A full Realization of Isang Yun's *Tuyaux sonores* and its Analysis based on Daoism

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Abstract

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Isang Yun was a twentieth-century Korean-born modernist experimental composer who spent the first half of his life in Korea before defecting to Germany, where he became a citizen in 1970.[1] Among other works, Yun wrote two organ solo pieces, *Tuyaux sonores* (1967)[2] and *Fragment* (1975), and an organ piece with a women's choir, *Saseoneseo* (사선에서 1975).

As a Korean organist living and studying in America, I found a certain kinship to Isang Yun during my formal training in the U.S. I feel that Yun has handed down to Korean students, like me, a guideline to consider when blending one's Korean identity with musical elements. It is my intention that this paper will elaborate on my understanding of Yun's music to help further direct the development of other promising musicians to perform and interpret his work.

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[1] Chae, Sooah. *The Development of Isang Yun's Compositional Style through an Examination of His Piano Works.* : University of Huston, 2003, pp. 25.

[2] From French, *tuyaux* means "pipes," and *sonores* means "sounding." *Tuyaux sonores* literally translates into "sounding pipes."

Isang Yun was heavily influenced by the East Asian philosophy Daoism, which emphasizes harmony with the universe. Not only was he a practicing Daoist, he actually taught courses on Daoism at Tübingen University in Germany. Yun wove Daoist-inspired musical elements, namely main-tone and Hauptton, throughout his compositions, imbuing them with qualities quite different from music. These characteristics are particularly prevalent in his organ work *Tuyaux sonores.*

Tuyaux sonores was written in graphic notation, which, due to its deep ambiguity, makes it incredibly difficult for musicians to perform. Researching Yun's graphic notation proved difficult due to the lack of primary sources that deal with it. It is the only musical work that Yun wrote in graphic notation, and he left no instructions at all regarding performance techniques. While this is not the first thesis written on either Isang Yun or *Tuyaux sonores*, it is the first project that offers a full transcription of the piece, as well as the first serious attempt at understanding how to interpret and perform Yun's graphic notation.

Graphic notation is a gesture that allows the performer freedom to give her personal articulation for entire sections of music. However, it has its drawbacks – Yun's graphic notation is so intentionally open to interpretation that very few performers attempt to play it. Yun designed the piece to emphasize spontaneity. This is problematic in that it becomes difficult to preserve musical integrity over a period of the time; some critics argue that it relies too heavily on spontaneity. I have transcribed the music into modern notation to both preserve it in written form, and to provide guidance for musicians attempting to approach the original graphic notation. While having a full musical score of *Tuyaux sonores* may run counter to the composer's intent of spontaneity, I feel it will allow a wider pool of organists to perform *Tuyaux*

sonores. Therefore, it will be more accessible to future audiences and Daoist improvisers. This paper, therefore, will include such a transcription.

My analysis differs from other Yun scholars, in that my academic predecessors have largely regarded Yun as a Korean composer who struggled to use musical ideas in his compositions. Even some Korean writers are of the opinion that a Western style was Yun's end goal, and that his incorporation of Western elements fell short of their marks.[3] While it is true that Yun felt his music was constantly evolving, and he rarely revisited old pieces, it was not because he was trying to develop a more Western sensibility. Rather, Yun was a Korean composer who incorporated musical tools that were popular during his time. To claim that Yun was a Korean composer who simply tried to westernize his music would be akin to saying J.S. Bach was trying to be more French because he used French overtures in several pieces, or because he was influenced by Nicolas de Grigny's heavy use of ornamentation.

First and foremost, Yun was a Korean composer who expressed his own unique Korean identity through his music. However, he also realized that his world had been transformed by Western influences. His curiosities about the world eventually brought him to Europe where he became a German citizen during a dynamic time in Western musical history. Advancing technology, World War II, and the redrawing of political boundaries were changing the ways artists responded to the world. In Europe and America, composers were moving away from harmony and melody via the twelve-tone technique, also known as the "serial technique." Korean musicians were heavily influenced by this change. Isang Yun was one of such avant-garde composers. Yun learned both Korean and Western techniques, and through his unique vision, blended them together to harmonize the two cultures within a musical framework.

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[3]Kim, Inwha. *The Integration of Eastern and Western Cultural Elements*.: Indiana University, 2007, pp.10.

Because each of Yun's composition employed unique modes and styles, each piece must be approached on its own terms.[4]

In order to write this paper, I relied heavily on the book, *The Wounded Dragon,* which is a dialogue between Isang Yun and Luise Rinser, as a reference. Luise Rinser was a German novelist, the author of *Mitte des Lebens* (1950). She was also heavily involved within the music community of Europe, and democratic movements against dictatorship. It is interesting to note that Rinser's first and second husbands were both famous composers, Horst Günter Schnell and Carl Orff, respectively. Her interests in music and democracy, as well as Daoism, are what led her to meet and develop a close friendship with Isang Yun. *The Wounded Dragon* was originally intended to be an autobiography, however it manifested into a dialogue between the two friends.

It is my goal to share the entire realized musical score of Isang Yun's *Tuyaux sonores* with other organists who might be interested in performing graphic organ music. To achieve this, I will translate Yun's graphic notation into standard musical notation according to Zacher's recording using a regular metric system and time-line notation.[5] I believe that Zacher's recording and score provide a good entry point from which to proceed, since Yun himself felt that Zacher's interpretation was a legitimate realization of the piece.[6] My hope is that other organists and musicians will be able find their own ways of performing the piece with a Daoist spontaneity.

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[4] Clendinning, Jane Piper, and Elizabeth West Marvin. *The Musicina's Guide to Theory and Analysis*. 2004 . Reprint. : W.W. Norton, 2005. pp.758.

[5] Gerd Zacher (born 1929) was a music director, organist, and cantor. He was influenced by Messiaen attending Darmstadt conferences.

[6] *Isang Yun*. Dir. Herald Kunz. Perf. Gerd Zacher. Wergo, 1970. L.P. Record.

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Chapter 1. Isang Yun's Biography

I. Early Life in Korea

Isang Yun (1917-1995) was born on Tongyeong(통영) Island in the city of Chungmu(충무) which is currently part of South Korea. Throughout his life, he was known as different things to different people. In his home country, he was considered a traitor and a coward by government authorities. He never set foot in his mother country after his politically-negotiated release in 1969. To some, he is remembered as a humanitarian who tried to bridge the rift between the two Koreas, and for his promotion of democracy. In the world of music, Yun is remembered for artfully blending both Korean and Western elements in his compositions.

Yun grew up in a world of merging cultures. Near Tongyeong Island, many funerals with typical Korean music took place and shamanism had a heavy influence on its residents. Buddhist and Korean folk music were familiar sounds in Yun's ear while he was growing up. In addition to Asian elements, his neighborhood was also home to Christian churches where Yun undoubtedly heard harmonious hymns wafting through the doors and out into the neighborhood streets. It seems only natural to imagine Yun's early curiosity about all of the sounds that he was exposed to during his childhood.

As an adolescent, Yun worked in a movie theater writing scores for films. At the age of 15 he won an award for his musical compositions which encouraged him to go to Seoul to continue his studies. It was there where Yun was able to broaden his musical horizons. After his time in Seoul, he began his overseas studies in 1935, first in Japan.

II. Life between Japan and Korea

Isang Yun spent the better part of the next ten years traveling back and forth between Korea and Japan. In Korea, he took jobs at different high schools teaching music; in Japan, Yun enrolled in the school of music in Osaka where he studied cello, music theory and composition. It is important to understand that, just as today, there are people who view Japan as part of the West economically, militarily and technologically. The same was true back in the earlier part of the twentieth-century. After the Meiji Restoration in the late nineteenth century, Japan made a conscious effort to modernize itself. The era of the shogun and horses was replaced by businessmen and automobiles. Japan walked a very fine line on its trip toward modernity; on one hand, it was able to assimilate Western philosophies, technologies and military strategies; on the other hand, Japan still strove to maintain its cultural heritage. With the defeat of the Russian navy in 1905, Asian countries looked to Japan as a model for adopting Western ways of life. Cultural similarities and geographic close proximity led Asian countries like China and Korea to send their young scholars to study abroad in Japan to learn Western ideas.

