The participants are offered an opportunity, through this question, to provide detail about their experiences teaching the speaker technique to their students. Whether the reader is primarily a performer or teacher, the responses submitted will offer greater insight on how the technique can be successfully approached when instructing a new bassoonist. The following comments were submitted by bassoonists that primarily teach at the collegiate level:

“I try to downplay the ‘inconvenience’ of using speaker keys; sometimes this helps the student be more accepting of the technique.” - *Dr. Patricia Holland, University of Wisconsin-Stevens Point.*⁴¹

“Most of the time, the students I start with have never heard of flicking, or do not do it properly. Therefore, the students have to be very patient and diligent when learning this technique. In many cases, they have to play passages much slower so they can incorporate this technique.” - *Dr. Jason Worzbyt, Professor of Bassoon, Indiana University of Pennsylvania.*⁴²

“Thumb coordination: hitting the right speaker keys and knowing when to leave the whisper key (either not using the wk at all in fast passages or otherwise leaving it soon enough to make the leap. Air speed: convincing the students to not change air speed as they flick. Students really seem to take to it when they can hear their own playing clearly enough that they become annoyed with and want to

⁴¹ *Speaker Key Response* row 58, column R.

⁴² *Speaker Key Response* row 51, column R.

fix the notes that routinely crack.” - *Dr. Ryan D. Romine, Associate Professor of Bassoon, Shenandoah Conservatory.*⁴³

“I have found that teaching students to use speaker keys, especially demonstrating both flicking and venting, has several immediate benefits. Principally, the student's note accuracy improves markedly; the student also begins to explore their instrument on their own, seeking to discover optimal fingerings that may differ depending upon the notes in a given passage.” - *Scott Miller, Instructor of Bassoon, Nicholls State University.*⁴⁴

“I have had the most success teaching the venting method first to my students (beginners, especially). I make these keys a part of the ‘fingerings’ and find students really grasp venting quicker than flicking. As a student becomes more advanced and certain passages that are more conducive to flicking present themselves, I introduce flicking as well.” - *Dr. Shannon Lowe, Associate Professor of Bassoon, Valdosta State University.*⁴⁵

Other instructors made a mention of how work ethic and personal desire to improve also have an effect on how well the technique is learned by the student. Several professional performers also included commentary on things they discovered when teaching the speaker keys. For aspiring performers, teaching students may always be a part of the work detail, and taking into account this information will better serve their future students:

“It's difficult to get younger players to appreciate their importance, as they can get away without using them at all in the early stages.” - *John McDougall, Professional Bassoonist, London, UK.*⁴⁶

⁴³ *Speaker Key Response* row 108, column R.

⁴⁴ *Speaker Key Response* row 30 column R.

⁴⁵ *Speaker Key Response* row 109, column R.

⁴⁶ *Speaker Key Response* row 47, column R.

“I find that they are either really want to do it or really don't want to do it. It's hard to teach the contextual in-betweens when it could be used, but isn't strictly necessary.” - *Mike Muszynski, Second Bassoon, Indianapolis Symphony Orchestra.*

“Students tend to want to flick too quickly at first, and have trouble finding the right key to flick, so I encourage them to go slowly, step by step to learn the technique.” - *David Savige, Second Bassoon, Virginia Symphony Orchestra.*⁴⁷

“If students learn early enough, it's not an issue. If they come to me from a teacher that said they didn't have to use them until later, it's hard to get them to flick at a later age. I still won't allow them to play without at least trying to use them.” - *Roger Soren, Bassoonist and Contrabassoonist, Colorado Symphony.*⁴⁸

There are similarities between when the participants learned the technique and when they taught it to their students: if it occurs later, after the corresponding notes have already been learned, it will be a more difficult fix that requires careful monitoring.⁴⁹ Slow thumb motion and an aim for accurately hitting the correct keys appears to be the best approach. Additionally, the above comments explain that having the students aurally recognize the difference between the good and bad may help them appreciate the technique more, and will encourage the inclusion of speaker keys into their daily playing. Once this stage has been reached with the student, the concept of venting the keys may be easier to grasp than the quick motion associated with flicking.

⁴⁷ *Speaker Key Response* row 64, column R.

⁴⁸ *Speaker Key Response* row 105, column R.

⁴⁹ *Speaker Key Response* row 7, column R: Stephanie Busby comments on the reluctance of students incorporating the speaker keys as it slows their technique.

QUESTION ELEVEN

What is the appropriate time a new student should learn to use the speaker keys?

The purpose of this question is to gain a general consensus on when a new bassoon student should learn the speaker key technique. Though many participants of the survey learned the speaker key technique much later in their studies, most agree that acquiring the skills should occur much sooner. The options that were available to choose from were as follows: as soon as the corresponding notes are introduced, after the student has been playing for at least a year, or when the student begins their studies at the collegiate level. If the participant wanted to offer a different response, they had the option to do so. Based on the responses, most participants felt it appropriate to introduce the speaker keys as soon as the corresponding notes were introduced. Below, items 4, 5, and 6 were offered as different responses from the participants.

1. As soon as the corresponding notes are introduced - 92
2. After the student has been playing for at least a year - 13
3. When the student studies at the collegiate level - 1
4. Depends on the student - 2
5. Within the first year - 1
6. When needed - 1

“I learned speaker key technique late and so am still finding uses for it. I do think it should be introduced early on, but I have also dealt with students who let it get in their way—especially in very fast technique that sometimes does not allow for venting individual notes.” - *Dr. Ryan D. Romine, Associate Professor of Bassoon, Shenandoah Conservatory.*⁵⁰

⁵⁰ *Speaker Key Response* row 108, column T.

“I teach my newer students the use of speaker keys as part of the fingerings for the appropriate notes. Only later do I introduce the idea of flicking. This way, their thumb learns the proper keys to use before they ever actually start flicking.” - *Dr. David Wells, Lecturer of Bassoon, California State University - Sacramento.*⁵¹

“I teach venting to beginners so that they learn the fingering with the speaker key down. Then as they advance, I eventually introduce releasing the key.” - *Dr. Susan Hess, Instructor of Bassoon, Colorado Mesa University.*⁵²

Usually, the notes associated with speaker keys are covered within the the first year of study.⁵³ The general consensus based on the responses is that the students should learn to use the speaker keys as soon as possible, utilizing the vent method at the same time. This essentially makes the speaker keys part of the standard fingerings. From here, most responses suggest that the technique of flicking the speaker keys are introduced, but only after the venting has been mastered with the standard fingering.

⁵¹ *Speaker Key Response* row 5, column T.

⁵² *Speaker Key Response* row 42, column T.

⁵³ Based on the bassoon range presented in Bruce Pearson's *Standard of Excellence, Book 1* and Tim Lautzenheiser's *Essential Elements 2000, Book 1*.

QUESTION TWELVE

In your opinion, how should a new student learn about the speaker keys?

For this question, participants of the survey had several general responses they could submit, in addition to including their own commentary. The purpose of this question is inquire about the best possible method, or set of methods, that should be taken into consideration when teaching a new bassoonist about using the speaker keys. The options available for selection were: with a private instructor, with their instrumental music teacher, through a method book, or own their own. While there was an inclusion of all elements, one that was almost always present was that the student should learn with a private instructor. Out of 114 participants, 107 thought that using a private instructor should be included along with assistance from method books, instrumental music teachers, and individual practice. 43 responses indicated that learning the technique solely from a private instructor is the best method for a beginner.

