A Performance Guide to Three Contemporary Solo Bassoon Works by Tonia Ko, Xinyan Li, and Tôn-Thât Tiêt with Studio Recordings

by

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ABSTRACT

Repertoire for solo bassoon is becoming more common as music advances and evolves. There is a vast array of works for solo bassoon; however, only a small percentage of those are by composers from an underrepresented community, with an even smaller percentage written by composers with East Asian or Southeast Asian heritage. Furthermore, these works have little to no high-quality studio recordings. Additionally, these works often include contemporary techniques such as multiphonics, difficult tremolos, flutter tonguing, pitch bends, and glissandi, among others. This adds another layer of inaccessibility for those bassoonists who are unfamiliar with how to perform these techniques and therefore may be afraid to "take the plunge" into contemporary works that utilize them. I have created performance guides for *Tilt* by Tonia Ko, *Legend of the Sea* by Xinyan Li, and *Jeu des Cinq Éléments II* by Tôn-Thât Tiêt, in hopes of promoting and raising the accessibility of works by living composers with East Asian and Southeast Asian backgrounds.

DEDICATION

Thank you to my mom, Carrie Johnson and my dad Raymond Johnson for always supporting me, and to my partner Levi, who moved across the country with me to start this great adventure.

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CHAPTER 1

INTRODUCTION

As a part of my undergraduate degree, I received a Certificate in East Asian Language and Culture. During this time, I studied Historic and Modern Chinese History, East Asian Political Science, and the Japanese language. This certificate had furthered my already growing interest in East and Southeast Asia, and lead me to discover and perform one of the pieces for this project, Legend of the Sea, on a recital in 2014.

Having the ability to play the bassoon without the need for other musicians makes the genre of solo music easily accessible and is commonly used during recitals and for instrumental demonstrations. Creating a large database of solo music is critical for a modern performer do that they have multiple options to show the capabilities of the instrument, especially when access to other musicians is not available or practical.

Of the vast array of works for solo bassoon, only a small percentage of these are by composers from an underrepresented community and are not often performed. This issue is exaggerated when looking at solo works from composers with East Asian and Southeast Asian background. Exploring music by underrepresented composers is a critical part of growth as a musician since it lets you experience new cultures and ideas, and often challenges performers in new ways.

A common issue with modern unaccompanied repertoire is the extreme difficulty of the works, and use of extended techniques. It is not unusual for modern unaccompanied works to use the extended range of the bassoon, including F5 or G5, multiphonics, tremolos, pitch bends and glissandi, and may require the use of circular breathing. These factors often discourage performers who have not been exposed to such

techniques and leave the works unperformed. For this project, I have created performance guides for *Tilt* by Tonia Ko, *Legend of the Sea* by Xinyan Li, and *Jeu des Cinq Éléments II* by Tôn-Thât Tiêt, in hopes of promoting and raising the accessibility of works by living composers with East Asian and Southeast Asian backgrounds. Since these works also have few to no high-quality studio recordings; I have included studio recordings to aid in learning these works and help them gain exposure.

CHAPTER 2

TILT

Tonia Ko's *Tilt* for solo bassoon explores the idea of using timbral scales to create a vast array of sounds. These timbral scales are performed by slightly modifying standard fingerings that then will create microtones and multiphonics. According to Ko, "Four modifications occur in this piece: omitting the 1st, 2nd, 3rd fingers of the LH [left hand] as well as the 1st finger of the RH [right hand] (respectively)."[1] Altering standard notes by one finger can have drastic results, such as A-flat2 minus RH1, which creates a full and vibrant multiphonic. Ko uses these alterations to create a large portion of the material in *Tilt*. The following program notes from the composer further explain this concept:

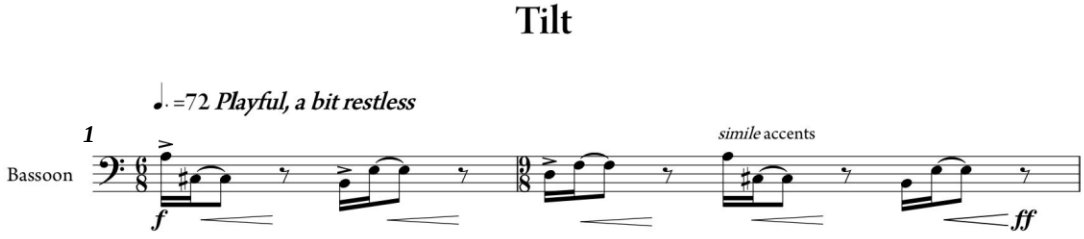
> *Tilt* is a short study for bassoon that imagines shifting perspectives: the more we bend, the closer the ground appears, the more we tilt upwards, the broader the perspective, and we might even appreciate the horizon in the distance. By slightly alternating basic fingerings for the bassoon, the sonic results are either subtle, microtonal deviations or suddenly dramatic, noisy multiphonics. These seemingly unpredictable sounds come from a single change in one keyhole – just as a small tilt of the head can be utterly inconsequential, or it can allow one to perceive something shocking or life-changing. The musical material of *Tilt* reflects this concept, full of distorted echoes that revolve restlessly around unwavering pillars of sound.[2] (Tonia Ko)

[1] Tonia Ko, Tilt (Composers Edition, 2021)
[2] Ibid.

As previously stated, only four modifications are used, and the context of these scales is mostly chromatic. These factors, along with the easily legible notation of using brackets over the altered notes and Ko staying within the standard range of the instrument, leads this to be an excellent addition to the bassoon repertoire that is accessible to both those who are familiar with and those who are new to contemporary music and techniques.

Prior to practicing the work, I recommend becoming familiar with the idea and execution of timbral scales. Using the modifications within the piece (subtracting LH1, 2, 3, or RH1), practice chromatic scales from B-flat1 to F3. This is akin to practicing standard scales to build technical facility. As this concept is the foundation of the work, obtaining an understanding of this technique and a relationship between the fingerings and the sound produced is critical to a successful performance and will reduce practice time. Due to the degree of motion within the LH 2nd and 3rd fingers, I found these modifications were the most uncomfortable to obtain familiarity with and switch between freely and may require more attention than modifications involving the LH and RH 1st fingers.

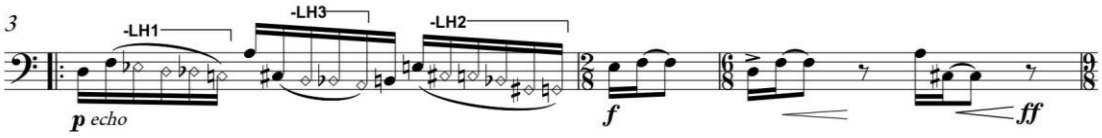
The first motive of *Tilt*, which can be found immediately throughout measures 1 and 2, is a 16th note followed by another 16th note tied to an 8th note.



Ex. 2.1. Tonia Ko: *Tilt*, mm. 1-2.

This short motive is deceptively difficult to perform accurately. Because of the leap that always follows the notes on the beat, it is easy to make the first 16th note sound like a pickup instead. Performing this motive with a full-length 16th note helps establish it as a true downbeat. You can also practice slurring between the notes to help internalize the downbeat feel. After it is internalized, then articulate both notes. The crescendo causes another performance issue. A *forte* accented note will make this crescendo feel quite small. Play the second note of the motive as a *subito mezzo-piano* or *subito piano* to help facilitate the crescendo and add to the restlessness feel by constantly and drastically changing dynamics within this first line of music.

In measure 3, the use of timbral scales is introduced. The regular noteheads indicate ordinary playing, the diamond noteheads indicate timbral notes, and the bracket over the notes informs performers which finger should be lifted and for what duration.

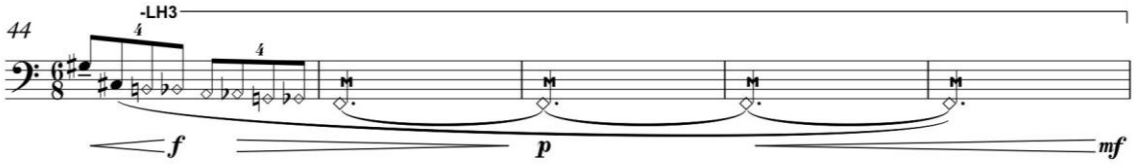


Ex. 2.2. Tonia Ko: *Tilt,* mm. 3-5.

Most of these timbral notes will be microtones instead of multiphonics, which helps create the echo effect. Purposely playing the standard note heads a bit louder (*mezzo piano*) and actively playing the timbral notes quieter (*pianissimo*) will help bring out the opening motive of the piece and clarify the content while also creating a stronger echo. Adding a *decrescendo* to the timbral notes further strengthens and naturalizes this effect.

On page two of the work, the modified fingerings will start to create multiphonics more often. The same multiphonic fingering can be manipulated through embouchure pressure and location on the reed to create monophonic pitches or multiphonic ones.

Some fingerings throughout the work easily create multiphonics while others are more particular. When Ko wants multiphonics, an "**M**" symbol is placed above the note.



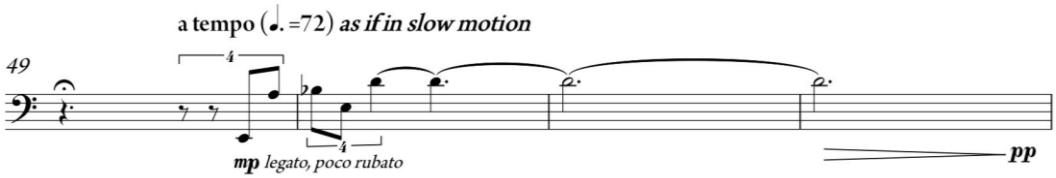
Ex. 2.3. Tonia Ko, *Tilt*, mm. 44-48.

Although the symbol is only placed above the low F, it is possible to create multiphonics on every timbral note within this example. Certain instruments, bocals, and reed styles will lend themselves better to creating multiphonics. I find that harder reeds lend themselves to play certain multiphonics easier. Looking back to Ko's own words from the program notes that state "These seemingly unpredictable sounds come from a single change in one keyhole – just as a small tilt of the head can be utterly inconsequential, or it can allow one to perceive something shocking or life-changing…"[3] it may simply be that your own personal "change in one keyhole," that is, your own reed, bocal, or instrument, is more or less inclined to create certain tones. As part of the composition, any note that has the "**M**" symbol above it should be a multiphonic, however, notes

[3] Tonia Ko, Tilt (Composers Edition, 2021)

without this symbol are not required to be multiphonics. I suggest trying different reeds or other available bocals, along with the previously stated factors regarding embouchure location and pressure, to see which combinations create the desired sounds and colors. I always aim to obtain as many multiphonics as possible, as this creates the most variation within the work. These factors inherently lead to every performance sounding different, especially between different bassoonists.