By the early nineteenth century, Japan was a melting pot of intellectual theories and disciplines. Japanese intellectuals were eagerly engrossed in debates on mathematics, science, music, and economics in addition to political ideologies such as communism, anarchism, socialism and capitalism. Its universities were fully immersed in Western academics well before Yun arrived. Although he had read books on Western music in Korea, Yun's first formal academic studies of Western music began at age 19 and continued until his mid 20s while in Japan. In addition to studying in Osaka, Yun also studied music under Tomojiko Ikenouchi[1] at

[1] Tomojiko Ikenouchi was the first composer in Japan to graduate from the National Music School of Paris.

the University of Tokyo. Unfortunately, in his memoir, Yun found his studies in Japan not to be very stimulating.[2]

Though Yun's account of Japan is mixed at best, he always gave high praise for the teachers with whom he studied; however, he also commented that his understanding of Western music was never fully realized while in Japan and only truly began after moving to Europe.[3] Although Japan was immersed in Western studies, Yun studied there during a chaotic period in Japanese history. It was especially difficult to be a Korean living in Japan. Japan was undergoing military build-up and pursuing expansion throughout Asia. Korea had been occupied by Japan since the Japanese-Korean treaty of 1905 – a little over 30 years by this time. Moreover, the average Japanese faced financial burdens because of heavy taxes to support the military. As such, many Koreans who lived in Japan were discriminated against. Yun was unable to fit into the mainstream of Japanese life, and so stayed within Korean communities where he was actively involved in Korean migrant issues and politics.[4] Furthermore, Yun's academics did not follow a linear path due to financial difficulties which continually brought him back to Korea to find work as a teacher.

III. Move to Europe

Yun's academic career in Japan came to an abrupt end in 1944 when he was arrested for involvement in student protested against the Japanese government. After spending a few months in jail, Yun was returned to Korea where he continued to teach at high schools while composing music. Since as a teenager he had won awards for his movie scores, returning from Japan reignited his attempts at serious compositions. Yun's first musical endeavors after returning to

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[2] Rinser, Luise, *The Wounded Dragon,* Byeon, Jiyeon, (trans.), Seoul: Minsokowon, 2010. pp. 69.
[3] Ibid, pp. 95.
[4] Ibid, pp. 62-70.

Korea was a collection of vocal arrangements entitled *Dalmuri* (달무리, 1950), loosely translated as "lunar halo." Yun would later regard these as strictly academic and not appropriate for publication, however he won a competition in Seoul for his String quartet no.1 and his piano trio in 1955. This award allowed him to travel to France, and Germany to further his study.[5]

In 1956, at the age of 38, Yun began the most academically interesting investigations of his musical career. Around this time composers were beginning to push the limits of musical tonality. Yun had the chance to meet many of the most experimental composers of the day at Messiaen's summer workshops at Darmstadt in 1958. He stayed in Europe for the next eight years studying, composing, and developing relationships with the local musicians of the day.

IV. Korean Identity

Like many individuals who spend a long time in foreign countries, Isang Yun found his thoughts wondering back to his homeland. Before his move to Europe, Yun had lived through the Korean War (1950-1953), a difficult period for many Koreans. Having just gained independence from a 36 year long Japanese occupation, Korea was engaged in a civil war resulting in political and geographical division; the county was now split between North and South. Yun did not view himself as either a North or a South Korean, he simply saw himself as a Korean. He felt that the divide between the two countries was superficial, and hoped for the reunification. Because of his convictions, Yun wrote a good deal of music with the purpose of reunifying the two Koreas.[6]

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[5] Rinser, pp. 95.

[6] From 1981 until his death, much of Yun's music was inspired by political issues. Examples include An der Schwelle (1975), Exemplum in Memorium Kwangju (1981), Angel in Flames (1994).

As a Korean abroad and as a musician, Yun viewed his role as one with political responsibilities. He viewed himself as a representative of his country, and redirected his activism to promote Korean reunification. He maintained close relationships with his fellow countrymen who were also living abroad, including many Koreans from the North. Lured by the egalitarian ideals of Communism, and the notion that North Korea was a country for Koreans controlled by Koreans (whereas South Korea was criticized as a puppet government of the United States),[7] many Korean intellectuals moved to the North after the war. There were even Korean communities in Japan that operated propaganda papers to support the North Korean government through both public relations and financial fundraising. Against this backdrop, Yun was inclined to go and visit North Korea.

V. Imprisonment in and Exile from South Korea

During his time in Berlin, Yun visited East Berlin to speak with the North Korean embassy regarding a visit to North Korea. He had three main reasons for visiting. First, Yun wanted to visit a friend with whom he had studied in Japan. His friend's family lived in the South and knew nothing of the conditions their son faced in the North. Second, there was a famous Korean painting and other relics he was interested in viewing. Finally, having lived in Germany for a few years and noticed the difference between East and West Berlin, Yun was curious about how North Korea was progressing since the separation.[8]

His trip proved a disappointment. The reunion with his friend was at best lukewarm. It was quickly explained that his music was too liberal for North Korea. The trip also sealed his fate with the South: four years later he was kidnapped in Germany by the South Korean secret

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[7] Rinser, pp. 65-67.
[8] Yi, Suja. *Nae Nampueyen Yun Isang.* Seoul: Changjak kwa Bipyeungsa, 1998. Vol., pp.229.

police and brought back to South Korea under charges of espionage for visiting to the North. This was the same year he composed *Tuyaux sonores,* 1967. After being in prison for two years, Yun was released because of pressure from the German government. This was most likely due to his friendship with influential German figures. There was a lot of support from the music community for Yun's release, including a petition signed by 23 well known European musicians including Igor Stravinsky, Karl Stockhausen, and other close friends and colleagues. Returning to a welcoming Germany, Yun was able to find a home where he was offered musical, political and spiritual freedoms that were prohibited in his mother country. In 1970, Isang Yun became a German citizen never to step foot again on South Korean soil.[9]

Yun continued to develop his own musical styles combining his native identity with Western elements, for which his efforts were recognized and rewarded. He became a professor at the Hannover Hochschule für Music from 1970 to 1971 and then taught at Berlin Hochschule in Germany for a few years. Yun was awarded various prizes and distinctions during his time in Germany: the Kiel culture prize in 1970, the Federal German Republic's Distinguished Service Cross in 1988, the medal of the Hamburg Academy in 1992, the medal of the Goethe Institute in 1994, and membership into the Hamburg and Berlin academies. His efforts in music were also recognized by the North Korean government, which established the Isang Yun Institute in Pýongyang in 1984. Two years after his death, Yun's work was further acknowledged by Germany with the founding of the international Isang Yun Society in Berlin in 1996.

Yun wrote more than 150 musical compositions while in Europe[10] – orchestral pieces, operas, oratorios, and many chamber pieces. Isang Yun is regarded by many as having

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[9] Yun was imprisoned in 1967, and released in 1969.

[10] Chae, Sooah. *The Development of Isang Yun's Compositional Style through an Examination of His Piano Works.* :

contributed greatly to the growth of modern music. Conductor and author Nicholas Slonimsky claims that Yun's ability to blend East Asian musical elements with Western styles are characterized by the expressive sonority and colorful dissonant tone choices through musical vehicles of pizzicatos, glissandos, and omitted metrical patterns as well as tone clusters.[11] The German magazine *Melos* described Yun as one of the most important avant-garde composers of twentieth-century music.[12]

University of Huston, 2003. pp. 6.

[11] Nicolas, Slonimsky. *The Concise Edition of Baker's Biographical Dictionary of Musicians*. Fenton: Schimer, 1988. pp. 1142.

[12] Feliciano, Francisco, F.. *Four Asian Contemporary Composers: the Influence of Tradition in their Works*. Quezon: New Day Publishers, 2004. pp. 33.

Chapter 2. Influences

I. Early Life

It is important to note that Yun never studied traditional Korean music. His main instrument was a Western one, the cello, and his early compositions were attempts to emulate a Western style. However, traditional Korean music was a part of the culture that Yun grew up in, and one's native cultural influences, whether linguistic, spiritual or musical, seep into its inhabitants with an inescapable osmotic quality. Yun's ear was certainly acquainted with Chang-guk (창극 – Korean court opera), Talchum (탈춤 – the music in the mask play), Gut Umak (굿 음악 – music for Shaman ritual), and Bumpae (범패 – Buddhist ritual music).

At age 17, Yun moved to Seoul and learned Western harmony from Franz Eckert (who established the first Western style military band in Korea). While in Seoul, Yun attempted to teach himself Western music theory from a book on twelve-tone theory, Die Komposition mit zwölf Tönen by Josef Rufer.[13] Many years later, as luck would have it, Yun had the opportunity to study with Rufer in Germany.[14]

While in Japan from 1935 to 1937, Yun began to understand harmony structures and atonal music, and became more skilled at composing. Yun also took classes in cello, his instrument of choice. His teacher, Ikenouch Domojiro taught Yun the techniques of *cantus firmus*. Yun also completed his cello concerto in Japan. Yun confessed later that his earlier works from Korea and Japan were just academic exercises, lacking folk and contemporary musical elements.[15]

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[13] Josef Rufer (1893–1985), born in Austria, was a student of Arnold Schoenberg. Stuckenschmidt, Hans Heinz. 1977. *Schoenberg: His Life, World and Work*. Translated from the German by Humphrey Searle. New York: Schirmer Books, pp .277.

[14] Rinser, pp. 102.

[15] Feliciano, pp. 33.

Following his time in Japan, Yun moved to Europe. In France, he studied under Tony Aubin and Pierre Revel with whom he practiced Beethoven and Wagner's pieces. Joseph-Maurice Ravel, who was a student of Vincent d'Indy, taught Yun music theory from 1956 to 1957. Unfortunately, Yun did not find France a good fit for himself. Having lived there for close to a year, he was disappointed by the fact that he was only studying classical composition, and wanted to develop his understanding of contemporary music. Yun's quest for current musical trends led him to Germany in 1958.[16] He left France without having produced any new music.

