

MODERN BASSOON TECHNIQUES: A PERFORMER'S GUIDE TO DAI FUJIKURA'S  
*CALLING, FOLLOWING, AND SECRET LEAVES*

by

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*“Music is made by a performer. It comes from him rather than from his instrument, the instrument being merely a vehicle. Therefore, it is logical that any sound a performer can make may be used in a musical composition.”*

***Donald Erb***

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# Chapter 1: DAI FUJIKURA AND THE SOLO BASSOON

## A. Biography

Dai Fujikura was born in Osaka, Japan in 1977. From a young age, he showed promising talent as a pianist. He moved to England at 15 to attend a private school and continued his musical education at Trinity College of Music and the Royal College of Music. He quickly turned to composition during his collegiate years initially with an interest in film music, but eventually found ground in classical solo and ensemble writing.<sup>1</sup>

Fujikura garnered international acclaim with several wins at European competitions. These included the Seroocki International Composers' Competition in 1998, the Internationaler Wiener Composition Prize in 2005, and the coveted Paul Hindemith prize from the Schleswig-Holstein Music Festival in 2007.<sup>2</sup> In 2006 the BBC Concert Orchestra commissioned a piece for the BBC Proms, for which Fujikura wrote *Crushing Twister*. Since his BBC Proms debut, he has been commissioned by ensemble such as the London Sinfonietta, the BBC Symphony Orchestra, the Ensemble Intercontemporain of Paris, and the International Contemporary Ensemble in New York. Fujikura's mentors have included renowned composers and conductors such as Peter Eötvös and Pierre Boulez. Boulez was most excited about Fujikura's music and his premiere of Fujikura's *Stream State* for orchestra at the Lucerne Festival immediately prompted more performances in Austria, Germany, Italy, and Japan in 2006.<sup>3</sup> In addition to composing, Fujikura

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<sup>1</sup> Fujikura has a running joke that he has always been "fired" from all the film productions he has been asked to submit for. He hopes that he can still, one day, write music for a major motion picture.

<sup>2</sup> "Dr. Dai Fujikura," Royal College of Music, accessed Sep. 19, 2022, <https://www.rcm.ac.uk/composition/professors/details/index.aspx?id=02798>

<sup>3</sup> Ibid.

teaches composition at the Royal College of Music in London and is the artistic director of the Tokyo Metropolitan Theatre's Born Creative Festival. More recently, he has enjoyed working with conductors such as Gustavo Dudamel, Martyn Brabbins, and Claire Chase. Some of his most recent commissions are from the Théâtre des Champs-Élysées, the Chicago Symphony Orchestra, and the Nagoya Philharmonic Orchestra, of which he is artist-in-residence.<sup>4</sup>

Fujikura's oeuvre ranges from solo pieces, including Western and Japanese instruments, to opera and double orchestra works. His style mixes Western instruments and classical writing with Japanese sounds, honoring his Japanese heritage. He most enjoys working with musicians directly so they can experiment with sounds, colors, and techniques.<sup>5</sup> His style is eclectic. He is comfortable writing with electronic components, improvisation, and even some contemporary jazz. His primary focus is on writing music that reflects beautiful moments and paints pictures. He considers music to be even more beautiful than any sight due to its profoundly personal nature.<sup>6</sup>

## **B. Creation of Solo Bassoon Repertoire**

Fujikura credits French bassoonist Pascal Gallois for introducing him to the technical possibilities on the bassoon.<sup>7</sup> He first heard Gallois perform Luciano Berio's *Sequenza XII* in concert with the BBC Symphony as a composition student.<sup>8</sup> The piece left him amazed at the sounds and colors coming from the strange instrument. Prior to this performance, Fujikura had

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<sup>4</sup> "Biography," Dai Fujikura, accessed Sep. 19, 2022, <https://daifujikura.com/biography>

<sup>5</sup> Dai Fujikura, interview by author, London, Aug. 22, 2022.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> According to Dai, Berio had no intention of writing a sequenza for the bassoon, mostly out of disdain for the complexity of the instrument and from lack of knowledge of the technical possibilities. Gallois pestered him for several years to write one before Berio gave in and invited him to demonstrate the possible techniques. Berio wrote the *Sequenza XII* for Gallois in 1995, and it is considered one of the hallmark contemporary pieces of music for the instrument. The piece is seldomly performed, however, because of its difficulty.

not included the bassoon in his ensemble writing. Now that he had an idea of what was possible on the instrument, he began to include bassoon in his repertoire. When Gallois published his method *Techniques of Bassoon Playing* in 2009, Fujikura received a copy to use as a guide in bassoon writing.

Fujikura's first solo bassoon piece is *Calling*, written in 2011. It was co-commissioned by the International Contemporary Ensemble (I.C.E) and the Tokyo City Opera.<sup>9</sup> Rebekah Heller of I.C.E gave the world premiere performance. Fujikura used *Calling* as his experiment for bassoon writing. He also used it as a starting point for his bassoon concerto, published a year later. In fact, many of the same melodies and sounds from *Calling* are also in the concerto. *Calling* is the most technically demanding of the solo works. It is the longest piece and makes great use of the palette of advanced techniques, including multi-phonics, quartertones, flutter tonguing, and timbre trills. Some of these techniques are performed simultaneously, such as flutter tongued multi-phonics. At this time, the work has been recorded by Gallois and Heller.<sup>10,11</sup>

Between *Calling* and *Following* came the bassoon concerto in 2012. Fujikura uses many of the same melodies and techniques from *Calling* in the concerto, which includes full symphonic orchestral accompaniment. The idea of the concerto is to analyze the multiphonics of the bassoon and orchestrate them on a larger scale within the orchestra, demonstrating the connection between the bassoonist's multiphonics and the virtual-multiphonics of the orchestra.<sup>12</sup> In essence, the orchestra reflects the aura of the soloist who in turn creates more

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<sup>9</sup> Dai Fujikura, *Calling* (Berlin: G. Ricordi & Co. Bühnen und Musikverlag, 2011), musical score.

<sup>10</sup> Pascal Gallois and the Prague Modern, *Fujikura: Calling, Vanishing Point, Time Unlocked, Fifth Station & Grasping*, recorded 2014, conducted by Pascal Gallois, Stradivarius, Spotify streaming audio.

<sup>11</sup> Rebekah Heller, *100 Names*, recorded 2013, Tundra, Spotify streaming audio.

<sup>12</sup> Dai Fujikura, "List of Works – Bassoon Concerto" Dai Fujikura, accessed Oct. 24, 2022, [https://www.dai-fujikura.com/un/lw\\_bassoon\\_concerto.html](https://www.dai-fujikura.com/un/lw_bassoon_concerto.html)

sound variety. The work has been recorded by Pascal Gallois on Fujikura's album by the Tokyo Metropolitan Symphony Orchestra.<sup>13</sup>

Fujikura wrote *Following* for Heller in 2013.<sup>14</sup> The work contrasts to *Calling* and the concerto with lyrical lines and conservative use of techniques. The piece uses only a few quartertones and glissandi to create a flowing effect within the first 17 bars. A few melodies from the concerto are heard in *Following*, though made more subtle and calm. *Following* and *Calling* are considered sister pieces, and Fujikura suggests they can be programmed together on a recital. Heller has since recorded the piece for her record *Metafagote*.<sup>15</sup>

*Secret Leaves* is the most recent of the three works, though its melodies originate from an earlier work titled *Secret Forest* for chamber ensemble. In *Secret Forest*, Fujikura experiments more with spatial awareness for the instrumentalists and the audience. All the wind players are spread out around the performance hall, with the strings on stage. Most notably, the bassoonist is situated in the middle of the auditorium seats. The ensemble creates sounds of a forest, and the bassoonist is the person walking through the forest. Fujikura creates the sounds of the birds and insects – which are considered beautiful in Japanese culture – and builds a beautiful forest in the performance space.<sup>16</sup> The bassoon has a long solo in the middle of the work, which ends up being most of the initial page of *Secret Leaves*. Other parts of *Secret Leaves* are fragments from tutti passages and additional material to create the wandering traveler within the secret forest. *Secret Leaves* was written for Hidetaka Nakagawa in Osaka, Japan.<sup>17</sup>

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<sup>13</sup> Dai Fujikura, Bassoon Concerto, Pascal Gallois, bassoon, Tatsuya Shimono, conductor, recorded with the Tokyo Metropolitan Symphony Orchestra, August 2014, Minabel, 2014, Spotify streaming audio.

<sup>14</sup> Dai Fujikura, *Following* (Berlin: G. Ricordi & Co. Bühnen und Musikverlag, 2011), musical score.

<sup>15</sup> Rebekah Heller, *Metafagote*, recorded 2017, Tundra, Spotify streaming audio.

<sup>16</sup> Dai Fujikura, "List of Works – Secret Forest," Dai Fujikura, accessed Oct. 26, 2022, [https://www.dai-fujikura.com/un/lw\\_secretforest.html](https://www.dai-fujikura.com/un/lw_secretforest.html)

<sup>17</sup> Dai Fujikura, *Secret Leaves* (Berlin: G. Ricordi & Co. Bühnen und Musikverlag, 2019), musical score.

Of note within Fujikura's solo bassoon literature is a keen dedication on setting a specific scene. *Calling* is very specific in its requests. Within the score, Fujikura asks for the bassoonist to think of themselves as a horn off in the mountains, as a wild electric guitar, with each section demanding special attention to the techniques and atmosphere. *Following* focuses on creating flowing lines to depict a river in the forest, with long flowing lines that sometimes flow fast and sharp rather than leisurely.<sup>18</sup> *Secret Leaves* makes the bassoonist a wandering traveler walking in a forest; the sounds heard are the rain on the leaves, the insects and birds, and the faint glow that the forest gives.<sup>19</sup> Fujikura gives specific images that the bassoonist is free to create into their own performance. By heeding the given atmospheric ideas, the performance is authentic and convincing.

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<sup>18</sup> Dai Fujikura, "List of Works – Following," Dai Fujikura, accessed Oct. 26, 2022, [https://www.daifujikura.com/un/lw\\_following.html](https://www.daifujikura.com/un/lw_following.html)

<sup>19</sup> Dai Fujikura, "Secret Leaves – Program Notes," Dai Fujikura, accessed Oct. 26, 2022, [https://www.daifujikura.com/prog\\_sl](https://www.daifujikura.com/prog_sl)

## Chapter 2: CONTEMPORARY TECHNIQUES

Fujikura uses several contemporary techniques within his bassoon pieces. All the techniques discussed in this chapter are standard techniques, though this list is by no means exhaustive. We will not touch on harmonics, for example, because Fujikura does not use harmonics in these works. This chapter outlines each major technique Fujikura uses, the physicality required to produce them, and their possible effects on the pieces in which they are used.

### A. Multiphonics

Multiphonics defy the bassoon's nature as a monophonic instrument by creating chords or clusters of notes. They are composed of a fundamental note plus certain harmonics that are manipulated from the instrument by either fingering patterns or air stream.<sup>20</sup> Multiphonics can also be created by singing a note while simultaneously playing another. Each chord has a different timbral quality. Some chords will demonstrate each note with equal amplitude, others will be less homogenous. Additionally, a player's embouchure, reed style, vocal, and instrument will contribute to deviations in timbral quality. A multiphonic on one instrument may sound much different on another or be harder to produce.

According to Pascal Gallois, bassoon multiphonics can be classified in four categories:<sup>21</sup>

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<sup>20</sup> Gardner Read, *Compendium of Modern Instrumental Techniques* (Westport, CT: Greenwood Press, 1993), 158.

<sup>21</sup> Pascal Gallois, *The Techniques of Bassoon Playing* (Kassel, Germany: Bärenreiter, 2009), 36-42.

1. Multiphonics created by using weak air pressure with a normal fingering. A good example of this is F#4, where weakened air pressure reaches into lower fundamentals to create a sort-of D major chord. This is the type of multiphonic that new bassoonists are often unintentionally introduced to when they are not using enough air pressure to support the tenor notes. This is also why it is important to not use vibrato on multiphonics – vibrato de-stabilizes the air stream when the air flow must be stable to support the chords.<sup>22</sup> Philippe Hersant uses this type of multiphonic in his solo bassoon piece *Niggun*.
2. Multiphonics that apply strong air pressure, a pinched embouchure, and a soft dynamic level on the first four fundamental notes on the instrument (Bb1-C#2).<sup>23</sup> By pinching the reed and giving a stronger air stream than the register requires, the bassoon essentially plays multiphonics built on simultaneous overtones.
3. Multiphonics that are built with specific fingerings adjusted from a fundamental note. These are the most common type of multiphonics in Fujikura's music. Fujikura, like other composers such as Sofia Gubaidulina, provides fingerings in his music to attain a certain chord. Some chords may be stable on the bassoon regardless of set-up; others may not.

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<sup>22</sup> Read, 159.

<sup>23</sup> For reference, bassoons have a fundamental range from Bb1 to F3. Notes from F#3 and up are built on manipulated fundamental fingerings, beginning with vented and/or half-holed fingerings of F#3-D4, then manipulated fingerings of fundamentals to achieve strong and stable overtones from Eb4 and higher.



4. Six multiphonics that are related by chromatic progression. These are chords built on fundamentals Eb<sup>2</sup>-G#<sup>2</sup>, with the C# key held down. Fujikura also uses a few of these chords in *Calling*.

There are two significant challenges when using multiphonics on the bassoon. First, as discussed above, some multiphonics are quite sensitive to air pressure and embouchure. Finding the exact mouth placement and airstream can be difficult. It will be necessary for performers to experiment with each multiphonic to find the proper air and embouchure for their instrument set-up. It may also be necessary to find additional fingers to stabilize a chord or adjust to a different chord altogether. We will discuss specific experiments and alternate fingers to try with each multiphonic presented in Fujikura's pieces.

The second challenge for multiphonics, specifically for composers, is knowing how to notate the multiphonic. There is no standard notation for multiphonics. Composers like Gubaidulina and David Maslanka give what are called "Bartolozzi" fingerings. These are fingerings that use numbers to show thumb and pinky keys rather than illustrating out the specific keys. The numbers used coincide with numbers that Bruno Bartolozzi uses in his book *New Sounds for Woodwind*.<sup>24</sup> The disadvantage to using Bartolozzi fingerings is that it requires using Bartolozzi's book to determine the fingerings. Bartolozzi's book is now out of print and may not be available in many libraries or shops. Fujikura offers full fingering charts with each of his pieces without Bartolozzi numbers, which allows the performer to read his music much more quickly. Below is an example of each of the notated fingerings. Going forward, performers can and should encourage composers to write multiphonics using full fingering charts rather than

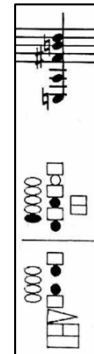
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<sup>24</sup> Bruno Bartolozzi, *New Sounds for Woodwind* (London: Oxford University Press, 1967), 79.

Bartolozzi numbers to bypass the outdated system and make learning the multiphonics faster and simpler.



Gubaidulina's Bartolozzi fingering<sup>25</sup>



Fujikura notation<sup>26</sup>

**Example 2.1. Bartolozzi vs. Full-Fingering Notations**

Multiphonics offer composers a variety of timbres and colors to create both tension and beauty in their works. They can serve as a melodic foundation or as an ornamental effect. It is important to study a work carefully to ascertain the composer's intention with the effects.

**B. Quartertones**

Quartertones are the notes and sounds heard between the fundamental 12 notes of each octave. There are numerous ways of dividing up the 12-note scale into 24ths, 36ths, and other scales in increments of 12. The most common scale used is the 24-note division. In the quartertone (24) system, each quartertone divides each semitone of the chromatic scale in half.<sup>27</sup> It is important to consider each quartertone as 25 percent of the whole tone so proper pitch can

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<sup>25</sup> Sofia Gubaidulina, *Duo Sonata for Two Bassoons* (Hamburg: Sikorski, 1977), 9.

<sup>26</sup> Dai Fujikura, *Calling* (Milan: Ricordi, 2011), fingering chart – Bnm: 4.

<sup>27</sup> Amy Marinello Pollard, "Solving the 'Problems' of Extended Techniques" (DMA diss., University of Cincinnati, 2012), 17.

be achieved. A tuner would suggest a semitone as 25 percent sharp or flat compared to the pitch it is based on.

Bartolozzi suggests that to achieve quartertones in their exact pitch state, bassoonists must use precise fingerings. This gives the “appearance” of notes built on fundamentals, which are more convincing in pitch and stability.<sup>28</sup> The pitch stability cannot be achieved by embouchure adjustment alone. Bassoons are notorious for pitch instability and have been so throughout history. Makers have added keys to assist in pitch adjustment and performers must know multiple fingering options for each note to fit the pitch needed in a musical moment. This extensive keywork also gives the bassoon a natural inclination for creating quartertones and other microtones.<sup>29</sup>

Bartolozzi, Johnny Reinhard, and Sergio Penazzi all offer fingering charts for quartertones. Penazzi and Bartolozzi developed fingerings for quartertones together and apart, and Reinhard expands upon their work in his *Double Reed* article. He states that every bassoonist should be comfortable using microtonal fingerings to expand the palette of timbres possible.<sup>30</sup> Like multiphonics, though, Reinhard encourages bassoonists to use his fingerings as a springboard for their own experimentation – what he suggests may not be the best approach on their instrument.

Like multiphonics, there is not yet a standardized notational system that all composers follow. In his book *Contemporary Music for Bassoon for Education with an Introduction into Modern Playing Techniques*, Dieter Hähnchen indicates that, from a technical point of view, it is always easier to notate quartertones as sharpened notes because most quartertones are achieved

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<sup>28</sup> Bartolozzi, 27.

<sup>29</sup> Johnny Reinhard, “The Microtonal Bassoon,” *The Double Reed* 10, no. 2 (Fall 1987): 39.

<sup>30</sup> Ibid.

by opening one key from a standard fingering.<sup>31</sup> In practice, this would mean if a composer writes a G and indicates it should be flattened by a quartertone, the bassoonist would use an altered fingering based on F. Bartolozzi notates each quartertone fingering with sharps in his fingering chart and Reinhard uses a mix of sharps and flats.

Quartertones demand diligent fingering and aural practice. It is important that they are played as accurately as possible, with the best fingerings to fit the exact tuning percentage. Performers may be intimidated at the prospective of practicing new fingerings and adjusting their ears to the pitches. These, in addition to learning different notational choices from composers, are the biggest hurdles when learning music with quartertones.

### **C. Flutter-tongue**

Flutter-tongue is a common technique in orchestral as well as solo repertoire. Composers such as Richard Strauss and Gustav Mahler were some of the earliest composers to write flutter-tonguing in their orchestral repertoire.<sup>32</sup> The technique, unlike the others, has a standardized notation of “Flz” with four lines crossing the beams of affected notes.

Flutter-tonguing can best be described as the technique that asks the wind or brass player to roll their tongue, making a “drrr” sound, like a drumroll. The result is a rapid tremolo on a pitch or set of pitches. The technique is quite common for flute, piccolo, and brass instruments. It could be asserted that it is easier for these instruments to flutter-tongue because of the lack of resistance from their instruments. Double reeds must perform two simultaneous actions: they must exert proper embouchure pressure on the reed to maintain the pitch and simultaneously

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<sup>31</sup> Dieter Hähnchen, *Contemporary Music for Bassoon for Education with an Introduction into Modern Playing Techniques* (Leipzig: Friedrich Hofmeister Musikverlag, 2010), 12.

<sup>32</sup> Robert Fink and Robert Ricci, *The Language of Twentieth Century Music: A Dictionary of Terms* (New York: Schirmer Books, 1975), 31.

flutter their tongue against the reed tip opening.<sup>33</sup> This makes flutter-tonguing in some registers on the bassoon nearly impossible because of the required pressure on the reed. Penazzi suggests that flutter-tonguing only be used from Bb1 to C4. Some works, such as Gubaidulina's *Duo Sonata*, asks for flutter-tonguing in the higher tenor register. Depending on a performer's physicality, this may or may not be possible. Penazzi's is quite a conservative range, though flutter-tonguing in either extreme register is not advised.

Flutter-tonguing can be achieved by rolled Rs with the tongue or by producing a glottal roll. The glottal role is produced by making a growl in the back of the throat like gargling salt water. I believe that most performers can learn to do both. The difficulty with rolling the R specifically is whether the performer is used to rolling their tongue in their daily life, such as in the language they speak daily. Bassoonists who do not may need to practice rolling their R's rather than using the glottal. Rebekah Heller suggests that bassoonists should learn to do both – even using them simultaneously to achieve the fullest sound possible.<sup>34</sup> Depending on the context of the music, it is advisable for bassoonists to be able to produce flutter-tonguing both with glottis and with the tongue so the performer can determine which is appropriate for the piece.

