

Portfolio of Compositions

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List of Scores

1. **Arirang** for String Quartet (04'40): the Quatuor Danel, recorded 3 May 2018, the Cosmo Rodewald Concert Hall, Manchester, UK, and selected for Sounds Like This: Ligeti Quartet Workshop in Leeds, UK in 2020.

2. **Reverberation after Movement** for solo Oboe and Chamber Orchestra (08'00): Premiered by Minkyung Chun (solo oboe) and the Gyeonggi Philharmonic Orchestra, conducted by Narah Chung, recorded 11 February 2020, the Seoul Arts Centre, Seoul, South Korea, and selected for the 11th ARKO Contemporary Orchestra Music Festival in South Korea in 2019.

3. **Space** for solo Viola (10'25): Sewon Rah, recorded 16 April 2021, the Audioguy Recording Studio, Seoul, South Korea, and awarded third prize at the 15th Sun River Prize Students' New Music Composition Competition in China in 2019.

4. **Note-Play** for solo Viola and Orchestra (15'00): Performance not possible due to Covid-19 restrictions.

5. **Chameleon** for Large Orchestra (14'45): Performance not possible due to Covid-19 restrictions.

6. **Duo** for Violin and Piano (16'50): Performance not possible due to Covid-19 restrictions.

Please note that the scores and recordings are uploaded to the University of Manchester's data sharing platform, Figshare (DOI: 10.48420/21905685).

Abstract

This portfolio consists of six pieces produced during my doctoral programme: *Arirang* for string quartet (2018), *Reverberation after Movement* for solo oboe and chamber orchestra (2019), *Space* for solo viola (2019), *Note-Play* for viola and orchestra (2020), *Chameleon* for large orchestra (2020) and *Duo* for violin and piano (2021), plus a commentary offering detailed explication as to the research undertaken in order to compose these pieces.

The commentary is divided into two parts. Part 1 presents the author's musical background, research aims for the doctoral programme, and important compositional techniques employed in the portfolio, the imitation of Korean instrumental playing techniques on Western instruments, twelve-note chords inspired by Lutosławski, and the use of short blocks inspired by Stravinsky, as well as the use and integration of Korean folk music in my work. Part 2 comprises seven chapters, and each chapter (Chapters 1 to 6) discusses in depth how the compositional techniques and research introduced in Part 1 were explored in each piece. Chapter 7 (the general conclusion) deals with how much my compositional techniques evolved through the portfolio, and discusses how new compositional approaches developed from previous ones.

Declaration

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Acknowledgements

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I would also like to thank the examiners, Kevin Malone and Thomas Simaku, for reviewing my portfolio.

I am also grateful to my friends Dongwoo and Junghoon who supported me in South Korea. Chats with them always make me relaxed and gave me more inspiration for my music.

Finally, I would like to thank my mother, father, two brothers and my wife for being patient with me. Their dedication allowed me to become a composer.

Part 1 - Introduction

1. Background

When I entered Sangmyung University in 2003, I began studying composition in earnest, particularly in terms of technical aspects. As a result, during my undergraduate university years, I explored a range of musical languages such as those used in Baroque, Classical, Romantic and contemporary music, as well as traditional Korean music. In particular, I was fascinated by the works of the young composer, Myunghoon Choi, who was appointed lecturer at Sangmyung University in 2009, and with whom I studied composition. The primary reason for my interest in his work related to his use of two different musical languages depending on the type of piece he was engaged in writing. He wrote experimental works using a variety of playing techniques, such as *Satya* for string quartet (2005), in which he employed natural harmonic glissandi, pizzicato glissandi, timbral trills and different bowing positions, as well as extended techniques, such as bowing behind the bridge and bowing on the bridge and tailpiece. Such compositions feature minor second and augmented fourth chords, as well as the frequent use of microtones. However, his experimental compositions contrast starkly with his relatively traditional works, such as the piano trio *Drachenfliegen V* (2007) in which he employs a pentatonic scale, quartal and quintal chords and develops materials in relatively traditional ways, such as employing dialogues between the instruments. His works greatly influenced my own, notably, *Pathos* for piano quintet (2010), which I wrote in my fourth year at the university, and in which I experimented with various unusual timbres on the strings and piano. For example, the timbre of the piano is changed by placing one hand on the strings inside and playing the keyboard with the other. Various playing techniques are also employed on the string instruments, such as double harmonics, *sul ponticello*, *sul tasto* and snap pizzicato. In addition, by using minor second and augmented fourth chords as the main harmonies, the piece has a unified harmonic colour. The timbral changes of the string instruments and the use of these chords were influenced by *Satya*. Although I employed a number of extended techniques in the piece, I developed material using traditional or conventional approaches, such as dialogues between each instrument, which reflected the influence of *Drachenfliegen V*.

I undertook a Master's degree at Yonsei University in 2012, in order to study with Jongyeoul Chong, whom I greatly admired for the restrained orchestration of his *Steel Tree* for orchestra (2008). Up until then, my own pieces had tended towards a very dramatic orchestration, and I

believed that through the tutelage of his subtler methods, I could learn to compose in a more flexible manner, incorporating both powerful and restrained orchestration in my compositions in order to create more sophisticated pieces. This was ultimately related to my overall aim in studying composition with Chong. I was also fascinated by Classical and Romantic music at that time, which led me to create tonal works. *Sunrise in Hyangil-Am* for orchestra (2013), which I wrote for my Master's degree, demonstrates my musical style at that time using a tonal idiom as well as dramatic and restrained orchestration. In this piece, I employed a lyrical melodic line written in D minor as the main musical idea, which appears throughout the piece, contrasting with a secondary fast rhythmic idea that uses semiquavers.

In October 2014, I took part in a composition masterclass in Seoul conducted by Professor Philip Grange of the University of Manchester. I received rigorous feedback on *Sunrise in Hyangil-Am* from Professor Grange at the masterclass, and decided to revise it. As a result of Professor Grange's feedback, *Sunrise in Hyangil-Am* became a more sophisticated piece, and I became convinced that I could advance as a composer if he continued to advise me. This led me to make my decision to study with him for my doctorate. Following his advice to start a PhD degree at the University of Manchester, I decided to revise my previous compositional style, which had been based on tonal music. As my compositional technique concerned only Western musical elements, I struggled to differentiate my pieces from other Western composers, and, as a result, I felt that I should incorporate my identity as a Korean within my compositional language. The most obvious way to achieve this was to incorporate Korean musical elements, such as Korean folk music, and the playing techniques and timbre of Korean instruments. Therefore, I studied the works of Korean composers, including Isang Yun (1936 - 1995) and Myunghoon Choi (1974 -), who both wrote works using Korean musical elements. I then developed research objectives that were related to a compositional technique that would combine both Korean and Western musical elements. They are as follows:

- 1) To determine possible ways to incorporate Korean musical elements into an essentially Western musical language.
- 2) To imitate and emulate the sound of Korean instruments, with Western instruments.
- 3) To explore unique characteristics and capabilities of specific instruments.

2. Important compositional techniques

The following compositional techniques were explored in this portfolio.

a) Elements of Korean music

In my research into ways of incorporating Korean musical elements into a fundamentally Western musical language, I was inspired by Myunghoon Choi, in particular, his *Nostalgia Arirang V*. He develops the piece by alternating the *Jindo Arirang* melody and his invented material that contrasts with it, which was interesting to me in that it enables continuous changes and a contrast of atmosphere in a piece. In using a Korean folk music melody, his piece was immediately evocative of his identity as a Korean composer in a way that I could relate to and which I wished to emulate in my own compositions. As a result, the simultaneous use of these musical elements directly influenced my own works including *Arirang* for string quartet (2018). In this piece, the *Arirang* melody and my own material are utilised and treated equally.

In my research into the incorporation of Korean musical elements into a Western musical language, I also wished to explore playing methods used by the instruments themselves. I turned, therefore, to the work of Isang Yun, who is one of the most well-known composers to have written works using Korean musical elements. However, rather than using the melodic and rhythmic elements of Korean folk music, he created works using the Korean instrumental playing technique, *Sigimsae*, which is particular to traditional Korean music. There are many types of *Sigimsae*, but among them, *Nonghyun (Yoseong)*, *Chuseong* and *Toeseong* are primarily employed in my pieces. Professor Hanbeom Seo defines the playing techniques as follows:

"*Sigimsae* refers to an ornamentation or short line that decorates the skeletal notes that forms a melody in front or back."¹ (Translated by Choi, Jinseok)

"시김새란, 선율을 이루고 있는 골격음의 앞이나 뒤에서 그 음을 꾸며 주는 역할을 하는 장식음이나 또는 음길이 (時價)가 짧은 잔가락을 말한다."

¹ Seo, Hanbeom, *The General Theory of Traditional Korean Music (국악통론)*, (Seoul: Taerim Score, 2006), 60.

He says of *Yoseong* or *Yohuyn*:

"*Yoseong* or *Yohuyn* means 'shaking notes', and in Western music, it is called vibrato or vibration."²
(Translated by Choi, Jinseok)

"요성 또는 요현이라는 말은 '음을 떨어 준다' 또는 '흔들어 준다'는 음의 진동을 뜻하는 말로, 서양음악에서는 비브라토(vibrato) 또는 바이브레이션(vibration)이라고 합니다."

And of *Chuseong* and *Toeseong* he states:

"*Chuseong* or *Chuhyun* is a technique of 'pushing a note up, and on the contrary, *Toeseong* or *Toehyun* is a technique of 'pushing a note down"³ (Translated by Choi, Jinseok)

"추성 또는 추현이라는 말은 '음의 끝을 밀어올린다' 또는 '음의 끝을 들어올린다'는 표현법이며, 퇴성 혹은 퇴현은 반대로 '음의 끝을 흘려 내린다' 또는 '음의 끝을 떨어뜨린다'는 표현법입니다."

Yun's musical language, inspired by these playing techniques, greatly influenced my most recent works including *Note-Play* for viola and orchestra (2020) and *Duo* for violin and piano (2021). *Sigimsae* appears in various forms in these pieces, which will be explained in detail in the following chapters.

Yun's focus on Korean instrumental playing techniques led him to experiment with the capabilities of Western instruments. For example, he imitated the timbre of the *gayageum*, a Korean plucked string instrument, in *Glissées* for solo cello (1970). In the third of the work's four short movements, Yun instructs the performer to play using a plectrum instead of the bow. The timbre of the cello played with a plectrum closely resembles that of the *gayageum*, so I realised that it was possible to imitate the timbre of Korean instruments on Western instruments. Yun's use of a plectrum directly influenced my own *Note-Play* in which I also attempted to imitate the timbre of the *gayageum* on the solo viola by using a plectrum instead of the bow.

² Seo, Hanbeom, *Seo Hanbeom's Korean Music Story 1 (서한범의 우리 음악 이야기 1)*, (Seoul: Taerim, 2004), 154.

³ Ibid. 156.

b) Use of twelve-note chords and three tetrachord subdivisions

Early in my PhD study, my supervisor introduced me to the harmonic language of Lutosławski, as his use of twelve-note chords based on particular interval classes and the resultant variety of harmonic colours and contrasts enabled me to enrich my own compositions in terms of harmony. When combined with the aforementioned Korean elements, this further enhanced the distinctiveness of my own musical language. Steven Stucky explains Lutosławski's harmonic approach as follows:

"Three general types of such chords are especially prominent in Lutosławski: those emphasizing interval classes 1, 5 and 6; interval class 2; and interval classes 3 and 4.

Harmonic aggregates containing some combination of interval classes 1, 5 and 6 produce a kind of harmony which Lutosławski has described as 'icy' (*Mi-parti*, rehearsal number 40). (...) Also common are aggregates emphasizing interval class 2 and so arranged as to maximize whole-tone segments.

Aggregates emphasizing interval classes 3 and 4 afford a more impressive range of expressive values, since they offer the possibility of embedding triads of various qualities or (very often) diminished seventh chords in more complex structures, imparting to such structures a specially distinctive character."⁴

Among the three twelve-note chords Stucky mentions, I found twelve-note chords based on interval classes 1, 5 and 6 can be cold, pale, screeching and aggressive. On the other hand, twelve-note chords based on interval class 2 and based on interval classes 3 and 4 can be relatively warm, stable and soft. I noted that the characteristics of the chords could be further defined by other parameters, including rhythm, dynamics and playing techniques. I also realised that the use of these extremely contrasting chords could not only infuse a piece with a variety of harmonic colours but could also be used as a means to induce sudden changes in the musical surface. Inspired by the capabilities of Lutosławski's harmonic technique, I employed a twelve-note chord based on interval classes 1, 5 and 6 in the aggressive rhythmic material in *Arirang* for string quartet, to give an extreme contrast to the *Arirang* melody, which appears primarily in octaves (see pages 19 and 20).

⁴ Stucky, Steven, *Lutosławski and his music*, (Cambridge: Cambridge University Press, 1981), 116-117.

The use of subdivided chords in Lutosławski's second symphony was another significant influence. Stucky cites an example of such chords in the work as follows:

"At 34 the harp has a hexachord dominated by whole-tones (a construction first met in the first of the *Trois poèmes*), while the three flutes have the complementary hexachord, which is the retrograde inversion of the first."⁵

Although he utilises the two hexachords simultaneously in this example, defining their difference through instrumentation, it gave me the idea of subdividing a twelve-note chord into three tetrachords. As a result of this, I created three complementary tetrachords that have different colours or characteristics in my recent pieces. The three tetrachords of a twelve-note chord are employed simultaneously to create a full cluster of dissonance, but each chord is also utilised independently. The independent use of these chords was particularly useful in *Note-Play* and *Chameleon* when I wanted to use fewer than twelve notes in a small group of instruments.

c) Influence of block structure

I have been interested in Stravinsky's so-called block structures for some time, as I believe they offer one of the most effective ways of contrasting musical texture, and thereby creating a sense of variability and unpredictability within a piece. Edward Cone explains block structure as follows:

"From *Le Sacre du Printemps* onward, Stravinsky's textures have been subject to sudden breaks affecting almost every musical dimension: instrumental and registral, rhythmic and dynamic, harmonic and modal, linear and motivic. (...)