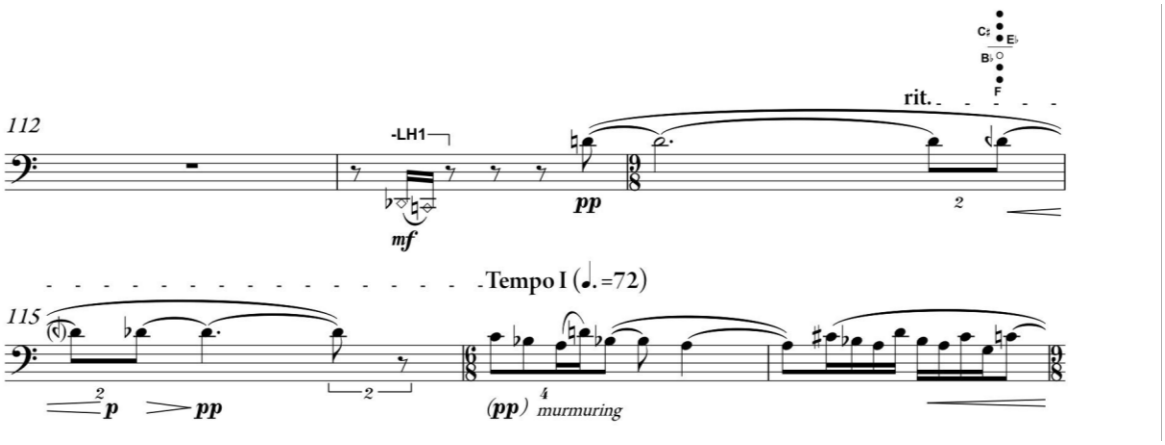
Immediately following this low F multiphonic in example 2.4 is a new section labeled “as if in slow motion”



Ex. 2.4. Tonia Ko, *Tilt*, mm. 49-52.

Slurring the entire passage helps bring out the slow motion effect by making everything smooth and connected, lightly tonguing if necessary on the jump to A3. As the previous section used almost exclusively 16th notes, the groups of 4 in the same tempo will sound slower. Adjusting the overall tempo slightly down to around 68 bpm can help with the slow motion character, but anything further would be unnecessary due to the rhythmic tempo change. I use very slow vibrato with a wider range to match the character. It may be tempting to use no vibrato, but this will essentially stop all forward motion and would not match the desired character.

On Page 5 of the work, quarter tones are now introduced. Prior to this section, the fingering modifications were used within the context of a timbral scale, but now explicit quarter tones are written. One common issue with timbral fingerings and quarter tones is the extreme difference in timbre compared to the surrounding notes, making them harder to blend together. Blending is not a concern in the previous sections because the timbral scales are used as an effect, not melodically. This drastic difference in timbre is most prominent between measures 114 and 115.



Ex. 2.5. Tonia Ko, *Tilt*, mm. 112-117.

The D quarter-flat (m.114) is fuller and brighter in sound due to the fingering using a longer length of the instrument. Because of this, the D quarter-flat does not match the quality of the surrounding D and D-flat, especially if the short D-flat fingering is used. To combat this timbral issue, play D4 with the RH B-flat key depressed and without the LH D speaker key. The RH B-flat key will act as the speaker key, so the note will not crack. It will also brighten the timbre of the D4 slightly to match the quality of the D quarter-flat. For the D-flat that follows, use the "long" fingering:

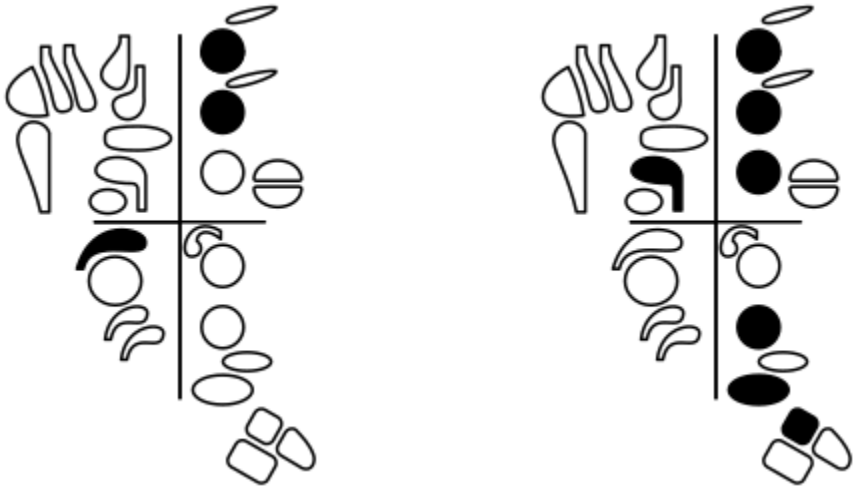
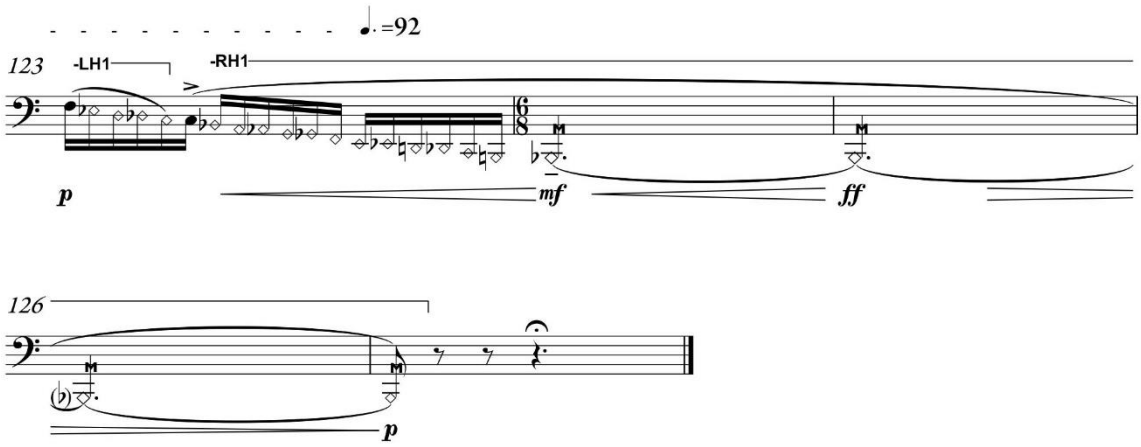


Figure 2.1 D4 with RH B-flat and Long D-flat4 fingering.[4]

This fingering will help facilitate a smooth timbral transition between all three notes, as these are some of the brightest fingerings available, and reduce the likeliness that the D quarter flat will stick out of the texture.

[4] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/

The piece concludes with a loud multiphonic B-flat1 -RH 1. I have found this to be one of the more finnicky multiphonics within the work.



Ex. 2.6. Tonia Ko, *Tilt*, mm. 123-127.

If there are difficulties with this multiphonic, try "flicking" it. Bassoonists are accustomed to flicking and venting the speaker keys on the wing joint to ensure a note speaks properly. This same idea can be implemented here by "flicking" your RH 1st finger on the B-flat. Finger a regular B-flat and quickly raise RH1 to make the multiphonic speak more reliably. Make sure this is done quickly, as an ordinary B-flat will speak if there is too much delay.

Tonia Ko's *Tilt* is an excellent piece for those both new and well accustomed to contemporary works. The notation is easy to read, and the almost completely chromatic use of timbral scales makes the technique easier, after becoming well adjusted to modifying the fingerings. The piece stays within the standard range of the bassoon, which further enhances its accessibility.

CHAPTER 3

LEGEND OF THE SEA

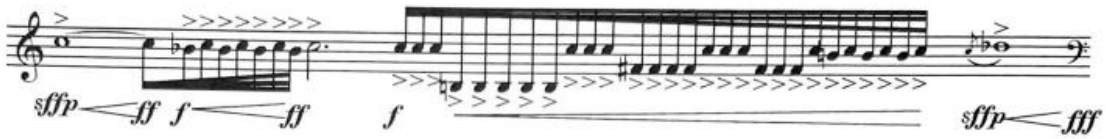
Legend of the Sea for solo bassoon by Xinyan Li is a programmatic work. Li states:

> I consider [the] bassoon an actor, who acts [as] several characters by one single actor, include the young girl, the young girl's husband, and the whale, etc. It tells a story of the fight between a young girl and a whale that swallowed her. To flourish the tone color and intensify the contradiction of bassoon, I use the "Tiger sound" and "Dragon sound" which are typical sounds in the role "Painted Face" in Beijing Opera, the false sound in the role "Xiao Sheng", the percussive sound in "Wu Chang" (Percussion Ensemble in Beijing Opera), as well as [the] crying tune used in "Bride Crying Songs" in Chinese Minority "Tu Jia" Nationality. It is an expressive, creative and dramatic piece that combines both the western instrument bassoon's character and Chinese cultural features.[5]

An in depth cultural analysis of *Legend of the Sea* is not within the scope of this document, although these themes will be mentioned if applicable. I strongly urge any performer to familiarize themselves with these concepts to create a culturally accurate performance. Since this piece switches between measured and unmeasured sections, I used page and line numbers as well as letters and measures to dictate location within the score. Each new section will restart measure numbers from "measure 1," as in, Section A measure 1 or Section C measure 1.

[5] Xinyan Li, Legend of the Sea (TrevCo music publishing).

For this piece, make sure your reed has a thin tip and a heavier back. This will ensure that the high notes, such as the opening C5 will speak properly without cracking and also allow for the harsh accents required throughout the work. A strong air attack can be used on the first note to ensure proper response. It is also possible to articulate on the corner or bottom of the reed, instead of the direct center, to help facilitate good articulation and response in this register.