Practicing each version of flutter-tonguing can be done with and without a reed and instrument. The “front” tongue flutter can be best compared to the Spanish or Italian “R.” It may also help to think of a drumroll sound. The “back” flutter can be practiced by gargling water to feel the movement, then practicing with the head in a normal neutral position without water. Thinking of the French or German “R” may help for context. Experimentation and practice are

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<sup>33</sup> Sergio Penazzi, *The Bassoon: Other Techniques: New Sources of Musical Expression* (Milan: G. Ricordi & C., 1982), 60.

<sup>34</sup> Rebekah Heller, interview by author, New York City, Aug. 15, 2022.

key for success. Again, these can be practiced at any time. Moving to the instrument is the next step. Begin by using normal breathing air pressure and resting the mouth around the reed, without forming the embouchure. Practice flutter-tonguing each way with air flowing into the instrument. The reed should not vibrate. The goal is to feel how the tonguing feels without adding the resistance of the instrument or the reed's vibrations. Only when this is comfortable can the performer begin to practice fluttering a note with proper embouchure. Beginning on a note such as C3 is advised. Beginning too low can result in improper embouchure and beginning too high introduces too much resistance too soon. Practice flutter-tonguing deliberately as if practicing proper attacks, following a pattern like below:

*Insert reed into mouth → form proper embouchure around reed → engage abdominals - abs should be tight and prepared to support air stream → inhale → blow, with flutter-tongue technique at a strong forte dynamic*

After this step is mastered, experimentation with dynamics and range can be done. Maintaining a stable pitch is important. Experimenting with the tongue placement on the roof of the mouth allows for various strengths of articulation. A higher register flutter may require a wider embouchure with an “ee” vowel in the oral cavity to support the pitch. Flutter tonguing requires more air to support the sound and muscles. These kinds of exercises can be done during daily routine technical practice with long tones or even scales. Initial practice without the instrument can be done at any time, like when driving a car.

## **D. Glissando**

The glissando is only used very briefly in *Following* though, given its popular usage in other repertoire, it is worth discussing its possibilities on the bassoon. A glissando is a continuous slide from one pitch to another. They are common techniques for string instruments and trombones. Performers of these instruments have a simple method of execution: string players slide their finger up or down a string while bowing the string simultaneously to obtain the “sliding sound” effect. Trombones can buzz into the mouthpiece while moving their slide very slowly to achieve the same sound.

Glissando on the bassoon is more complicated though quite possible. Bassoonists can use either their finger motion or embouchure manipulation to glissando from one note to another. Both methods are often needed in tandem.

Gallois outlines the two types of glissando in his techniques book:<sup>35</sup>

### **1. Lip glissando**

Glissandos using only lip changes achieve a small shift. These are executed in one of two ways:

- To make a glissando to a pitch a quartertone higher than the starting pitch, play with a normal position on the original note, then push the reed and the lips further into the mouth as if making the vowel “ee.”
- To make a glissando to a pitch a quartertone lower than the starting pitch, play with a normal position on the original note, then purse the lips and slightly push the reed out, making the vowel “oo.”

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<sup>35</sup> Gallois, *Techniques*, 99-101.

- With both, when the desired pitch is reached by the lip, the fingers should switch to the new desired fingering so the embouchure can return to its normal placement and pitch may become stable.

Gallois claims these changes only achieve a quartertone pitch change. It may be possible for these kinds of glissandi to push a little further than just a quartertone (though not as far as to reach the next whole tone), particularly in the upper registers where pitches may be less stable. Experiment with the embouchure and air speed with different notes to find the possibilities.

## **2. Finger glissando**

When the music demands a glissando further than a quartertone or semitone, the finger glissando is used to make the shifts.

- If moving towards a pitch a whole tone higher, play the starting pitch with a normal embouchure and slowly open the necessary key or tone hole while maintaining a strong air pressure to achieve the glissando.
- If moving towards a pitch a whole tone lower, play the starting pitch with a normal embouchure and slowly close the necessary key or tone hole while maintaining a strong air pressure to achieve the glissando.
- Practice slowly sliding the finger over the tone hole to execute the slow glissando. Similarly, practice very slowly pushing the key down or up to reach the same goal.

The finger glissando can be used in tandem with the lip glissando to make more difficult fingering changes or larger glissando leaps possible. Combining the two is particularly helpful



when the fingerings do not change by only one finger or if the glissando goes further than one whole tone.

- Start with the proper embouchure and fingering for the initial note.
- Practice the lip glissando to the next note. When the closest pitch possible via lip glissando is reached, change the fingering to reach the stable pitch. Return the embouchure to proper technique.
- Continue doing this until the final note of the glissando is achieved.

In practice, this system should work quickly and seamlessly. Practice this process with deliberate slowness at first, with a metronome set at 50. Give the motion between two notes at least two beats (reaching the new tone on beat three) at first before turning up the tempo. It will look like this:

<u>Beat One</u>	<u>Beat Two</u>	<u>Beats Three and Four</u>
<i>Set embouchure</i>	<i>Continue lip manipulation</i>	<i>Change fingering to new pitch</i>
<i>Prepare air</i>	<i>Reach as close to desired</i>	<i>Return to proper embouchure</i>
<i>Begin playing first note</i>	<i>pitch as possible</i>	<i>(these should be done</i>
<i>Begin lip manipulation</i>		<i>simultaneously on beat three)</i>

This may feel very slow – proper technique is crucial with glissandi. Ensuring the embouchure returns to its proper form instead of staying in a pouted or pushed in place is very important. If the embouchure remains out of its proper form, the glissando may become impossible to complete. Slow, intentional practice is the only way of ensuring this process occurs properly.

### **E. Bisbigliando**

Bisbigliando, or a color trill, is a minor technique that warrants a brief conversation. Fujikura uses bisbigliando in each bassoon composition, either as a colorful melodic effect or to build tension within a phrase. Bisbigliando can be done on single notes and on some multiphonics.

Bassoonists must experiment to find which key changes the color of a certain pitch enough to be audibly different. Often the resonance key will suffice. Gallois suggests that the low B and Bb keys may also work for several stable multiphonics.<sup>36</sup>

### **F. Final Thoughts**

The lack of standardized notation and even reliability of some fingerings may be the most significant intimidation with contemporary music. Approaching contemporary techniques requires research and experimentation that classical performers may not be used to when preparing repertoire. From an educational view, many of these techniques can be included in daily routines and technical practice so the bassoonist can become comfortable. It is also important to accept that the pieces can be individualized based on how homogenous a multiphonic sounds on the instrument played or which flutter-tonguing technique is executed. Much of the beauty of contemporary music comes from the plethora of sounds possible, but a performer needs flexibility and a willingness to experiment even beyond what the composer writes. Thinking of the musical score as a blueprint rather than a detailed map can be helpful. A blueprint of a house gives the general structure of each room but does not specify what the wall color is or what the furniture looks like. When a musical score is thought of in this way, it

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<sup>36</sup> Ibid, 39.

becomes easier to approach the piece as a template to be individualized and experimented with.

This approach will make for the most exciting performances.

## Chapter 3: CALLING

*Calling* is Fujikura's dynamic and extensive experiment of the bassoon's capabilities. Understanding that it is an experiment on the instrument may make approaching a performance of it clearer – it is quite long and demands significant technical prowess over the instrument. For that reason, while we begin our discussion with *Calling* primarily because of its position as the premiere bassoon piece from Fujikura's oeuvre, this is not the piece to give a bassoonist just beginning to learn advanced techniques.

The work was written for Rebekah Heller, Ayako Kuroki, and Pascal Gallois. Heller premiered the piece in 2012. Both Heller and Gallois have since recorded the work.<sup>37</sup>

Fujikura is quite generous in his descriptions of the piece as a whole and in sections. He notes his rules on accidentals in the upper left-hand corner of the first page– they only affect the pitch they are attached to. He also states that all the notes should be played full value. This plays particular importance in the first and fourth sections of the work.

### I. Structure

The piece is divided into four overarching sections with transitional material in between.

#### A. Section A – The Horn Call: Bars 1 to 57

The first section, to be called section A, ranges from the beginning to bar 57. Section A is divided into two subsections – A1 and A2. A1 ends in bar 28. It is made up of a single multiphonic built on E2. Fujikura uses this single multiphonic to establish the atmosphere by

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<sup>37</sup> My recording of this work, as well as *Following* and *Secret Leaves*, is available on my website: <https://www.saraerb.com/solo-fujikura-ep>

asking the performer to double tongue staccato and use bisbigliando. Section A2 is announced in bar 29 by a sudden change to E5 played a quarter flat. The section is made up of short phrases that begin in that high register then descend. Fujikura writes that this section is to be played as if the bassoonist is a horn off in the mountains over a village. He also notes at the beginning of this section that the section is to be played as one continuous line and the rests in between the short motifs are to be felt as though they are muted sounds. The motifs include large leaps from different registers. The leaps get larger as the section continues, culminating in a longer, almost distorted phrase that ranges from C#2 to D#5, often with only one or two notes in between to make the register shifts.

Bars 58 to 75 make up transition A. This transition is built with two multiphonics from Gallois' fourth category of related multiphonics and a multiphonic built from F2. The transition simply alternates between these multiphonics to build then regress into the quietness of section B.

### **B. Section B – The Forest of Multiphonics: Bars 76 to 97**

Rebekah Heller has titled section B, bars 76 to 97, the “Forest of Multiphonics.”<sup>38</sup> The section is made up of numerous multiphonics played quietly but tongued rapidly. The hairpin dynamics create a sort of doppler effect. The result is feeling cloaked by the multiphonic sounds, as if one were in a forest. Fujikura writes that the performer should stay still during each bar of rest, further insisting that the rests have musical value and should be honored as such. Beginning in bar 90 the section grows louder and more agitated, building up to the transition B in bar 98.

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<sup>38</sup> Heller, interview by author

Transition B begins with the sudden loud jump to G#4 after the final growing multiphonic. A brief standing on G# and F 3/4 sharp regresses into a more melodic section. The melodies from bars 105 to 125 are longer and more lyrical than the previous transition. Quartertones return to make up melodic phrases, as well as the only tremolos of the work.

### **C. Section C – Melancholy: bars 127 to 170**

Section C, beginning in bar 127, is a much slower and more delicate section. This section is a combination of some lyrical melodies that seamlessly transition into multiphonics. The phrases are longer, rhythms are slower, and the multiphonics are gentler and more subdued. This section serves as a calm break between the chaos of the adjacent sections. The multiphonics allow a lot of flexibility in dynamic contrast. Section C gently flows into transition C, a short transition that uses the opening multiphonic quickly moving to A#4, sequencing and quickly accelerating into a bombastic multiphonic built on F2 to grow into section D. This multiphonic is flutter-tongued and simultaneously requires a *bisbigliando* and *crescendo* to *fortississimo*.

### **D. Section D – Electric Guitar Solo**

The controlled chaos of the final section is a distorted electric guitar solo. Fujikura writes:

*“WILD, play like you are playing heavily distorted electric guitar.  
mechanical, rigid.  
Don’t play this like a bravura cadenza; every note must be played.”*<sup>39</sup>

This section contains no quartertones. The music alternates between heavy tenuto monophonic lines and fluttered multiphonics. With the faster rhythms and faster tempo –

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<sup>39</sup> Fujikura, *Calling* (Berlin: G. Ricordi & Co. Bühnen und Musikverlag, 2011), musical score, 3 bis.

Fujikura marks the quarter note at 90 – this section goes by quickly. The note markings begin with nearly every note containing a tenuto in the initial phrases with a few accents spread out. The monophonic phrase starting in bar 195 contains accents on every note, showing the progression Fujikura desires in the heaviness and angst of the section. The dynamic contrast is often quickly emphasized – from piano to fortississimo in two beats. The monophonic lines contain huge leaps with often nothing but one note in between to assist in the registral transition. The section finally begins to lose momentum after a brief slowing of the monophonic rhythm at bar 206. Bar 207 has an accented rhythm pattern that continues for five bars, losing the tenuto and accent marks and slowly getting quieter. This leads to the final multiphonic, double tongued, for four written bars, though this may be made shorter depending on the performer’s stamina and dynamic at start of the chord.

There is nothing subtle about this section. Every intention should be made to follow the articulations and dynamic markings. The tempo marking is quite fast and, given the instructions to give every note its worth in rhythm and articulation, it is reasonable to consider that Fujikura wants the section slower than the tempo marking but with as much intention and energy as possible. Eventually this means the tempo may be faster, but the tempo does not trump energy from articulation and dynamics.

## **I. Approaching the Techniques**

The challenge in *Calling* is the mastering each technique and implementing them in such ways that the performer creates musical shapes. Often the performer is asked to perform multiple techniques at once. The sounds of the work are unique – Fujikura demands a lot of the performer, particularly when asking for things such as fluttered multiphonics with bisbigliando at

a loud dynamic! Great care should be taken to practice the techniques while maintaining the integrity of the embouchure though, as we will see, there may be a few instances where a “manipulated” or “malformed” embouchure is necessary for full effect.

Because of the varied effects the techniques have in the work, I will outline this chapter differently than chapters 3 and 4. The following sections go through the piece by each section, beginning with section A as outlined above. Each section is built on its own imagery and, while connected, they each use the techniques for different gains. In other words, the way Fujikura uses the multiphonics and quartertones in section A is different from section C, for example.

Fujikura supplies a complete fingering chart for the multiphonics. The fingerings given are mostly sufficient – I have outlined a few small alterations. Of course, some fingerings may be less effective with varying setups. It is up to the performer to experiment and to listen to ensure the chords are as pure as possible.

## **A. Section A – The Horn Call**

### **a. Bars 1 to 28: Opening Multiphonic**

The first sound of the work is multiphonic Bnm: 2. This is a chord built from fundamental E2 with the C# key added - one of Gallois’ six multiphonics related by chromatic progression.<sup>40</sup> This chord is begun at a triple forte dynamic. Fujikura writes explicit instructions on the dynamics and vibrato used. The dynamic contrast is vast.

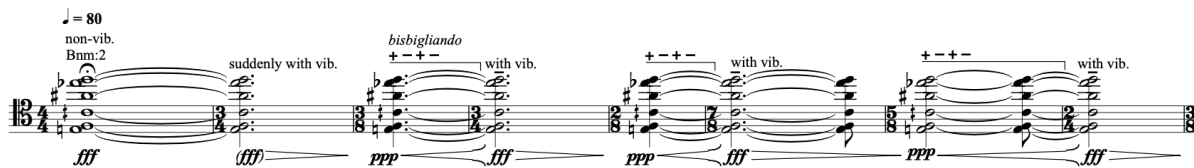
This multiphonic is stable in its execution and timbre of each individual notes. The tongue should be down low in the mouth with a fast airstream, aiming straight forward. Bassoonists may

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<sup>40</sup> See chapter 2, section A, number 4.



find that there are some lower notes that come out with softer dynamics, particularly when the airstream is weakened. The textural shift that results from the weakened air may be particularly attractive – these bars can become static if the performer does not add these differences beyond just dynamic contrast. Additionally, the texture adds to the angst and power of the chord, giving more reason for the audience to lean in to listen.



### Example 3.1. *Calling* Opening multiphonic<sup>41</sup>

The best keys to execute the bisbigliando are the low C# key or the Eb (resonance) key. The low C# key gives the chord a slightly darker growl while the Eb key makes the chord slightly brighter. Both shift the timbre a noticeable degree.

This multiphonic is easily double-tongued. When double-tonguing in bar 17 on, it is important to remember to keep the tongue as light and down as possible. This means aiming the tongue for the lower blade of the reed and keeping the tongue from sitting too high in the mouth. Pulling the corners of the mouth in onto the reed will keep the reed still while this is done.

Maintaining the air stream is of utmost importance when playing these multiphonics, particularly with fortissimo or sforzando attacks. This multiphonic can be easily overblown if the tongue attack is too harsh. The attack should come from the abdominal muscles and not the embouchure or tongue. It may help to consider the louder attacks, such as in bar 1, to be accented with the abdominals and then maintained with the abdominals and air stream. This translates to

<sup>41</sup> Fujikura, *Calling*, musical score, bars 1-8.

pushing the air through with the abdominals and then maintaining that fast airstream as if playing a long crescendo – this will allow for a lighter tongue attack that allows reed vibration but does not overblow the multiphonic. Practice doing this at varying dynamic levels to find the loudest point where the multiphonic still maintains integrity but has the power required. This exercise should be done with every multiphonic in the piece. I have provided an example exercise below. This is a basic exercise that should be part of a daily routine for multiphonics and monophonics alike.

**Quarter = 60**

**Beat Three** (anacrusis): inhale fully (with rounded oral cavity, fast air), FEEL AIR PRESSURE IN ABS.

**Beat Four** (anacrusis): set embouchure (round cushion, tongue resting slightly on reed, corners of mouth pressing slightly in towards reed), maintain air pressure in abs – pressure should feel like a belt tightening around belly button.

**Beats One to Four:** Push abdominal muscles inwards to push air into reed at desired dynamic (FFF, FF, F, mF, p, pp, ppp) and use as light a tongue as possible to begin reed vibrations. MAINTAIN the abdominal pressure inwards to provide sufficient air speed and focus.

### **Figure 3.1. Multiphonic Attack Exercise**

This exercise can be built upon with adding immediate double-tonguing on beat 1 to find the appropriate attack and embouchure for the chord. This is particularly helpful for the multiphonics in section B.

## b. Bars 29 to 58: Horn Call

The true horn call of the work begins in bar 29 with the arrival of the first monophonic sound and the first quartertone. The quarter flat E5 is higher than Bartolozzi provided a fingering for. The flexibility of the register may allow for a simple embouchure bend to reach the appropriate flatness using a E5 fingering – however, given that the next note is D5 a quarter sharp, making sure these notes are appropriately pitched means the performer should find fingerings that allow for this to occur without embouchure manipulation.

play as if one continuous plain line.  
Imagine that the rests are muted  
sounds and you can feel their existence  
..... stim. + - + -

molto espressivo, Exaggerate the cresc. and dim.  
with vib. dim. early

♩ = 80

sub. ff p fff fff pp fff pp p ff pp

Example 3.2. First Horn Call<sup>42</sup>

When shifting from the multiphonic to the high E, there will be a sudden shift to a high embouchure – thin, rigid, pressure from lips directly above and below the reed – and the oral cavity. The tongue will rise in the rear to make an “ee” vowel. The airstream should be fast and slightly thinner. Lift the whole head up slightly – aim your gaze towards an upper corner of the room. This will help raise the oral cavity and open the chest enough for proper air support. Note that Fujikura puts a comma between bars 28 and 29. Honor this break. The performer may find it easier to take a slight breath to create the new embouchure before attacking the high E.

The quarter flat E fingering I provide is based on a high E fingering (with the left-hand high E key) and the right-hand C# trill key. This flattens the E enough so that the air pressure can

<sup>42</sup> Ibid, bars 27-32.

remain constant, but the note is sufficiently flat. To play the quarter sharp D5, then, only the high E key is lifted.

This section continues by breaking into very small segments as seen in example 3.2 – it is crucial that the embouchure remains as rigid and still as possible throughout. Breathing should not interrupt the embouchure. This tension from maintaining the embouchure will contribute to the musical “effect” of the rests – as Fujikura writes to make the rests musically significant, actively participating in the rests by maintaining physical intensity assists in creating the musical effect. It may help to consider the rests as resonant echoes of the horn call, as if the mountains surrounding the performer are echoing with the tones.

It is worth pointing out articulation choices the performer can make within this section. Fujikura writes ties and slurs over every note to show the broad blend of notes that a townsman would experience if hearing this horn call from miles away. There are some articulative choices the performer can make that create a seamless flow and execute the registral leaps.

Example 3.3. Registral Leaps<sup>43</sup>

In this passage, the leaps from quarter and three-quarter sharp D to F quarter sharp will be quite difficult to execute without articulating the F. This is because of the registral leap between the fundamentals – the reed resistance from the high register (D5 and higher) will

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<sup>43</sup> Ibid, bars 39-40.

overblow the F so that the note does not speak if the air and articulation are not correct. In this context, this resistance is overcome when the quarter sharp F is articulated. Using a light tongue on the quarter sharp F will ensure the note speaks correctly and allows for a seamless line.

This same idea transfers to the motif starting in bar 50. This line begins on C#5 and descends to C#2 in rapid motion, with a few quartertones between and various motifs making up the longer line. This section should be practiced slowly to find the proper embouchure and oral cavity movement, but decisions about articulations should also be made.



**Example 3.4. Bars 51 to 53<sup>44</sup>**

I suggest beginning by tonguing all the low C#s to emphasize the accented tenuto markings. The beginnings of new slurred sections should be articulated. After these, the performer may choose articulations. Some of these leaps, particularly from quarter sharp F to C#5 in beat two of bar 51, are made easier by tonguing one or all the notes. In this instance, tonguing the C#5 would help articulate the note and emphasize the beginning of another dynamic motif.