On examination, the point of interruption proves to be only the most immediately obvious characteristic of a basic Stravinskyan technique comprising three phases, which I call stratification, interlock, and synthesis."⁶

⁵ Ibid. 161.

⁶ Cone, Edward T., "Stravinsky: The Progress of a Method", *Perspectives on Schoenberg and Stravinsky*, (Princeton, New Jersey: Princeton University Press, 1968), 156-164, *JSTOR*, www.jstor.org/stable/j.ctt183q2r9.13, (accessed 4 May 2021).

I was particularly interested in the second step of Stravinsky's method defined by Cone, 'interlock', as it gave me the idea of maximising the contrast between two different materials by using short blocks or sections. For example, two different musical ideas are juxtaposed at rehearsal letter C (bars 68 to 80) of *Space* for solo viola. The idea, inspired by *Nonghyun*, appears as sustained notes accompanied by *pianissimo* tremolos and trills at a very slow tempo, which creates a meditative atmosphere. However, this contrasts with the fast and loud semiquaver rhythms that appear suddenly and unexpectedly in bars 72 to 73, 76 and 79, which interrupt the meditative musical flow. Another example can be seen at rehearsal letter H (bars 50 to 61) of *Arirang* in which the *Arirang* melody and my own semiquaver rhythmic material are juxtaposed. Furthermore, I also utilised the third step, synthesis, to create the climax of the piece. This can be seen at rehearsal letter J (bars 68 to 83) in which the folk music melody and my own invented material are superimposed.

Part 2 – Commentaries

Chapter 1 - *Arirang* for string quartet (2018)

"*Arirang* is the most representative traditional folk song of Korean people. *Arirang* (...) has played an important role in deepening the homogeneity of Korean people. (...) Korean people often experience cases where their hearts get touched and emotions are raised just by listening to the melody. In this respect, *Arirang* played a great role as a national anthem for Korean people in the days when there was no national anthem."⁷ (Translated by Choi, Jinseok)

"아리랑은 우리 민족의 가장 대표적인 전통 민요이다. 아리랑은 (...) 우리 민족의 동질성을 심화시키는 중요한 역할을 해 왔다고 할 수 있다. (...) 우리나라 사람들은 그 가락을 스쳐가면서 듣기만 해도 가슴이 찡해지고 감정이 고양되는 경우를 종종 경험하기도 한다. 이러한 점에서 보면 애국가 가 없었던 시절 우리나라 국민들에게 아리랑이 애국가로서의 역할을 톡톡히 해 왔다고 볼 수도 있다."

As mentioned in the above quotation, *Arirang* has important meaning and value for Koreans beyond being merely a song. The aesthetic and cultural aspect of *Arirang* became a powerful impetus for me to cite the melody as one of the main musical ideas in my eponymous piece for string quartet. The *Arirang* melody, which uses a pentatonic scale, generally has a slow lyrical character. In order to convey this feature, the melody in my piece is played in a legato manner with quiet dynamics at a slow tempo (see Ex.1). Furthermore, the *Arirang* melody primarily appears in octaves, which not only suggests the emptiness, comfort and stability I feel with this melody, but also reflects the monadic nature of traditional Korean music.

Being influenced by Choi's *Nostalgia Arirang V* (see page 14), I was led to create a contrasting main idea featuring loud aggressive semiquaver rhythms to oppose the *Arirang* melody. Such contrast also extended to the use of a fast tempo and playing techniques such as non-legato, *molto sul ponticello*, *molto sul tasto* and glissandi (see Ex.2). Moreover, the aggressive character

⁷ Shin, Daecheol, *Arirang beyond Korean culture: Arirang from various perspectives* (한국문화와 그너머의 아리랑), (Seongnam: The Academy of Korean Studies, 2013), 96.

of the material was further emphasised through the use of a twelve-note chord based on interval classes 1, 5 and 6 (see Ex.3). The use of the chord allowed me to create chromatic clusters, which were used because they are relatively dissonant. Juxtaposing the *Arirang* melody with my own rhythmic material results in continuous changes and contrasts in tension and atmosphere in the piece, as in Choi's *Nostalgia Arirang V*. Moreover, these two main materials helped create the distinct structure of the piece (see Ex.4).

$\text{♩} = 40-44$ Arioso
molto espr.
 Vla. *p* *mf*
 Vla. *p* *pp* *fp* *mf*
 Vla. *p* *pp*

Ex.1: Material 1, *Arirang*, bars 3 to 11.

$\text{♩} = 116-120$ Feroce
 Vln. I *molto sul pont.* *f* *ffz* *ffz*
 Vln. II *molto sul tasto* *f* *ffz* *ffz* *ffz*
 Vla. *molto sul tasto* *ffz* *ffz* *ffz* *ffz* *ffz*
 Vc. *molto sul tasto* *ffz* *ffz* *ffz* *ffz*

Ex.2: Material 2, *Arirang*, bar 13.

♩ = 124-128

The image shows a musical score for four instruments: Vln. I, Vln. II, Vla., and Vc. The score is in 3/4 time and features a tempo of 124-128. The Vln. I part starts with a *pp* dynamic and *non cresc.* instruction. The Vln. II part includes an *ord.* (ordine) instruction and a *subito sfz* dynamic. The Vla. and Vc. parts also feature *subito sfz* dynamics and *molto sul pont.* (molto sul ponticello) instructions. To the right of the score is a diagram of a twelve-note chord based on interval classes 1, 5, and 6, showing the chord's structure across the treble and bass clefs.

Ex.3: An example of the use of the twelve-note chord based on interval classes 1, 5 and 6.

Section 1 (bars 1 to 49)	Alternation of passages in which the first material is gradually shortened and the second material gradually lengthened.
Section 2 (bars 50 to 83)	Interlock and superimposition of the two main materials.
Coda (bars 84 to 89)	Recapitulation of the first material.

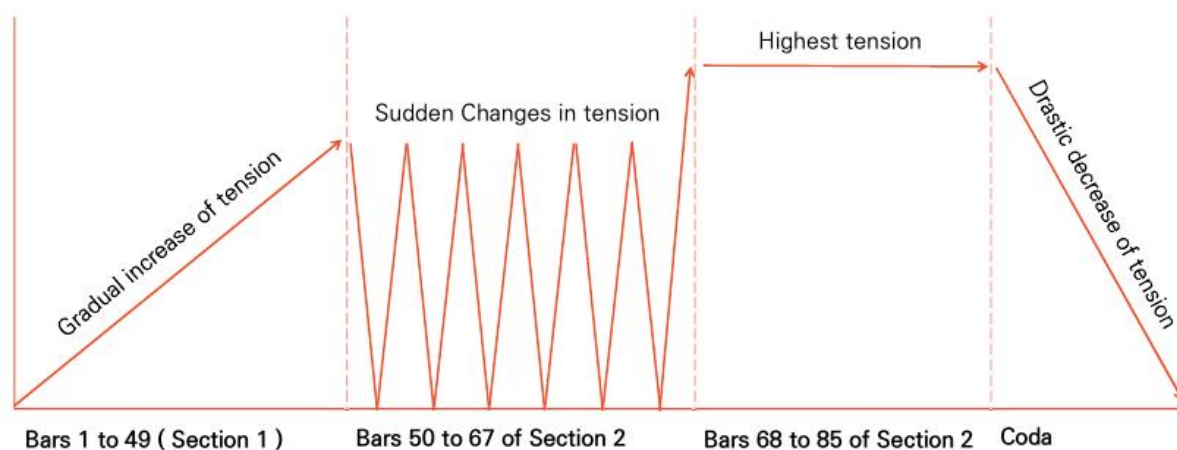
Ex.4: Formal layout of *Arirang*.

These two contrasting main materials alternate throughout the piece. In Section 1 (bars 1 to 49), each of the main materials appears four times, with the length of the first material gradually shortening with each repetition, while the length of the second material gradually expands with each appearance. Through this process, the lyrical and fragile *Arirang* melody, which dominated the beginning of the piece, gradually gives way to the aggressive and violent rhythmic material.

This was intended to gradually increase tension.⁸

My study of Cone's article on Stravinsky's Symphonies of Wind Instruments, as mentioned in the Introduction (see pages 17 and 18), led me to adopt the techniques of interlock and synthesis in Section 2 (bars 50 to 85) of *Arirang*. In bars 50 to 61, the two main ideas consistently interrupt one another's musical flow within short lengths or blocks. For example, the first material, the *Arirang* melody, appears in bar 58, where it is suddenly interrupted by the second material in the following bar. The *Arirang* melody is then repeated in bar 60, but is again interrupted by other aggressive material (loud and fast arpeggios with accents) used in the bridge passage of Section 1. Such interruptions continue until bar 61.

Through the approach, I attempted to create sudden changes in tension, which is different to Section 1, where there is a gradual increase of tension. These different approaches to tension have a musical significance that creates originality in the piece. Example 5 illustrates changes in the tension of the piece.



Ex.5: Changes in the tension, *Arirang*.

Finally, superimposition occurs at the climatic point (bars 68 to 76) of *Arirang*. In bar 68, the second material is presented as an ostinato on the viola and cello, and in bar 70, the first material

⁸ As in Choi's *Nostalgia Arirang*, my *Arirang* alternates between a folk music melody and my own invented material, but the gradual change in tension through a process of diminution and augmentation of the phrase lengths is considerably structurally different to his *Nostalgia Arirang*, which primarily uses the folk music melody and his own invented materials in similar lengths throughout.

is added on the violins. This lasts until bar 73, after which the two duos swap materials until bar 76 (see Ex.6). At the climax, each material is transformed to increase the tension. For example, the first material is *forte* with neighbour notes and tritone dyads, and is played non-legato. The second material no longer employs the twelve-note chord based on interval classes 1, 5 and 6, but instead employs the same augmented 4th chords as the first material. This is in order to achieve harmonic unity.

The musical score is divided into two systems, each containing four staves for Violin I, Violin II, Viola, and Cello. The tempo is marked as ♩ = 100-104 Feroce. The first system (bars 68-72) shows the initial material. Violin I and II play a melodic line with triplets, marked *ffz* and *molto sul pont.* The Viola and Cello play a harmonic accompaniment, also marked *ffz* and *molto sul pont.*. The second system (bars 73-75) shows the materials swapped. Violin I and II now play the harmonic accompaniment, while Viola and Cello play the melodic line. The dynamic *f sempre.* is maintained throughout. The score includes various performance instructions such as *non legato*, *ord.*, and *molto sul pont.* to guide the performer.

Ex.6: Superimposition of Materials 1 and 2, *Arirang*, bars 68 to 75.

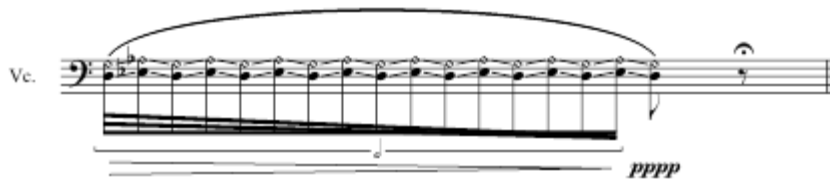
The piece ends with a brief recapitulation of the *Arirang* melody with changes in timbre and register through the use of harmonics. Here, the tension of the climax is drastically released (see Ex.7).

The musical score for Ex.7 shows a recapitulation of the *Arirang* melody across four staves: Violin I, Violin II, Viola, and Cello. The tempo is marked as quarter note = 40-44, with a 'Stingendo' instruction. The dynamics range from mezzo-piano (*mp*) to pianissimo (*pp*), and finally to pianississimo (*pppp*). A 'rit.' (ritardando) marking is placed above the score starting at bar 87. The melody is primarily composed of triplets and glissandi, with a final bar (89) featuring an intense exaggerated glissando on the cello.

Ex.7: Brief recapitulation of the *Arirang* melody with harmonics, *Arirang*, bars 86 to 89.

Other Korean musical influences

Arirang also employs the traditional Korean instrumental playing techniques *Chuseong*, *Toeseong* and *Nonghyun*. For example, each note in the second material is accompanied by a very short upward or downward glissando, which was influenced by *Chuseong* and *Toeseong*, respectively. In bar 89, the D on the cello has an intense exaggerated glissando, which is designed to imitate *Nonghyun* (see Ex.8).



Ex.8: Imitation of *Nonghyun* on cello, *Arirang*, bar 89.

Conclusion

Arirang focuses on the interaction of two contrasting materials, and different approaches to controlling tension within sections. Although the two materials were created by considering various musical parameters (rhythm, harmony, tempo, playing techniques, dynamic, articulation and atmosphere), the importance of register was overlooked. As a result, their contrast was not maximised due to the constant use of similar registers for both materials. On reflection the contrast between the two materials would be considerably more pronounced if they were registrally distinct. Interestingly, register is important in characterising the different materials in Symphonies of Wind Instruments.

Moreover, the twelve-note chord is employed in the second material to maximise dissonance, but ironically, the degree of dissonance I intended was not achieved, due to the use of the hocket-like rhythms and a wide register. I realised that in order to maximise the dissonance, the chords needed to be used within a more sustained and narrower pitch band.