In Germany, Yun studied music theory under Boris Blacher. Yun was far more comfortable working with Blacher than he had been with Revel in France. Blacher possessed a cultural awareness and sensitivity that was absent from his teachers in France. This had much to do with Blacher growing up in China as the son of Christian missionaries. The two had a connection that Yun had not experienced with any teachers before. Blacher recognized Yun's compositional talents and encouraged him to discover his own musical language. Blacher understood what Yun was looking for, and afforded him the freedom to discover his own path. Perhaps the most meaningful advice Blacher imparted to Yun was to keep his ideas simple. Yun eventually composed a violin concerto, string quartet, and music for seven instruments with Blacher's support.[17]

One can only imagine the importance of Yun's studying with Josef Rufer who taught Yun contemporary ideas and twelve-tone technique. While Yun never used a complete cycle of the twelve tones, he, like his contemporaries, implemented his own interpretation of this

[16] Rinser, pp. 99-100.
[17] Rinser, pp. 101.

compositional technique. Since at the time the twelve-tone technique and variations of it were so popular, it is in Germany that Yun's real musical compositional growth began. He flourished.

Yun's musical development in Germany was due not only to his relationships with teachers, but also with his peers. Their open-mindedness made Europe and Germany in particular, a stimulating environment for Yun to be in. Yun referred many times to the excitement he felt when going to Messiaen's summer courses in Darmstadt from 1958 to 1964. Here, he met well-known contemporary experimentalist composers such as Karlheinz Stockhausen, Luigi Nono, Pierre Boulez, and John Cage. They stimulated Yun's imagination and also shook the foundation on which he stood. Yun himself said:

> It was an immense spectrum of new possibilities, but, very confusing as well. I had to ask myself – where do I stand and how should I proceed? Should I compose as radically as these others in order to secure a place for myself in the avant-garde? Or should I go my own following my Asian musical heritage? It was an important decision for me.[18]

From his works, it is apparent that he selected both. According to Inwha Kim, a Yun scholar, Yun's first thirty-nine years in Korea followed by thirty-nine years in Europe enabled him to balance both Western and Asian elements in his compositional style.[19]

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[18] Chae, pp. 8.
[19] Inwha Kim, pp. 8

II. European Influences

a. Aleatoric Musical Elements

Before saying a few words about each composer, it is important to discuss aleatoric theories of music, which were quite popular at Yun's time. Aleatoric, from Greek, *dice,* refers to composition by chance. As the name implies, chance music has the possibility for being open and random, which has a connection with the randomness seen within the universe. In one regard, the universe is a collection of explosions, implosions and pieces of matter floating arbitrarily; in another, the existence of life shows that order can emerge out of this seemingly random chaos. Yun's *Tuyaux sonores* makes use of chance by its graphic notation, a form of notation that requires precision in neither composition nor performance.[20]

b. John Cage

John Cage had studied music in California under Schoenberg and in New York under Cowell, who was extremely influential to the young composer. He introduced Cage to prepared piano techniques which Cage made use of to push the boundaries of musical possibilities. Prepared piano techniques refer to methods to construct an ensemble sound for percussion with only a single piano that has been modified by placing objects over the strings. Cage was fascinated with understanding the essence of sound. His quest led him to incorporate elements of Asian cultures.

Before attending the summer workshop in Darmstadt, Cage had been exposed to Zen Buddhism.[21] He was particularly interested in the *Book of Changes*, the *I Ching.*[22] The *I Ching*

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[20] ibid, pp. 10.
[21] Schwartz, Elliott, and Barney Childs. *Contemporary Composers on Contemporary Music*. Cambridge: First Da Capo Press, 1998. pp. 339.
[22] Ibid, pp. 337.

is comprised of 32 pair of hexagrams that Chinese and Korean scholars used for centuries as a divination handbook to help predict future events like crop growth, marriage choices, etc. These hexagrams are created out of the broken and solid lines representing the forces of *yin and yang*. (See below for the discussion of *yin and yang* in Daoism) Cage used a method of three coins in concert with the Book of Changes to help make musical choices for his scores. The three coin method is literally flipping three coins, where values are assigned to a heads or a tails, counting up their sum total, and then using that number to select one of the 64 hexagrams. This allowed Cage a means of structured randomness to his music. He called this process "indeterminacy," also known as "aleatory."[23] Cage also used chance musical elements to determine the choices of wavelengths, duration, and volume based on Chinese *I Ching*.[24] Upon close analysis, it seems that Cage was looking to achieve absolute randomness in his music compositions.

Although Yun did not apply chance techniques directly, he was influenced by Daoism. Cage's understanding of aleatoric processes resembled the Daoist philosophy of accepting what is thrown one's way. Daoism holds that sound exists in space prior to awareness of it; coming into existence in and of itself creates sound. Thus, Daoism believes that one can be trained to recognize sound, realize it, and articulate it to the world.

Cage was active in the Fluxus movement in New York (1960-1965), which promoted an open form of music whereby the performer determines the ordering of sections in a composition. Therefore, every performance must, by definition, be different. In his lectures, Cage explained that his choice for this approach was to display the reality of every single experience as nuanced and unique. To this end, Cage incorporated Asian influences such as non-metric regulation and

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[23]Stolba, K Marie. *The development of western music: a history*. Dubuque, IA: W.C. Brown, 1990. pp. 880.
[24] Ibid, pp. 880.

harmonies that did not function in a traditional manner, but were instead unrelated sonorities designed to add color.[25]

c. Karlheinz Stockhausen

Isang Yun also met the German composer Karlheinz Stockhausen at the summer workshop in Darmstadt. Like other avant-garde composers of the twentieth-century, Stockhausen sought to break away from melody and the traditional template of composition. He strove to isolate musical notes by a method called, "pointillistic style." With this approach Stockhausen varied the pitch, intensity and duration of a note, thus achieving an individual framework with each note standing on its own, and not relying on melody or motive. However, at the same time, he would weave the other individual notes into a tapestry of chords through his personal brand of counterpoint. This compositional technique is related to the main-tone technique that will be discussed later. Both techniques emphasize the crucial role a single unit can plays within music.

In addition to using pointillistic style, Stockhausen was very much fascinated with the use of electronic music to break down sound to its fundamental components. For example, Stockhausen composed pieces entirely of sine waves serially arranged like the *Studie I* in 1953, and sampled desirable sounds chosen from constructs of white noise in *Studie II.* His obsession with sound led him to continue studying forms of communication such as phonetics and acoustics in the 1950s at the University of Bonn. Stockhausen made use of his sampling techniques to deconstruct recordings of songs in which nothing but the vowels remained.

Stockhausen was also interested in Asian music, and he traveled extensively through Japan and Indonesia, where he studied Asian philosophies and incorporated them into his music.

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[25]Ibid, pp. 879.

Like Cage, Stockhausen also made use of chance music, which was how he composed his 1970 piece *Sternklang* (Eng. *Star Sound).* To give him a wider writing style, Stockhausen also incorporated graphic notation, similar to Isang Yun. In fact, Stockhausen first used graphic notation in his electronic composition *Studie II* in 1954, which, I believe, influenced Yun's *Tuyaux sonores.* [26]

Graphic notation and chance music are highly compatible with one another. Because of the improvisatory nature of graphic notation, the two recordings of Isang Yun's *Tuyaux sonores* (one performed by Gerd Zacher, the other by Peter Schumann) [27] sound completely different. In fact, the two recordings are so drastically different from one another, it is doubtful that anyone would ever believe they were the same piece of music. These two recordings are strong examples of how graphically-notated chance music depends on the interpretation of the performer.

d. György Ligeti

Like Cage, the Hungarian composer György Sándor Ligeti was also heavily influenced by the serialism technique of Schoenberg. While he originally studied Romanian folk music and serialism, Ligeti eventually viewed serialism as limiting the composer's musical imagination,[28] a view he shared with Yun.

Though Ligeti began his teaching career as an instructor of harmony, at Budapest Academy in Muchs, Hungary, Ligeti moved away from harmony to create his own brand of non-harmonic compositions. He strove to divorce his compositions form harmonies and regular

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[26] Ibid, pp. 873.
[27] *"Isang Yun, Tuyaux sonores" Neue Orgelmusik auf Elektroninorgeln.* Perf. Peter Schumann. Cantate, 1972. L. P. Record.
[28] Schwartz, pp. 393.

rhythms.[29] Most of Ligeti's music is characterized by clusters, canon, swirling sounds, soft sustained chords, large sustained tones, and the repetition of short passages. Yun was greatly influenced by Ligeti's work.