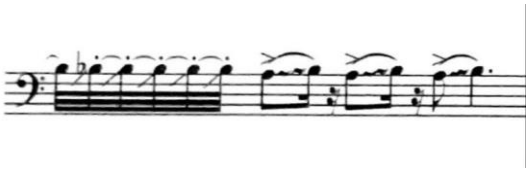


Ex. 3.1 Xinyan Li, *Legend of the Sea*, page 1, line 1

At the end of page 1, line 2 is the first appearance of the "wide vibrato" marking. This is reminiscent of the aforementioned "Bride Crying Songs." Using your jaw is the easiest way to create a wide vibrato. Because of its explicit marking, it must not sound like your regular vibrato that will be used throughout much of the work. Add and reduce pressure to the reed by slightly opening and closing your jaw, being careful not to open your jaw too much, or the pitch will crack. This technique is used many times throughout the piece, so it is important to be comfortable doing this jaw motion throughout the full range of the instrument.

Ex. 3.2 Xinyan Li, *Legend of the Sea*, page 1, line 2 end.

On page 1, Line 4, (example 3.3) it is necessary to differentiate between the scoops up to the B-flat and the A glissando up to B-flat. For the scoops, open your jaw and lessen the air speed, similar to the jaw vibrato, and then scoop up to the B-flat. In this instance, the pitch will be somewhere between an A and a B-flat.

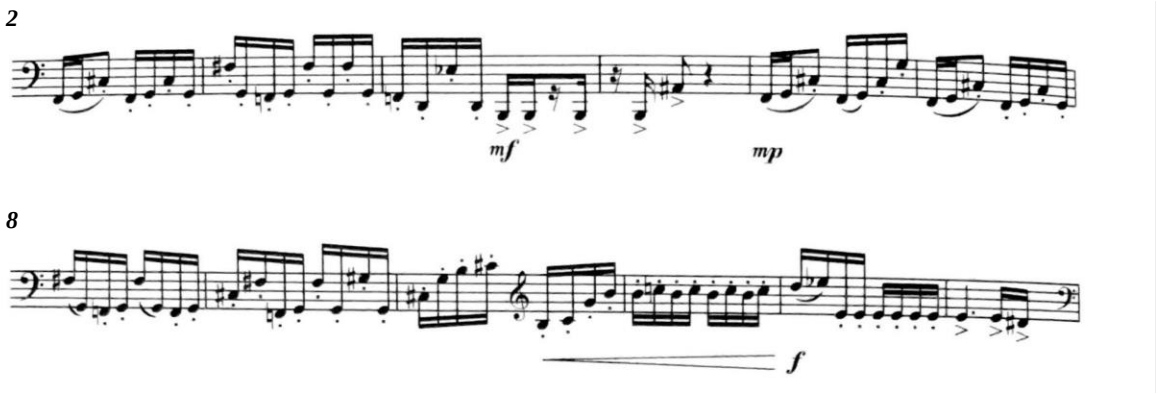


Ex. 3.3. Xinyan Li, *Legend of the Sea*, page 1, line 4 beginning.

Glissandi are used often within *Legend of the Sea*. For short distance glissandi, usually no larger than a 3rd, I recommend anchoring your finger to the instrument to help create a smooth and seamless motion while lifting up or pressing down the keys. In example 3.3, anchor your right thumb on the body of the instrument, above the RH thumb B-flat key, and slowly move your finger down to press the key with the middle of your thumb, near the knuckle crease. By using the body of the instrument as an anchor point, it becomes much easier to control the motion of pressing down the key and ensuring that

the glissando is as equally smooth from start to finish, with no accidental bumps or hiccups.

Section B is the first section to introduce quick articulations and large leaps and dissonances. In measures 3, 8, and 9 of section B, the line jumps between F-sharp3 and G2, requiring the constant switch between half hole and non-half hole notes. This increases the chance of cracking, particularly the bottom G if the half hole is not closed in time.



Ex. 3.4. Xinyan Li, *Legend of the Sea*, page 2, section B, mm 2-13.

To make this passage easier, do not use LH 1 on F-sharp. This solves the issue of possible cracks on the F-sharp, and makes the technique easier by changing the motion to lifting the LH 1st finger up and down which can be done much more quickly than rolling.

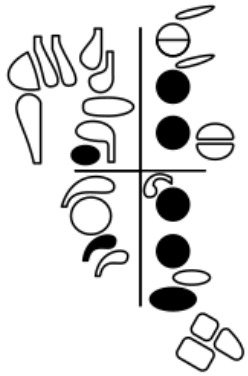
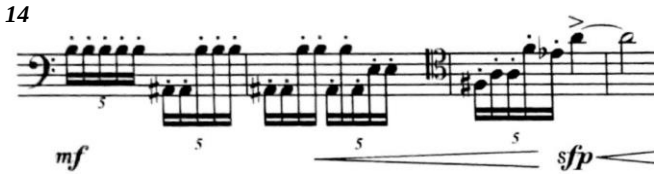


Figure 3.1. Recommended F-sharp fingering.[6]

Not using LH 1 on F-sharp also helps the low G speak when the two notes are slurred in measure 8 of section B. Playing G-sharp without LH 1 does not work, so be careful that the half hole technique is still applied on this note. You can also use the whisper key lock during this passage to rid yourself of the rolling motion of the thumb between C-sharp and G, due to having to stay on the whisper key. Make sure the lock is disengaged by the downbeat of measure 10 so that the following high notes will speak clearly. The whisper key lock should be treated as its own key - to be engaged and disengaged in the middle of passages while playing - like any other key or tone hole is used. Having the ability to freely use the whisper key lock within passages frees the left thumb and helps to play difficult passages, such as mm. 14-15 of section B (ex. 2.5)

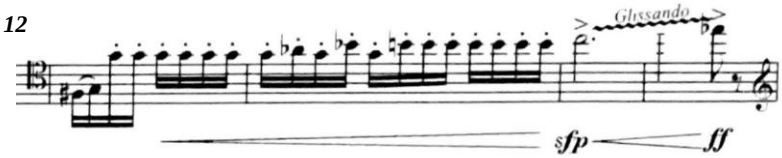
[6] Brett Pimentel, “Fingering Diagram Builder.” http://fingering.brettpimentel.com/#!/bassoon/



Ex. 3.5. Xinyan Li, *Legend of the Sea*, page 2, section B, mm 14-17.

Engaging the lock while venting the quintuplets on the downbeat, means your thumb does not have to press the whisper key on the A-sharps. Vent all of the B-naturals, and unlock on the downbeat of measure 16, or on the A4 in measures 16-17. Even when locked, the F and E-flat should speak properly at this dynamic level.

In measures 12-15 of section C (ex. 3.6) is the first glissando larger than a step, from C5 to E-flat5.



Ex. 3.6. Xinyan Li, *Legend of the Sea*, page 3, section C, mm 12-15.

There are a few ways that larger pitch glides can be performed. One way is to do a fast scale, usually chromatic, from one note to the next and the other is to smoothly change your pitch from one note to the next, without any discernable tones, like a cellist sliding their finger up and down a string. I prefer to get as much smooth sliding as possible before switching to a chromatic scale, if necessary. For the C5 to E-flat5 glissando, move your fingers in the following way:

1. From C5 (fig. 3.2, 1), using the high D key during the whole process, simultaneously slide your LH 1st finger off and LH 3rd finger on their keys and slide your RH 1st and 2nd fingers off their tone holes, ending at fig. 3.2, 2.
2. Place down your RH 3rd finger on the G key slowly and lift your RH pinky off of the F key, ending with the fig. 3.2, 3 fingering.
3. Last, press down the LH E-flat key and your RH pinky A-flat, while lifting your RH third finger off of the G key to play E-flat5.
4. The final E-flat5 fingering.

The diagrams below will show the fingerings in step-by-step order.

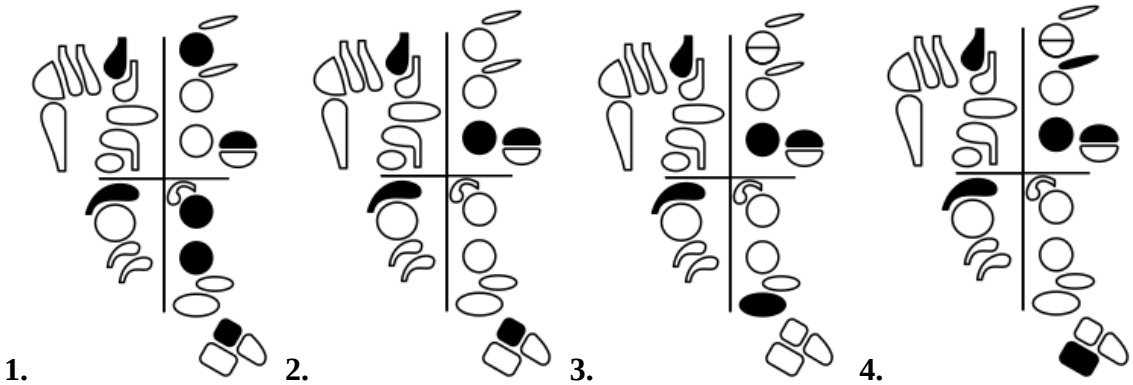
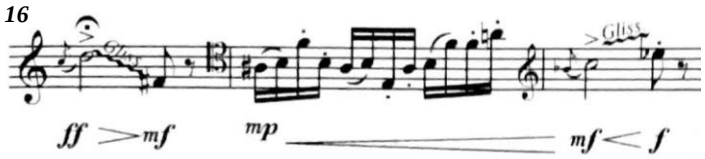


Figure 3.2. C5-E-flat5 glissando fingering order, starting on a standard C5 fingering.[7]

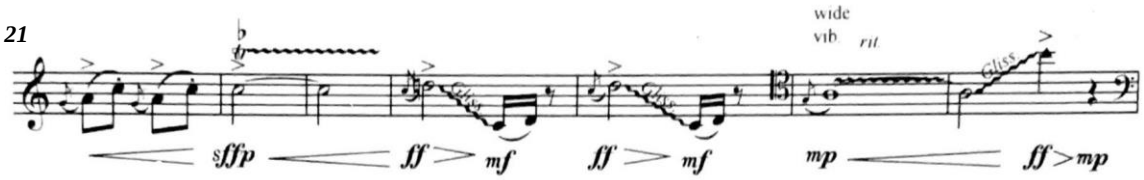
[7] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/

When done quickly, you will obtain a smooth glide from C5 to E-flat5. For the next glissando, which immediately follows, I use the scalar approach. This glissando, from D5 downward to F-sharp4 (ex. 3.7) is not as easily achieved with the smooth method. Bending the pitch downward slightly on D5 before falling into a scalar run, landing on F-sharp, is the easiest and most reliable method.



