The Interaction of Korean and Western Practices in Isang Yun's *Piri* for oboe solo and Other Works

by

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Abstract

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The Korean composer Isang Yun wrote for Western instruments using Western compositional techniques. Despite his overt dependence on resources developed outside his homeland, Yun took pains to invest his music with Korean emotion and thought. This dissertation explores the interaction of Korean and Western practices in Yun's *Piri* for oboe solo and other works, with particular attention to Yun's adaptation of twelve-tone technique for his own stylistic purposes. The music discussed in this study is personal in expression, yet at the same time general or universal in meaning: it embodies the ancient Eastern philosophical concept of Tao, that universal principle whereby opposites (yin and yang) may coexist.

Among the techniques that are specific to Yun's style, the most important is the main-tone technique, which Yun derived from sigimsae, the melodic ornamentation used in Korean traditional music. Main-tone technique governs the processes of Yun's music, even in those pieces that use serial techniques.

To gain a deeper insight into Yun's fusion of main-tone and serial techniques, I examine three of his works in detail: Etude for flute solo, Königliches Thema for violin solo, and *Piri* for oboe solo. Of the three analyses presented here, that of *Piri* forms the core of this dissertation, while the other two serve to introduce issues that are relevant to *Piri*. Etude for flute solo uses main-tone technique but not twelve-tone technique, thus illuminating Yun’s approach to main-tone technique independent of other constraints. Königliches Thema for violin solo is serial, treating the 20-note ‘royal theme’ of Mach’s Musical Offering as a row: this reveals Yun’s personal modification of serial technique, through intense engagement with a pre-existing melody.

In *Piri* for oboe solo, main-tone and twelve-tone techniques are not merely combined, but thoroughly interwoven. A major claim of the analysis presented here is that listeners and performers must attend to tonal patterns and registral connections that are projected on three levels: the phrase, the individual movement, and the four-movement cycle. To understand the structure of *Piri* is not simply to follow its row structure; rather, one must observe how the melodic patterns formed by main tones and their decorations may project or conceal the row structure.

Acknowledgments

Permission to reproduce the score of Etudes for Flute solo, Königliches Thema for Violin solo, And *Piri* for Oboe solo was kindly granted by Bote & Bock / Boosey & Hawkes.

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Chapter 1 Introduction

1.1 Background of the Project10

Owing to the extensive and rapid development of transport and communications, Western culture has become more familiar and natural in the East and vice versa. Their reciprocal influences are particularly evident in artistic works. There is an enormous and well-known history of Eastern-influenced music in the Western classical repertoire, manifested by subject material, compositional techniques, and instrumentation. Increasingly, this exchange is evident in Korean cultures as well; at present, there are two groups of composers in Korea who are very receptive to such an exchange. One group consists of composers of Korean traditional music who have adopted and extended Western musical concepts to spread the Korean tradition to a larger audience; this is a reflection of the current reality wherein few Koreans regularly listen to traditional music. The other group consists of Western-oriented composers who have attempted to absorb Korean musical concepts into their works. Isang Yun is a model for stylistic balance of both traditions. Neither the Western art music tradition nor Korean traditional styles are given overt prominence, allowing both traditions to breathe and converse together. In these efforts, Yun truly enriches both traditions by creating a new sound that is strikingly original and organic.

1.2 Isang Yun[1]

Example 1.1 Statue of Isang Yun in Docheon Theme Park

Yun could be called a composer on the boundary between Korean and Western music. He went to Europe at age 39 to study composition. Although he planned to return

1 Isang Yun was born in 1917 in Sangchun, southern Korea and moved to Tongyeong in 1920 where he grew up. He studied composition with Ikenochi Tomojiro at the Osaka Conservatory in Japan. After coming back to Korea, he taught music in Tongyoung, Pusan, and Seoul. When Isang Yun was 39 years old, he went to Europe for further study with, among others, Pierre Revel at the Paris Conservatoire and Boris Blacher in Berlin; he also attended the International Courses at Darmstadt. In 1967 Yun was seized by the Korean government while in Germany, and interned in Korea until 1969. After returning to Germany, Isang Yun received West German citizenship in 1971. He continued to teach and compose, and never returned to Korea. He died in Berlin on November 3, 1995 (Summary from Jisuk Choi, *Yun Isang*, 6th ed. [Seoul: Kouhaksa, 2004]).

to Korea, his political situation made that impossible, and he lived in Europe until his death in Berlin. His compositional style was distinctly Western in that he never wrote strictly traditional Korean music, nor did he compose works for Korean traditional instruments. As was common among mid-century Europeans, Yun made use of post-tonal Western compositional techniques, particularly serialism. Nonetheless, the Korean traditional methods are buried within his artistic effects; his use of Korean styles is concealed, yet fundamental. The sound of Yun's music reflects the two worlds in which he lived.

All cultures carry qualities traditionally manifested through art. A touchstone of Korean tradition is the concept of *han.*[2] This is a mixture of sorrow, regret, pain, and yearning perpetually sublimated. *Han* is a part of Korean culture, and therefore a part of Korean experiences. Yun's life experience mirrored a significant slice of Korean *han*. Born while Korea was a Japanese colony, Yun was arrested as a college student. Following liberation and the Korean War, Yun moved to Europe, unable to accept the division of Korea into two countries. His visits to North Korea from Europe led to his 1967 abduction from Germany by the KCIA (Korean CIA) under suspicion of spying. Although he was tortured, he was eventually released, in 1969, and returned to Germany. He never went back to Korea after this. This is Yun's *han*, the tragic division of the Korean peninsula and people, part of the larger Korean narrative of *han* encompassing constant warfare, occupation, and division. This shared cultural history permeates the Korean musical tradition, and Yun's interpretation of music thus mirrored both the wider

[2] I follow the Transliteration of Korean as dictated by the National Institute of the Korean Language (http://www.korean.go.kr/eng/roman/roman.jsp).

cultural history and his own specific *han*. His use of traditional musical techniques reflects this ever-present thread of emotional connection to Korea, despite the prominent European musical features and his own European residence.

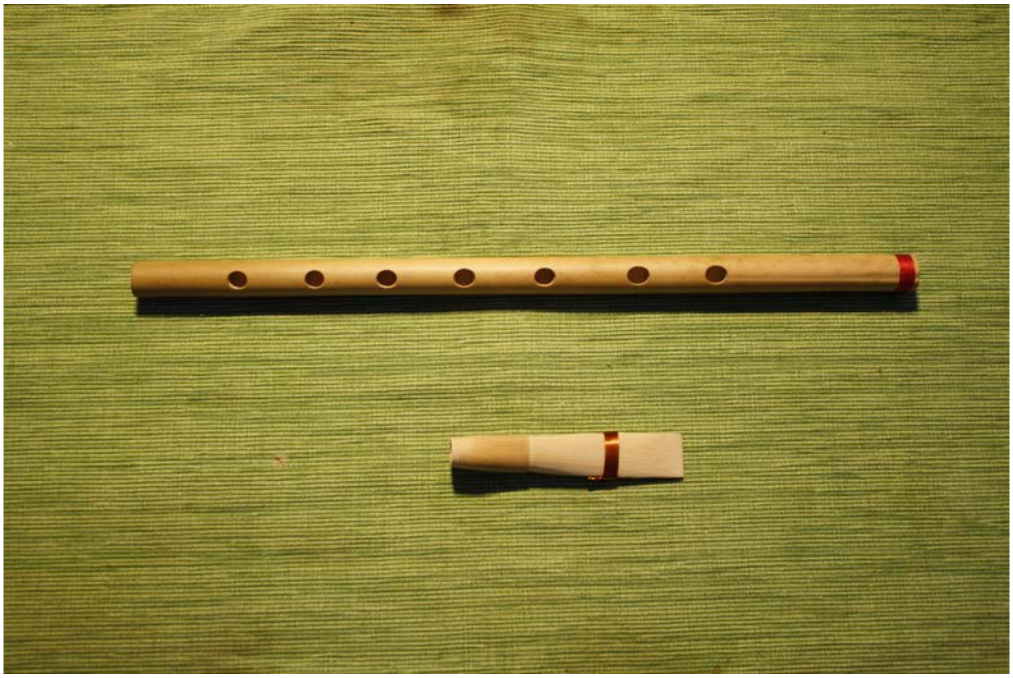
As a Korean who plays a Western musical instrument, the oboe, I am very interested in oboe works composed by Koreans. Yun is prominent among these; his *Piri for oboe solo,* from 1971, has entered the repertoire of oboists interested in contemporary music. This is a tremendously difficult piece, both technically and in its conceptual background. As the title suggests, the music is a lively interpretation of the Korean instrument *piri*, which is quite similar to the oboe. Yun translates the style associated with the Korean instrument into a piece for the modern oboe. Because of Yun's synthesis of Korean and Western musical traditions, it is imperative in performing this piece to understand the composer's adaptation of Western twelve-tone technique, the specific character of the Korean *piri,* and Korean traditional music in general. By examining *Piri for oboe solo,* the nature and form of this synthesis can be fully understood, and the particular contribution of Yun's achievement appreciated.

1.3 Korean traditional instrument, *Piri*

Example 1.2 Hyang-piri, Dang-piri, and Se-piri from the left (kr.blog.yahoo.com)

The *piri*, often called a Korean bamboo oboe, has eight finger holes without any mechanical keys; there are seven finger holes on the front and a back thumbhole. Like the oboe, it is held vertically; the *seo*, a long and wide double reed, is almost identical to the oboe reed. There are three kinds of *piri*. The *hyang-piri* is gentle, the *se-piri* higher pitched, and the *dang-piri* darker sounding. Of late, more members of the piri family have emerged, responding to improvements and developments for the performance of modern music; this is similar to the development of the English horn and Heckelphone.

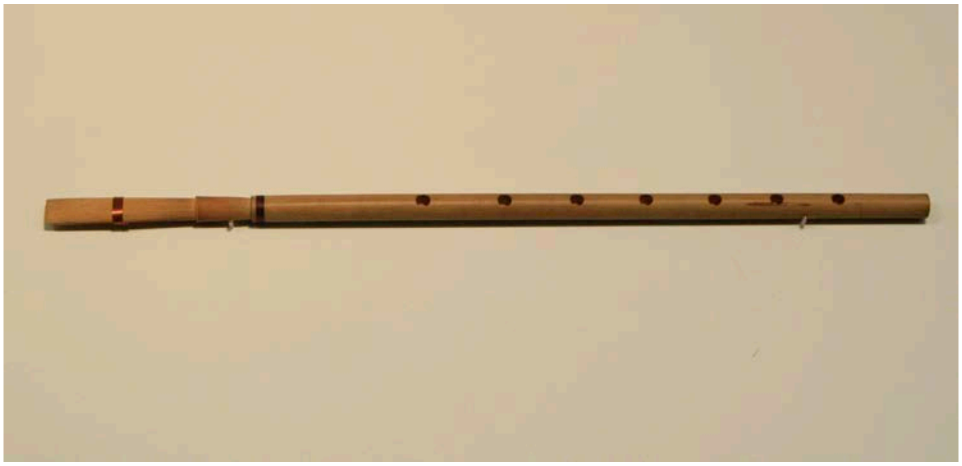
Example 1.3 Hyang-piri's Kwan and Seo from the top



The *hyang-piri*[3] is the principal piri family member, and to what "piri" in Korea refers. The *piri* is about 25 cm in length and 1 cm in diameter. It consists of two parts, the *gwan* and the *seo*; the seo is the double reed, long and wide; the gwan is the body, much simpler than that of the oboe, made of sinude, thick bamboo. The *hyang-piri* is tuned to Ab. The *piri* is one of the smallest Korean instruments; despite the small size, the sound is large. With its distinctive tone quality and timbre, the piri is the leading melodic instrument in Korean traditional orchestras. The *piri* player, called the mokjapi, is the equivalent of a concertmaster and leader of the Korean traditional chamber ensemble. Therefore, the *piri* holds a very prominent position within Korean music.

[3] "*Hyang-Piri*" is properly the pronunciation of the written form "*Hyang-Pilyul*"; however, I have decided to use the spoken transliteration throughout for clarity.

Example 1.4 Se-piri



The *se-piri* is functionally identical to the *hyang-piri*, but a little shorter (about 23 cm) and slenderer (less than 1 cm), and consequently has a slightly smaller range. The narrow body gives the se-piri a smaller and gentler tone, making it appropriate for lyrical poetry-chanting genres, *gagok*, *sijo*, and *julpungryu*.[4] Its use is limited to aristocratic genres, similar to the soprano oboe's limited role in the Baroque era.

Example 1.5 Dang-piri (kr.blog.yahoo.com)

[4] Gagok is a vocal genre of Korean traditional music accompanied by a small ensemble.
Sijo is a vocal genre with the text of Sijosi, Korean traditional poem.
Julpungryu is an ensemble genre composed for string instruments, daekeum, and se-piri.

The *dang-piri* again differs slightly. The gwan(body) of the dang-piri is thicker and made of hard bamboo, o-juk, rather than the softer hwang-juk.[5] The resulting range is higher than that of the *hyang-piri*. It is tuned to C rather than Ab and the sound quality is somewhat burlier and coarser. According to the *ajik* and the *se-jong silrok* (historical Korean literature), the dang-piri once had nine fingering holes, two on the back. By the time of the publication of the *akhakgwebeom*, a guide to Korean music in 1493, the *dang-piri* was reduced to the 8 holes still in use and shared by the *hyang-piri* and *se-piri*.

Example 1.6 Akhakgwebeom

Koreans are typically very familiar with the general qualities of the *piri*, as most children play with related instruments such as *beodlpiri*, *pulpiri*, and *boripiri*, all of which copy the sound of the *piri*.[6] Because of this association, Korans often refer to most woodwind instruments as *piri*; thus the *piri* stands not only for a specific instrument but

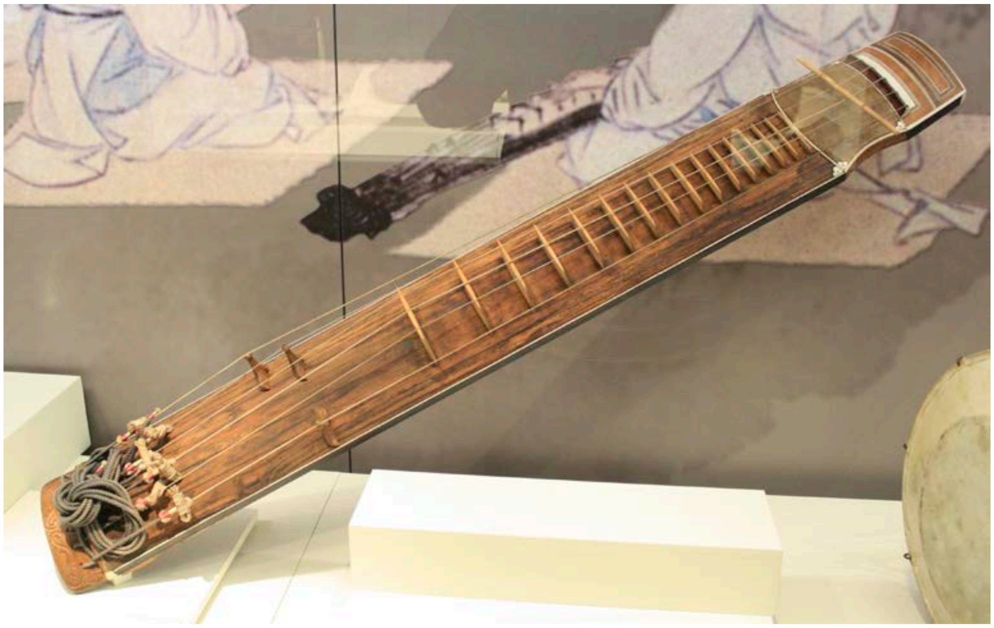
[5] O-juk is a type of bamboo, of which the trunk is black.
Hwang-juk is normal bamboo.
[6] *Beodlpiri* is made of the branch of a willow tree.
Pulpiri is made of blades of grass. Boripiri is made of barley straw.

for a class of music-making instruments. Yun uses the *piri* according to this understanding. In his works, he often imitates Korean traditional instruments with Western instruments; the *daekeum* is conjured by the flute, *geomungo* by cello, *taepyeongso* by trumpet, *piri* by oboe, and so on.[7] In two cases, he uses the names of traditional instruments in titles to refer not to the instrument played, but rather to the musical genre reflected. “Symphony *Bara*” (1960), refers to a cymbal-like instrument used in Buddhist ceremonies, but the music itself does not come from that instrument directly. Similarly, the “*Piri* for Oboe solo” (1971) use “*piri*” to describe the kind of music, played on a different instrument. In this manner, Yun uses a Western instrument to imitate a Korean traditional instrument and genre. The musical feeling thus captured is the nostalgia of *han*, translated by Yun through his own main-tone technique.

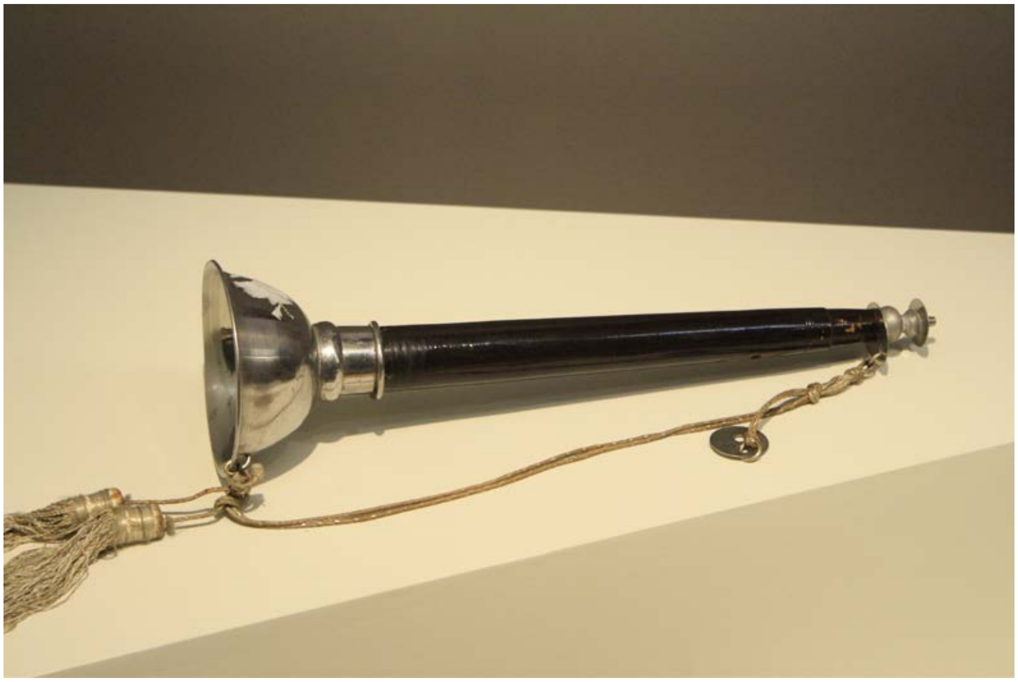
[7] *Daekeum* is made of bamboo. It is a Korean traditional woodwind instrument, which is held and played transversely as a Western flute.
Geomungo is a typical Korean string instrument.
Taepeongso is a Korean traditional wind instrument that looks like a Western trumpet.

Example 1.7 Daekeum

Example 1.8 Geomungo



Example 1.9 Taepeongso



Chapter 2 Main-tone technique

2.1 Main-tone technique

In Western music, the three basic elements of music are melody, rhythm, and harmony. The three elements of traditional Korean music are melody, rhythm, and sigimsae; there is no harmony in the Western sense in Korean music. Thus, to understand the differences between Western and Korean music, the starting point is an explanation of sigimsae. All instruments play the same basic melodic line in an ensemble. However, each instrument is allowed to add sigimsae (ornamental notes) to the basic melody; because of these sigimsae, harmony sometimes appears casually, but this is not functional harmony. In example 2.1, all instruments play the same melodic line, *ajaeng*[8], as shown on the bottom of the score, with sigimsae.

[8] *Ajaeng* is seven stringed instrument covering low ranges.

Example 2.1 Sujecheon (mm. 1-4)[9]

The melody in Korean music is composed with a five-, four-, or three-note scales (see example 3.1 on pp. 45-46). While pentatonic and other scale systems appear in Western music, they are often heard within the context of the major or minor scale. Often, a melody, such as Foster's "Oh Susanna" (example 2.2), is composed using a pentatonic scale; however, this entire piece is in G major and supported by the implied harmony. The F# and C missing from the melody are concealed within the harmonic structure. The melody exists within the listener's perception as a tune in G major. The melody itself is a pattern on top of a stable root tone.

[9] Ki Su kim's script, *Korean Traditional Music book I* (National Gugak Center, 1991).

Example 2.2 Oh Susanna by Foster

A similarly constructed Korean tune – *arirang* (Example 2.3) – is also built on a pentatonic scale. However, the melody is not supported by explicit or implicit harmony. In addition, rather than a constant move to and from the tonic (or any other note), the Korean style emphasizes notes as sectional areas. Thus, notes moving around and towards Bb are in the Bb section; those moving around Eb are in the Eb section; and so on.

Example 2.3 Arirang, mm. 1-4

Bb Eb (G) Eb Bb

The point of the Korean style is not the motion from one note to another, but rather the alteration given to each important note.

Another example, *peong Sijo*[10] (Example 2.4), consists of four notes (Eb-F-Ab-Bb). It is very clear that Ab and Eb are important, and that F and Bb exist in the piece to decorate Ab and Eb.

[10] Peong Sijo is the simplest Sijo.

Example 2.4 Peong Sijo, mm. 1-4

This system of important notes can be considered hierarchical. There are two groups of notes in music: the main tones, and the sigimsae notes that decorate the main tones. This hierarchical organization of main tones makes a terraced progression, while Western music moves in a more linear scale progression. Moreover, each main tone of Korean music can exist for itself without any relationship with a previous or following main tone. As Yun once said, "Each note in Korean music has a particular vitality, and is a musical phenomenon in itself, but in Western music each note is really not so: it must be united and connected with others in order to create the musical phenomenon. Each note of Korean music has its own life."[11] Here, "each note" refers to a main tone, each of which goes through a phenomenological cycle of beginning, changing (progress), and ending. This concept is crucial to understanding the differences between Korean and Western music, and the way in which Yun navigates those differences in his music. Yun wants to determine whether composition based on one note is possible. I shall use an

[11] Yun Isang and Luise Rinser, *Yun Isang* (Seoul: Ssiat Books, 2003), 114 (my translation).

adaptation of Yun's concept of "main-tone technique," to examine to Yun's personal use of traditional Korean elements in his music. Yun called his technique Hauptton-Klang in German and Juyoeun Kipeop in Korean. Translated into English, this is "main-tone," and "main-tone technique" respectively. However, my use of the term differs from Yun's. While the composer used "main-tone" to refer to a single tone and its decorating notes, I expand the concept to the relationship between many main tones within the entire piece.

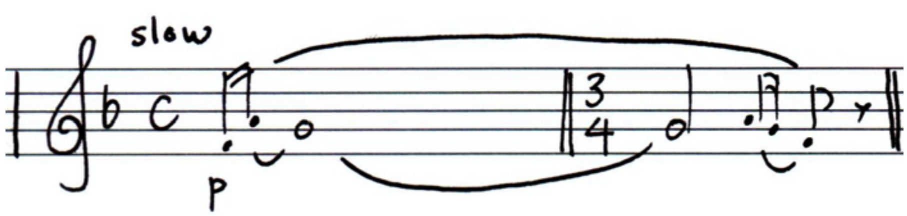
Until the advent of experimentalist minimalism, one note was not considered music in the Western classical tradition. In particular, the Germanic musical tradition requires development and change; in music based on the main-tone technique, there is a single-pitch focus at a given time. In Korean music, one note alone can provide the musical focus of a composition. For example, in the phrase from a traditional Korean melody (*Piri Garak*) shown in example 2.5, Ab is the main tone of the phrase; the other tones are subordinate to it. Measure 3 starts with Ab, which moves to a Db bended up a quarter-tone; Ab returns immediately and is sustained to the end, when Ab slides down through G. Db and G are dependent on the main tone, moving either to or from Ab; thus the phrase can be heard as an elaboration of one note, Ab. This Ab begins, changes, and ends; it exists by and for itself without any structural relationship to the previous or following main notes.

Example 2.5 *Piri* Garak (melody for *Piri*)

Gwanak Yeongsanghoesang from Sangryeongsang

Cheongseong-gok offers an expansion of this concept (example 2.6). The music begins with the grace notes F and A, moving rapidly to the main tone G. This G is held over a measure before suddenly falling over the grace notes, A, G, and F. In this phrase, G is the main tone and other notes (sigimsae, F and A) decorate the G. The score itself contains no vibrato or dynamic markings; however, variation of vibrato and dynamic are allowed for, depending on the ability of the performer.