The innovative young composers with whom Yun cultivated relationships Germany had profound effects on Yun's musical development. The musical environment he found, allowed him the freedom to take risks and develop his own unique sound.

e. Twelve-tone Technique

1) Overview

The twelve-tone technique, also known as a serial technique, is a compositional tool that was invented primarily by Arnold Schoenberg in the twentieth-century. Twelve-tone simply refers to the twelve notes of a scale. From the middle C on a keyboard, the twelve notes are not just the eight white keys from C to C, but also the five black keys in between them. Discounting the repeated C leaves twelve chromatic notes, or tones, ordered in either linear or nonlinear rows, which depends on the composer's temperament. The notes travel through the musical space under transformations of retrograde, transposition, inversion, and retrograde-inversion during the course of the composition. Other elements such as duration, dynamics, and articulations may also be considered when composing.

Composers who used twelve-tone techniques would apply different methods to express this process such as invariance, hexachords, combinatoriality and hexachord combinatoriality. Invariance is a type of transformation that preserves an ordered chromatic musical quality, thus, while the formation changes, the original elements remain intact. A hexachord is merely six notes; the twelve tones are, therefore, achieved by combining two hexachords. Combinatoriality

[29]Stolba, pp. 886.

is a further compositional approach related to the twelve-tone technique. It is an expression "for combining a collection with one or more transposed or inverted forms of itself to create an aggregate."[30] Hexachord combinatoriality is used when two hexachords form a twelve-tone row; they are used in composition as altered forms of their original twelve by interchanging notes with each other.

2) *Tuyaux sonores*

Yun made use of twelve-tones in *Tuyaux sonores* by incorporating it as a framework for his graphic notation through the use of head-notes. The twelve tones appear and disappear, acting as anchors to prevent the music from drifting off into strict improvisation, a technique he had implemented before in his vocal composition *Gasa* (1963).[31] Like Ligeti, Yun used the twelve tones as columns upon which the music is woven.[32]

It is important to note that while he wrote *Tuyaux sonores* with the twelve-tone system in mind, he did not make use of it in a strict textbook sense.[33] The twelve-tone table does not show up in its entirety, rather, Yun used the twelve tones only a couple of times in its complete prime form, otherwise resorting to fragments. This is why he never published the twelve-tone table in his compositions. Furthermore, he did not make use of transposition, retrogration or an inversion of the prime form. Before further analyzing, Yun's unique use of serial technique, background on the Korean musical concept *Yeoeum* (여음) is required.

Yeoeum is a repeated fragment usually occurring two or three times in a piece at the end of a phrase. It has a certain wavering effect where a note drifts out of existence by fading away.

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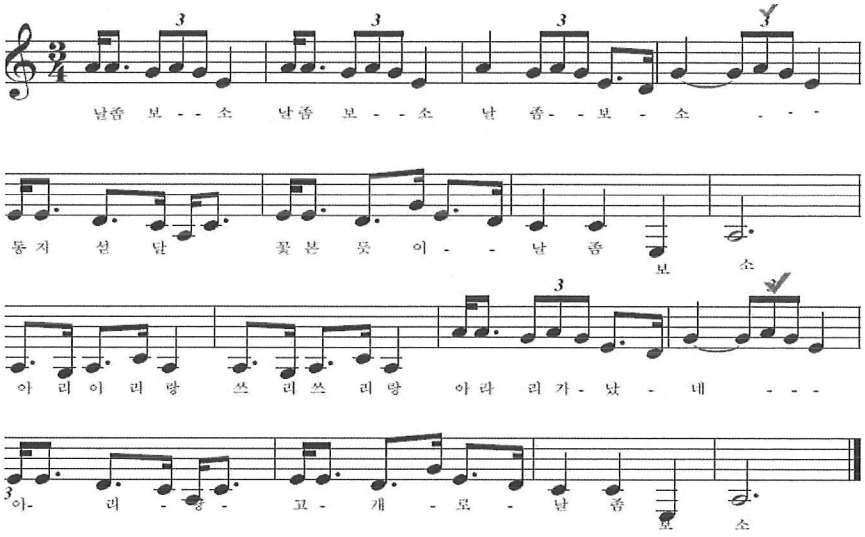
[30] Straus, Joseph Nathan. *Introduction to post-tonal theory*. 3rd ed. Upper Saddle River, N.J.: Prentice Hall, 2005. pp. 222.
[31] Rinser, pp. 129.
[32] Schwartz, pp. 397-8.
[33] Rinser, pp. 299.

It usually restates a previously heard fragment, and is also referred to as an "echo-effect." To illustrate this point, consider a person deep within the mountains. If that person was to sing, their final word would echo a few times before vanishing completely. *Yeoeum* is the representation of this fading away in musical form. It comes from the Chinese word 餘音 (pronounced yúyīn, in mandarin, 여음). The character 餘 (yú) means surplus or extra, while the character 音 (yīn) means sound. Thus, putting them together makes 餘音 (yúyīn), which translates into "lingering sound."

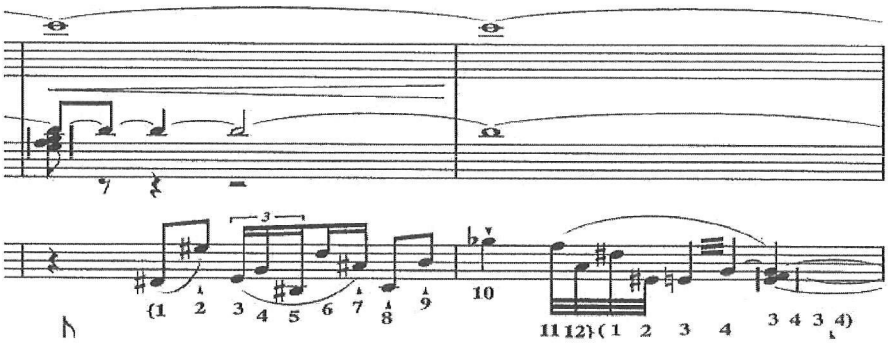
Yun made use of *Yeoeum* in the same fashion as it is used in the Korean traditional folk song Miryang Arirang. In both measures 4 and 12 the fragment [A-G-E], which was already used in the previous motifs, is repeated.

Ex. 1. *Yeoeum* (여음) in Miryang Arirang (밀양 아리랑)



I believe that Yun wanted to achieve the same effect found in Korean traditional folk music: vanishing, and re-emphasizing the earlier statement. In *Tuyaux sonores*, the *Yeoeum* [G-B] is in the shape of oscillation in measure 53. (See example 2)

Ex. 2. *Yeoeum* and Twelve-tone Row mm. 52 - 53



The term aggregate requires clarification in order to understand this music. An aggregate is "a collection containing all the twelve pitch classes." [34] In case of *Tuyaux sonores*, the aggregate form is smaller than its full twelve-tone size, and is comprised of a single motif; it plays a crucial role in the tone row leading to the end of the music. The row consists of A, C#, B, D#, C, E, G, and F#. After introducing the aggregate, Yun continues to make use of it until the end of the section, when it fades away. The concept of a pitch fading into silence represents the way in which sound harmonizes itself with the world around it, showing Yun's Daoist approach to music. The incorporation of this Asian element of a resonance to silence is referred to as "zero time" by Cage. [35]

3) Use of Twelve-tone Technique in *Tuyaux sonores*

Tuyaux sonores consists of three different twelve-tone elements: the entire twelve tone row (F#, G#, G, B, D#, F, C#, E, D, Bb, A, C), its small fragment motif (F# and G#) and the repetition of a segment from the prime form called *Yeoeum* (여음). Combining the Western twelve-tone arrangement with an East Asian technique, Yun achieved a Daoist unification of the two cultures.

The interval major second, or aggregate (F#-G#), is very important in *Tuyaux sonores*. This fragment develops gradually in m. 23, m. 30, m. 31 and m. 42. The major second of F# and G# in m. 42 is transforms into A and B by m.44, and then into C# and D#. From here, the major second transforms into D and E by m. 46, repeating again in m. 47, mm. 49 -50, and again in mm. 127-130, and finally emerging back in m. 170 (see example 3).