“They need all the things. They should have a band director that knows. They should have fingering charts that reflect speaker keys, and they should have a private teacher that can efficiently teach them this. It is so incredibly important for them to just learn from the beginning.” - *Jolene Masone, private bassoon teacher, Dallas, Texas.*⁵⁴

The instrumental music teacher may be the first point of contact for a beginning bassoonist. Out of 114 responses, 47 of them indicated that the instrumental music teacher should play a role in the student learning the about the speaker keys. Three responses indicated that only instrumental music teachers should instruct students on this

⁵⁴ *Speaker Key Response row 72, column V.*

technique. In rural environments or in instances of economical hardships, finding and paying for a private instructor may be a difficult task. Therefore, a student may only be able to rely on their band teacher to provide the information they need to be successful.

“Music Education students need to learn about speaker key use in methods class even if the scope of the class doesn't really allow them to work much in that range of the instrument.” - *David Oyen, Professor of Bassoon, Morehead State University, Kentucky.*⁵⁵

⁵⁵ *Speaker Key Technique* row 34, column V.

QUESTION THIRTEEN

When talking about the speaker keys on the bassoon, do you refer to it as: flicking, venting, snipping, or something else?

In order to gain a broader perspective on the technique itself, the task of finding out how bassoonists usually refer to the keys is essential. This is especially true when one considers that the terms “flick” and “vent” literally mean two different types of thumb motion, and may offer different connotations for beginning bassoonists. When the term “flick” is used, it means that the bassoonist rapidly moves their thumb to the appropriate speaker key, depresses it, and then immediately releases the key. This motion is truly a “flick” of the thumb on the speaker key. Beginning bassoonists may find it difficult to move in such a fast manner while also being accurate with pushing down the right key. This could result in jerky, inconsistent motions of the thumb. Norman Herzberg⁵⁶ cautioned against using the term “flick” as it “trivialized” the entire process of using the speaker keys.

The term “vent” implies that the bassoonist, instead quickly releasing the speaker key, holds the key down for the duration of the note. As Herzberg mentioned in his article,⁵⁷ this allows the student to build in the speaker key as part of the standard fingering. Participants of the survey were concerned about changes in pitch by using this method,⁵⁸ but believed that having clean slurs and articulations were much more valuable

⁵⁶Norman Herzberg, "Years of Innocence, Ignorance, Neglect and Denial: The Importance of Speaker Key Use on the Bassoon," *The Double Reed* 18, no. 3 (1995): 53.

⁵⁷ Herzberg, 61.

⁵⁸ *Speaker Key Response* row 115, column AB.

in their overall technique. The important matter to consider is that “flick” and “vent” are not interchangeable terms but actually two different techniques. Out of the 114 participants, 70 stated that the term “flicking” is the most suitable word to use while describing this technique, while only 20 stated that “venting” would be the best choice. Eighteen responses stated that both terms and techniques should be considered, which would allow for the student to make their own appropriate choice while increasing their technical facility on the bassoon.

QUESTION FOURTEEN

In your opinion, would a new, specialized method book focusing on speaker key technique be a useful addition to the bassoon repertoire?

This direct question specifically inquires about whether or not the participant believes a new method book on the speaker key technique would be useful. This question was a necessary element to the survey, as the opinions of the bassoonists who responded positively have influenced the proposed method book that can be found in Chapter VI. Even those that answered “unsure” or “no” also included additional commentary on reliable sources that are currently available. Out of 114 participants, 61 stated that a new method book would be welcome in the bassoon repertoire. Those that were “unsure” about introducing a new method accounted for 34 of the responses, and 17 responses were “no.” The following comments submitted by the participants provide insight on their choices:

“I feel that this is much needed in our field! It would be great if this method book included orchestral as well as common solo repertoire passages that would benefit from this technique.” (Yes) - *Dr. Shannon Lowe, Associate Professor of Bassoon, Valdosta State University.*⁵⁹

⁵⁹ *Speaker Key Response* row 109, column Y.

“This would be most helpful for those trying to learn them after playing bassoon for awhile without using them, or without using them properly.” (Yes) - *Stephanie Busby, Professor of Bassoon, University of Massachusetts at Lowell.*⁶⁰

“I don't know that a ‘method’ book is the right way to think about it. ‘Progressive studies’ is maybe more appropriate.” (Unsure) - *Dr. Trent Jacobs, Minneapolis, Minnesota.*⁶¹

“The danger here is the division between the venting and flicking schools of thought. One thing that might be useful is if the notes that are to be vented/flicked were color-coded in the music. This might also be a good idea for the notes that require the LH pinky/E-flat key.”⁶² (No) - *Eric L. Ring, DMA, Adjunct Professor of Music, Webster University, Saint Louis, Missouri.*⁶³

“The Weisberg system⁶⁴ has eliminated the need for flicking and flicking itself is not that difficult to demand an entire book for the technique. The flicking exercises in several, already published warm-up and étude books, (see Weait, Spaniol⁶⁵) cover the topic concisely and easily.” (No) - *Eric Tyler Barga, New England Conservatory, BM 2017.*⁶⁶

⁶⁰ *Speaker Key Response* row 7, column Y.

⁶¹ *Speaker Key Response* row 3, column Y.

⁶² The LH (left hand) Eb key is located on the long joint of the bassoon. The use of this key is also an issue not clarified for beginning bassoonists.

⁶³ *Speaker Key Response* row 52, column Y.

⁶⁴ The automatic double octave key developed by Arthur Weisberg.

⁶⁵ Reference APPENDIX B.

⁶⁶ *Speaker Key Response* row 48, column Y.

The purpose of exploring all responses is not to discredit the concept of offering a new method, but to understand how it can best be written. Additionally, most responses are written from the stand point of students already experiencing issues⁶⁷ or how the teacher can set the student up for success right away. Professor Benjamin Coelho of the University of Iowa had a very concise response for this point of view: “As I said before, the vent keys should be introduced as part of the fingering.”⁶⁸ The reader will find that all view points from this portion of the survey are valid and should be taken into consideration when choosing the best path for their students.

⁶⁷ *Speaker Key Response* row 7, column Y.

⁶⁸ *Speaker Key Response* row 113, column Y.

QUESTION FIFTEEN

In your opinion, would an online audio/visual resource that accompanies the new method be useful? This would allow beginning students to watch videos and hear audio that pertains to speaker key technique.

This is a supplemental question to follow up from the previous responses. In addition to a written method book that provides exercises for the speaker key technique, the participants were asked to consider an audio and visual component that could be used to further demonstrate the speaker keys. If the student using the resource does not have a private instructor or if the instrumental music teacher needs to gain further insight on how to appropriately use the keys, the audio and visual presentation may be an effective solution. The audio and visual component would be accessible through an internet connection, where most schools and homes would be able to view it. Out of 114 participants, 93 indicated that an audio and visual component to learning the speaker key technique would be useful. There was a smaller portion of both “unsure” and “no” responses, at 14 and 5 respectively. The audio and visual option for learning the technique was more popular than the written method book by a difference of 62 participants. This would indicate that many participants believe that seeing and hearing the technique is a more effective way of learning than just reading another method book.