Example 2.6 Beginning of Cheongseong-gok

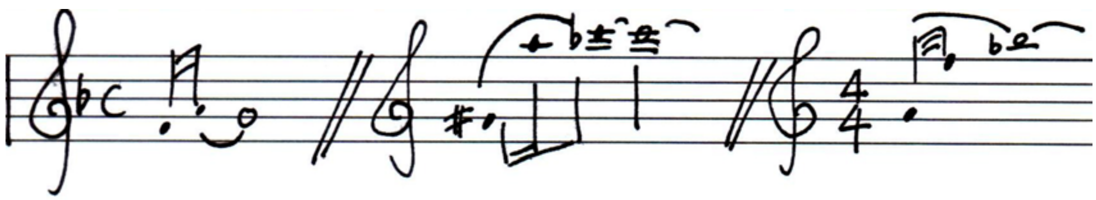


Piri contains phrasing quite similar to the *cheongseong-gok*. At the beginning of the first movement (the example 2.7), the opening G# and A rapidly jump up to the main tone Eb, over a decrescendo from f to mp; Eb then crescendos from mp to f. The G# and A are sigimsae decorating the Eb, which itself contains a musical expression via the performer's crescendo technique. Referring back to the analysis of the *peong sijo*, another facet of the main tone technique becomes apparent. Having pulled out which notes are sigimsae and which main tones, the musical material is clearly built on Ab and Eb. They exist within and for themselves, not reliant on other motions. However, because the composer included those sigimsae notes, they are important as components in the life cycle of the main tone. In this way, the main tone actually encompasses both that tone and all the sigimsae notes and performance techniques that give it variety. The main tone as a concept consists of the tone and all its decorations.

Example 2.7 mm. 1-4 in *Piri*

In the first movement of Etudes for solo flute, Yun's main tone technique is applied more broadly. The movement opens with a sigimsae A and F, widely spaced, moving to Bb. As with the *Piri*, this initial motion clearly imitates the *cheongseong-gok.* The main difference – the expanded intervallic motion – reflects Yun's awareness of the reason behind the traditional opening. The ranges of traditional Korean woodwinds are very narrow – the instrument piri covers only one octave plus five notes – but Western woodwinds are capable of a very wide range. By expanding the range of the traditional Korean opening gesture over more than an octave, Yun melds the Korean style and tradition with Western mechanics.

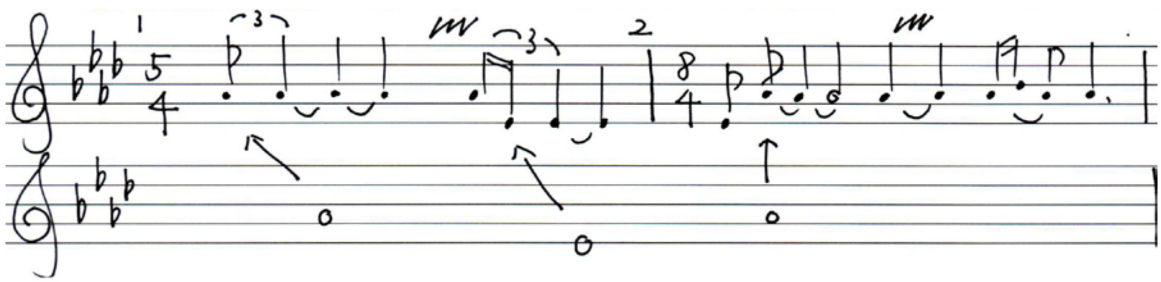
Example 2.8 m. 1



Cheongseong-gok Piri Etudes

I have defined sigimsae as decorating the main tone; thus, sigimsae is quite similar to Western ornamentation in outward appearance. However, the application of sigimsae technique differs considerably from Western ornamentation. The most fundamental distinction is in terms of what can actually be sigimsae; in Korean music, the decoration goes beyond notes on a scale to include systematic use of performance techniques. In Western music, such techniques are considered distinct from note-based ornamentation; in Korean music, they are all sigimsae. Consider the *peong-Sijo* again (example 2.9). The first two measures consists of only three notes, Ab, Eb, and Bb. Because Bb is a grace note to decorate Ab, these two measures consist of only Ab and Eb. However, the Bb is not the only sigimsae application. Ab and Eb are decorated with variation of rhythm, strength of attack, and timbral modification. Moreover, the musical symbol (vw **)** appears in both measures, to indicate a vibrato much wider than normal **–** the intonation should be turned a certain degree as determined by the abilities of the performer.

Example 2.9 Peong Sijo, mm. 1-4



Ab Eb Ab

The *geomungo*, a traditional string instrument similar in sound to the Western cello and played in the same manner, offers another example. This section of *geomungo sanjo*, only two measures long, nonetheless contains many sigimsae marks. The notation **|** indicates a note bookended by a rapid iteration of the same tone an octave lower. The symbol ㅎ only appears on Bb, and denotes plucking the string with the finger, as with Western pizzicato. A note preceded by that tone one octave lower is written as ∨ , while ∧ is to play that tone an octave higher. The notation *cm* indicates a wild vibrato coming after a strong attack.

Example 2.10 Geomungo sanjo from Sinkoedong-ryu

There are many other sigimsae techniques in Korean music; the role they play is best explained by the Chinese-American composer, Chou Wen-Chung as “deviations”. Chou defines the most important feature each in Eastern music as being its “deviations”: a single note is characterized by how it deviates from its original character using musical materials such as intonation, attack, length, and so on.[12] In this sense, sigimsae are all the deviations, and combinations thereof, that can be applied to a note.

2.2 First movement of Etudes for Flute solo [13]

Etudes for Flute solo was composed in 1974. This music is very similar to *Piri* in its use of main-tone technique, although it is not composed with the twelve-tone system; however, the main-tone technique used in the Etudes, being clearer in execution, offers a useful introduction to the main-tone technique before embarking on a study of *Piri*.

[12] Wen-Chung Chou, *Single tones as musical entities*, (American Society of University Composers, Proccedings 3, 1968), 86-97.
[13] Score in appendix 1-2

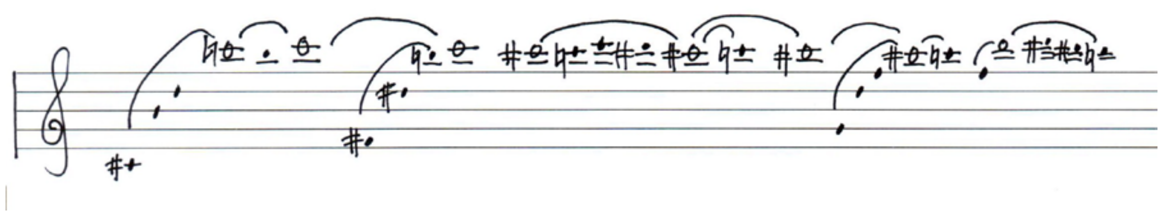
At the beginning of the Etudes, the main tone Bb is decorated by a preceding A and F and followed by sigimsae notes G, Ab, C, B, and A (mm. 1-3). The same motive repeats (m. 4), followed by sigimsae Ab-C-B-A leading to Bb.

Example 2.11 mm. 1-6 in Etudes for flute solo

Bb ---Bb-------------------Bb

The following phrase (mm. 8-27) starts with sigimsae C#-B-D moving to the main tone C. C continues with a brief interruption by sigimsae B; the phrase repeats (mm. 8-16) before reaching C# (m. 17). A similar pattern continues until D is reached in m. 24

Example 2.12 mm. 8-27 in Etudes for flute solo



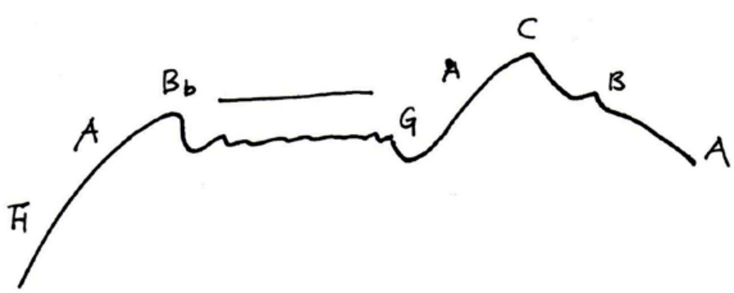
C C# D

m. 8 m. 17 m. 24

Thus, while the first phrase had only one main tone, Bb, the second moves through main tones C, C#, and D.

In the Etudes, all phrases are composed with the main-tone technique. Consider the first phrase again; the first two notes (A, F) crash into the main tone, Bb. The main tone is severely shaken by the impact of the sigimsae; the accent mark on Bb also indicates this crash. The main tone rapidly recovers composure, continuing calmly with normal vibrato. It is disturbed again by sigimsae notes and finally the phrase stops on A. The phrase is repeated nearly exactly. The drawing below (example 2.13) graphically depicts this phrase.

Example 2.13 Illustration of the first phrase



All the phrases using main tone technique in the pieces discussed in this dissertation can be illustrated by example 2.13. This is not coincidental. Compare the above drawing with the picture of the Western god of the Sasindo (example 2.14).

Example 2.14 Paekho of Sasindo (kr.blog.yahoo.com)

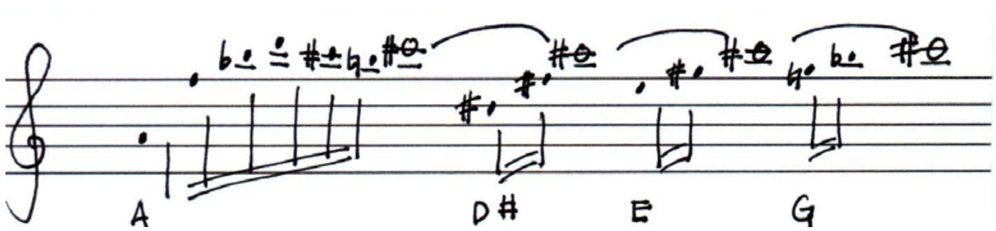
Sasindo is the pictures of the four gods – cheongryong, paekho, jujak, and hyeonmu – that govern the world's East, West, South, and North. This Sasindo is in a tomb constructed in the Goguryeo period: 37 BCE – 668 A.D.

The animal is paekho, dragon with a tiger's head; from 1960 on, this picture was in Yun's house. The shape of the paekho is distinctly similar to that of the main-tone phrase graph. Because the paekho embodies aspects of Taoist esthetics—complementation—the main-tone phrase, therefore also reflects Yun's musical interpretation of Taoist principles.

Returning to the Etudes, the phrase in mm. 28-48 consists of five main tones (F#, E, D#, D, C#) and their sigimsae. While the overall shape remains close to that of the paekho, the progression of the sigimsae is varied in mm. 32-33 and in m. 46. In mm. 32-33, the main tone (E) is consistent despite frequent sigimsae interpolations; all are brief decorations of the E. The repetitive sequencing of the sigimsae forms a melodic line – G#-A-C#-E-F – under the main tone. The same pattern recurs in m. 46: while C# dominates the upper voice, the sigimsae underneath create A-D#-E-G. Further examples of this structure are found in m. 53, m. 66, and m. 75.

Example 2.15 mm. 32-33

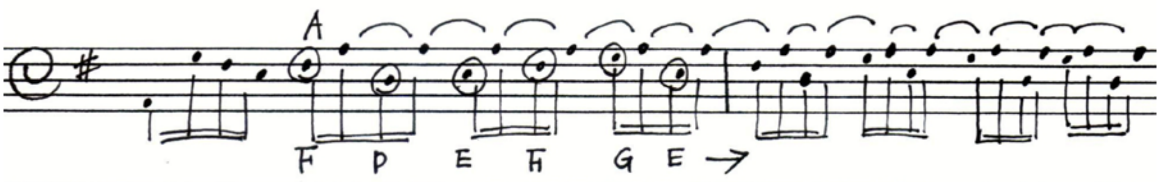
Example 2.16 m. 46



To better understand the aesthetic effect of this sigimsae, it is useful to consider Bach’s use of a similar technique in his Suites for Solo Cello, BWV 1007-1012. In the

Prelude to the Suite in G (BWV 1007), A is sustained in the top voice, while the melodic line created by running notes forms underneath.

Example 2.17 mm. 31-32 from Bach Cello Suite No. 1, Prelude

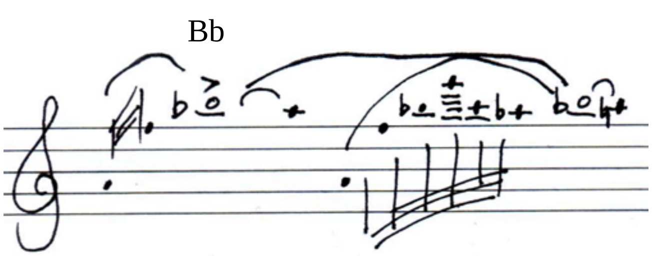


Yun adapts this Bachian technique to the Korean aesthetic by altering the focus: the main tone is what the audience is listening for, while the melodic line is a waving replacement for harmony.

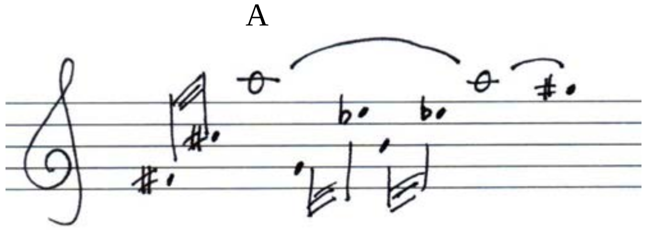
The following phrase, mm.49-64, moves through main tones Bb-A-G#.

Example 2.18 mm. 49-64

mm. 49-53



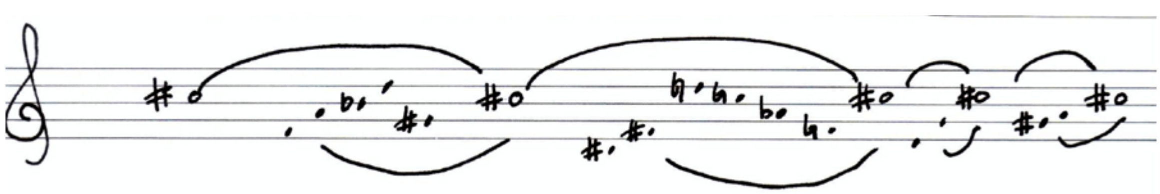
mm. 53-58



mm. 59-64

The next phrase, mm. 64-69, is more complicated, as the main tone, C#, is frequently interrupted by sigimsae.

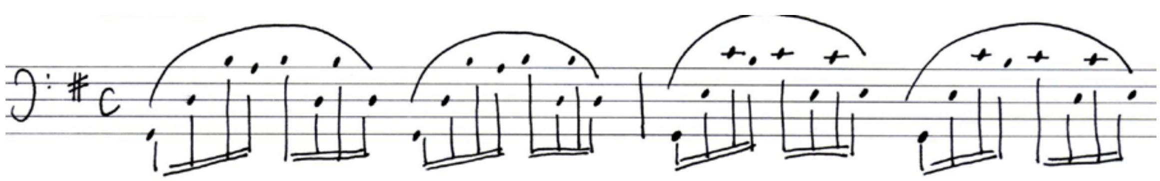
Example 2.19 mm. 64-69



The same holds for the phrase in mm. 69-79; the main tones are interrupted with unexpected material, making it difficult to follow the line. In m. 69, between the first beat (C#) and third beat (Db), there is a group of sigimsae triplets (E-Bb-Db-C-G-B). These do not function like other sigimsae notes, in that they are not immediately incorporated by the main tone. In addition, it is uncertain whether this group belongs to the preceding main tone (C#) or the following (C); they seem nearly independent and keep the main tones from connecting to one another.

Another similar example appears in mm. 72-74. In mm. 70-71, the main tone is C; in mm. 72-74 there are two options. First, F can be treated as the main tone; while the rapid passagework is repeated in rhythmic sequence, the first and lowest note of this passage, F, is emphasized as the main tone. This recalls Bachian technique. Consider the example below. While the same figure is repeated, over a harmonic pattern, the bottom note, G, is continually heard as the pedal tone.

Example 2.20 mm. 1-2 from Bach Cello Suite No. 1, Prelude



G G G G

A second better option is to treat the passage in mm. 72-74 as sigimsae decorating the following main tone, Bb (m. 74). Each small fragment that forms the passage is expanded from a very short opening motive, F-A-Bb; the motion towards Bb is therefore essential to the music's construction. Because Korean music encourages expanded sigimsae passagework, mm. 72-74 can be seen as Yun's expansion of the A-F-Bb motion. In measure 75-76, A takes over from the preceding main tone Bb; in m. 76, however, the increasingly distant sigimsae weaken A, until Yun adds an accent on A to reconfirm it is the main tone. At the ending of m.76, the accent is on F# and, in the middle of m. 77, it recurs. This emphasizing of F# suggests that it is the main tone. However, it is more appropriately considered a secondary main tone; it is shorter than the other main tones and interrupted by long sigimsae. In mm. 77-79, another Bachian phrase, there are similarly two options for the main tone. First, C# can be treated as the main tone. Rapid passagework starting on C# is repeated in sequence nine times. Alternately, these gestures may all be considered sigimsae decorating F#; that is, the C# sequences indicate a secondary tone to the secondary tone to the main tone: A ← F# ← C#. C# relates back to F#, which in turn relates to A.

In this manner, this music moves through the main tones as figure 2.1.

Figure 2.1 Main tones of the First movement of Etudes for Flute solo

	Bb –	C –	C# -	D –	F# -	E –	D# -	(D) -	C# -	Bb –	A –	G# -	C# -	C -	(F) –	Bb –	A-	(F#-	(C#))
mm:	1	8	17	25	28	31	36	45	46	49	53	59	64	70	72	74	75	77	77-79

The Etudes for Flute solo offer a fairly clear example of main-tone technique in compositional construction, showing clearly how sigimsae both define the main tones and expand the musical material. This technique is a prominent feature of *Piri*, and I will discuss it further in that section.

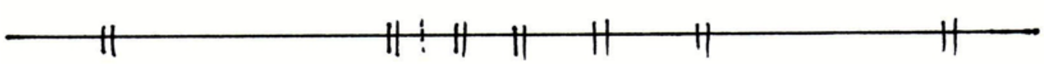
2.3 Königliches Thema for Violin solo[14]

Königliches Thema for Violin solo was composed in 1976 using serial technique. It also shows vestiges of Yun's main-tone technique, but in a very different manner than that used in the Etudes for Solo Flute. The theme is consequently useful for isolating Yun's use of serialism, as well as exploring another version of the main-tone technique prior to the discussion of *Piri*.

This piece is played without pause in a single movement, although the tempo changes five times. A row consisting of 20 notes appears as P0, P3, P7, I0, I2, I7, and I10. However, changes of tempo and row form do not necessarily align with formal divisions; Yun indicates these with double bar lines to indicate the eight sections in which various styles or textures appear.

Figure 2.2 Kőnigliches Thema for violin solo

Theme ♩ = 88 ♩ = 66 ♩ = 76 ♩ = 88 ♩ = 66



P0 P0x3 I0 P0 I0 P0 I7 P3 I10 P7/I2 I2 P0 P0

A B C D E F G

[14] Score in appendix 3-6

In some cases, the sectional divisions overlap with new tempos and/or row forms. The multifariousness of tempo, row form, melody, harmony, and affect evident in these sections suggests a theme-and-variation form. I have identified seven variations in addition to the initial theme; these are labeled A, B, C, D, E, F, and G. Most of the variations coincide with Yun's double-bar lines, although there are exceptions. The theme occupies staves 1-2; A = staves 3-7. B = staves 7-13, with a tied note eliding the double bar line in stave 11. C begins on the last note of stave 13, continuing through stave 20; D = staves 21-24. E = staves 24-31; there is no double bar line, but the tempo changes for F at staves 32-37 and G returns to the cut time of the theme, staves 37-41.

The theme itself is taken from Bach's *Musical Offering* (BWV 1079), and is nicknamed "Königilches Thema" (Royal Theme) because it was thought to have been composed by Frederick the Great of Prussia, at whose court Bach first improvised upon this theme. This translates into a very loose serial row of 20 tones; essentially, by taking a tonal theme and treating it as a row, Yun applies serial techniques without limiting himself to twelve tones.

Figure 2.3 Theme in mm. 1-10

P0: C – Eb – G – Ab – B – G – F# – F – E – Eb – D – Db – C – B – G – C – F –Eb – D – C

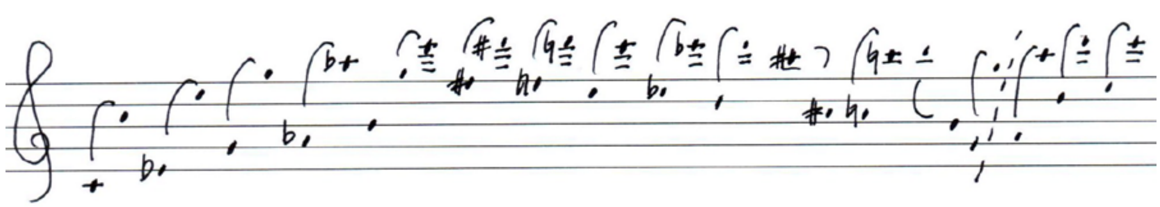
P0 is in cut time; following its initial statement, a long section marked "4" implies a basic, but not strict, 4/4 pattern. This section, A, can be regarded as the first variation. The third and fourth staves repeat P0 three times. The opening gesture – a slow phrase repeated uptempo – is similar to the format used in the Grave movement of the French overture. Therefore, the piece initially sounds like a tonal composition using Baroque forms. The appearance of I0 roughly two-thirds of the way through the fourth stave occurs in the same phrase as the preceding P0.

Figure 2.4 I0 in staves 4-5

I0: C – A – F – E – C# – F – F# – G – G# – A – Bb – B – C – C# – F – C – G – A – Bb – C

P0 is restated when I0 concludes; however, from this point on, the music mutates into Yun’s own style.

Example 2.21 P0 in staves 5-6



C – Eb – G – Ab – B – G – F# - F – E – Eb – D C# C B G (A D E)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 - - -

This statement of P0 contains only the first fifteen notes, which are presented as "broken octaves"; the melody is thus projected in two registers. This is followed by non-row notes (A-D-E); the E is repeated with octave shifts as well. The exclusion and addition of notes from and to the row are features of *Piri* as well.

In the sixth stave, I0 appears again, but with a different construction. It does not start on 0 (C), but rather on B; in addition, the sixth note (F) is missing.

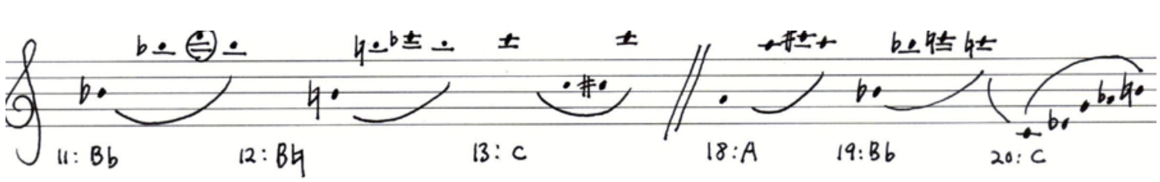
Figure 2.5 I0 in staves 6-7

B(C) – A - F- E - C# - (F) - F# - G - G# - A – Bb – B – C - C# - F – C – G – A – Bb - C

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Tones 11, 12, 13, 18, 19 and 20 move by octave shifting; interestingly, other notes are interpolated into the shift; these tones jump over extra notes.

Example 2.22 Tones 11, 12, 13, 18, 19, and 20 in staves 6-7



As I_0 concludes on C, P_0 briefly re-enters, C-Eb-G-Ab-B. Interpolating extra tones into the row and borrowing from other row forms expands and complicates the musical space. As a whole, the first variation remains fairly close to the Bachian theme. Only P_0 and I_0 appear, and the largest alteration is in the rhythmic variation of the melody.

The second variation (B in staves 7-14) displays Yun's free manipulation of serial technique. B consists of P_0, I_7, a passage not using the row, P_3 and another non-row passage. Each occurrence of the row is composed as a melodic variation of the theme. P_0 and I_7 are separated by a dotted bar line in the 9th stave but I_7 and P_3 are separated by the double bar lines in stave 12. Though P_0 states all 20 row tones, I_7 and P_3 respectively states 15 and 13 of the tones. In this variation, Yun combines classical variation form with his main-tone technique. The main tones are melodically decorated by extra notes as in classical variation form; however, these extra notes are too weak to be part of the melodic theme because of their unorganized appearance, and thus function as sigimsae.

The statement of P_0 contains each row tone decorated by licks. Thus, the row tones serve as foundation notes, much as in the example from the Bach Cello suite No.1 discussed earlier; this is emphasized by the accent on each row tone. The music is subdivided into nine groups of twelve notes, in each case the twelve tones of the chromatic scale (see figure 2.6). Each group contains two or three row tones (i.e., the accented notes at the beginning of each beamed group), and do not overlap except in the fifth group, where D is repeated, and in the sixth group, where the last two notes of the fifth overlap. There is no apparent system to arranging the twelve tones; they do not create independent rows, as is evident from the lack of recurrence from group to group. This is purposeful; Yun consciously avoided making these note collections structural.

Figure 2.6 P0 in staves 7-10

P0: C – Eb – G - G# - B – G - F# - F – E – Eb – D - C# - C – B – G – C – F – Eb – D – C
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Section B (starting on Stave 7)

1: **C** – E – F# - A – Bb – D –**Eb** – F – Ab – G – B – C#

2: **G** – C – C# - F – A – Bb – B – **G#** - E – F# - D – G

3: **B** – C# - E – F – C – F# - **G** – Bb – Eb – D – G# - A

4: **F#** - A – G# - C – D – Bb – **F** – G – C# - B – D# - **E**

5: D – F# - A – Bb – **Eb** – Db – Ab – G – (**D**)– E – B – (**C#** - F)

6: (C# - F) – F# - **C** – A – G# - E – **B** – Bb – D – Eb – **G**

7: E – F# - G# - **C** – Bb – D – Eb – **F** – B – A – C# - G

8: **Eb** – C – B – G# - A – C# - **D** – Bb – G – F# - E – F

9: **C** – Eb – D – F# - G – Bb – E – C# - B – A – Ab –F

By avoiding connections between the note collections, Yun manages to include many notes while still keeping the focus on the P0 tones. While the individual notes progress desultorily, the row tones are accented and ordered for audibility. Thus each row tone functions as the main tone, extra notes are sigimsae. In this way, Yun alters the classical variation technique – based on decoration – to embrace both main-tone and post-tonal structures.