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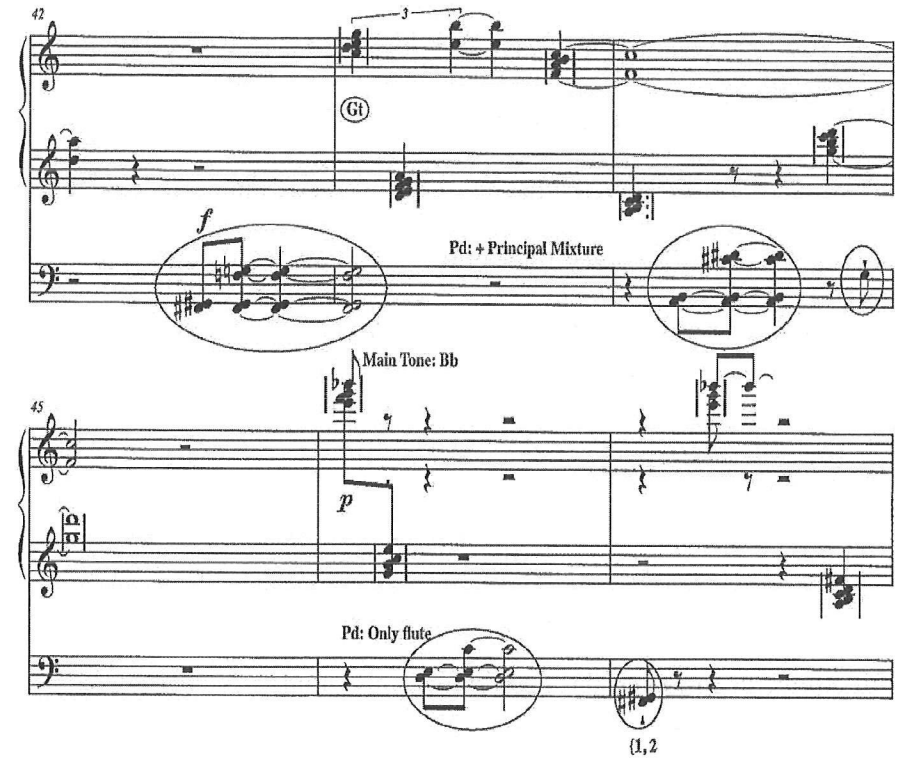
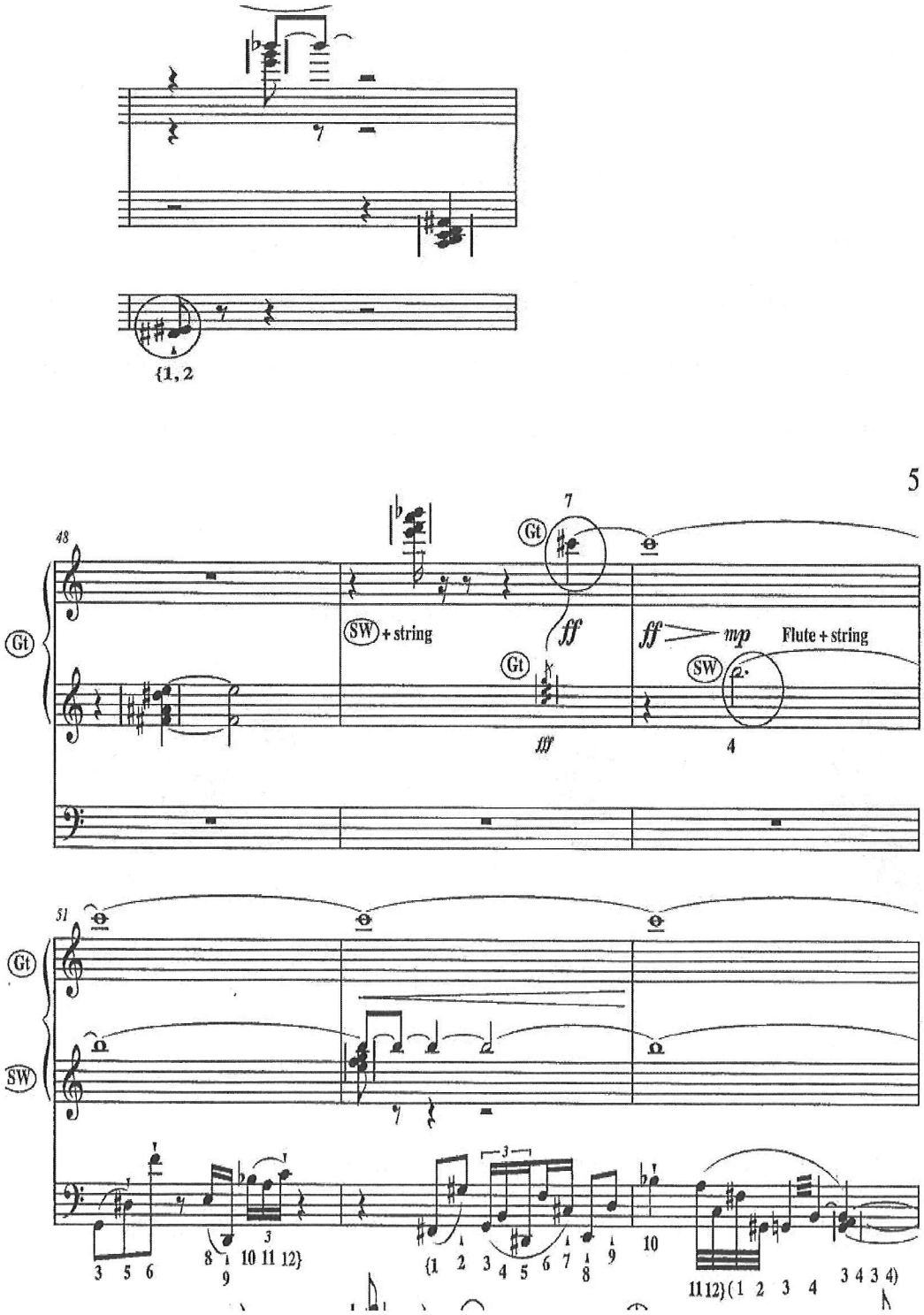
[34] Straus, pp. 94.
[35] Schwartz, pp. 340.

Ex. 3 Transformation of the Fragment F# and G#



An almost complete, but slightly altered twelve-tone row appears first on the pedal section mm. 47-51, and mm. 79-83. The prime form appears in mm. 52-53 (F#, G#, G, B, D#, F, C#, E, D, Bb, A, C) (see example 4). At the same moment, *Yeoeum* (여음) appears in mm. 53-54. In addition, the complete twelve-tone row appears mm. 76 -79. These two complete twelve-tone rows and their altered rows are crucial in *Tuyaux sonores.* Yun includes these parts into the body (mm. 37-133) which helps to divide the piece into three sections (see example 4).

Ex. 4 Prime Form and Altered form in *Tuyaux sonores* mm. 47- 53



III. Asian Influence

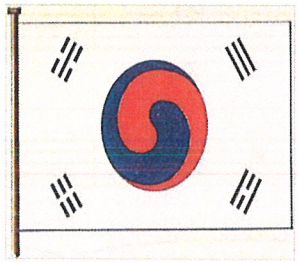
a. Daoism

1) *Yin and yang* and the five elements

The *yin and yang* symbol represents an East Asian philosophy called Daoism, which was introduced in the ancient Chinese text titled *I Ching,* the Book of Changes. It represents duality: life and death, male and female, earth and sky, etc. This concept has emerged throughout various Asian cultures, gaining particular importance in Korea. The symbol can be described as a black teardrop hugging a white teardrop to form a circle, with a white dot piercing the center of the black portion, and a similar black dot piercing its mirror image on the white portion (see, figure 1).

Figure 1. *Yin and yang* dominate the Korean national flag

Yin and yang symbol



Korean Flag in 1883

South Korean flag since 1949

In the 1880s during the Joseon Dynasty, the image of *yin and yang* was chosen to represent the Korean National identity and became the central image of the Korean Flag[36] (Taegeuk, 태극). However, instead of the familiar black and white color scheme, red and blue

[36]Kungnip Kugowon, *An Illustrated Guide to Korean Culture*. Seoul: Hakgojae, 2002. Pp. 459.

were chosen as the two juxtaposing forces: positive (*yang*) and negative (*yin*).[37] Although it underwent slight alterations in the 1940s, it still remains an iconic image of South Korean nationalism.

Along with the symbol of *yin and yang*, the original Korean flag and the current flag of South Korea make use of trigrams that are constructed out of the basic dash marks used to distinguish between *yin* and *yang*. Where *yang* represents the male component symbolized by a solid horizontal line (━), the *yin* element represents the female component in life and is represented by a broken horizontal line (╍). The four basic elements of the universe are constructed out of these two components by means of stacking different arrangements of trigrams found in the Book of Changes. These four elements are Earth (☷, Gon, 곤), Heaven (☰, Geon, 건), Fire (☲, I, 리) and Water (☵, Gam, 감). They are tilted at each of the four corners of the Korean flag encircling the *yin and yang* symbol. These elements of *yin and yang* can also be constructed to produce the 64 hexagrams found in the *I Ching,* which Cage used in constructing his random music as mentioned above. Likewise, mathematician Gottfried Leibniz (1646-1716) was introduced to these broken and solid horizontal lines of *yin and yang* through correspondences with a Jesuit priest missionary friend working in China. From these *yin and yang* strokes, Leibniz created the binary system of 0s and 1s which he used in a primitive mechanical calculator. This is the same system we use today organize the ebb and flow of our digital world, from the stock exchange to cell phone applications.[38]

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[37] Red color represents nobility and sun; Blue color symbolizes as mail and hope.
[38] Occhiogrosso, Peter. *Joy of Secys*. New York: Doubleday, 1994. Pp.165.