### **c. Transition 1 – Bars 58 to 75**

The first transition uses multiphonics to create textural changes, gearing towards the forest of multiphonics. The section begins with a sequenced motif beginning with a multiphonic

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<sup>44</sup> Ibid, bars 51-53.

and growing into G#4. The multiphonic is built from low G with the C# key. This multiphonic can be stifled if the embouchure becomes too tight. It is important to keep the embouchure relaxed and use only air and abdominal movement to create the crescendo.

These three bars of sequencing are followed by three multiphonics. These are presented in numerous different patterns and rhythms.

### Example 3.5. Transition 1: Bars 68 to 75

The first multiphonic used, Bnm: 10, is a manipulated F2 fingering. This chord is less timbrally stable – performers may find it difficult to articulate.<sup>45</sup> Breathing through the nose while keeping the embouchure still into bar 61 will help this multiphonic speak. Throughout this entire transition, breathing through the nose will help keep the face exactly as it should be.

The other multiphonics, Bnm: 6 and Bnm: 2 (the same multiphonic from the opening), are more stable. Bnm: 6 and Bnm: 2 are related by Gallois' fourth category of multiphonics related by chromatic progression. Bnm: 6 is G2 plus the C# key. This relation makes seamless transitions between these chords possible – the fingerings are quite similar and there is no need for significant air shifts. As the dynamics grow, care should be taken to keep the embouchure focused. This is particularly true for Bnm: 10. The chord is easily overblown. With the difficulty in attack and centering the chord, using the exercise from figure 3.1 may be helpful in finding

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<sup>45</sup> This same chord also appears in section C of *Secret Leaves*.

exact positions for the embouchure and air stream to keep this section clean. Bnm: 6 finishes the section with a double-tongued motif, leading the performer into the forest of multiphonics.

## B. Section B: The Forest of Multiphonics

### a. The Forest: Bars 76 to 97

Example 3.6. The Opening of the Forest<sup>46</sup>

Example 3.6 depicts the first bars of section B. The section is made up of small motifs of multiphonics with hairpin dynamics. Every multiphonic Fujikura gives is used in this section. They are written in varying orders and have both hairpin dynamics and subito dynamics. In this section, the multiphonics go by quickly. There is not enough time to make any embouchure changes from one to another. Because of this, it is important to find an embouchure that will support all the multiphonics with as little shifting as possible. A cushioned but firm embouchure – cushioned lips that are held in place firmly enough that they do not move - will prevent slipping from oral movement. The oral cavity should be as open as possible. An “oh” vowel, as if in the lower register, will help with the attacks on each of the multiphonic segments. The head should remain up, facing forward, and not deviate much up or down – this is particularly

<sup>46</sup> Fujikura, *Calling*, bars 76-82.

important beginning in bar 90. The physical movement in this section should be kept at a minimum, to maintain the integrity of the embouchure and oral cavity and for presentation. Return to figure 3.1 to determine the appropriate attack for each multiphonic segment. Experiment with the dynamic contrast – some multiphonics, such as Bnm: 7 in bar 78, play very well at a softer dynamic, thus making it easy to speak seemingly out of thin air.

Fujikura writes “don’t move” several times throughout this section, indicating the significance of the rests. These serve two purposes: to remind the performer of the musical role the rests play and to indicate a theatrical order. The rests should be played with intention, not used merely as breaks between the musical lines. Motion should be felt within the rests, almost as if the segments are connected without any break in the sound. The theatrical aspect comes in when performing on stage: the performer should not physically move at all during these rests. Doing so would disrupt the visual and aural experience the audience is having. By staying still, the tension in the performance is built. Experiment with the length of rests – some of them are written to be slightly shorter than the others. While I do not believe this section must be played metronomically, the variations in length should be observed to build the tension.

Fujikura also writes a few *poco accel.* instructions over several bars. I suggest that, to build sufficient acceleration and to contribute variations in the texture, performers should consider using a quick single tongue to begin these passages and then switch to double tongue when the tempo requires it.

**Example 3.7. Poco Accelerando in the Forest**<sup>47</sup>

<sup>47</sup> Ibid, bar 84.



Using single tongue slightly changes the texture and timbre thus adding a slight variation to keep the section from becoming static. The performer can decide how slowly the start of the accelerando can be. I suggest a slightly slower tempo, but not too slow – the double tongue should re-appear by the start of Bnm: 3, on the “and” of the first beat. A slower double tongue is permissible, but the shift in timbre will not appear.

The multiphonics become louder, more accented, and more agitated as the section pushes towards the transition. The dynamic contrast becomes more extreme, often going from triple piano to fortissimo in one beat. The final segment of the forest is the longest and has the instruction “more and more agitated...”, indicating Fujikura’s desire for this segment to be the roughest.

more and more agitated....  
Bnm:9

more and more agitated....

94

ppp ff ppp ff ppp ff ppp ff p ff

more and more agitated....

96

p ff p ff p fff

### Example 3.8. The Agitated Multiphonic<sup>48</sup>

This multiphonic is quite stable, thus allowing the performer some flexibility in articulation and dynamic contrast. The chord speaks best when the head is lifted, as if playing

<sup>48</sup> Ibid, bars 94-97.

towards the back corner of the room, and with the open oral cavity discussed at the beginning of this section. This is the longest segment of multiphonic to play without a break and leads directly into the transition to section C. The difficulty in this section is maintaining the intensity and building it for as long as necessary. Practice playing this multiphonic double tongued with a crescendo, starting from triple piano, much as you would a long tone. The exercise would be structured as follows:

|-----Anacrusis-----||

<b>Beat Three</b>	<b>Beat Four</b>	<b>Beat One</b>	<b>Beats Two –</b>
<i>Inhale</i>	<i>set embouchure</i>	<i>multiphonic bnm: 9</i>	<i>build to FFF</i>
		<i>Begin at ppp dynamic</i>	<i>USE ABS to push air!</i>
		<i>Double tongue as fast as possible</i>	

**Figure 3.2. Double Tongue Multiphonic Crescendo Exercise**

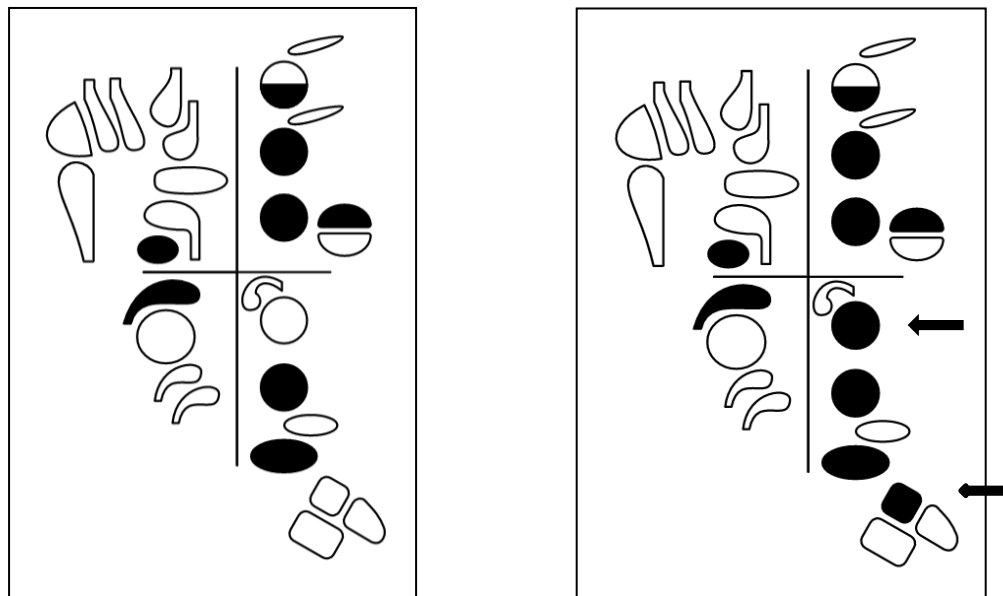
The multiphonic and double tongue can only be supported with abdominal pressure. Push the abdominal muscles in and up (in towards the spine and up towards your heart) to facilitate as much support as possible for the crescendo and the tongue movement.

If the tongue and crescendo together is too much or uncontrolled, the performer could choose to flutter tongue a part of this passage instead. The flutter tongue assists in building towards the transition, though with a differing texture. Flutter tonguing would begin at the piano dynamic in beat 2 of bar 96 and build through the crescendo in bar 97. The flutter tongue

position will allow for an uninterrupted transition to the G# in bar 98 if a seamless transition is the performer's intent.<sup>49</sup>

**b. Transition 2: Bars 98 to 126**

This longer transition is more lyrical than the first and prepares the listener for another forlorn horn call of sorts. It begins with a bisbigliando crescendo on G#, then alternating G# and F  $\frac{3}{4}$  sharps as a trill and then a rhythmic motif. The bisbigliando can be performed with either the low C#, resonance, or Bb keys. I have outlined a possible trill fingering pattern for this to accommodate the F  $\frac{3}{4}$  sharp. To successfully execute, the embouchure should be sitting near the collar of the reed with a fast air stream in an upward direction.



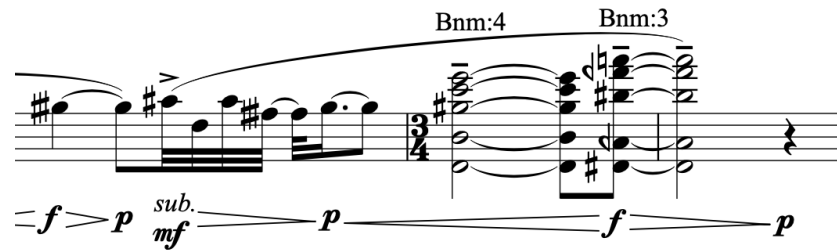
**Figure 3.3. G# to F  $\frac{3}{4}$ # Fingering**

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<sup>49</sup>Fujikura does not indicate a specific way to transition here. An immediate leap to the G# is jarring and quite effective but should only be done if the performer can maintain constant fast and loud air support through to the end of bar 103.

The second half of the transition is a lyrical melody with interwoven multiphonics. The multiphonics are mostly used to finish phrases, the multiphonics in bars 120 to 122 being an exception. The melodic motifs contain a significant number of quartertones which lend an eerie disconcerted feeling to the section.

Thankfully, this section's multiphonics are relatively stable and do not need serious oral alterations from the previous notes to execute the chords in time. In fact, a few of the chords are flexible enough that they can be slurred or even approached by glissando. Example 3.10 below shows a multiphonic entrance that can easily include a slight embouchure glissando.



**Example 3.9. Possible Embouchure Glissando<sup>50</sup>**

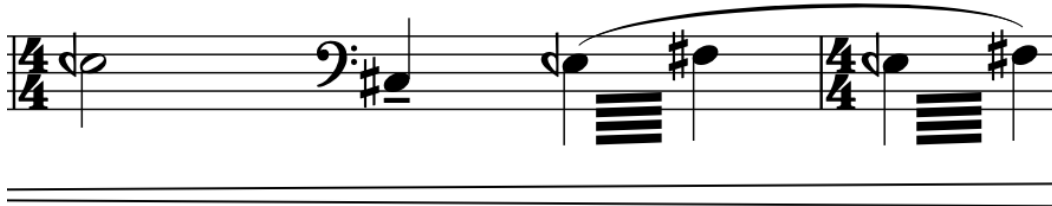
Bnm:4 requires a round embouchure and a dropped jaw to reach the tones. This multiphonic can easily be glissed into from the F  $\frac{3}{4}$  sharp by dropping the jaw and rounding the oral cavity very slowly. When this motion is completed slowly, before the fingers have switched to the multiphonic fingering, the motions create a downward glissando that then helps execute this multiphonic. This effect is subtle but assists in creating the physical foundation for the unstable chord.

Performers should heed the dynamics written in this section because they indicate how each multiphonic is best performed. Dynamics should always be performed with intention but, in

<sup>50</sup> *Calling*, musical score, bars 106-108.

this instance, the dynamics help the multiphonics speak at their best. Several of the multiphonics, such as Bnm: 9 and Bnm: 1, are sensitive to the speed and size of the airstream to the point that a quieter or louder dynamic will be the only way for them to be performed without significant changes in timbre or even tones heard. Because of these factors, it is important for the performer to honor the dynamics written.

The trill between E quarter flat and F#3 is worth mentioning.



**Example 3.10. E 3/4flat and F# trill<sup>51</sup>**

This trill is easily performed like the usual E to F# trill – with the high Eb key in the left hand. To get the flattened E, the low D key should be held down during the trill. Start by fingering the E with the low D key included, then trilling with the middle left finger on the high Eb key. The trill should easily flow out with the crescendo.

This transition finishes on a single note tremolo (could also be called a bisbigliando). This is achieved by trilling either the low C# key or the Eb (resonance) key. The low C# key will give the pitch a darker sound than the Eb key. It is up to the performer to find which key provides the best change in sound and maintains stability into the triple piano decrescendo.

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<sup>51</sup> Ibid, bars 119-120.

## C. Section C: Melancholy

### a. Bars 127 to 159

This passage uses multiphonics and quartertones to make up the subdued and melancholy ambience of section C. Bars 127 to 144 are short lyrical lines, reminiscent of section A's short motifs and not unlike the transitional material prior. These passages are all in the higher register and at a soft dynamic, requiring a rigid and slightly widened embouchure to maintain. Another multiphonic forest begins in bar 145. In this context, the multiphonics are played with longer rhythms and much broader dynamic contrast.

This passage should be played with as much gentle dynamic contrast as possible. The multiphonics allow for a very quiet attack – in most cases, an air attack is sufficient at the quietest dynamic possible. Bnm: 7, shown below, is a multiphonic that is easily performed at the requested pianississimo dynamic.

*molto espress.*

The musical notation shows a single staff with a treble clef and a key signature of one sharp (F#). The piece is in 4/4 time. The notation is divided into three measures by vertical lines. Above the staff, there are three labels: 'Bnm:7' above the first measure, 'Bnm:9' above the second measure, and 'Bnm:2' above the third measure. A large, curved line arches over the entire passage. Below the staff, there are dynamic markings: 'ppp' at the beginning of the first measure, 'p' at the start of the second measure, 'f' at the start of the third measure, and 'ppp' at the end of the third measure. A bracket under the 'p' and 'f' markings is labeled 'exaggerated cresc.'. The notation includes various notes, rests, and accidentals, including quarter notes, eighth notes, and sixteenth notes, as well as sharp and flat signs.

Example 3.11. Bars 135 to 139<sup>52</sup>

The chord is best begun by a supported air attack rather than the tongue. The tones sit in the low register – the embouchure should be very cushioned and round with the jaw slightly

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<sup>52</sup> Ibid, bars 135-139.

pushed forward. The air stream will be slightly slower, as if blowing warm air, and focus slightly downward. A very slow air attack with this physiological setup will allow the multiphonic to slowly speak. It is possible that only a few tones will be heard at first, but as the dynamic grows louder the chord texture will thicken.

This same physical makeup should be applied to each multiphonic attack in this section, regardless of dynamic level. Fujikura expertly matches multiphonics to their best dynamics in this work. Section C provides wonderful contrast in the piece and, despite its subdued tone, is an excellent place for the performer to show off their dynamic execution abilities. The colors that make up this section are beautiful, and many are only found when the performer pushes the dynamics to their limits.

Of note within this section are the leaps from a multiphonic to a single tone, particularly a single tone in an extreme register. Three of these leaps occur: one to D5, one to D#5, and the other to F#3. Example 3.13 shows the second performed leap, to D#5.

Example 3.12. Bars 147 to 151<sup>53</sup>

Most of the multiphonics within *Calling* are played with an open and round oral cavity. Fujikura sets up the bassoonist for the high D# by leading with a multiphonic that requires a lifted and “upward” embouchure. Bnm: 5 is played by lifting the chin up and putting more

<sup>53</sup> Ibid, bars 147-151.

upward pressure from the lower lip into the reed. This lifted position then allows for a swift change to D#5 at a quieter dynamic. When leaping to the D#, the back of the tongue will need to rise, and the embouchure should pull to the sides and up to stabilize the note. This is the only motion that needs to occur for the leap. Even though the physiology allows for a simpler registral change, I would suggest not becoming too quiet before reaching the D#. Much of the decrescendo could wait until Bnm: 5 to facilitate this.

**b. Transition 3: Bars 160 to 170**

The third is the shortest of all the transitions and is quiet explosive. The opening multiphonic reappears, this time paired with crescendos to A#4. This motif is sequenced eight time – each time becoming louder than the previous and using a different rhythm.

**Example 3.13. Bars 161 and 162<sup>54</sup>**

**(In treble clef)**

Effectively executing this sequence begins with the embouchure and oral cavity. Bnm: 2 requires a rounded oral cavity and a lowered tongue “oh” that becomes an “ay” vowel for the A#. The multiphonic embouchure can remain neutral – cushioned, round, engaged corner muscles –

<sup>54</sup> Ibid, bars 161-162.



then widen and become rigid when changing notes. Most of the motion should be in the oral cavity rather than the embouchure. Practice this sequence slowly. Additionally, note the large crescendo under all eight bars. While Fujikura writes heavily accented notes, the emphasis should not be heavy too quickly.

An explosion of sound occurs in bars 168 and 169. This multiphonic, built from F2, is bright and further exploited with *bisbigliando* and flutter tongue. This multiphonic is easily decentered, making execution difficult. When approaching the chord from the A# before, I suggest not making any major movement in the face. If possible, I would not breathe between the phrases. At the very least, a nose breath would help maintain the lip formation on the reed. When the chord is being performed, it is vitally important that the performer keep their face and air stream exactly as it is situated. Envision a bicycle wheel in front of your face. The air stream should be focused right into the rubber and be strong enough that the wheel would spin. This focus will engage the corners of the embouchure and stabilize the reed well enough that the flutter tongue is less likely to disrupt the lips.

To effectively flutter tongue this multiphonic, the embouchure must be very stiffly held, and the tongue should be as forward towards the tip as possible. For best effect, I strongly encourage either a tongue flutter or a tongue and glottal flutter. It is unlikely that a glottal flutter alone will make enough sound to disrupt the raucous chord, especially at the *fortississimo* level. The *bisbigliando* can be performed by the low C# key, the Eb (resonance) key, or the Bb key.

#### **D. Section D: Electric Guitar Solo**

This section marries multiphonics to large, distorted leaps between monotones. There are no quartertones in this section. Fujikura experiments with flutter tongued and double tongued

multiphonics with the fast melodies. He also gives a tempo marking of quarter = 90 which, in context, is very fast. Gallois and Heller both perform this section between 66 and 72. As mentioned previously, it is far more important that this section reflect the character and energy in the articulation rather than a fast tempo. The registral leaps are far more impressive when they are played with steadiness and the “distorted electric guitar” effect is lost at a faster tempo. Moreover, executing embouchure changes becomes more difficult at such a quick tempo. I suggest concentrating on the articulation and techniques in this section before considering tempo. A tempo that feeds clear articulation and clean registral changes is the appropriate tempo here.



**Example 3.14. Monophonic Guitar Solo<sup>55</sup>**

The opening bars of the section above reflect the structure of the section’s monophonic lines. Phrase markings hint at longer phrases – note the long slur lines over the entire system – and articulations are deliberately placed. As the section progresses, the articulation becomes heavier. Eventually, at bar 195, every note has an accent and tenuto. This progression is important in the pacing of the section – it is important that the initial bars are not overly heavy or loud to pace for the heavy articulations and dynamics further in. Pay close attention to the articulations as they are written here.

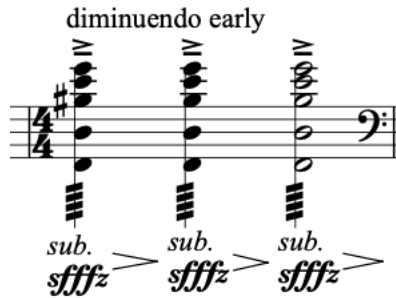
The monophonic lines in this section require significant embouchure flexibility. The above first line alone requires the two extremes very close to each other. Pitch is particularly vulnerable in this passage – the widened and brittle embouchure the performer begins with will

<sup>55</sup> Ibid, bars 171-173.