Ex. 3.7. Xinyan Li, *Legend of the Sea*, page 3, section C, mm 16-18.

The C5 to E-flat5 then returns shortly after. In mm. 24-25 (ex. 3.8), more downward glissandi appear which can be performed with the scalar method. To end the section Li asks for large glissando from A3 to the highest note possible.

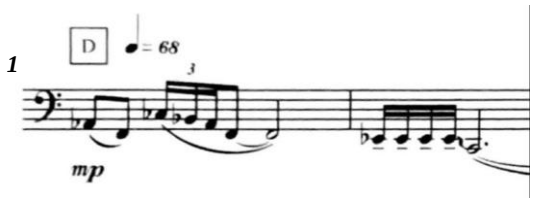


Ex. 3.8. Xinyan Li, *Legend of the Sea*, page 3, section C, mm 21-27.

Because A3 is fingered with all tone holes, it is possible to slide off each finger starting from the RH 2nd finger and working your way up the instrument to create a smooth glissando from A3 to F4. Afterwards, a quick scalar run can be played to get to the

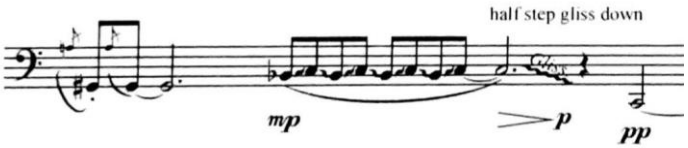
highest note possible. I recommend playing a note from E-flat5 to F5, depending on the keywork of your instrument.

Three more glissandi are in the following D section: low E-flat down to C (ex. 3.9 measure 2), B-flat2 to C3, and E-flat3 down to D3. The first low glissando can be achieved by slowly lifting the LH pinky off the low E-flat key, which moves you to the standard D fingering, and then slowly lowering the C key with your LH thumb.



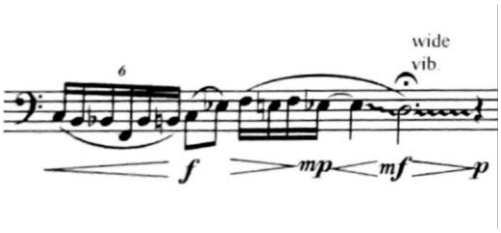
Ex. 3.9. Xinyan Li, *Legend of the Sea*, page 3, section D, mm 1-2.

It is supposed to be quite quick, so playing it as a scale would also work. The next two are a bit more involved. To glissando between B-flat2 and C3, play a standard B-flat, and slide your RH 1st and 2nd fingers on and off their tone holes. Be careful to not slide completely off, or a C quarter-sharp will sound.



Ex. 3.10. Xinyan Li, *Legend of the Sea*, page 3, section D, line 5.

The last glissando of this section is from E-flat3 to D3. This can be performed in multiple ways. Play E-flat as D plus the C-sharp key or D plus the LH E-flat trill if available and slowly release the key to go down to D.



Ex. 3.11. Xinyan Li, *Legend of the Sea*, page 3, section D, line 6.

It is possible to play this by simply bending the E-flat down to a D using air and embouchure manipulation, but with the wide vibrato, it tends to have an undesirable timbre. It is also possible to use a forked E-flat fingering and slide the LH 2nd finger over its tone hole, but the resulting timbre is again, undesirable and airy. This is why I recommend using the C-sharp or LH trill E-flat keys.

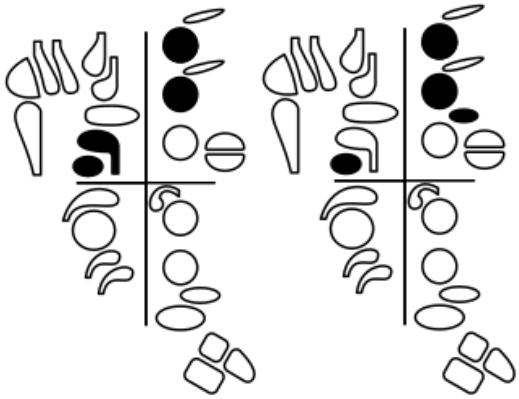


Figure 3.3. Recommended E-flat3 fingerings.[8]

[8] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/

Section F begins with a low murmuring chromatic line with loud interjections. Play all D4s with the B-flat key added to create a brighter, and more aggressive sound. The addition of the B-flat key will also prevent the note from cracking. This fingering allows for a swift jump up the D4, as the RH thumb is free, as opposed to venting with the high D key, which would require moving from the whisper key.

Ex. 3.12. Xinyan Li, *Legend of the Sea*, page 4, section F, line 5.

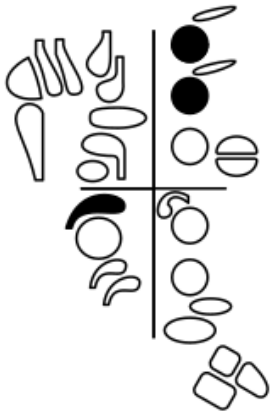
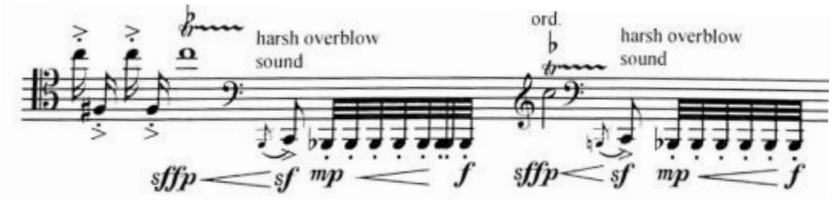


Figure 3.4. Recommended D4 fingering.[9]

One of the last extended techniques to be introduced is the "harsh overblowing" effect, first found at the bottom of page 5. There are multiple ways to achieve this effect. One way is to place the entire blade of the reed in the mouth, similar to the position one would use if playing high notes, and then finger what is notated while blowing and using

[9] Ibid.

the support of your high register. Imagine playing the highest B-flat, while fingering the lowest. The other way is to move to the very tip of the reed, pulling in the corners of your embouchure, to make sure all of the air goes into the reed, and blow with the same force as the high register.

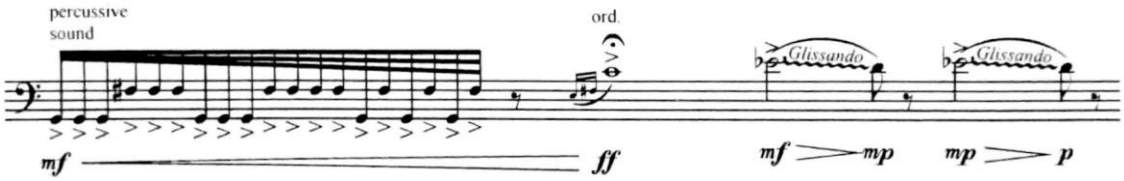


Ex. 3.13. Xinyan Li, *Legend of the Sea,* page 5, section F, last line.

The location of the embouchure on the reed creates different colors and effects. I found that going towards the tip of the reed creates the harshest sounds with a bit less tone, while being closer to the collar of the reed has the opposite effect; there is more tone but it is less harsh. Experiment with embouchure pressure and placement to discover which combination creates the effect that you are most drawn. Air pressure, speed, and support should be at its maximum on the *forte* and *sforzando*, regardless of embouchure placement.

Page 6 includes the addition of the "percussive sound" and two last glissandi, both of which can be found in line 5. The percussive accents allow the bassoonist to use the full force of air and tongue to create an extremely loud accent. I believe that if there is a bit of a crack or pop at the beginning of the note, particularly the high B-flat and C at the top of the page, that adds to the percussive effect. These notes are quick and loud. This in conjunction with the story and thematic material of the piece mean that it is acceptable to

sound a bit brash and ugly. This is not meant to be a pretty and lyrical sound. Be careful not to completely crack the note down an octave or forget to half hole the F-sharps.



Ex. 3.14 Xinyan Li, *Legend of the Sea*, page 6, section I, line 5.

The glissandi here can be performed in the same ways as the one in example 3.11 that were down the octave. Remember to anchor the thumb or LH 3rd finger on the body of the instrument to ensure a smooth glissando with no bumps. You can also use the standard D fingering plus RH 3rd finger G key or the RH C-sharp trill key to play E-flat in this octave and then release the key for the glissando.

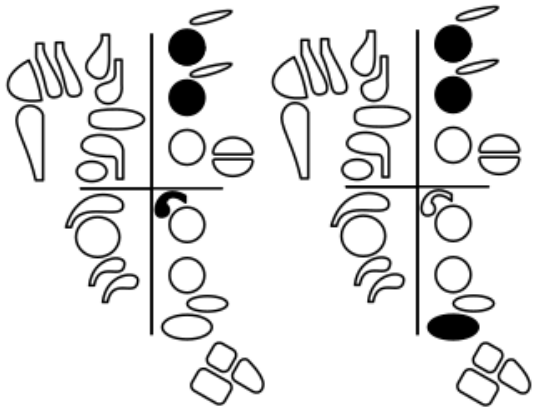


Figure 3.5. Recommended E-flat4 fingering.[10]

[10] Ibid.

Similar to letter F, at letter K, Li uses a quieter driving rhythmic pulse with loud interjections, this time on C-sharp4. Use the following C-sharp fingering to play loud and aggressive C-sharps without cracking.

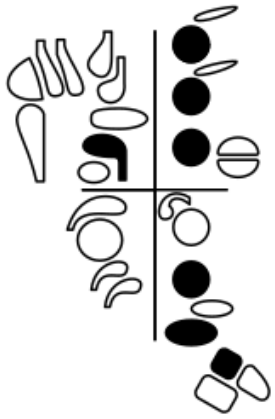


Figure 3.6 Recommended C-sharp4 fingering.[11]

The rest of the work uses previously discussed techniques such as percussive high notes and overblowing.

Li uses a multitude of extended techniques within *Legend of the Sea* to evoke a story with multiple characters and cultural ideas such as the Bride Crying songs and different motives commonly found in Beijing Opera. With these techniques and careful consideration for cultural themes, the bassoonist can tell an evocative story and captivate the audience.