The Taegeuk (태극) image was designed by Juyeomgye (주염계, 1017-1073) during the Sung dynasty, China. Juyeomgye was inspired by the book, *Yeogkeong* (역경), which deals with *yin and yang*.[39] *Yeogkeong* is explained that the *yin* and *yang* is the principal force in the creation of the universe. Juyeomgye explains that the formation of Taegeuk starts with the original energy called Gi (기) in the primitive state, chaos.[40] This energy causes activity—*yang*—which is sustained for a while before becoming still—*yin*. This ebb and flow between action and non-action repeats indefinitely: *yin* to *yang*, yang to *yin*, ad infinitum. These two extreme opposite forces cannot be separated, but rather are united, working together. Through this process, the five elements called, Eumyang O Haeng seol (음양오행설) are produced; *water, fire, wood, metal,* and *earth,* which in turn create the planet Earth. These elements are responsible for producing the four seasons: spring, summer, fall, and winter.[41] This is the cosmology described into the theory of Taegeuk called, Taegeuk do seol (태극도설) by Juyeomgye (주염계). (See, figure 2)

Figure 2. Cosmology in Daoism[42]

無極而太極。太極動而生陽，動極而靜，靜而生陰，靜極復動。一動一靜，互爲其根。分陰分陽，兩儀立焉。陽變陰合，而生水火木金土。五氣順布，四時行焉。五行一陰陽也，陰陽一太極也，太極本無極也。

(송, 주염계 지음)
태극 이전에 무극이 있었다. 태극이 움직여 양이 생겨나고, 그 양이 극에 달하면 고요하게 되는 음이 생겨난다. 그 음이 다시 양이 되는 과정을 통해 물, 불, 나무, 쇠,와 흙등의 다섯 기운을 생성하고, 사계절이 생겨 난 것이다.

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[39]弘稙, 李. *Kuksa Taesajon*. Seoul: Chimun'gak, 1984. Pp.1593-1594.
[40]임, 종욱. *Tong*yang*hak Taesajŏn*. Seoul: Kyŏngin Munhwasa, 2006. Pp. 260.
[41] Kim, Yong-ok. *Tool Kim Yong-ok I Mal Hanŭn Noja Wa 21-segi*. Vol. 2. Seoul: 통나무, 2000. Pp. 70, and 李, 弘稙, pp. 1594, and Kungnip Kugowon, pp. 497
[42]Ibid, pp.69.

As *yin* and *yang* are well-known throughout Korean culture, the concept was central to Yun's approach to life as well. The juxtaposition between positive and negative, in the form of opposite and complementary forces, were often on his mind, and thus elements that he explored in his music. Yun also experimented with this Daoist concept.

2) Philosophy of Daoism

Yin and yang represent the idea that the balance of the universe is preserved by the ebb and flow of juxtaposing forces. Life is sustained not only through inhaled breath, but also by the subsequent and necessary exhaled breath. The act of breathing is accomplished by both actions. If either action were extended too long beyond the other, the equilibrium of one's being would collapse, as would the person.

Yin and yang first appeared in the *I Ching* and became the groundwork from which Daoism would be built.[43] Daoism is a Chinese philosophy founded around the 4th century BC during the Warring States Period in China. It comes from the Chinese word, Dào (道, 도) meaning "the way or path." It is a method where one does not try to *impose* balance, but instead, *find* it. The goal of this balance is to achieve twofold harmony: within the individual, and the individual within the universe.

The original Daoist philosophers were Laozi and Zhuangzi, who are credited with writing the primary texts of Daoism, the "Dao De Ching" and the "Zhuangzi," respectively.[44] Laozi elaborated on Doaism, while Zhuangzi developed narratives to help the masses understand. This philosophy has since gained countless other authors, has become state religion at times, and has traveled throughout Asia embedding itself into various cultural psyches.

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[43] Occhiogrosso, Pp.164.
[44] Ibid, Pp.151.

Most Daoists, including the founders, were either unable to achieve political success, or uninterested in it entirely. As such, many of them lived on the fringes of society where they sought out their own sanctuaries in nature from which to reflect on themselves and the world around them. According to Daoism, such harmony is supposed to help establish governance over a single person, with the potential to extend over an entire country.

Daoist philosophy played a fundamental role not only in Yun's life but in his musical compositions as well. Yun grew up with a strong Daoist influence. In addition to his father being a scholar of Asian philosophy, Yun attended the *Seo-dang* (서당) private school, where he studied Chinese literature and philosophy.[45]

In Ancient China, Daoism originated out of an attempt to understand core principals of nature and the universe, as they affected agricultural society. Daoism emphasizes cycles of change, including the lifecycle and the turning of the seasons. In *Understanding the I Ching*, Hellmut and Richard Wilhelm wrote:

> It is certain that the world of being arises out of [its] change and interplay. Thus, change is conceived of partly as the continuous transformation of the one force into the other and partly as a cycle of complexes of phenomena, in themselves connected, such as day and night, summer and winter. Change is not meaningless but subject to the universal law, Tao.[46]

Louse Rinser made a brief analysis of his musical composition, *An der Schwlle* (On the Threshold, 사선에서, 1975) based on philosophy of Daoism;

> In the second part, the man grows into his destiny. His strength grows, and his personality grows. The encounter comes with the threat and with the chaos. At the same time, there are always moments of stillness and moments of rest. But then the man falls into an extreme plight, in which he will be forced to give up his own will. Then he comes to himself, and he wonders, who he is then and where he stands in life and in the world. In

[45] Kim, pp. 18.
[46] Wilhelm, Hellmut, and Richard Wilhelm. *Understanding the I Ching*. New Jersey: Princeton University Press, 1995. pp.33-34.

> addition, no one helps him, he is totally alone and he contemplates death and must become a friend to it… In life we are always in a plight, in bondage, and we are always intertwined in all human destinies, and we are always implicated, we are not alone or only there for ourselves. The closing it goes higher and higher…It wants the absolute freedom, but it does not reach it, only almost. [47]

Yun also ascribed to a Daoist dynamic development in his music with an example from *Fluktuationen* (관현악을 위한 "유동", 1964). The title *Fluktuationen* has origins in Greek, meaning "everything flows."[48] This Greek word transcends the Doaist concept that everything flows or changes. By linking a Daoist concept of flow, I feel that Yun thinks both cultures are compatible with one another. In an interview, Luise Rinser described musical dynamics based on Daoism. Yun himself agreed with her analysis:

> The piece begins *pianississimo* as if people must at first become aware of the stream…becom[ing] even softer…And then one hears it grow louder and stronger…The stream builds up the uproarious swirls, springs, and cataracts…All the 14 voices have different character; each of them repeats over and over its own figure, and then all of a sudden, everything comes together in a broad brass instrument harmony…and then, within three measures, from *fortississimo* to the *pianissimo*, the piece ends. [49]

Rinser continued by stating that uncertain times for the beginning and ending represent the eternal, ultimate boundlessness of time and space. I will discuss the detailed analysis how this concept applies to Yun's composition *Tuyaux sonores* in chapter 5.

In Yun's music, this cycle is presented as a chord that resonates from the moment it is struck until its last audible flurrying dissipation into silent space. This is meant to exemplify the concept of change. Yun's music encapsulates three elements of Daoist philosophy: change, spontaneity, and duality.

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[47] Rinser, pp. 242.
[48] Ibid, pp. 136
[49] Ibid, pp. 135-7.

i) Change

The concept of change is central to the world view of Daoism. The only constant in life is the Dao. All other constructs ebb and flow into each other going in and out of existence. As such, Daoist thought says that it is foolish to try and hold on to any one thing; rather we should enjoy the time that we experience.[50]

Yun's music maintains the variations of change. This concept will be further elaborated and reinforced in the discussion of *main-tone, Hauptton, yeoeum* as well as in my interpretation of Yun's *Tuyaux sonores*. The main-tone is one tone within space that develops or transforms within the course of a composition. These ephemeral journeys carry significance in their relationship to Daoist philosophy. Change is unavoidable in life and here it is represented in music, which changes constantly. This change represents the change of a single tone. Eastern music gives significant meaning to a single note. This is the true that Yun tries to capture in his music with main-tone. This is different from the western ideas of sonority. In western music, a main melody is presented as a statement given at the beginning and developed through the composition. Perspective changes with transposition, ornamentation, complete transformation of harmony, or modality from major to minor or vice-versa.

The concept of change is emphasized throughout Daoism. Man, Earth and the Universe are all in a state of constant flux. Yet, it is our essence, our Dao, which stays the same:

[50] Stephen, Mitchell. *Tao Te Ching*. New York: Harper & Row, 1988. pp30.