The presentation of I7 continues this technique. I7 extends from the middle of stave 9 to the first note of stave 11. Again, the main row tones are decorated, and are grouped together by twelve notes into six groups. This row is cut off at the 15th note, C. From the following B to the bar line, a bridge-like expansion connections I7 to the following P3; this passage is not organized by row or main tones. A similar section occurs in *Piri* as coda and codetta to connect the movements.

Figure 2.7 I7 in staves 9-11

I7: G – E – C – B – G# - C – C# - D –Eb – E – F – F# - G – Ab – C ---- bridge
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

1: G –Eb –Db – Ab –A – F – E – D – B - C – Ab – Gb

2: C – A – G# - E – C – B – Bb – B – F – Eb – G – D

3: G# - E – C# - C – F – B – C – G – D – Eb – A - G

4: C# - G# - A - F – Eb – G – D – Bb –E – F# - D – Eb

5: G – C# - A# - A – E – F# - B – C – D – F – Eb – Ab

6: F# - E – D# - G – C – C# - F – Ab – A – G – F# - C

P3 extends from the bar line in stave 11 to the ninth note of stave 13. The row tones are main tones, decorated and arranged by sigimsae but they are not in groups of twelve notes covering the chromatic scale. The 13th tone, Eb, is followed by another non-row passage that acts as a bridge.

Figure 2.8 P3 in staves 11-13

P3: Eb – Gb – Bb – B – D – Bb – A – Ab – G – F# – F – E – Eb --- bridge
1 2 3 4 5 6 7 8 9 10 11 12 13

The third variation (C) develops this main-tone technique further (staves 13 – 20). All 20 row tones appear as I10.

Figure 2.9 I10 in Staves 13-20

I10: Bb – G – Eb – D – B – Eb – E – F – F# – G – G# – A – Bb – B – Eb – Bb – F – G – G# – Bb

Each row tone appears using the same technique as in variation B, as a main tone decorated by sigimsae. These main tones are emphasized by lengthening; they are half or dotted quarter notes, while the sigimsae are sixteenth notes or shorter. Moreover, the decorations range over three octaves through scales and arpeggios, a technique reappearing in *Piri*. Because of their speed and figuration, these sigimsae sound more decorative than the collections of notes attached to the main tones in the previous variation.

The fourth variation (D) shows harmonic, melodic, and rhythmic alterations.

In staves 21- 24, the 20 row tones are also main tones decorated by sigimsae, as in the previous variation. There are two row forms present: P_7 and I_2. Interestingly, these are harmonically combined with each other. P_7 and I_2 are both presented in full, as top and bottom melodic lines played simultaneously using double-stopping technique.

Figure 2.10 P_7 and I_2 in staves 21-24

P_7: G-Bb-D-D#-F#-D-C#-C-B-Bb-A-G#-G-F#-D-G-C-Bb-A-G

I_2: D- B -G-F#-D#-G-G#-A-Bb-B-C-C#-D-D#-G-D-G-B - C-D

The respective row forms are not on equal footing. The upper line, P_7 is emphasized by sigimsae decoration, while the undecorated I_2 harmonically supports P_7. Both forms, however, benefit from the emphasis of the rhythmic sequence; the row tones are set as dotted quarter and dotted eighth notes, while sigimsae are thirty-second notes. The top melody line from stave 21 to the middle of stave 22, is subdivided into four groups of twelve notes each. These four groups are the same as the first four groups seen in the second variation, staves 7-11; because the second variation used P_0, the groups here are related at T_7.

Figure 2.11 First four groups of P_0 in staves in 7-11 and of P_7 in staves 21-22

1. P_0: **C** – E – F# – A – Bb – D – **Eb** – F – Ab – G – B – C#

   P_7: **G** – B – C# – E – F – A – **Bb** – C – Eb – D – F# – G#

2. P0: **G** – C – C# – F – A – Bb – B – **G#** – E – F# – D – G

P7: **D** – G – G# – C – E – F – F# – **D#** – B – C# – A – D

3: P0: **B** – C# – E – F – C – F# – **G** – Bb – Eb – D – G# – A

P7: **F#** – G# – B – C – G – C# – **D** – F – Bb – A – C# – E

4: P0: **F#** – A – G# – C – D – Bb – **F** – G – C# – B – D# – **E**

P7: **C#** – E – Eb – G – A – F – **C** – D – Ab – G – Bb – C

The rest of the variation (staves 22-23) follows the same structural pattern of tone emphasis plus sigimsae. However, the length of the row tones are changed; 1-10 of row tones are set as dotted quarter notes, 11-17 as dotted eighths, 18 as a dotted quarter, 19 as a half, and 20 on a eighth. Thus the music accelerates and decelerates.

The fifth variation (E) carries over I2 from the fourth variation as the main tones (staves 24-31).

Figure 2.12 I2 in staves 24-31

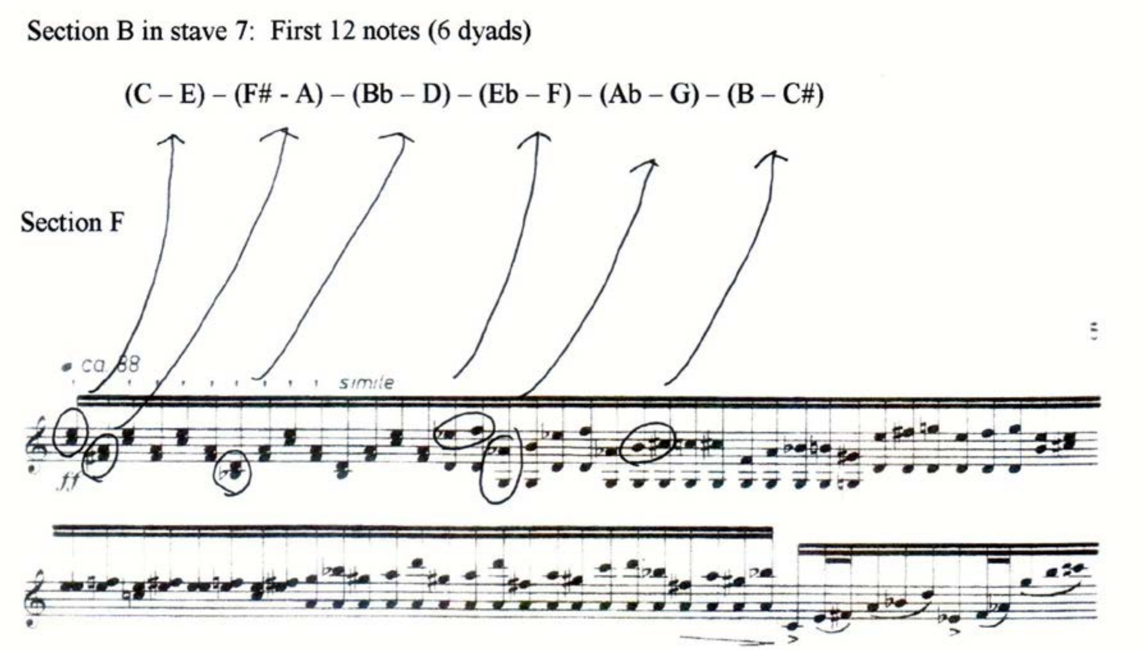
I2: D-B-G-F#-D#-G-G#-A-A#-B-C-C#-D-Eb-B-D-A-B-C-D

Yun uses I2 as a bass, over which running notes create a Bachian implied harmony. In contrast to the previous variations, the main tones themselves are repeated in alteration with the sigimsae, increasing the technical challenge.

From the tempo change (♩ = 88) in stave 32, the sixth variation (F) goes through stave 37.

The beginning (stave 32-33) uses the stet that originated in section B (example 2.23). This part acts as a bridge to P0 in stave 33. The double stopping creates a strong, fast, and exciting mood. The chromaticism and dissonant harmonies are balanced by reiterated main tones (E-G-D-E-A).

Example 2.23 Section B and Section F in staves 32-37



Stave 33 reintroduces P0, again using each row tone as the main tone, decorated by sigimsae. The first eight main tones plus their sigimsae (staves 33-34) are an exact repetition of the second variation (staves 7-8). The rest of the variation (staves 34-37) follows the same rhythmic and structural pattern, without repeating the second variation.

In the final, seventh variation (G) (staves 37-41), the theme returns in the style of its first statement. However, rather than a literal repeat, the thematic notes undergo octave shifts and receive occasional sigimsae. There is also an interpolation of tones 3-9 between the statement of tones 17 and 18 (staves 39-40). Similarly, tone 12 is interpolated between tones 19 and 20. This creates an overlap that shows how the theme contains its own repetition: tones 10-11-13 are the same as tone 18-19-20.

Figure 2.13 section G (P_0) in staves 37-41

P_0: C-Eb-G-Ab-B-G- F#- F-E- Eb-D -Db-C- B- G- C- F   Eb – D – (Db)- C

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17   18 19 20

10 11 (12) 13

(G-Ab-B-G-F#-F-E)

3 4 5 6 7 8 9

All the methods described above are ways of adapting baroque variation forms to non-tonal writing and the main-tone technique. This combination of serial and main-tone techniques, combined with the explication of the main-tone technique itself through analysis of the first movement of the Etudes for Flute solo, offers a map for analyzing and understanding Yun's process in *Piri*.

Chapter 3 *Piri* for Oboe solo[15]

3.1 Introduction to *Piri* for Oboe solo

"I do not compose music with musical material but I compose with my intuition."[16] Yun's commentary on his compositional process indicates that he writes through inspiration. However, analysis of his music reveals that his free and impromptu style is nonetheless based on a definite plan. This seeming conflict reflects Yun's musical aims.

These aims are directly related to his interest in *Piri*. Yun has stated, "My secret is to make the phrase and the progression of the music flow without any rest, stopping, or any seam. Of course, the score contains technical pause markers and boundaries between movements. However, I think that my music is unified from start to finish."[17] Despite the freedom audible in his works, Yun's compositional intention must be understood within the context of a specific compositional method.

Piri for oboe solo was composed in 1971. Georg Meerwein gave the premiere in Bamberg on October 25 in the same year.[18] Remarkably, Yun adapted the traditional genre to a Western instrument using Western technique. While still a traditional piece composed for a wind instrument, *Piri* is based on the twelve-tone system. With its easily identifiable subsets, Yun's use of serialism is readily apparent.

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15 Score in appendix 7-10
16 Yun, Sin Hang, *Yun Isang* (Seoul: *Hangilsa*, 2005), 87.
17 Yun, Sin Hang, *Yun Isang* (Seoul: *Hangilsa*, 2005), 87.
18 Yun, Isang, *Piri for oboe solo* (Berlin: Boosey and Hawkes, c 1973/1998), 8.

Piri consists of four movements. The first, second, and third have no title; the last is labeled "Langsam, misteriose". The first three movements gradually accelerate: ♩ = 60 in the first, ♩ = 66 in the second, and ♩ = 78 and ♩ = 100 in the third. This continuous acceleration recalls *sanjo*, a Korean solo instrumental genre that developed from the *garak* (tune) of *sinaui* and *pansori*.[19] *Sanjo* basically consists of three movements, *jinyangjo*, *joongmori*, and *jajinmori*. Occasionally, there will be additional movements, *jungjungmori*, *nurinjajinmori* are often added between *jungmori* and *jajinmori*. In addition, *sanjo* often ends with *huimori* or *danmori* after *jajinmori.* (figure 3.1)

Figure 3.1 structure of the sanjo

Jinyangjo – Jungmori – (Jungjungmori – Nurimjajinmori) – Jajinmori – (Huimori – Danmori)

Because the most notable feature of *sanjo* is a gradual acceleration of tempo, Yun probably adopted the tempo and form of *sanjo* for *Piri*.

The work starts and ends on the pitch class G#, resulting in a kind of cyclic form.

[19] Sinaui is a Korean instrumental genre that is very improvisatory.
Pansori is Korean traditional monologue opera.

Figure 3.2 G#s at beginning and ending in *Piri*

G#--G#

This cyclic aspect or aesthetic reflects Asian philosophy. Yun was deeply immersed in Taoism, a philosophy (or religion) founded by Lao-Tzu and Zhuangzi in the 3rd or 4th century BCE.[20] The basic principle of Taoism holds that the essence of all things in nature is *Do*, the unceasing universal force made of the opposing qualities of *Yin* and *Yang*. *Yang* is masculine, productive, and mobile; *Yin* is feminine, passive, and stable. Vivid energy is created by the opposition of the qualities. This antagonism married to mutual dependency is easily observable in the seasons of nature. Summer and winter have an antagonistic relationship. Summer is bright and generous and belongs to *Yang*, while winter is calm and stagnant and belongs to *Yin*. However, they relate to each other through spring and fall, creating a continual circulation.

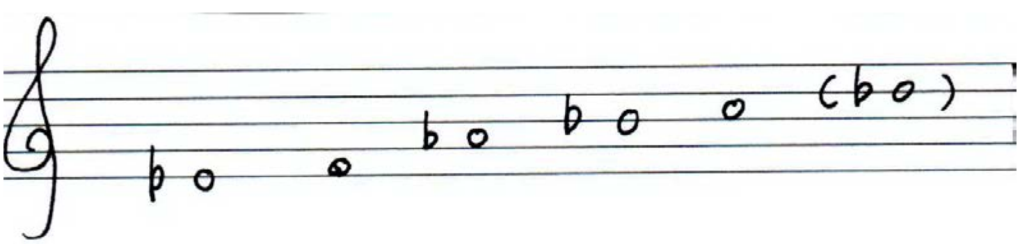
In *Piri*, Yun adapts one of two cadence styles found in Korean traditional music. In one style, the melody slowly progresses from a high starting pitch to a lower cadential pitch. In the other style – the one which Yun uses here – the piece ends where it began.

[20] Lao-Tzu was a philosopher of ancient China.
Zhuangzi was a Chinese philosopher who lived around the 4th century BCE.
http://en.wikipedia.org/wiki/history_of_taoism.

Yun’s choice of G# as the main pitch is based on the tuning of the *Piri*. The two basic systems, *pyeongjo* and *gyemyeonjo* are very similar to the Western major and minor scales, respectively. *Pyeongjo* consists of five or six notes: *hwang, tae, jung, im, nam* and sometimes *mu*, which generally functions as a neighbor tone rather than a main note. *Gyemyeonjo* is more complicated. It has three scale variations: three-note, four-note, and five-note. The three note scale consists of *hwang*, *jung*, *and im*; the four-note scale adds *mu*; the five-note scale adds *hyeop* (example 7-1).

Example 3.1 Korean scale system

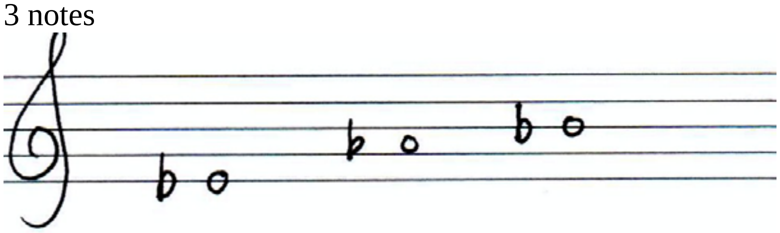
Pyeongjo (major)



Hwang Tae Jung Im Nam Mu

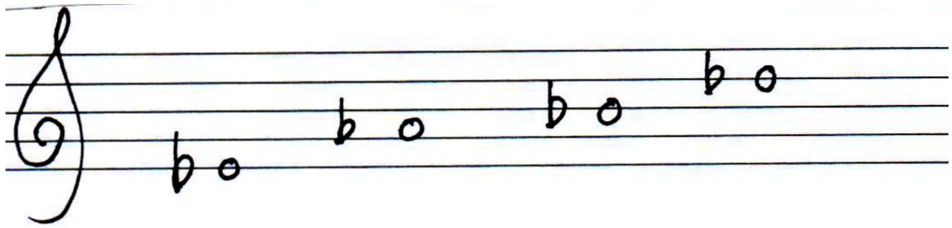
Gyemyeonjo (minor)

3 notes



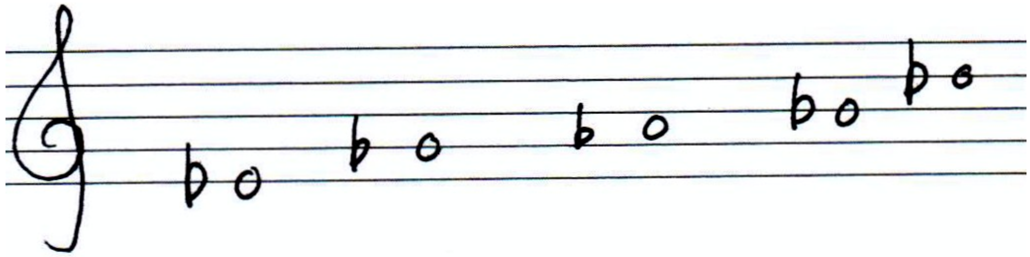
Hwang Jung Im

4 notes



Hwang Jung Im Mu

5 notes



Hwang Hyeop Jung Im Mu

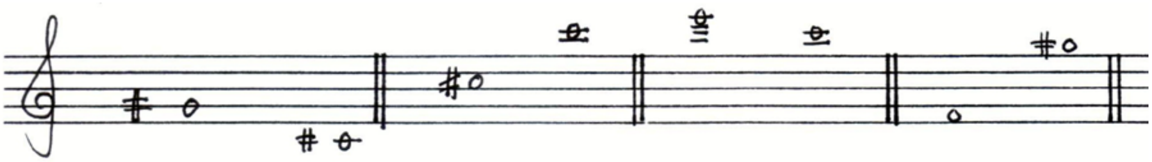
The Korean scales have a distinct hierarchy of notes. *Hwang*, *jung*, and *im* are the most important, appearing in each scale-configuration. *Jung* is called *pyeongeum*, or “ordinary note.” In many ways, it is equivalent to the Western “C” except that the scales do not generally start on *jung*. *Hwang* is only slightly less important; some music as *sijo* consists only of *jung* and *hwang*. *Hwang* is called *teoneun-eum*, vibrated note. *Im* is *kkeokneun-eum*, the bent note – it may be adjusted slightly either up or down. Yun treats G# as *jung*: it is the central, focal note of his scale-configuration, and starts and ends the piece within the traditional Korean cadence style.

Piri consists of four movements played continuously as a single movement. Yun uses specific pitches to connect the end of each movement with the start of the next movement.

The first movement starts with G# and ends with C#, thus establishing the perfect fifth as a large-scale structural feature. Then the second movement begins with C# an octave higher. It goes without saying that the connection by a repeated pitch class is very smooth. Yun uses a rising fifth between the second and third movements, and a descending fifth between the third and last (example 3.2). In Korean music, interval-class 5 is the most prevalent interval within any given system (figure 3.3).

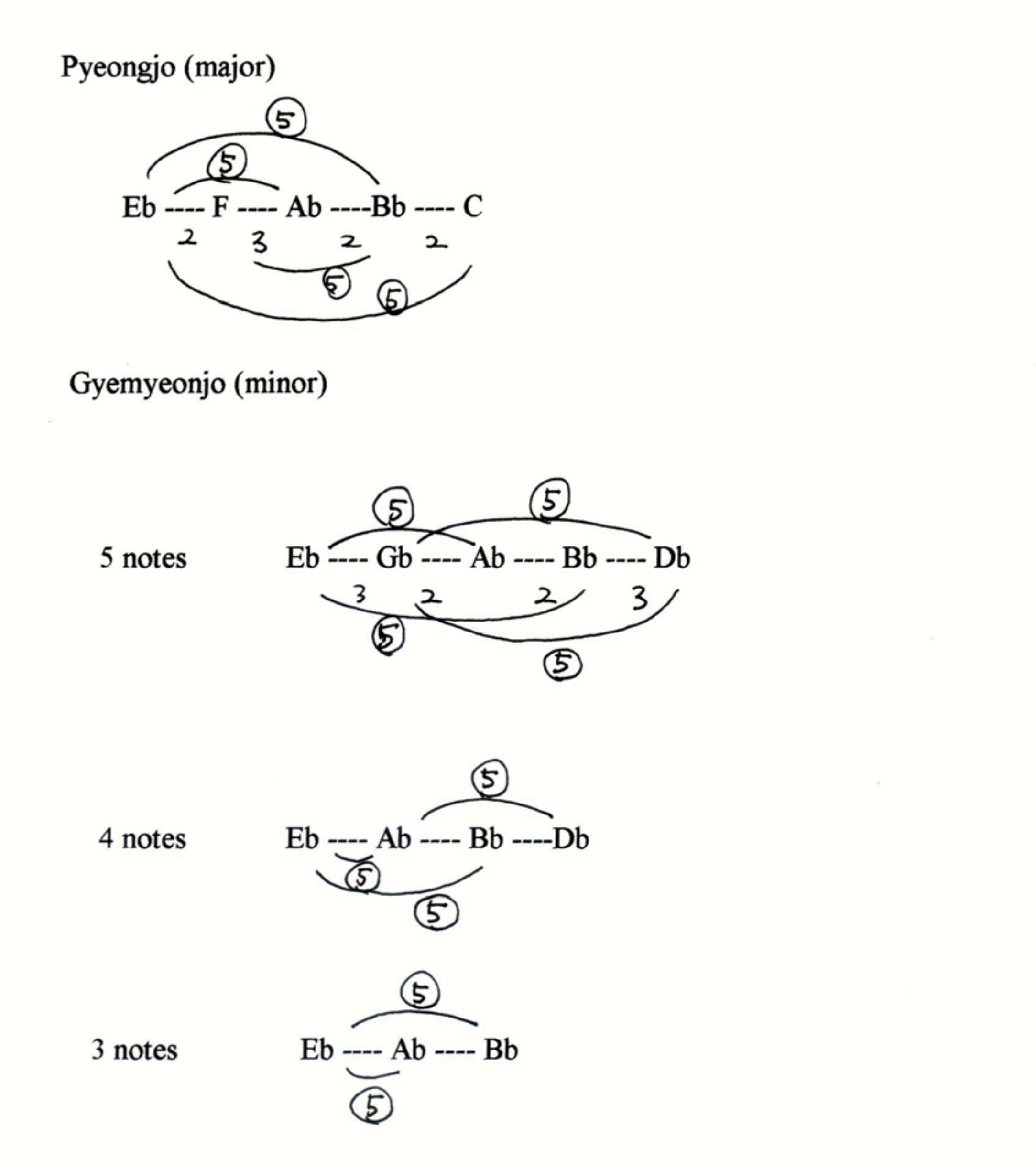
Example 3.2 Large-scale pitch organization of each movement

1st movt | 2nd movt | 3rd movt | 4th movt



Interval Class: 5 0 1 5 5 5 3

Figure 3.3 Korean scale systems



Yun uses several systems derived from two different twelve-tone series. The first series (S1- see figure 3.4) appears in the first and second movements. In the third, the second series (S2) is briefly stated in mm 1-6. It returns in mm 22-33, mixing with S1. In the fourth movement, S1 recurs without S2.

Figure 3.4 A-B-A form of *Piri*

S1 S1 S2 + S1 S1

(mm. 1-6) (mm. 6-22)

1st movt -------- 2nd movt ------------ 3rd movt -------------------4th movt

└ A ┘ └ B ┘ └ A ┘

Within this construction, we can see Yun's large-scale A-B-A form. Of course, this form is not identical to the A-B-A form found in Western tonal music; but it is likely that Yun conceived of *Piri* as a cyclic form.

One twelve-tone series can be manipulated into 48 forms shown in the matrix below. Since *Piri* contains two distinct rows, a total of 96 row forms are possible. Yun applies thirteen forms derived from the first series and four forms from the second.

Example 3.3 Matrix of First series (S1)

*Enharmonically equivalent notes are also functionally equivalent (as Bb and A#).
The notes that belong to the row forms used in *Piri* are underlined.

First series

	Inversion ↓	I_1	I_7	I_4			I_{10}						
Prime →	C	C#	G	E	F	B	A#	F#	G#	D	D#	A	← Retrograde
P_{11}	B	C	F#	D#	E	A#	A	F	G	C#	D	G#	R_{11}
P_5	F	F#	C	A	A#	E	D#	B	C#	G	G#	D	R5
P_8	G#	A	D#	C	C#	G	F#	D	E	A#	B	F	R8
	G	G#	D	B	C	F#	F	C#	D#	A	A#	E	
	C#	D	G#	F	F#	C	B	G	A	D#	E	A#	
P_2	D	D#	A	F#	G	C#	C	G#	A#	E	F	B	R_2
	F#	G	C#	A#	B	F	E	C	D	G#	A	D#	
	E	F	B	G#	A	D#	D	A#	C	F#	G	C#	
	A#	B	F	D	D#	A	G#	E	F#	C	C#	G	
	A	A#	E	C#	D	G#	G	D#	F	B	C	F#	
	D#	E	A#	G	G#	D	C#	A	B	F	F#	C	
	↑ Retrograde Inversion						RI10						

Example 3.4 Matrix of Second series (S2)

Inversion

	↓ I_0					I_1							
Prime →	C	D#	E	G#	G	C#	D	A#	B	A	F	F#	← Retrograde
	A	C	C#	F	E	A#	B	G	G#	F#	D	D#	
P8	G#	B	C	E	D#	A	A#	F#	G	F	C#	D	
	E	G	G#	C	B	F	F#	D	D#	C#	A	A#	
	F	G#	A	C#	C	F#	G	D#	E	D	A#	B	
	B	D	D#	G	F#	C	C#	A	A#	G#	E	F	
	A#	C#	D	F#	F	B	C	G#	A	G	D#	E	
	D	F	F#	A#	A	D#	E	C	C#	B	G	G#	
	C#	E	F	A	G#	D	D#	B	C	A#	F#	G	
	D#	F#	G	B	A#	E	F	C#	D	C	G#	A	
P7	G	A#	B	D#	D	G#	A	F	F#	E	C	C#	
	F#	A	A#	D	C#	G	G#	E	F	D#	B	C	

↑ Retrograde Inversion

From the first series, Yun uses P8, P11, P2, P5, I10 (1st movement); I1, I4, I7, P11 (2nd movement); R5, R11, R2, RI10 (3rd movement); and R8 (4th movement). In the third movement, Yun also used forms derived from Row 2: P7, I0, P8, I1. In sequence, the arrangement is as follows.