“Much like the online master classes that many professional orchestras are doing today, I think videos explaining the flicking technique would be helpful, both as a basic explanation of the technique, and also as a secondary source of information. It would allow you to get a different view of the same thing, and I’ve

found the best way to learn on the bassoon is to get different points of view from time to time.” (Yes) - *Kyle Sneden, freelance bassoonist, Colorado.*⁶⁹

“This could serve as a reinforcement for good teaching, as a resource for students who do not have a private teacher, or one for ensemble directors seeking information to help their young bassoonists.” (Yes) - *Dr. Ryan Romine, Associate Professor of Bassoon, Shenandoah Conservatory.*⁷⁰

⁶⁹ *Speaker Key Response* row 49, column AA.

⁷⁰ *Speaker Key Response* row 108, column AA.

QUESTION SIXTEEN

Please feel free to add any final comments or thoughts that would benefit this survey.

The final question to the survey offered an opportunity for the participants to provide additional commentary for that would compliment their previous responses. Due to the nature of question, there was not necessarily a specific response that was being searched for, but participants provided more insight on their thoughts on the speaker keys. Three participants commented on the necessity of the Weisberg system.⁷¹ Select responses are as follows:

“As stated earlier, this is a crucial technique for playing the instrument, but I have also seen how speaker key technique can actually hinder a student's technical progress. It can encumber fast playing and sometimes leads to flicking/venting notes that really do not need to be. Care must also be taken to recognize that the speaker keys can produce very different pitch results for different people, depending on embouchure, instrument, and especially reed design.” - *Dr. Ryan Romine, Associate Professor of Bassoon, Shenandoah Conservatory.*⁷²

“I think every new bassoon made should include the Weisberg system. The bassoon just hasn't kept up with other wind instruments. The bassoon is just a baroque instrument with more keys and a larger bore than the baroque model...” - *Joel Kleinbaum, Information Technology Professional, freelance bassoonist.*⁷³

⁷¹ *Speaker Key Responses* rows 20, 34, and 69, column AB.

⁷² *Speaker Key Response* row 108, column AB.

⁷³ *Speaker Key Response* row 69, column AB.

“Speaker keys shouldn't even be up for debate anymore. Band directors and methods teachers should know and teach these things to bassoonists.” - *Jolene Masone, professional musician, private bassoon teacher, Dallas, Texas.*⁷⁴

⁷⁴ *Speaker Key Response* row 72, column AB.

CONCLUSIONS ON THE SURVEY

The speaker key technique is not viewed the same by all bassoonists. After reviewing the responses to the survey, there are three different points of view that have been discussed: 1) speaker keys are necessary, 2) whatever works as long as the notes speak clearly, or 3) the Weisberg system should become standard as it eliminates the need for the speaker keys. As discovered in the responses, the majority of participants believe that using the speaker keys regularly, or even as part of the standard fingering, is currently the most effective method for establishing appropriate technique.

After agreeing that the use of speaker keys is essential, the correct terminology is still up for debate. When teaching beginning bassoonists, should they flick or vent? Even if the term “flick” is used, is venting still utilized? Again, as Herzberg mentioned, some words have negative connotations and teachers must consider the terms they use when discussing the technique. Finally, after it has been decided to use the keys with the correct terminology, *when* should a specific key be used? After perusing the survey and the variations presented with each response, one can imagine how difficult learning this technique could be for a beginning bassoonist, particularly if there are no private instructors in sight.

The greatest concern that can be observed from the survey is that, even with similar responses, any common ground shared with speaker keys and experiences with them is quite minimal. This survey can be a very useful tool for the bassoonist that has beginning students, as they can observe the trials and errors already experienced by others, and from there the best route to teaching that new student can be formed. Teachers

and performers have a great deal of responsibility in consistently relaying this information to their students, not allowing them to stray from the correct technique that is trying to be established. More teachers and performers must utilize similar online resources and forums that this survey was submitted to. By doing so, a greater line of communication can be built between two of the most equally important elements of a young bassoonist's growth. Considering these various elements, in addition to the responses gathered in questions fourteen and fifteen, it is clear that a speaker key method should be created to assist in establishing more common ground between performers, teachers, and their students.

CHAPTER VI

PROPOSED SPEAKER KEY METHOD

This chapter is dedicated to a proposed method specialized in teaching the bassoon speaker keys. Based on the survey responses, the method allows the bassoonist and teacher to begin using the speaker keys with the venting and flicking technique. Additionally, there are large, clear fingering diagrams to accurately illustrate how to finger the notes appropriately. The content of the method has been kept simple and straightforward: understandable rhythms, a focus on only a few notes per exercise, and encouraging reminders. This is based on the many survey responses that indicated that they wished they had learned the technique much earlier in their bassoon education, such as in elementary or middle school. If techniques and repertoire are included that a high school or college student would see, the purpose would be lost and the beginning bassoonist would be too overwhelmed.

After the introduction, the exercises introduce each speaker key with its respective pitches. The A speaker key focuses on A, the C key focuses on Bb, B, and C, and so on. There are exercises that ascend to the speaker key note so that the student builds the technique of leaving the whisper key to use the speaker key. This motion is built upon by slow tempos, instructions on how to move the thumb during the exercise, and encouragement to keep the motion smooth and steady. Based on user responses, the method book has great potential to be a learning tool for beginners as well as something

that can be built upon, incorporating segments of standard bassoon literature and describing the technique in greater detail for advanced players.

In addition to the online PDF version,¹ the majority of survey participants indicated the usefulness of an audio and visual component. The audio portion could actually be performances of exercises from the method. The visual portion could include video of a bassoon specialist clearly demonstrating and explaining the technique. Through careful development, the different parts of the method would complement each other perfectly. Then it would then be most beneficial for beginning bassoonists who are learning to build their technique. The following pages present the notated version of the proposed method book.

¹ The PDF of the Speaker Key Method can be found at <http://www.codyhuntermusic.com/speaker-key-tutor/>.

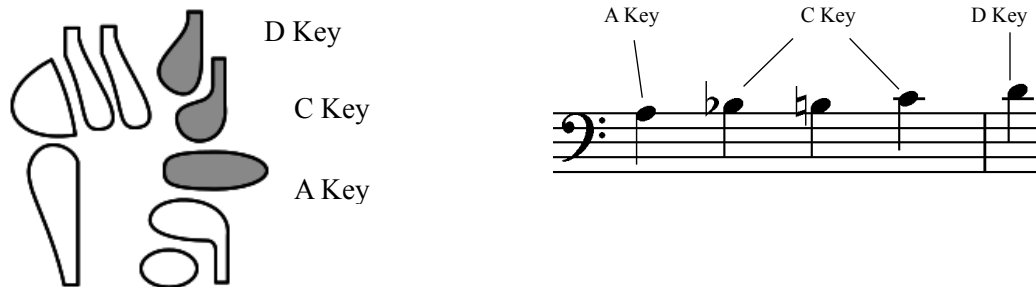
The Speaker Key Tutor

Thoughts on How to Maneuver Through the Speaker
Key Technique

Cody Hunter

The Bassoon Speaker Keys

The bassoon contains three keys that are essential in building a good technique and producing the correct sounding note (one that does not crack). These are known as “speaker keys,” though they may also be referred to as “flick” or “vent” keys. These keys are used to allow for clean articulations in this particular range and to assist with slurs. Basically, they are three octave keys for the bassoon. The two examples below outline the keys and the notes that they are associated with:

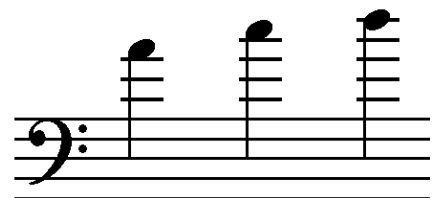


The A Key: This key is specifically for the A on the top line of the bass clef (A3). Provides the best sound when used, more so than the C or D key.