[11] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/

CHAPTER 4

JEU DES CINQ ÉLÉMENTS II

Jeu des Cinq Éléments II (Game of the Five Elements II) is part of a set of five works by Vietnamese-born French composer Tôn-Thât Tiêt that explore the interaction of the five elements in Chinese philosophy: earth, wood, metal, fire, and water. Each element has its own characteristics, including emotional, seasons, colors, and musical tones.[12] These elements create a cycle in which they balance each other to create harmony. Tôn-Thât Tiêt uses this idea of cycles and balance to create the musical content within this work. There are many "sub" cycles within this philosophy as well including the Generating Cycle and the Destructing Cycle. In the Generating Cycle, one element feeds and promotes another, such as wood feeding a fire, while in the Destructing Cycle, one element suppresses another, such as earth soaking up water.

This performance guide will cover the technical aspects of the work, but I highly recommend that prior to practicing the work, you should perform research regarding the multiple different cycles. I will reference different aspects of each cycle if they are directly related to the recommendations within the performance guide. Occasionally Tôn-Thât Tiêt omits bar lines. Measures will be used when applicable, with other demarcations such as line number and page number being used when required. Two versions of this work exist, the original and a simplified version. This guide will be based on the original version of the work.

[12] "Wuxing: Chinese Philosophy," Britannica.com, Encyclopedia Britannica, 10 Oct. 2022

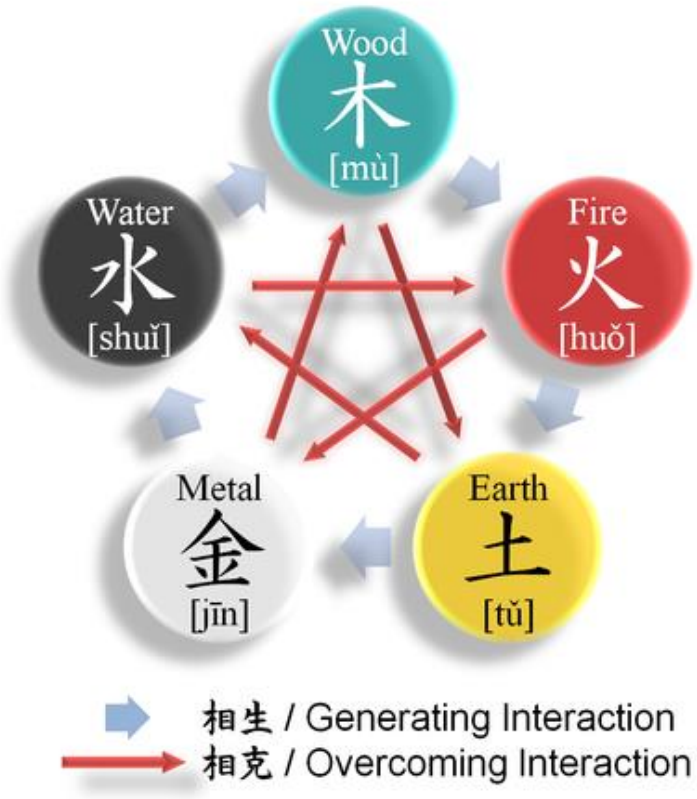


Figure 4.1 Wuxing Cycles.[13]

The most important aspects of each element for this work are the musical and emotional connections. All elements have at least two emotions or personalities tied to them, one positive and one negative, relating to the different cycles. For example, fire can represent both joy and hate and water can represent calmness or fearfulness.[14] Understanding these emotional connections to the element will help define your own interpretation of the work, and will be referenced within this guide as such. According to the Wuxing Philosophy, each element has a designated musical pitch; fire is G, wood is

[13] Parnassus. *Wuxing Schematic Diagram,* September 23, 2013, Wikipedia, accessed March 16, 2024, https://en.wikipedia.org/wiki/Wuxing_(Chinese_philosophy)#/media/File:Wu_Xing.png.

[14] "Wu Xing," NewWorldEncyclopedia.org, New World Encyclopedia, May 20, 2023, https://www.newworldencyclopedia.org/entry/Wu_Xing.

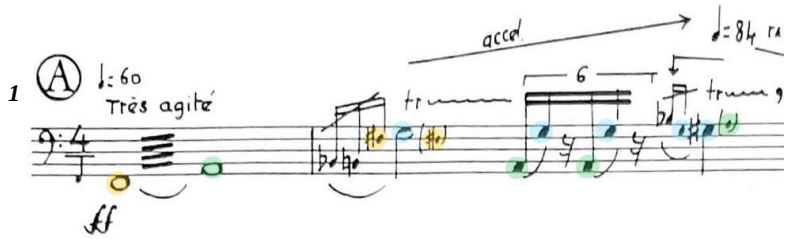
E, water is A, metal is D, and earth is C. These notes, when placed in the most compact order, create a C pentatonic scale – C D E G A. Tôn-Thât Tiêt then transposes this to an F pentatonic (F G A C D) representing earth, metal, wood, fire, and water, respectively.

Jeu des Cinq Éléments II uses many extended techniques, including multiphonics, pitch bends, glissandi, flutter tongue, tremolos, timbre trills, and "helicopter" tonguing (hitting the tongue against the reed without making the reed vibrate). There are two techniques that create an issue when learning this work if you perform on a German system instrument, those being the multiphonics and tremolos. This piece was explicitly written for the French bassoon system, noted by the French bassoon fingering chart preceding the work, and the first performance having been by French bassoonist Alexandre Ouzounoff in 1982.[15] For anyone playing the German system bassoon, which is a majority of bassoonists today, the given fingering chart for the multiphonics and tremolos will not work. I have created a new German system fingering chart for these multiphonics and less obvious tremolos that I have placed at the end of this chapter. All of the suggested multiphonics are used because they gave the most accurate pitch with the most reliable response, as well as taking into consideration the fingerings needed within the context of the passage. Manipulation of air and embouchure may be required to get the most accurate pitch. Because of the frequency in which the multiphonics are used, only particularly difficult or unclear ones will be discussed within the document, with the rest being in the chart.

Because each note is tied to an element and its characteristics, I recommend highlighting the notes in their respective color. Wood is green, fire is red, earth is yellow,

[15] "Tôn-Thât Tiêt," cdmc.asso.fr, Centre de Documentation de la Musique Contemporaine, Aug. 2009.

metal is white, and water is black. I have opted to used light blue for metal and a light grey for water for clarity and visibility. Whether reading music off of paper or on an electronic device, taking the time to highlight all of the notes within the work helps show the multiple elemental interactions that are happening, and will help the performer make decisions about what type of character should be brought out within the work.

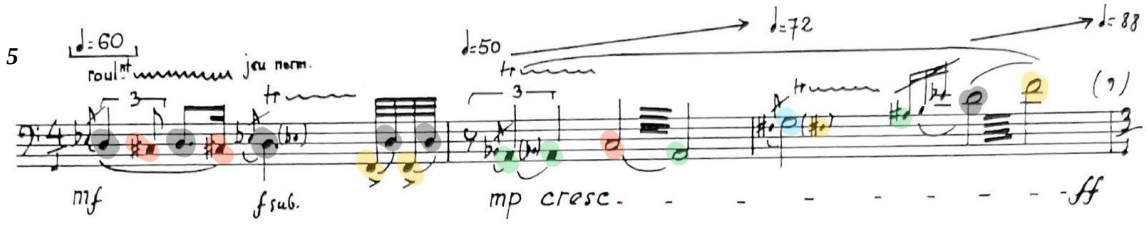


Ex. 4.1 Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, mm. 1-2.

Even in this short excerpt, it can be seen that the piece starts with earth and wood, then transitions to metal and wood after the first trill. Contemporary works require new methods of analysis and I believe color coding the notes to their elements is the easiest way to make this work more easily understood, particularly by those that may not have been raised in this culture. I will use my own color coded score for any excerpts used within this guide.

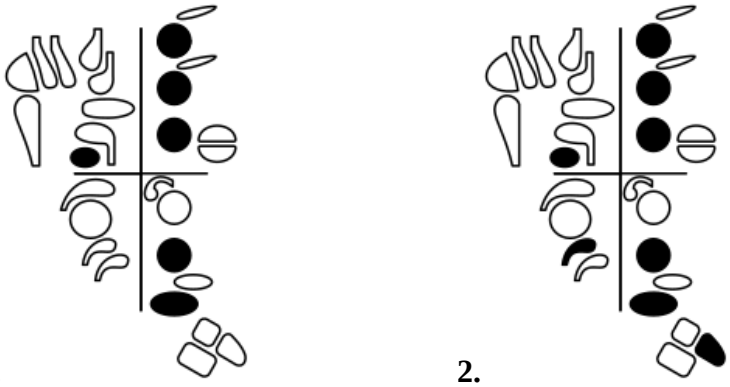
The first set of many multiphonics and tremolos begins on line 2 in measures 5 and 7. Throughout the work, *roulnt,* short for *Roulements* (rolling), is used to tell the bassoonist that these notes are to be played as multiphonics with the written note sounding the strongest. In the first instance, the bassoonist is required to move between

multiphonics pitched on D and C-sharp, and at the end of the line, perform a tremolo between D4 and F4.



Ex. 4.2. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, mm. 5-7.

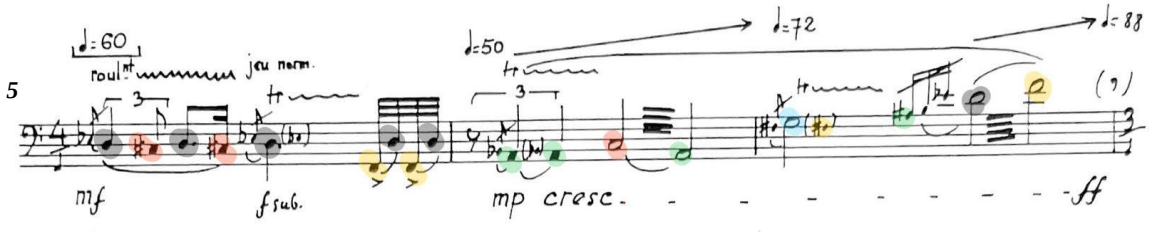
Figure 4.2 includes the suggested fingerings for the D and C-sharp multiphonics. From the D fingering, which is low G minus RH1, add both the pinky and thumb F-sharp keys to play a C-sharp multiphonic.



1. **2.**

Figure 4.2. Suggested multiphonic fingerings for D(1) and C-sharp(2).[16]

[16] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/



Ex. 4.3. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, mm. 5-7. (Repeated from above for ease of viewing and explanation.)