Figure 3.5 Row forms in each movement

First movt

P_8 ---- P_{11} ---- P_2 ---- P_5 ---- I_{10}

Second movt

I_1 ---- I_4 ---- I_7 ---- P_{11} ---- I_1 ---- coda

Third movt

P_7* ---- I_{10}* ---- P_8* ---- I_1* ---- R_5 ---- R_{11} ---- R_2 ---- R_5 ---- RI_{10} ----coda

Fourth movt

R8 (X2)

* denotes forms derived from the second row.

The forms in which the second row appear also show these mirroring relationships, as I will discuss further chapter on the third movement.

Yun's use of the serial technique is particularly striking for his exploitation of the potential for creating mirroring effects. Consider the different forms that are used in reference to one another throughout the piece. Both P_8 and I4 appear, in the first and the second movements, respectively; this relationship is extended by the appearance of the retrograde form, R_8, in the fourth movement. Such a combinatory usage of row forms is consistent throughout the piece. P11 is mirrored by I1 and R11 (first, second, and third movements, respectively); P2 is mirrored by I10, R2, and RI10 (first, first, third, and third movements); and P5 is refracted as I7 and R5 (first, second and third movement). Different forms of the row present the same elements in different dimensions; the result is a set of mirror relationships analogous to Taoist ideas of complementation. Translated from twelve-tone theory, this illustrates Yun's application of Taoist philosophical concepts to music. Parallel and complementary planes of existence are a Taoist conceit as illustrated by this tale from the *Dae De Jing*[21]: "One day, Zhuangzi slumbered for a moment. He dreamed of becoming a butterfly and flying in several places. Thereafter, he suddenly awoke. After that, he fell into deep confusion. He has dreamed becoming a butterfly or a butterfly has dreamed becoming Zhuangzi."[22] The selection and ordering of various row forms in *Piri* expresses this notion of multiple realities. The entire piece is based on a kaleidoscopic arrangement of complementary gestures, and is thus a musical expression of a metaphysical construct.

3.2 First movement: overview

Superficially, the first movement might seem unmelodic. This movement mostly consists of long-breathed notes which are not supported by any consistent rhythmic pattern. The lack of a regular accent (strong-weak), combined with Yun's choice not to use a time signature, gives the movement a sense of free-floating melody. This is

[21] *Dae De Jing*, written by Lao Tzu, is fundamental to Taoism.
[22] Lee Amuge, *Jangja San Check* (Seoul: Samin Books), 122 (my translation).

reminiscent of *Jeongak*, a genre of Korean traditional music. *Jeongak* is court music, usually performed when ancestral rites or special ceremonies takes place in the royal palace. Thus the purpose of *Jeongak* is not for entertainment or performance, but rather for creating a grave and solemn mood.

The first movement consists of three extended phrases. To facilitate the analysis, I will examine these phrases in smaller chunks; however, these are artificially divided – the long phrases are intended to be whole.

Each extended phrase is 20 measures long (mm. 1-20; mm. 21-40; mm. 41-60); half-rests at m. 21 and m. 41 distinctly divide the phrases. The first and second phrases each contain a complete statement of the row. The first begins on G#, or P_8.

Figure 3.6 Phrase 1

P_8: G#—A—Eb—C—C#—G—F#--D—E—Bb—B—F

The second phrase is an exact restatement on B, or P11.

Figure 3.7 Phrase 2

P_{11}: B—C—F#—D#—E—Bb—A—F—G—C#—D—Ab

The third phrase contains the row in three forms: P_2, P_5, and I_{10}. P_5 and I_{10} follow the original intervallic progression. The statement of P_2 is slightly altered, with the two final pitch classes (order positions) switched. I will explain this in more detail later in the discussion.

Figure 3.8 Phrase 3

P_2: D—Eb—A—F#—G—Db—C—Ab—Bb—E—[B—F]

P_5: F—F#—C—A—Bb—E—Eb—B—C#—G—Ab—D

I_{10}: Bb—A—Eb—Gb—F—B—C—E—D—Ab—(G—C#)

A serial overview of the movement is P_8// P_{11}// P_2+P_5+I_{10} (coda). (Note: Measure 61 contains a separate pair of notes, G and C#, which form a cadence.)

Yun's systematic arrangement reveals the mutual regulation between each form as stated. The relationship between the first (P_8) and the second form (P_{11}) is at T3. This relationship extends to the progression of each prime form within Yun's system: P_{11} is followed by P_2, then P_5.

Figure 3.9 T_3 relationship

$$P_8 \overset{T_3}{\text{--------}} P_{11} \overset{T_3}{\text{-------}} P_2 \overset{T_3}{\text{-------}} P_5$$

A different but corresponding intervallic relationship exists between the fourth form (P_5) and the fifth (I_{10}). I_{10} is related to P_5 at T_3I, producing another T_3-type relation. I_{10} is the mirror of P2; therefore, the T3 progression is simply inverted as the piece finishes. Thus, the overall phrase-structure relations in the first movement are show as below.

Figure 3.10 Overall phrase structure

Phrase 1 Phrase 2 Phrase 3

P8 // P11 // P2 ---- P5 ---- I10

T3 ----------------- T3 ----------T3-----T3I

3.3 First phrase (mm. 1-20)

The first phrase immediately states P8. It opens with G# and A followed by an Eb held for two more bars over a crescendo. After a dotted-eighth rest, C, C#, and G are each held and crescendo in turn. The line then reshapes the opening gesture of F#, D and E as a lead-in to a sustained Bb. Bb crescendos as it bends to B. The F repeatedly decrescendos and crescendos and bends up and down.

The gesture made with the first three notes, G#, A, and Eb, covers an intervallic space of more than an octave, with ordered pitch intervals of G#4-A5-Eb6 (+13 + [+6] = +19).

Figure 3.11 Ordered pitch intervals of G#4-A5-Eb6

+19

G#4 ------------- A5 ------------- Eb6

+13 +6

Such a wide shift is possibly Yun's way of an expression of freedom, purity, and absoluteness. A similar technique is found in his cello concerto. The oboe moves from G# to A' with glissando the A' is taken up by the trumpet, but the cello is unable to reach that register. The A' is passed from player to player, but the cello drops it. This purposeful difficulty for the soloist indicates Yun's interest in expressing a philosophical idea through musical means.

We can observe various important structural features of the row. One is trichordal partitioning, which I shall discuss later. But first, I would like to consider how Yun creates gestures out of the fragments of the row. We should analyze the fragment in terms of its narrow intervallic identity. In terms of semitonal content, the intervals are 1 (G#-A) and 6 (A-Eb), for a total span of 7 semitones (G#-Eb). This gestural construction reappears at the end of the row as Bb-B-F, another 1 + 6 = 7 fragment (mm. 13-20). Therefore, the final gesture in the row echoes the opening gesture at T_2. This gesture, set class (016), is central to the development of the piece, as I will explain following.

Thus, the first phrase is symmetrically balanced by those fragments. Of course, the first fragment moves very quickly while each note of the next fragment is stretched out. However, the fragments are recognizably related, in part due to their symmetrical position. Furthermore, the row structure reinforces this balance. The sixth note in the row, G (mm. 9-12), occurs at the midpoint of the phrase in length – nine measures on each side of the note. G is also one of the intermediary notes between G# and F, and is followed by the other intermediary, F#.

Figure 3.12 First Phrase in mm. 1-20

1 semitone 1 1

note: G#--- A---Eb---C----C#---G------F#---D---E-----Bb-----B-----F

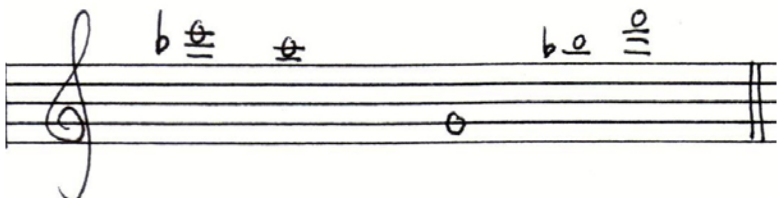
mm: 1 1 1-4 4-7 7-9 (9-12) 12 12 12 12-15 16 17-20

G is the lowest note in the arch of the phrase. Considering the main notes, the melody slowly falls and rises up, passing through the G between high points.

Example 3.5 First Phrase in mm. 1-20

(016) (016)

Example 3.6 Main tones of the first phrase



Eb C G Bb F

The 1 + 6 = 7 gesture also reappears immediately following its initial presentation. While C- C# -G is not an independent gesture within the phrasing of the row, that group shares the 1 + 6 intervallic relationship seen in the first and the last gestures. These three fragments are in a sequence of interval and contour. When listening to the phrase, an audience might expect a high G rather than the low one, to match the ascending contour of the G#-A-Eb gesture. Therefore, the descent to G should surprise the listener, a registral version of rhythmic syncopation. This emphasis on G—in register, length, and position in the row—distinguishes the note as the musical climax of the first phrase. The first and last gestures are balanced around G, the focal point of the row.

Figure 3.13 First phrase in mm. 1-20

G# – **A – Eb** – C – C# – **G** – (F#) – D – E – **Bb – B –F**

Left wing Center Right wing

The gesture beginning on G can be viewed as a three-part construction, where G is the starting point; Bb is the goal; D and E are intermediaries. The F#, rather than being part of the ascending contour, is essentially a decoration note to the preceding G.

By understanding the structure of the phrase, the player can establish an equilibrium that conveys the gestural stability to the listener. To do so, the performer must be aware of the interval content and Yun’s reasons for creating those relationships.

The three fragments with a 1 + 6 = 7 structure (G#-A-Eb, C-C#-G, Bb-B-F) all belong to set-class (016). The three representations of the (016) set-class are so prominent that an uninitiated performer or listener can perceive them easily. The structure of the first phrase uses three trichords that are members of set class (016) and one that is a member of set class (024).

Figure 3.14 Discrete trichords in the first row

016	016	024	016
G#—A—Eb	C—C#—G	F#—D—E	Bb—B—F

Two other occurrences of the (016) set-class are concealed in the first phrase. They are not easily recognized because they occur between the more prominent discrete trichords; in addition, they are presented rapidly.

Other (016) trichords in the first phrase are C#-G-F# and E-Bb-B.

Figure 3.15 Other trichords in the first phrase

016 016

G#—A—Eb—C—C#—G—F#—D—E—Bb—B—F

These concealed (016) trichords can also be applied to the discrete trichords first mentioned to create symmetric tetrachords of set-class (0167).

Figure 3.16 Trichords and Tetrachords in the first phrase

016 016

G#—A—Eb—C—C#—G—F#—D—E—Bb—B—F

016 016 016

0167 0167

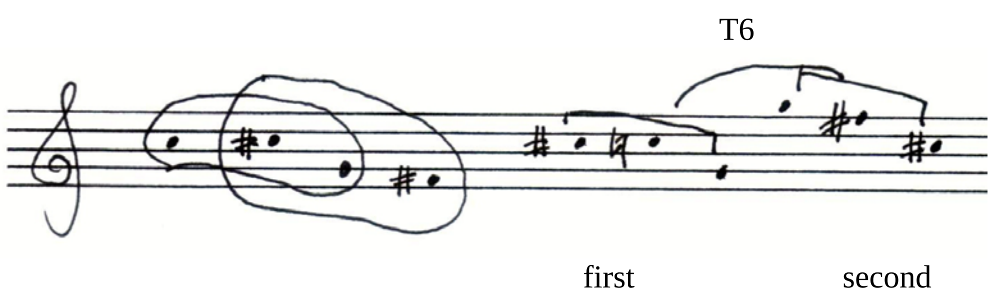
The (0167) set-class is symmetrical; the intervals from left to right are the same as from right to left. Therefore, both tetrachords are symmetrical but their deployment is different.

Figure 3.17 Symmetry of Tetrachords

First	Second
1 6 1	6 1 6
C – C# – G – F#	E – Bb – B – F

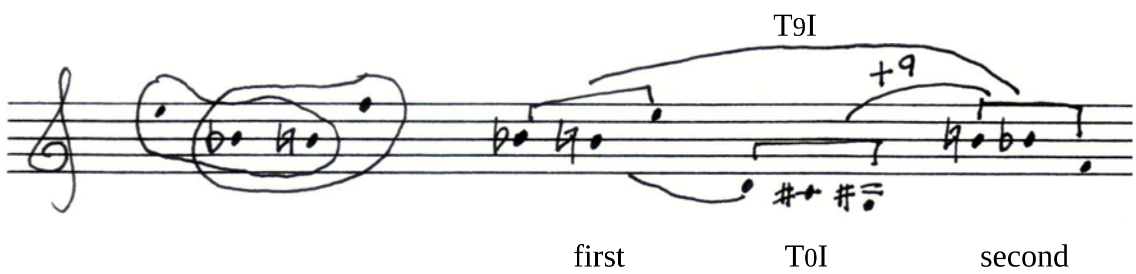
The first tetrachord (C-C#-G-F#) consists of two (016) trichords (C-C#-G and C#-G-F#) connected by the common tones, C# and G. These two trichords are related at T6. Taken together, they represent a tetrachord, (0167), that is transpositionally and inversionally symmetrical.

Example 3.7 Transpositinal symmetry of the first tetrachord (C-C#-G-F#)



The second tetrachord (E-Bb-B-F) is also made up of two (016) trichords (E-Bb-B and Bb-B-F) but, in this case, the common tones that the trichords share, Bb and B, form a semitone, unlike the shared tritone, C#-G, that is common to the trichords of the first tetrachords. The two trichords are inversions of one another at T9I. Therefore, the second tetrachord is also transpositionally and inversionally symmetrical.

Example 3.8 Inversional symmetry of the second tetrachord (E-Eb-B-F)



*The first trichord (E-Bb-B) is related to D-C#-G# at T0I. D-C#-G# is related to the second trichord (Bb-B-F) at T9. Therefore, the first and second trichord are related at T9I.

By analyzing the structural relationships that govern the assembly of the row, the series can be heard as clearly made up of structural subsets. In this row, the (016) subset occurs five times, appearing as G#-A-Eb, C-C#-G, C#-G-F#, Eb-Bb-B, and Bb-B-F. Every note in the tone row except D is present as part of at least one (016) set-class subset. Therefore, this row was constructed with the (016) subset as the basic building block. As the foundation of the first movement's row, this (016) set-class underlies the entire first movement.

Why did Yun select set-class (016)? The set-class contains the intervals of a semitone (interval class 1), a perfect 4th or 5th (interval class 5), and an augmented 4th, diminished 5^{th}, or tritone (interval class 6). Perhaps Yun chooses this trichord for its contrasting intervals: interval class 5 is one of the most consonant intervals while interval class 6 creates one of the most dissonant intervals. Thus the contrasts generated within the foundational trichord create the vivid energy of the Yin/ Yang relationship. Interestingly, interval class 5 is the most prevalent interval within any given scale system in Korean traditional music; by making prominent use of interval class 5, Yun creates a Korean mood. However, interval class 6 never occurs in the Korean scale, although it frequently occurs in Western music. Therefore, Yun's use of this trichord also encapsulates the contrasting relationship between Korean traditional and Western music.

3.4 Second Phrase

Thus far, I have detailed the importance of set-class 016 through analysis of the first phrase (or row); however, the use of (016) as a structural motive continues throughout the entire piece. Indeed, Yun uses set-class (016) as the basic material forming each row and as a linking device. I will now show how (016) functions in the second phrase of the first movement.

The second phrase is another statement of the row at P11: B-C-F#-D#-E-Bb-A-F-G-C#-D-Ab. Because this is the same row, the (016) occurrences and mirroring patterns revealed in the analysis of the first phrase recur here. In addition, Yun uses (016) to bind together the first and second phrases.

The second phrase (mm. 21-40) starts on B. Because B is also the 11th note of the first phrase or row, the note occurs on both sides of F, the last note of the first phrase. Therefore, the B-F tritone occurs twice; this emphasis on the tritone asserts the balance of the two phrases. Figure 3.18 illustrates this. F acts as a pivot point for the phrases. Furthermore, Ab (G#) both opens the first phrase and closes the second. F becomes a central point emphasizing the balance between the phrases.

Figure 3.18 Transition between the first phrase and the second phrase

ic: 6 6

(G#/Ab-----//-----------(B ---------- (F) B)---------//-----------Ab)

(11th note) (12th note) (1st note)

First phrase Second phrase

The use of the (B-F-B) tritone relation ultimately creates another (016) from the end of the first phrase (F) through the beginning of the second (B, C). This (016) trichord, FBC, is followed by F#, which, with the preceding notes B and C, make yet another (016) chord; these two trichords mirror each other, and relate at $T_{11}I$.

Figure 3.19 Set-class (016) between the first phrase and the second phrase

5
F B ------C ---- F#
5
6 1 6
<= First Phrase // Second Phrase =>

Therefore, the second phrase is connected to the first phrase in three ways. The row form used for the first phrase is related at T_3 to the form in the second phrase; as noted earlier, the T_3 relation offers an underlying structure for the entire first movement. The beginning of phrase two mirrors the end of phrase one by means of the tritone pivot around F, the find note of phrase one. Finally, as just detailed, further (016) relations overlap between the two phrases and bind them together. As a result, the first and second phrases, while played independently, are structurally linked together so tightly as to be inseparable.

Within the second phrase itself, new 016 relations emerge. When the audience listens to the second phrase, the main notes they hear are B, C, F#, G, C#, D, and Ab. The five sigimsae notes (D#, E, Bb, A, F) rapidly move towards the G and are therefore not structural in this phrase. By mapping out the interval relations of the seven main tones, the interval classes 1 and 6 can be seen as the sole structural element.

Figure 3.20 Main tones of the second phrase

B—C—F#—G—C#—D—Ab

1 6 1 6 1 6

Because of these repetitions of interval classes 1 and 6, every three-note succession forms a member of set-class (016).

Figure 3.21 Set-classes (016) in the second phrase

016 016 016
B – C – F# – G – C# – D – Ab
016 016

Among them, three (016) trichords are particularly notable: B-C-F#, F#-G-C#, C#-D-Ab. They are imbricate as below.

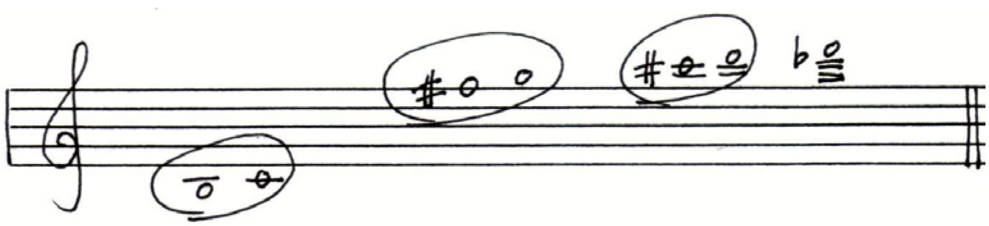
Figure 3.22 Notable (016) sets in the second phrase

016
B – C – (F#) – G –(C#) – D – Ab
016 016

It is also significant that within these (016) trichords, the first and second trichord are related by T7, as are the second and third. I have already mentioned, in the introductory chapter, that interval-class 5 is very important to Yun's music in its recalling of traditional Korean scales.

In this particular sequence, Yun disguises the (016) trichords. Outwardly, the second phrase appears constructed of three dyads (B-C, F#-G, C#-D) plus Ab. While the three (016) trichords are clearly the theoretical building blocks, the dyad structure is aurally more prominent (example 3.10).

Example 3.9 Three dyads plus Ab in the second phrase

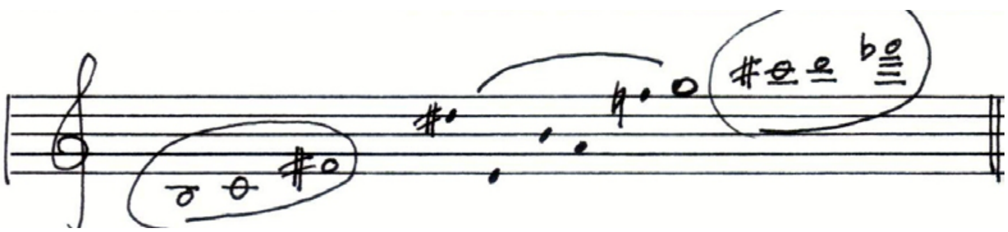


B—C F#—G C#—D Ab

Why does Yun conceal the trichordal progression in the second phrase? Perhaps he wants to make the first and second phrases look different outwardly while maintaining the same basic (016) construction. Furthermore, I believe Yun wants to emphasize Ab. As mentioned on page 64, Ab is the most important note in *Piri*. Looking at the second phrase, every note rises toward the Ab. Moreover, the figuration (rhythmic) sequence and the intervallic (semitone) sequence accelerate this sense of goal-oriented motion. Finally, a silent beat just prior to the Ab allows us to perceive it as the goal of the line.

Initially, it may seem that G is the most important note in this phrase. G is at the center of the seven main tones; G is part of each notable (016) trichord; and decorated by sigimsae (grace) notes. In the melodic contour, G is both the goal and focal point of the second gesture.

Example 3.10 Focal point, G in the second phrase



016 G 016

Significantly, the second phrase copies the first phrase in its use of G as a balancing pivot point. Ultimately, however, they function differently. In the first phrase, the G balances the weight of the phrase in the center of the arch; it is the most important note. The G of the second phrase lies at the center of a rising phrase. It too balances the phrase, and due to the rising, goal-oriented structure, G actually prepares the Ab, Therefore, with Ab as the goal of the second phrase, G here is the second most important note. From this analysis, three notes stand out as particularly significant in both the first and second phrases: Ab, G, and F. F is a pivot or mirroring point; G acts in both phrases as a central balancing weight; and Ab is both the starting point and the goal. Therefore, considering the large-scale tone structure from the first phrase to the second, the two phrases form a larger unit. Moreover, F# appears in each phrase as decorating the central G; with this tone structure, the first two phrases mark a chromatic journey from Ab to Ab.

Example 3.11 first and second phrases

Pitch hierarchy of the first and the second phrases (complete row shown)

Main tones of the first and the second phrases (1)

Main tones of the first and the second phrases (2)

3.5 Third phrase

The third phrase consists of three row forms: P2, P5, and I10. These are connected without any break. As in the second phrase, the first row form (P2) of the third phrase begins on the eleventh note (D) of the previous row, and the repetition of D both before and after Ab further emphasizes the latter.

Figure 3.23 Transition between the second and the third phrases

D ------ Ab D

Second phrase Third phrase

However, within the third phrase, these three row forms (P2, P5, I10) are not connected according to the same pattern. In the first row form of the third phrase, the initial row is altered by switching the order of the eleventh and twelfth notes. Having the row end with B-F instead of F-B, Yun allows P2 and P5 to overlap on F; F is both the last note of the P2 form and the first note of the P5 form. In contrast to the previous phrase transition, Yun choose not to repeat F twice around B.

Figure 3.24 P2 of the third phrase in mm. 41-48

P2: D—Eb—A—F#—G—Db—C—Ab—Bb—E—[B—F]

12th 11th

Nonetheless, P_2 and P_5 remain strongly connected by the set class (016), using F to establish the connection.

Figure 3.25 Connection between P_2 and P_5

016 016
E — B—(F) — F#—C

P2 P5

In addition, P_2 and P_5 are related at T_3; likewise, the next two row forms, P_5 and I_{10}, are related at T_3I.

Figure 3.26 P_5 and I_{10}

P5: F—F#—C— A—Bb—E—Eb—B—C#—G—Ab—D

I10: Bb—A —Eb—Gb—F— B—C— E—D—Ab—G—C#

Both of these forms preserve the original row order. P_2 and I_{10} are played continuously in one melodic phrase. The T_3I relation means that P_5 and I_{10} are mirror images separated by 3 tones. Another mirroring structure is implicit in the use of I_{10}, which stands in for P_2 in relation to the mirroring C (0). Therefore, the entire third phrase is a mirror: P_2—P_5—I_{10} (=P_2).

Though the last two notes, G and C#, belong to the last row form, I_{10}, they are made separate in performance and function as a cadence. Fermatas lie on both notes so each is expanded and emphasized. In this way, the trichord interval is also emphasized. Furthermore, considering G-C# a cadence outside of the phrase results in 3 phrases of 20 measures each, plus a one-measure cadence.

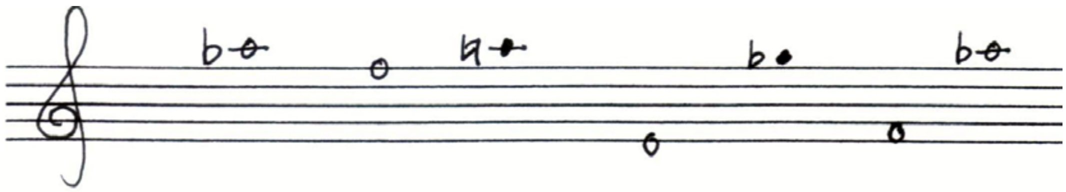
The large-scale phrase-note structure of the third phrase clearly operates independently of the G-C#.