The C Key: Works the best for Bb3, B3, and C4 (the notes directly above A3). This key *also* works for A3. When technically challenging musical passages use combinations of these 4 notes (especially if they are articulated), the sole use of the C key may be easier than jumping between the two.

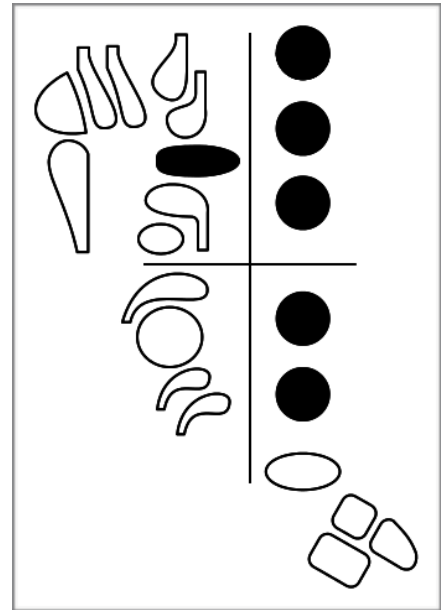
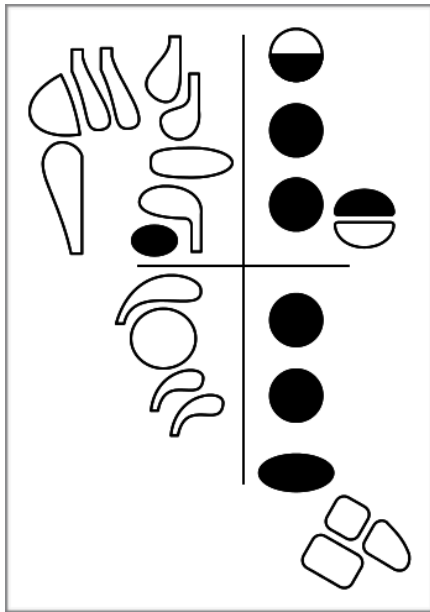
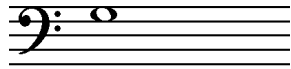
The D Key: Depending on the bassoon, bocal, and reed, the note D4 may not need to be articulated with the D speaker key. However, having the technique to do so would benefit any bassoonist. Some fast musical passages may contain all of the notes described above, in which case the D speaker key may be the best option, as it works well for all of the notes in this range.

The speaker keys are actually intended to play the high notes with the same name: A4, C5, and D5 (pictured to the right). The Viennese School of bassoon playing found that using the three keys improves the articulation of the above mentioned notes, and incorporated them into their standard fingerings.



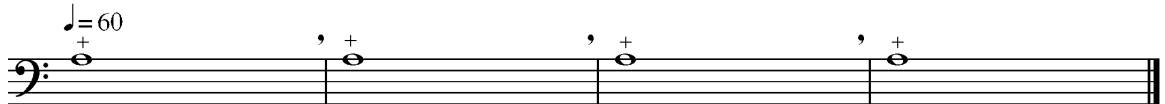
The A Key

The following exercises will be focusing on the A speaker key and the note A3. You will also be using G3 as you work on ascending to A3. Consider the following fingerings for these notes:

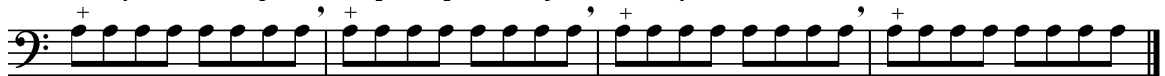


Exercises for A

The following exercises will allow you to focus on using the *A* speaker key on only the note A. Sustain the note both by depressing the key while articulating and then release (flick), and then try holding the key down for the duration of the note (vent). Make sure that each note begins with a clear articulation. Use a tuner to ensure that the pitch is centered right at the beginning and a metronome to keep consistent time. It is essential that the A is voiced properly, particularly as the note values get smaller.



With faster moving notes, keep the speaker key held down for each measure.



For the following exercise, use both the flick and vent method for longer note values and the vent method for shorter note values.



5

Exercises Ascending to A

The following exercises will allow you to ascend to A using the *A* speaker key while moving your thumb away from the whisper key. The “release” symbol (circle) is to signal when your thumb should depart from the whisper key, and the “vent” symbol (plus sign) signals when our thumb should depress the appropriate speaker key.

$\text{♩} = 60$

The first six staves contain exercises with the following features:

- Staff 1: Quarter notes with release symbols (circles) above them.
- Staff 2: Quarter notes with release symbols (circles) above them.
- Staff 3: Quarter notes with vent symbols (plus signs) above them.
- Staff 4: Quarter notes with vent symbols (plus signs) above them.
- Staff 5: Quarter notes with vent symbols (plus signs) above them.
- Staff 6: Quarter notes with vent symbols (plus signs) above them.

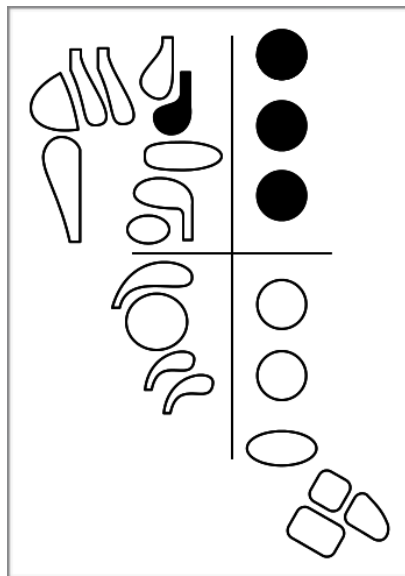
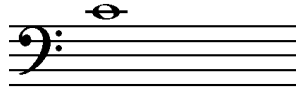
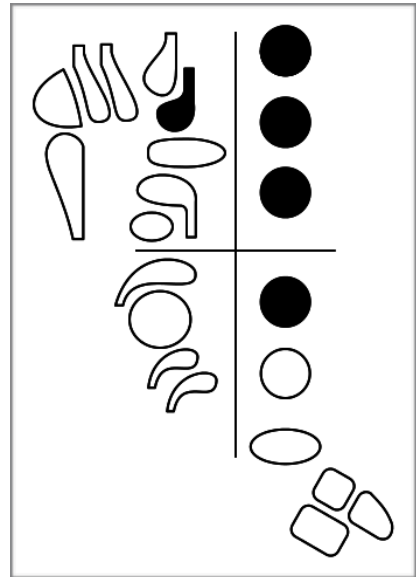
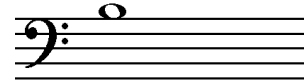
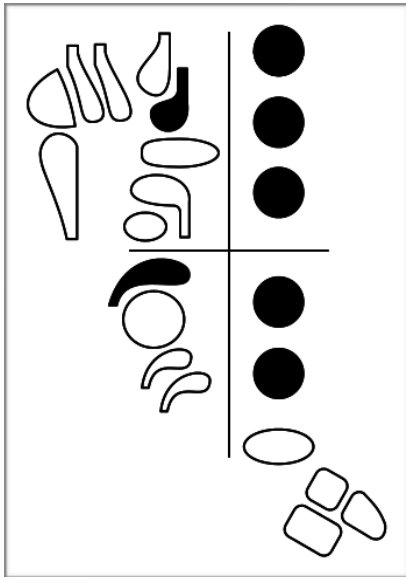
The seventh staff contains an exercise with the following features:

- Quarter notes with vent symbols (plus signs) above them.
- A slur over a series of eighth notes.
- The word *simile* above the eighth notes.