Chapter 2 – *Reverberation after Movement* for solo oboe and chamber orchestra (2019)

The second research aim of my PhD study has involved the exploration of the unique characteristics and capabilities of individual instruments. Several extended playing techniques and Korean instrumental playing techniques such as *Nonghyun*, *Chuseong* and *Toesong* were employed in *Arirang* along with the quotation of Korean folk music. Certainly, *Arirang* succeeds in incorporating Korean musical elements in its use of Korean folk music. However, I believe that the exploration of the capabilities of the specific instruments was still relatively unfulfilled in the piece. For this reason, I chose to base my next piece on my second research aim, focusing solely on exploring instrumental extended techniques and registral characteristics. Furthermore, the incorporation of Korean musical elements, the application of short blocks and the use of Lutosławski's harmonic approach, attempted in *Arirang*, were also intentionally excluded from *Reverberation after Movement*. Obviously, I knew at the time of the composition that the creation of a piece for a solo instrument was an effective way of exploring its unique characteristics. However, I chose instead to write a piece for a solo instrument and chamber orchestra because I plan to focus on the composition of orchestral works following my PhD.

Throughout the planning stage of the composition, I listened to John Corigliano's Oboe Concerto, because I was particularly impressed by his use of non-stereotypical registral techniques, in contrast to the often-explored pastoral nature of the oboe. Corigliano states in the programme note for the piece:

"In the Oboe Concerto it was the instrument itself that gave me the variety of materials. The oboe is capable of doing things other than playing a beautiful melodic line, and I used some of its unique abilities as building blocks for my concerto. For example, along with the bassoon the oboe is unique in that its lower register is its most forceful. This special quality gave me the idea of constructing a movement where there would be a dynamic arch which was reversed – i.e., the oboe would begin high and soft, drop to the bottom of its range for the music's "peak," then ascend for a quiet end."⁹

⁹ Corigliano, John, Concerto for Oboe and Orchestra (1975),

<https://www.wisemusicclassical.com/work/26970/Concerto-for-Oboe-and-Orchestra--John-Corigliano/>,

(accessed 8 May 2022).

As a result of the influence of his concerto, one of the aims of the piece was to explore the forceful and aggressive characteristics of the oboe by using its registral potential. I also studied a number of other works that explore unique capabilities of the oboe, and Penderecki's *Capriccio* for oboe and 11 strings (1964) was one of the most significant models among them. In the *Capriccio*, the solo oboe has an energetic character due to its main materials which employ fast rhythms with strong dynamics, upward and downward glissandi over wide intervals and "double trills (trills at double speed)"¹⁰. In particular, the speed of the double trill suggested to me a feeling of aggression, capriciousness and frivolity.

In summary, the impact of Penderecki's *Capriccio* and Corigliano's Concerto led me to create the three aggressive main materials for *Reverberation after Movement*.

Material 1

The first material consists of an aggressive line characterised by a leap with an accent (element a) followed by a lip or finger glissandi (element b) and double trill (element c). These are accompanied by extreme dynamic changes, and utilise the lower register of the oboe (see Ex.9).

The image shows a musical score for Solo Oboe, bars 8 to 9. The tempo is marked as ♩ = 60 - 66, and the mood is "Feroce, inquieto e capriccioso". The score is in 4/4 time. It features three distinct elements: element a, a leap with an accent; element b, glissandi; and element c, a double trill. The dynamics are marked as *ffp*, *ff*, *p*, and *ff*. The score is labeled "Solo Ob." and includes a key signature of one flat.

Ex.9: Material 1, *Reverberation after Movement*, bars 8 to 9.

Each element of the first material is also employed by the solo oboe and orchestra independently. For example, in bars 147 to 155, successive leaps (element a) with accents and *forte* dynamic for the solo oboe, woodwind, and strings can be found on their own (see Ex.10). Similarly, in bars 107 to 117, glissandi (element b) accompanied by tremolo are used continuously by the strings (see

¹⁰ Veale, Peter, Claus-Steffen Mahnkopf, Wolfgang Motz, Thomas Hummel, Florian Mutschler, and Heinz Holliger, *The techniques of oboe playing: a compendium with additional remarks on the whole oboe family*, (Kassel: Bärenreiter, 1994), 60.

Ex.11), and in bars 38 to 50, 79 to 83, 136 to 141, and 168 to 175, *fortissimo* double trills (element c) for the solo oboe appear independently. In particular, the double trill from bars 79 to 83 is employed in the lowest register of the oboe, which reflects the registral characteristics of the oboe having an intense sound in its lower register (see Ex.12).



Ex.10: Element a of Material 1 (leaps), *Reverberation after Movement*, bars 147 to 150.



Ex.11: Element b of Material 1 (glissandi), *Reverberation after Movement*, bars 107 to 110.



Ex.12: Element c of Material 1 in double trills, *Reverberation after Movement*, bars 79 to 83.

Material 2

This aggression continues with the second material, which consists of a loud non-legato sextuplet

semiquaver rhythm using narrow intervals (see Ex.13). Here, the aggression is reinforced by the orchestra. For example, in bars 32 to 37, where the second material first appears on the solo oboe, the accented notes are further emphasised by doubling on the woodwind and brass (see Ex.14). A similar technique occurs in bars 84 to 93 where the accented notes of the solo oboe are doubled on the strings as well as wind. In bars 75 to 78, the transformation of the second material appears on the solo oboe, and the woodwind reinforces the line of the solo oboe through shadow-like imitation (see Ex.15).

♩ = 80 - 84 Furioso, sollecitando e risoluto
non legato

Solo Ob.

Ex.13: Material 2, *Reverberation after Movement*, bar 32.

♩ = 80 - 84 Furioso, sollecitando e risoluto
molto legato

FL.

Ob.

B. Cl.

Hn.

B♭ Tpt.

Tbn.

Solo Ob.

Ex.14: The line of the solo oboe reinforced by the woodwind and brass, *Reverberation after Movement*, bars 32 to 34.

♩ = 56 - 60 Furioso, sollecitato e risoluto

Fl. 1
Ob. 2
Bb Cl. 3
Bsn. 4
Solo Ob.

Ex.15: Shadow-like imitation, *Reverberation after Movement*, bars 75 to 76.

Material 3

The third material consists of multiphonic sounds, which also serves to underline the aggressive nature of the oboe due to the dissonant strident noise and extreme dynamic change between *pianissimo* and *fortissimo* (see Ex.16).

♩ = 52 - 56 Doloroso e duramente

Solo Ob.

Ex.16: Material 3, *Reverberation after Movement*, bars 100 and 101.

Moreover, six sections and a coda were determined, each focusing on one or two main materials (see Ex.17).

Section 1 (bars 1 to 29)	Section 2 (bars 30 to 37)	Bridge passage (bars 38 to 56)	Section 3 (bars 57 to 74)	Section 4 (bars 75 to 93)
Introduction (bars 1 to 7) and the use of Material 1	The use of Material 2	Transition to Section 3	The use of Material 1	Transition to Section 5

Bridge passage (bars 94 to 99)	Section 5 (bars 100 to 126)	Section 6 (bars 127 to 155)	Section 6 (bars 127 to 155)	Coda (bars 162 to 181)
Transition to Section 5	The use of Material 3	The use of Materials 1 and 2	Transition to Coda	The use of Materials 1 and 2

Ex.17: Formal layout of *Reverberation after Movement*.

Harmony

In terms of harmony, minor seconds and augmented fourths were chosen as the foundation of the main chords. This was influenced by my technique in *Pathos* (see page 12), as a relatively free way to manipulate pitch.

The use of these chords was designed to emphasise further the aggressiveness of the solo oboe and orchestra. For example, in bar 69, the demisemiquaver rhythms are forceful and violent due to the use of minor second chord on strings in addition to the use of accents, *fortissimo* dynamic and low notes and playing over the bridge (*sul ponticello*) (see Ex.18). The main intervals are employed not only vertically, but also frequently lineally. For example, the first material, the line of the solo oboe, primarily consists of major seventh and augmented fourth (see Ex.19).

The image shows a musical score for three string parts: Violin I, Violin II, and Viola. The tempo is marked as ♩ = 56 - 60, *Furioso, sollecitando e risoluto*. The key signature has one flat (B-flat) and the time signature is 5/4. The score includes markings for *Sul D (unis.)* and *Sul G* for the Violin parts, and *Sul G (unis.)* and *Sul C* for the Viola part. Dynamics include *f*, *pp*, and *subito ff*. A red box highlights a section of the score starting at measure 60, marked *div.* and *subito ff*.

Ex.18: Use of minor second interval in a chord, *Reverberation after Movement*, bars 70.



Ex.19: Use of augmented fourth and major seventh intervals in a line, *Reverberation after Movement*, bars 56 to 59.

Reverberation

Michael Jarrell's *La Chambre aux Échos (The Chamber of Echos)* (2010) was another significant influence. As the title of the piece suggests, it consists of a variety of musical movements and sounds based on echo and reverberation. For example, the second movement of the piece begins with a forceful chord played by the full ensemble, except for the harp. The notes of the brass, percussion and keyboard disappear immediately, but then like the debris scattering far away after an explosion, the notes of the flute, clarinet and a few strings are sustained, and then gradually evaporate. Here, a distinct musical idea is created, and this continues throughout the second movement. I was partly inspired by this idea, as I thought this would be an effective way to design clear sections and phrases. I also felt the image of reverberation in Jarrell's piece was so effective that I decided to adopt this image as the concept of my piece. As a result, I tried to make the aggression and violence of the solo oboe and orchestra felt throughout the entire piece through the use of musical reverberation using three main materials.

There are two types of reverberation in this work. Firstly, the solo oboe sometimes generates reverberations, while at other times it becomes part of the reverberation initiated by the motions of the orchestra. Such reverberations trigger additional reverberations of different lengths on an ongoing basis, creating distinct musical phrases. For example, the piece begins with sustained notes accompanied by tremolo on the suspended cymbal and the snare drum, and loud sextuplet semiquaver rhythms on the harp and piano. Then, in bars 2 to 7, sustained notes on the woodwind and natural harmonics in sextuplet semiquaver rhythms on the strings appear. As soon as the phrase ends, in bars 8 to 13, where the solo oboe responds as an echo or a reverberation of their motions, another phrase follows. In bars 14 to 16, there is a double trill on the solo oboe, and after this phrase ends, in bars 17 to 18, an additional reverberation on the woodwind, brass,

harp and piano occurs. Then secondly, reverberations sometimes overlap each other. For example, in bars 75 to 78, a demisemiquaver rhythm or transformation of the second material appears on the solo oboe, and before this rhythm ends, a triplet semiquaver rhythm appears on the flute as a response, and before this rhythm ends, a sextuplet semiquaver rhythm appears on the oboe. Prior to the end of this rhythm, another triplet semiquaver rhythm appears on the clarinet (see Ex.15 on page 30). In bars 100 to 106, a multiphonic sound on the solo oboe is used as an echo or reverberation of the sustained notes presented by double harmonics on the strings with which it overlaps. The reverberation on the solo oboe creates another echo in the form of sustained notes on the brass in bar 101, and again they overlap (see Ex.20). This overlapping continues until bar 103. Another example can be seen in bars 117 to 120 where the solo oboe, percussion, harp, and piano are utilised, changing the timbre of the preceding phrase using the solo oboe, strings and brass.

The image shows a musical score for 'Reverberation after Movement', bars 100 to 103. The score is arranged in a system with staves for Horns (Hn.), B♭ Trumpets (B♭ Tpt.), Trombones (Tbn.), Tuba, Solo Oboe, Violin I (Vln. I), Violin II (Vln. II), Viola, and Cello/Double Bass (Vc.). The Solo Oboe part is the central focus, showing a complex rhythmic pattern with dynamic markings of *pp*, *ff*, and *pp*. The strings play sustained notes with double harmonics, marked with *pp*, *mf*, and *pp*. The brass instruments (Horns, Trumpets, Trombones, and Tuba) play a demisemiquaver rhythm, marked with *pp*, *mf*, and *pp*. The tempo is marked as $\text{♩} = 52 - 56$ Doloroso e duramente. The score includes various performance instructions such as 'con sord.' (con sordina) and 'Sul A, E', 'Sul D, A', 'Sul G, D', and 'Sul C, G' for the strings.

Ex.20: Overlapping of the solo oboe, brass and strings, *Reverberation after Movement*, bars 100 to 103.

Conclusion

As a result of analysing the oboe's role in Corigliano's Oboe Concerto and Penderecki's *Capriccio*, the violent and aggressive nature of the instrument suggested a way to challenge its often stereotypical pastoral character, as, for example, in Albinoni's Oboe Concerto in D minor, Op.9 No.2 (1722). The judges of the Arko Contemporary Orchestra Music Festival commented on *Reverberation after Movement* as follows:












"The piece shows a lot of research on the oboe, and the development of the oboe is many-sided and colourful. It is a work that harmoniously draws rhythmic elements and timbres by using the characteristics of the oboe, and many interesting combinations of the solo instrument and orchestra than expected."¹¹ (Translated by Choi, Jinseok)

"독주악기인 오보에에 대해 많은 연구를 한 흔적이 보이며 오보에의 전개가 다채롭고 화려합니다. 오보에가 지닌 악기의 특성을 잘 사용하여 리듬적인 요소와 음색을 조화롭게 그린 작품이며, 오케스트라와의 흥미로운 조합이 기대됩니다."

As evidenced by their comments, I felt that the piece successfully explores various characteristics and capabilities of the oboe, especially its ability to play aggressive music. After completing this work, I wanted to continue this exploration of Western musical instruments using Korean instrumental playing techniques because I believed it was another effective means to express my identity as a Korean composer. This led me away from borrowing Korean folk music melodies. There were three primary reasons for this change of interest. Firstly, while I still believed that using a Korean folk music melody was an effective way to represent myself, it became clear, on reflection, that this lacked the originality that I desired because borrowing folk music melodies had been widely used by composers, such as Vaughan Williams and Bartók. Secondly, because Korean folk music is characterised by distinct melodies and rhythms, it was thought that their use would seem a bit traditional and not provided the unique combination of Eastern and Western music that I intended. Thirdly, with *Sigimsae (Nonghyun, Chuseong and Toeseong)*, I believed my music would become more diverse in terms of playing technique and timbre, therefore giving me the desired original sound combination bringing together Western and Eastern influences. Soonok

¹¹ Programme book for the 11th Arko Contemporary Orchestra Music Festival.