Example 3.12 Pitch hierarchy in mm. 41-60 (complete row shown)

P2 P5 I10

Most of the main tones in the third phrase are decorated by short and rapid sigimsae notes; nonetheless, the progression of main notes is very clear.

Example 3.13 Main tones of the third phrase in mm. 41-60



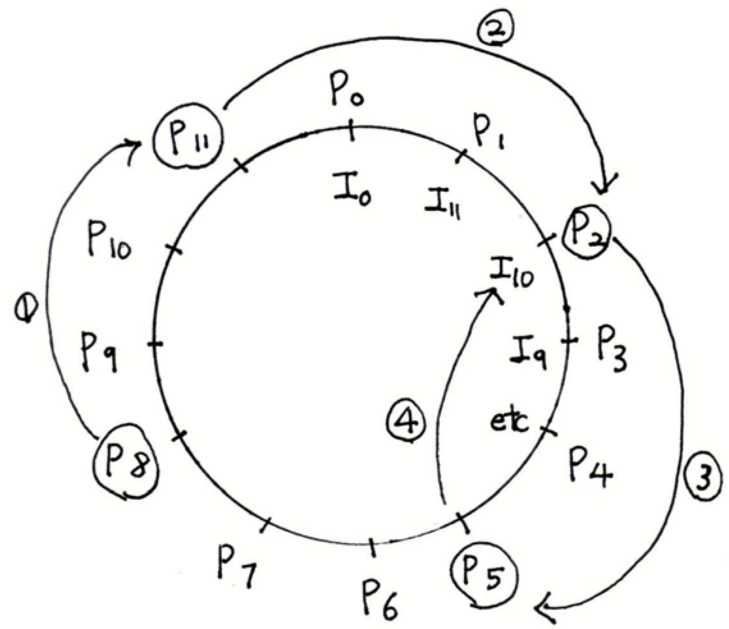
Ab	F	A	E	Gb	F	Ab
(P2)	(P2, P5)	(P5)	(P5)	(I10)	(I10)	(I10)

The position of the main tones again suggests symmetry. The Ab and F belonging to P2 are the first two main tones of the phrase; the F and Ab belonging to I10 are the final two main tones of the phrase. This emphasis on Ab (around F) mirrors the similar large-scale progression of Phrase 1 + Phrase 2, which also opened and closed on G#/Ab with F in the middle (refer to figure 3.18).

3.6 Conclusion

The first movement consists of five row forms; P8-P11-P2-P5-I10. The first four forms progress at three semitones, while I10 does not fit this pattern; however, because I10 is the mirror image of P2, the progression is essentially a turning back of the clock at P5.

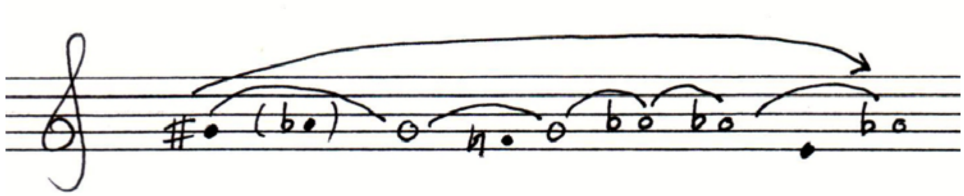
Example 3.14 Five row forms on the clockface



As stated on page 64 and 67, the progression of Phrase 1+ Phrase 2 is a journey from Ab-Ab; the third phrase, with its three row forms, recapitulates that journey. Therefore, Ab/G# is the principal note in the first movement, continuously emphasized by position, progression, decoration, and length.

By charting the phrases' journey as a large-scale note progression, it is clear that the dominance of Ab is meant to determine the motion of the movement. Only the concluding G-C# cadence lies outside of this structure. Significantly, adding G and C# to the dominating Ab results in an (016) set class. Therefore, while Ab is the primary note around which the movement is structured, that note itself is part of a structure that permeates the working-out of the movement.

Example 3.15 large-scale note progression in the first movement



	P8	P8	P11	P11	P2	P5	I10
Measure	1	9	31	37	42	50	57

Likewise, the movement is both based on the (016) nucleus and ultimately creates a large-scale (016); many (016) sets exist within a larger (016). This idea reflects the big/small universe concept; a nuclear structure expands to create an overarching structure while that large structure is composed in a pointillist manner of the nuclear element. In other words, small universes exist within a large universe and are in fact integral to one another. This concept of big and small universes continues to influence the entire *Piri*. Indeed, when the analysis is complete, I will show how the first movement is essentially a miniature of the entire piece.

Chapter 4 Second movement

The second movement is paired with the first. Both are composed of five row forms: P8, P11, P2, P5, I10; and I1, I4, I7, P11, I1. All the row forms used in the second movement are related to those in the first. Each portion of the second movement therefore mirrors a portion of the first.

Figure 4.1 T3 relation

```
                       +3        +3        +3      T3I (+3)
1st movt.        P8  ------ P11 ----- P2 -------- P5 ------- I10

                 T9I        T3I       T9I         T6         T3

2nd movt.        I1  ------ I4 ------- I7 -------- P11------- I1
                     +3         +3          +6        T0I (0)
```

The P8 of the first movement is inverted in the second as I4; the same conversion happens with P11/I1 and P5/I7. The P2 that is mirrored with the first movement's I10 is matched by a P11-I1 mirror in the second. Furthermore, the I10 that closes the first movement is related at 3 to the I1 that opens the second, continuing the circle of (3) relations that dominated the progression of the first movement.

This continuation also creates a matching pattern wherein the row forms in each movement continue to relate at iterations of 3: P8/I1, P11/I4, and P2/I7.

Figure 4.2 T3 relation

$$P_8 \leftarrow T_0I \rightarrow \overbrace{I_4 - I_1}^{-3}$$

$$P_{11} \leftarrow T_0I \rightarrow \overbrace{I_1 - I_4}^{+3}$$

$$P_2 \leftarrow T_0I \rightarrow \overbrace{I_{10} - I_7}^{-3}$$

Although the next row forms in each movement are not related at a mirroring T_3I, they do maintain the pattern of 3 or 3-stand in relations. P_5 is related at 6 to P_{11}; therefore, they are virtually mirrored around an imaginary P_8. Likewise, I_{10} and I_1 are related at 3.

Figure 4.3 Mirror image

$$\underbrace{\overbrace{P_5 < P_8}^{3}\ \overbrace{> P_{11}}^{3}}_{6}$$

By comparing P_8 and I_1, there are many invariances. We may observe many invariant pitch-class sets. The G#-A and C-C# dyads in P_8 reappear as A-G# and C#-C in I_1. E-Bb-B-F likewise appears in I_1 as F-B-A#-E. This pattern also occurs between P_{11}/I_4, P_2/I_7, and P_5/I_{10}. The listeners follow this pattern subconsciously (see figure 4.4).

Figure 4.4 invariance

P8: G# - A – Eb – C – C# – G –F# - D – E – Bb – B – F

I1: C# - C – F# - A – G# - D – Eb - G – F – B –A# - E

P11: B – C – F# - D# - E – A# - A – F – G – C# - D – G#

I4: E – D# - A – C – B – F – F# - A# - G# - D – C# -G

P2: D – D# - A – F# - G – C# - C – G# - A# - E – F – B

I7: G – F# - C – D# - D – G# - A - C# - B –F – E – A#

P5: F – F# - C – A –A# - E – D# - B – C# - G –G# -D

I10: A# - A – D# - F# - F – B – C –E –D – G# - G – C#

P5 (the fourth form in first movement) and P11 (the fourth form in second movement) are transposed at 6 semitones; however, by analyzing these in the same manner as above, we reach very similar results (see figure 4.5). Between these two forms, we again see two dyads (C#-G and G#-D) retrograded, and a retrograded tetrachord (A-A#-E-D#).

Figure 4.5 invariance

P_5: F – F# – C – A – A# – E – D# – B – C# – G – G# – D

↓↑ ↓↑ ↓↑

P_{11}: B – C – F# – D# – E – A# – A – F – G – C# – D – G#

In this way, Yun ties together the first and second movements into a strong pair.

Like the first movement, the second is arranged as three phrases plus a coda (cadence).

Figure 4.6 Second movement

mm. 1-11		mm. 12-38		mm. 38-41		mm. 41-48
First phrase	-----------	Second phrase	-------	Third phrase	-------	Coda
I_1		$I_4 + I_7 + P_{11}$		I_1		(no row)

The first and third phrases of the second movement are both based on I_1. While it therefore seems as if I_1 is of primary importance, the second phrase is actually much longer than either first or third. Despite its greater length, the musical character of the second phrase remains consistent. The quarter-rest in m.11 separates the first and second phrase; the G in m. 38 does not belong to either the preceding P_{11} or the following I_1 and therefore divides the second and third phrases. The coda is a few measures longer than that of the first movement, but it functions in the same way, and is the movement's most significant feature.

4.1 First phrase (mm.1- 11)

The first phrase of the second movement restates the row at I1: C#-C-F#-A-G#-D-D#-G-F-B-A#-E. The C# on which it starts is the same as the last note of the first movement. Instead of a straightforward presentation of I1, the C# is repeated after a rapid motion to and from C; beyond clearly singling out C# as an important in this movement, Yun also initiates a pattern of repetition that does not appear in the first movement. Repetition of individual pitches within row presentations is a special feature of the second movement, leading to numerous such row forms. This focus on repetition is a way for Yun to use the same row while altering its character.

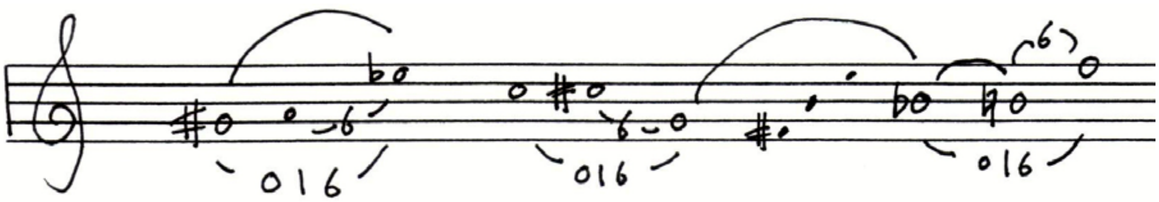
Figure 4.7 Set-class (016)

016 016 016
I1: C# – C – F# – A – G# – D – D# – G – F – B – A# – E
016 016

As with each iteration of this row, (016) dominates the construction. However, the audibility of (016) can be increased or decreased according to the articulation of the melody, the sequence of the rhythm, the length of each note, and so on. By using these techniques, Yun reduces the primacy of set-class (016) and conceals its appearance in the second movement.

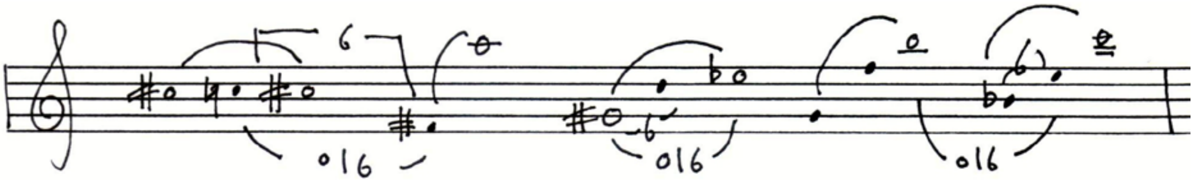
The difference in the presentation of (016) that receives in the first and second movements is very clear. In the first phrase (mm. 1-20) of the first movement, the first two notes rapidly slur to the third note clearly grouping and pulling close to one another. Therefore, the first (016) set-class is very audible as a group. The second occurrence (C, C#, G) keeps the three notes balanced and undisturbed by articulation; the length of C, C#, and G are long and C and C# both have an accent. Thus, the tritone between C# and G is emphasized, reinforcing the most distinct characteristic of the (016) set class. In the last occurrence (Bb-B-F), each note is held long enough to be recognizable and thus audible part of the (016) pattern.

Example 4.1 First phrase of the first movement



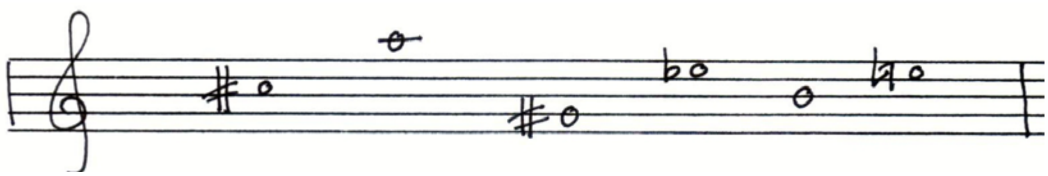
In contrast, in the first phrase of the second movement, each occurrence of the (016) is made less audible by articulation and rhythmic patterns. This phrase is divided into five fragments.

Example 4.2 First phrase of the second movement



- o = main note
- • = secondary note

Example 4.3 Main note of the first phrase of the second movement

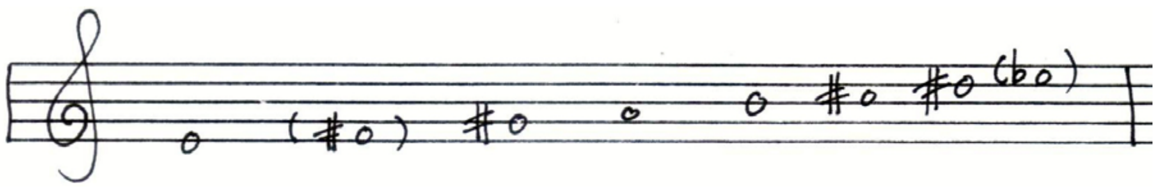


These five fragments make sequences and patterns. The second through fifth fragments all follow similar figuration with an ascending melodic line and long-short-long rhythm. Unlike the articulation in the first movement, these fragments do not correspond to the occurrences of the (016) set-class.

Consider where the occurrences of (016) are situated. The first (C-C#-F#) is not easily recognizable as (016) and because C is very short and the repetition of C# interrupts the defining tritone created by C-F#. Furthermore, a new melodic pattern starts on the F#. Similarly, the last (016), B-Bb-Eb, is occluded by the rhythmic and melodic sequence: the grouping of G-F-B and Bb-E-E is too strong. In the first phrase, only the second set-class (016), G#-D-E matches set-class to articulation.

Interestingly, the melody in this phrase sounds fairly tonal when played. The main heard notes are C#-A-G#-D#-B-E; in effect, this collection outlines the E major scale (minus F#).

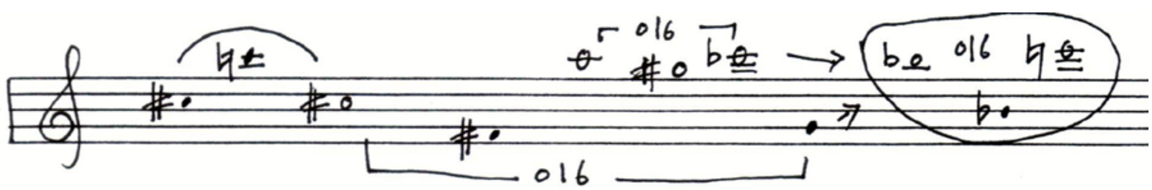
Example 4.4 E major scale



This effect is due in large part to the weakening of the (016) and the resulting deemphasis on the tritone. The pitch hierarchy illustrated in example 4.2 deemphasizes the tritone; while the tritone was highlighted throughout the first movement, in the second movement it is obscured by articulation and rhythm that treats the component tones of the tritones as less important notes.

Indeed, the purpose of set-class (016) seems to be weakened by all musical means in the first phrase. However, Yun uses (016) in another way. Listening to the first phrase carefully, we observe two voices separated after the first note by a wide shifting melodic contour. The upper voice of the polyphonic melody moves C#-A-G#-D-Eb-B-E while the lower is C#-F#-G-Bb. Each line functions as a counterpoint to the other. The bottom line forms a (016) with C#-F#-G. Simultaneously, the upper voice creates a (016) with A-G#-Eb. Finally, in the last gesture of the first phrase, (016) unites two voices with a Bb in lower voice and B-E in the upper. This contrapuntal style, with the resulting emergence of (016) continues through the second movement.

Example 4.5 First phrase of the second movement

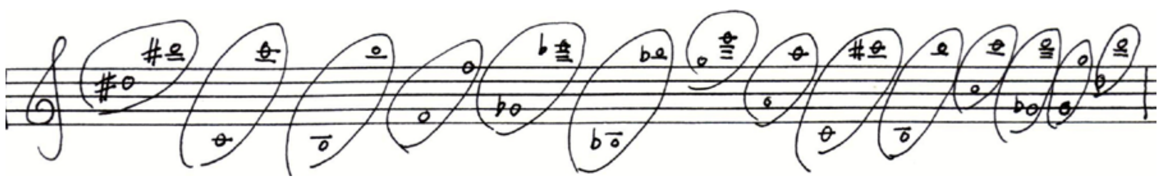


4.2 Second Phrase (mm.12 – 38)

Interestingly, the second phrase starts on D#, which is the second note in its row form, I4. Technically, the phrase should begin on E, which is also the last note of the first form of the first phrase; however, E is missing altogether in the second phrase. There are two possible reasons for this. One is to view the second phrase as overlapping with the last note, E, of the first phrase; thus, in terms of the row form, I4 starts at m.9. Alternately, one can imagine E as omitted, thus emphasizing the octave shift, and refocusing the musical direction.

The second phrase consists of three row forms, I4, I7, and P11 (11, 26, and 4 measures, respectively); it is much longer than the first and third phrases. Despite its greater length and combined row forms, the second phrase is equally unified by one musical feature, octave shifting. The second phrase starts with a shift from D# to D# over an octave; this progression continues through fourteen tones.

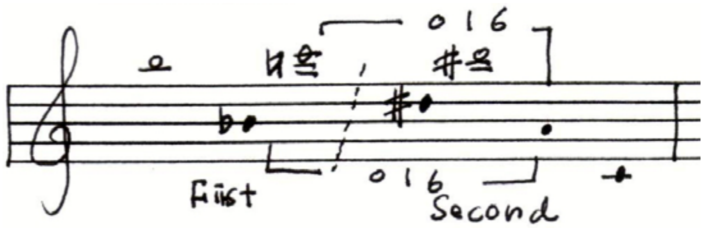
Example 4.6 Second phrase of the second movement



This phrase is clearly based on repetition and octave shift of each tone in the row; therefore, by leaving out the initial E of I4, Yun weakens the (016) structure that might otherwise have distracted the listener from the octave-shift framework.

Nevertheless, the connection of the first and the second phrases remains strong despite the missing E, due to its presence at the end of the first phrase. The (016) remains present because of the relationship between I1 and I4. In addition, another (016) connects the two phrases. I have already explained how the C#, F#, and G in the lower voice of the first phrase forms (016). However, this line continues to Bb, which is outside the set class. This Bb connects with the D# and A that begins the second phrase to create yet another (016).

Example 4.7 Between the first and second phrases (mm. 9-13)



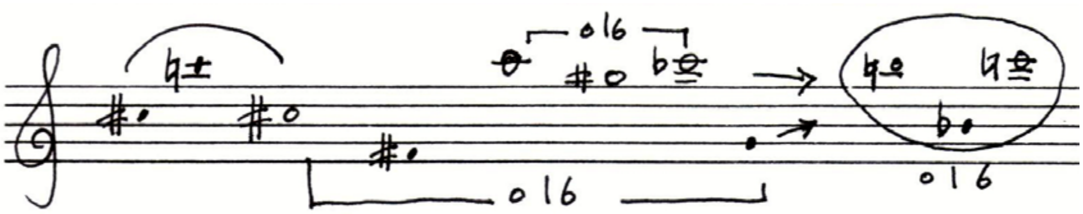
First row form of the second phrase in mm.12-24, I4 is stated: D#-A-C-B-F-Gb-Bb-G#-(G)-D-C#-G. Notice that G, the final note of the row, makes an early (mm. 22-23) intrusion, which I will discuss in more detail presently.

A notable musical characteristic of the first row section in the second phrase is octave shifting and repeating gestures with a similar rhythmic sequence. These gestures combine two octave shifts with dotted-eighth plus sixteenth-note rhythmic pattern; the gestures are set apart rhythmically rather than melodically. This is in contrast to the melodic style of the first movement, where melody is emphasized rather than rhythm. The change of musical style starts in mm.6-10 of the second movement and continues throughout the movement. Significantly, this style, with octave shifting, imitates the Sanjo genre of Gayakum (a traditional Korean string instrument). The Gayakum Sanjo is very similar to the Piri Sanjo; a distinctive feature of the former is a rhythmic sequence with octave shifting.

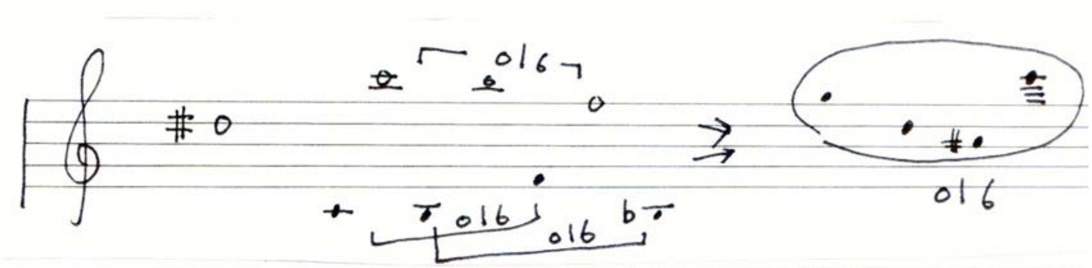
Example 4.8 Gayakum Sanjo

This musical style, *sanjo* starts in mm. 6-11 of the second movement and continues throughout the movement.

Example 4.9 Main tones of the first phrase in mm. 1-11 of the second movement



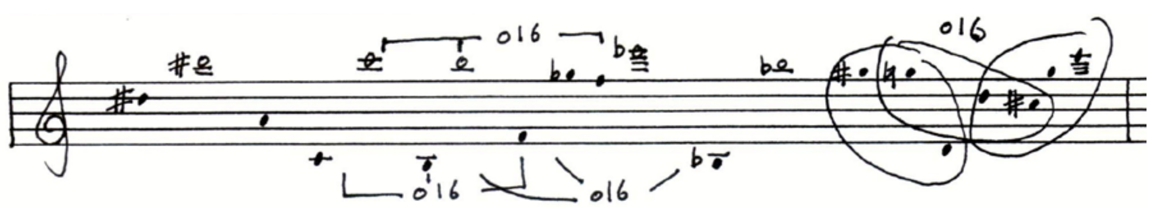
Example 4.10 Main tones of the second phrase in mm. 12-22 of the second movement



The construction of I4 in the second phrase is very similar to the construction of the first phrase (compare example 4.9 with 4.10). On the second note of the row form used, the melody separates into two voices, each of which contains multiple appearances of the (016) set-class. At the end of each row form, the two voices unite in interwoven (016) sets.

As in the first phrase, rhythmic sequences and octave shifting separate the two lines, which contrast with each other in contrapuntal style. Each of these lines is structurally informed by the (016) set-class.

Example 4.11 Main tones in mm. 12-23



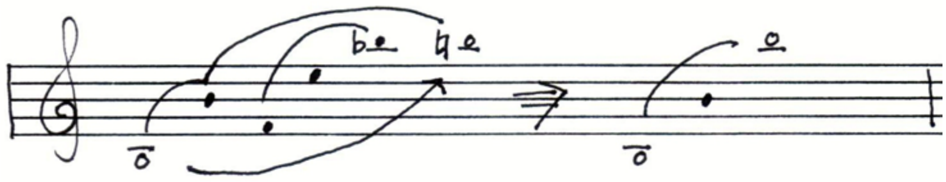
In the first part of I4, in mm.12-23, the upper line moves D#-C-B-Gb-Bb-G#-G, while the lower line is D#-C-B-F-Bb-D. (C-B-F) in the lower part and (C-B-Gb) in the upper part complement each other as the C and B of both part appear consecutively within an octave-shifting pattern. The following appearances of (016), C-B-F and C-B-Gb oscillate with each other, entangled across octaves. Each group (C-B-F and C-B-Gb) belongs to set-class (016).

As the Bb appears, it shifts an octave higher. In the lower part, the Bb creates another set-class (016) with the previous notes, B and F; however, the Bb in the upper voice is not part of set-class (016). Within the remaining notes of the row, three (016) groups are formed by the premature appearance of G, which is the twelfth note in the I_4 sequence. By the appearance of G# and D, two otherwise impossible (016) set-classes are located with (G#-G-D) and (G-D-C#); these are followed by another (016), this time with the G in its proper place in the I_4 sequence (D-C#-G).

The G in I_4 (mm. 23-24) is the most important note in that row form. G is the highest note and it is emphasized by repetition, its premature appearance in the melodic line, and its placement as the culmination of the two voices joining. Furthermore, this structural motif—descending (016) followed by an exceptionally high note—is prefigured by the (C-B-Gb) motion in mm. 14-16. Therefore, the entire musical construction of I_4 literally leads up to the climatic G.

This G also begins the I_7 row statement in m.24. I_7 and P_{11} are best analyzed as a complete unit. The two row forms are connected by the motion from the low B in m.32 (the ninth note of I_7) to the B in m. 33 that begins P_{11}. This motion, which passes through F, E, and Bb over a two-octave shift, is similar to C#-bracketed motion in mm. 30-32. Therefore, I_7 and P_{11} are linked by octave shifting, which is so central to the second movement.