For this exercise, flick on quarter notes, and vent on eighth notes.

The C Key

The C key will be used for Bb3, B3, and C4. You may also use it for A3 depending on what the musical passage calls for. For the purposes of the following exercises, A3 will not be included. The following fingerings will assist you for using the C speaker key for the correct notes:



Exercises for Bb and B

Now that the use of the A key is more comfortable, the C key can now be added. When working with Bb and B, continue to focus on the smooth action of your thumb as it operates the C speaker key. The tone should be full and resonate, being checked with a tuner, as the speaker keys will cause the pitch to rise. The following exercises will allow you to focus on Bb and B, making them speak clearly with excellent tone.

$\text{♩} = 60$

Remember to keep using both the flick and vent method while using the C speaker key.

simile

simile

simile

simile

simile

6

8

Exercises Ascending to Bb and B

These exercises will allow you to work on a smooth thumb technique that is not hurried, particularly as the intervals begin to get larger. The sound should continue to be resonant and full. Keeping a steady pulse with a metronome will help with the timing of the finger motions. Remember, the open/release symbol (circle) and the vent symbol (plus sign) when beginning these exercises. Alternate between the flick and vent method and between playing a Bb or B natural.

$\text{♩} = 60$

Alternate between Bb and B natural

Try slurring each measure while using the speaker keys.

simile

simile

Exercises for C

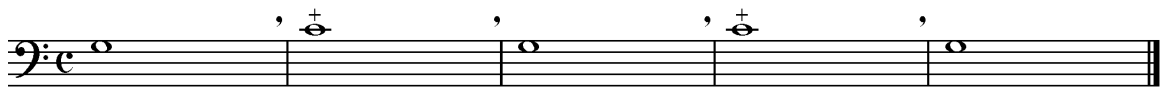
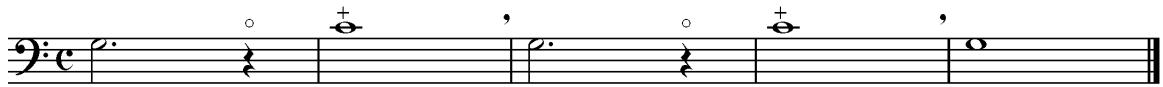
Now the C key can be used to play the note C (C4). The below exercises will allow you to focus on articulating the C with the correct speaker key. When working with C, continue to focus on the smooth action of your thumb as it operates the C speaker key. The tone should be full and resonate, being checked with a tuner, as the speaker keys will cause the pitch to rise. The following exercises will allow you to focus making C speak clearly with excellent tone.

The exercises are written in bass clef with a common time signature (C). The tempo is marked as $\text{♩} = 60$.

- Exercise 1: Four quarter notes, each with a '+' above it, indicating finger placement.
- Exercise 2: A sequence of quarter notes starting with a '+' above the first, followed by a comma and the word *simile* above the second, indicating a similar articulation.
- Exercise 3: A sequence of quarter notes starting with a '+' above the first, followed by a comma and the word *simile* above the second.
- Exercise 4: A sequence of eighth notes starting with a '+' above the first, followed by a comma and the word *simile* above the second.
- Exercise 5: A sequence of sixteenth notes starting with a '+' above the first, followed by a comma and the word *simile* above the second.
- Exercise 6: A sequence of quarter notes starting with a '+' above the first, followed by a comma and the word *simile* above the second.
- Exercise 7: A sequence of eighth notes starting with a '+' above the first, followed by a comma and the word *simile* above the second.

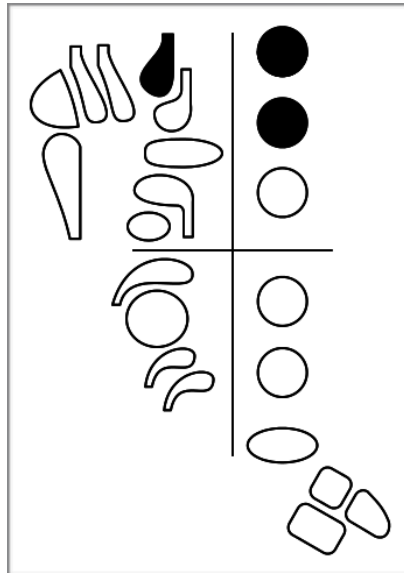
Exercises Ascending to C

Use the same techniques you have been learning with A and B here. Focus on a smooth thumb technique, resonant tone, and steady pulse. Continue to use your metronome and tuner for these exercises. Remember to stay relaxed, especially when the intervals continue to get larger. Even when the notes get further apart, your thumb still moves the same distance!



The D Key

The D speaker key is the last key to be introduced. Remember, the speaker *can* be used for all of the notes in the speaker key range, but these exercises will focus only on the note D4. This note may not always need the speaker key for it to be articulated cleanly, but having it built into your technique is beneficial. The following fingering will help you with learning the technique:



Exercises for D

The A key and C key have both been used so far, and now the D key is the last one to be introduced. Depending on your reed, vocal, and instrument, the note D4 may not have an issue being articulated *without* the speaker key. However, there may be moments when the key is needed, especially if one of the three items mentioned are not on their best behavior (reeds, especially!). Practice using the D key for D4, flicking and venting, with the exercises below. Continue using a metronome and tuner!

$\text{♩} = 60$

The exercises are as follows:

- Exercise 1: Four quarter notes on the D line (D4), each with a speaker key symbol (a small circle with a cross) above it.
- Exercise 2: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a quarter note on E4, and then a series of eighth notes on D4 (with speaker key) and E4.
- Exercise 3: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a series of eighth notes on D4 (with speaker key) and E4.
- Exercise 4: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a series of sixteenth notes on D4 (with speaker key) and E4.
- Exercise 5: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a series of sixteenth notes on D4 (with speaker key) and E4.
- Exercise 6: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a quarter note on E4, and then a series of eighth notes on D4 (with speaker key) and E4.
- Exercise 7: A sequence of notes starting with a quarter note on D4 (with speaker key), followed by a series of sixteenth notes on D4 (with speaker key) and E4.

Exercises Ascending to D

Remember, the same techniques used for A, B, and C are to be applied for D. Focus on a smooth thumb technique, resonant tone, and steady pulse. Continue to use your metronome and tuner for these exercises so that the motions can be paced appropriately. As the intervals become larger, stay relaxed and allow your fingers to comfortably maneuver across the keys.

The exercises are written in bass clef, common time (C), with a tempo marking of ♩ = 60. The exercises are as follows:

- Exercise 1: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 2: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 3: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 4: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 5: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 6: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 7: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 8: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 9: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.
- Exercise 10: A series of eighth notes with fingerings 1, 2, 3, 4, 5, 4, 3, 2, 1. The notes are G2, A2, B2, C3, D3, C3, B2, A2, G2.

CHAPTER VII.

