
Contemporary Composition for Xiao



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Abstract: This paper discusses a cross-cultural approach to music composition, specifically as it relates to my own compositions for the *xiao*, a Chinese end-blown flute made of bamboo. Cross-cultural composition is understood here as the inclusion of non-western instruments in ensembles with western orchestral instruments and reflects a striving toward integration, in which the boundaries between the distinct genres are softened or dissolved. Knowledge of the original context of the non-western instruments informs inclusion in and influence on a new setting. Expansion of the repertoire of the instruments beyond that which is idiomatic is sought, and the discovery of what is idiomatic to the instruments reveals that which is non-idiomatic. Research prior to composing for the *xiao* was both academic and experiential. Study of the original context of the instrument was undertaken, as well as of Chinese folk music in general. Personal experimentation on the

xiao revealed extended techniques which may be incorporated into original compositions. The distinguishing features of the *xiao* and gestures which are idiomatic to the instrument are briefly outlined, followed by discussion of two of my recent compositions: *Zephyr*, for *xiao*, suspended cymbal, and cello; and 'Loons on the Lake', a movement for *xiao* solo from the larger work, *Bird Suite*.

Keywords: Xiao, Chinese music, contemporary composition, cross-cultural, non-western, traditional, flute, folk music, heterophony

This paper discusses two of the author's cross-cultural compositions written for the *xiao*, a Chinese bamboo flute, as well as the research and experimentation conducted prior to composing the pieces.

Zephyr is written for xiao, suspended cymbal, and cello.

'Loons on the Lake', is for solo xiao, and is one of five movements from *Bird Suite*.¹

Cross-cultural composition is understood here as the inclusion of non-western instruments in ensembles with western orchestral instruments and reflects a striving toward integration, in which the boundaries between the distinct genres are softened or dissolved.² Knowledge of the original context of the non-western instruments informs inclusion in and influence on a new setting. In order to provide a point of departure for exploration, the traditional music and idiomatic gestures of the xiao were researched. Authoritative texts on Chinese folk music include those by Sin-Yan Shen, Jin Jie, Jiang Jing, Robert T. Mok, and Frederick Lau.³ Additionally, personal experimentation on the xiao was conducted in order to discover non-idiomatic modes of expression.

1 Composing Cross-cultural Music

In an article about Chinese music throughout the world, Frederick Lau writes, 'There is no automatic inherent connection between one's ethnicity and one's music'.⁴ This may be true, however, acknowledgement of the historical and contemporary dominance of some cultures over others leads to the understanding that conditions for those who create cross-cultural music are asymmetrical. In a 2005 article critiquing recent works for the *shō* and the *sheng*, Christian Utz writes, '[T]he risk of falling into the trap of post-colonial hierarchies and uneven power relations is ever-present in most encounters between Western composers and Asian musicians, since the composer-performer relationship has not traditionally been a balanced dialogue.' Utz, goes on to

¹ *Bird Suite* is a five-movement work for xiao, string quartet, and two percussion players. The third movement, 'Loons on the Lake', is for xiao solo.

² Portions of this paper are excerpted from the author's dissertation: Margaret Collins Stoop, *Melting the Boundaries: The integration of ethnic instruments into western art music*, (Dublin, Ireland: Trinity College Dublin, School of Creative Arts, 2021).

³ Sin-Yan Shen, *Chinese Music and Orchestration: A Primer on Principles and Practice* (Chicago: Chinese Music Society of North America, 1991); Jin Jie, *Chinese Music* (New York: Cambridge University Press, 2001); Jiang Jing, 'The Influence of Traditional Chinese Music on Professional Instrumental Composition', *Asian Music*, 22(2) (1991), pp. 83–96; Robert T. Mok, 'Heterophony in Chinese Music', *Journal of the International Folk Music Council*, 18 (1966), pp. 14–23; Frederick Lau, 'When a Great Nation Emerges: Chinese Music in the World' *China and the West: Music, Representation, and Reception*, edited by Hon-Lun Yang and Michael Saffle, (Ann Arbor: University of Michigan Press) (2017) pp. 265–282.