Example 4.12 Main tones 1 and 2 in mm. 32-33

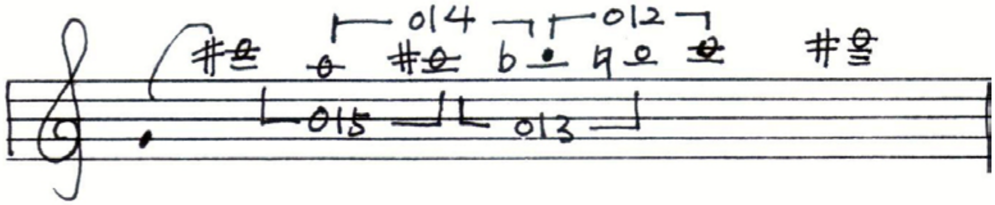


B B

I_7 P_{11}

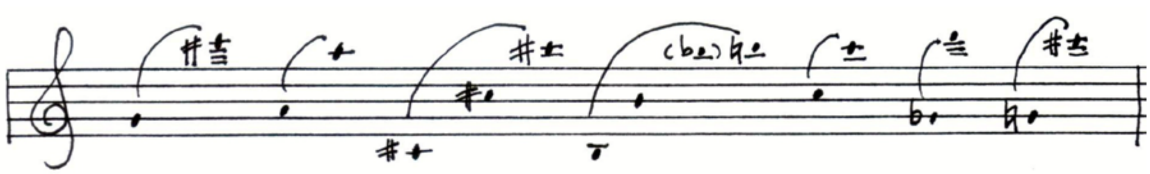
The climactic G, which opens I_7, rapidly gives way to G# as the main tone of the I_7-P_{11} phrase. This G# likewise brackets the entire phrase through mm. 37-38. As with the I_4, the I_7+P_{11} unit is separated into top and bottom lines, disguising the set-class (016) occurrences in the main-tone progression. The set-class (016) is not audible; rather, the continued octave-shifting conceals the makeup of set classes as a structural entity. If the I_7 + P_{11} phrasing is distilled to its main tones based on the octave shifts, these center around the C# in m. 30. The main tones are G# (m. 24) – A (m. 28) - C# (m. 30) – Bb (m. 32) – C (m. 36) - G# (m. 37). These notes are all the high-register climaxes of small octave-shifting gestures. When arranged as a progression, the pitches do not project significant set classes, but rather a general motion centering on C#. Indeed, each set class is different, and diminishing: (015)-(014)-(013)-(012).

Example 4.13 mm. 24-37 ($I_7 + P_{11}$)



This C# center acts as a counterbalance to the G# main tone. The two G#s bracketing the phrase are the highest notes in the second movement. They are decorated by a number of sigimsae; moreover, while most notes of $I_7 + P_{11}$ move by octave shifting in a consonant progression, both G#s move in a dissonant progression.

Example 4.14 mm. 24-37 (I_7+P_{11})



[1]	[12]	[12]	[12]	[12]	[11]	[1]
D	C	C	C	C	D	D

* D = dissonant
C = consonant

This motion qualitatively equalizes the G#s. Meanwhile, the C# in mm. 30-32 strengthens this balance. The C# lies seven measures between each attack point of G#, effectively dividing the phrase into two equal portions. Significantly, the interval class between C# and G# is 5: as mentioned previously, this is one of the most important interval classes in *Piri*.

Figure 4.8 Interval classes 5

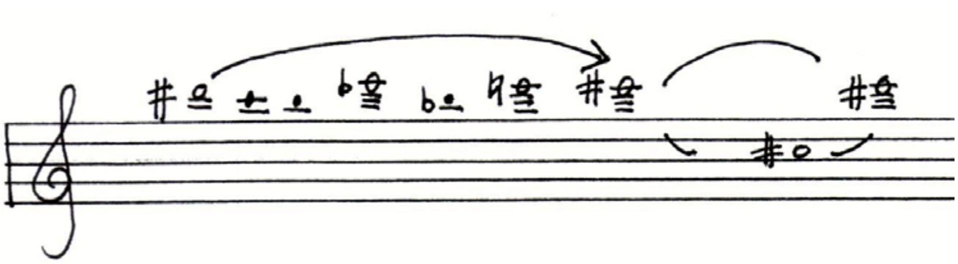
7 measures 7 measures

G# ---------------------- C#-----------------------G#

Interval class 5 5

Taking the main tones of the entire second phrase, the progression is D#-Gb-G-G#-(C#)-G#.

Example 4.15 mm. 12-37 (I4+I7+P11)



m. 12 17 22 24 30 38

The D# moves chromatically through the Gb-G-G#, with the two G#s equivalent yet reinforced by the lower C#. This structure reemphasizes the centrality of the 5 relation in

Piri: D#-G# is related by 5, while the G# itself receives another 5 relation from the balancing C#.

In I7 and P11, set-class (016) is not audible in both parts, upper and lower so that purpose of set-class (016) is also getting weaker.

In the large-scale of the second phrase, the phrase starts on D#, which moves to G# through Gb and G. This G# balances with the center note, C# and goes to the last G#.

4.3 Third phrase

The third phrase, starting in m. 38 returns to the I1 row form that opened the second movement. Yun confirms the importance of I1, as well as the first note, C#, with this repetition. However, before the row commences, there occurs a G that lies outside the previous P11 and the following I1. This G makes a G#-G-C# gesture recalling the cadence (G#-G-C#) seen in the last two measures of the first movement (mm. 60-61). Thus that cadence is reproduced in m. 38 in the second movement. Significantly, this cadence gesture reaffirms the importance of set-class (016) despite Yun's continued attempts in the second movement to deemphasize the structural role of (016). Therefore, in connecting the second and third phrases, Yun opts for a foreign note to reintroduce the (016) to the second movement. With this foreign G and the resulting (016) connecting P11 and I1, the third phrase is also balanced by a (016). The main tones are contained within these (016) occurrences

Example 4.16 mm. 38-41

Pitch hierarchy in mm.38-41 (I1)

Main tones in mm.38-41

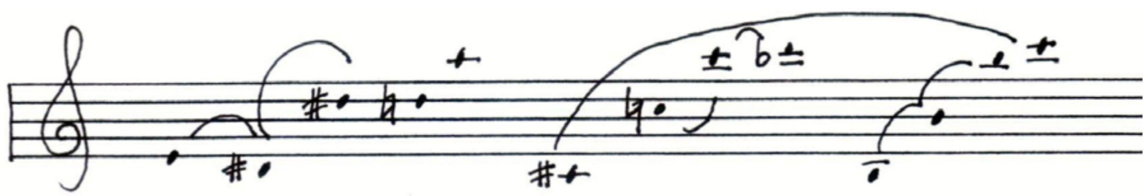
The remaining notes in m. 39, located between each (016), are all sigimse and unemphasized. Significantly, this third phrase is extremely short compared to the first and second phrases—only three measures. However, because it is based on I1, this phrase structurally repeats the first phrase, also based on I1. Therefore, perhaps Yun was less concerned with developing this phrase than with a new arrangement of all material (I1) to emphasize that initial outlying C#.

4.4 Coda and Bridge (mm.41-48)

The last phrase consists of seven notes (E-D#-D-A-C#-C-(C#)-B-(C)) which are not part of any row and therefore sufficiently independent to provide a coda. The coda closes the second movement by repeating and emphasizing the octave shifting that drives the second movement. All the notes in the coda except A undergo an octave shift, either immediately or through an intermediary note. Because the A does not have an octave shift and creates the only (016) in the coda, Yun signals that, while (016) remains present in the second movement, the true structural basis of that movement is the octave shift.

Example 4.17 Coda (mm. 41-48)

(016) D#-D-A



D#---D# C# C---C Db(C#) B----B----B C

The coda also functions as a bridge between the second and third movements. This connection is handled differently from previous row transitions, because the third movement uses a new row series altogether. The last note of I1 (m. 41) is E, while the first note of the third movement is G. The bridge provided by the coda is necessary because an E-G connection is improper in *Piri*. By including the bridge, the second and third movements are related C-G, interval class 5; this interval is far more appropriate for *Piri*.

Figure 4.9 Interval classes 5

First ----------	Second --------	Third ---------	Fourth
C# - C#	C – G	C – F	
	5	5	

Finally, the use of a non-series note collection for the coda allows Yun to prepare for the new series used in the third movement. This technique of using non-series notes to effect a shift in structural underpinnings is foreshadowed by the G in both m. 22 and m. 38, which was also outside of the row and used to highlight a shift in structure between (016) and octave shifting.

Although the second movement is based on the same series as the first, the row forms are manipulated according to octave-shifting rather than highlighting the (016) set-class. This de-emphasis of the set-class undermines the connection between the first two movements and sets up the use of a new series in the third movement.

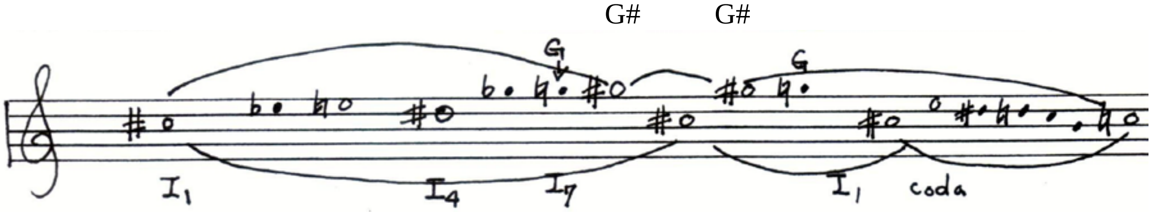
4.5 Conclusion

The most significant connection between the first and second movements is the primacy of the notes G#-G-C#. In the first movement, the importance of these notes was encapsulated in the two-note coda. In the second movement, by contrast, the notes are highlighted over the course of a long progression. The second movement starts on C# and gradually moves through the top line to G# (m. 24), the highest note and climax of the movement. In closing on C, the top line draws an arch (C#-G#-C) over the movement. The C# remains dominant in the lower line before moving to the final C; therefore, the bottom line is connected horizontally. Thus looking at both lines, the second movement is shaped as a bow. See example 4.18.

Example 4.18 Main tones of the second movement

Main tones of the second movement (detailed view)

G# G#



C# D# C# C# C

m. 1 12 22-23 24 30 37 38 38 40 48

Main tones of the second movement (simplified view)

Thus far, it is clear that C# and G# are the main tones of the second movement. The other main tone gains its importance through its out-of-placeness rather than its structural emphasis. G appears in m. 22 out of the row order; in m. 38, it appears outside of the row forms preceding and following it. By emphasizing G as a note that behaves in an unexpected way, Yun adds it to the C#-G# superstructure. The resulting C#-G#-C# matches the first movement's G#-G-C# in both structural importance and generic significance. Therefore the link between the first and second movements is less about the series used and more about what Yun decides to create with the series.

Chapter 5 Third movement

The third movement is divided by design into two big parts; the first part, mm. 1-8 is marked ♩= 78, the second, mm. 9-33, is marked ♩=100. The tempo change is reinforced by the changing texture of the music in each part. The first part is dense with many rapidly moving thirty-second notes. In contrast, the second part mostly consists of long notes with double trills.

With respect to the serial structure, however, the third movement is divided into three parts. A new series appears in mm. 1-3; the original series returns in mm. 3-22; and mm. 22-33 are not organized by any row. An entirely new row series appears at the very beginning of the third movement; though it is just three measures long and it passes very rapidly, this row-based phrase combines four iterations of the new series. While the second row-based phrase is considerably longer, it too uses multiple reiterations of the original row series. Because of this contrast in series, combined with the striking lack of serial technique in mm. 22-33, this movement is divided into two phrases and a coda. The first phrase and the second are demarcated by the tempo marking, while the coda comprises the section in which serialism does not determine the notes. Therefore, the development in row series and forms in this movement is only partly related to its division into phrases. The lack of serial technique corresponds to the coda; however, the first phrase encompasses both the new and original series, while the second phrase is also based on the original series.

Figure 5.1 New, original, and no series

mm. 1-3 mm. 3-22 mm. 22-33

N (P_7 – I_0 – P_8 – I_1) // O (R_5 – R_{11} – R_2 –R_5) // no series

----------------------mm. 1-8---------//------------mm. 9-33--------------------

(♩ =78) (♩ =100)

----------------------mm. 1-8----------//--mm. 9-22------------// mm. 22-33

First Phrase Second Phrase Coda

* N = New series

O = Original series

It is necessary to compare the structure of the new series with the original series. The sharpest difference is the basic building block of set-class form: the new series is largely composed of set-class (014), while the first row form uses (016).

Figure 5.2 Structure of the first and new series

First series (S1) row form (see movement 1):

016 016

P8: G# - A – Eb – C – C# - G – F# - D – E – Bb – B – F

016 016 016

New series (S2) form (beginning of movement 3):

014 014 014

P7: G – Bb – B – Eb – D – G# - A – F – F# - E – C – C#

014 016 014

016

Five occurrences of set-class (014) create the new series, just as five (016) do for the first series. Interestingly, there are no set-class (014) occurrences in the first row series, although two set-class (016) appear in the new row series. Therefore, while the new series has a distinct structure, Yun does nod to the original series by including its building blocks.

In set-class (016), there are two contrasting interval classes, interval-class 5 and 6. Interval-class 5 (perfect 4th and 5th) is consonant and 6 (tritone) is dissonant. However, in set-class (014) both interval classes, 3 and 4, are consonant.

The lack of the tritone in the second series is very striking because it is so clearly audible in the first two movements. In the first series, there are four tritones while there is just one tritone in the second series.

Figure 5.3 tritone

First series

t t t t

P8: G# - A – Eb – C – C# - G – F# - D – E – Bb – B – F

Second series

t

P7: G – Bb – B – Eb – D – G# - A – F – F# - E –C – C#

*t = tritone

Yun emphasizes the importance of (014) as a basic component of the second series by also locating it within the topmost notes of its first appearance as P7: G-G#-E. Similarly, Yun nods to the overall importance of (016) in the piece despite its seeming structural absence from the second series. However, the second series does contain one large-scale (016). In P7, G# is emphasized as the highest note in this series' initial appearance; it also occurs at the midpoint of the row. Thus, G, G#, and C# together form a large-scale presentation of set-class (016).

Figure 5.4 Set-class (016) and (014)

(014)

↓ ↓ ↓

P_7: **<u>G</u>** – Bb – B – Eb –D – **<u>G#</u>** - A – F –F# - <u>E</u> – C – **<u>C#</u>**

↑ ↑ ↑

(016)

5.1 First phrase (New series) (mm. 1-8)

The first phrase consists of two series. The first series is the original form from movement 1. The other series (S2) appears at the start as P_7: G-Bb-B-Eb-D-G#-A-F-F#-E-C-C#; it later appears as I_0, P_8, and I_1. The original returns in m.3 as R_5, R_{11}, R_2, R_5; the last form R_5, is incomplete, and only contains the first four notes of the row.

Figure 5.5 Second and First series

Second (new) series (S2)		First (original) series (S1)
P_7 – I_0 – P_8 – I_1	----------------------	R_5 – R_{11} – R_2 – four notes (R_5)
mm. 1-3		mm. 3-8

The movement opens with P_7, presented in three gestures: (1) a six-note inverse-arch gesture, (2) a four-note zigzagging gesture, and (3) the final two notes of P_7, which overlap with the first two notes of the following row form, I0: C-C# (I will explain this in more detail further on). I0 (m. 2) also appears in two gestures: a four-note rising phrase and a six note zigzagging phrase, which together cover eight tones of the row. The final four notes in I0 are part of a gesture that also contains the first three notes of P8. Following this, a six-note gesture in P8 (mm. 2-3) draws an inverse-arch, and the final three notes in P8 are grouped with the first four notes of I1. The next eight notes in I1 rise up to G# -- the highest, climactic note of the first phrase (mm. 1-8). G# is repeated again for emphasis. Interestingly, the final four notes of I1 also overlap with the first four notes (D, E, G#, G) of R5 (mm. 3-4) of the first series; the first series (S1) returns here. The next eight notes of R5 draw a wave line. After an eighth-note rest, the 12th tone (F) of R5 makes a short trill gesture with the first three notes of R11. The next seven notes make a wave line again. The final two notes of R11 combine in a phrase with eight notes of R2. The next three notes of R2 make a zigzagging motion; A and Eb are repeated with octave shifting. The 12th tone, D rises one octave higher and makes a last jumping gesture with three notes of R5. Finally, this first phrase of the first movement ends with a sustained C#. In this way, each row form is connected to its following form by overlapping gestures.

In m. 2, P7 and I0 overlap with common tones, C and C#. C and C# are the 11th tones and 12th tone of P7; C is the first tone of I0. However, the onset of I0, on the 11th tone of P7, is confused because of the C#, which as op 12 of P7 appears out of order in I0 (where it should be op 9).

Figure 5.6 Connections between P7 and I0

1 2 3 4 5 6 7 8 9 10 11 12
P7: G-Bb-B-Eb-D-G#-A-F-F#-E-[C-C#]
I0:[C-(C#)]-A-G#-E-F-(E)-B-Bb-D-C#-Eb-G-F#
1 9 2 3 4 5 4 6 7 8 9 10 11 12

This connection via a series-tone overlap is similar to that used in the first movement, where each form starts with the 11th tone of the previous form; however, in the first movement, these same notes are repeated rather than implied by overlap.

Figure 5.7 Connections between P8 and P11

First movement, mm. 14-23, [S1]

P8: 10 11 12
--------------------------Bb – B – F
└–→ B – C –F# ----------
P11: 1 2 3

The connections between the next adjacent pairs of rows – I0-P8 and P8-I1 – are both made through note-gesture groupings, rather than overlaps.

A new, more complicated tone overlap technique is used in mm. 3-4 to connect [S2] I1 with [S1] R5. Here, the final four tones of I1 overlap with the first three tones of

R5. R5 starts on the 9th tone of I1, D. The second and third tones of [S1] R5 are the same as the 11th and 12th of [S2] I1: G# and G. The E that is the 10th tone of I1 thus appears out of order in R5.

Figure 5.8 Connections between I1 and R5

1 2 3 4 5 6 7 8 9 10 11 12 11

[S2] I1: C#-A#-A-F-F#-C-B-Eb-**D-E-G#-G-(G#)**

D-(E)-G#-G-(G#)-C#-B-Eb-E-Bb-A-C-D#-F

[S1] R5: 1 7 2 3 2 4 5 6 7 8 9 10 11 12

This overlapping, while complex, is reinforced by connecting (014) and (016) set classes.

Figure 5.9 Set classes (016) and (014)

014

D – E – G# – **G – G# – C#**

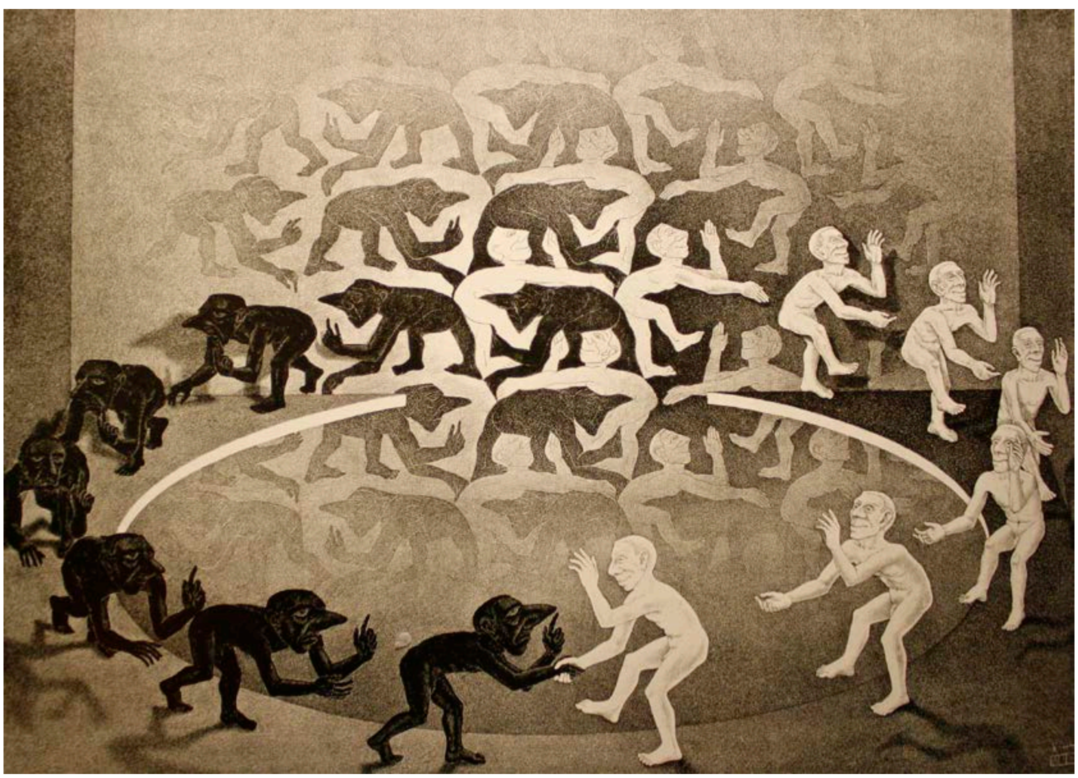
016 016

D, G#, and G make set-class (016) and E, G#, and G make (014). Therefore, the (014) and (016) set classes weave together the overlapping tones of [S2] I1 and [S1] R5. The importance of this connection via set class is particularly significant given the following C#. The next trichord , G-G#-C#, is emphasized by the row form overlap in G and G#. The G# is repeated and is the highest note of this phrase, and there is a dotted eighth rest between G# and C#. This emphasized G#-G-C# progression recalls the G#-G-C# in the

Coda of the first movement (mm. 60-61) and its imitation in the second movement (m. 38).

Yun uses this highly involved overlapping of row forms to strengthen each form's connection with the next. In addition, this overlap and/or gesture-grouping method of connection disguises the transition from one row form to another; the progression of [S2] P_7-I_0-P_8-I_1-[S1] R_5 is more or less inaudible. His way of morphing one row/series form into another is reminiscent of the art of M. C. Escher, where the black-and-white images are all part of multiple formal perspectives in reference to a specific viewpoint (example 5.1). [23]

Example 5.1 Encounter by M.C. Escher[24]



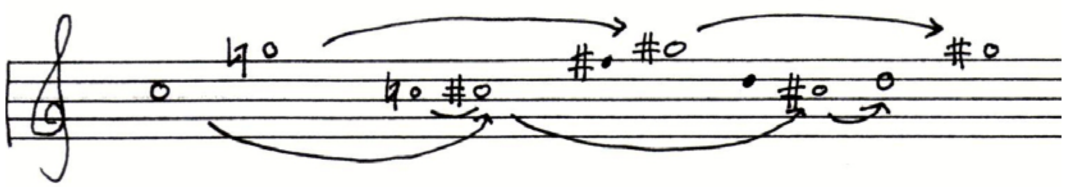
[23] Mauritis Cornelis Escher (1898 – 1972) was a Dutch graphic artist.
[24] M. C. Escher, *The Gaphc Work* (Barnes & Noble inc, 2007), 30.

This D-E-G#-G overlap between [S2] P_8 and [S1] R_5 in m. 3 is significant for the way in which its first note, D, links back to the last note of the second movement, C. When the most important notes in mm. 1-3 are isolated, a two-line pattern may be observed.

Example 5.2 registers simplified

[S2] P_7-1 [S2] P_8-1 [S1] I_1-12

G -------------------------------- G#--------------------------G#



C ----------------- C----C#----------------------------C#---D

[S2] I_0-1 P_7-12 [S2] I_1-1 [S1] R_5-1

This large-scale movement creates two lines. [S2] P_7 starts on G; the first note of I_0, C, is linked with C#, the last note of P_7. The last note of I_0, F# moves to G#, the first note of P_8. The last note of P_8, D, moves to the C# that starts [S2] I_1.The D beginning [S1] R_5 appears before the climatic G#, which is also the last note of I_1. The top line moves from G to G#, and the bottom line moves from C# to D. This C#-D motion connects this subsection, mm. 1-3, to the C that closes the second movement.

At the end of m. 3, [S1] returns as R5-R11-R2-R5 (partial). The 12th tone of R5 and the first three notes of R11 make one short group; significantly, they appear with trill, its first occurrence in this *Piri*, and are followed by more trilled passages in this movement. R11 and R2 are connected by B, which is the last note of R11 and the first note of R2. The same pattern connects R11 and R5. The first four notes (D, G#, G, C#) of R5, mm. 6-8, ends the first phrase. The recurrence of these four notes of R5 corrects what happened in m. 3, where D, G#, and G were concealed by overlapping with the previous row form, P8.

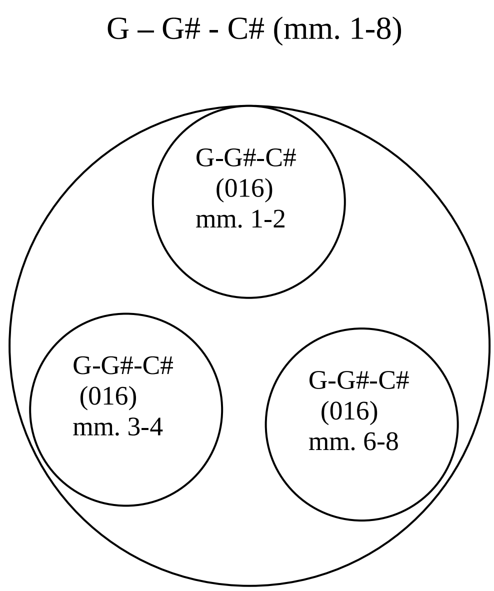
As I explained before, the skeleton of the first row form, [S2] P7 in mm. 1-2, is G-G#-C#. These three notes are also emphasized in the middle (mm. 3-4) of the first phrase. Moreover, this trichord G-G#-C# ends the first phrase in mm 6-8. Thus the trichord G-G#-C# is emphasized at the major structural moments of the phrase.