FINAL CONCLUSIONS

When preparing to embark on a research project that literally encompasses three keys on an instrument with so many others, the question of “Is this really that important?” is bound to come up. With so many topics and issues related to the bassoon (reeds, the vast library of fingerings, long lost composers, and so on) how valid can the topic of bassoon speaker keys actually be? One of the fastest indicators that “Yes! It most certainly is!” would be to review the 114 survey responses from the bassoonists that submitted them. For a concept that may not appear to be that big of a deal, there is evidence of great controversy between all of the responses. Had the majority of responses been answered the same for the questions proposed, that would have halted the research process. However, there was such a wide variety of responses, particularly in how the bassoonists felt about learning or teaching the speaker keys. Now it is clear to see what the issue is: the same varied responses and perceived levels of importance on the speaker keys would be the same that beginning bassoonists are receiving. Teachers of the beginning bassoonist must not forget that the speaker keys *are* a part of the technique. When preparing a student for an honor band audition, or a during lesson that is focusing on scales or repertoire, the left hand thumb must be a part of the process. If common ground cannot be reached on this matter, then beginning bassoonists will continue to neglect their speaker keys until they study privately or get to a college studio.

Furthermore, these pages may introduce masters of the bassoon yet unheard of to some, along with reacquainting others with familiar names and teaching practices that hadn't thought of for some time. As performers, the anxiety of winning a job, the need to practice endlessly, or to just re-evaluate life in general, can create tunnel vision. When this happens, the true reason why performers do what they do disappears beneath the fiery surface of the desire for success, along with our bassoon heroes who inspired us with their sounds and ideas. Discovering and exploring the topic of speaker keys introduced Frederick Moritz, Norman Herzberg, Don Christlieb, and Arthur Weisberg. Through these names, the Columbia Symphony and Bruno Walter appear, along with the masterful performance of Beethoven's Fourth Symphony. The old soundtrack recordings from 20th Century Fox and other Hollywood studios could be looked up or listened to a little more closely for the bassoons. Whether it is through listening or reading, reconnecting with these bassoon pioneers is reason enough to apply the technique. If professionals like Moritz and Herzberg used speaker keys, wouldn't we want to consider it a worthy cause for discussion? If Weisberg created a groundbreaking method to improve the bassoon, wouldn't we want to invest in those ideas for the future of the instrument? If nothing else, perhaps these pages can serve as a call to arms, to get bassoonists of all levels more engaged in the instrument they play through the help of their teachers.

The speaker keys *are* essential to have as part of the technique on the bassoon. According to the survey responses, either one uses the speaker keys or has the Weisberg system. Beyond those two options, there are currently no other reasonable solutions that

provide consistency in the technique. The proposed method book that this project includes is not yet meant to serve as a fully fledged method, but rather as a supplemental tool to help bassoonists learn the technique early on in their training. Professional musicians and instructors, particularly those with beginners, must continue keeping an eye on the left hand thumb of their students. By doing so, they receive the proper bassoon education they need to be successful. Through this process they become the best bassoonists they can be, which is a pretty reasonable outcome given that is only three keys.

In speaking on career development and his students, Norman Herzberg wrote the following: “Their reward can be a vigorous and satisfying life of work; ours will be more than just satisfaction in our contributions to their careers. It will be the knowledge gained in teaching them and the stimulus and purpose their ambitions have contributed to our lives.”¹

¹ Norman Herzberg, "Career Development: Generating the Art," *The Double Reed* 13, no. 2 (1990), <http://www.idrs.org/publications/controlled/DR/DR13.2/DR13.2.index.html> (accessed January 19, 2015).

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APPENDIX A

THE SURVEY QUESTIONS

The following are the survey questions that were open for the participants to answer online. This also includes information and the consent request that was presented at the very opening of the survey. All participants who submitted responses answered “yes” although not all included their name at the end. The survey questions are included here in the appendix to give the reader a complete perspective of how the survey was presented.

The following survey is a part of a research project being assembled by Cody Hunter, Doctoral candidate at the University of Memphis, and bassoonist. The purpose of the survey is to ask bassoon players, of at least 18 years of age and of any ability level, their experiences with using the bassoon speaker keys. You will be asked to answer questions about your profession, playing level, instrument of choice, teaching and learning experiences, and to include additional information for each response if you so choose. The link provided will take the subject to an online survey where you can answer each question and then submit the survey. The estimated time needed to complete this survey is roughly 10 minutes, but may take longer depending on if additional information is added to any response. The survey only requires the selection of options for each question or light typing. If you experience any hand or eye discomfort, exit out of the survey and return to it at a later time. The submitted responses will not only assist in obtaining general information about how bassoon is taught but will also shape the education of future bassoonists. As a participant, you will be asked to include your name for the sole purpose of credit being given to your responses. Otherwise, there is no obligation to provide any personal data for the survey. The survey submissions will be used by the lead investigator only, and will not be used in any other capacity than to complete the research for the Doctoral project. The survey is voluntary and the participant may discontinue it any time. If the survey is already submitted and you no longer wish for it to be used, contact the lead investigator at cshunter@memphis.edu to withdraw your submission. If you have questions regarding your rights and this survey, please contact (OMIT), Administrator for the Institutional Review Board for the Protection of Human Subjects. (OMIT) can be contacted via e-mail at irb@memphis.edu or by phone at 901-678-2705. The University of Memphis does not have any funds budgeted for compensation for injury, damages, or other expenses. Indicate below that you are at least 18 years of age and that you consent to participate in the survey.

I have read the above description and give consent to participate. I also confirm that I am at least 18 years of age.

Yes, I give consent to participate and am 18 years of age.

1. What is your profession?

- a. Instrumental music teacher
- b. Professional musician (full time)
- c. University/collegiate instructor
- d. University/collegiate student (music education, performance)
- e. Other (music enthusiast)

Additional comments:

2. How long have you been playing or studying the bassoon?

- a. 0-4 years
- b. 5-8 years
- c. 9-12 years
- d. 13 or more years

Additional comments:

3. What make of bassoon do you perform on?

- a. Fox, Renard.
- b. Heckel
- c. Yamaha
- d. Moosman
- e. Other (please list):

Additional comments:

4. How would you best describe the general shape of your bassoon reeds? If you know the specific shape, please list under "other."

- a. Narrow
- b. Medium
- c. Wide
- d. Not sure
- e. Other:

Additional comments:

5. In what capacity did you take lessons on bassoon? Check all that apply.

- a. Privately (not affiliated through a university/collegiate setting).

- b. Through my K-12 band teacher.
- c. In a music education methods course.
- d. As part of a studio at a college or university.
- e. Did not take lessons, self-taught.
- f. Other:

Additional comments:

6. Indicate the general school age group in which you first learned about bassoon speaker key technique.

- a. 6th grade or earlier
- b. 7th-8th grade
- c. 9-12th grade
- d. University/College
- e. Other:

Additional comments:

7. List the method books you used or were assigned when you were learning the basic technical fundamentals (including the use of speaker keys, if possible) of the bassoon:

Additional comments:

8. Briefly list or describe the positive or negative aspects that you experienced while learning the technique of speaker key usage:

9. If applicable, list the method books you would assign/recommend to your bassoon student to learn the basic technical fundamentals (including the use of speaker keys, if possible) of the bassoon:

10. If applicable, briefly list or describe the positive or negative aspects that you experienced while teaching the speaker key technique to a bassoon student.