⁴ Frederick Lau, 'When a Great Nation Emerges: Chinese Music in the World', *China and the West: Music, Representation, and Reception*, edited by Hon-Lun Yang and Michael Saffle, (Ann Arbor: University of Michigan Press) (2017) p. 272.

say, 'However, the solution to this risk *cannot* be the avoidance of intercultural musical collaborations.' (italics mine).⁵

Composer Luigi Irlandini writes that there are two options for the composer who writes for non-western instruments: either to work closely with an expert performer of that instrument, or to become involved with the instrument oneself. The composer can become a performer of the instrument's musical tradition or make original music with it.⁶ And the two methods are not mutually exclusive.

2 The xiao

My interest in the *xiao*, a Chinese vertical flute, began while I was in Hong Kong studying the *dizi* (also known as *di*), a Chinese transverse flute. My instructor presented me with a xiao as a means to expand my study of Chinese flutes, and I asked what the instrument is called. Unable to find a suitable word in English, he said simply, 'It is a flute for sitting under a tree.' The xiao produces a delicate, breathy tone at a low volume, an apt vehicle for soft melodies of a meditative nature.

A xiao is a vertical, end-blown flute, usually made of dark brown bamboo. It has six to eight finger holes and no keys. Xiaos have a range of two octaves and are most commonly made in the key of G (D4 being the lowest note), but xiaos in the key of F (with middle C as the lowest note) are also readily available. A bamboo xiao with a D4 fundamental was used throughout the research and composition process and is shown in Figure 1.



Fig. 1 Dark bamboo xiao with a D fundamental.⁷

⁵ Christian Utz, 'Beyond Cultural Representation: Recent Works for the Asian Mouth Organs Shō and Sheng by Western Composers', *The World of Music*, 47(3), p. 132.

⁶ Luigi Antonio Irlandini, 'Non-Western musical instruments and contemporary composition', *ISSUU Digital Publishing*, (2020), pp. 5-6. https://issuu.com/gaudeamusmuziekweek/docs/non-european_musical_instruments_and_contemporary_Web. Accessed 30 November 2020.

⁷ Photo by the author.

This xiao has eight finger holes, as opposed to the more common six or seven-hole xiao, allowing for a greater number of chromatic notes without the use of cross fingering or half-hole fingering.

The xiao is a narrow flute with a notched, split-edge mouthpiece (see Figure 2). It takes considerably more breath to play than transverse flutes, as well as vertical fipple flutes of comparable size, such as the low D tin whistle.



Fig. 2 The notched, split-edge mouthpiece of the xiao.⁸

3 Original context

An understanding of the harmonic language of the xiao and the idiomatic embellishments associated with its tradition bring knowledge of the mechanics and capabilities of the instrument, respect for original context, and a pathway to new music. Irlandini writes that if a composer wishes to incorporate a non-western instrument in a culturally responsible way, the composer must honor the performance tradition of that instrument. This acquisition of knowledge allows the composer to become an 'active member of that instrument's cultural history' through the composition of consciously composed original music.⁹ Irlandini coined the term 're-significance': the tendency to take ethnic

⁸ Photo by the author.

⁹ Luigi Antonio Irlandini, 'Non-Western musical instruments and contemporary composition', *ISSUU Digital Publishing*, (2020), pp. 37-8. https://issuu.com/gaudeamusmuziekweek/docs/non-european_musical_instruments_and_contemporary_Web. Accessed 30 November 2020.

instruments out of their original context and assimilate them into new styles of music gives the instruments what he calls a 're-significance'.¹⁰

3.1 Tuning

As with many folk music genres, Chinese folk music is not tuned to equal temperament. As physicist and composer, Sin-Yan Shen, explains,

Chinese music never accepted the equal temperament system even though it was first invented in China. ... The Chinese musician, in all of the temperament oscillation cycles in the centuries, always returned to recognition of the just intervals.¹¹

Because the xiao is tuned to just intonation, it is not common to play music that is not in the key of the xiao or its relative minor. Chinese music notation is based on a moveable Do solfège system, and one notated melody can be read and played in a number of different keys by switching the xiao.

3.2 Themes

In Chinese folk music, themes of nature, such as mountains, flowing water, moonlight, and flowers, are not only common, but held as an ideal. Jin Jie, author of *Chinese Music*, asserts that most traditional Chinese songs strive to provide examples of harmony between human beings and nature.¹² Contemporary composer, Bright Sheng, states that, 'Historically, music in China is meant for the performer's self-indulgence and cultivation of his or her spirit, not for the audience.'¹³ Introspection would appear to be prized over the display of a public performance.