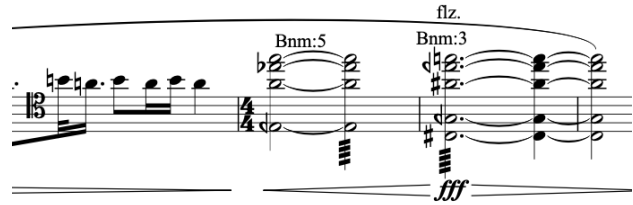
need to quickly cushion and round out to the low D#2 so as not to play the pitch too sharp. Practice bars 171 and 172 individually very slowly to find the embouchure most comfortable for each. Only after finding the appropriate embouchure for each range should the transitions between be practiced. Begin very slowly (eighth note equal to 50 is a good place to start) and play beat four of bar 171 through beat three of bar 172. Focus on quickly pushing the corners of the embouchure in towards the reed when descending— the lips will relax slightly from their brittle stance and provide cushion when the corners are pushed in. This will also provide a very slight “pout” that will drop the tongue and open the oral cavity. The vowel in the oral cavity must go from “ay” or “ee” to “oo.” Only when this is mastered at a slow tempo should the performer attempt a faster tempo.

The D#2-C#3 repetition in bar 172 has a tricky fingering and registral shift that may make reaching the low D# difficult. I suggest adding descending slurs from C# to D# and keeping the pancake key down for C#. The pancake key will keep the pitch down for C# and maintain the smooth line.

Every multiphonic of this section is flutter tongued. Some are immediately attacked with flutter. In others, the flutter begins in the middle of the note after the attack. By combining these two techniques, Fujikura creates more tension and chaos in the sound. Examples 3.15 and 3.16 show an example of each of these multiphonics in context.



Example 3.15. Flutter Attacked Multiphonic<sup>56</sup>



Example 3.16. Delayed Flutter Multiphonic<sup>57</sup>

Execution requires practicing the embouchure for each chord. Take each multiphonic and find where the embouchure needs to be placed and what vowel is in the oral cavity. If flutter tonguing with the tongue (which I suggest, if possible), the tongue will need to be as close to the tip of the reed as possible. It may feel as though the tongue is on top of the reed. Practice attacking each multiphonic with flutter tongue. The embouchure may need to be adjusted to accommodate the tongue movement. Ensure that the corners of the mouth are pulled in towards the reed so they hold the reed in its place before adjusting the cushioning of the lips. It may take several attempts before a stable multiphonic is executed without a bump in the sound. When approaching a multiphonic that is not immediately fluttered, practice the same motion – find an appropriate embouchure, vowel, and tongue placement – to find the stable attack position. Most of these chords require a cushioned embouchure with a lowered tongue. When adding the flutter motion, maintain rigid corners. The corners of the embouchure will hold the reed in place and prevent the embouchure from distorting. Tongue placement will often result in an “oo” or “oh” vowel, though with flutter the performer should experiment with a lifted “eh” or “ay.” When note attacks can be performed with proper embouchure placement, sustain the chord for a beat,

<sup>56</sup> Ibid, bar 184.

<sup>57</sup> Ibid, bars 191-194.

then lift the tongue towards the reed tip and flutter gently, like a cat’s purr. Like an initial attack, aim for the start of the flutter to be as seamless as possible. A faster air stream will support the tongue activity. Push harder from the abdominal wall, both from the belly and from the sides (abdominals and obliques). There should be a lot of tension within the abdominal cavity – the oral cavity and throat must remain open and relaxed.<sup>58</sup>

The multiphonics in section D are mostly stable and easily performed, though there is one passage where the performer can shift how the flutter is performed to assist in textural and dynamic contrast. Example 3.17 below shows these bars. In this context, the flutter tongue assists in the big crescendo. Rather than focusing on the dynamic growth, I suggest using the flutter to create the chaotic growth, i.e., delaying the flutter on each chord in bar 192 until slightly after the initial attack. By doing this the performer ties the flutter to the crescendo, which supports both the crescendo and the tongue movement. This change also highlights the chord as a transitional moment – immediately after, the performer begins the final monophonic race to the end.

Example 3.17. Fluttered Multiphonics<sup>59</sup>

<sup>58</sup> This is, of course, good advice for playing any kind of music at any time, though it is particularly important here – there is no way the multiphonics and flutter tongue will be supported if the abdominals are not actively participating in pushing the air in and up. At first, exhaustion or lightheadedness may occur. Practice these exercises daily until you can perform them with plenty of stamina. Beware of hyperventilation.

<sup>59</sup> *Calling*, score, bars 199-202.

The final material after these multiphonics is a makeshift coda. Fujikura writes in the tenor register using many of the same rhythmic patterns from before, though this passage has a long decrescendo under the final nine bars. Bars 208 to 211 are a repetitive sequence where, finally, the performer need not accent every note. These bars can be played gently and at a steady dynamic – care should be taken to not decrescendo too much too soon. The triple forte dynamic should be kept in bar 207, then quickly settle to around mezzo-forte in bar 208, where it could stay until the multiphonic. If the dynamic is too quiet when the multiphonic is reached, the performer will have difficulty supporting the chord with a double tongue for any length of time, nor can any more dynamic contrast be made. This final chord is one final jolt in the sound – it should be slightly emphasized. If desired, the performer could add a slight crescendo in the third beat of bar 211 into the multiphonic to emphasize this final chord change.

Depending on the tempo and the performer's ability, it may be difficult to play through the ending multiphonic in one breath – the final obvious “phrase” breath is between bars 206 and 207. Unless the performer can circular breathe to the end and chooses to do so, a breath will need to be taken before the final chord to facilitate support for the double tonguing. I suggest waiting until at least bar 210, if possible. One possible spot is bar 210 in the third beat, after the F dotted eighth and the B 32<sup>nd</sup> note. An earlier breath is certainly possible. What is most important when breathing here is making the breath part of the music rather than an interruption of the line.

While the performer should make every effort to keep the final system smooth, several of the leaps written in the melody are difficult to perform without any articulation from the tongue. Down slurs to A3 are difficult to execute smoothly in any context and slurring from A to F jumps a registral break. To facilitate smoothness, I suggest gently emphasizing each A either with air or tongue and lightly tonguing F when it is approached by ascension (from A to F, in this context).

A should also be flicked or otherwise vented – the speaker key used will facilitate down slurs. As with the dynamics in this passage, experiment with the articulations possible. Aim for this section to be as smooth as possible to provide the contrast the piece needs to finish.

The final multiphonic is built on stable Bm: 8. Make sure the approach to the chord is not too quiet. Inserting a small crescendo into beat three of bar 211 would cushion the attack on the chord and provide some energy to back off from. Maintain intensity in the multiphonic even as the sound diminishes. The taper in sound should come from embouchure cushioning – the lips should form a tight “oh” with rigid muscles. This is a similar formation as if whistling. If possible, practice whistling a middle-range tone and pushing the lips into each other until the sound dissipates. This is the type of embouchure movement necessary. It is okay if the tongue continues to articulate after the reed stops vibrating.

## **II. Putting Performance Together**

When programming *Calling*, the performer should carefully consider which pieces to program with it and the stamina needed for the program. As Fujikura mentions in his program notes, *Calling* and *Following* could be programmed together, with *Calling* either immediately after *Following* or later in the program. In the next chapter, on *Following*, I will observe the melodic makeup similarities in these two pieces, so their relationship becomes more apparent. The piece would make an excellent competition choice, either as one of the core pieces or if the performer can choose a solo for the final round. *Calling* is the epitome of what the bassoon is capable of. Fujikura harnesses its power and beauty perfectly. Either as a study piece or competition tool, *Calling* offers bassoonists enormous growth opportunity as a contemporary performer.

## Chapter 4: FOLLOWING

Fujikura wrote *Following* for Rebekah Heller in 2013 as a sister piece to *Calling*. It was included in the final round of the Gillet-Fox Competition for bassoon at the International Double Reed Society Conference in Boulder, Colorado in July 2022. The piece has a more subdued approach than *Calling* – there are fewer advanced techniques used and the general pace is slower.

### I. Structure

The melodies and motifs of *Following* are written to emulate the motion of a river. Fujikura discusses how the river reflects sunlight and has numerous sharp turns, though the water is always peacefully flowing.<sup>60</sup> Fujikura establishes the river sounds and shape with motivic and dynamic gestures, tied together with deliberate phrasing. Additionally, Fujikura writes in the score above the tempo marking: “It is not possible to interrupt the melodic flow in order to breathe.” These instructions tell performers to pay special attention to the phrasing as he has written it.<sup>61</sup>

The work is divided into three overarching sections: the initial opening musical motifs from bars one to 32 (section A), bar 33 to 65 (section B), then 66 to the end (section C).

Section A begins with an original theme centered around F#4.<sup>62</sup> After this initial thematic statement, Fujikura uses a few quartertones and glissandi to extend the phrases into each register.

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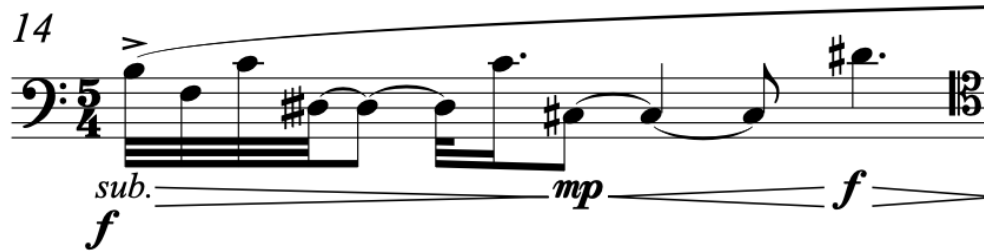
<sup>60</sup> Dai Fujikura, “Following,” Dai Fujikura, accessed Oct. 26, 2022, [https://www.daifujikura.com/un/lw\\_following.html](https://www.daifujikura.com/un/lw_following.html)

<sup>61</sup> Dai Fujikura, *Following* (Berlin: G. Ricordi & Co. Bühnen und Musikverlag, 2013), musical score, 1.

<sup>62</sup> Original theme as compared to the materials in *Calling* and the concerto.



This is the only section where advanced techniques are used within the work. Some of the motives from *Calling* are heard, such as example two below from bar 14, which is a near exact re-statement of bar 48 from *Calling*.



Example 4.1. Bar 14 of *Following*<sup>63</sup>

Bar 14 is a good example of the general rhythmic motion in the entire work. Phrases often begin with either a slow or fast motif and then end with the contrasting tempo. Bar 14 begins with a very fast rhythmic motion and finishes with slower rhythms. The opening bars begin with slower rhythms and finish with faster ones. Given that Fujikura talks about the constant peaceful motion of the water, a performer could decide that the slower rhythms – dotted quarters, half notes, etcetera – may be the river at a neutral pace, without any sharp turns, rocks, or debris interrupting the natural flow. The interjecting sixteenth and thirty-second notes are nature’s interruptions and can be colored as such. This is not to say that the rhythms should be played without rhythmic integrity. These faster rhythms could be considered ornamental in nature but should be played evenly and equally.

Section B is a new section that refers to motivic material from the concerto. This section is in a sort of rounded binary form. Bars 33 to 36 are replicated at bar 61 to bar 65. The middle section from bars 37 to 60 present a lyrical melody that climbs higher in the range to sit around

<sup>63</sup> Fujikura, *Following*, musical score, 1.

D5 and D#5. Beyond sitting in the higher register (though not extremely high), bisbigliando is the only advanced technique used in this section. Bisbigliando colors the end of the phrase in bar 42.

The final section C begins in bar 66. This section returns to fragments heard in *Calling*, though this section contrasts with the first by acting as an engine towards the finish rather than an independent section, or an afterthought to the previous two sections. It is a coda. Sequenced motifs, reminiscent of the electric guitar solo from *Calling*, push the tempo forward and higher to the finishing Eb5. The final Eb5 statement is double-tongued as fast as possible, building to a mezzo-piano dynamic and receding back into rests to finish the work.

## **II. Advanced Techniques**

Fujikura has written a piece focused on evenness of tone and gently flowing lines. Thankfully, the smoothness of the lines reflects in the fingering motion for the various techniques in the work. We will see how the quartertones of the piece flow nicely with the fingerings of the fundamentals they are with and discuss how each technique contributes to the gentle musical motion.

### **A. Quartertones**

The quartertones of *Following* are used to emphasize neighboring tones within melodies. They contribute to the overall melody without being an overly significant component. Given that they are mostly used as neighbor and passing tones, finding the fingering relationships between the quartertone and its fundamental is simple.



Example 4.2. *Following*, bar 5<sup>64</sup>

The first quartertone, depicted above, is F three-quarter sharp based on F#4. It serves as a passing tone between F# and F natural in the above depiction. Bar 8 begins back on F#, making the quartertone above a neighbor tone in that situation. The fingering for this note builds from F# by using what Cooper and Toplansky refer to as “the French F#” fingering and adding the Bb key.<sup>65</sup> Below is a formal fingering chart for both notes:

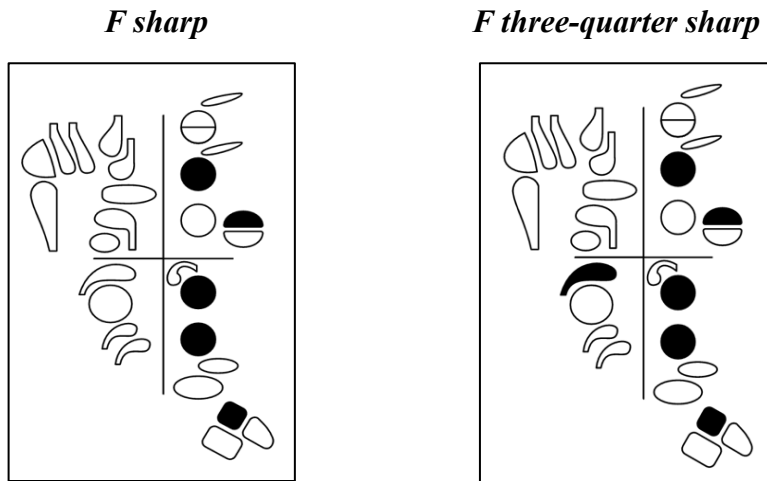


Figure 4.1. Suggested Fingerings for F#4 and F <sup>3</sup>/<sub>4</sub>#4

This F# fingering is suggested for one primary reason: it allows for very easy flow from one fingering to another. The F three-quarter sharp fingering is essentially the combination of Cooper and Toplansky’s “regular” F# fingering and the French fingering. This means using the

<sup>64</sup> Ibid, bars 5-6.

<sup>65</sup> Lewis Hugh Cooper and Howard Toplansky, *Essentials of Bassoon Technique* (Union, NJ: Howard Toplansky, 1968), 227.

regular F# fingering is also possible – the three-quarter sharp would be achieved by adding the low F key in this instance.<sup>66</sup> With whichever F# fingering is chosen, the focus should be on making the transition between the two notes as seamless and smooth as possible.

The second quartertone presented is C5 three-quarter sharp. This serves as a sort of passing and neighbor tone simultaneously. It is approached from C5, then resolves to C#5 (the resolution is not seen in the following example). The result is a beautifully colored start to the phrase that sounds like a glissando.



**Example 4.3. C5 and C5 three-quarter sharp<sup>67</sup>**

**(Example is in tenor clef)**

Fingerings for the higher register become more complicated, though many possibilities still exist. Bartolozzi offers a fingering that adds the C# trill key to the C# fingering to reach the three-quarter sharp level, though some may find this to be difficult to achieve with the B tone hole covered as well. I have found an alternate fingering that does not engage the C# trill key and still reaches the appropriate pitch level. Example 4.5 has the suggested fingering sequence and the Bartolozzi fingering example.

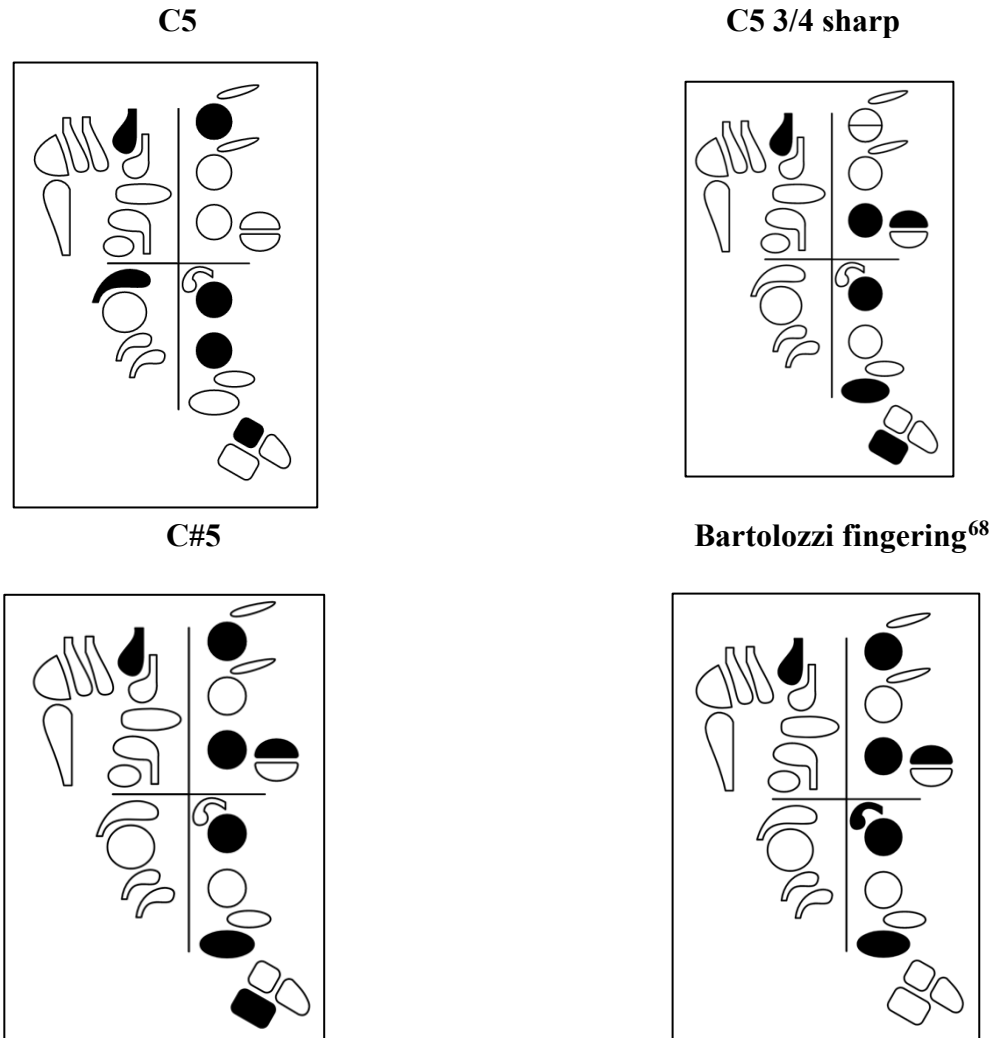
As with any quartertone fingering, finding the appropriate pitch is crucial. The below fingerings should be adequate in reaching a pitch “zone,” but some embouchure and air changes may be needed to reach more precise pitch percentages. I suggest practicing these transitions

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<sup>66</sup> Ibid, 226.

<sup>67</sup> Fujikura, *Following*, 1, bar 9.

very slowly with a slightly brittle embouchure – instead of rounded lips, make the lips horizontal and more rigidly flat. An “aye” or “ee” vowel should be engaged in the oral cavity. Finally, when the embouchure is set, air pushed from the abdomen should vibrate the reed. The speed and amount of air necessary for these pitches can be determined with a tuner. Practice slowly and experiment with the above components.

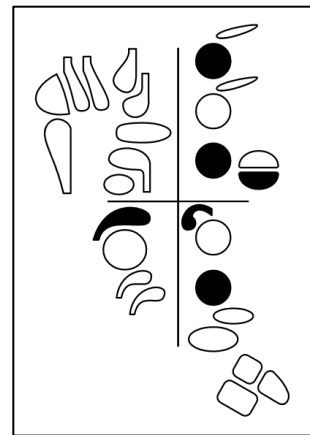


**Figure 4.2. Suggested Fingerings for C5 to C <sup>3</sup>/<sub>4</sub># to C#5**

<sup>68</sup> Bartolozzi, *New Sounds*, 32. Fingering realized into graphic from Bartolozzi numbers.

The final quartertone in *Following* is in bar 14. As discussed earlier in example 4.1, this motif appeared in *Calling* and is built from the fundamental D#3 fingering. This fingering is straightforward, but the difference with this quartertone is that it is part of a motif rather than a neighbor or passing tone. It is a connection within a phrase that has more significance and, thus, care should be taken to find a fingering that is stable, with a warm timbre. The below fingering is the fingering I suggest.

**Example 4.4. D3 three-quarter sharp fingering**



This fingering is a slight variation from Bartolozzi’s suggested method. The A tone hole in the right hand can be left out entirely. I include the A tone hole for a slightly darker sound, but the note is stable without. The resonance key may be used instead of the low C# key. This quartertone is best played with an “oo” vowel, per the register and to guarantee a supple and stable sound.

