

## Articulation on Bassoon: Should the Jaw Move?

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One of the most prized aspects of the bassoon is the manner in which the instrument enunciates short notes. Indeed, the aural characterizations in Dukas's *Sorcerer's Apprentice* and in Prokofiev's *Peter and the Wolf* (the grandfather) owe much of their impact to the snap of the bassoon staccato. The orchestral repertoire of the last two centuries reveal that other composers have delighted in the bounce of the bassoon staccato as well. There is a certain irony, however, in this preferred use of the instrument. Although composers almost universally recognize the unique sound of the bassoon staccato, there is not a consensus among performers as to how to produce it: some move their jaws during articulation, others do not. Is jaw movement essential, superfluous, or detrimental to the production of clean staccato notes? Is this matter of personal preference, or do certain characteristics of the instrument dictate a proper approach to the bassoon staccato?

Any discussion of tone production on the bassoon should naturally start with the sound producer – the bassoon reed. The tubing and keys of the instrument itself only modify the sound of the reed. When we speak of the characteristics of the bassoon staccato in fact we are addressing properties of the bassoon reed itself: its manner of attack and decay, and its response to changes in the embouchure and breath support. Indeed, the bassoon reed produces a unique signature to each of the five ways of starting and stopping a note (front tongue “t” or “d” syllable, back tongue “k” or “g” syllable, glottis, embouchure, breath).

Figures 1-3 supply diagrams of pitch changes during the three most common methods of articulation on the bassoon. The reader is encouraged to verify these three figures with a reed on the bassoon bocal.<sup>1</sup> When producing the breath articulation, for instance, vary *only* the breath. Keep the embouchure, tongue position, and throat unchanged through the beginning, middle, and end of the note. The reader may wish to start with no air pressure then gradually increase pressure (to forte) then decrease until the tone stops. Likewise for Figure 2 change only the embouchure, starting and stopping the note with movement of the jaw.

Figure 1-2 indicate pitch fluctuations during changes of breath and embouchure.<sup>2</sup> The pitch rises when we increase air pressure on the reed, and it lowers when our breath support decreases.

Bassoon performers have also discovered that tightening the embouchure (rising the jaw) elevates the pitch and loosening the embouchure drops the pitch. Due to these pitch inflections, however, neither method of articulation-starting or stopping with the breath or embouchure- is satisfactory by itself. Although these pitch variations are less pronounced on the fully assembled bassoon than on a bocal with a reed, nevertheless they are especially audible on the unstable notes on the instrument (for instance, Bb above open F and C# below open F). A performer can stabilize the pitch by combining *both* breath and embouchure articulation, that is, stopping a note by closing off the embouchure with the jaw while the breath support decreases. This balance between embouchure and air is the foundation of all dynamic contrasts we make on the bassoon.

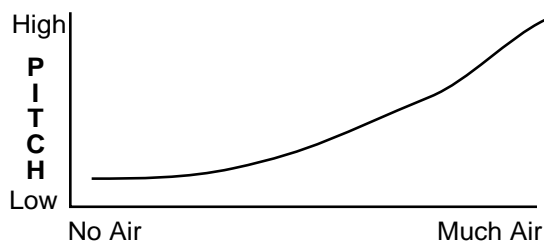


Figure 1. Breath Articulation

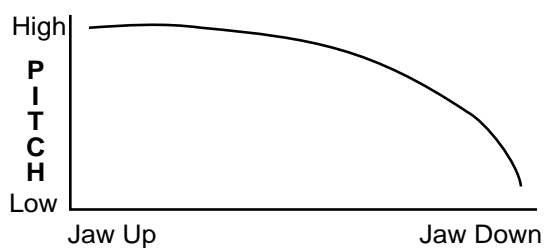


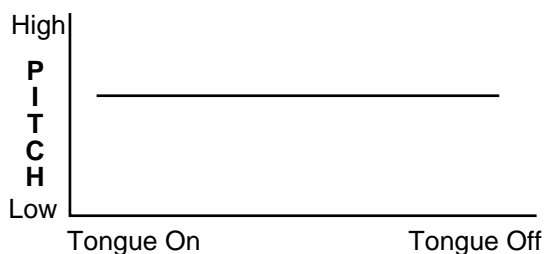
Figure 2. Embouchure Articulation

Problems arise, however, when a performer seeks to employ breath and embouchure to articulate rapidly changing notes. The jaw can swiftly move up and down, but the production of discrete bursts of air is lethargic at best. It is not possible to accurately balance jaw movement with breath pulses during rapid articulation. At faster speeds of articulation the air stream stops pulsating leaving only the jaw to move during the articulation of each note. As a result, each articulated note bears pitch inflections of the jaw articulation (Figure 2).