3.3 Heterophony

Chinese folk instruments are solo instruments by tradition. When playing in an ensemble, the instruments play the same tune, but not quite in unison. In his article 'Heterophony in Chinese Music', Robert T. Mok asserts that contemporary Chinese folk music is heterophonic.^{14, 15} Monodic melodies are played or sung as a duo or group,

¹⁰ Ibid, p. 3.

¹¹ Sin-Yan Shen, *Chinese Music and Orchestration: A Primer on Principles and Practice* (Chicago: Chinese Music Society of North America, 1991), p. 123.

¹² Jin Jie, *Chinese Music*. (New York: Cambridge University Press, 2011) pp. 39–48.

¹³ Journal staff, 'An Interview with Bright Sheng', *The Journal of the International Institute*, 7, Michigan Publishing of the University of Michigan Library (1999).

¹⁴ Mok distinguishes ritual music, or *Ya Yüeh*, from contemporary Chinese folk music, called *Su Yüeh*. He identifies as *Ya Yüeh* as homophonic.

¹⁵ Robert T. Mok, 'Heterophony in Chinese Music', *Journal of the International Folk Music Council*, 18, (1966) pp. 14–23.

but unison performance of the song is not sought. Harmonic intervals between the performers are formed as a result of embellishment or staggering of melodic lines in a call and response type structure. Mok offers the example shown in Figure 3 to illustrate individual embellishment resulting in heterophony.



Fig. 3 Heterophony in Chinese folk music.¹⁶

3.4 Structure of melodic material

While many westerners hear Chinese folk music as pentatonic, it is usually based on one of a number of heptatonic scales.¹⁷ Sin-Yan Shen, author of *Chinese Music and Orchestration: A Primer on Principles and Practice*, offers a reason for this misconception, stating that ‘the preference of minor third and major sixth masks the semitones, and as a result the scale becomes unclear to the Western ear.’¹⁸ The melody from folk theatrical music of the Shaanxi province shown in Figure 4 illustrates the preference for minor thirds in melodic material.



Fig. 4 Melody from Shaanxi theatrical music.¹⁹

¹⁶ Ibid, p. 20.

¹⁷ Sin-Yan Shen, *Chinese Music and Orchestration: A Primer on Principles and Practice* (Chicago: Chinese Music Society of North America, 1991), pp. 2–10; and Robert T. Mok, ‘Heterophony in Chinese Music’, *Journal of the International Folk Music Council*, 18, (1966) p. 15 notes.

¹⁸ Sin-Yan Shen, *Chinese Music and Orchestration: A Primer on Principles and Practice* (Chicago: Chinese Music Society of North America, 1991), p. 3.

¹⁹ Ibid, p. 2.

Structural notes in melodies are often the first, fourth, and fifth scale degrees, the equivalent of a fourth chord in western art music (for ex. A-D-E-A), as illustrated in Figure 5.



Fig. 5 Di Hua (Flower Riddles).²⁰

3.5 Embellishments

Embellishment is an integral aspect of Chinese flute melodies. In Chinese music notation, symbols indicate specific ornaments. Examples of notated ornamentation are seen in Figure 6, a line from 'Suzhou Scenes', a Chinese folk melody for either dizi or xiao.

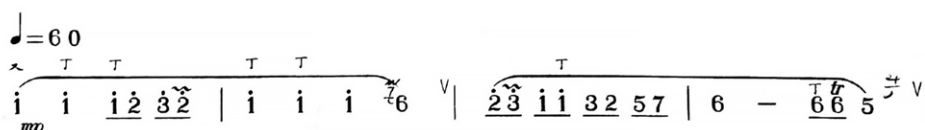


Fig. 6 From 'Suzhou Scenes', a folk melody for Chinese flute.²¹

The numbers in the score represent the solfège syllables, one being Do. The dots over the number indicate the second octave range. The cross-hatch symbol over the first note in the example indicates a quick grace note from the diatonic step above, in this case Re. The 'T' symbol over the second note indicates a quick grace note coming from the diatonic step below, in this case Si. Grace notes are to be played as quickly as possible and before the beat. In the first bar, the pulse of the tune is immediately established by accenting the beats with grace notes, and variety is added to an otherwise two and a half beat repetition of Do.