Kim, a daegeum (bamboo flute) player, created several symbols to explain the *Sigimsae* employed in Saenggang Lee's *Daegeum Sanjo*. In particular, these symbols helped create musical ideas (tremolos, trills, melismas, short or long upward glissando and short or long downward glissando) in *Chameleon* for large orchestra (see Exs. 47 and 48). Some of the *Sigimsae* symbols he introduces are as follows:

	"반음 정도의 퇴성" (going down approximate a semitone from a note)
	"반음 정도의 급한 퇴성" (going rapidly down approximate a semitone from a note)
	"반음 이상 한 음 정도의 퇴성" (going down approximate a whole tone from a note)
	"음을 밀어 올리는 표" (going up a note)
	"두 음 사이를 흘러내리는 표" (downward glissando)
	"작은 농음" (vibrato)
	"굵게 시작하는 농음" (exaggerated vibrato to normal vibrato)
	"음을 내려흔드는 표" (downward glissando with vibrato)
	"음을 올려흔드는 표" (upward glissando with vibrato)
	"음을 흘러내렸다가 다시 밀어올리는 표" (downward and upward glissandi)
	"음을 밀어올렸다가 다시 흘러내리는 표" (upward and downward glissandi)

Ex.21: Symbols of *Sigimsae* utilised in Saenggang Lee's *Daegeum Sanjo*¹² (Translated by Choi, Jinseok)

As a result, the pieces written after *Reverberation after Movement* are based on the compositional technique of *Sigimsae*.

¹² Lee, Saenggang and Kim, Soonok, *Taegum sanjo: 李生剛 流) 大琴散調*, (Seoul: Eunha Press, 1991), 9.

Chapter 3 - *Space* for solo viola (2019)

Contrasting material

When planning *Space* for solo viola, I was still fascinated by the compositional language that Myunghoon Choi employs in *Nostalgia Arirang V* which involves the alternation of two musical ideas that have equal importance. As a result, *Space* employs two basic musical materials. The first is based on natural harmonic semiquaver rhythms over sustained open strings. This was designed to contrast significantly with the second, Korean-inspired material (see Ex.22). With this second material, which was inspired by *Nonghyun*, attempts were made to imitate Korean instrumental playing techniques on the viola (see Ex.23). As with *Arirang*, the two main materials are constantly juxtaposed throughout the piece to create continuous changes and contrasts in tension and atmosphere.

Ex.22: Material 1, *Space*, bars 1 and 2.

Ex.23: Material 2, *Space*, bars 27 to 30.

As well as Choi's work, I was further inspired by Saariaho's *Vent Nocturne* for viola and electronics

(2006) and Yun's Duo for viola and piano (1976) in creating the two main materials of *Space*. The influence of *Vent Nocturne* led to the exploration of certain characteristics and playing techniques on the viola. For example, in the first movement of Saariaho's work, demisemiquaver rhythms are employed as one of the main materials, appearing with frequent alternations of natural harmonics and regular notes, and changes in timbre resulting from alternating between *molto sul ponticello* and *molto sul tasto*. The material seems to be employed to express her idea that "To me the sound of the viola has always suggested that of breathing, (...) along with the wind, (...)"¹³. For my own work, I realised that one can effectively and rapidly alternate high notes and low notes on string instruments and explore a fast timbral contrast between the harmonics and open strings. This was a fascinating personal realisation that led me to create a space or distance in pitch register in my piece by playing the harmonics and open strings simultaneously, and it became a significant feature of Material 1 in *Space*. The title of the piece therefore partly refers to the distance between these notes. Furthermore, since the timbre of the harmonics is delicate compared to the open strings, it was also my aim to explore the space between these two different timbres, so this is a second feature of Material 1. Throughout the second movement of Saariaho's aforementioned work, melodic lines appear through the use of frequent double stops with open strings. I knew that the use of double stops is not new, as it is found in works like Bach's Partitas for solo violin but it reminded me of the possibility of implying a duet on one instrument. As a result, I also attempted to suggest two instruments by using continuous double stops, which is the third feature of Material 1. Example 24 demonstrates the three main features of the first material. It also shows how this first material uses extreme dynamic changes between *pianissimo* and *fortissimo* and timbral transformations from *molto sul ponticello* to *molto sul tasto* in order to make the music more dramatic.

¹³ Saariaho, Kaija's official website, *Vent nocturne*, <https://saariaho.org/works/vent-nocturne/> (accessed 25 June 2022).

♩ = 90 Misteriso
M.S.P. → S.T.

Real pitches of the instrument

subito *f* *p*

S.T.

subito *f* *p*

♩ = 90 Misteriso
M.S.P. → S.T.

Viola

(I) (II) *f* *p*

Ex.24: Three features of Material 1, *Space*, bars 35 and 36.

In shaping the second material, I was influenced by Yun’s Korean instrumental playing techniques, in addition to the works that inspired the contrast of materials and timbres. Professor Bohyeong Lee mentions the importance of *Sigimsae* in Korean music as an element that can distinguish it from between Western music as follows:

“In recent years, discussions on the characteristics of traditional Korean music in contrast to Western classical music have been conducted in many fields such as (...) but one of the most prominent features is often regarded as ‘the field of melodies related to *Sigimsae*.’”¹⁴ (Translated by Choi, Jinseok)

“근래에 서양 고전음악과 대비되는 한국 전통음악의 특성을 규명하는 논의는 (...) 여러 분야에서 이뤄지고 있지만, 이 가운데 두드러진 특성으로 꼽히는 것이 ‘시김새와 관련된 선율 분야’로 보는 경우가 많다.”

As Seo, Hanbeom notes:

¹⁴ Lee, Bohyeong, *Study on ‘Sigimsae’ of The Korean Music: Focused Korean Folk Music (한국음악의 ‘시김새’ 연구방법 시론: 민속음악을 중심으로)*, (Seoul: Journal of the Science and Practice of Music, 13, 1999), 1-18.

"In traditional Korean music, which rarely uses harmony, we should point out *Sigimsae* as another major element that creates the unique taste and style of Korean music."¹⁵ (Translated by Choi, Jinseok)

"화성을 거의 쓰지 않는 국악에서 국악의 독특한 맛과 멋을 만들고 있는 또 하나의 주요 요소를 든다면 무엇보다도 시김새를 들지 않을 수 없다."

As in Korean music, *Sigimsae* including *Nonghyun* is employed as one of the most important musical techniques in most of Yun's pieces, which reflects his Korean identity. *Sigimsae* in his music is expressed or notated as vibrato (tremor) and exaggerated tremors (tremolo, trill and melismatic passages of various lengths), ascending glissando (*Chuseong*) and descending glissando (*Toeseong*) with or without vibrato, tremolo or trill.¹⁶ For example, throughout his Duo for viola and piano, the *Sigimsae* techniques consistently decorate main notes of musical lines, making the lines elastic and vivid. The role of these decorative figures is the same as that of *Sigimsae* to decorate the principal notes of melodies in traditional Korean music (see pages 14 and 15). In this respect, the decorative figures are indispensable elements in his music.

Inspired by the use of *Sigimsae* or *Nonghyun* in his Duo, the second material of *Space* consists of sustained notes with vibrato, tremolos or trills and fast melismatic passages. I divided these *Nonghyun* techniques employed in *Space* into five levels according to their complexity (see Ex.25). While Yun used these *Nonghyun* techniques in his Duo without any particular ordering, I decided to utilise them systematically from Level 1 to 5 in my piece to achieve a different musical effect, namely the gradual development of *Nonghyun*. For example, in bars 27 to 35, vibrato, the most basic level of *Nonghyun* occurs, and is then changed to tremolo (see Ex.23 on page 36). In bars


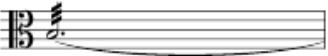

¹⁵ Seo, Hanbeom, *The General Theory of Traditional Korean Music (국악통론)*, (Seoul: Taerim Score, 2006), 60.



¹⁶ The traditional use of melisma can be defined as follows:

"It is used particularly to describe such passages in plainchant (...), where the contrast between syllabic and melismatic passages is an important stylistic feature. However, it is also appropriate to later music. Bach, for example, frequently used melismatic passages to emphasize such emotive words as 'wept' and 'scourged' in his Passions."

Latham, Alison, "*melisma*." *The Oxford Companion to Music*, (Oxford: Oxford University Press), <https://www-oxfordreference-com.manchester.idm.oclc.org/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-4338>, (accessed 23 May 2022).

68 to 78, the *Nonghyun* is expanded to trills and minor third tremolos (see Ex.26). In bars 145 to 185, *Nonghyun* appears at the highest level, as it is expanded into fast melismas of various lengths with the occasional use of trills and perfect fourth tremolos (see Ex.27).

Level 1	Level 2	Level 3
<p>con vib.</p> 		

Level 4	Level 5
	

Ex.25: *Nonghyun* techniques divided into five levels in *Space*.

$\text{♩} = 40$ *Contemplativamente*

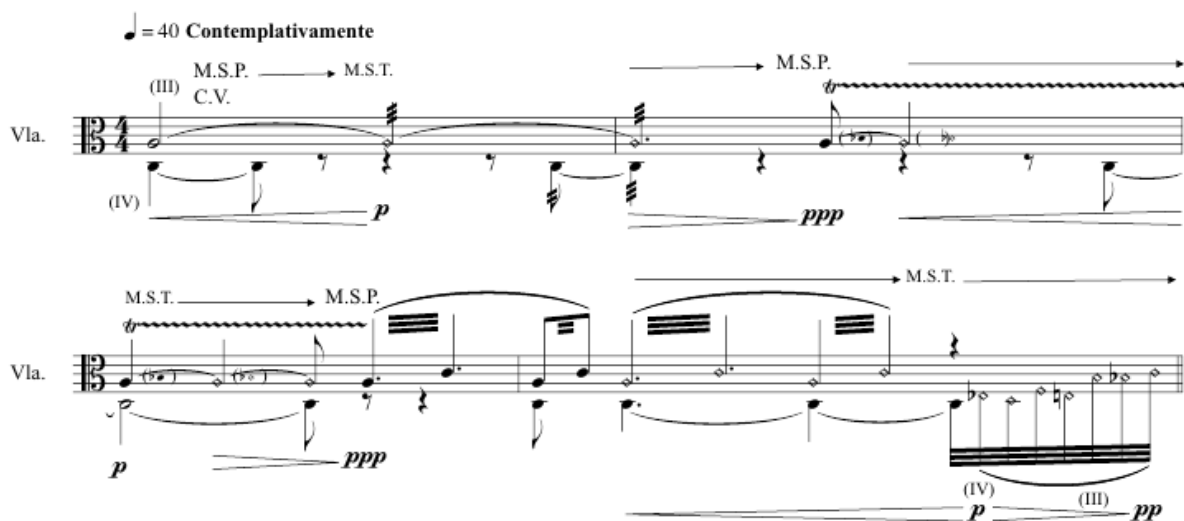
Vla. (III) M.S.P. → M.S.P. → M.S.P. → M.S.P.

C.V.

(IV) *p* *ppp*

Vla. M.S.T. → M.S.P. → M.S.T.

p *ppp* (IV) (III) *p* *pp*



Ex.26: Expansion of Material 2, *Space*, bars 68 to 71.

♩ = 40 *Contemplativamente*

The image shows four staves of musical notation for Violin (Vla.) and Viola. The top staff is for Violin, starting with a tempo marking of ♩ = 40 *Contemplativamente*. It features a complex rhythmic pattern with slurs, fingering (I), and dynamic markings *ppp* and *p*. The second and third staves are for Viola, also featuring complex rhythmic patterns with slurs, fingering (II, III), and dynamic markings *ppp* and *p*. The fourth staff continues the Viola part with slurs and dynamic markings *p*.

Ex.27: Expansion of Material 2, *Space*, bars 145 to 148.

Structure

The continuous juxtaposition of the two main materials also contributed to the structure of the piece, which is divided into six sections and a coda (see Ex.28).

Section 1 (bars 1 to 26)	Codetta for Section 1 (bars 21 to 26)	Section 2 (bars 27 to 35)	Section 3 (bars 36 to 67)	Codetta for Section 3 (bars 46 to 67)
Use of Material 1	Climax of Section 1	Use of Material 2	Use of Material 1	Climax of Section 3

Section 4 (bars 68 to 80)	Section 5 (bars 81 to 144)	Codetta for Section 5 (bars 127 to 144)	Section 6 (bars 145 to 185)	Coda (bars 186 to 228)
Use of Material 2	Use of Material 1 and new material (natural harmonics with glissando)	Climax of Section 5	Use of Material 2	Reproduction of Material 1 (bars 186 to 190) and the climax of the piece (bars 191 to 228)

Ex.28: Formal layout of *Space*.

As shown in the table above, the first material is presented four times in Sections 1, 3, 5 and the coda. When the material is repeated, it is systematically transformed from natural harmonics to regular notes, which is intended to create a timbral change from a weak to strong sound. For example, Material 1's semiquaver rhythms are played with harmonics at the start of the first section, which has a weak and delicate sound (see Ex.22 on page 36). However, it is played with both harmonics and regular notes that include quarter tones in the middle of the first section and throughout the third section (see Ex.29). After that, it occurs in the fifth section with only regular notes, which has a relatively strong and forceful sound (see Ex.30). This powerful characteristic is further strengthened by the use of *forte* accents.

Ex.29: Material 1, played with both harmonics and regular notes, *Space*, bars 36 and 37.

♩ = 90 *con Spirito*

Vla. Ord. >

subito f

ff

Ex.30: Material 1, played with normal notes, *Space*, bars 81 and 82.