Laozi the Tao Te Ching in Chapter 24

There was something formless and perfect
before the universe was born.
It is serene. Empty. Solitary. Unchanging. Infinite
... I call it the [D]ao
It flows through all things,
inside and outside, and returns
to the origin of all things.
The [D]ao is great.
The Universe is great.
The Earth is great.
Man is great.
These are the four great powers.
Man follows the earth.
Earth follows the universe.
The universe follows the [D]ao.
The [D]ao follows only itself. [51]

Finally, one must address the concept of preserving identity in the face of change. This was related by Zhuangzi in a famous story of his involving a butterfly. One day Zhuangzi was taking a nap wherein he dreamt that he was a beautiful butterfly simply flitting around here and there. Upon waking he pondered the question: Was he Zhuangzi who had dreamt of being a butterfly, or rather, was he a butterfly who had dreamt of being Zhuangzi?[52] Importantly, this transformative thinking about metamorphosis does not detract from the richness of Zhuangzi's existence, but on the contrary adds to it. This is referred to as the "transformation of things."[53] An elderly person is old because they were once young; however, it is neither the child nor the senior citizen who can give full expression to the life that has transpired. This concept is paralleled in mathematics, where the instantaneous rate of change of any trajectory cannot be evaluated during a single moment. Such is the *calculus* with which the Daoist philosophy of Yun's music should be approached. Isang Yun's second opera *The Widow of the Butterfly* (1969)

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[51] Stephen, Pp.24.
[52]Hinton, David. *Chuang Tzu The Inner Chapters*. Washington D.C.: Counterpoint, 1997, pp. 34-35.
[53] Ibid pp. 35

is based on this Zhuangzi's figurative depiction. It is the entire journey of the music that both musician and listener must be conscious of.

ii) Spontaneity

Another key tenant of Daoism is the concept of spontaneity. In fact, it is only through spontaneous action, lacking conscious thought, that the Dao can be reached. The Way – the Dao – cannot be reached by conscious effort. The moment that one is aware of being part of the Way, they lose their balance and stumble. It is similar to riding a bicycle. When someone is learning how to ride a bicycle without training wheels, they spend all day falling over. Eventually, there is that moment when all hope is just about gone, that they try one more time, and surprise themselves by achieving the correct balance between pedal speed and forward movement. This allows them to maintain an upward position along the course of their trajectory. Unfortunately, as most people who have experienced this moment know, it is quickly followed by falling back to the ground due to the extreme surprise and realization of what was achieved. Still, when a person rides a bicycle, they are not considering all the actions involved, they simply ride. Similar with the Way—when one is swept up into it, they must not think about all the mechanics of the process, or will fall out of step with it. Instead they must just *be*.

Yun's music, especially *Tuyaux sonores*, is written in a similar fashion. Yun uses graphic notation which allows for the organist to perform the bulk of the piece with improvisation. While he indicates certain main-tones, or uses brush technique to indicate emotional feeling, the movement from any point A to point B is achieved through improvisation. With improvisation, a high degree of expertise is required, including the knowledge of Yun's individual musical language as a Daoist. Each time the piece is performed, it should be a unique

interpretation given the performer's mood at the moment, and the emotions they experience while playing; Yun designed the piece to emphasize spontaneity. Some critics may argue that it relies too heavily on spontaneity. While having a full musical score of *Tuyaux sonores* may run counter to the composer's intent, it allows a wider pool of organists to perform the piece such that if can be accessible to future audiences.

iii) Duality

Yun, in fact, taught Daoism at Tübingen University in Germany in 1984 as the underlying philosophy of his compositions, especially in *Tuyaux sonores.* In its relationship to Yun's music, Daoism is thought to inspire spontaneity and transformation. He used the transformations of a main-tone to represent the dual elements of *yin and yang*, complementary forces.

Within Daoism's concept of complementary relationships, *yin* is viewed as a constant—a straight line—rhythms and patterns that exist in music with melodic regularity. *Yang*, likewise, is understood as similar to jazz—the wild, uncontrollable free spirit that cannot be tamed. Where *yin* is the earth, *yang* is the sky. Where *yin* represents woman, *yang* represents man. Korean society has been influenced by this concept for thousands of years; it would naturally seep into Yun's music.[54]

b. Main-tone & *Hauptton* Technique

Hauptton and *main-tone* are musical concepts that play important roles in Yun's compositions. They are often considered synonyms (*Hauptton* is often translated from German into English as "main-tone"), and synonymous as well with other terms like "central-tone,"

[54] Rinser, pp. 145-146

"principal-tone" or *Toneinheit* (used by Christian Martin Schmidt)[55]. Before discussing their significance in Yun's music, however, it must be stressed that main-tone and Hauptton are distinctly different from the Western concepts of main melody or harmonic progression. In fact, I do not agree with using the terms interchangeably, which may be due to a loss in translation.

Yun assigned particular significance to the single unit of sound—the main-tone. In *Tuyaux sonores*, Yun used different main-tones to anchor the music, and to chart the trajectory of a single unit's journey through the entire piece.

While main-tone is a single unit of sound, I view Hauptton as a collection of single units (it is also referred to as a "collection of main-tones."[56]), emphasizing its plurality. It is this distinction between plural and singular that I believe sets main-tone and Hauptton apart. Where the singular main-tone refers to a single unit of sound, the main-tone—the plural—is considered a collection of singular units (main-tones) working in unison to establish the Hauptton.

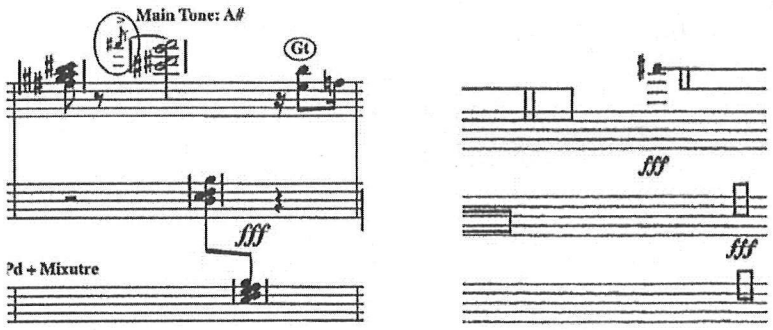
1) Main-tone

Yun created the main-tone concept to help translate East-Asian musical ideas into twentieth-century Western composition. Main-tone is a focal point in his compositions, and can change pitch throughout the course of musical development, such as from A to A# or Ab, or even to, B, B#, or Bb, etc. A repeated tone blends with other musical elements like a trill or slide; a main-tone can be sustained for a long duration of time, start with strong dynamics, and then decrease within a given space, until silence occurs. It can be thought of as an uncertain tone that is strong, freezes, and then transforms into another pitch.[57] In Yun's music, main-tones

[55] Chae, pp. 14. Feliciano, pp. 41, and Rinser, pp. 130.
[56] Rinser, pp.133
[57] ibid, pp. 134

are used to develop particular environments similar to how Western musicians, such as Ligeti, used twelve-tone technique to build their own musical worlds.[58]

Ex. 5 main-tone A# in m. 22 in full notation and the original notation in page 2



2) Hauptton

Yun referred to Hauptton as "a bundle of single tones."[59] In Sooah Chae's dissertation on Yun's composition style, she claims that Hauptton forms a "long-sustained inharmonious sound"[60] bundled together with other single notes. This thick sound of texture is intended to be played improvisationally, and to include various musical dynamics. Basically, Hauptton is a collection of main-tones that gives the illusion of harmony to the Western ear.[61] These main-tones can be several different tones in pitch within music, but they do not appear in isolation. They may stand out as the center of a tone, or be barely audible as supporting elements in elaborate passages.

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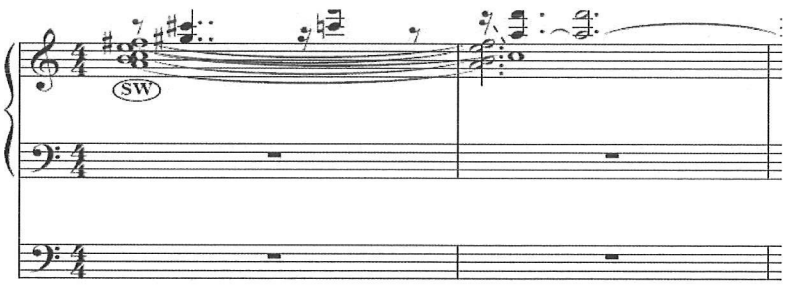
[58] Schwarz, pp. 398
[59] Rinser, pp 133
[60] Chae, pp. 15
[61] Rinser, pp.135

Yun noted that every single tone subordinates itself to the Hauptton.[62] He presents these main-tones for different tone-colors in sequenced patterns that either resemble, or contrast with one another. The collection builds up gradually from formless sounds to become a chord, and then fades away until it is only perceptible as a clatter, whine, or hiss.

Ex. 6 Hauptton (mm. 1 – 2)



3) Asian qualities of Main-tone and Hauptton

These two related techniques possess a distinctly Asian quality to them that is common to musical traditions in countries like China, Japan, and Korea.[63] As I will elaborate further in chapter 3 on his first visit to North Korea, Yun viewed a fresco mural painting, which had a deep and lasting impact on him. The experience influenced his development of main-tone (see Chapter 3: Musical Development). This invention of Yun's main-tone became such a meaningful musical component that it has been canonized in the Grove dictionary.[64] Similarly, European avant-garde composers György Sándor Ligeti and Krzysztof Eugeniusz Penderecki incorporated a main-tone musical technique called *Coloid Sonores* in the 1950s.[65]

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[62] Ibid, pp. 134
[63] Francisco, pp. 13.
[64] Kunz, Herald. "Yun, Isang." *Home Page in.* Oxford University Press, n.d. Web. 4 June 2014. <http://www.Oxfordmusiconline.com>.
[65] Rinser, pp. 108.