Chinese flutes use the 'lift-off' as a means to add a percussive end to a note.²² This special technique is achieved by releasing all fingers and simultaneously stopping the breath, resulting in a percussive ending to the note. The pitch is irrelevant (and will be different on flutes of various keys), as the pop at the end of the note is the chief aim

²⁰ Sin-Yan Shen, *Chinese Music and Orchestration: A Primer on Principles and Practice* (Chicago: Chinese Music Society of North America, 1991), p. 16.

²¹ Zheng, et al, *Selection of Chinese Bamboo Flute Solos* (Hong Kong: Shanghai Book Company, 1985), pp. 1-2.

²² This embellishment is found in other genres as well, such as Native American flute music.

of the technique. This gesture is not typically used when playing the western concert flute, and it is not an easily mastered technique. Results will vary even within one piece performed by a single flutist.

When I began incorporating this device into my own compositions, I had not yet seen a notation for it, so created my own. My notation for a lift-off is shown in Figure 7.



Fig. 7 Lift-off notation.

Though a common embellishment, lift-offs are not ordinarily notated, but are added extemporaneously. Note the handwritten number four at the end of the line in Figure 6. This is the instructor's notation for a lift-off.²³ The melody is played in G, and the fingering for the lift-off (all holes open) corresponds to a sharp four. Thus the fourth pitch of the scale is not meant to be heard; the number four here is shorthand for a somewhat complex embellishment.

Chinese ornamentation is often utilised to mark structural tones, as seen in the final line of the folk song 'Lady Meng Jiang', shown in Figure 8. A recurring melodic figure in 'Lady Meng Jiang' outlines the minor triad built on the second degree of the scale (E minor in the key of D major, as it is transcribed in Figure 8). This allows the E – G minor third interval to figure more prominently than the D – F sharp major third. The ornaments bring out the E minor triad, delaying the weight of landing on the tonic until the final bar. The grace note at the interval of a fourth in the penultimate bar not only adds variety to a repeated note, but marks the fifth scale degree as well (in this case, A). The wider interval of the grace note distinguishes this A from those that preceded it. Rather than a passing note in the E minor triad, it functions in the penultimate bar as the dominant to the tonic, strengthening the final cadence.



Fig. 8 Final line of 'Lady Meng Jiang'.²⁴

²³ The excerpt from 'Suzhou Scenes' was taken from the author's personal collection of Chinese flute study books, and the handwritten notation for the lift-off was drawn by her instructor, Nai Sin-sang.

²⁴ Transcribed by the author.

4 Experimentation

As an experienced western concert flutist, part of my preparation for composing for xiao was to play the instrument myself, often performing for audiences around Dublin city centre. I experimented with my collection of xiaos of varying sizes (see Figure 9), playing traditional Chinese folk tunes, such as 'Suzhou Scenes' and 'Lady Meng Jiang,' as well as tunes from other genres, such as Irish traditional, eastern European, and western art music. Playing music not specifically written for the xiao expanded my understanding of the capabilities of the instrument. Further experimentation included discovering techniques that may be commonly utilised in other flute genres, but not typically performed on the xiao, such as vocalising, harmonics, and various means of articulation, such as fluttertongue and martellato. Extended techniques incorporated into the original works, *Zephyr* and 'Loons on the Lake', are discussed in subsequent sections of this paper.



Fig. 9 Xiaos of varying sizes.²⁵

5 *Li Jiang Etude No. 3*

A rare example of a contemporary art music composition written for xiao is found in *Li Jiang Etude No. 3*, for xiao, tape, and real-time digital signal processing (DSP) by Christopher Keyes.²⁶ Keyes seeks to integrate traditional material into a new piece. *Li*

²⁵ Photo by the author.

²⁶ Christopher J. Keyes, *Li Jiang Etude No. 3* (2003). Capstone, 2005. CD. Recording.