## **B. Glissandi**

Fujikura’s use of glissandi in *Following* differentiates the work from the others – it is the only work that uses glissandi, and the technique is excellently used within the context of the piece. A glissando, similarly to the use of quartertones, contributes to the “flowing river” quality of the work. The glissandi of the piece are confined to section A, within two bars of each other.

Example 4.5. Glissandi<sup>69</sup>

The first glissando is from A4 to the Bb a step above in bar 15. This glissando is easily executed by combining Gallois' lip and finger glissando techniques. Because A4 to Bb4 is not possible by only moving one finger, using both lip and finger glissando techniques is necessary.

- Begin by fingering A4 and play using proper embouchure (slightly rigid) and an operatic “aye” vowel in the oral cavity, focused air speed, tongue slightly up.
- Push the lips in towards the teeth, which will shift the reed a little bit further into the mouth. This will raise the pitch enough to begin the glissando up. Experiment with how far the pitch can be manipulated using only air and lip adjustments. For some, a near complete half step may be possible.
- While the air is adjusted, begin to push down the necessary fingers towards Bb. I suggest using a basic A4 fingering with only the third finger in the right hand. This minimizes finger motion between A and Bb.
- Return to the glissando exercise in chapter 2 for a structured guide.

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<sup>69</sup> Fujikura, *Following*, bars 14-20.

The following glissando from F4 to G#4 is a bit more difficult due to the distance between the notes. There are several ways to execute this, depending on reed and embouchure flexibility:

1. Lip glissando through each note, switching fingerings when needed to reach G# - as in the glissando method from chapter two.
2. Lip glissando as much as possible from F then changing immediately to G#. This may feel like more of a leap than a glissando but may be a fine option if the reed and embouchure are flexible and can be sharpened enough through lip manipulation alone.

Either of these options are valid for achieving this glissando.

It is wise to become comfortable with each kind of glissando for general technical development. Practice these glissandos and others as they appear in music slowly and precisely. The nature of the instrument allows us to be flexible in how we execute certain techniques. Additionally, a reed's behavior may also be the deciding factor in which glissando is best for a performance. The more comfortable performers are with each way of performing glissandos, the easier it will be to decide which glissando is best for a performance on any given day.

### **C. Bisbigliando**

There is only one bisbigliando in the work – in bar 42 on C5 and Bb4. In this context, the bisbigliando is used to color the end of a phrase in section B. Bisbigliando feels underwhelming as a technique on the bassoon, but it plays an important role in creating sound that is otherwise not usually heard or written. Below is an image of bar 42.



bisbigliando

○+○+

Example 4.6. Bisbigliando on C5 and Bb4<sup>70</sup>

I suggest the resonance key or low C# key be used to achieve a convincing color change in this instance. As is the case of any bisbigliando, however, experimentation is crucial to find the best fingering.

#### D. High register

Section B of *Following* contains a prolonged section that sits primarily around D#5. This is getting into an uncomfortable register to sit on. As in *Calling*, embouchure formation and air speed will be crucial for a comfortable execution.

Example 4.7. High Register<sup>71</sup>

<sup>70</sup> Ibid, bar 42.

When playing in this register (above D5), a brittle embouchure is desirable. More reed needs to be in the mouth – the lips should be near or on the collar. The lips should be thin and spread wide rather than rounded and cushioned. Think of making an “M” embouchure rather than the rounded “oh” embouchure we usually play with. This embouchure will feel pulled tight – this is appropriate. The lips should not overly compress on the reed, though the tightness from pulling the embouchure to the cheeks will apply more pressure evenly on the blades. Think of holding the head up a little higher and pushing up from the bottom lip a bit. Experiment with the amount of embouchure pressure to find the appropriate pressure for the D#5. In addition to the tight embouchure, an “ee” vowel is best used. This vowel will help with intonation.

Maintaining this face throughout these bars is crucial. This is easily done by breathing through the nose rather than moving any of the embouchure to breathe into the mouth. This may feel strange if the performer is used to solely practicing mouth-breathing but will ensure the embouchure stays in place while inhaling. Practice this slowly. Get as much air in as possible without making excessive noise.

### E. Eb5 double tongued staccato

**Example 4.8. Bar 77**  
(Excerpt is in tenor clef)

double tonguing staccato.  
as fast as possible

....

*mp*

<sup>71</sup> Ibid, bars 51-58.

The final note of the work is the above example from bar 77. A proper double tongue is extremely difficult in this register – the thin embouchure and air stream make double tonguing difficult to support, especially at a piano dynamic. The effect of a rapidly articulated Eb can be achieved without any tongue contact on the reed.

A high register embouchure is appropriate here. The Eb can be achieved at the soft dynamic with a very thin and rigid embouchure. Practice long tones at the piano dynamic and crescendo to mezzo-piano. An air attack may be sufficient, or the reed may need to be tongued to start the note. Experiment with articulation to find the smoothest attack as possible.

To articulate the double-tonguing effect, experiment with the following:

- Double tongue: gently(!) articulate the reed with a complete double-tongue – engage the abdominal muscles completely to support the air. There should be tangible tension along the abdominal wall before the air is pushed into the reed.<sup>72</sup> Articulate very gently with the tongue hitting the top blade of the reed. The tongue will feel high in the mouth. This will help support the embouchure and register.
- Jaw “wobble”: with a thin and rigid embouchure, blow the air to vibrate the reed and very slightly wobble the lower jaw to create waves in the sound. It may sound like vibrato. Experiment with how much movement is sufficient to disrupt the air, as if articulating with the tongue.

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<sup>72</sup> Regardless of the method of articulation used in this motif, feeling the tension within the abdominal wall before beginning to blow air into the reed is a good standard of practice in all playing.

- Tongue “wiggle”: it may be possible to simply “wiggle” the tongue in front of the reed to mock an articulated sound, though this is perhaps the least reliable option. With the engaged embouchure, wave the tongue up and down or side to side. If the tongue movement is rapid enough, the sound will have the bumps that mimic articulation.

Practice each of these methods using the following process:

<b>Anacrusis</b>				<b>Quarter = 60</b>
<u><b>Beat Four</b></u>	<u><b>Beat One</b></u>	<u><b>Beats Two and Three</b></u>	<u><b>Beat Four</b></u>	
<i>Inhale; set embouchure</i>	<i>Blow with no articulation; establish good pitch slight crescendo</i>	<i>Apply articulation method; sustain through beat three crescendo in beat two decrescendo slightly in beat three</i>	<i>decrescendo until sound stops articulation may need to be altered or stopped to make a controlled taper</i>	

**Figure 4.3. Articulated High Eb Exercise**

### III. In Performance

*Following* offers a bassoonist a lot of room for interpretation and soloistic performance.

Fujikura has written clear instructions, though many of the phrases and articulations allow for an individual approach.

The phrase markings can dictate where the performer should breathe. However, particularly in section A, there is a slur over entire systems.<sup>73</sup> If interpreted literally, this would mean “no breaks should be made at all, even between phrases” though I believe that Fujikura is insisting on accentuating the overall line of the piece – that is, of the river. The piece should flow

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<sup>73</sup> See bars 14 to 27.

without significant breaks within each section. Thus, the performer should carefully choose where to breathe. Much of the time, appropriate breathing spots will be obvious, such as a natural diminuendo and taper in the lyrical line. Some spots, though, will be less obvious and up to artistic interpretation.

The image shows two systems of musical notation. The first system, starting at bar 21, is written in treble clef with a 3/4 time signature. It contains a melodic line with dynamic markings *p*, *mf*, *p*, and *f*. The second system, starting at bar 24, is written in bass clef with a 3/4 time signature. It includes a triplet in bar 24, dynamic markings *mp*, *mf*, *p*, *f*, and *mp*, and the instruction "molto espress." above the staff.

Example 4.9. *Following* bars 21 – 26<sup>74</sup>

As mentioned above, the latter half of section A, primarily from bar 21, contains less obvious phrase markings. The systems both have overarching slurs (to indicate the long flow of the lines) and shorter dotted slurs over smaller phrases. This section is to be felt like one long line, but it would be very difficult to play it in one breath. So, the performer must decide where the best place to breathe is located. From bars 21 through 23, I suggest breathing on the bar line at the end of bar 22. At this point, a breath can be taken to push the performer through to the beginning of bar 26, at which I would suggest taking a breath at the mezzo-piano dynamic. By waiting to breathe towards the end of the second system, the bassoonist is set up for the forte ascent into the tenor register in the next system. Small lifts can be inserted at the ends of

<sup>74</sup> *Following*, 1.

diminuendos to signify a shift, though care should be taken to not cease the flow of the music altogether.

The breaths taken in the entire piece should be deep but fast – the breaths should be felt as if they were part of the music itself. Breaths should be intentionally marked and honored as musical phrasing. Part of the flow of the piece is from the lilt in the phrase from breaths. When the breaths are honored as part of the piece and intentionally done rather than performed as simply a physical necessity, the music can take its full effect.

## Chapter 5: SECRET LEAVES

*Secret Leaves* is an adventure through a beautiful mystical forest. In the ensemble version *Secret Forest*, the bassoonist stands in the middle of the auditorium and acts as the wanderer admiring the sights and sounds of this forest. The forest is some sort of mystical place where those who wander in it are not affected by allergies or surprised by rough sounds. The tree leaves seem to glow beautiful colors.<sup>75</sup> In the solo, the bassoonist must act as both wanderer and forest. Fujikura uses technical effects to create the feeling of being surrounded by trees, birds, and the awe that comes with observing such a place.

### I. Structure

*Secret Leaves* is difficult to dissect into overarching structural pieces. It is made up of short individual phrases that are strung together into one large work. The work could be divided based on tempo and lyrical makeup. This would mean looking at *Secret Leaves* in three sections. Section A is bars 1 to 26, Section B is bars 27 to 75, and section C is 76 to the end. Fujikura's instructions at the beginning of the piece explicitly state that the piece is to be played as if it were one phrase. The phrase structure and "NO Gap!" instructions through the work further indicate Fujikura's intent. With that in mind, I will divide *Secret Leaves* into three chunks for sake of analytical conversation.

The piece is written like a pyramid, with a build to a fast, loud climax with a return to a softer, slower atmosphere. Within this structure, Fujikura builds to the climax using both rhythm,

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<sup>75</sup> Dai Fujikura, "List of Works – Secret Forest," accessed Oct. 26, 2022, [https://www.daifujikura.com/un/lw\\_secretforest.html](https://www.daifujikura.com/un/lw_secretforest.html)

tempo, and articulation effects. The piece is constructed with alternating monophonic and multiphonic passages that each lend to creating the mystical forest.

Section A of *Secret Leaves* is an exact copy of the large bassoon solo on page 26 of *Secret Forest*. It begins with the monophonic melody, the entrance of the forest creatures and wanderer. This opening is lyrical and song-like. Several bisbigliando color long tones, adding shimmer and depth to the sound. The grace notes build to the depth with larger leaps. They are ornamental in nature, though may illustrate another element of the forest.

Fujikura builds up to the first multiphonic presentation with a C#5 bisbigliando crescendo before relaxing into the multiphonic, based on A2. This multiphonic introduction is brief. It is stated three times with the same hairpin dynamics used with all multiphonic in the work. This passage is immediately followed by a return to the lyrical melody with more vigor until we come to the next multiphonic statement in bar 23, signaling a longer shift in texture.

Section B introduces the first extended multiphonic passage. In this passage at bar 27, the multiphonic is double-tongued with the hairpin dynamics. These techniques together create a circular aural pattern – in other words, a surround-sound effect. This occurs again only at the end of the work. These sections are reminiscent of the multiphonic forest from *Calling*.

double tonging

27

13/8

**Example 5.1. Double-tongued Multiphonic with Hairpin Dynamics<sup>76</sup>**

<sup>76</sup> Fujikura, *Secret Leaves* (G. Ricordi & Co. Bühnen und Musikverlag, 2011), bar 27.



As the work progresses, Fujikura continues with many of the same technical combinations. The passages alternate from softer multiphonics to lyrical melodies. The tempo accelerates in bar 40. The intensity from the acceleration comes in both tempo and rhythm – the faster rhythms in the monophonic lines of bars 40-43, 50-55, and 67-70 contribute to the frenzy. The multiphonic bars in between feel much slower in comparison, due to their slower rhythms – they are mostly comprised of half notes, dotted quarters, or tied notes.

The multiphonics of section B are presented in two ways – each phrase either has only one stated chord or the phrase alternates between two. The hairpin dynamics remain. In the phrases with two multiphonics, the fingerings are similar enough, or at least do not usually involve multiple finger switches, to facilitate easy movement.

Fujikura also leaves strict instruction on the dynamics to be used in this section. Where section A had fewer dynamic instructions, section B has dynamic shifts in nearly every bar. The multiphonic hairpin dynamics continue. The monophonic melodies have augmented dynamics, i.e., the crescendos and decrescendos are lengthened to accommodate the phrase structures.

Section B leads into section C by a decrescendo into a brief pause. Fujikura does not put a “NO Gap!” instruction here, thus allowing the performer to create a moment of silence to signal a change. Bar 76 returns to a slow melody with a grace note lead-in, like the melodies of section A. The phrases continue to be short and still alternate between short, two-to-four bar lyrical phrases between several multiphonic bars. Though this structure is like that of section B, the slowed rhythms and tempo are mindful of section A. Fujikura uses a new multiphonic here that was not used in the previous sections that gives the piece a rich and resonant feel. This multiphonic is stated on its own and juxtaposed with another multiphonic.

The finishing motif is the same double-tongued multiphonic from bar 27. This statement of the motif is given a specific timeframe rather than a notated sequence. The performer is to play the double-tongued multiphonic with the hairpin dynamics for 16 to 18 seconds while the dynamic drops to nothing. Some performers may find sustaining a double-tongued multiphonic to be difficult for that long, even at a quieter dynamic. In this instance, it is more important for the diminuendo to be controlled and well-executed, even if the phrase is not as long as explicitly written.

## **II. Advanced Techniques**

Because of the mysticism and illustrative quality of the work, it may help to approach the techniques and melodies as though they are characters. When the bassoonist is playing monophonic melodies, they are acting as the birds, bugs, or even the wanderers themselves speaking. The multiphonic phrases are the forest trees and the magic within. In a performance, the bassoonist is the wanderer, standing in the woods, surrounded by all the sounds within the forest coming from the instrument.

With these factors in mind, the performer should consider how each advanced technique illustrates the sounds and sights of the forest. This understanding will help in creating the techniques and knowing their role within the piece.

### **A. Multiphonics**

The multiphonics in the work illustrate the sounds of nature – the birds, the fauna, the mysticism of the trees. Fujikura notes that the mystery in the forest is from the lack of allergens and a faint glow from the leaves, so the piece should be played with some mystical elements.

This is done by using the breadths of sounds created with the multiphonics. Each multiphonic will differ slightly in stability, richness, and depth of sound. Experimentation with the chords is key to finding how they feel on any given instrument set-up.

**Meno mosso**  
♩ = 60

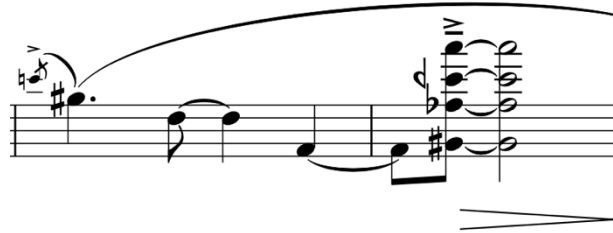
**Example 5.2. Multiphonic #1**<sup>77</sup>

Example 5.2 shows the first multiphonic in *Secret Leaves*. This multiphonic is a manipulated A2 fingering with the left hand first finger lifted. The difficulty in this multiphonic lies in the approach. The embouchure must change from a rigid high register to a round, more cushioned embouchure immediately to make this multiphonic speak properly. The chord is sensitive to the vowel and air direction from the embouchure. When coming to the multiphonic from C#5, practice first making the “ee” or “aye” vowel drop to an “oo” vowel by dropping the jaw.<sup>78</sup> The movement should primarily take place with the tongue falling back. The lips should move in to become rounded again. After this action becomes comfortable, the direction of the air stream becomes more natural. The air stream should shift immediately downward, as if blowing air to the floor. Create a slight overbite over the reed and pushing down very slightly on the blade from the top lip. This pressure will keep the multiphonic from “bumping”, particularly when making the dynamic changes.

<sup>77</sup> *Secret Leaves*, bar 16.

<sup>78</sup> The choice of “aye” or “ee” in the higher register will vary on the performer’s choice, but I suggest one of these two to support the higher register prior to this multiphonic.

The second multiphonic presented in the piece is introduced in bar 23. It serves as the end of the phrase and then as transitional material into the larger section B. The multiphonic is again used as transitional material between phrases in bars 36 to 39.



**Example 5.3. Multiphonic #2**

**(Example is in tenor clef)<sup>79</sup>**

This multiphonic is a manipulated D2 fingering. There are several multiphonics used in this work that have this low D as their fundamental. This specific chord is low D with the front pinky F# added.

Like the previous chord, this multiphonic can be tricky to set up. The chord requires some upwards pressure from the lower lip. The embouchure should remain rounded but the upwards pressure from the lower lip will secure the notes within the chord. Think of lifting the head up rather than just pushing up from the lip – the support from the jaw will help take some pressure from the lower lip. It may help to crescendo into the multiphonic, as well. A crescendo starting on C through the E and into the chord will build a faster airstream. The air should be fast and narrow. The diminuendo is achieved by wrapping the corners into the reed while the air remains fast.

This multiphonic continues to have small hair-pinned dynamics over an extended decrescendo into the start of section B. This occurs again at bar 36 but, this time, is built over a

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<sup>79</sup> *Secret Leaves*, bar 23.

crescendo. Keeping the embouchure steady and the lips round are key to stability for this chord. The dynamics can be achieved solely with abdominal support. The embouchure should only come into play to cut off the chord as discussed above.

For the third multiphonic, the beginning of section B, we can return to example 5.1. This multiphonic introduces new texture through the double-tongued chords with the hairpin dynamics. This gives the music a particularly “spooky” feel. The resulting doppler effect from the dynamics can make the listener feel “surrounded,” as if they too were in the forest with the bassoonist.

This multiphonic fingering is built from G2 (low G) with the left hand second finger lifted. This multiphonic may be difficult for some instruments to achieve with the given fingering alone. I suggest adding the resonance or low C# pinky keys to help fill in the chord. Additionally, a heavy reed or reed that is too open will struggle to find all the pitches within this chord and be difficult to tongue rapidly enough. The reed used for this work will need to have power but should not be so heavy or new that it lacks flexibility.

This multiphonic requires a round embouchure and a fast, narrow airstream. Additionally, keeping the tongue in the center of the mouth where it can move quickly but with as little motion as possible will help maintain the purity of the notes. It is important to keep the face as still as possible when double-tonguing the multiphonic.

While finding a reliable sound is important, the focus of this section is not on each pitch. The focus is on the percussive effects from the articulation and the sensation of being surrounded by the forest. Finding the most reliable and stable fingering for the multiphonic is important, though it is also crucial to not lose sight of the effects that result.

This multiphonic appears three times within the work. After the start of section B, the chord appears in bar 44 as unarticulated hair-pinned chords. These chords move quickly. The multiphonic should remain at the written piano dynamic to maintain the integrity of the chord. The dynamic contrast can be made entirely with abdominal engagement – the embouchure muscles must remain unmoving to not disturb the purity of the chord.

Finally, this multiphonic appears as the final motif of the work. The motif is an extended decrescendo over a period of 16 – 18 seconds.

NO Gap! 16'' - 18''

double tonging

sub. *mf* (—————) *ppppp*

**Example 5.4. Multiphonic 3: finishing motif<sup>80</sup>**

This motif is not particularly different from the opening of section B, but it may go on longer and requires a controlled decrescendo to silence. Embouchure control will remain the same – a round and firm embouchure that continues to pull a little tighter around the reed will help support the chord in the decrescendo. Think of the lips as a draw-string bag. As the dynamic gets quieter, the strings (the muscles around the lips) tighten to close the hole (cut off the air). Doing this while maintaining the abdominal engagement will keep the articulation clear and the chord supported until the sound diminishes into nothing.

<sup>80</sup> Ibid, bar 96.

It is up to the performer whether to play this motif as long as possible, even if it is past 18 seconds, or if the time indicated will be honored. This will depend somewhat on physiology. Some performers may have the capacity to go much longer. I suggest finding the most controlled way of performing that allows for a graceful finish and not fuss over the time of the motif. There is no need to make this motif much longer than 20 seconds – the momentum of the work is lost if the end drags out too much.