The D4 to F4 tremolo in measure 7 requires the use of a harmonic F4 fingering, since there is no way to quickly move between these notes with standard fingerings. The easiest way to perform this tremolo is to play D with the right thumb B-flat key and trill LH 1 and 2. The B-flat key helps stabilize the pitch of F. The use of either LH pinky key is up to the discretion of the performer and may help to further stabilize pitch or timbre of the F.

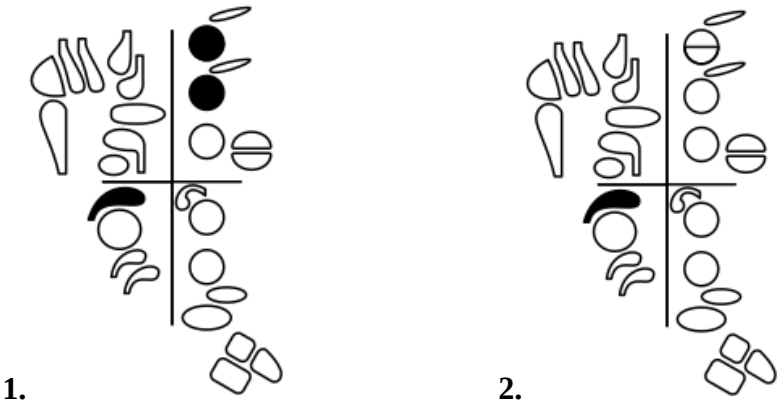
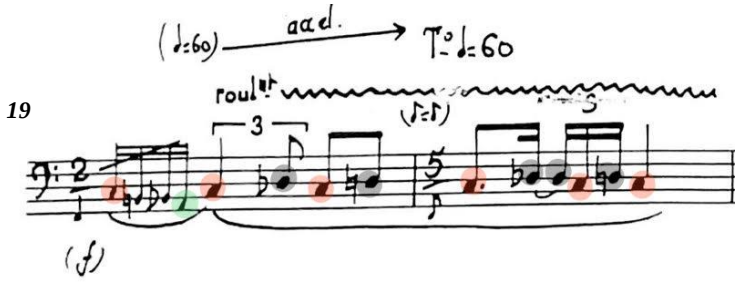


Figure 4.3. Suggested tremolo fingerings between D4(1) and F4(2).[17]

[17] Ibid.

The same multiphonic theme from before is now restated, but with the addition of the C-natural pitch.



Ex. 4.4. Tôn-Thât Tiêt*, Jeu des Cinq Éléments II*, mm. 19-20.

The C-natural can be performed with the same fingering as the C-sharp multiphonic, but subtract the thumb F sharp.

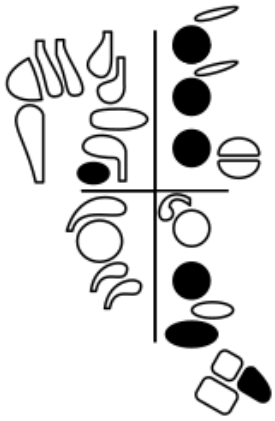
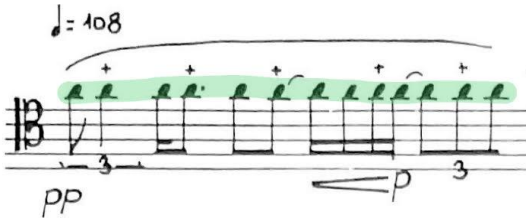


Figure 4.4. Suggested multiphonic fingerings for C natural.[18]

Using only pinkies to change pitch between C, C-sharp, and D, makes this passage lay nicely on the instrument without the use of awkward fingerings.

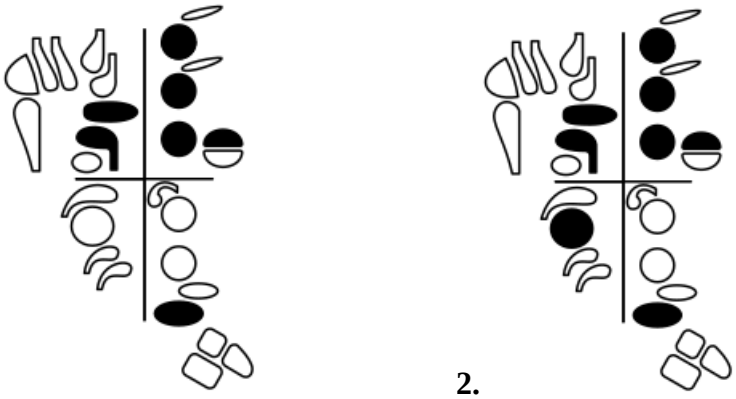
[18] Ibid.

On page 2, Tôn-Thât Tiêt places a + symbol above notes, signifying that they be played as the same note but with a timbre difference. Essentially, this is a rhythmic timbre trill.



Ex. 4.5. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 2, line 1.

I prefer for the timbre of the standard fingering to be brighter and more pronounced than that of the timbre trill. Wood has both patience and anger as its emotions according to the Wuxing philosophy. Because of the quiet dynamic and the use of louder interjections within this section using different notes, I believe this timbre trill A should lean more towards the patient emotion further emphasizing a more inward and more rounded sound for the new timbre. For this passage, simply use the pancake key as the trill key.



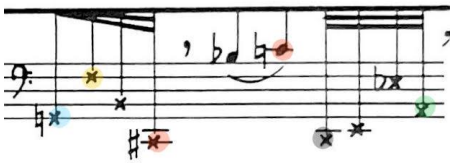
1. **2.**

Figure 4.5. Suggested fingerings for standard(1) and timbre(2) A4.[19]

[19] Ibid.

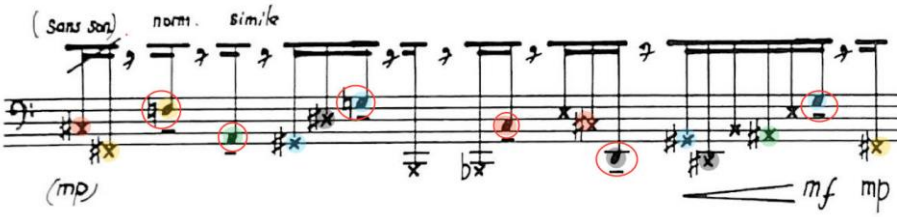
It is important that the timbre trill does not drastically change the pitch. Timbre trills can be achieved most easily with the pancake key or either of the left hand pinky keys. Experiment with which option grants the biggest variation in timbre without changing the pitch drastically.

The next extended technique is the “helicopter sound,” tongue ram, or flap tongue. Many young bassoonists discover this sound early in their “careers”. It is performed by hitting the tongue against the reed without blowing air creating a pitched thud or flaplike sound and is represented by “x” note heads in the score.



Ex. 4.6. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 2, line 6.

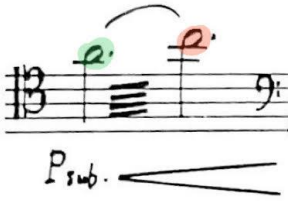
Finger the notes with the “x” note head and hit your tongue against the opening of the reed. This effect will naturally be extremely quiet, however it is possible to make it louder by using a loose embouchure and blowing hot air, like fogging up a window. Do this while articulating further back on your tongue, more towards the middle. Place your embouchure closer to the collar of the reed. This type of embouchure pressure and placement along with air speed should hinder the vibration of the reed and hinder the ability for it to vibrate while increasing sound output. Tôn-Thât Tiêt writes to perform the technique and then switch to normal playing and gives ample time to do so. Later in the work on page 6, lines 4-6, this technique once again returns but this time mixed with normal notes, requiring immediate switching between this tongue ram and playing.



Ex. 4.7. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 6, line 5.

For example 4.7, I have circled the normally played notes in red for visual clarity. This excerpt is marked *rapidé* along with markings telling the performer to not interrupt the phrase. Instead of doing a new articulation for the normal notes, you should perform the tongue ram, and then use the release from the reed as the articulation for them. This means that your tongue will only hit the reed once and then release to create pitch, instead of doing two separate articulations. This makes the tone and response of all normal notes much more in time and accurate.

Page 3 has one of the most difficult tremolos to perform. This tremolo is from A4 to C5.



Ex. 4.8. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 3, line 4.

The reason this is difficult is because the bassoon has 4 breaks in which a “finger reset” is needed to play its full range. The first is from F3 to F-sharp3. The next is from D4 to E-

flat4, then A4 to A-sharp4. The last break within standard range is D-sharp5 to E5. This information is crucial to understanding why the bassoon has difficulties doing certain tremolos and not others.

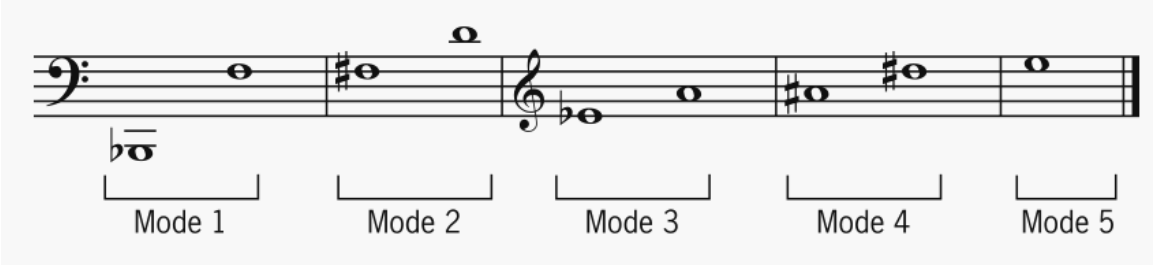
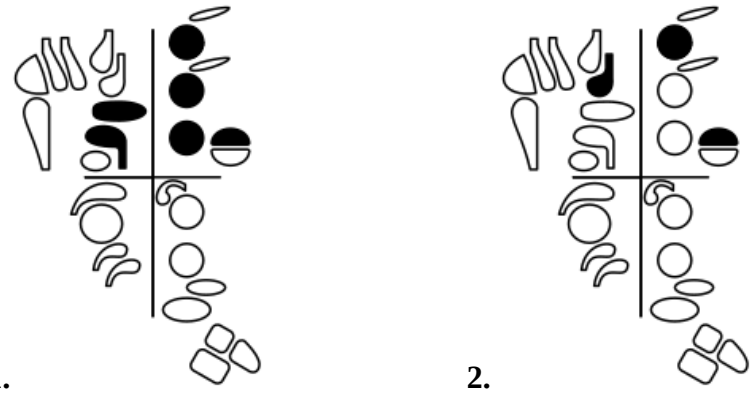


Figure 4.6. Bassoon fingering modes and breaks.[20]

When crossing any break, there is a reset in the total length of the instrument, such as F3 only using the whisper key, and F-sharp 3 using all fingers again. If a tremolo crosses a break, this issue is exaggerated since it is necessary to move back and forth between the notes quickly with awkward fingerings. This is why I recommend using the left hand A and left hand C fingerings.