11. What is the appropriate time a new student should learn to use the speaker keys?

- a. As soon as the corresponding notes are introduced.
- b. After the student has been playing for at least a year.
- c. When the student studies at a collegiate level.
- d. Other:

Additional comments:

12. In your opinion, how should a new student learn about the speaker keys? Check all that apply:

- a. With a private instructor

- b. With a band/instrumental music instructor
- c. Through a method book
- d. On their own
- e. Other:

Additional comments:

13. When considering the usage of the speaker keys on the bassoon, do you refer to it as:
- a. Flicking
 - b. Venting
 - c. Snipping
 - d. Other:

14. In your opinion, would a new, specialized method book focusing on speaker key technique be a useful addition to the bassoon repertoire?
- a. Yes
 - b. No
 - c. Unsure

Additional comments:

15. In your opinion, would an online audio/visual resource be useful? This would allow beginning students to watch videos and hear audio that pertains to speaker key technique.
- a. Yes
 - b. No
 - c. Unsure

Additional comments:

16. Please feel free to add any final comments or thoughts that would benefit this survey:

17. Name, Location, Occupation. Optional, to be recognized in the project, please include your information.

APPENDIX B

THE LIST OF SURVEY PARTICIPANTS

The following is the complete list of participants who submitted responses to the *Speaker Key* survey. In order to maintain the original list, the term “no entry” implies that the participant did not wish to leave their information. As stated in the original survey, leaving this information was entirely optional and was only included for the purposes of giving full credit to those who submitted a response. The reader will notice the diverse population of bassoonists, some with very interesting occupations beyond performance.

1. James Gruber, Student, Memphis, Tennessee
2. Dr. Trent Jacobs, Minneapolis, Minnesota
3. Dylan Myers, graduate studies at Michigan State University
4. David Wells, Lecturer of Bassoon, California State University, Sacramento
5. Becca Weinhold, Director of Operations, Brooklyn, New York
6. Stephanie Busby, Professor of Bassoon, University of Massachusetts at Lowell
7. No entry
8. Kayla W., teacher, Plymouth, Indiana
9. No entry
10. No entry
11. No entry
12. Location: Atlanta
13. Melissa Sheets-Nygard, Army bassoonist, Fort Sill, Oklahoma
14. Nicole Neeley, collegiate bassoonist, Memphis, Tennessee
15. Ben Smith, Musician 3rd Class, Navy Band Great Lakes, Illinois
16. Steve Brown, retired Navy musician, Fort Walton Beach, Florida
17. No entry
18. Jordana Berryman
19. Tiffany Schmidt, private bassoon instructor, Medford, Oregon
20. No entry
21. Brynn Newcomb, Army musician, Virginia Beach, Virginia
22. No entry
23. Shawn Jones, freelance musician, Oakland, California
24. No entry
25. No entry
26. Emma, Australia

27. Cory Jones, freelance bassoonist, Winston-Salem, North Carolina
28. No entry
29. Scott Miller, Instructor of Bassoon, Nicholls State University, Baton Rouge, Louisiana
30. No entry
31. Laura Sheldon, Second Bassoon, International Symphony Orchestra, Port Huron, Michigan
32. Donna Foley, private teacher, Dallas, Texas
33. Dr. David Oyen, Professor of Bassoon, Morehead State University, Kentucky
34. Mercedes Sanchez, Third Bassoon/Contra, National Symphony Orchestra of Costa Rica
35. No entry
36. No entry
37. Dr. Robert Bedont, Salt Lake Community College, Utah
38. Janet Harris, professional bassoonist and teacher, Tampa, Florida
39. No entry
40. Matt Nickel, Second Bassoon, Red Deer Symphony Orchestra, Alberta, Canada
41. Dr. Susan Hess, Instructor of Bassoon, Colorado Mesa University
42. No entry
43. Alexander Onieal, bassoonist, Librarian of the New Mexico Philharmonic
44. No entry
45. Dr. Allison Buck, bassoonist
46. John McDougall, professional bassoonist, London, United Kingdom
47. Eric Tyler Barga, collegiate bassoonist, New England Conservatory, Boston, Massachusetts
48. Kyle Sneden, freelance and collegiate bassoonist, Colorado
49. Sarah Cordish, bassoonist, Israel
50. Dr. Jason Worzbyt, Professor of Bassoon, Indiana University of Pennsylvania
51. Dr. Eric L. Ring, Adjunct Professor of Music, Webster University, St. Louis, Missouri
52. No Entry
53. Michael G., Retired CSO, Dallas-Fort Worth, Texas
54. Mike Muszynski, Second Bassoon, Indianapolis Symphony
55. Alyssa C., freelance bassoonist, Canada
56. No entry
57. Dr. Patricia Holland, Teacher of Bassoon, University of Wisconsin-Stevens Point
58. Edward Kurpis, Baldwin, New York
59. Kelsey Weber, professional musician and adjunct at Florida A & M University
60. Gregory Caldwell, freelance musician and pipe organ builder, St. Louis, Missouri
61. Kevin R. Eberle, freelance bassoonist, Las Vegas, Nevada
62. No entry
63. David Savige, Second Bassoon, Virginia Symphony Orchestra
64. Maxim, psychologist, Washington, D.C.
65. No entry

66. Tom Bittinger, Principal Bassoon, Fort Collins and Cheyenne Symphony Orchestra
67. Ian White, United Kingdom
68. Joel Kleinbaum, freelance bassoonist and web developer
69. Margaret P. Fay, professional bassoonist, London, Ontario, Canada
70. No entry
71. Jolene Masone, professional musician and private bassoon teacher, Dallas, Texas
72. No entry
73. No entry
74. Andrew W. Parent, student at University of North Texas
75. Sarajane Hansen, bassoonist, Sydney, Australia
76. No entry
77. Shawn Seguin, freelance bassoonist and teacher, Dallas/Fort Worth, Texas
78. No entry
79. Harry Guenther, community musician, Columbia, Maryland
80. Austin Storm, student
81. Leonard Martin, private double reed teacher, Denton, Texas
82. David Huber, Radiation and Explosives Safety Manager, Houston, Texas
83. Perry Carter, graduate student and instrumental teacher, Christchurch, New Zealand
84. No entry
85. No entry
86. Stephanie Corwin, professional bassoonist, New York City, New York
87. Joshua Cohen, collegiate bassoonist, Trinity University
88. No entry
89. No entry
90. Katie Bauernfeind, bassoonist
91. Randolph McVicker, amateur bassoonist and instrument repair, Benicia, California
92. Joseph Michael Tomasso, woodwind instructor, Cincinnati Music Academy
93. Christopher Kostyshyn, graduate bassoon student, McGill University
94. Timothy, ISP support officer and bassoonist, Adelaide, Australia
95. Phoebe Stewart, student, University of Florida
96. No entry
97. No entry
98. Dr. Michael Burns, Bassoon Professor, University of North Carolina at Greensboro
99. Alex Davies, student, Chicago, Illinois
100. Sheryl Wittig, elementary music teacher, Juneau, Alaska
101. Sterling Strickler, Chief Musician, Navy Band Northwest, Silverdale, Washington
102. No entry
103. Aura Trevino, Texas
104. Roger Soren, bassoonist and teacher, Colorado Symphony and University of Denver
105. James Schaeffer, Director, Center for Contemporary Opera, New York City, New York
106. Rick Shepard, woodwind repair technician, Kittery, Maine
107. Dr. Ryan Romine, Associate Professor of Bassoon, Shenandoah Conservatory

108. Dr. Shannon Lowe, Associate Professor of Bassoon, Valdosta State University, Georgia
109. No entry
110. Ina Foster, Columbus, Ohio
111. James B. Nesbit, professional woodwind artist, Virginia
112. Benjamin Coehlo, bassoonist and teacher, University of Iowa
113. Jordan Cavitt, professional musician, Elkhart, Indiana
114. John Miller, Principal Bassoon, Minnesota Orchestra

APPENDIX C

LIST OF METHODS FROM QUESTIONS SEVEN AND NINE OF THE SURVEY

The following list contains method or etude books listed by the participants of the *Speaker Key Survey*. This list can also serve as a reference to the reader for methods or etudes to consider for their students or themselves. In some instances, the participant did not list any specific titles but only the name of the composer. When this was the case, the Trevco Varner Music website (www.trevcomusic.com) was referenced in order to obtain the most relevant titles for that particular composer.¹ The appropriate footnotes will include the necessary information. Each title denoted with one of three particular symbols: *(P)* indicates that it is a method used by the participant, *(S)* indicates that it is a title the participants have their students use, and *(B)* indicates that the title appeared in both lists.