Use of short blocks

As mentioned earlier, *Space* develops by alternating two contrasting materials, which was intended to provide continuous changes in tension in the piece. Furthermore, in order to maximise the contrast between the two materials and create sudden changes in tension and atmosphere, interruptions take place within short blocks. For example, between bars 29 and 35, the second material appears with quiet dynamics in a slow tempo, which suggests a meditative atmosphere. However, sudden changes in tension occur in bars 31 and 33, where the loud transformations of the first material are present in a fast tempo, interrupting the meditative musical flow (see Ex.31). Between bars 68 and 80, transformations of the second material's trills, tremolos and melismas are interrupted in bars 72, 76 and 79 by other transformations of the first material, creating sudden changes in tension (see bars 68 to 80). Example 32 shows the changes in tension between bars 68 and 80 (Section 4).

Interruption

♩ = 54 *Contemplativamente*

(Ord.) → M.S.P.

p → *ppp non cresc.*

♩ = 90 *Sollecitando e tempestoso*

S.P. ricochet
I II III

subito f → *ff*

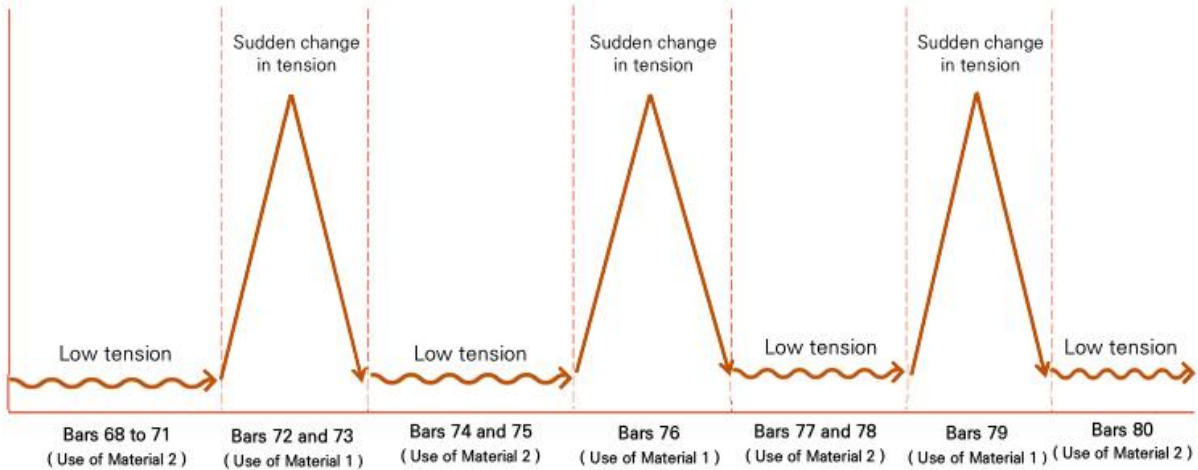
♩ = 54 *Stinguendo*

Ord. I

II
subito p → *pp*

Interruption

Ex.31: Interruption of *Nonghyun* by loud, fast demisemiquaver rhythms, *Space*, bars 29 to 35.



Ex.32: Changes in tension in bars 68 to 80 (Section 4), *Space*.

Teleology

As a composer, I have always been interested in teleological structures because I believe that they are an effective way to achieve a compellingly dramatic and powerful climax in a piece. In *Space*, Sections 1, 3, 5 and the coda have certain important climactic points. For example, in bars 36 to 45 of Section 3, the second material ranges over the entire register of the viola with dynamic and timbral changes. However, in bars 46 to 51, the material develops to include accents and a *forte* dynamic. Then in bars 52 to 63 it transforms significantly into sextuplet semiquaver and demisemiquaver arpeggio patterns, creating the climax of Section 3 (see bars 36 to 63). As stated, *Nonghyun* gradually develops in Sections 2, 4 and 6 (see pages 39 and 40). Although its teleology was partly obscured by the interruptions (see page 43), the gradual development of *Nonghyun*

was also conceived teleologically.

Conclusion

The main focus of *Space* was the marriage of Western and Korean elements. However, when I had my third panel meeting at the university, the panel pointed out that *Space* worked well musically, but the Korean elements were rather slight and operated mostly in terms of articulating the more substantive Western elements. Their comments and evaluation of *Space* made me realise that in order to achieve my research aims, I needed to enhance the incorporation of Korean elements in my compositions. After completing the piece, I explored the contexts of *Sigimsae* associated with its functions, aesthetics and applications, and felt drawn to Professor Hanbeom Seo and Daewoong Baek's perspectives on *Sigimsae*.

"(...) when a player named A and a player named B play the same music, one can also say that their '*Sigimsae* is different' when explaining the difference between them."¹⁷ (Translated by Choi, Jinseok)

"(...) A라는 연주자와 B라는 연주자가 같은 음악을 연주했을 경우, 그 차이를 설명 할 때도 두 사람의 '시김새가 다르다'고 말한다."

"As such, *Sigimsae* is not a concept related to composition, but a concept related to performance (...)"¹⁸
(Translated by Choi, Jinseok)

"이와 같이 시김새는 작곡과 관련된 개념이 아니라 연주와 관련된 개념 (...)"

"(...) *Sigimsae* is the result of probability derived from 'performance habits', not absolute rules. In other words, in the aural performance tradition, the *Sigimsae* technique is not a principled theory, but a 'product of the times' in which the diversity of interpretations and methods is open depending on the

¹⁷ Baek, Daeung, *Music and Korea 11: Understanding of Traditional Korean Music 1. (음악과 민족 11: 국악의 이해 (1))*, (Busan: The Society of Korean Music, 1996), 102-133.

¹⁸ Ibid.

performer.”¹⁹ (Translated by Choi, Jinseok)

“(...) 시김새들은 ‘연주습관’에서 비롯된 확률의 결과이지 절대적인 법칙이 아니다. 다시 말하면 구전이라는 연주전통에서 시김새의 기법은 원리적인 이론이 아니라 연주가에 따라서 그 해석과 방법의 다양성이 열려 있는 ‘시대적 산물’이라는 점이다.”

“(...) the Korean court music, *Sujecheon*, which is thought to have adhered to tradition, feels like two different musics to us because *Sigimsae* of the 1920s and the current *Sigimsae* are very different.”²⁰
(Translated by Choi, Jinseok)

“(...) 전통을 고수해 온 것으로 생각되는 궁중음악 ‘수제천’도 1920년대의 시김새와 현재의 시김새가 전혀 달라서 두 곡이 마치 다른 곡처럼 생각될 정도로 그 차이가 크다.”

From their views on *Sigimsae*, it could be possible to conclude that *Sigimsae* is the improvisational decoration of the main notes of a melody. However, the musical lines of *Space* do not have main notes, and focus only on the use of decorative figures including melismas. Also, due to the use of precise rhythms, they lack the characteristics of the unpredictable improvisational approaches in *Sigimsae* or *Nonghyun*. As a result, I decided to focus on the original functions of *Sigimsae* as well as the expansion of the playing technique in my next piece, *Note-Play* for viola and orchestra.

¹⁹ Ibid.

²⁰ Ibid.

Chapter 4 – *Note-Play* for solo viola and orchestra (2020)

In *Space*, I used the *Nonghyun* technique, but I was not satisfied with how Korean the music sounded. As a result, in *Note-Play*, I applied other *Sigimsae* techniques (*Chuseong* and *Toeseong*) as well as *Nonghyun*, and did this, not only in the solo line, but also throughout the orchestra. Furthermore, I attempted to imitate the sound of gayageum by requiring the solo viola to play with a plectrum. The title of the piece comes from an English translation of *Nonghyun*, 'playing with strings', which reflects my interest in *Sigimsae* techniques including *Nonghyun*.

Materials

Note-Play employs a dynamic musical line (Material 1) composed using *Chuseong* and *Toeseong*. The first material is played with a plectrum, which contrasting with another line (Material 2), composed using *Nonghyun*, played with the bow, both of which mainly appear primarily on the solo viola (see Exs. 33 and 34).



Ex.33: Material 1, exploring *Sigimsae* (*Chuseong* and *Toeseong*), *Note-Play*, bars 1 to 3.



Ex.34: Material 2, using *Nonghyun*, *Note-Play*, bars 163 to 166.

An example of these techniques in the orchestra can be found in bars 15 to 22, where the natural

harmonics and pizzicato on the strings have a short and fast upward or downward glissando, inspired by *Chuseong* and *Toeseong*. The “wide-ambit tremoli”²¹ on the bassoon in bars 14, 48 and 89, and the timbral trills on the woodwind in bars 23 to 29 are inspired by *Nonghyun* or exaggerated vibrato (see Exs. 35, 36 and 37). Here, the role of the orchestra was to further highlight the Korean nature of the solo viola’s lines, resulting in a stronger Korean sound.

♩ = 66 Agile

Violins I 1-6: *mf*, *molto sp.*, *ord.*, *f*, *molto sp.*, II, *(molto sp.)*

Violins I 7-12: *pizz.*, *p*

Violins II 1-5: *ord.*, *molto sp.*, *ord.*, *molto sp.*, II, *(molto sp.)*

Violins II 6-10: *pizz.*, *p*

Violas 1-4: *ord.*, *molto sp.*, *ord.*, *molto sp.*, II

Violas 5-8: *pizz.*, *p*

Cellos 1-3: *ord.*, *molto sp.*, *ord.*, *molto sp.*, II

Cellos 4-6: *pizz.*, *p*

D. Basses 1-4: *p*, with the left palm *) Hit the 5 strings with the left palm.

Ex.35: Natural harmonics and pizzicato on the strings inspired by *Chuseong* and *Toeseong*, *Note-Play*, bars 19 to 22.

²¹ Gallois, Pascal, *The Techniques of Bassoon Playing*, (Kassel: Bärenreiter, 2009), 67.



Ex.36: An example of a “wide-ambit tremoli”²², *Note-Play*, bar 14.

Fl. 1. 2
 Ob. 1. 2
 B♭ Cl. 1. 2
 Bsn. 1. 2

♩ = 80 (Agile)

timbral trill (alternate two different fingerings)

pp f pp

pp f pp

pp f pp

pp f pp

Ex.37: Timbral trills on the woodwind inspired by *Nonghyun*, *Note-Play*, bars 23 to 25.

Relationship between the soloist and the orchestra in *Note-Play*

In *Reverberation after Movement*, the soloist and the orchestra have a relatively equal relationship because the orchestra sometimes appears like the shadow or reverberation of the solo oboe and vice versa. I wanted *Note-Play* to provide a contrast to this approach, which led me to explore a relationship in which the soloist leads the music, and the orchestra is mainly utilised as a background for the soloist. For example, in bars 1 to 108, the air sounds of the wind instruments are employed as the background, while the soloist plays the material inspired by *Sigimsae*. In bars 109 to 116, sextuplet rhythms are played by the solo viola, and are supported and reinforced by the unison of the clarinets (see Ex.38). Another example can be seen in bars 221 to 239, in which

²² Ibid.

the sustained notes of the orchestra provide the background while the soloist plays fast sextuplet rhythms.

The image shows a musical score for three instruments: two Clarinets in Bb (Cl. in Bb 1 and Cl. in Bb 2) and a solo Viola. The tempo is marked as ♩ = 72 Agile. The key signature has one flat (Bb). The time signature is 2/4. The score consists of three systems. Each system contains sixteenth-note sextuplets. The Clarinet parts alternate between fortissimo (ff) and piano (p) dynamics. The Viola part is marked ff sempre. The score includes various musical notations such as slurs, accents, and dynamic markings.

Ex.38: Unison solo viola and clarinets, *Note-Play*, bars 109 to 111.

Influence of Isang Yun's music

There are several musical works which inspired elements of *Note-Play*. The use of a plectrum in the first material allowed me to more clearly reflect my Korean identity, by enabling the imitation of the gayageum's timbre on the viola. This was inspired by Isang Yun's *Glissées* (see Ex.39). However, there is a difference between Yun's piece and mine with respect to the use of the plectrum. In *Note-Play*, more than half of the piece is played like this, which is much more extensive than Yun's use. Consequently, the use of a plectrum in my piece has a much greater musical importance than in Yun's, making the sound more distinctly Korean throughout the piece due to its similarity to the sound of the gayageum.

The second material, between bars 164 and 220, employs *Nonghyun* with vibrato, tremolos, trills and melismas, also influenced by Yun's works, for example his Duo for viola and piano. However, I wanted to further expand *Nonghyun* beyond the way that it is used in Yun's music and utilise other musical elements that could differentiate his music from mine. As Yun did not expand *Sigimsae* or *Nonghyun* with regard to timbre in his works, including Duo (see Ex.40), I believed that there was greater potential to develop the idea in this respect. For example, my *Nonghyun* is accompanied by various extended techniques on the solo viola including the noise produced by increased bow pressure, the use of trills between a regular note and natural harmonics, swapping

between *molto sul ponticello* and *molto sul tasto*, circular bowing and playing behind the bridge (see rehearsal letters O, P and Q in the score). This creates timbral effects that make my approach to *Nonghyun* more colourful than Yun's.



Ex.39: An example using a plectrum in the third movement of Yun's *Glissées*²³.



Ex.40: An example of Yun's *Nongyun* (trills, tremolos and melismas), Duo, bars 41 to 46²⁴.

²³ Yun, Isang, *Glissées pour Violoncelle seul* (1970), (Berlin: Bote & Bock, 1971).

²⁴ Yun, Isang, *Duo für Viola und Klavier* (1976), (Berlin: Bote & Bock, 1976).

Furthermore, I attempted to explore the functional aspect of *Sigimsae* to decorate the main notes of melodies, as is commonly found in Korean music. To achieve this, the principal notes of the lines for the second material were created first. For example, in bars 180 to 187, the line of the solo viola uses main notes that appear in the ascending order of the viola's open strings, C, G, D and A (see Ex.41). These main notes are decorated with various fast melismas, which provide dynamism and vividness to the principal notes of the lines, as in traditional Korean music.

The musical score for Ex.41 consists of four systems, each comparing a decorated solo viola line with its basic skeleton. The tempo is marked as $\text{♩} = 44$ *Inquieto*. The key signature has one sharp (F#) and the time signature is 4/4.