Given the pitch deviation or at best variation in

timbre during jaw movement, why would a performer continue “chewing the notes?” The response from advocates of jaw movement might be grouped into three categories: 1) notes articulate easier with jaw movement, 2) jaw movement improves the staccato character, and 3) jaw movement is a habit.

Many performers, and even beginners, have discovered that articulation in the low register of the bassoon may be aided by dropping the jaw while starting the note. Few have pondered why this is the case, however. The low register of the instrument demands a balance between the embouchure and breath support. If the embouchure is too tight, the notes will not respond. While jaw bouncing is one solution to low register response, it is not the only one. Mastering the proper balance between breath and embouchure in order to accurately start every note in every register at any dynamic may be difficult at first, but the long-term benefits quite outweigh the temporary inconvenience. If the notes “speak” with jaw movement, they will also start with an appropriate setting of the embouchure and air. Furthermore, the pitch and timbre are not varied when the tongue starts and stops the notes (Figure 3). More about this later.



**Figure 3. Front Tongue Articulation**

Staccato notes produced by jaw bouncing do indeed have a certain character, and conceivably a performer could want this attribute in choice passages. Jaw-bounced notes typically have “scoops” or upward slides at the ends of the notes. Rarely are there downward slides present at the beginning of the notes since the vast majority of bassoonists begin articulation with the front of the tongue. Most of the downward movement of the jaw at the beginning of the note is not heard—the tongue is still on the reed. While the inflection at the end of each note might be desirable in limited circumstances, the pitch instability alone should caution performers from employing jaw movement in most instances. The shorter the note, the more imperative pitch stability becomes. Fast-tongued passages need clarity above all, and even stac-

catissimo notes at slower tempo necessitate well-centered pitches to make the notes audible.<sup>3</sup>

Often, however, it is simply habit that entices a performer to continue jaw movement during articulation. A bassoonist who wishes to break the habit must make a conscious effort to learn a new method of articulation. This is not something which can be mastered in a day, a week, or perhaps even a month: progress will be slow at first. Often jaw bouncers are unaware of the habit and they are desensitized to pitch inflections at the end of every note. Practicing in front of a mirror is an indispensable aid to performing one’s articulation, since the jaw motions are so easily observed.

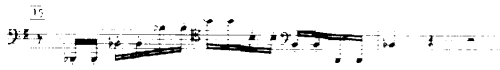
Despite the shortcoming of jowl articulation, the most persuasive argument to reform one’s method of tonguing may be found in the tongue’s superiority to start and end notes. Figure 3 illustrated that tongued starts and stops to notes do not feature inflections of pitch or even of timbre.<sup>4</sup> One advantage to pitch stability is projection, especially in a large ensemble. Articulated notes on the bassoon are more easily discerned when the pitch is well-centered. As a further bonus, the tongue is capable of a remarkably varied spectrum of articulations: from the harsh buffets of “slap tonguing” to the gentle caresses of a *legatissimo*, feather-like stroking of the reed. These variations are lost when one moves the jaw at the end of each note. The performer may wish to master these nuances by practicing various “articulation drives.”<sup>5</sup> One drive, for instance, could contain tongued quarter-notes starting from the lightest tonguing possible to the heaviest tonguing possible back to the lightest tonguing. All of the quarter-notes should be at the same dynamic, with the same length, and at the same tempo (try quarter-note = 60). A further benefit of tongued articulation is control over note length. The tongue is able to produce *legatissimo* as well as *staccatissimo* notes. The following drive gives performers the opportunity to master note lengths: Start by articulating quarter-notes *legatissimo*—as long as possible. Gradually decrease the length of the notes until the notes are *staccatissimo*—as short as possible. Then reverse the procedure, lengthening the notes bit-by-bit until they are as long as possible. The drive should be practiced with all notes at the same dynamic, at the same tempo, and with *no* jaw motion.