[20] James Kopp, "The Not-Quite-Harmonic Overblowing of the Bassoon." https://koppreeds.com/harmonic.html



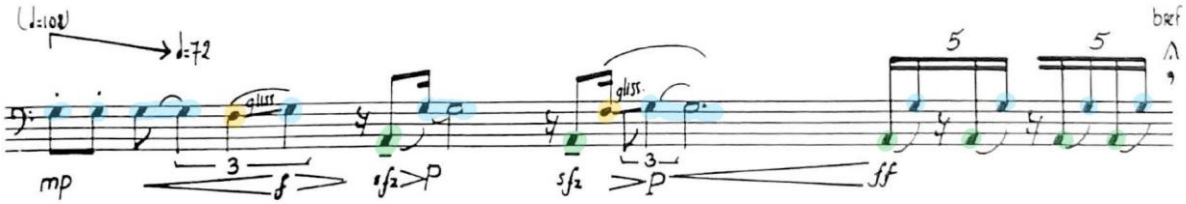
1. **2.**

Figure 4.7. Suggested fingerings for A4(1) and C5(2) tremolo.[21]

There is however an obvious issue here - that being the movement of the left thumb between the A and C sharp keys and to the C key. To combat this, take your right hand, which is not needed on A, and bring it up to the wing joint. Press the C key with the thumb on your right hand while simultaneously lifting your left thumb off of the A and C sharp keys and lifting off of the 2nd and 3rd tone holes. There is a breath mark before the A, so there is plenty of time to bring the right hand up to the wing joint.

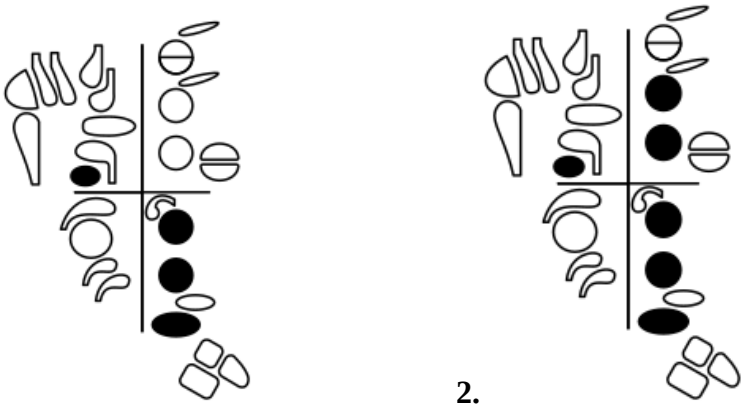
[21] Brett Pimentel, "Fingering Diagram Builder." http://fingering.brettpimentel.com/#!/bassoon/

One more glissando goes over the break from F3 to G3 and there are multiple ways to perform this glissando. The undesirable options are either dropping the pitch of the G as far as possible and scooping it back up, or playing F or playing F and slowing pressing down the high E key. Both of these options give inaccurate pitches and poor timbre qualities.



Ex. 4.9. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 6, line 7.

The best solution is to play F with the RH 1, 2, and 3, and slide LH 2 and 3 slowly over the tone holes. Some embouchure manipulation can help smooth out the transition, biting a little while playing F and then reset the embouchure on the switch to G.

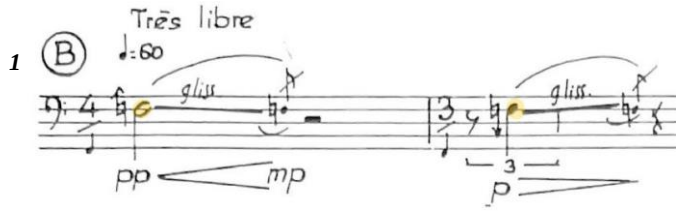


1. **2.**

Figure 4.8. Suggested fingerings for F3 (1) and G3 (2) glissando.[22]

[22] Ibid.

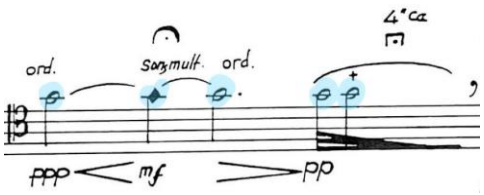
The B section is marked *Trés libre* and includes more use of rests and longer fermatas and also includes a repeating pitch bend motif. This notation is asking the performer to play a sharp or flat version of the note, but not necessarily a certain level of sharpness or flatness, like a quarter-sharp or flat would indicate.



Ex. 4.10. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 4, line 1, mm.1-2.

Bassoon pitch is extremely malleable by manipulating air and embouchure, so the performer can start the pitch sharp by biting and then releasing pressure on the reed back to normal, or starting purposely flat with low air pressure and raising the pitch. No special fingerings are needed. If the reed is compressed to start sharp, it will naturally be muffled so not much effort will be needed to crescendo. Opening the embouchure to lower the pitch should suffice.

This section introduces one more style of multiphonic by asking the bassoonist to play a regular G, then slide into a multiphonic, and back. This can be achieved by keeping the same fingering and slowly lowering air speed and embouchure pressure, then reversing the process.



Ex. 4.11. Tôn-Thât Tiêt, *Jeu des Cinq Éléments II*, page 4, line 5.

The pitch will start to slide down, so if necessary, close your half hole a bit and tilt your head up. Closing the half hole helps crack the note, and tilting the head up puts pressure on the bottom blade of the reed, raising the pitch a bit to counteract the drop. The following timbre trill can be achieved with the LH pinky E-flat key.

This work uses an extensive list of extended techniques to create a unique piece based on the composer's cultural background. Without research, this piece can easily become a wash of noise. With careful consideration and attention to detail, *Jeu des cinq Éléments II* can be the ultimate expression of technical and musical ability.

CHAPTER 5

CONCLUSION

Solo bassoon music can be a great source of musical expression. Composers use the instrument to its fullest extent including range, tempo, and extended techniques. Although much of this music is difficult and may seem unapproachable to those not familiar with these techniques, it is critical for a modern performer to be comfortable with the way modern composers write and the soundscapes they can create.

Tilt is extremely accessible to those new to contemporary works, since at its core, the piece uses simple scales. The notation that Tonia Ko uses makes this work much easier than it may seem at first. Careful practice of timbral scales is no different than practicing "standard" scales and will help the bassoonist develop further control over the instrument by manipulating embouchure and air to make the multiphonics speak.

Legend of the Sea is a virtuosic and programmatic piece that uses fewer extended techniques than the other works in this document, but creates a unique soundscape and captivating story nonetheless. Xinyan Li uses many cultural concepts from the Beijing Opera to transport the performer and audience into her story. Considering these concepts and techniques will help to make a compelling performance.

Jeu des Cinq Éléments II utilizes a vast array of extended techniques to portray the cycle of the elements and how they interact within the Wuxing philosophy. Tôn-Thât Tiêt also wrote this work for the French bassoon which makes iy much more difficult for those who perform on a German system instrument. If the time is taken to learn the nuances of this work and to familiarize oneself with the techniques used, it can be an expressive, lyrical, and at some times violent, work that pushes bassoonists to their limit.

With the use of these performance guides and studio recordings, hopefully this music seems more accessible, and compels bassoonists to explore more music that use these techniques, particularly from the East Asian and Southeast Asian community.