- System 1:** The solo viola line starts with a *mp* dynamic and features a *dolce* melisma (3 notes) marked *(ord.)* and *sp.*. The skeleton line shows the basic notes. Dynamics include *mp*, *f*, and *mp*. A later melisma is marked *(sp.)* and *ord.* with dynamics *f*, *p*, and *f/ mp*.
- System 2:** The solo viola line features melismas marked *(ord.)* and *sp.* with dynamics *mf* and *p*. The skeleton line shows the basic notes. Dynamics include *mf*, *p*, and *mf*. A later melisma is marked *(ord.)* and *sp.* with dynamics *mf*, *p*, and *mp/pp*.
- System 3:** The solo viola line features melismas marked *(sp.)* and *ord.* with dynamics *mp* and *pp*. The skeleton line shows the basic notes. Dynamics include *mp*, *pp*, *mp/pp*, and *mp*. Melismas are marked *(ord.)* and *st.* with dynamics *mp* and *pp*.
- System 4:** The solo viola line features melismas marked *(st.)* and *ord.* with dynamics *mp* and *pp*. The skeleton line shows the basic notes. Dynamics include *mp*, *pp*, *mf*, and *pp*. Melismas are marked *(ord.)* and *st.* with dynamics *mp* and *pp*. The system ends with a *rit.* marking and a melisma marked *(st.)* and *ord.* with dynamics *f* and *pp*.

Ex.41: Comparison of the line and of its basic outline, *Note-Play*, bars 180 to 187.

The vividness of the line is further enhanced by constant dynamic changes between *pianissimo* and *fortissimo*, timbral changes between *ordinario* and *molto sul ponticello* and the emphasis on the unpredictable and improvisational characteristics of *Nonghyun*. For example, in bars 180 to 194, the soloist is required to play the line with the changes in dynamics and timbre relatively freely within a given tempo and rhythm, which are notated with smaller notes than regular ones. Moreover, the orchestral background is relatively thin in texture, in order to enable the solo viola to permeate the texture clearly with frequent and delicate changes in dynamics and timbres (see bars 180 to 194).

Structure and teleology

The structure of the piece was created by the two main materials. In sections 1 and 2, the first and second materials are utilised respectively, and in section 3, a new material, loud non-legato sextuplet semiquaver rhythms with a short upward or downward glissando, is employed (see Ex.42).

Section 1 (bars 1 to 163)	<p>Bars 1 to 22: Use of Material 1 (<i>Chuseong</i> and <i>Toeseong</i>).</p> <p>Bars 23 to 29: First climax of Section 1 with the transformation of Material 1 into arpeggios.</p> <p>Bars 30 to 54: Use of Material 1.</p> <p>Bars 55 to 68: Second climax of Section 1 with the transformation of Material 1 into arpeggios.</p> <p>Bars 69 to 72: Winding down from the climax.</p> <p>Bars 73 to 108: Use of Material 1.</p> <p>Bars 109 to 119: Bridge to the final climax of Section 1.</p> <p>Bars 120 to 138: Final climax of Section 1 with the transformation of Material 1 into arpeggios.</p> <p>Bars 139 to 163: Bridge to Section 2.</p>
Section 2 (bars 164 to 220)	<p>Bars 164 to 195: Use of Material 2 (<i>Nonghyun</i>).</p> <p>Bars 196 to 206: Climax of Section 2 with fast melismas.</p> <p>Bars 207 to 220: Bridge to Section 3.</p>

Section 3 (bars 221 to 260)	Bars 221 to 260: Use of the new material, loud non-legato sextuplet semiquaver rhythms, and the climax of the piece.
Coda (bars 261-264)	Bars 261-264: Brief repetition of Section 1, and winding down from the climax.

Ex.42: Formal layout of *Note-Play*.

Furthermore, as shown in the table above, each section has a climactic point, developing my interest in teleology. For example, in Section 3, the loud fast semiquaver sextuplet rhythms are presented with non-legato accents in a fast tempo to create the climax of the piece (see Ex.43). The fast rhythms start with C₄ on the viola at bar 221 and gradually ascend to A^b₇ at bar 249, and the full ensemble joins between bars 255 and 260, reinforcing the climax (see bars 221 to 260). Finally, in the coda where a brief repetition of Section 1 occurs, the solo viola quietly plays the first material without the orchestra, ending the piece with an abrupt release from the climax (see bars 261 to 264).



Ex.43: New material, loud non-legato sextuplet semiquaver rhythms with a short upward or downward glissando, *Note-Play*, bars 221 to 223.

Three complementary tetrachords

The approach to harmony was inspired by the use of subdivided chords in Lutosławski's Symphony No. 2 (see page 17). After studying this work, I created three complementary tetrachords for *Note-Play*, each of which has a different colour. The first tetrachord consists of C[#], F[#], G, and C, and the second comprises D, E^b, A, and B^b. They both contain two minor seconds and have a relatively dissonant sound as a result. By contrast, the third tetrachord consists of E, F,

G[#], and B. This is a trichord consisting of major thirds with the addition of an F, which, in comparison to the first and second chords, has a more consonant sound (see Ex.44).



Ex.44: Twelve-note chord subdivided into three tetrachords, *Note-Play*.

These tetrachords are primarily utilised in the orchestra to add harmonic colour to the solo viola in three basic ways. The first involves employing the three tetrachords simultaneously, which results in a chromatic dissonant cluster. An example of this can be seen in bars 239 and 240 where the percussion and brass use the first tetrachord, the woodwind utilise the second, and the strings employ the third. The dissonant characteristic is further reinforced by close voicing, tremolos, accents and extreme dynamic changes (see Ex.45). It also enhances the powerful and energetic fast line of the solo viola. The second method is to use each tetrachord independently, which is intended to create less intense chords compared to the first method. An example of this can be seen in bars 188 and 189 where only the second tetrachord on the strings appears as the background to the solo viola's line (see Ex.46). The emptiness and fragility of the chord is further highlighted by high register harmonics, *piano* dynamics and a slow tempo. The independent use of the chords was particularly useful when I wanted to create a thin texture in Section 2. The third method is to continually juxtapose each of the three tetrachords, which enables sudden changes in harmony. An example of this can be seen in bars 225 to 233 where the three tetrachords are successively juxtaposed in the woodwind, brass and strings. These sudden changes in harmony or colour in each instrumental group have the effect of enhancing the tension of the climax and supporting the powerful and vigorous line of the solo instrument.

Conclusion

My aim in *Note-Play* was to write a Korean work through the exploration and development of playing techniques and timbre. I believe that this aim was successfully achieved through the soloist's use of a plectrum as well as the use of Korean performance techniques (*Chuseong*,

Toeseong and Nonghyun). However, as the plectrum-plucked viola is relatively quiet, it also caused an imbalance between the soloist and orchestra. For this reason, I decided to revise the piece. In order to improve the balance, so the soloist primarily plays *fortississimo* from bars 1 to 149, while the orchestra plays between *pianissimo* and *mezzo-forte*. Moreover, the air sounds on the wind instruments did not have specific fingerings. However, I realised that the height of unpitched air sounds can be adjusted by a specific fingering and producing air sounds with a tone can also be possible. As a result, wind players are asked to produce pitched air sounds, and the lowest unpitched air sounds were chosen.

♩ = 96 **Acceso**

Woodwind

Brass

Per.

Strings

ff *p* *fff*

ff *p* *fff*

ff *p* *fff*

ff *ord.* *p* *molto sp.*

ffp *fff*

ffp *fff*

Ex.45: Simultaneous use of the three tetrachords, *Note-Play*, bars 239 to 240.

a tempo
 small Suspended Cymbal
 with metal brush

Per. 1

p

small Tam-Tam
 with metal brush

Per. 2

p

a tempo
 (ord.) → *molto sp.* → ord.

solo
 Viola

mp *f* *mp* *f* *mp* *f/ mp*

molto sp.

Vlins. I 1-6

p

molto sp.

Vlins. I 7-12

p

molto sp.

Vlins. II 1-5

p

molto sp.

Vlins. II 6-10

p

molto sp.

Vlas. 1-8

p

molto sp.

Vcs. 1-6

p

Ex.46: Independent use of the second tetrachord, *Note-Play*, bars 188 and 189.

Chapter 5 - *Chameleon* for large orchestra (2020)

The primary focus in *Chameleon* was to simultaneously express different musical images through the use of multiple textural layers. To achieve this aim, I first created a number of independent musical cells inspired by traditional Korean music. These were then continually juxtaposed and overlapped in many independent layers, creating constant changes in sound or colour, which gave rise to the title of the piece. The secondary aim was to mimic the timbre of Korean instruments with Western ones by imitating the timbre of the gayageum through the use of a plectrum in the strings, as in *Note-Play*.

Musical cells

When musical cells are played at the same time, I wanted each of them to be clearly distinguishable. In addition to the symbols of *Sigimsae* (see example 21 on page 35), Sonia Choy's perspective on Korean music helped create these.

"Many Western classical composers create musical form through the combination of horizontal linear progressions (melody) and vertical progressions (harmony). In contrast to the Western musical process, in Eastern music, there exists a variety of tone color on a single note. In this way, Eastern performers can produce a thick or thin, dark or light sound color in a single tone that serves as the aesthetic basis of the style. Therefore, in Eastern music, harmonic structure and contrapuntal elements, both significant in Western music, do not exist because the single line of Eastern music stands alone. Traditional Korean music consists of a long sustained note in a simple, single line at a very slow tempo. This long sustained note is often ornamented with melismas, trills, vibrato, *glissandi*, and various articulations that emphasize and support the single tone."²⁵

Influenced by Choy's views, long sustained notes or sequences of several notes were first

²⁵ Choy, Sonia, *The Fusion of Korean and Western Elements in Isang Yun's Konzert für Flöte und Kleines Orchester*, (Georgia: The University of Georgia, 2010), 26-27.

established as the simplest form of the cells. Then, these ideas are decorated by various playing techniques such as, exaggerated vibratos (tremolos, trills and melismas), short or long upward glissando and short and long downward glissando, giving them a strong, independent character. Examples 47 and 48 demonstrate the comparison of the single lines embellished by the playing techniques and the drafts of the ideas.

Ex.47: Comparison of ideas inspired by various playing techniques and the drafts of the ideas in *Chameleon*.

(1) Trill in bar 1.

(2) Slow downward glissando in bar 1.

(3) Double harmonics in bar 1.

♩ = 76
solo pizz.
 (Vn I. 1)

Violins. I 1-4

Draft

f sempre

(4) Pizzicato with upward and downward glissandi in bars 15 and 16.

♩ = 66

Bb Clarinet I

Draft

ffp *mp* *p*

(5) Slow upward and downward glissandi in bars 17 and 18.

♩ = 44

Viola I

Draft

pp (ord.)

(6) Fast melismas in bar 19.

♩ = 44

Horn I

Draft

Timbral trill
 (Two different fingerings) *sim.*

1 2 1 2

pp

(7) Timbral trills in bar 42.

Oboe. 3
Draft

$\text{♩} = 66$
very slowly

ff-pp *ff*

(8) Slow upward glissando in bars 54 and 55.

Bassoon 1
Draft

$\text{♩} = 60$

pp *ff* *ppp*

(9) Sustained notes with changes of dynamics in bars 117 to 118.

Violins. II 1-2
Draft

$\text{♩} = 60$

pp

(10) Fast downward glissandi in bar 119.

Bassoon 1
Draft

$\text{♩} = 60$

pp

(11) Ornamentations in bar 122.

Cellos 1-2
Draft

$\text{♩} = 60$

pp *ff* *ppp*

(m.s.p.) *ond.* *ond.* *m.s.t.*

(12) Tremolos in bars 122 to 124.

♩ = 60

Violins. II 5-6

pp

Draft

(13) Fast upward glissandi in bar 123.

Ex.48: Comparison of ideas developed and combined from example 46 and the drafts of the ideas in *Chameleon*.

♩ = 60

Horn. 3

pp *ff*

Draft

(1) Combination of Examples 47 (2) and (9) in bars 116 and 117.

♩ = 60

Flute 1

air noise with tone

pp *ff*

Draft

(2) Combination of Examples 47 (1) and (9) in bars 118 and 119.

♩ = 60

Timpani

ppp *f*

Draft

(3) Combination of Examples 47 (5) and (12) in bars 118 and 119.

Timpani

Draft

$\text{♩} = 60$

ppp ————— *f*

(4) Combination of Examples 47 (8), (9) and (12) in bars 125 and 126.

Timpani

Draft

$\text{♩} = 60$

ppp ————— *f*

(5) Combination of Examples 47 (2) and 42 (12) in bars 128 and 129.

Clarinet 1

Draft

$\text{♩} = 60$

pp ————— *ff*

(6) Combination of Examples 47 (8) and (9) in bars 130 and 131.

Viola 1-2

Draft

$\text{♩} = 60$

pp ————— *ff*

m.s.p. ————— *cord.*

(7) Combination of Examples 47 (1) and 42 (2) in bars 131 and 132.