The fourth and fifth multiphonics of the work are presented together as a motif. They serve as a new textural effect using the doppler dynamics. Rather than using the hairpin dynamics on one multiphonic, this motif uses two.

**A tempo**  
 ♪ = 80  
 espress.

*p* < *mp* >    *p* < *mp* >

**Example 5.5. Multiphonics 4 and 5<sup>81</sup>**

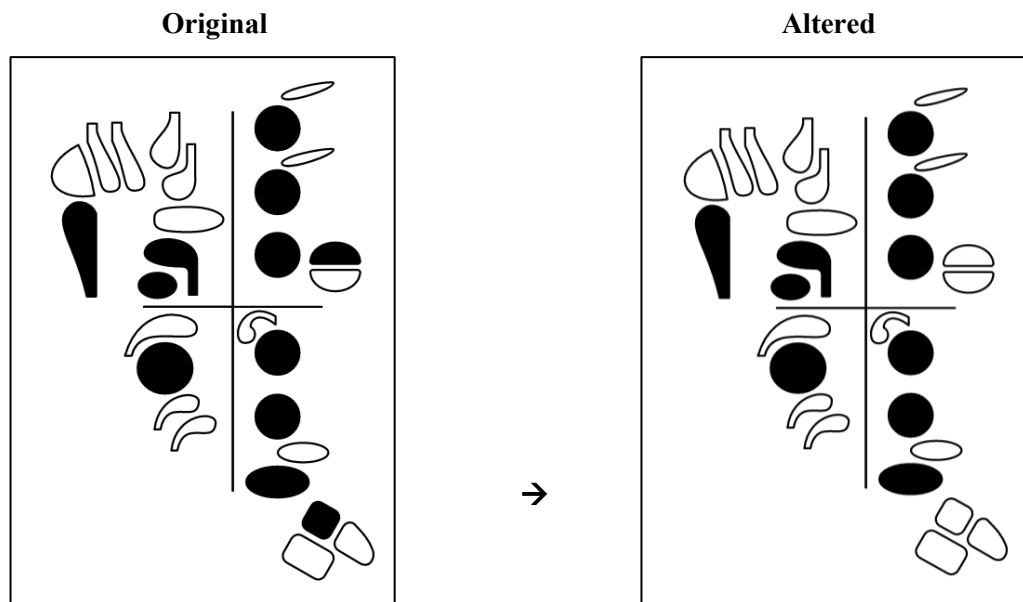
Executing these multiphonics is simple. These chords are built from the low D fundamental, with a few deviations between the two fingerings to make movement simple. Both chords require a standard cushioned and round embouchure with an “oo” vowel in the oral cavity. The tongue should remain low in the mouth. A narrow airstream with a slower airspeed is sufficient to support the timbre. Think of blowing hot air rather than cold air – this is the

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<sup>81</sup> Ibid, bars 56-57.

appropriate air stream. The dynamics written should be honored – these chords are rich at the piano dynamic.

The fingering for multiphonic #4 given in the composer’s fingering chart should be sufficient. Multiphonic #5 may be less stable. The chord is built from fingering low D and adding the resonance key and the C# (thumb) key. I find this fingering to have too much roll in the sound to be a plausible multiphonic – i.e., this fingering is overly stifled to create a stable sound on my instrument. I adjust my fingers by raising both pinky fingers – this allows the chord more ventilation through those keys and gives a sound very similar to the written chord. Example 5.6 shows the altered fingerings.

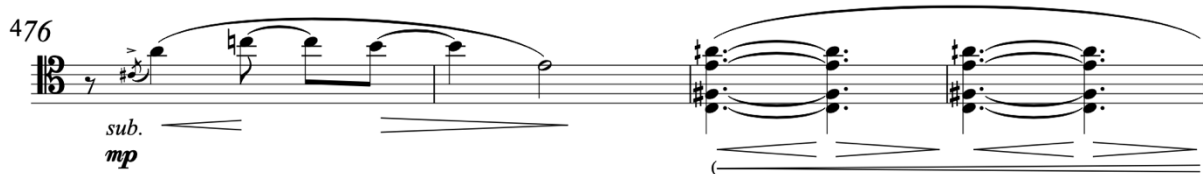


**Figure 5.1. Multiphonic 5: original and altered fingerings**

The final multiphonic of the work is built on fundamental F2. It appears as the first multiphonic in section C, at bar 78. This multiphonic appears on its own with the doppler



dynamics. As with the previous chords, it serves as a textural contrast to the monophonic line. Its subdued and slightly muffled sound lend nicely to the softer atmosphere of the section.



**Example 5.6. Opening of Section C: Multiphonic 6<sup>82</sup>**

Multiphonic 6 is quite sensitive to embouchure and air, which makes execution more difficult. A slower air speed is best, with an open “oh” vowel. The tongue should be low in the mouth. The head should be lifted slightly, as if playing in the tenor register, but the air speed should resemble that of the lower registers. The air stream will be met with resistance from the chord, which may make the note initially difficult to speak. This is particularly true if the embouchure moves before the attack – i.e., if a breath is taken through the mouth before beginning the multiphonic. In this case, keeping the embouchure exactly as it is from the E into the multiphonic while breathing through the nose will help make the connection smooth. If the embouchure is kept still, only the oral cavity needs to adjust for the chord. If it is physiologically possible to play from bar 76 through the multiphonic passage (continuing to bar 84 past the above example) in one breath, there would be no need to worry about a breath between bars 77 and 78. If this is not possible, breathing between these bars through the nose will help maintain a smooth transition.

<sup>82</sup> Ibid, bars 76-79.

## B. Bisbigliando

The bisbigliandi in *Secret Leaves*, as in *Calling* and *Following*, serve as textural changes to color phrases. I think of the bisbigliandi as the sounds of the rustling leaves. The color changes create a somewhat mystical sound, which lends itself well to creating the mysticism of the work. The first two bisbigliandi occur in the opening phrase on C#5 and B4.

Feel the one overall phrase from the first to the last note of the work.

The musical score for Bassoon is in 2/4 time with a tempo of 72. It features two bisbigliando markings with "molto espressivo, rubato" and "bisbigliando" instructions. The first bisbigliando is on C#5 and the second is on B4. The dynamics range from *p* to *mf*.

Example 5.7. Bisbigliandi 1 and 2<sup>83</sup>

These bisbigliandi are best executed with either the resonance key or the low C# key. I would suggest starting with the low C# key on C#5 and the resonance key on B4, but experiment with both to see if one or the other works better. For many C# fingerings, the low C# key is already pressed, so it is an easy trill to execute. B4 could use either key that is more effective. B4 may also trill the Bb key. A lifted Bb key will make the B flutter, which is not necessarily enough change in color to create the bisbigliando effect but may also make the tone darker.

The third bisbigliando functions as the bisbigliando in *Following* – it colors the end of the phrase to create a whimsical affect.

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<sup>83</sup> Ibid, bars 1-3.

**Example 5.8. Bisbigliando 3<sup>84</sup>**

The bisbigliando in the above example occurs on C# and D#5. In this context, it is important to find a fingering that maintains the integrity of the register and allows for a noticeable color shift. Ensure the embouchure is properly formed – a slightly wide and brittle embouchure with even pressure from both upper and lower lips will help. The embouchure should feel slightly wide and tucked in rather than round.

For the bisbigliando on both C# and D#, I suggest trilling the low C# key, the resonance key, or the Bb key. These keys are likely to vent the note enough to change the color but not destabilize the note entirely. Which fingering chosen will depend on the note fingering used and the resulting sounds from each vented finger.

These fingerings also transfer to the second bisbigliando in bar 15. In this context, the bisbigliando is on C#5 again, though it is functioning as a climax into the first multiphonic of the work. The C# builds in intensity through dynamic, color trill, and articulation. It should be noted that many performers do not choose to articulate the C# as indicated – Fujikura writes “tktktk” in bar 15, which suggests a tongued change. This means that the note should continue to build in intensity and, if possible, a double-tongue or fast single-tongue would help further momentum. Rebekah Heller suggests not articulating the note if including the tongue in the pressure will

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<sup>84</sup> Ibid, bars 11-12.

overwhelm the embouchure.<sup>85</sup> I agree with this conclusion. If the performer finds that the bisbigliando and crescendo are enough to create grand momentum in bar 16, then articulating the C# is not necessary.



Example 5.9. Bisbigliando 4<sup>86</sup>

### III. Putting Performance Together

As in *Following*, Fujikura explicitly writes out his instructions on how this piece is to be phrased. Section A is perhaps the freest – in the context of *Secret Forest*, section A is a direct copy of the large bassoon solo at bar 166. In the *Secret Forest* score, Fujikura writes:<sup>87</sup>

*The bassoon solo from bar 166 to 186 should be played molto espressivo, and tempo rubato. This passage can be played slower than the written tempo if necessary, as long as it makes musical sense.*

These instructions are not explicitly written in *Secret Leaves*, though the opening can and should be interpreted with the same spirit. I would not suggest playing the opening with as much

<sup>85</sup> Rebekah Heller, interview with author, August 15, 2022.

<sup>86</sup> *Secret Leaves*, musical score, bars 14-15.

<sup>87</sup> Fujikura, *Secret Forest* (G. Ricordi & Co. Bühnen und Musikverlag, 2008/2009), musical score, bar 166.

freedom as a cadenza – each note should still contain rhythmic integrity as written. However, the phrasing interpretations can be much looser than the metronome marking indicates.

Section B contains “NO Gap!” orders at phrase junctures. This could be interpreted as literally as “absolutely no gap in the sound,” meaning no breaths or pauses whatsoever, or it could be interpreted as “take as little time as possible to breathe and move into the next phrase.” I interpret it as the latter. There is no indication that circular breathing is required for the work, so performers must find places to breathe. Natural places to breathe are at phrase endings. If a breath is necessary at a “NO Gap!” point, it should be as quick as possible. Nose breaths are helpful in instances where the embouchure should not be disturbed and to allow as quick a re-attack as possible.

Example 5.10. “NO Gap!” Phrase<sup>88</sup>

The above example shows a few phrases that include “NO Gap!” orders. When deciding how to structure the phrases and the breaths within, consider how these phrases connect. The crescendo into bar 40 is quite effective when there is absolutely no gap and no breath. This

<sup>88</sup> Ibid, bars 37-45.

means the breath will need to occur earlier in the phrase – perhaps between bars 38 and 39. A breath large enough could carry the performer through to the *Più mosso* of bar 44. At this point, a breath would likely be needed between bars 43 and 44. This is one of several ways this passage could be breathed. Regardless of where the performer chooses to breathe, the “NO Gap!” markings indicate the overall phrasing and serve as a reminder to not break the momentum with extra-long silences.

*Secret Leaves* is perhaps the most theatrical of the three works. The piece takes some imagination to create the magical forest that Fujikura is looking for. *Secret Leaves* can become quite mechanical if the performer does not acknowledge the role of silence – whether in true musical rests or by the “NO Gap!” markings – or the significance of the various techniques and their effects. *Secret Forest* has the visual aspect of the performers spread across the performance hall and the bassoonist in the middle of the audience, whereas *Secret Leaves* does not indicate any deviation from a standard stage set-up. I strongly suggest, when possible, practicing the piece from the middle of a performance space and imagine being in the middle of the forest. The sounds of the leaves and birds from the melodies and bisbigliandi combined with the bugs and trees from the multiphonics create a unique pallet of sounds that can be best enjoyed from the center of a room. Performing from the middle of the room, while not indicated, may be a very exciting way of interpreting the piece as a literal solo walk through a mystical forest.

## Chapter 6: IN PRACTICE AND PEDAGOGICAL IMPLEMENTATION

### I. In Lessons

A student's initial introduction to advanced techniques may be overwhelming. The techniques can seem like a new language on the page and, without prior knowledge of literature to help decipher the symbols and words, a student can become frustrated with where to start. This often is the issue: students are perfectly capable of executing the techniques but have not yet learned where to look for the information. This document is one place to start, amongst many others included in my bibliography. Many of these sources – the dissertations, for example – are available for online viewing. I suggest compiling a list of sources for the bassoon studio web learning management system (Moodle, Canvas, Blackboard, etc.). This would make an excellent activity for a pedagogy class each year. Have students look for new and revised sources to both engage their research skills and stay informed on the newest information. Much of the time, a student is introduced to advanced techniques in an ensemble setting. A significant portion of contemporary wind ensemble repertoire (like that of David Maslanka, amongst others) will require flutter tonguing and multiphonics. Teachers may decide when to introduce a student to advanced techniques in solo works but having the lists of resources already made and available for the student's perusal will assist in their independent research and technical skills.

When introducing advanced techniques in solo repertoire, it is important to start a student conservatively. Introducing *Calling* to a student with no previous advanced technical experience will result in frustration and delayed progress. *Following* or *Secret Leaves*, because they only introduce one or two techniques within the whole piece, would make for better “beginner” works.

## II. Reeds

A reed's condition and style will have a significant impact on a successful performance. The best reeds will be new – broken in, but with little playing time logged. Old reeds will not have the necessary power. A good reed will have some “bite” and brightness that will help with the high register passages and sustain rich multiphonics. While a complete change in reed style should not be necessary to perform a piece such as *Calling*, it is true that darker-sounding styles may struggle to have the “bite” that Fujikura demands for the work. Reed shapes that have brighter sounds include the Rieger 1A, the Sakakeeny/Van-Hoesen, and Herzberg. These are only examples and are not necessarily superior to other styles. These styles, given their shorter and thinner build, merely offer a foundation for reeds that should support the necessary flexibilities in sound. The physiological make of each player will determine the best setup. A reed for *Following* does need require the “guts” needed for *Calling*, though it should be very comfortable and reliable in the high register. *Secret Leaves* demands a reed with flexible articulation and variety of sound – a reed with a darker, rich sound would work well.

Judge reeds based on objective standards, such as pitch and articulation, rather than on sound quality. While timbre is one facet of a good reed, it is more important that the reed be in tune and responsive to articulation. Timbre is indeed influenced by pitch and articulation, so objective adjustments will create a reed that both plays well and sounds incredible.

When adjusting reeds, the spine should not be so heavy that the sound is muffled – ensure that the spine, channels, and rails of the reed are proportioned so that the spine does not visibly protrude from each blade. The channels, particularly within several millimeters from the collar, should not be too heavy.



### III. Score Study

The first step in approaching any work with contemporary techniques is to note each technique as they occur and write them down separately, in a journal or on a separate sheet. Any new technique should take precedence over known techniques. If necessary, find the appropriate literature to decipher the execution, such as Bartolozzi's *New Sounds for Woodwind* (if available) and Gallois' *Techniques for Bassoon*. Fingerings for multiphonics and quartertones should be notated. I highly encourage students to interpret fingerings with their related fundamental – i.e., Bnm: 2 at the beginning of *Calling* is low E with the C# key added. This is notated on the page as “low E + C#.” Writing this rather than notating the full fingering in the score is simple and allows for a faster learning process.

I heavily emphasize the importance of experimentation with techniques in the guides. Students can be led in the right direction – a historically successful multiphonic fingering, for example – but some may find a fingering pattern does not work well for their setup. The student should be encouraged to experiment with the oral cavity shape, embouchure form, and lip pressure. Becoming comfortable with this kind of experimentation may feel uncomfortable or “wrong,” particularly if the discovered physiology is not standard for the register (such as a particularly dropped jaw in the tenor register for a multiphonic). Frustration will inevitably occur. It is unavoidable – students are essentially learning a new musical language, symbol system, and physical muscle memory. This learning curve is part of the process of discovering the techniques. Teachers can offer ideas and guidance, but the performer must find their sound.

The exercises in appendix IV and spread throughout these guides should be implemented into a daily routine for best success. After first finding which techniques may need the most practice, such as a certain multiphonic from *Secret Leaves* or flutter tonguing in *Calling*, those

techniques can be applied to the daily routine practice. Daily practice of these techniques is vital to successfully integrating them into the technique skillset.

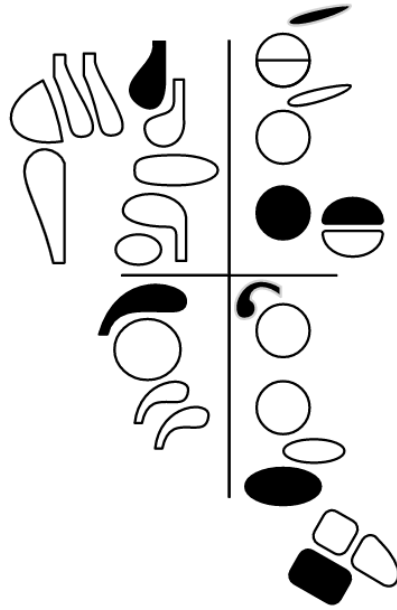
My final suggestion is to allow room for a technique to sound “rough,” or even “ugly.” I believe that many classical musicians are slow to accept contemporary techniques because of the sheer deviation from standard classical sounds. Music education must prepare students for all types of music they will see in their careers. Preparing them for contemporary techniques not only prepares them for success but creates advocates for living composers and for the advancement of bassoon repertoire.

#### **IV. Other Resources for Pedagogy**

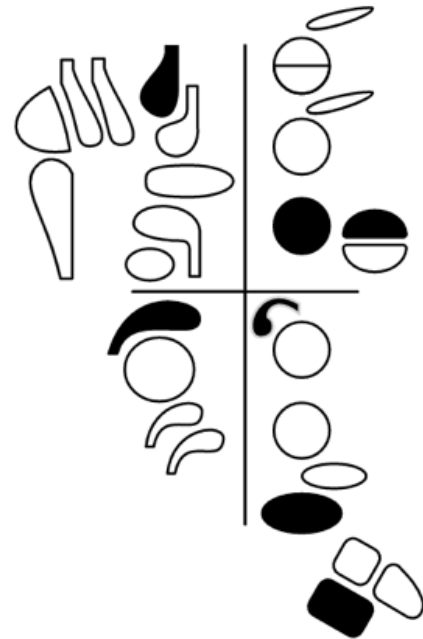
1. Jeff Campbell dissertation: “The Duo Sonata for Two Bassoons by Sofia Gubaidulina”
2. Dai Fujikura’s website with multiphonic sound examples. Password information available in *Calling* score. <http://www.daifujikura.com/Professional/>
3. Pascal Gallois: *The Techniques of Bassoon Playing*
4. Dieter Hähnchen: *Contemporary Music for Bassoon for Education with an introduction into modern playing techniques*
5. Amy Pollard dissertation: “Solving the ‘Problems’ of Extended Techniques”
6. Sergio Penazzi: *The Bassoon: Other Techniques: New Sources of Musical Expression*
7. Jamie Leigh Sampson: *Contemporary Techniques for the Bassoon: Multiphonics*
8. Arno Colin Steyn dissertation: “Extended Bassoon Techniques: Filling the Pedagogical Gap”

## Appendix I: Calling Fingering Chart

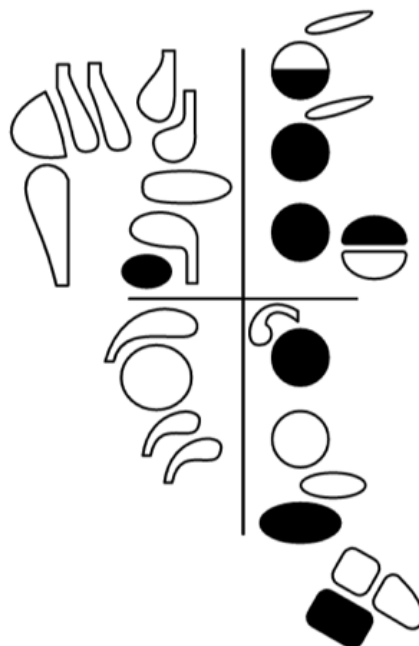
### 1. E quarter flat



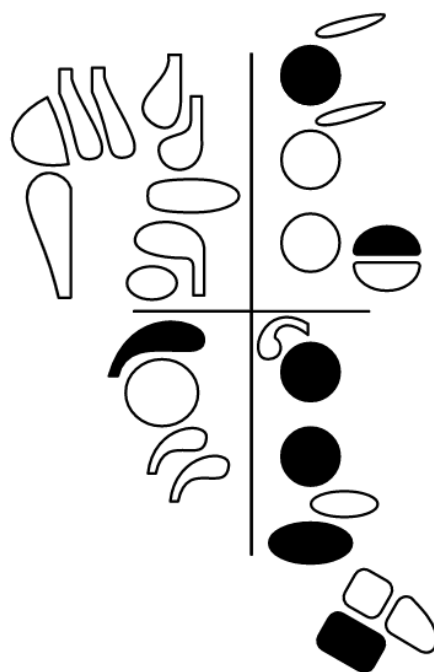
### 2. D quarter sharp



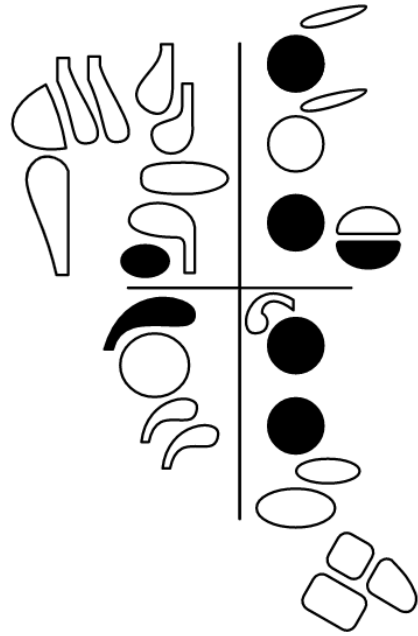
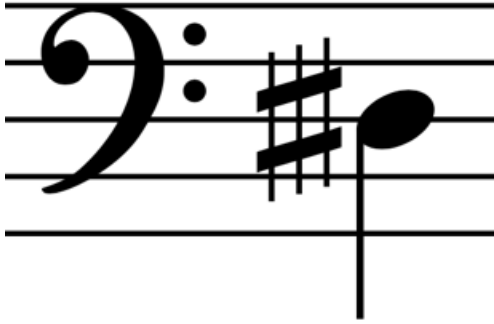
3. G  $\frac{3}{4}$  sharp