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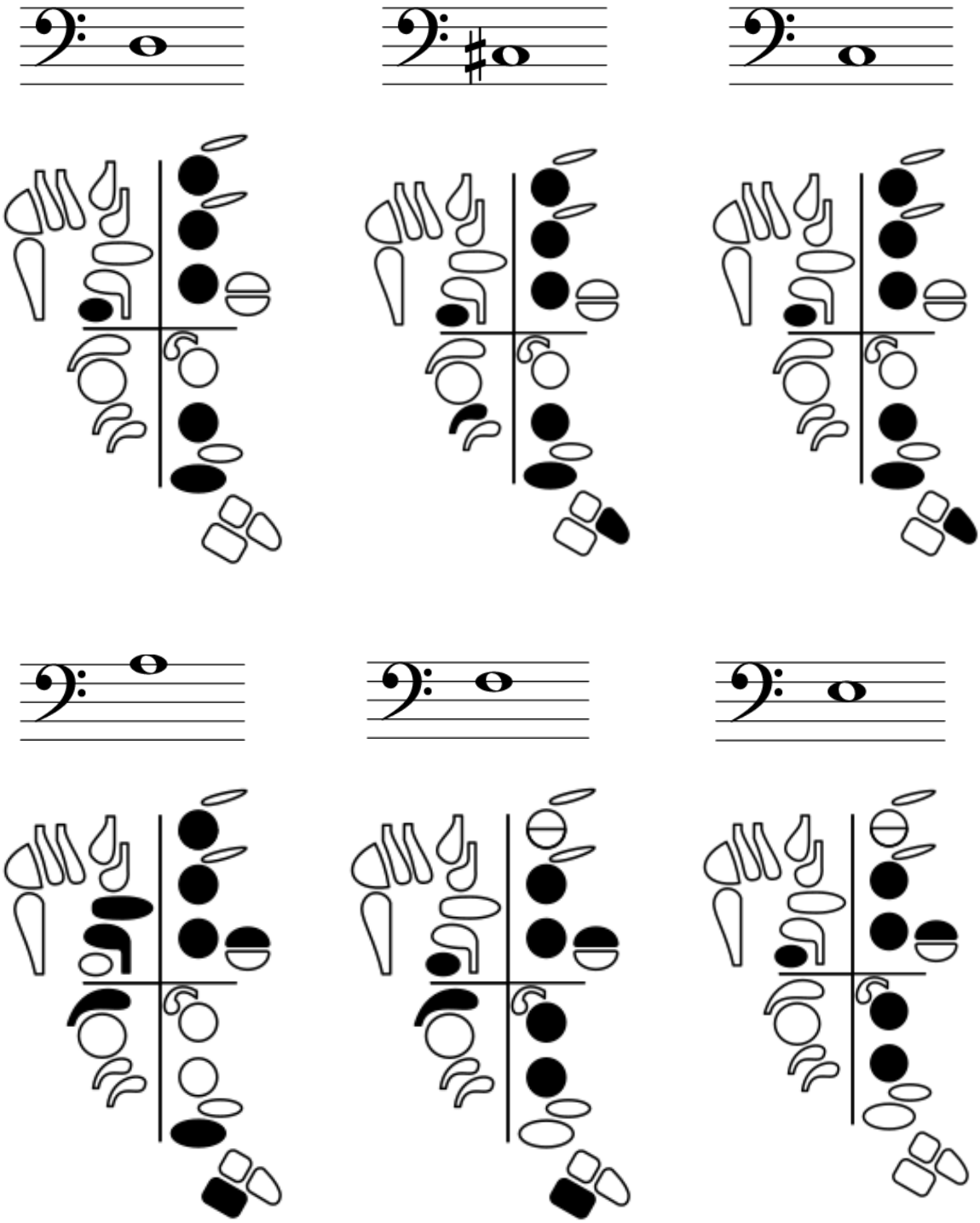
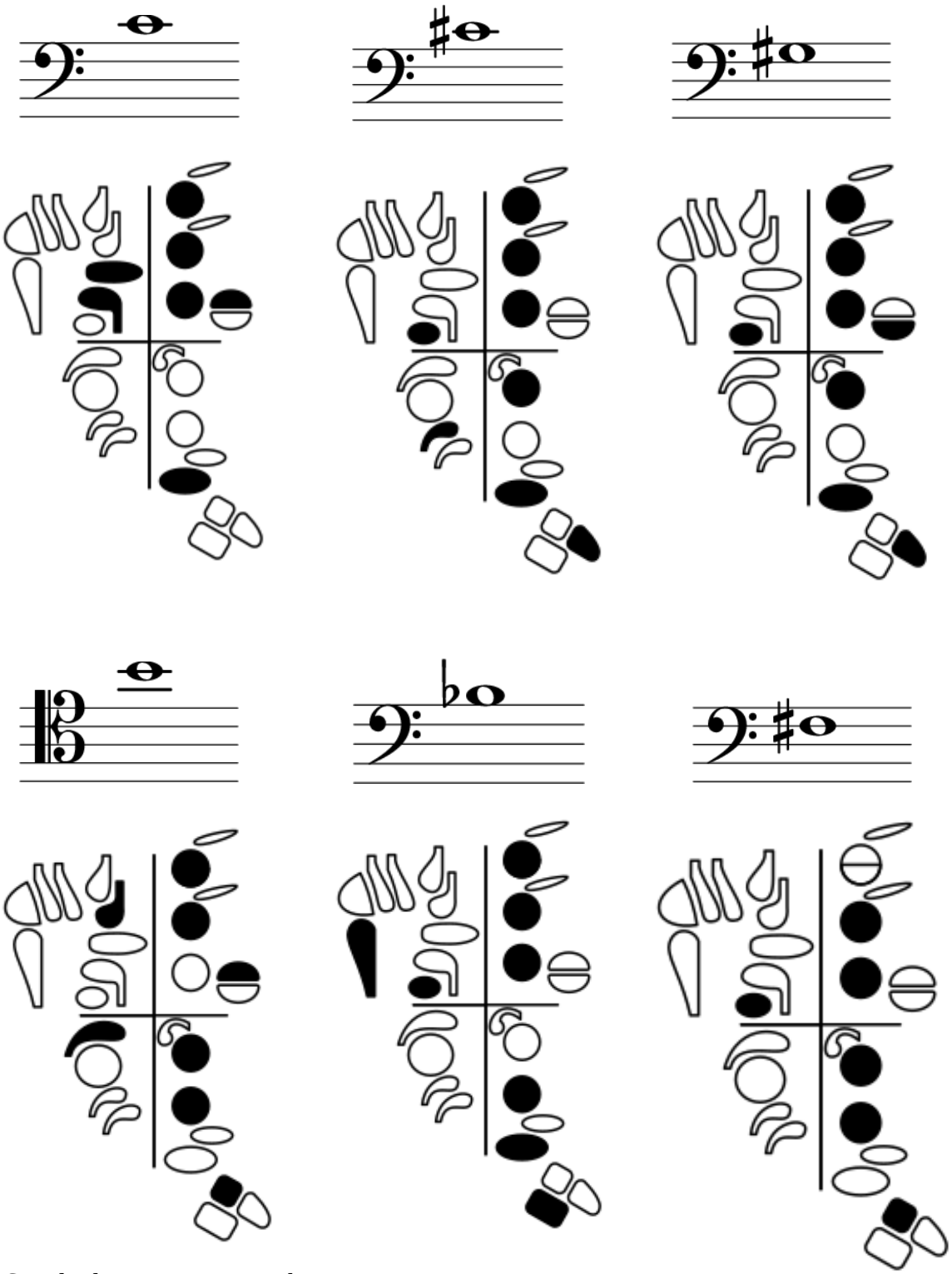
APPENDIX A

MULTIPHONIC FINGERING CHART IN ORDER OF APPEARANCE





Standard B4 Fingering with
slightly looser embouchure.

APPENDIX B

LETTERS OF PERMISSION

Bradley Johnson <brjohn37@asu.edu>

Doctoral project excerpt use

Bradley Johnson <brjohn37@asu.edu> Tue, Feb 6, 2024 at 9:12 AM
To: Tonia Ko <toniako@gmail.com>

Here is the original message!

Hello,

My name is Bradley Johnson and I am a 3rd year Doctoral candidate at Arizona State University and instructor of bassoon at Northern Arizona University. I am writing in regards to obtaining permission to use excerpts from Tonia Ko's Tilt in my doctoral project. My plan is to obtain a high quality recording of the work, not to be used for financial gain, and to create a performer's guide to the piece. 2 other pieces will be on this project.

I am happy to give more detail about how the excerpts will be used if necessary.

https://composersedition.com/tonia-ko-tilt/

I look forward to hearing back!

Bradley Johnson, MM
DMA, *student*

Arizona State University
School of Music, Theatre, and Dance | Herberger Institute for Design and the Arts
630-702-9580
brjohn37@asu.edu
[Quoted text hidden]

Bradley Johnson <brjohn37@asu.edu>

Doctoral project excerpt use

Tonia Ko <toniako@gmail.com> Tue, Feb 6, 2024 at 2:05 PM
To: Bradley Johnson <brjohn37@asu.edu>

Hi Bradley,

Yes that's totally fine! Feel free to let me know if any questions come up about the piece.

All the best,

Tonia

Bradley Johnson <brjohn37@asu.edu>

DMA project excerpt use

9 messages

Bradley Johnson <brjohn37@asu.edu> Fri, Feb 2, 2024 at 3:37 PM
To: Trevco@trevcomusic.com

Hello,

My name is Bradley Johnson and I am a 3rd year Doctor of Musical Arts candidate at Arizona State University and instructor of bassoon at Northern Arizona University. I am contacting you regarding the use of excerpts within my finals DMA document.

I would like to use excerpts from Xinyan Li's Legend of the Sea in my project.

https://www.trevcomusic.com/products/li-xinyan-legend-of-the-sea-solo-bsn

Let me know if you have any questions and I look forward to hearing back!

Bradley Johnson

Bradley Johnson, MM
DMA, *candidate*

Arizona State University
School of Music, Theatre, and Dance | Herberger Institute for Design and the Arts
630-702-9580
brjohn37@asu.edu

TD Ellis <trevco@trevcomusic.com> Fri, Feb 2, 2024 at 4:20 PM
To: Bradley Johnson <brjohn37@asu.edu>

Hi there Bradley,

Thanks for your message. Tell us a bit more about what you want to use. Printed and/or recorded? Length of excerpt(s) printed and/or recorded?

All the best -

T.D.

T.D. Ellis, owner

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Celebrating 40 years! 1983 - 2023
[Quoted text hidden]

PastedGraphic-6.tiff
19K

Bradley Johnson <brjohn37@asu.edu> Fri, Feb 2, 2024 at 5:26 PM
To: TD Ellis <trevco@trevcomusic.com>

Thank you for the quick response!

My plan is to record the entire piece in a studio and then create a performance guide referencing some of the more difficult passages within the work. This would include giving recommended fingerings and some historical background that influenced the work and how it is used. For example, the opening imitates traditional Chinese operatic percussive effects. What can we do as bassoonists to properly imitate this effect?

My goal is to raise awareness of the work and create a performance guide to help musicians better understand the work.

I would use printed excerpts within my project. The excerpts would be anywhere from a few notes to one full line of music (particularly in the middle of the work where it is unmeasured with very long phrases) but no longer. Although I have not fully chosen the excerpts, I do not plan for there to be any more than two excerpts per page.

The recording would be one edited studio recording of the full work, but I would not be placing recordings of the excerpts used within my document.

I hope to upload the recording to a website such as YouTube, BandCamp, or SoundCloud for accessibility and for no monetary gain, purely for exposure and enjoyment/learning.

There are two other works that would also be included on my project from separate publishers.

Let me know if you have any other questions or concerns!

Bradley Johnson

Bradley Johnson, MM
DMA, *student*

Arizona State University
School of Music, Theatre, and Dance | Herberger Institute for Design and the Arts
630-702-9580
brjohn37@asu.edu
[Quoted text hidden]

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TD Ellis <trevco@trevcomusic.com> Fri, Feb 2, 2024 at 6:38 PM
To: Bradley Johnson <brjohn37@asu.edu>

Thanks for the clarification. As long as your use follows what you have described, you have permission to use Xinyan Li's Legend of the Sea in your project.

We wish you success!

T.D.

T.D. Ellis, owner

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APPENDIX C

TRACK LIST

1. *Tilt,* Tonia Ko 5:12
2. *Legend of the Sea*, Xinyan Li 10:02
3. *Jeu des Cinq Éléments II*, Tôn-Thât Tiêt 10:03

All recordings took place at Tempest Studios in Tempe, Arizona on February 28 and March 23. Thank you to recording engineer Clarke Rigsby for helping me create these recordings. The works were recorded on a Puchner Model 4000 antique finish, serial #15xxx with a Leitzinger FM1 bocal.