Figure 5.10 G-G#-C# (016)

mm. 1-2	mm. 3-4	mm. 6-8
G-G#-C#	G-G#-C#	G#-G -C#
G	G#	C#

Furthermore, we may observe a larger G-G#-C# pattern: m. 1=G; mm. 3-4=G#; mm. 6-8=C#. The G and C# are pulled out as they are the first and last notes, respectively, of the phrase. The G# of the central (G-G#-C#) trichord is the most important because it is not only the highest note of the phrase, but also the highest note the oboe is capable of playing. Thus, the first phrase is a large-scale G-G#-C#. The small-scale gestures exist within and correspond to the large-scale structure; this illustrates the micro-macro cosmos concept.

Example 5.3 G-G#-C# (016)



5.2 Second phrase (first series)

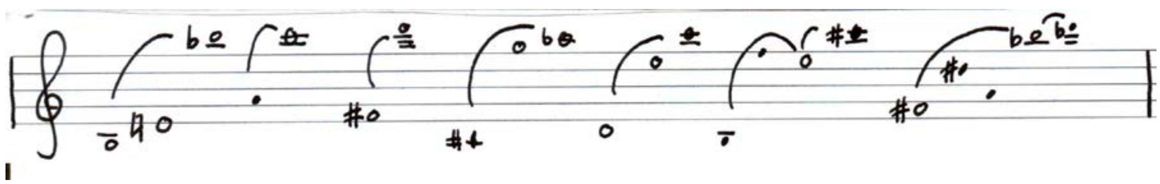
The second phrase (mm. 9-22) continues R_5, beginning with the order position 5 through 12 of the row, followed by RI_{10} and Db. The first four notes of R_5, mm. 6-8, belong to the first phrase, not the second. However, those first four notes appear again right after R_5, as a part of RI_{10} (mm. 14-16). These first four tones of RI_{10}, C#-G-Ab-D, are the first four notes of R5 in reverse. Therefore, the RI10 completes the second phrase appearance of R5.Thus, R5 and RI10 are strongly connected by four common tones, C#, G, Ab, and D. These four notes also link together the first and second phrase, because the D-G#-G-C# appear at the end of the first phrase (mm. 6-8).

Figure 5.11 Connections between R5 and RI10

```
   m. 9
    5  6    7   8    9 10 1112 (4   3   2   1)
R5: B-Eb-E-Bb-A-C-F#-F-(C#-G-Ab-D)
                                   1    2   3   4  5   6 7 8  5  1    9   10  11 12    1
                         RI10:  C#-G-Ab-D-E-C-B-F-E-C#-F#-D#-A-Bb-C#
                                   m. 14
```

In the second phrase, Yun uses long notes, which group in threes (mm. 9-19) and fours (mm. 20-22). Each note moves by widely shifting intervals as in the second movement; however these shifts are larger than the octaves seen through the second movement.

Example 5.4 Main notes of the second phrase (mm. 9-22)



mm. 9-11 11-12 13-14 14-15 16-19 20 21-22

R5 --------------------------------RI10 --------------------------------------

*tr=trill

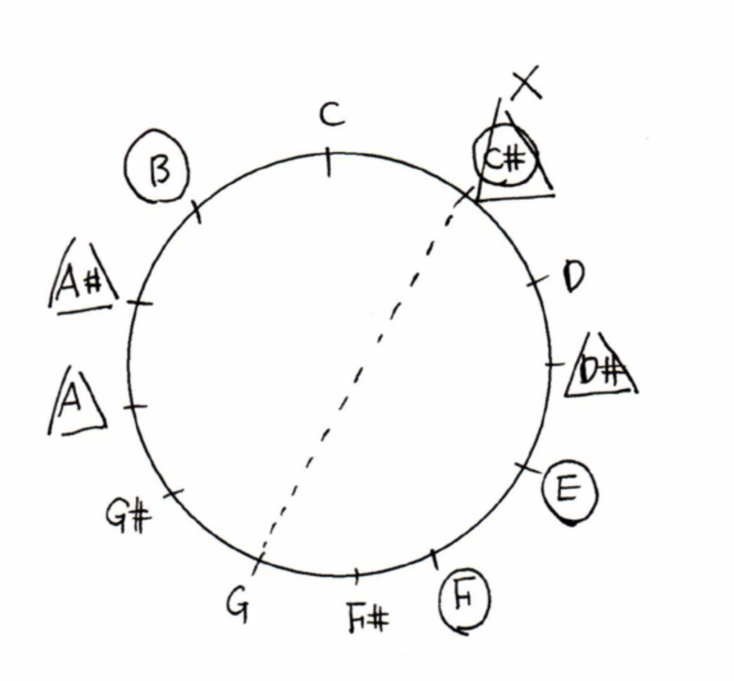
Among these main tones, trills are used to further emphasize E, F#, D, and C. Moreover, in mm.16-18, the progression (D-E-C) emphasizes the C by approaching it through an octave shift and holding it for 2 measures plus 1 beat. Thus, the second phrase starts on B, moves to C, the climax note, and finally ends on C#/Db. This Db in m. 22 is the first tone of Rl10; it should be treated as a repetition of the first tone of RI10 rather than something new because it is continued with a slur from the previous Bb. More importantly, this appearance of C# is repeated three times in Rl10: at the first note, m.14; out of order in m. 20; and again as the last note, m. 22.

Figure 5.12 RI10 in m. 14

	<u>1</u>	2	3	4	5	**6**	7	8	5	**<u>1</u>**	9	10	11	12	**<u>1</u>**
RI10:	C# –	G –	Ab –	D –	**E** –	**C** –	B –	F –	E –	C# –	F# –	D# –	A –	Bb –	Db
									014				014		
								0146					0146		

This C# is reemphasized at the set-class level as well. Before the second C# in m.20, E, the fifth note of the row, is repeated again out of row order. These two extra notes, E and C# create set-class (014) with the preceding F. Moreover, the last Db also creates set-class (014) with the notes preceding it; these (014) recall the second series, where (014) was a basic building block (that had never appeared in the first series). Furthermore, by repeating E and C#/ Db, Yun creates (0146) tetrachords before and after the note F#; the C#-G is the axis of symmetry of both tetrachords, but there is no G.

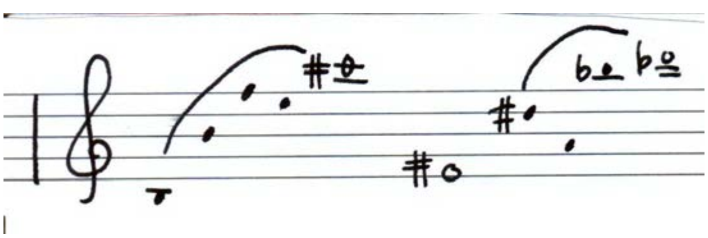
Example 5.5 Axis of symmetry



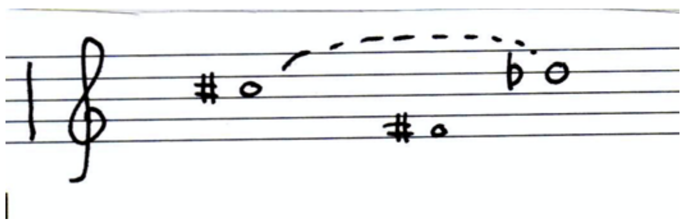
Both tetrachords climax with the glissando at C#/Db in mm. 20 and 22, creating corresponding gestures around F#. This C#/F# emphasis also recalls the importance of the interval-class 5.

Example 5.6 mm. 20-21

mm. 20-21 (a)



mm. 20-21 (b)



5 5

In the second phrase, Yun uses double trills (which are more rapid and more thrilling than normal trills), glissandi, and a special notation that indicates a note played quarter-tone higher or lower than the written tone. Because of the wide shifting, double trill, glissando, and special notation, the musical mood of *Piri* from m. 9 to the end of the movement can be described as follows: the trills reflect the sound of wind, while the glissandi conjure up a wild animal's moan. The result is a musical replication of nature at night.

5.3 Coda

The coda of the third movement starts on F# in m.22. The notes in the coda do not form a row, although it is possible to find fragments of the form [S1] RI1 in mm. 24-28. The coda is connected to the second movement by a sequential repetition of interval-class 5 and set-class (016). As already explained, the C#s in m.20 and 22 are emphasized; however the F#s that follow the C#s are also emphasized by the interval-class 5 that occurs between C# and F#. Moreover, the set-class (016) is repeated in sequence around the two C#-F# gestures in mm. 20-21 and m.22: B-F-E (016) moves to C#-F# (mm.20-21). D#-A-Bb (016) (m.21); another (016), B-Bb-E (mm.23-24) follows a second C#-F#.

Figure 5.13 Set-class (016) and interval class 5

Second phrase // coda

B-F-E — C#-F# — D#-A-Bb — C#/Db//-F# — B-Bb-E
016 5 016 5 016

In this manner, interval-class 5 and set-class (016) rotate with one another to connect the coda with the rest of the movement. The first three notes of the coda (F#-B-Bb in mm.23) are part of the connecting interval-class 5 and (016) pattern; the fourth note, E, begins a sequence that appears as a possible RI1 fragment. E-Bb-B-F-G-Eb-D can be understood as the beginning of RI1. One way Yun strengthens the row implication is by using the second and third tones of the row on both sides of the first tone. Bb and B are symmetrical with respect to the E; therefore, by emphasizing the E through mirroring, E gains strength as beginning of something new.

Figure 5.14 symmetry around E

mm.23//23-4//24 // 25 //25

B – Bb – (E) – Bb – B ------

3 2 1 2 3

This RI1 is only seven notes; however, because RI1 is related at T3 with RI10, it continues the pattern of T3 relations throughout the piece. I think that Yun uses this fragment as “false form” because of the T3 pattern.

Figure 5.15 T3 pattern

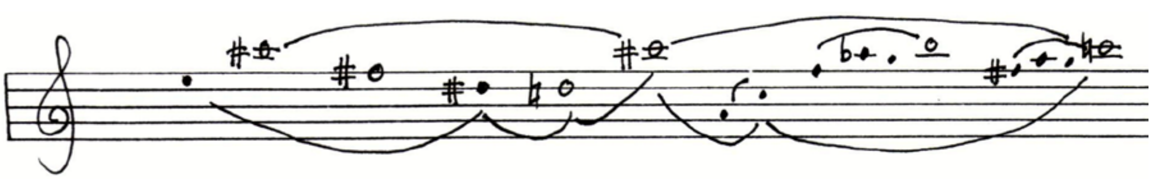
T6 T3 T3 T9 T3 T3I T3?

[S1] R5 ------ R11 ------ R2 ----- R5 -------- R2 ----- R5 ------RI10 ----- (RI1 ?)

The next part (mm. 29-33) is marked *tempo ad libitum*. Thus, this section is very freely played in terms of tempo, rhythm, and intonation. Playing the written tone is less important than capturing the natural sound of wind. Like the coda of the second movement (mm.41-49), this coda contains many dynamic changes and glissando. Moreover, the large-scale progression of the coda of the second movement is from E to C, as is that of the third movement. In this coda, the E-C motion occurs through two voices. The tempo ad libitum starts on E and it is separated into high and low parts, moving C#-C and E-C, respectively.

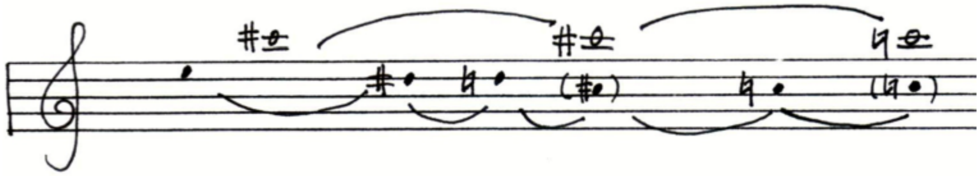
Example 5.7

mm. 29-33, tempo ad libitum



mm. 29-33

C# ------------------------ C# ------------------------ C



E -----------------D#------D------C#------------C-----------C

Thus, the two parts of the coda – the tones of the incomplete RI1 and the tempo ad libitum section – connect with each other through the E to C motion. The seven RI1 tones cover E-Eb-D and connect with the following C#-C in the top voice of the tempo ad libitum (mm. 24-33). Midway through this progression, a bottom voice enters to echo the E-C motion.

Example 5.8 Coda of the third movement (mm. 23-33)

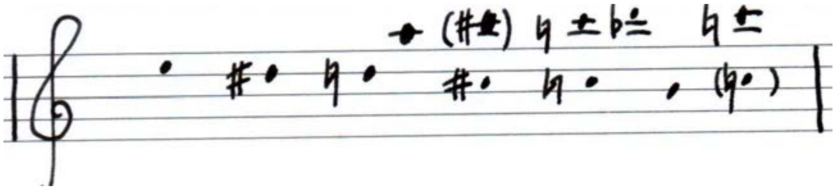
E------------------Eb------D-------------C#------------C#-----------C

Echo

The large-scale progression of the coda in the second movement is the same as that of the coda of the third movement (E-C); more precisely, the coda of the second movement is very similar to the tempo ad libitum section of the third movement. In both sections, there are two separate voices, high and low; the lower voice moves E to C while higher part moves C# to C.

Example 5.9 Coda of the second movement (mm. 41-49)

C# --- C—Db----- C



E------D#------D----------C#-----C------B------C

In both cases, Yun matches progression and voice assignment. Why does Yun use the same structure for the coda in the both the second and third movements, and why is the coda of the third movement prolonged by mm. 23-28? As demonstrated thus far, the first three movements all use similar patterns. The first and second movements are composed with five row forms and a coda; the third uses nine forms, but the first four belong to the second series, and can thus be treated as a bridge connecting the [S1] of the second movement with its reappearance in the third. Thus, the third movement follows the five row forms plus coda pattern, with an extended bridge/introduction. The movements also follow sequences in relation to the row forms of the first series used; the first movement largely uses prime forms; the second inversional forms; and the third retrograde forms.

Figure 5.16 Row forms in the first three movements

First movement: P8 – P1 – P2 – P5 – I0 – Coda

Second movement: I1 – I4 – I7 – P11 – I1 – Coda

Third movement: (P7 – I0 – P8 – I1) R5 – R11 – R2 – R5 – RI10 – Coda
[S2] [S1]

In each movement, the row forms chosen are primarily related by T_3. In this manner, Yun composed the first three movements in such a way as to connect them both thematically and structurally. Two things are particularly important when comparing the first and second movements: 1) corresponding forms (i.e. $P_8 \rightarrow I_1$, $P_1 \rightarrow I_4$, etc.) are composed with the same dyad and tetrachord; 2) both movements progress G#-G -C#. The pattern of corresponding row forms does not extend to the third movement, but the G#-G-C# progression does. Structurally, the movements as discussed so far correspond. However, one difference between the relations of the penultimate row form to the coda in the second movement versus the third breaks the progression pattern to create a larger structural gesture. The last row form of the third movement, RI_{10}, ends with Db. This makes for a difficult connection to the E that starts the coda, as Yun does not use interval class 3 as connecting interval between movements, forms, or sections. Using RI_1 in the coda effects this connection. Because the five row forms have already been completed in mm.3-22, RI_1 is fragmentary in the coda; however, the fragment both continues the T_3 relations pattern and reintroduces E as its first tone.

Therefore, the partial row continues the previously established patterns of T_3 relations and five row-forms plus coda, while also smoothing the transition from Eb-E, mm. 22-24. Therefore, the features that appear in all the codas lead to the functions likewise shared by all three codas. The purpose of a coda is to expand the musical space by highlighting the distinctive features of the movement while setting up a smooth transition to the next movement. The distinctive features of the third movement are the combination of [S2] and [S1], and their respective basic building blocks of set-classes (014) and (016). The coda emphasizes this by consisting mostly of (014) and (016) set classes.

Figure 5.17 Set-class (016) and (014) in the Coda

016

Coda: F#-B-Bb-E-Bb-B-F-G-Eb-D-E-C#-F#-D#-D-C#-A-C-F-Ab-G-B-F#-A-G-C

016 016 014 014 014 016

These features are combined with the function of the movement as a whole by summarizing and melding the musical material that has so far appeared.

This movement is the most intricate in *Piri*. Two row series ([S1] and [S2]) contrast with each other; specifically, the basic building block of the two row series, [S1] (016) and [S2] (014) contrast with each other in this movement because of their different characters. Moreover, the first (mm. 1-8) and the second phrases (mm. 9-22) are also differentiated; the first phrase consists of rapid and short notes, while the second phrase uses long notes with trills.

Chapter 6 Fourth movement

The fourth movement of *Piri* stands apart from the first three in many ways. Over the course of the first three movements the pace gradually accelerates, and the texture becomes more complicated. The first three movements are distinguished changes of tempo, which recalls the *sanjo*. The first and second phrases of the first movement make a pair; the first and second movements as a whole are another pair; and the third movement introduces material that creates a pairing with the material in the first two movements. The first three movements are melodically monophonic; the fourth movement has no tune. The fourth movement creates a complete shift. The acceleration comes to a dead stop; the movement is marked *Langsam, misterioso*. Moreover, the fourth movement is mostly composed of whole notes with fermata signs. Most importantly, these notes create polyphony through the special fingering of the oboe. Because of all these characteristics, this last movement is very similar to the coda of the first movement; similarly the role of the fourth movement is the same as that of the coda to the first movement. This equation translates to the structure of *Piri* as a whole; by examining the fourth movement in relation to the first three, we can clearly understand the first movement as a microcosm of *Piri* as a whole.

The fourth movement consists of only [S1] R8, which is stated twice. However, Yun does not want this repetition to be recognizable to the listener. Therefore, he divides the line into phrases that contradict the row-form divisions by means of double fermatas, slurs, dynamic signatures, and breath marks. The fourth movement consists of four phrases, without measures, and each phrase divided by breath marks.

Figure 6.1 Four phrases in the fourth movement

First phrase:	F – B – Bb – E – D – F# – G – C# – C
	1 2 3 4 5 6 7 8 9
Second:	Eb – A – G# – F – B
	10 11 12 1 2
Third:	A# – E – D – F# – G – C# – C
	3 4 5 6 7 8 9
Fourth:	Eb – A – G#
	10 11 12

In this movement, the breath mark indicates a short break rather than simply a breath, because it is impossible to breathe only at the marks due to note length and fermatas. Thus, the role of the breathing mark is to indicate phrase division.

In the first phrase, Yun wants to reemphasize the importance of set-class (016). The first phrase consists of nine notes; the first four notes (F-B-Bb-E) and the last four notes (F#-G-C#-C) form two instances of the (0167) tetrachord, which results from the combination of two set-classes (016). D is played midway between these two tetrachords.

Figure 6.2 Tetrachords

016 016

F – B – Bb – E – (D) – F# – G – C# – C

016 016

0167 0167

The first three notes (Eb-A-G#) of the second phrase are also set-class (016), the Eb and A are connected by a slur, while the G# belongs to the next group, G#-F-B. The articulation deemphasizes trichord structures in favor of interval sequence; interval-class 6 is presented before and after G#. As with the first phrase, this mirroring creates a balancing effect.

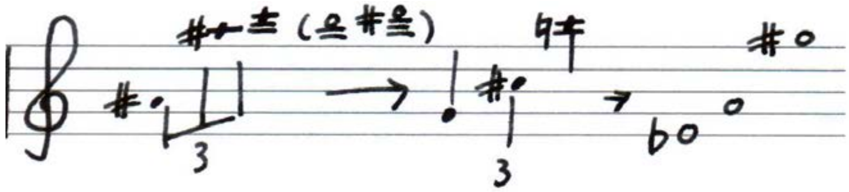
Figure 6.3 Interval-class 6

6 6

Eb – A – (G#) – F – B

The third phrase diverges from the whole-note pattern using two kinds of triple rhythm: triplet eighths and triplet quarters. The second implies a deceleration of tempo, emphasizing the entrance of the fourth phrase. The first group of triplets creates interval-class 6, while the second group of triplets is set-class (016).

Example 6.1 Third and fourth phrases in the fourth movement



The non-triple notes, D and F#, occupy central positions creating another balanced phrase. When the F# is combined with the G-C#-C trichord, the resulting (0167) tetrachord is yet another layer of trichord relation.

Figure 6.4 Triplet rhythm

A – A# – E – (D – F#) – G – C# – C

↑ ↑

triplet eighths triplet quarters

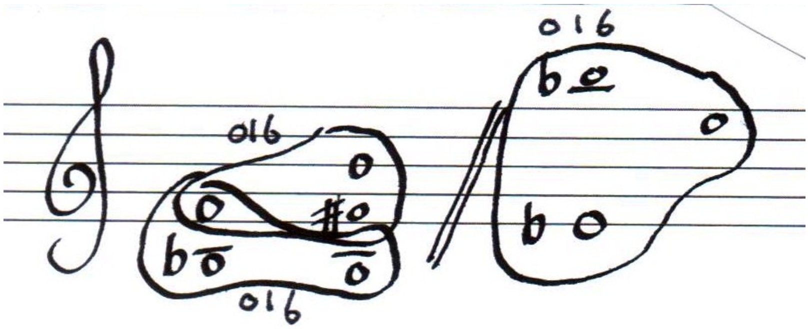
The fourth phrase, Eb-A-G#, is another (016) set-class. This phrase acts as the coda to the coda-like movement. The breath mark between A and G# emphasizes the circle started by the G# opening the piece.

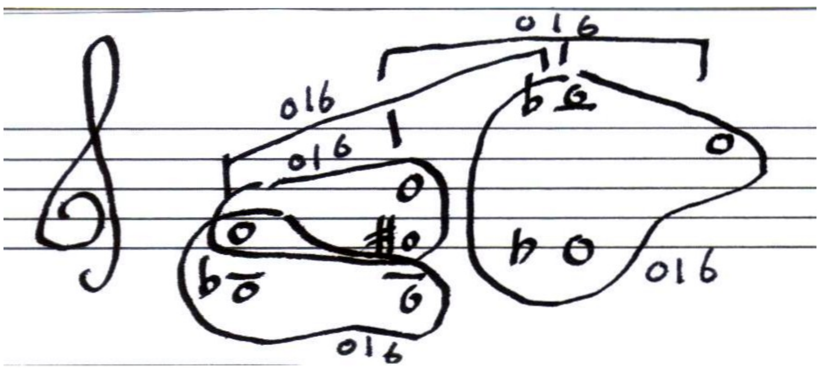
In the fourth movement, the most striking effect is the use of harmonics and double and triple stops; the latter are very unusual for the oboe. Yun's original music was interpreted for oboe fingering by Georg Meerwein, who premiered the piece. These fingerings for each note are printed on the score, as a guide to interpretation. Yun sought a special sound to match the *misterioso* designation of the movement. By using this melodic instrument to create a harmonic texture, Yun further separates the fourth movement from the first three. However, he creates a link to the earlier movements by emphasizing elements of the (016) set class in the harmonics.

The fingerings in the score are not meant to be exact. Yun considered them subject to change based on the different playing styles of oboists. Rather, Yun's fingerings are hints to the performer, who must figure out what will work for his or her particular technique. The score itself reflects this by adding an extra staff underneath the staves designating Yun's music and Meerwein's fingering.

To find the appropriate fingerings, the performer must understand Yun's purpose in this movement. As mentioned above, Yun emphasizes interval-classes 5 and 6 and set-class (016). In the first and second notes, the fingering creates interval-class 5 between Bb and F and B-B-F#, respectively. The first two notes, F and B, are related at 6. By adding certain harmonics, this 6 interval becomes the basis for a web of interconnected (016) set classes.

Example 6.2 First four notes of the fourth movement, F, B, Bb, and E





The first three notes, F, B, Bb, form set class (016). The second, third, and fourth notes, B, Bb, E, form another (016). In addition to these, the added harmonics create three more (016) set classes: F-B with harmonic Bb; F-B with harmonic F#; and Bb-E with harmonic Eb.

The fifth note, D, also creates interval-class 5 through fingering; however, it is not connected to the previous and following notes by set-class (016).

The sixth note is written as F#, but this note doesn't necessarily fit with the fingering. Here, combinations are possible: F#-B (interval-class 5) or F#-C (interval-class 6). Either combination is proper given the relationships with the previous and following notes. However, I think that the F#-B combination (interval-class 5) is more appropriate because F# and B are strongly connected to the following harmonic C and G by two set-classes 016: F#-B-C and F#-G-C. F#-C also create the (016) set class with these harmonics, but only once.

Example 6.3 Sixth and seventh notes of the fourth movement.

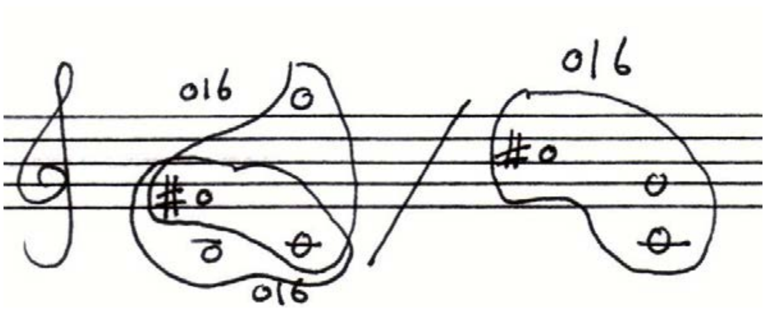
Interval-class 6 Interval-class 5

Unfortunately, the F#-B is extremely difficult to play in this fingering: rather, by pressing the low B is with first octave key, the B-F# can be played.