Textural layers

As well as creating independent cells, I also wanted to establish a similar distinguishable independence in the orchestral writing in the form of textural layering or stratification. To that end, Takemitsu's *Coral Island* was extremely instructive. Peter Burt notes, in discussing the texture of *Coral Island*, that:

"In the vocal movements, the various instrumental groups interact freely with one another, creating freely 'pointillistic' textures, *Klangfarbenmelodie*, or even just conventional 'ensemble' accompaniment to the solo voice. In the *Accumulation* movements, however, each of the six groups is independent from one another, and has a clearly defined and consistent textural role. The strings provide a static harmonic backdrop; the tuned percussion washes of coruscating tintinnabulation; the brass disjointed, 'pointillistic' utterances; and the woodwind quasi-aleatoric, repeated 'mobile' passages. While the orchestral texture in the vocal movements is more unitary, therefore, in the instrumental sections it consists of a number of spatially and timbrally defined, independent strata."²⁶

Takemitsu's textural layering approach in the *Accumulation* sections of *Coral Island* felt to me as if several different pieces of music were being played simultaneously. This made me a possible different approach to orchestration to that which I had employed formerly. For example, when I wrote the two concertante pieces, *Reverberation after Movement* and *Note-Play*, I treated the orchestra as just one instrument, overlooking the fact that the orchestra is composed of many individual instruments. As this only allowed one musical image to be expressed in these works, I realised that my orchestration technique was perhaps simplistic, and I did not fully explore the potential of the orchestra in terms of texture. As a result, in *Chameleon*, I decided to explore Takemitsu's approach with my musical cells, which could enable the simultaneous presentation of many musical images. For example, in bars 44 to 47, two ideas, the ascending glissandi on woodwind and timbral trills on the brass and strings, are presented simultaneously with the use of occasional powerful chords, which create the effect of playing two different pieces of music at the same time. In particular, these ideas have different pitches in order to make the contrast between them more obvious (see Ex.49).

Another example can be seen throughout bars 116 to 140 where three or more ideas are played simultaneously. In bars 116 and 117, four contrasting musical ideas appear at the same time, such as ornamentations on clarinets, slow descending glissandi on horns, melismatic passages on trombones, and sustained notes on bassoons, violas, cellos, harp and piano. In bars 118 and 119, the clarinets, horns, trombones, harp, piano, cellos and double basses cease, but the bassoons and violas continue to play. They are overlapped with other ideas played by other instruments such as trills on flutes, sustained notes with dynamic or timbral changes on trumpets and violins and glissando with tremolo on the timpani, resulting in a colour change. As such, many ideas

²⁶ Burt, Peter, *The Music of Toru Takemitsu*, (New York: Cambridge University Press, 2001), 98.

repeatedly appear and disappear within a short span of time, and juxtapositions and superimpositions continue between bars 116 and 140, which highlight the effects of simultaneous appearance of several different pieces of music, and create constant changes in colour, as in *Coral Island* (see *Chameleon*, bars 116 to 140).

The image shows a musical score for the piece *Chameleon*, specifically bars 44 to 47. The score is written for a string ensemble and two horns. The tempo is marked as $\text{♩} = 76$ *Giocoso*. The key signature has one sharp (F#). The score includes the following parts and markings:

- Horns 1. 2.:** Features a *Timbral trill (Two different fingerings)* starting in bar 45. The first horn part has fingerings 1 2 1 2 and dynamic markings *fp* and *f*. The second horn part has fingerings 1 2 1 2 and dynamic markings *f* and *fp*.
- Horns 3. 4.:** Features a *Timbral trill (Two different fingerings)* starting in bar 44. The first horn part has fingerings 1 2 1 2 and dynamic markings *fpp* and *f*. The second horn part has fingerings 1 2 1 2 and dynamic markings *fp* and *f*.
- Violins I and II:** Both parts play a rhythmic pattern with *pizz.* (pizzicato) and *f sempre* (fortissimo) markings.
- Violas and Cellos:** Both parts play a rhythmic pattern with *pizz.* and *f sempre* markings.

Ex.49: An example using two ideas simultaneously, bars 44 to 47, *Chameleon*.

Other Korean musical influences

As mentioned earlier, the imitation of the *gayageum*'s timbre on strings was also employed to further develop the Korean identity of my music. In *Note-Play*, the *gayageum*'s timbre is imitated by the solo viola, but in *Chameleon*, both solo instruments and the entire string section use this timbral effect. I did this because even with the same playing technique, it may sound different depending on whether it is played on a solo instrument or ensemble. An example can be seen in bars 189 to 193. In bars 189 and 191, the soloists from violins I, II, viola, and cello play upward arpeggios with a plectrum, and then in bars 190, 192, and 193, all the strings join them, creating stronger dynamic and timbral changes (see Ex.50).

♩ = 72 *Arditamente*

The score is for four string parts: Violins I, Violins II, Violas, and Cellos. It is in 3/4 time with a tempo of 72 beats per minute, marked *Arditamente*. The piece is divided into four measures. The first measure is marked *solo with plectrum* and *ff-ff*. The second measure is marked *tutti* and *ff-ff*. The third measure is marked *accel.*, *solo*, and *ff-ff*. The fourth measure is marked *tutti* and *ff-ff*. Each measure contains a rhythmic pattern of eighth notes, with the first three notes of each measure beamed together and marked with a '3' above them. The dynamics are consistently *ff-ff* throughout.

Ex.50: Imitation of the gayageum's timbre alternating between string soloists and the tutti string section, *Chameleon*, bars 189 to 193.

Structure and teleology

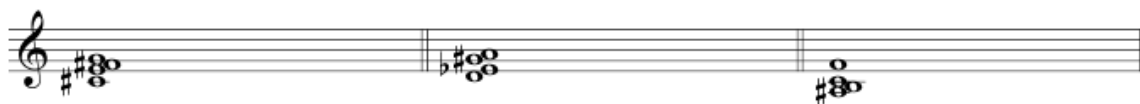
As shown in the table below, the independent use and superimposition of the musical ideas also determined the structure of the piece, which comprises five clearly demarcated sections (see Ex.51). Furthermore, each section has important climactic points, as in my previous pieces, thus reflecting my interest in teleology. For example, after the ideas are introduced in a relatively thin texture in bars 1 to 53, the climax of Section 1 is formed by creating a thicker texture with the woodwind playing upward glissandi and brass and strings playing timbral trills in bars 54 to 68. The length of the rhythms of the woodwind is gradually shortened, and the brass and strings are played with gradually stronger dynamics, increasing the tension. In particular, the pitches of the woodwind ascend, and from bars 67 to 68, loud percussion (timpani, snare drums and timbales) are added, further developing the climax.

Section 1 (bars 1 to 93)	Introduction of musical ideas.
Codetta 1 for Section 1 (bar 54 to 68)	Climax 1 of Section 1 demarcated by tempo (crotchet=66).
Codetta 2 for Section 1 (bars 69 to 93)	Climax 2 of Section 1 demarcated by tempo (crotchet=76).
Bridge passage (bar 94 to 115)	Winding down from the climax.
Section 2 (bar 116 to 149)	Layers created by the superimposition of the ideas.
Codetta for Section 2 (bar 141 to 149)	Climax of Section 2.
Bridge passage (bar 150 to 178)	Winding down from the climax (bars 150 to 157) and bridge passage or transition to Section 3 (bars 158 to 178).
Section 3 (bar 179 to 199)	Brief recapitulation of Section 1.
Section 4 (bar 200 to 210)	Brief recapitulation of Section 2.
Bridge passage (bar 211 to 237)	Winding down from the tension of Section 4 (bars 211 to 218) and bridge passage or transition to Section 5 (bars 219 to 237).
Section 5 (bar 238 to 276)	Climax of the piece.

Ex.51: Formal layout of *Chameleon*.

Three complementary tetrachords

The harmonic approach was to compose three complementary tetrachords with different colours, as in *Note-Play*. The first chord is a C[#] diminished triad with F[#] added, which is relatively consonant compared to the second (D, E^b, G[#] and A) and the third (A[#], B, C and F) which both contain two minor seconds (see Ex.52). Unlike *Note-Play*, which utilises three tetrachords within one octave, in *Chameleon*, each chord appears in its own register to help give it a clear harmonic identity. For example, in bars 116 to 118, the first chord is played in the middle register on the clarinets and violas, the second is played in the low register on the bassoons, trombones, harp, piano, cellos and double basses, and the third is played in the high register on flutes and violins (see Ex.53). This was intended to achieve the piece's aim of simultaneously expressing different musical images through the simultaneous use of these three different tetrachords in different registers, as well as in multiple textural layers using different musical ideas.



Ex.52: Three complementary tetrachords, *Chameleon*.

Ex.53: Simultaneous use of the three complementary tetrachords in different registers, *Chameleon*, bars 116 to 118.

Conclusion

As mentioned earlier, *Chameleon* focused on expressing many different ideas influenced by traditional Korean music in multiple textural layers, as I wanted it to sound Korean. On reflection, the influences from Korean music or Korean playing techniques have a particular Korean significance to me, but some of them overlap with Western techniques and so this significance may not translate to the listener.

After I completed *Chameleon*, my supervisor noted that “what Peter Burt describes in the *Accumulation* movements is something that one finds in certain Japanese music and other music from East Asia; that is the use of an ensemble in a hierarchical manner with each instrument or instrumental group maintaining one specific role or function or playing just one type of music” and “there is potentially more East Asian influence in your approach to a hierarchical use of the orchestra as inspired by Takemitsu’s *Coral Island*, although this interestingly overlaps with Western ideas of stratification”. The textural layering approach is something that I would like to explore further in the future, as it might be a more clear use of a Korean approach that is translatable to

the audience.

I recently studied Carter's String Quartet No.1 (1950) to understand Western idea of stratification. In bars 22 to 26 of the piece, four ideas that contrast with each other in playing technique, timbre, emotion, rhythm and dynamics are played simultaneously. In particular, these ideas appear in different registers, which further emphasises the contrast between them. Through the idea of stratification in Carter's String Quartet, I realised that register is a very important parameter for contrasting ideas. As a result of this model, a revision was made. In the initial attempt, the two ideas appearing at the same time in bars 44 to 47 did not contrast as sharply as I intended due to their registral similarity. However, their pitches were amended to be used in different registers to emphasise the contrast between them (see Ex.49 on page 65).

Chapter 6 – Duo for violin and piano (2021)

In Duo, which is divided into two movements, I continued to explore the imitation of Korean playing techniques with their original function of improvisational decoration of the melody's main notes to express my Korean identity. Moreover, the alternation of two ideas employed in *Space* was also something I intended to explore further, which led me to use two contrasting ideas as the main materials in each movement. In the first, natural harmonics and left-hand pizzicato are presented in semiquaver triplet and demisemiquaver rhythms throughout, providing the primary material, and the piano responds shadowing this (see Ex.54). In the second, a line in the violin characterised by the alternation of arco and pizzicato provides the main material, and the piano serves to support this (see Ex.55). The first materials in each movement were partly designed to create an effect that emphasises the Korean nature of the second materials by providing something completely different to the second materials. The second materials, influenced by *Nonghyun*, appear in relatively long rhythmic values and quiet dynamics at a slow tempo, and are used in independent sections of each movement (see Exs.56 and 57). Another intention in alternating these two ideas in both movements was to create changes in atmosphere and tension.

♩ = 40 *Delicatamente*

m.s.p.
arco (non legato)
Sul G

Sul D

accel.
(*m.s.p.*) → *ord.*

Violin

Piano

ff pp mp pp mp/pp mp pp f

a tempo (♩ = 40) *rit.* -----

Vln.

Pno.

Ex.54: Material 1, Duo, Movement 1, bars 1 to 5.

♩ = 84 *Caoticamente*

Violin

Piano

Ex.55: Material 1, Duo, Movement 2, bars 1 to 4.

♩ = 40 *Tranquillo*

Violin

Piano

Ex.56: Material 2, Duo, Movement 1, bars 71 to 73.

♩ = 40 **Tranquillo**

Violin

Piano

Ex.57: Material 2, Duo, Movement 2, bars 35 to 38.

Movement 1

a) Dialogue

The concept of the first movement was inspired by Kaija Saariaho's *Trans* for harp and orchestra (2015) characterised by dialogues between the solo harp and ensembles drawn from within the orchestra. Saariaho notes the dialogues of this piece in the programme note as follows:

"Planning a concerto for harp is another challenge; some of the more delicate textures are so easily covered by the orchestra. Even if aware of this, I wanted to keep all instrumental colors of the orchestra available for this piece, but find musical situations to allow the harp to have its soloist space. So passages with full orchestra playing are rare, and the music is concentrated rather in different kinds of dialogues between the solo instrument and the various instrumental groups."²⁷

I found Saariaho's constant use of dialogue most impressive in the way it created continuous timbral contrasts between the solo harp and the orchestra, while also making the delicate melodic lines of the solo instrument sound clear and effective. As a result of this model, in the first movement of *Duo*, I used continuous dialogues within a short space of time, which was organised

²⁷ Saariaho, Kaija's official website, *Trans*, <https://saariaho.org/works/trans/>, (accessed 15 October 2021).

in three ways: separation, interlock and overlap. For example, in bars 1 to 5, the violin's line and the piano's response to it are separated by a quaver rest with fermata (see Ex.54). Then, in bars 6 to 13, the violin's lines and the responses on the piano are repeated, and in bars 8 and 11, the last notes of the violin and the first notes of the piano interlock. The purpose of the separation and interlock was to create a distinct timbral contrast between the violin and piano, as in Saarihao's *Trans.* After that, in bar 14, before the piano's response ends, the violin line is presented and therefore superimposition takes place, which was intended to create a partial timbral mixture of the two instruments (see Ex.58). Furthermore, the concept of the dialogue ensured that the delicate, quiet harmonics on the violin are clearly heard, which helped solve the balance issue I encountered with *Note-Play*.

The image displays two musical excerpts. The top excerpt, titled "Interlock", shows a Violin and Piano score. The Violin part starts with a tempo of quarter = 40, marked "Sul E", and includes dynamics of *mp* and *pp*. It features an acceleration ("accel.") and a return to "a tempo" (quarter = 40). The Piano part begins with a quaver rest and fermata, then responds with *pp* dynamics. A red box highlights the interlocking notes between the two instruments. The bottom excerpt, titled "Superimposition", also shows Violin and Piano parts. The Violin part is marked "a tempo" (quarter = 60) and includes dynamics of *mp* and *pp*. The Piano part starts with *ppp* dynamics. A red box highlights the superimposition of the violin line over the piano's response. Both excerpts include performance instructions such as "Sul E", "Sul A", "Sul D", "ord.", "non legato", and "L.v.". The piano part in the bottom excerpt includes dynamics of *ppp*, *p*, *mp*, *pp*, *mf*, and *pp*.