Allard, Maurice: *Bassoon Method (P)*

Almenraeder, Carl: *Scale Exercises in All Keys (B)*
(also found in *Weissenborn Method, rev. by Fred Bettoney*)

Bitsch, Marcel: *20 Etudes for Bassoon (P)*

Bona, Pasquale: *Rhythmical Articulation Studies for Bassoon (P)*

Bourdeau, Eugene: *Thirty Etudes² (P)*

Bozza, Eugene: *12 Caprices for Bassoon (P)*

¹ Permission to reference trevcomusic.com granted by Eric Varner, September 2015.

² Though Bourdeau has several works out for bassoon, his collection of etudes seemed most relevant for the purposes of this list.

Braun, Jean-Daniel: *Solos for Bassoon* (S)

Curtis, Mike: *New Millenium Bassoon Method* (S)

Dietz, William: *Teaching Woodwinds: A Method and Resource Handbook for Music Educators* (B)

Ferling, Franz: *48 Famous Studies, Op. 31* (P)

Gambaro, Giovannia: *18 Studies for Bassoon* (P)

Gatti, Nazzareno: *22 Grand Exercises for Bassoon* (P)

Giampieri, Alamiro: *16 Daily Studies and Progressive Method for Bassoon*³ (B)

Hawkins, Alan: *Melodious and Progressive Studies for Bassoon*⁴ (P)

Huddleston, Cheryl Ann: *Foundations for Success* (S)

Hurfurth, C. Paul: *A Tune A Day for Bassoon* (P)

Irvin, Wade: *Tenor Clef* (S)

Jancourt, Eugene: *26 Melodic Studies for Bassoon, Op. 15* (B)

Jensen, Kristen Wolfe: *musicandthebassoon.org*⁵ (S)

Klutsch, Georg: *Bassoon Fundamentals* (S)

Kovar, Simon: *24 Daily Studies* (S)

Krakamp, Emanuele: *Method for Bassoon* (P)

Lautzenheiser, Tim: *Essential Elements 2000 Band Method, bassoon* (P)

Milde, Ludwig: *Scale Studies in All Keys, Op. 2* (B)
(also found in *Weissenborn Method, rev. by Fred Bettoney*)

³ The specific Giampieri was not listed.

⁴ The specific Hawkins book was not listed, but could be book one or book two.

⁵ An online bassoon method developed by Ms. Jensen.

Milde, Ludwig: *50 Concert Studies, Op. 26* (B)

Orefici, Alberto: *20 Melodic Studies and Bravoura Studies for Bassoon*⁶ (B)

Ottman, Robert: *Music for Sight Singing*⁷ (S)

Oubradous, Fernand: *Enseignement Complet du Bassoon*⁸ (B)

Ozi, Etienne: *42 Caprices, Popular Method, New Method for Bassoon ed. by Jeff Lyman* (S)⁹

Pearson, Bruce: *Standard of Excellence Band Method, bassoon* (P)

Piard, Marius: *90 Studies for Bassoon*¹⁰ (B)

Pivonka, Karel: *Bassoon Tutor, Little Etudes, Rhythmical Etudes, Virtuoso Etudes*¹¹ (P)

Satzenhofer, Julius: *24 Studies and Method for Bassoon*¹² (S)

Seltmann, Werner: *Das Fagott*¹³ (B)

Slama, Anton: *66 Studies for Bassoon* (P)

Spaniol, Doug: *The New Weissenborn Method for Bassoon* (B)
(based on original Weissenborn method)

⁶ The specific Orefici study was not listed.

⁷ Survey response from Leonard Martin, suggests using the Ottman as a method for reading in different clefs and for using the speaker keys.

⁸ As listed on Trevco-Varner Music (trevcomusic.com), there are three volumes of the Oubradous method. The specific method was not listed in the responses.

⁹ The specific Ozi was not listed. The titles included are the methods relevant to the study.

¹⁰ Piard also composed the *16 Characteristic Studies for Bassoon*. The specific method was not listed in the responses.

¹¹ The specific Pivonka study was not listed.

¹² The specific method from Satzenhofer was not listed. The two titles included here are the most relevant for the purposes of the survey.

¹³ As listed on Trevco-Varner Music, there are six volumes of the Seltmann method. The specific volume was not listed in the responses.

Valet, Albert: *Twenty Studies for Bassoon (B)*

Voxman, Himie: *Intermediate and Advanced Method for Bassoon*¹⁴ (B)

Weait, Christopher: *Bassoon Intervals for Reading, Bassoon Scales for Reading, Bassoon Strategies for the Next Level, Bassoon Warm Ups*¹⁵ (B)

Weissenborn, Julius: *Method for Bassoon, rev. by Fred Bettoney (B)*

¹⁴ Commonly listed as the *Rubank* method. Rubank is actually the publisher, while Voxman composed the methods.

¹⁵ The specific Weait method was not listed. The titles included here are the most relevant to the purposes of the survey.

APPENDIX D

UNIVERSITY OF MEMPHIS INSTITUTIONAL REVIEW BOARD APPROVAL

Hello,

The University of Memphis Institutional Review Board, FWA00006815, has reviewed and approved your submission in accordance with all applicable statutes and regulations as well as ethical principles.

PI NAME: Cody Hunter

CO-PI:

PROJECT TITLE: The Study and Use of Bassoon Speaker Keys

FACULTY ADVISOR NAME (if applicable): John Baur

IRB ID: #3703

APPROVAL DATE: 06/29/2015

EXPIRATION DATE:

LEVEL OF REVIEW: Exempt

Please Note: Modifications do not extend the expiration of the original approval

Approval of this project is given with the following obligations:

- 1. If this IRB approval has an expiration date, an approved renewal must be in effect to continue the project prior to that date. If approval is not obtained, the human consent form(s) and recruiting material(s) are no longer valid and any research activities involving human subjects must stop.**
- 2. When the project is finished or terminated, a completion form must be completed and sent to the board.**
- 3. No change may be made in the approved protocol without prior board approval, whether the approved protocol was reviewed at the Exempt, Exedited or Full Board level.**
- 4. Exempt approval are considered to have no expiration date and no further review is necessary unless the protocol needs modification.**

Approval of this project is given with the following special obligations:

Thank you,

(OMIT)

Institutional Review Board Chair

The University of Memphis.

Note: Review outcomes will be communicated to the email address on file. This email should be considered an official communication from the UM IRB. Consent Forms are no longer being stamped as well. Please contact the IRB at IRB@memphis.edu if a letter on IRB letterhead is required.