The advocate of tongued-stops does not have to abruptly terminate every note in a harsh manner. On the contrary, the tongue can slowly stop the reed from vibrating, even one blade at a time if necessary. In addition, where time allows, notes can and should be stopped with the embouchure and breath. Thus, two types of articulation at the ends

of the notes must be mastered: the tongued stop and combined embouchure and breath stop.<sup>6</sup>

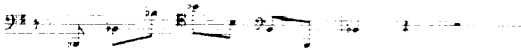
The performance of Baroque music highlights a particular need for varieties of articulation. Most instrumental performers rely heavily upon dynamic contrast for musical expression. Yet two instruments favored in the Baroque period, the harpsichord and the recorder (*Blockflöte*), are able to make little dynamic change at all. Instead, varied note lengths and articulation form an essential part of their repertoire of musical expression. A bassoonist who could only express musical phrasing through dynamic changes would mismatch harpsichord and recorder players who largely rely upon articulation and rubato for their musical expression. If the bassoonist does not adjust to the expressive limitations of the accompanying instruments, a performance with incongruous qualities will result.

We conclude with one contemporary work that serves to illustrate the inefficiencies of jaw movement during articulation. Jean Françaix's Second Wind Quintet (1987) contains a passage of rapidly articulated sixteenth-notes of four octaves (Figure 4). The movement containing this excerpt is pref-



**Figure 4. Françaix, *Quintetto No. 2, II.*, at number 15**

aced by a tempo marking of a quarter-note = 132. Bouncing the jaw in this passage decreases accuracy in the octave shifts and fluctuates the pitch. Bassoonists can master the most efficient articulation of this excerpt by first articulating eighth-notes as given in Figure 5. Use only the front of the tongue, articulating as cleanly and as lightly as pos-



**Figure 5. Simplification of the Françaix Quintet Passage.**

sible. Adjust the embouchure, throat, and breath as needed so that each note starts immediately and clearly. Once Figure 5 is mastered, bassoonists may combine the tonguing of sixteenth-notes in Figure 4 with the embouchure, throat, and air support settings employed in Figure 5.

Articulation on the bassoon reed demands either a balance between embouchure and wind or a tongued stop to the note to avoid pitch deviations. Jaw movement unbalanced by a change in breath support results in pitch or timbral inflections during a note. Furthermore, jaw motion at the end of a note obscures the variety of articulations possible by the tongue. Starting and stopping the vibrating reed with the front of the tongue is the most advantageous method of articulation, especially during rapid passages. ❖

#### End Notes

1. For a discussion about the bassoon bocal as a teaching and practice aid see my article, "Using the Bassoon Bocal as a Diagnostic and Pedagogical Tool" in the *Journal of the National Association of College Wind and Percussion Instructors* 60/3 (Spring 1992): 4-7.

2. These pitch changes are also noted in Arthur Weisberg, *The Art of Wind Playing* (New York: Schirmer Books, 1975; Minneapolis: SATCO, 1993), p. 8.

3. Arthur Weisberg further expands upon problems of pitch inflection during short notes in *The Art of Wind Playing*, p. 20.

4. If your embouchure and breath are unchanged and you hear a deviation in pitch or timbre when you move your tongue on and off the reed, it is probably due to changes in the back of your tongue or your throat. Move only the front of the tongue to avoid these variations in the tone.

5. The concept of a "drive" is discussed in my article "A Bassoonist's Expansions upon Marcel Tabuteau's "Drive," *The Journal of the International Double Reed Society* 20 (July 1992): 27-30.

6. S.J. Jooste labels these two types of articulation "portato tonguing" and "marcato tonguing" respectively. For a discussion of his views and a summary of prior publications, especially those of Hugh Cooper, see S.J. Jooste, *The Technique of Bassoon Playing; and Evaluative and Methodological Study* (Potchefstroom, South Africa: Central Publication Department, Potchefstroom University vir CHO, 1984), pp. 51-67.

#### About the author.

Terry B. Ewell is Assistant Professor of Bassoon and Music Theory at West Virginia University. He was principal bassoon of the Hong Kong Philharmonic Orchestra for seven years, and is currently principal bassoon of the Wheeling Symphony. He has published articles in the *NACWPI Journal*, *The Double Reed* and the *International Double Reed Journal*. He has recorded for Musical Heritage Society, Hong Kong Records, and Pickwick Records. In 1981, Prof. Ewell won first prize in the International Fernand Gillet Competition held in Lubbock, Texas.