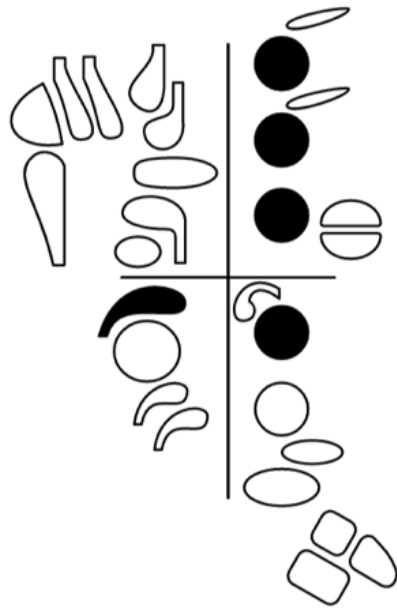
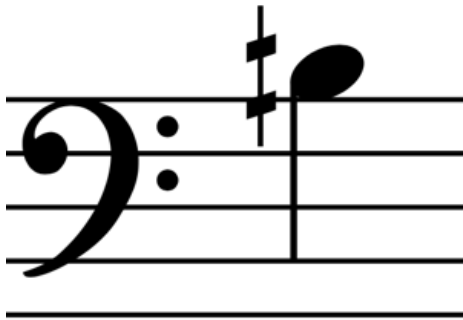
4. F quarter sharp



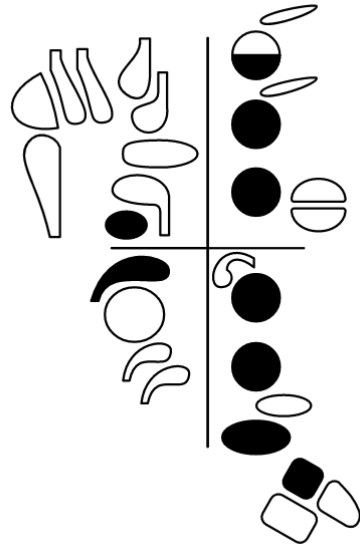
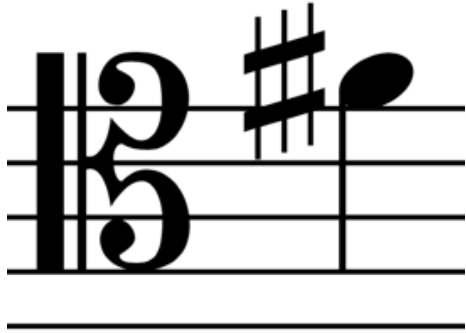
5. D  $\frac{3}{4}$  sharp



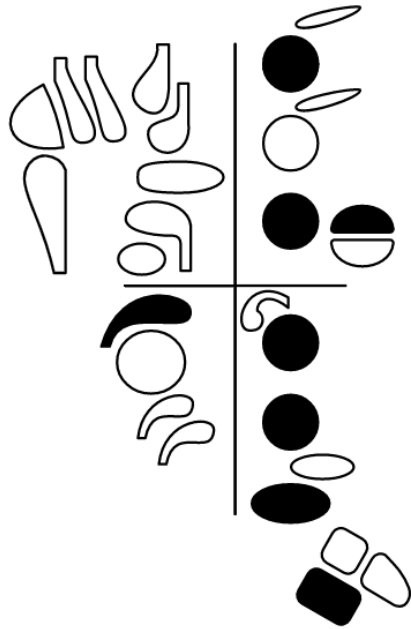
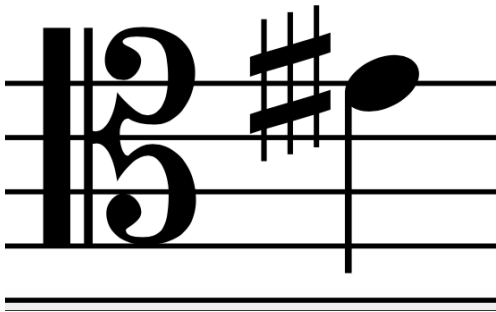
6. B quarter sharp



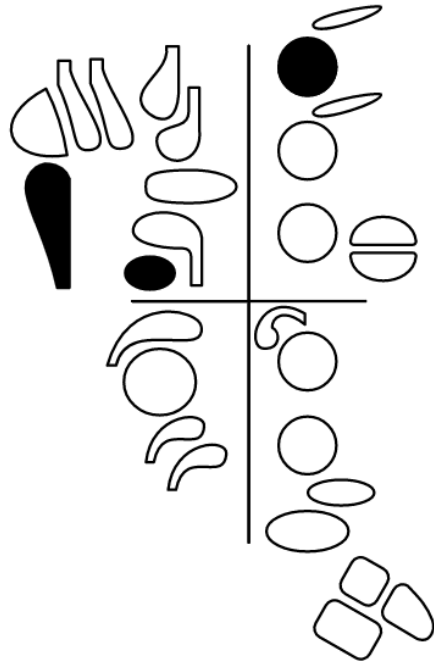
7. F  $\frac{3}{4}$  sharp



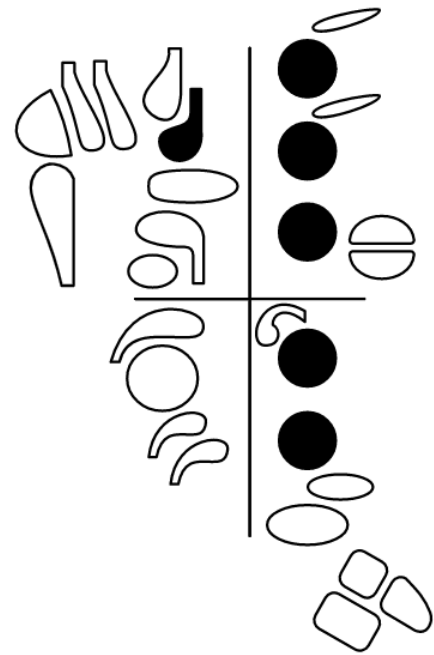
8. E  $\frac{3}{4}$  sharp



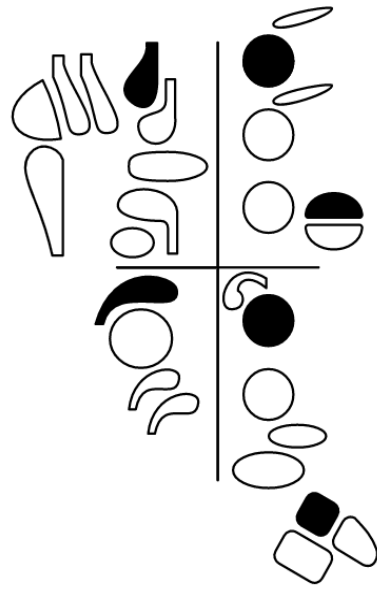
9. E quarter flat



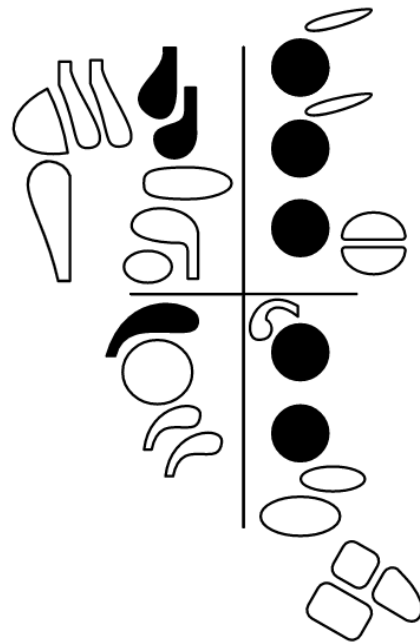
10. A quarter sharp



11. B quarter flat

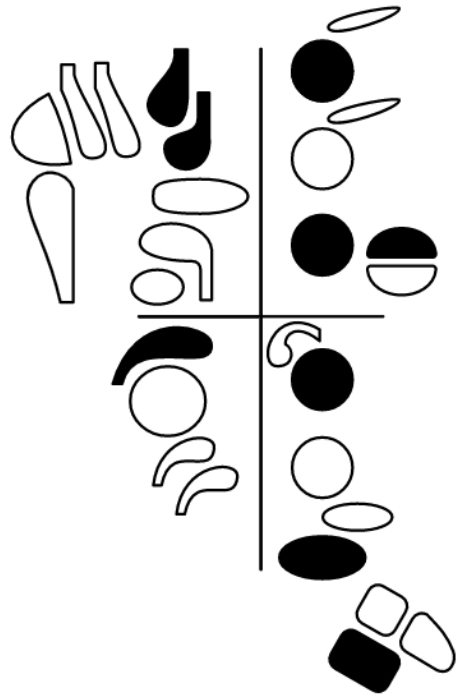


12. C quarter sharp

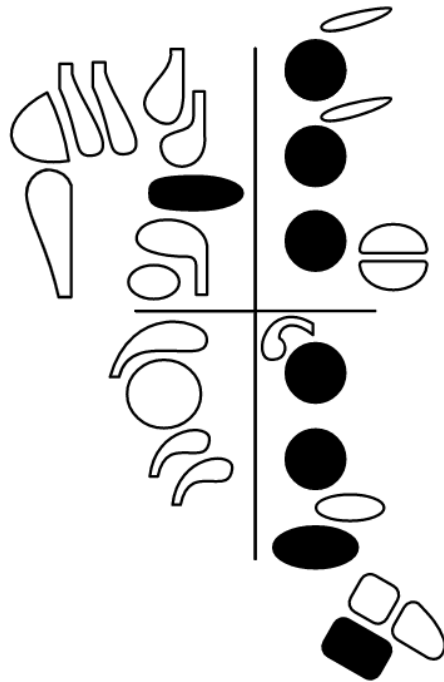
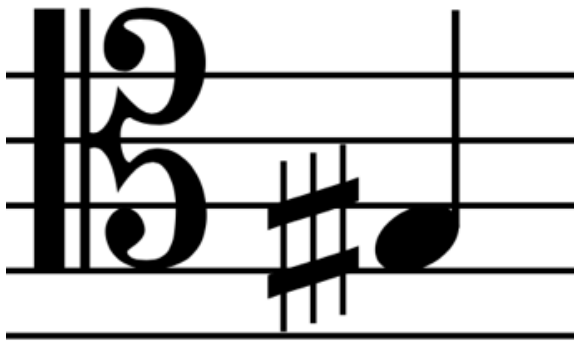




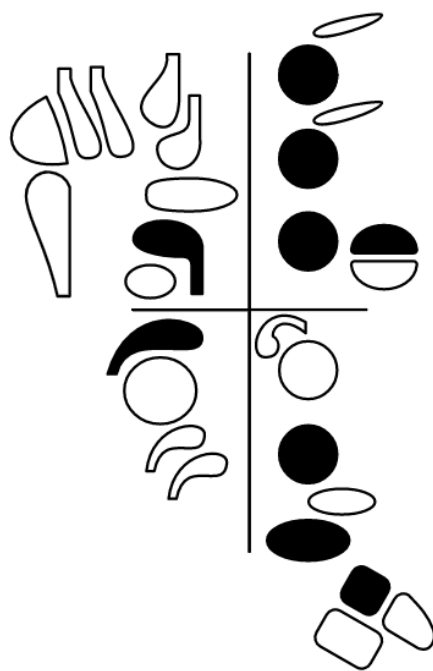
13. C <sup>3</sup>/<sub>4</sub> sharp quarter sharp



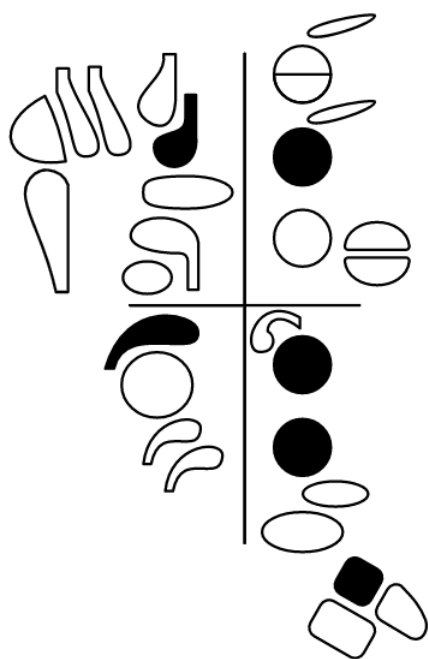
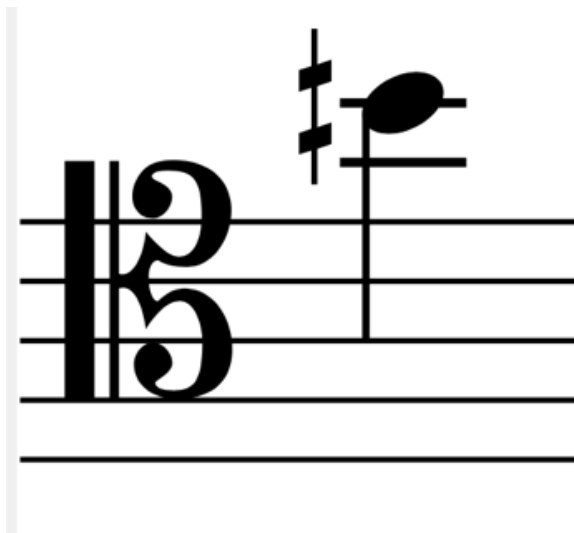
14. G <sup>3</sup>/<sub>4</sub> sharp



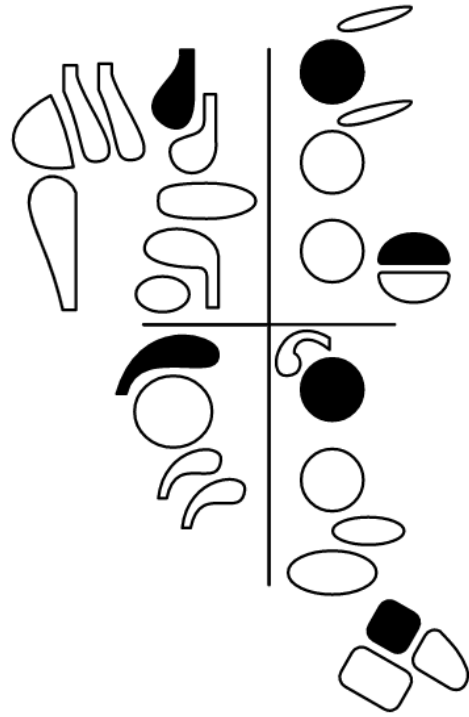
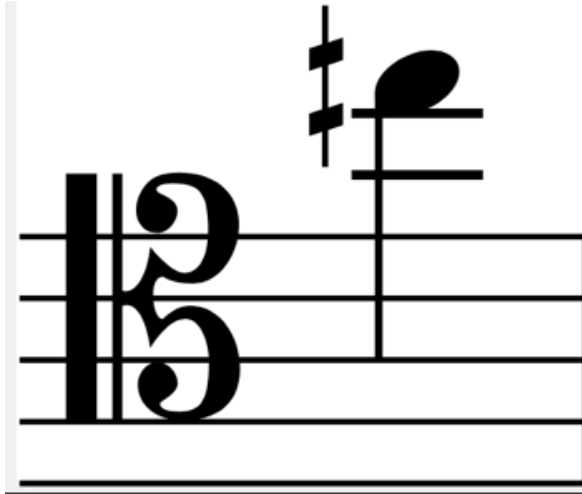
15. C  $\frac{3}{4}$  sharp




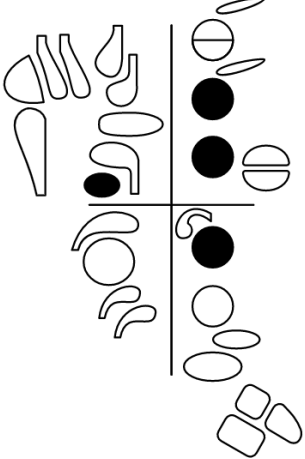

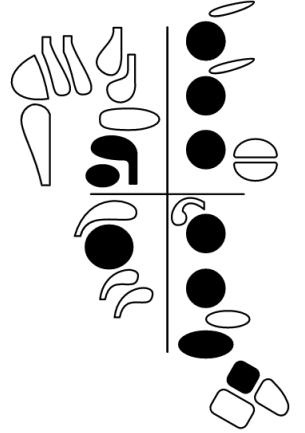
16. B quarter sharp


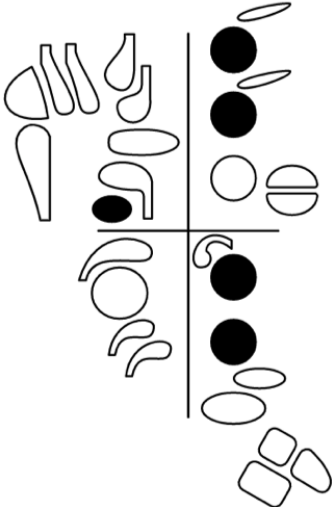



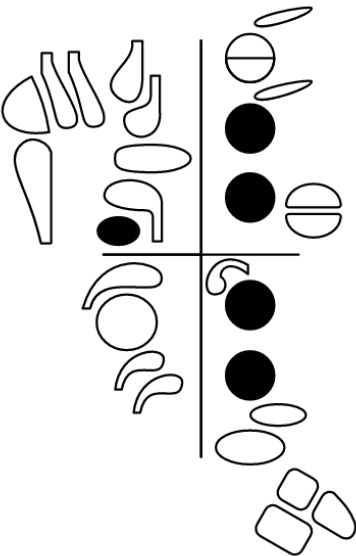
17. C5 quarter sharp



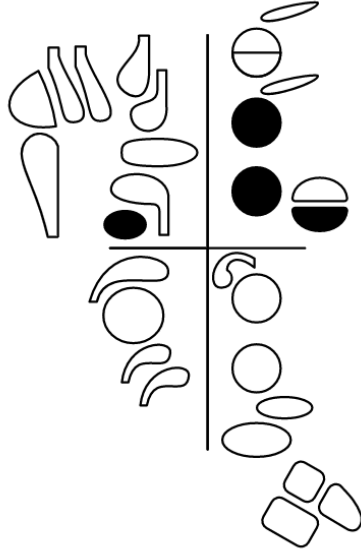
# Multiphonics

<p><b>Bnm: 1</b></p>  <p>Musical notation for Bnm: 1, showing a treble clef, a key signature of two sharps (F# and C#), and a bass clef. The treble staff contains a chord of F#, C#, and G. The bass staff contains a chord of F, C, and G.</p>	 <p>Anatomical diagram for Bnm: 1 showing the head, neck, and mouth area. The tongue is positioned low in the mouth, and the lips are pressed together. The diagram illustrates the physical setup for producing a multiphonic sound.</p>	<p><b>Lower lip pressure up into reed</b></p> <p><b>Lift head up slightly</b></p> <p><b>Multiphonic has some “roll” in the sound – firm lower lip pressure will help</b></p>
<p><b>Bnm: 2</b></p>  <p>Musical notation for Bnm: 2, showing a treble clef, a key signature of one sharp (F#), and a bass clef. The treble staff contains a chord of F#, C#, and G. The bass staff contains a chord of F, C, and G.</p>	 <p>Anatomical diagram for Bnm: 2 showing the head, neck, and mouth area. The tongue is positioned low in the mouth, and the lips are pressed together. The diagram illustrates the physical setup for producing a multiphonic sound.</p>	<p><b>No significant issues</b></p> <p><b>Keep tongue low, fast air stream</b></p> <p><b>Softer dynamics may bring out lower pitches from the chord</b></p> <p><b>For bisbigliando, trill pinky C# or pinky Eb (resonance) keys</b></p>