Jiang Etude No. 3 quotes a popular Chinese melody, and Keyes reflects that this is an aspect of the work that is appreciated by Chinese audiences, as it is familiar to them and in keeping with tradition.²⁷ Keyes digitally processes samples of the xiao to change the pitch and timbre, as well as the dynamics. A harmoniser feeds back the diatonic scale raised a whole-tone, and 'the piece has moments of chromaticism, though always derived directly from the pentatonic scale itself.'²⁸ Keyes extends the original content by using it to build on his own musical principles, and we are reminded of Irlandini's use of the term 're-significance'. However, Irlandini also writes that the digital processing of sound samples of non-western instruments bypasses the transcultural exchange that would otherwise occur.²⁹

6 *Zephyr*

In *Zephyr* such a transcultural exchange is sought, and the piece has as a primary focus the distinguishing timbre of the xiao and its interaction with the cymbal and cello.

The word 'zephyr' means a soft, gentle breeze, and the title reflects the breathy tone produced by the xiao.³⁰ The Irish folk tune, 'An Ghaoth Aneas' (The Wind from the South), is loosely arranged and woven into the composition, further alluding to air. Similarities exist between 'An Ghaoth Aneas' and Chinese folk melodies. For example, in both 'An Ghaoth Aneas' and the Chinese folk tune, 'Lady Meng Jiang', the second scale degree is emphasised. In 'Lady Meng Jiang', it is the lowest note in a recurring motive outlining a minor triad, and in 'An Ghaoth Aneas' there are three cadences on a repeated second degree. Additionally, the repeated first line of 'An Ghaoth Aneas' ends with a minor third, reminiscent of the common occurrence of minor thirds in Chinese folk melodies.

6.1 *Timbre and extended techniques*

Because of the soft timbre of the xiao, it proved necessary to write accordingly for the rest of the ensemble so that the other instruments would allow the distinguishing sound to be heard, and not overpower it. *Zephyr* begins in 'mysterious stillness', as per the tempo marking, as the cymbal uses a superball mallet to create an eerie, ghost-like

²⁷ Christopher J. Keyes, 'Recent technology and the hybridisation of Western and Chinese musics', *Organised Sound*, 10(1), (2005) p. 55.

²⁸ Ibid, pp. 54–55.

²⁹ Luigi Antonio Irlandini, 'Non-Western musical instruments and contemporary composition', *ISSUU Digital Publishing*, (2020), p. 6. https://issuu.com/gaudeamusmuziekweek/docs/non-european_musical_instruments_and_contemporary_Web. Accessed 30 November 2020.

³⁰ OED Online, 2020b. 'zephyr, n' in *Oxford University Press*. https://www.oed-com.elib.tcd.ie/search?searchType=dictionary&q=zephyr&_searchBtn=Search. Accessed 6 August 2020 'zephyr, n', *Oxford University Press* (2020).

The musical score for Figure 11 shows three staves. The top staff is for the Cymbal (Cym.), the middle for the Cello (Vc.), and the bottom for the Xiao. The key signature is one sharp (F#). The Cym. staff has a dynamic of *mp* in bar 18 and *p* in bar 22. The Vc. staff has dynamics of *mf* and *p* in bar 18, and *mf* and *p* in bar 22. The unlabeled staff has a dynamic of *mp* in bar 18.

Fig. 11 Zephyr, bars 16–22.

6.2 Instrumentation and aural space

The fact that *Zephyr* is written for only three instruments permits rhythmic flexibility in the group. The entrances are often staggered, allowing time for the players to respond to one another. The small size of the ensemble limits the density of harmonies as well, allowing the just intonation of the xiao to be heard.

The first pitch of the xiao is not heard until bar 18, accompanied only by a pianississimo roll on the cymbal. The pitch is altered – blurred, as it were, through a bend and a slide, exploiting the concept of alternate tuning. In bars 23–30, a B4 in the xiao is accompanied by G3 in the cello, but the G is produced through circular bowing, and the technique causes the pitch to fluctuate as overtones are sounded. The cello does not play an ordinary pitch until bar 31, and this is unaccompanied. When, in bars 34–6, both the cello and the xiao are playing full pitches, the tuning of the cello is blurred once again as it slides up and down a minor third. This gesture is reminiscent of minor third slides which are idiomatic to the *erhu*, a Chinese violin.