Ex.58: Example of interlock and superimposition between the violin and piano, Duo, Movement 1, bars 7 to 14.

b) Structure and teleology

As stated, the two main materials are employed in separate sections, which determined the structure of the first movement (see Ex.59).

Section 1 (bars 1 to 34)	Dialogues between the violin and piano.
Codetta for section 1 (bars 22 to 34)	Climax of Section 1.
Section 2 (bars 43 to 66)	Dialogues between the violin and piano.
Codetta for Section 2 (bars 51 to 66)	Climax of Section 2.
Section 3 (bars 71 to 102)	Exploration of Korean instrumental techniques.
Section 4 (bars 103 to 121)	Climax of the piece.
Coda (bars 122 to 129)	Wind down from the climax.

Ex.59: Formal layout of the first movement of Duo.

Each section has climactic points, continuing and developing my exploration of teleology. For example, after the dialogues between the two instruments in bars 43 to 50, the climax of section 2 is played in bars 51 to 66 and is divided into two sections by an increase in tempo and change of articulation. In bars 51 to 58, the violin and piano constantly play ascending non-legato forte semiquaver triplet rhythms at a fast tempo (crotchet=92), creating an aggressive character and a high degree of tension (see bars 51 to 58 of movement 1). In particular, in bars 57 and 58, the tension is increased by the use of accents, *accelerando* and a change to *fortissimo*. In bars 59 to 66, the two instruments continue to play the ascending rhythms at a faster tempo (crotchet=100) (see bars 59 to 66 of movement 1). The intension of changing to the faster tempo was to further increase the energetic character and tension.

The climax is released in bars 67 to 70 where the texture thins as the violin gradually ebbs away and the piano rhythm transforms to longer values at a slow tempo to represent calm after the climax. Furthermore, the notes of the piano, consisting of G, G[#], A, B^b and B, are gradually omitted. The dissonance decreases as the texture thins, and the above pitches disappear in the order of B, G, B^b and G[#], leaving a semitone and then octaves to signify the end of the dissonance and the climax. This is combined with a dynamic change from *piano* to *pianississimo*, again signifying the process of winding down after the climax (see Ex.60).

Violin

Piano

♩ = 60 **Fiacco**
(ord.) → m.s.p.

gliss.

ppp

molto rit.

ord. Sul D, A

ppp

p

ppp

Ex.60: Winding down from the climax, Duo, movement 1, bars 67 to 70.

c) Korean musical influences

The second material influenced by *Nonghyun* was created by considering the functional aspect of the playing technique that decorates the primary notes of the melody. For example, in bars 71 to 78, the violin continuously repeats the main pitch A, being inflected by ornamentations, glissandi to neighbouring notes, G[#] and B^b, and timbral changes between *sul ponticello* and *ordinario*, while the piano also plays the neighbouring notes (see bars 71 to 78 of movement 1). The intention of these decorations was to provide vividness, which is further reinforced by the characteristics of the unpredictable improvisational approaches in *Nonghyun*. In bars 85 to 94, the melismatic passages are played freely at an approximate tempo in the given rhythms (see bars 85 to 94 of movement 1). *Nonghyun*'s improvisation and flexibility are exhibited not only in melisma but also in glissando, as seen in bars 35, 36 and 96 where zigzag glissandi in the violin are played relatively freely (see Ex.61).

The image shows a musical score for Violin and Piano. The Violin part is written on a single staff with a treble clef. It begins with a tempo marking of quarter note = 48 and the title 'Inquieto'. The music features glissandi (slurs over the staff) and dynamic markings: *p*, *ff non dim.*, and *p*. There are also performance instructions: 'gliss.', 'molto vib.', and 'non vib.'. The Piano part is written on two staves (treble and bass clefs). It features rapid semiquaver patterns with dynamic markings: *pp*, *ff non dim.*, and *p*. There are also performance instructions: 'gliss.', 'molto vib.', and 'non vib.'. The score is for a piece titled 'Inquieto' with a tempo of quarter note = 48.

Ex.61: Glissandi played freely, Duo, movement 1, bars 35 to 37.

Movement 2

a) Materials

The second movement is led by the violin and continues to employ two contrasting main materials. The first was inspired by George Benjamin's *Three Miniatures* for solo violin (2001). In bars 20 to 38 of the third miniature, a quiet melody played arco with left-hand pizzicato gives the impression of two different instruments being played simultaneously due to the distinct timbral contrast between the playing techniques. As a result of this model, the first material was created with semiquaver rhythms alternating between arco (non-legato) and pizzicato. An example can be seen in bars 1 to 24 in which a succession of semiquavers continually alternates arco and pizzicato in a fast tempo. This was intended to give the effect of two different instruments playing alternately and create a chaotic atmosphere (see bars 1 to 24 of Movement 2). In addition, the arco is played with a sudden *forte* dynamic and pizzicato is played suddenly *piano*, which is intended to further emphasise the effect and atmosphere. The second material is inspired by *Nonghyun*, which is represented by sustained notes, tremolos, trills, ornamentations and melismatic passages (see bars 35 to 48 of Movement 2). As in the first movement, this material is present primarily at a quiet dynamic and a slow tempo, creating a calm atmosphere, which contrasts with the first material. These two materials are constantly juxtaposed throughout the second movement to create continuous changes in atmosphere and mood.

b) Structure and teleology

The continuous juxtaposition of the two materials helped create the structure of the second movement (see Ex.62).

Section 1 (bars 1 to 34)	Dominated by the line in the violin characterised by the alternation of arco and pizzicato (Material 1).
Codetta for Section 1 (bars 25 to 34)	Climax of Section 1.
Section 2 (bars 35 to 48)	Exploration of material inspired by <i>Nonghun</i> (Material 2).
Section 3 (bars 49 to 97)	Dominated by Material 1 and the use of short blocks.
Codetta for Section 3 (bars 71 to 97)	Climax of Section 3.
Section 4 (bars 98 to 139)	Development of Section 2.
Section 5 (bars 140 to 198)	Climax of the piece through the transformation and development of Material 1.
Coda (bars 199 to 205)	Winding down from the climax.

Ex.62: Formal layout of the second movement of Duo.

As shown in the table above, the first material is employed three times in Sections 1, 3 and 5, which was planned to create a sense of teleology. For example, in Sections 1 and 3, the violin's line (Material 1) supported by the piano's sustained notes is played alternately arco and pizzicato. However, in Section 5 (bars 140 to 198), the violin's line is developed by playing only with the bow with more frequent double stops at a faster tempo, and the piano's sustained notes are transformed into trills, resulting in the second movement's climax that creates a chaotic atmosphere (see Ex.63). In bars 187 to 193 of this section, the loud non-legato septuplet semiquavers in a high register are played on the violin, further heighten the tension of the climax. Moreover, the violin's rhythms are supported by the piano's loud non-legato quintuplets and sextuplets, creating polyrhythms between the two instruments (see Ex.64). The purpose of this was to maximise the chaotic atmosphere of the climax.

Ex.63: Climax of movement 2, Duo, movement 2, bars 153 to 155.

Ex.64: Use of polyrhythms between the two instruments, Duo, Movement 2, bars 187 to 190.

The teleological conception is continued in Sections 2 and 4 where the second material inspired by *Nonghyun* is gradually transformed and developed. For example, at the start of Section 2, the sustained note of the violin is presented as the most basic form of *Nonghyun*, but it gradually develops into tremolos, trills, ornamentations and melismatic passages (see bars 35 to 48 of Movement 2). The development reaches its apogee in bars 109 to 121 of Section 4 where the violin plays much longer melismas than previously, and the piano, which supported the violin only with sustained notes, also plays melismas (see bar 109 to 121 of Movement 2).

c) Use of short blocks

The continuous change in atmosphere and tension through the juxtaposition of the two main materials in each section is further developed by interruptions through the use of short blocks that disrupt the flow of the main materials. For example, in bars 49 to 70, with the piano supporting it, the violin plays fast semiquavers (Material 1) either *forte* or *piano* in the low to mid-high registers, which creates a relatively high degree of tension. However, this musical flow is interrupted by a different slow musical line played *pianissimo* in a high register in bars 57, 62, 65 and 66, and 69 and 70, resulting in sudden changes in atmosphere and tension (see Ex.65).

The image shows a musical score for Violin and Piano. The score is divided into two systems. The first system is marked with a tempo of '♩ = 84 Caoticamente'. The violin part plays fast semiquavers, and the piano part plays a single note. The second system is marked with a tempo of '♩ = 40 Gentile'. The violin part plays a single note, and the piano part plays a slow melodic line. A red box highlights the interruption in the violin part of the second system, where the fast semiquavers are replaced by a single note. The score includes various dynamics such as *p*, *f*, *ff*, *ppp*, and *arco*, as well as performance instructions like *pizz.* and *subito ff*.

Ex.65: Interruption of Material 1 by a different musical line, Duo, Movement 2, bars 55 to 58.

Conclusion

I believe that the constant changes in tension and atmosphere that I intended in the piece were successfully realised through the alternation of two contrasting ideas and use of short blocks. Moreover, the concept of dialogue also helped in terms of balance between the instruments. However, I also felt that there are some areas where my musical intentions were not fulfilled. As mentioned earlier, the use of first ideas in each movement were partly intended to highlight the Korean nature of the second ideas by providing something different. On reflection, the first materials appear for quite a long time, which ironically makes the first material more prominent or that the two materials had equal importance. If the first ideas were used for a shorter time, the second ideas inspired by Korean playing techniques would have perhaps been emphasised more.

Chapter 7 – General Conclusion

The primary aim of my PhD study was to create pieces that incorporate Korean musical elements into a Western musical language. I initially attempted to achieve this by quoting Korean folk music, combining this with harmonic approaches inspired by Lutosławski's works for example, the division of a 12-note aggregate into three complementary tetrachords, the use of short blocks of contrasting material and an interest in teleological structures. While these Western elements were used throughout the portfolio without much change, the exploration regarding Korean influences went through significant changes and approaches, primarily focusing on the imitation of Korean playing techniques. For example, the *Arirang* melody was quoted in the eponymous piece along with the intermittent use of Korean playing techniques, *Nonghyun*, *Chuseong* and *Toeseong*. In *Reverberation after Movement*, Korean elements were intentionally excluded as I decided to focus solely on my secondary research aim, exploring the unique characteristics and capabilities of individual instruments. Going forward, I wished to continue this exploration of unique features of Western instruments in relation to Korean playing techniques, and the result of this was *Space* where the imitation of *Nonghyun* was attempted on the viola. After that, I applied not only *Nonghyun*, but also other *Sigimsae* techniques (*Chuseong* and *Toeseong*) in *Note-Play* to express a stronger Korean sound, and, as a result, required the soloist to play with a plectrum to mimic the timbre of the *gayageum*. The use of Korean elements culminated in *Chameleon* with the simultaneous presentation of various musical images inspired by traditional Korean music and the imitation of the *gayageum*'s timbre in an entire string section as well as on solo string instruments. Moreover, in Duo I found a way to solve the balance issue in *Note-Play* through the use of dialogue between the two instruments involved. As such, the process of creating the portfolio contributed greatly to developing my general compositional technique and approaches to incorporate Korean elements into a fundamentally Western musical language. However, as mentioned earlier, some of the Korean-inspired techniques overlap with Western ones, so the Korean sound may not always be apparent (see page 68). Therefore, I would like to continue to look for ways to enhance the Korean sound in my future pieces, further developing the compositional approaches I learned during my PhD study.

To achieve this, I have studied several Korean composers' pieces. First, I observed that Yun, as previously noted in Takemitsu's music, also uses many independent lines. For example, in his Symphony No.1 (1983), a number of musical lines decorated by *Sigimsae* are played

simultaneously throughout the piece, indicating East Asian or Korean musical characteristics in terms of texture. As my portfolio does not include pieces using traditional Korean instruments, I have realised through listening to and critically evaluating such pieces as Eunhwa Cho's *Back into. Out of* for Janggu (a Korean drum) and orchestra, that the use of Korean instruments could be another way to represent my Korean identity. As a result of these models, I plan to write a piece for solo daegeum (Korean bamboo flute) and orchestra divided into two movements. In preparation for writing the piece, I have decided to firstly create a piece for solo daegeum and small ensemble. The result of this was *Dialogue* for solo daegeum and four instruments (alto flute, clarinet, viola and cello) (2021). As the title suggests, the work is based on the concept of dialogue. The dialogue between the solo daegeum and ensemble appears in three ways: separation, interlock and overlapping, which are drawn from the use of dialogue in the first movement of *Duo*. The intention was to create continuous timbral contrasts between the solo daegeum and ensemble to make the lines of the solo instrument clear and effective, as in *Duo*.

The new composition for solo daegeum and orchestra will develop the compositional approaches explored in *Dialogue*. Moreover, several traditional Korean percussion instruments including the Janggu will be added to the orchestra to further emphasise the Korean sound. The first movement of the piece will explore the timbral contrast between the solo instrument and orchestra, based on the concept of dialogue, as in *Dialogue*. The second movement will focus on the simultaneous presentation of several musical images and timbral mixtures of the solo instrument and orchestra by using multiple textural layers.

Other future plans include curating a portrait composition recital in Seoul in December 2022. This will include a number of works from my PhD portfolio including *Arirang* (2018) for string quartet, *Space* (2019) for solo viola, and *Duo* (2021) for violin and piano, as well as other pieces including *Dialogue* (2021) for daegeum and 4 instruments. I believe that listening to a recital of such pieces will be an essential training process for me as a composer. The recital will allow me to get practical advice from performers, and I will be able to hear how my pieces actually sound live. Moreover, I will be able to receive feedback from a range of audience members. I believe that these things will help me develop as a composer and lead to other opportunities in future that could further develop my compositional voice.

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