<p><b>Bnm: 3</b></p>  <p>Musical notation for Bnm: 3, showing a treble clef, a key signature of one sharp (F#), and a 3/4 time signature. The notation includes a quarter note on G4, a quarter note on A4, and a quarter note on B4, followed by a half note on C5.</p>	 <p>Embouchure diagram for Bnm: 3, showing the placement of the lips and teeth on the mouthpiece, with the air stream directed forward.</p>	<p><b>No significant issues</b></p> <p><b>Maintain standard embouchure and posture</b>      – face forward (not up or down), air forward</p>
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<p><b>Bnm: 4</b></p>  <p>Musical notation for Bnm: 4, showing a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. The notation includes a quarter note on G4, a quarter note on A4, a quarter note on B4, and a quarter note on C5.</p>	 <p>Embouchure diagram for Bnm: 4, showing the placement of the lips and teeth on the mouthpiece, with the air stream directed forward.</p>	<p><b>Less stable than bnm: 3</b>      – though very similar chords</p> <p><b>Maintain a low air direction</b> – aim air to the floor</p> <p><b>Gentle attack</b> – experiment with air and slight tongue attacks</p> <p><b>Round embouchure</b></p>
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**Bnm: 5**

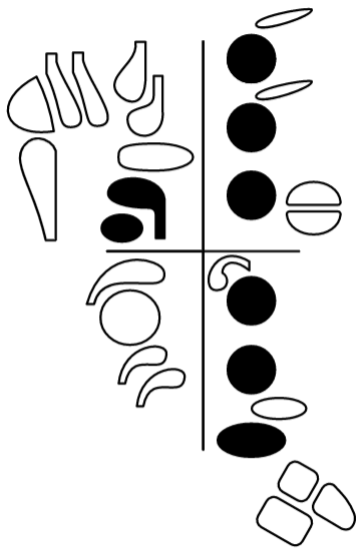


**Add low C# key for a more robust sound**

**Fast air stream with head up**

**Air direction up**

**Bnm: 6**

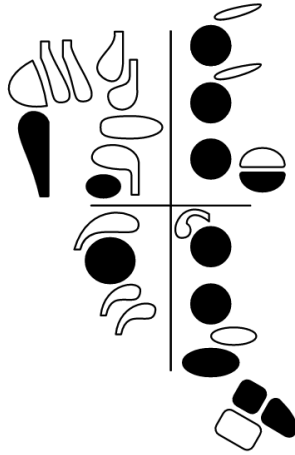


**No significant issues**

**Plays very well at a soft dynamic**

**May be overblown if reed is too open and air stream is aimed too "high"**

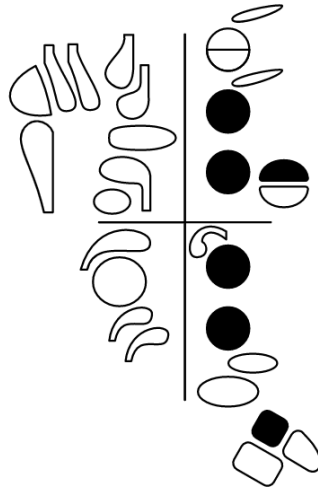
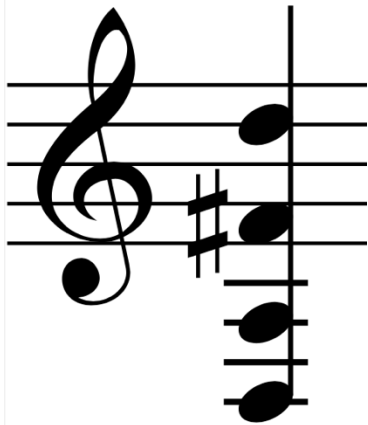
**Bnm: 7**



**No significant issues**


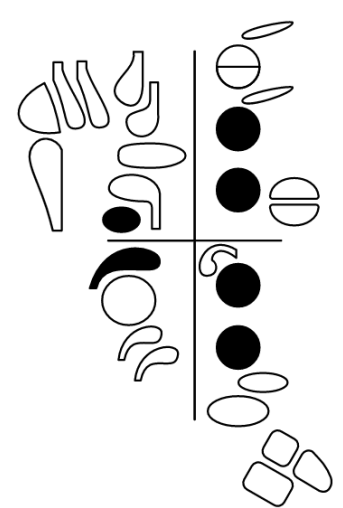
**Plays very well at a soft dynamic**


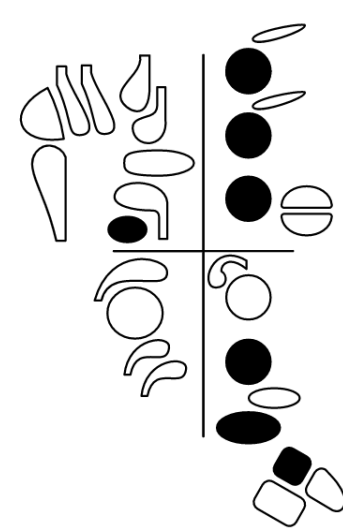
**Bnm: 8**



**Very stable**

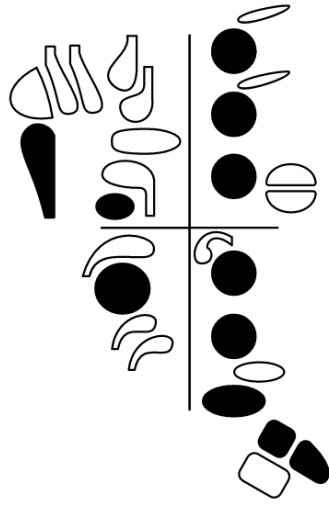
**Quite flexible – very easily articulated and sustained at any dynamic**

<p><b>Bnm: 9</b></p>  <p>Musical notation for Bnm: 9, showing a treble clef, a key signature of one sharp (F#), and a melody consisting of quarter notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4.</p>	 <p>Embouchure diagrams for Bnm: 9. The top diagram shows the lips and teeth forming a firm seal. The middle diagram shows the tongue resting on the floor of the mouth. The bottom diagram shows the air stream passing through the center of the mouth.</p>	<p><b>Has some “roll” to the sound</b></p> <p><b>Use the bicycle wheel: imagine the wheel right in front of your nose, and the air you blow should be focused and fast enough to spin the wheel</b></p> <p><b>Air should be straight ahead – aim eyes straight ahead</b></p>
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<p><b>Bnm: 10</b></p>  <p>Musical notation for Bnm: 10, showing a treble clef, a key signature of one sharp (F#), and a melody consisting of quarter notes: F#4, G4, A4, B4, C5, B4, A4, G4, F#4.</p>	 <p>Embouchure diagrams for Bnm: 10. The top diagram shows the lips and teeth forming a firm seal. The middle diagram shows the tongue resting on the floor of the mouth. The bottom diagram shows the air stream passing through the center of the mouth.</p>	<p><b>May speak best with air attack: face straight ahead, air going straight in front, bicycle wheel</b></p> <p><b>More lower lip pressure up, corners of mouth in when flutter-tonguing</b></p> <p><b>Embouchure may get a little distorted with the flutter – maintain corners and do not overblow!</b></p>
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**Bnm: 11**

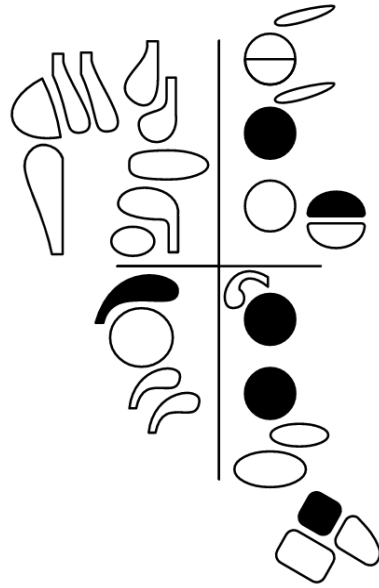


**No significant issues**

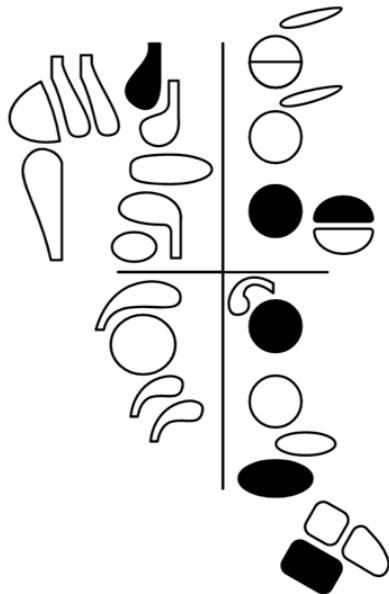
**Air attacks at soft dynamic are very effective**

## Appendix II: Following Quartertone Fingering Chart

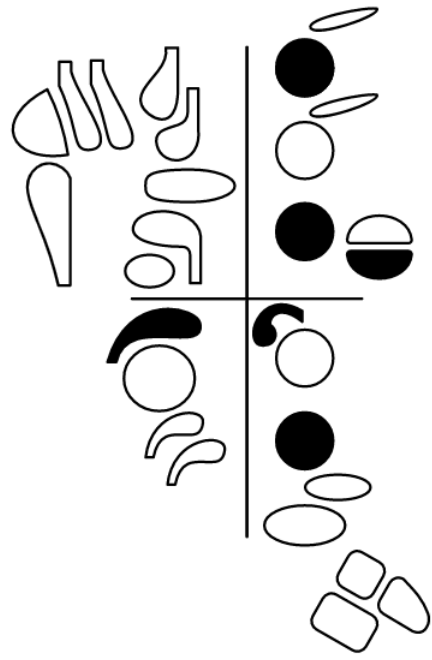
### 1. F $\frac{3}{4}$ sharp




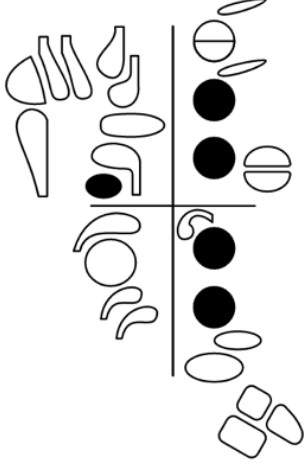
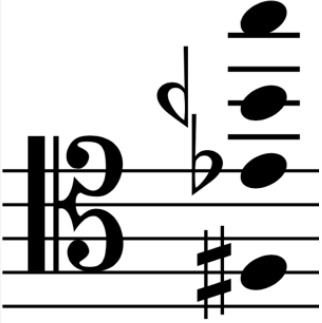
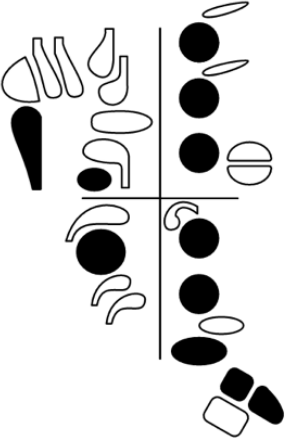
### 2. C $\frac{3}{4}$ sharp

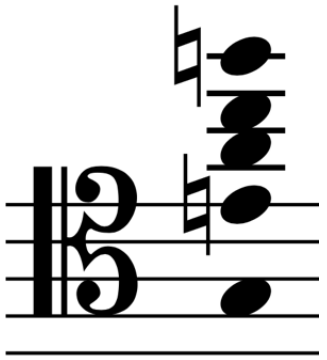
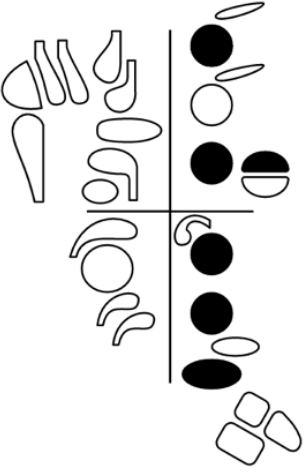


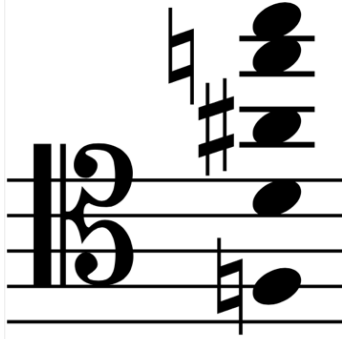
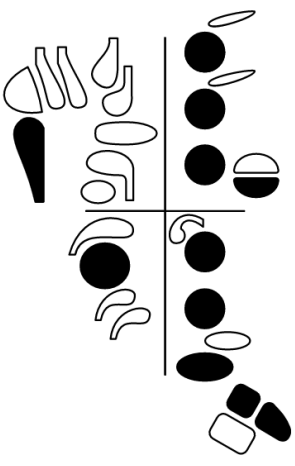
3. D<sup>3</sup>/<sub>4</sub> sharp


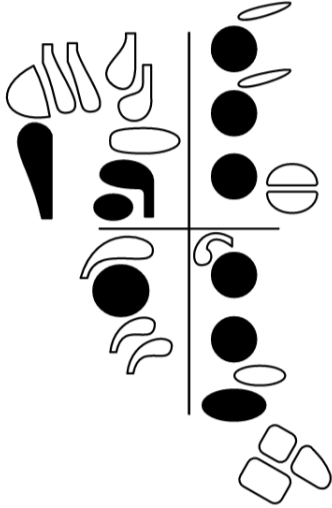



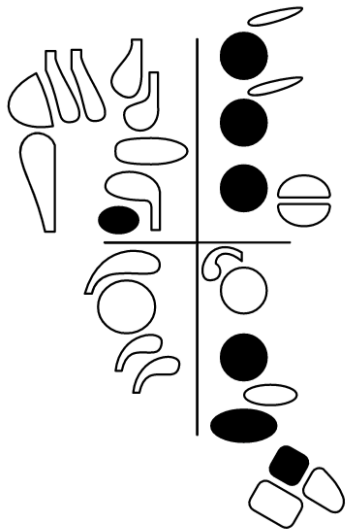
## Appendix III: Secret Leaves Multiphonic Fingering Chart

<p><b>1. manipulation of A2</b></p>  <p>Musical notation showing a treble clef with a key signature of one sharp (F#). The notes are A2 (first space), B2 (second space), C3 (first line), and D3 (second line). The notes are beamed together, with a sharp sign above the first two notes.</p>	 <p>Diagram illustrating the embouchure for manipulation of A2. It shows a profile of the mouth and lips, with a vertical line indicating the center. The lips are shown in a slightly relaxed, open position, with the lower lip slightly protruding. The diagram is split vertically, with the left side showing the upper lip and the right side showing the lower lip.</p>	<p><b>“ü” or “oh” vowel</b></p> <p><b>Embouchure for A2; slight pressure down from upper lip</b></p> <p><b>Less stable – may shift with unstable air and embouchure</b></p> <p><b>Careful to keep air blowing down towards feet</b></p>
<p><b>2. Manipulation of D2</b></p>  <p>Musical notation showing a treble clef with a key signature of one sharp (F#). The notes are D2 (first space), E2 (second space), F#2 (third space), and G2 (third line). The notes are beamed together, with a sharp sign above the first two notes.</p>	 <p>Diagram illustrating the embouchure for manipulation of D2. It shows a profile of the mouth and lips, with a vertical line indicating the center. The lips are shown in a more rounded, firm position, with the lower lip slightly protruding. The diagram is split vertically, with the left side showing the upper lip and the right side showing the lower lip.</p>	<p><b>Round embouchure</b></p> <p><b>“ü” vowel</b></p> <p><b>Face needs to “lift” for effective execution: think of lifting head up slightly and allowing more pressure from lower lip</b></p> <p><b>May help to crescendo into the multiphonic</b></p>

<p><b>3. Manipulation of G2</b></p>  <p>Musical notation in bass clef showing a G2 note on the second line, followed by a series of notes on the first, second, and third lines, with a sharp sign on the second line.</p>	 <p>Sagittal diagram showing the articulation of G2. The diagram is split into two parts: the left part shows the tongue and pharynx, and the right part shows the lips and teeth. The tongue is positioned in the center of the mouth.</p>	<p><b>Round embouchure</b></p> <p><b>Narrow, fast air stream</b></p> <p><b>Tongue centered in the middle of the mouth to prevent too much movement</b></p> <p><b>Experiment with using resonance key or low C# key</b></p> <p><b>May be difficult to get multiple sonorities with DT articulation; very percussive sound</b></p> <p><b>A heavy reed or reed that is too open will struggle</b></p>
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<p><b>4. Manipulation of D2</b></p>  <p>Musical notation in bass clef showing a D2 note on the second space, followed by a series of notes on the first, second, and third lines, with a sharp sign on the second line.</p>	 <p>Sagittal diagram showing the articulation of D2. The diagram is split into two parts: the left part shows the tongue and pharynx, and the right part shows the lips and teeth. The tongue is positioned in the center of the mouth.</p>	<p><b>Keep tongue down</b></p> <p><b>“ü” vowel</b></p> <p><b>Fairly stable – keep very rounded embouchure to support</b></p> <p><b>Drop jaw</b></p> <p><b>The low C# adds a slightly low “growl” to the chord</b></p>
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<p><b>5. Manipulation of D2</b></p>  <p>Musical notation showing a treble clef, a key signature of two sharps (F# and C#), and a series of notes on a staff. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), D5 (quarter), E5 (quarter), F5 (quarter), G5 (quarter), A5 (quarter), B5 (quarter), C6 (quarter), D6 (quarter), E6 (quarter), F6 (quarter), G6 (quarter), A6 (quarter), B6 (quarter), C7 (quarter).</p>	 <p>Anatomical diagram of the vocal tract showing the tongue low and slightly cupped, with a slower air stream. The diagram illustrates the vocal tract from the larynx to the lips, with a vertical line indicating the position of the tongue and the air stream.</p>	<p><b>Tongue low, slightly cupped</b></p> <p><b>Slower air stream</b></p> <p><b>Important to keep the dynamic low</b></p> <p><b>overblowing/over attacking may force the harmonic overtone rather than the full multiphonic</b></p>
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<p><b>6. Manipulation of F2</b></p>  <p>Musical notation showing a treble clef, a key signature of two sharps (F# and C#), and a series of notes on a staff. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), D5 (quarter), E5 (quarter), F5 (quarter), G5 (quarter), A5 (quarter), B5 (quarter), C6 (quarter), D6 (quarter), E6 (quarter), F6 (quarter), G6 (quarter), A6 (quarter), B6 (quarter), C7 (quarter).</p>	 <p>Anatomical diagram of the vocal tract showing the head up, tongue staying low, and air stream slower with resistance. The diagram illustrates the vocal tract from the larynx to the lips, with a vertical line indicating the position of the tongue and the air stream.</p>	<p><b>Head up, "oh" vowel</b></p> <p><b>Tongue staying low</b></p> <p><b>Air stream should be slower, resistance will be met</b></p> <p><b>This multiphonic may be awkward to attack – it may not speak cohesively upon attack: breathe through nose when beginning to not move embouchure</b></p>
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## Appendix IV: Daily Routine Exercises

### 1. Flutter tonguing

*Practice flutter tongue with both glottal and tongue, together and separately.*

#### Beat Three

Form proper embouchure

#### Beat Four

Inhale  
Engage Abdominals

#### Beats One to Four

Blow, with flutter tongue  
Strong forte dynamic  
Crescendo to beat four

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### 2. Glissando

#### Beat One

Set embouchure  
Prepare air  
Begin first note  
Begin lip manipulation

#### Beat Two

Continue lip manipulation  
Reach as close to desired  
pitch as possible

#### Beats Three and Four

Change fingering to new pitch  
Return to proper  
embouchure

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### 3. Multiphonics Attacks

*Multiphonic Embouchure: round cushion, tongue resting slightly on top of reed, corners of mouth pressing slight in towards the reed*

#### Beat Three

Inhale fully  
Rounded oral cavity  
Feel pressure in abs

#### Beat Four

Set embouchure  
Pressure should feel like tightness  
around belly button

#### Beats One to Four

Attack multiphonic  
Push ab muscles to push air  
Use as light tongue as possible  
Maintain abdominal pressure

**Cycle through dynamics FFF, FF, F, mF, p, pp, ppp.**

4. Double tongued multiphonic crescendo exercise

Beat Three

Inhale

Beat Four

set embouchure

Beat One

multiphonic bnm: 9  
Begin at ppp dynamic  
Double tongue as fast as possible

Beats Two to Four

build to FFF  
USE ABS to push air!



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