It is not until bar 38, more than half way into the piece, that the xiao and cello play unaltered pitches against each other. The highly embellished melodic fragments played by the cello in bars 50–51 and bars 54–5 against the unadorned line in the xiao suggest the heterophony that Mok identified in Chinese folk music.³² Compare the embellishments of the previously referenced ‘Lady Meng Jiang’ (Fig. 8) with the passage from *Zephyr*, shown in Figure 13.

³² Robert T. Mok, ‘Heterophony in Chinese Music’, *Journal of the International Folk Music Council*, 18, (1966) p. 20.

23

Cym. *p*

Vc. *p* *mf* *p* *pp* *mp* *pp*

30

Cym. *p* *mp*

Vc. *p* *mf* *f* *p* *mf*

Fig. 12 Zephyr, bars 23–37.

50

Xiao *mp*

Cym. *p* *mp* *p* *mp*

Vc. *mp*

Fig. 13 Zephyr, bars 50–5.

6.3 Embellishments

The grace notes throughout *Zephyr* most often reflect a personal style, and not one derived from my studies of musical genres such as Chinese, Native American, or Irish traditional music. A notable exception is found in bars 61–2 and 65–6 (See Figures 14 and 15). In those bars the grace notes add variety to repeated pitches, a device utilised in both ‘Suzhou Scenes’ and ‘Lady Meng Jiang’.

Figure 14 shows the musical notation for bars 61–2 of *Zephyr*. The score is for three staves: Xiao, Cym., and Vc. The Xiao staff (treble clef, key of D major) shows a melodic line with grace notes. The Cym. staff (percussion clef) shows a sequence of notes with dynamics *mf* and *mp*. The Vc. staff (treble clef, key of D major) shows a bass line with grace notes.

Fig. 14 *Zephyr*, bars 61–2.

Figure 15 shows the musical notation for bars 65–6 of *Zephyr*. The score is for three staves: Xiao, Cym., and Vc. The Xiao staff (treble clef, key of D major) shows a melodic line with grace notes. The Cym. staff (percussion clef) shows a sequence of notes with dynamics *mf* and *mp*. The Vc. staff (treble clef, key of D major) shows a bass line with grace notes and the instruction *sul tasto*.

Fig. 15 *Zephyr*, bars 65–6.

7 ‘Loons on the Lake’

‘Loons on the Lake’ has the goal of exploring and expanding on the extreme capabilities of the xiao. Novel ways of producing sound on the xiao are incorporated, including vocalising while playing and the special articulations, ‘h’, ‘k’, and ‘tut’. While these techniques are frequently used in contemporary western art music for flute, my research has not revealed their application in playing the xiao.

7.1 Birdsong and atmosphere

In *Bird Suite* as a whole and its third movement, 'Loons on the Lake', in particular, the musical material is separated into two realms, birdsong and atmosphere. This distinction is achieved in 'Loons on the Lake' through extremes of register and differences in melodic material. The atmosphere is characterised by long-held notes set in the lower register, and the birdsong consists of faster moving gestures featuring aggressive tonguing and large interval leaps. The metre of the birdsong aspect is almost totally irregular. This is in part inspired by Native American music, in which flute and vocal melodies are set in irregular metre meant to imitate bird calls in nature.

7.2 Articulation

Keeping in mind the aggressive articulation in Messiaen's *Le Merle Noir* which successfully evokes birdsong, alternative tonguing on the xiao was explored during the composition of *Bird Suite*.³³ This resulted in the arrival at alternate methods of articulation, notated in the score with the letters, 'h' and 'k', and the word 'tut'. Examples of this notation are shown in Figure 14.

The image shows a musical score for two staves: 'Xiao' (top) and 'Voice' (bottom). The score covers bars 38 to 43. The Xiao staff begins with a treble clef and a key signature of one sharp (F#). It features several measures with specific articulation markings: 'k' (back of tongue), 't' (front of tongue), 'tut' (sharp stop), and 'fluttertongue'. The Voice staff begins with a treble clef and a key signature of one sharp. It features long, sustained notes with dynamic markings: *p* (piano), *mp* (mezzo-piano), and *p* (piano). The 'h' marking appears above a note in the Voice staff, indicating an aspiration.

Fig. 16 'k', 't', 'tut', and 'h' articulations, 'Loons on the Lake', bars 38–43.