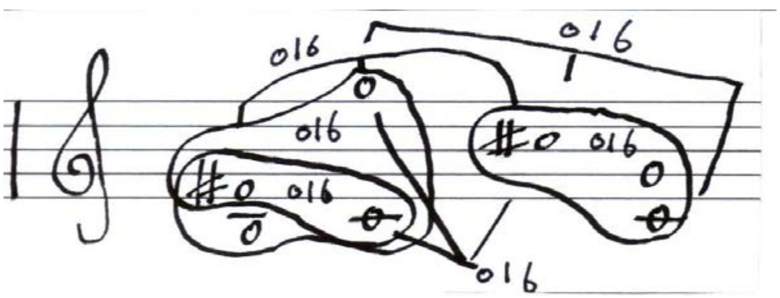
The eighth note (C#) and ninth note (C) combine with the harmonic G to make another (016). As with the group of four notes opening the movement, the sixth, seventh, eighth, and ninth notes create another web of (016) set classes.

Example 6.4 Sixth to ninth note (F#-G-C#-C)

a



b



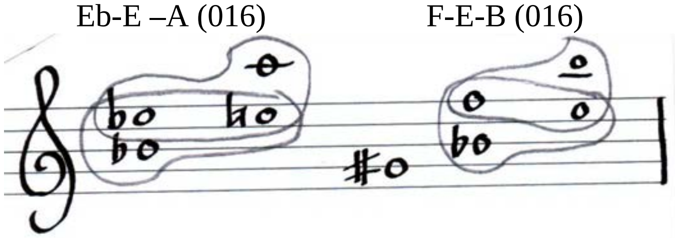
The sixth, seventh, and eighth notes (F#, G, C#) create (016), as do the seventh, eighth and ninth notes (G, C#, C). In addition to the C#-C plus harmonic G mentioned, the other (016) set classes are created by F#-G and harmonic C; F# and harmonic B and C; and F#, harmonic C and C#.

Similar techniques propel the second phrase. In the same manner, the tenth and the eleventh notes, Eb and A, use double-stopping to create Eb-Bb and A-E. Thus, there appear two set-classes (016) in the combination of these four notes: Eb-E-B and Eb-E-A.

However, the following twelfth note (G#) is not connected to the previous notes by set-class (016) and is the G# is also unconnected to the following F-Bb by (016); G# exists independently between A and F. The next two notes F and B (the 13th and 14th notes) also create interval-class 5 through double-stopping (Bb-F and E-B). Thus, they also make two set-classes (016): F-E-Bb and F-E-B. The primary tones of the second phrase (Eb-A-G#-F-B) repeat around G# to create a mirroring and balancing effect. Moreover, these set-classes (016) around the central G# strengthen the balance.

Example 6.5 Second phrase (Eb-A-G#-F-B)

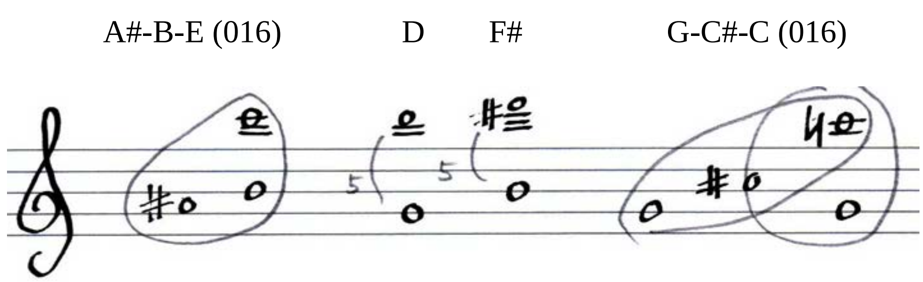
Eb-E –A (016)   F-E-B (016)



Eb-E-Bb (016)   G#   F-E-Bb (016)

The third phrase is slightly different. The 15th note, A# moves up to one octave higher and joins with E (16th) and its double stopped B in triple rhythm. Thus, these three notes, A#-B-E form set-class (016) again. The following D and F# (the 17th and the 18th) also individually create interval class 5 through double-stopping (D-G and B-F#). However, these groups are not connected to the previous notes by set-class (016). Technically, F# is connected to following G and C# (19th and 20th) in set-class (016), but this melodic (016) is the F# is not connected to the G with a slur; this follows the general pattern where melodic connections gradually weaken in favor of harmonic relations. The 21st note, C, has a double-stopped G for another interval class 5; thus the triple G-C#-C overlaps melodically and harmonically. The third phrase is balanced because two triple rhythms lie around the central notes, D and F#. The balance is reemphasized because the two set-classes (016) that lie around D and F#.

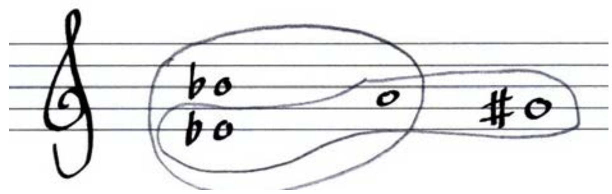
Example 6.6 Third phrase (A#-E-D-F#-G-C#-C)



The short fourth phrase, Eb-A-G#, only uses one double-stopped harmonic.
The Eb-Bb creates set-class (016) with the next note, A, and the last three notes are again an (016) set class. Thus, two set classes (016) appear in fourth phrase.

Example 6.7 Fourth Phrase (Eb-A-G#)

Bb-A-Eb (016)

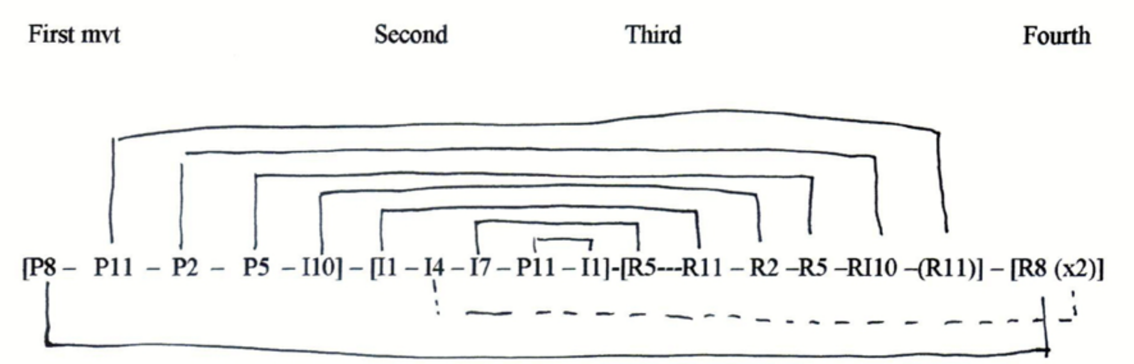


Eb-A-G# (016)

By creating myriad possibilities in terms of notes and fingerings, Yun matches the technical characteristic of this movement – harmonics – with a structural element that has pervaded the entire piece – set-class (016). The web of set-classes (016) creates a complicated internal structure; however, externally, the fourth movement sounds simple, calm, and tidy. This is in contrast to the complicated and fast style of the third movement. As explained earlier, the first and second movements are a pair; similarly the third and fourth movements are paired. The contrast in style between the third and fourth movements is compounded by their use of the retrograde and retrograde inversion row forms; the first and second consist of the prime and inversion row forms. Moreover, in mm. 9-28 of the third movement, long notes are decorated and complicated by double trills just as the notes in the fourth movement are complicated by a use of harmonics and double-stops.

Thus, by comparing the first two movements and last two movements in terms of the progression of row forms, we may observe a mirroring pattern. If the row forms of S1 are considered – leaving out the row forms derived from S2 in mm.1-3 of the third movement, and the codas of the second and third movements where no row forms appear – there is a correspondence between all the row forms around a mirror point in the second movement.

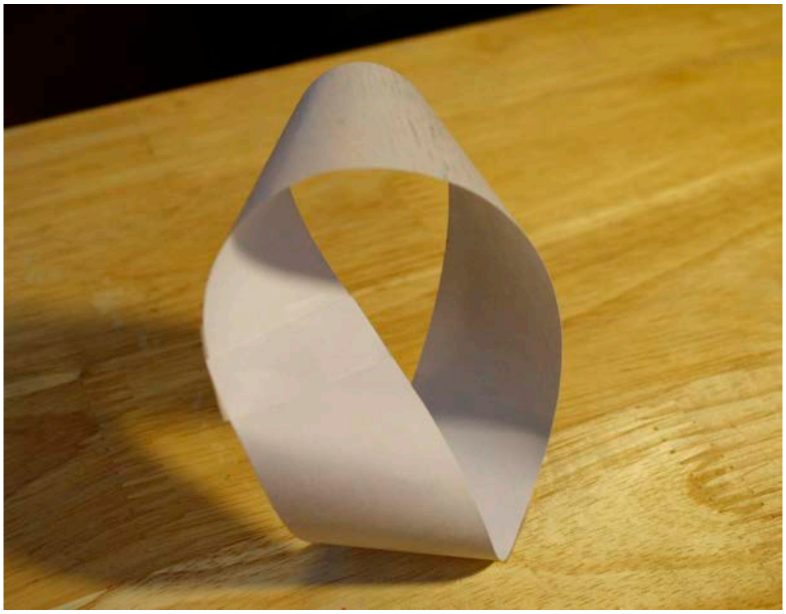
Figure 6.5 S1 row forms, by movement



As explained earlier, certain row forms are related to each other through mirroring and inversion; for instance, P8, R8, I4, and RI4 are all in the symmetrical around C (0). When viewed with these relationships in mind, the row forms of the first two movements correspond with those of the third and fourth. R8 mirrors P8; R11 mirrors P11; RI10 mirrors P2; R5 mirrors P5; R2 mirrors I10; and R11 mirrors I1. The I4 in the second phrase of the second movement lacks a direct mirror; however, the following I7 is mirrored by R5; and P11 is mirrored by I1. Furthermore, the orphaned I4 can match with the repetition of R8 at the end of the fourth movement.

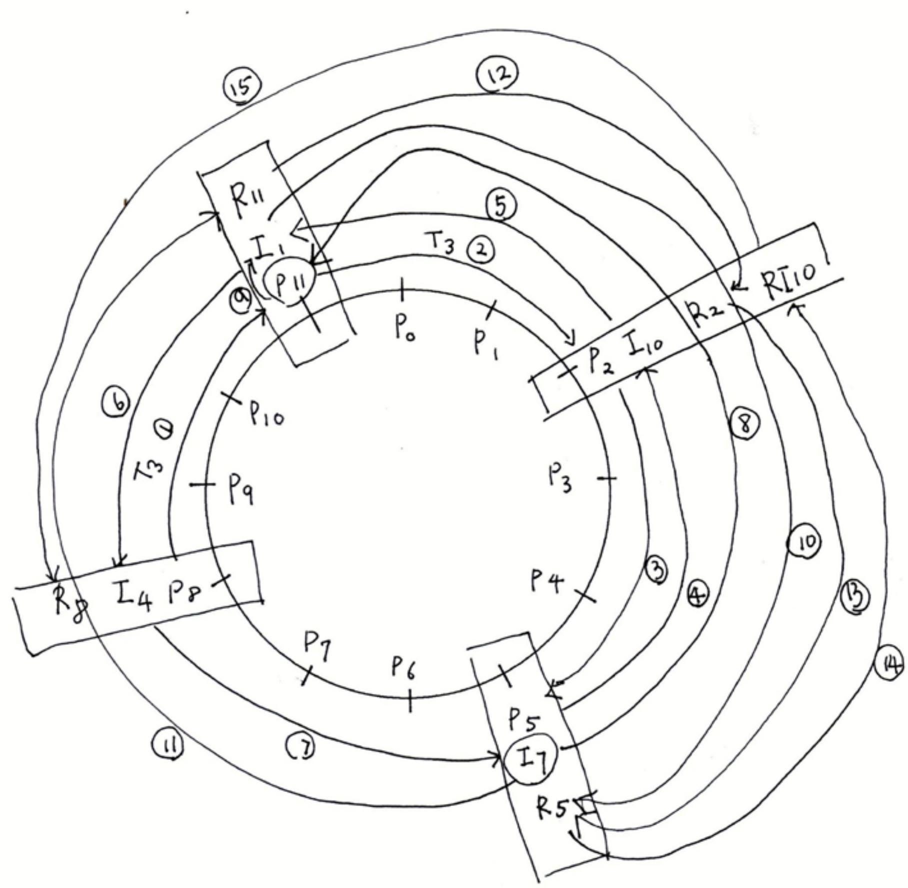
In addition, of course, the row forms of S2 and the phrases that do not use any row form do not fit the mirroring pattern. However, except these and the I4 form, *Pir*i is folded in half between P11 and I1, in the third phrase of the second movement – that is nearly half way through *Piri*. Thus the S1 row forms create a Mőbius strip wherein the music is a continuous cycle without definite beginning or end.

Example 6.8 Mőbius strip



Another significant relationship in these row-form pairings emerges from the consistent movement at T3 or its variants. Therefore, every S1 row form in *Piri* is classified within one of four groups, as Example 6.9.

Example 6.9 T3 relationship



Consistent movement by T3 results in the eventual return to the beginning – R8 as stand-in for P8.

On a micro-macro level, the structure of the fourth movement reflects the layout of *Piri*. The four phrases mirror the four movements; first phrase emphasizes (016), as did the first movement; the second phrase conceals set-class (016), as did the second movement; the third phrase has accelerated rhythm and not quantity as did the third movement; and the fourth phrase acts as a coda, as does the fourth movement. This small/big universe concept places the fourth movement as a stand-in for the whole. Furthermore, the technique of movement as microcosm of the whole is not limited to the fourth movement. If the fourth movement slowly lays out the way in which the movements have progressed, the first offers a premonition of what will occur the course of *Piri*.

Piri consists of three movements plus a coda; the first movement has three phrases plus a coda. As outlined above, the first three movements create a cohesive group; the three phrases in the first movement are also connected through developmental similarity. Further, the acceleration due to increasing note complication mirrors the same development that will occur over the first three movements.

Figure 6.6 Structure of Piri and the first movement

Piri: First mvt -Second mvt (♩ = 66) -Third mvt (♩ = 78 and ♩ = 100) -Fourth mvt (cadence/coda)

First mvt: First phrase ------- second phrase----- third phrase ----- cadence/codetta
Gradually getting fast

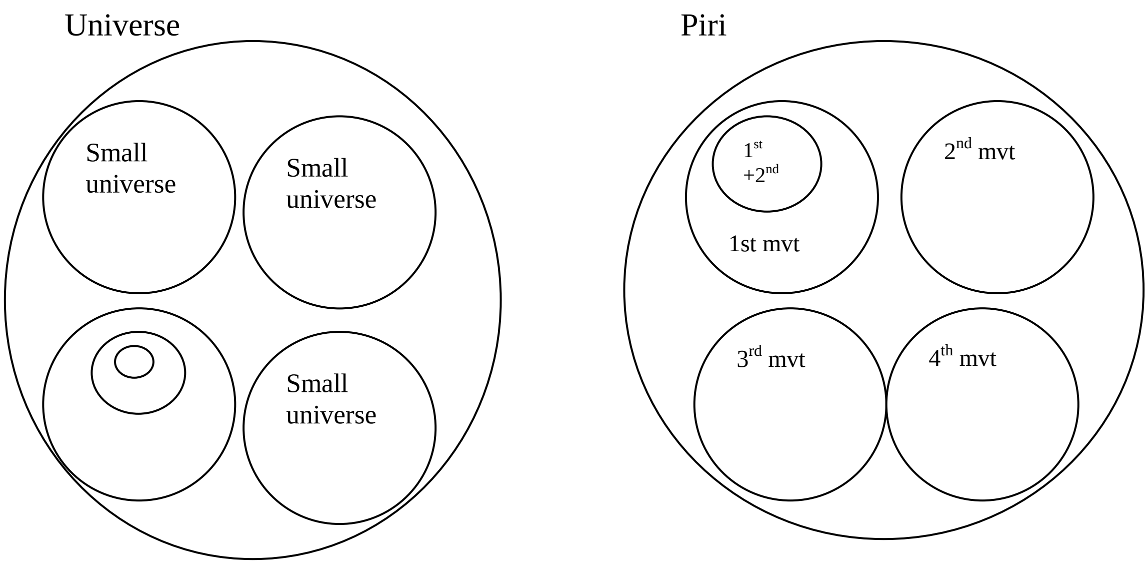
Almost all of the notes in the fourth movement have fermata signs. This links it to the coda of the first movement, whose two notes are also marked with fermata; there is one fermata in the second movement's coda and none in the third movement. In addition, the concluding C# of the first movement is marked to be played with harmonics, as are many notes in the fourth movement. Thus, the first movement prefigures how the piece will play out, just as the fourth movement summarizes this progression. Therefore, Yun uses combinations of row forms, phrases, movements, and oboe techniques to create a dense pattern of cycles, mirrors, and mirrored cycles. Each individual portion both contributes to and reflects on the whole, making *Piri* a meditation on relationships.

Chapter 7 Concluding remarks about *Piri*

Through my analysis of *Piri*, I have introduced the concept of the big/small universe, Yin and Yang, and cyclic form. They are all deeply related to one another in Taoism. These philosophical ideas are the doctrine of the five natural elements of the positive and negative. This doctrine emerges from the principle of the circle, and the cyclic nature of all things. According to this concept, everything is built of Yin/Yang energy; furthermore, everything moves in its own continuous and self-perpetuating cycle, each delineated by four points, or demarcation concepts. For instance, a solar year is a cycle, with the points of reference Spring, Summer, Fall, and Winter; these four, plus the overarching yearly circle, are the five natural elements. This analogy extends to all things and is eternal. To best understand *Piri*, in terms of the big/small universe, Yin and Yang, I will explore cyclic issues in the context of the doctrine of five elements.

From the advent of the Christian Era until fairly recently, the concept of the big/small universe was relatively unknown and unimportant in Western culture. This doctrine has dominated Eastern philosophy since the Age of Wars in China (403-220 BCE). This concept holds that the universe and all things in the universe are basically identical in structure; as a result, each individual thing in the universe can be considered its own smaller universe: a galaxy, a planet, a human, a cell, and so on; each is a small universe. In this manner, the big universe contains innumerable smaller universes within itself, and the small universes likewise contain their own even smaller universes as well, ad infinitum. This relationship holds for the biggest to the smallest; finally, the biggest and the smallest are identical; for the beginning and the ending are connected with one another. Yun uses this concept in his *Piri*; the four-movement structure appears within the first movement; the structure of the first movement is contained within the first two phrases; these phrases are expansions of the principles found within set-class (016).

Example 7.1 structure of Universe and *Piri*



In the big/small universe system, everything from the biggest universe to the smallest nucleus is built of Yin and Yang. Furthermore, all happenings in the universe arise from the collision of them. In *Piri*, the basic harmonic building-block, set-class (016), is an example of the collision of Yin and Yang. The euphonious interval class 5 collides with the dissonant interval class 6; the power generated by this clash produces and propels the music. The melodic cells of *Piri* consist of the main tones and their decorative sigimsae, which also embody the character of Yin and Yang. The main tones are foundational points, points of arrival or departure; the sigimse notes are the dynamic means of approach or departure. The dynamics in *Piri* further maintain the Yin and Yang; *f* is Yang while *p* is Yin, crescendo is Yang while decrescendo is Yin. Thus, the ebb and flow of power within the music operates through the Yin/Yang dynamic.

The interval structure of the first three notes in the first movement consists of interval class 5 between G# and Eb, a consonant Yang, plus interval class 6 between A and Eb, a dissonant Yin. Thus, G# attracts Eb while A pushes Eb away; these three notes create both a collision and balance.

The first two sigimsae notes, G# and A, rapidly move to the Eb; their directional ability is due to speed and acceleration; the Eb protects and offers a destination for this motion. The power of motion is offset and balanced by the power of arrival.

The dynamic functions support this condition as well; in m.1, G# starts *f* and decrescendos to *mp* on Eb. The fate is Yang, pushing the music, while the *mp* is Yin restricting the sound. Eb rests but resumes motion with a Yang crescendo. This self-regulating, balanced condition is called Jeong-Joong-Dong (Jeong means stop, Joong-between, Dong-move); the condition is the state of existence wherein there is a perpetual cycle of motion between points and resting points within motion.

In the West, Yin and Yang are typically understood as opposites, like positive and negative. However, Yin and Yang are not only opposite, but also embrace sameness. For example, when the sun shines on a mountain in the morning, one side is bright and the other side is dark; the bright side is Yang; the dark Yin. However, because of the revolution of the earth, in the afternoon, the two sides exchange character: bright becomes dark and dark becomes bright. With the passage of time, one place displays two characters, bright and dark. Because the characters can exist within the same things, Yin and Yang are both opposites and fundamentally identical to one another.

This concept plays out in *Piri*. The first three notes, G#-A-Eb (016), contain two intervals: interval classes 5 and 6. These interval classes, as explained before, are opposite in character. However, Yun treats them to indicate how closely related they are and how easily they can shift into one another. In mm. 6-12, the set-class (016) is C-C#-G. The motion of C to C# (mm. 6-7) is very gradual, a slide testing on a microtone that is neither C nor C#. This obscuring of which note is being played – and therefore which interval is heard by the listener – is Yun's way of showing that, despite interval classes 5 and 6 being opposite, they are also so close to one another that there can be a relation to one another that the listener cannot tell the difference between them. The C being played in m. 6 is not just C, nor is it just C# in m. 8; by exploring the sonic space between the two notes, they are united. This systemic manipulation of the interval classes shows how closely the Yin and Yang resemble each other, and how they can become each other with the passage of time.

In *Piri*, the principle of duality and shifting character dominates the music; soft becomes loud; simpler structures lead to more complicated structures and vice versa; notes are extended and shortened in turn. This transformational character is the fundamental power creating the musical flow. This flow, as mentioned above, occurs within a continuous cycle divided into four parts. Again this circular motion reflects Eastern philosophy. Days are distinguished as a cycling through night, dawn, morning, and afternoon; a year is delineated by seasons; a human life goes through babyhood, adolescence, adulthood, senescence. The most crucial aspect of Eastern belief is that the cycle is continuous, rather than a straight line; death leads to new life. The tree starts from a seed, from which a steam grows and spreads as a leaf, until the grown tree produces fruit that will be another seed. This seed-steam-leaf-fruit pattern repeats again and again. This four-stage process existing within a single cycle is the doctrine of the five natural elements of the positive and negative.

The modern popular Western conception of music is that it is the product of a single composer. However, Eastern philosophy holds that music is a discovery by a composer; music is part of nature, and the composer taps in to what is already there. To realize this concept in *Piri*, Yun adapts doctrine of the five natural elements to music. In *Piri*, the music moves continuously along a circle; of course, there are actual beginning and ending points, but "conceptually" they are connected and indistinguishable.

This cyclic motion in the music is analogous to the cyclic motion of nature. Specifically, the division into four movements recalls the basic cycle of life. Comparing the life of *Piri* to that of a tree is illuminating, the first movement introduces set-class (016); this acts as a seed. Thus, in the first movement, the set-class (016) is very audible to the audience, just as the initial seed is clearly visible to the eye. In the second movement, set-class (016) branches into two separate but still connected lines, as a tree shoots out more stems and growths from the main trunk. In the third movement, the musical texture grows more complicated, as phrases, lines, effects, and motives pile up as luxuriant foliage. In the fourth movement, the set-class (016) appears fully integrated in horizontal and vertical lines, as a fruit is the manifestation of a tree's productive capacity. In this manner, *Piri* treats the four movements as a life-cycle. This life-cycle structure is also a part of the big/small universe concept; *Piri* is the big universe, while the smaller universes also go through their own mirroring life cycles. Thus, from the biggest structure to the smallest in *Piri*, all have a four-part, growth – and – transformation structure.

As a whole, the serial technique lends itself to cyclical writing; the repetitiveness and continual mutation available to the composer matche the flowing nature of time. Yun’s achievement is to incorporate the Yin/Yang properties of (016) as the seed for a general big/small Universe set of structures, using musical concepts to reflect an Eastern understanding of the world and the forces within it. *Piri* is a musical rendering of nature as a cyclic process.

Appendix 1


Etüden für Flöte(n) solo
Isang Yun (1974)
MODERATO
♩ ca.76
Große Flöte
ff
immer intensiv, mit normalem Vibrato
p
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ISMN M-2025-1239-5

Appendix 2

Appendix 3


Königliches Thema
für Violine solo
Isang Yun (1976)
Violine
pizz.
ca. 88
arco
❋ Ab hier gelten ♯ oder ♭ nur für den folgenden Ton oder innerhalb einer Tongruppe. ♮ nur in Zweifelsfällen.
Uraufführung am 1. April 1977 im Schloß Benrath bei Düsseldorf durch Klaus Peter Diller im Rahmen des Programms „Joh. Seb. Bach: Musikalisches Opfer und Zeitgenössische Aspekte“
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Appendix 4

Appendix 5

Appendix 6

Appendix 7

Für Georg Meerwein

Piri

für Oboe solo

Isang Yun (1971)

Interpretationsvorschlag des 4. Teils
von Georg Meerwein

Umschlaggestaltung: Janine Rosenberger. Printed in Germany (Berlin). ISMN M-2025-1162-6

Appendix 8


4
I1 = 1st Phr [S1]
ca. 66
m.1
m.5
m.10
2nd phr
dolce
m.15
dolciss.
m.23
I7
m.30
m.32
m.33
m.37
m.38
3rd ph
m.41
Coda no row
m.45
m.49

Appendix 9

※ mit dem unbestimmten Intervall enden. + die letzten 5 Takte Vi - de ad libitum

Appendix 10

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