The letter 'h' appears in the score when the note should begin without any articulation, but rather an aspiration. The letter 'k' indicates that a note is to be articulated with the back of the tongue. Where 'k' is notated in *Bird Suite*, it is followed by a 't', a reminder to return to ordinary tonguing. Flutists regularly use the back of the tongue when double tonguing, alternating front and back for speed; however, to begin a phrase with the back of the tongue produces a harsher sound than the 'k' sound produced in double tonguing. This harsher sound is even more prominent on the xiao than the western concert flute. The notation 'tut' means that the note should start and end with the front of the tongue. Closing the note with the tongue results in a sharp, percussive stop. The 'tut' articulation performed on the xiao also produces a more distinctive sound than on the western concert flute.

³³ Olivier Messiaen, *Le Merle Noir* (1952). Alphonse LeDuc. Music manuscript.

7.3 Vocalisation

Vocalisation into the xiao while sounding a pitch is featured throughout 'Loons on the Lake', for example in bars 3–6 and 9–11 as shown in Figure 15. The discovery of which pitches work optimally when vocalising into the xiao, as well as how this technique might best be executed, required quite a bit of experimentation. The lower octave (D3) was chosen for two reasons: first, it distinguishes the voice from the xiao, and secondly, vocalisation into the xiao in my range around D4 produces a buzzing sound which is not suitable for this movement.

Quite freely, contemplative ♩ = 69

allow pitch to fluctuate with dynamic change ord.

tut tut allow pitch to fluctuate with dynamic change ord.

Xiao

pp < f > p

> ppp

mf

p < f > p

> ppp

Voice
(sing into xiao, unless there are lyrics)

pp < mp > ppp

pp < p > ppp

Fig. 17 'Loons on the Lake', bars 1-11.

The start and stop of vocalisation while playing the xiao has the potential to sound abrupt and carries a weighted accent, due to a glottalisation at the start of the sung note combined with the tongued articulation of the note played on the xiao. Thus, two different devices are used to soften the edges of the vocalised notes. Experimentation proved that it is much more subtle to begin a vocalisation without a glottal attack once the xiao note has already begun. Therefore, in bars 3–5 and bars 9–11, the vocalisation begins after the xiao note has begun, and ends before its completion. In this manner, the tonguing used to initiate the xiao note is not coupled with a glottalised start to the vocalisation.

The second device used to soften the vocal entrance is found in bar 17 (See Figure 16). Here the xiao and the vocalisation begin at the same time, and the instruction to begin the xiao note without tongued articulation is given, as indicated by the letter 'h'.

The musical score for 'Loons on the Lake', bars 17-8, features two staves: Xiao and Voice. The Xiao staff is in treble clef and contains a whole note G4, a quarter note A4 with a breath mark 'h', and a quarter note B4. The Voice staff is in bass clef and contains a whole note G3, a quarter note A3, and a quarter note B3. Dynamics include *pp* (pianissimo) and *mp* (mezzo-piano) with crescendo and decrescendo markings.

Fig. 18 'Loons on the Lake', bars 17–8.

8 Conclusion

Familiarisation with the traditions and techniques of a non-western instrument allows for its defining aspects to be celebrated in music written especially for it. Just as Irlandini recognises that intimate knowledge of an instrument is a 'collateral advantage' to the composer, he also writes that exploring new sounds on the instrument, sounds that do not draw upon its tradition, may yield artistic fruit.³⁴ Compositions for non-western instruments, which do not make direct reference to or incorporate idioms from their original context, nonetheless celebrate the instruments through examination, appreciation, and exploration of their unique and defining features.

Neither *Zephyr* nor 'Loons on the Lake' deliberately incorporates aspects of Chinese folk music. These works focus on the distinguishing characteristics of the xiao, such as its timbre and just intonation, as well as explore new sounds, such as vocalisation and non-idiomatic articulation, with the dual result of introducing the instrument to the milieu of western art music and expanding the repertoire of the instrument.

³⁴ Luigi Antonio Irlandini, 'Non-Western musical instruments and contemporary composition', *ISSUU Digital Publishing*, (2020), pp. 34-8. https://issuu.com/gaudeamusmuziekweek/docs/non-european_musical_instruments_and_contemporary_Web. Accessed 30 November 2020.

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