Main-tone has its own life force, with which it moves through the universe. A unit may change during the course of its life, but, despite these changes, it will not lose its original identity. With a main-tone, a note is elongated into different pitches. Despite the transformations it undergoes, the note is believed to maintain its original identity. This is the philosophy with which Yun approaches his musical creations.

A main-tone, such as an A note, for example, is somewhat like a repeated melody or phrase found in western music. Even though a phrase or melody is transposed throughout a piece of music and taken up by different instruments, it is heard as the same phrase that has traveled along a specific journey through a particular piece of music. This represents the Daoist concept of a living entity within music; however there is a slight difference in Asian music. Rather than a repeated melody or phrase, it is the journey of a single note that is considered.

A long sustained chord of main-tones is a *Hauptton*, referred to as "a sound carpet,"[66] and has a similar aesthetic temperament to that of an Asian funeral procession. It is not unlike the 'ohm' chant that is common in Buddhist meditative mantras.[67] This thick carpeted texture is created by monks chanting the same monotonic mantra over again and again in unison, where each individual voice is essential for establishing the healing and meditative properties of the mantra. Similarly, in Yun's usage of main-tone and *Hauptton*, each individual pitch comes together to establish a musical ambiance of pressure that builds upon the listener. If any one of these pitches were lost, the entire theme would change. In his approach to music, Yun emphasized the Buddhist importance role of the individual in the collective to form the whole:

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[66] Rinser, pp. 139.
[67] Ibid, pp.131.

> While in European music the concept of form plays a decisive part, and notes become significant only when a whole group of them are related horizontally as melody or virtually as harmony, the thousand-year-old-tradition of Eastern Asiatic music places the single note, the constructive element in the foreground.[68]

Tuyaux sonores contains a vastly wide range of main-tone transformations, which serves to emphasize the sounds and their effects. Yun used tube and hair-shaped graphic notation marks to indicate the duality of Daoism's y*in* and *yang* in Hauptton. Likewise, Yun used brush-tone technique to also express the direction of main-tones in *Tuyaux sonores*.

c. Brush-tone Technique

Brush-tone technique is an East-Asian style of musical expression that emphasizes two types of feelings, restraint and vigor, according to Isang Yun.[69] Yun formulated this conceptual duality, which emerged from Chinese calligraphy and Buddhist temple dances, while reflecting on his early childhood in Korea. It is a unique technique that expresses two functions simultaneously: a musical line and a condensed harmony. Coincidentally, it is interesting to recognize that Yun's brush-tones hold similar techniques to the Western art form called *Tachism*[70], although Yun himself did not realize the connection.[71]

When Yun attended Chinese school, Chinese script held prominence in the dominant literary culture of Korea. Chinese was, and to a lesser degree still is, viewed by Koreans in the same way Westerners once viewed Latin and Greek, as the writing system of the educated. In addition to being a writing system, calligraphy is an art form in which each stroke has a specific name and movement for creation. The dynamics of the brush are meant to represent the

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[68]Rinser, pp. 132.
[69] Ibid, pp. 115.
[70] Tachism was a French artistic movement in 1950 which emphasizes spontaneity with random brush spots. Ibid, pp. 117.
[71] Ibid, pp. 117.

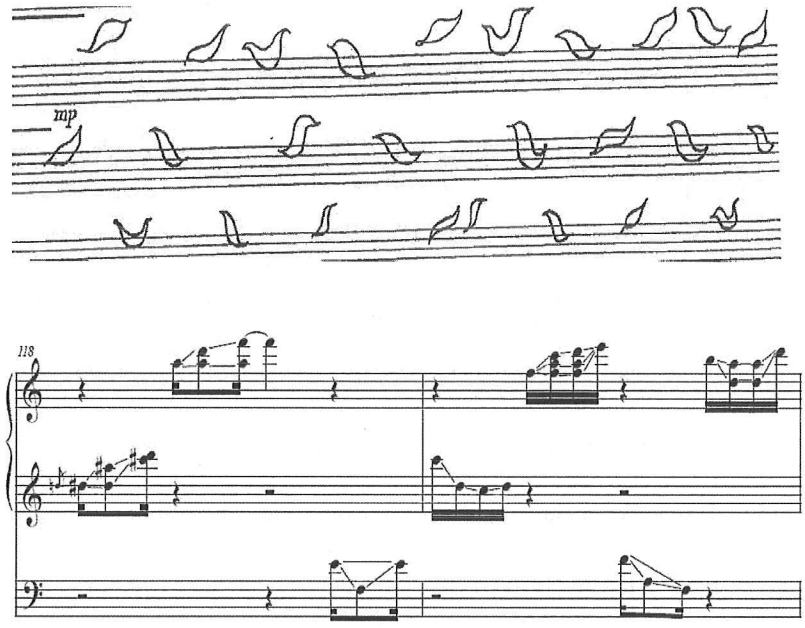
movements of life that encapsulate personal emotions. As such, Yun drew upon his childhood studies of Chinese calligraphy to inspire the curved shape strokes of his graphic notation. Yun's gliding marks are meant to represent emotional tones, such as climax and vigor.

Yun was also inspired by the Buddhist temple dance called *Seongmu* (승무). The dance itself starts off slowly, under great tension, and then gradually transforms into a fluttering delight. The dance is usually performed by a single dancer wearing long sleeves and a dazzling Korean top-hat draped with beads (intended to obscure the performer's face), moving her arms in stretching and folding motions. As the performance progresses, the dancer's body itself turns around with sustained force like a tilted merry-go-round, the sleeves appearing as angelic brush-strokes. Yun enjoyed the joyous tension of this dance and recorded the curved shape in the graphic notation for *Tuyaux sonores*. Referring to the Buddhist temple dance, *Seongmu* (승무), Yun mentioned that the listener should not "expect dance music, rather" the listener should consider "the atmosphere of a Buddhist temple in which monks and nuns do... prayer dances ... and motion under tension which transfers gradually to ecstasy in the most extreme concentration".[72]

Yun used Brush-tone technique in *Tuyaux sonores* mm. 104 - 107, mm. 118-131, and mm.152-the end. As these sections are intended to be improvised, it is almost impossible to translate into standard notation from simply listening to a recording. What is tantamount is that these sections be performed with energetic vigor and feeling of enjoyment. Example 7 demonstrates Yun's Brush-tone technique followed by my transcription in modern notation.

[72] Rinser, pp. 114-115.

Ex. 7 Brush–tone Technique mm. 118 – 119



An organist must use her palms to play the thick strokes of Yun's Brush-tones. In mm. 122 -127, the tempo is quite fast and the organist must use the whole side of her palms. She must use her entire forearms for the wide range of clusters mm. 123-127. To play a cluster, the organist fills in with whole chromatic tones of varying intensity, and may need to play with both palms and arms for the required hammering effect. These clusters are well-harmonized with the brilliant sounds of Yun's curved brush-tones, which completes the climax section of *Tuyaux sonores*.

d. Korean ornamentation

Yun used ornamentation as a transformation of a main-tone in *Tuyaux sonores.* While ornamentation is considered an embellishment in Western music, it maintains a fundamental role to identify and distinguish Korean traditional music, which makes use of *vibrato, appoggiatura,* and *glissando* (*glissando* can also be called passing tone or slide). The use of these ornamental elements helps the listener to identify the social class of the music's intended audience, as well as the temperament of the performer.[73] It also clarifies the mode class or tone-scale.

Pentatonic in nature, Korean music is largely composed in three modes: *pýonjo* (평조), *kyemyonjo* (계면조) and *ujo* (우조). [74] Of the three, *kyemongjo* is most relevant to ornamentation. *Kyemyonjo* uses the pentatonic scale that starts on *la*: *la-do-re-mi-sol* (Eb, F, G, Bb, and C). *Pýonjo* and *Ujo* are also pentatonic scales that start on sol: *Sol-la-do-re-mi*. *Kyemyonjo* is more interesting because it is ordered differently and uses *pentatone, tetratone,* or *tritone* with vibrato, appoggiatura, and sliding or passing tones.

In example 8, the first note of five notes, Eb is being emphasized by vibrato in an ascending scale. However, on the way down the scale, the top note C becomes Bb used as an appoggiatura. To continue, the next two notes, G and F are produced in a sliding progression. As a result, the descending scale becomes a tetra-tone, Bb-G-F- Eb which included ornamentations, vibrato, appoggiatura and glissando. (See Ex. 9) Likewise, this tetra-tonic scale (Bb-G-F-Eb) can also be felt as a tri-tone with a slide between G and F resulting in tri-tones, Bb-F- Eb (See Ex.10). Again, all five notes played on the ascending scale, but on the descent, G acts as a passing note to F. The reduction in the number of tones is due to ornamentations; vibrato,

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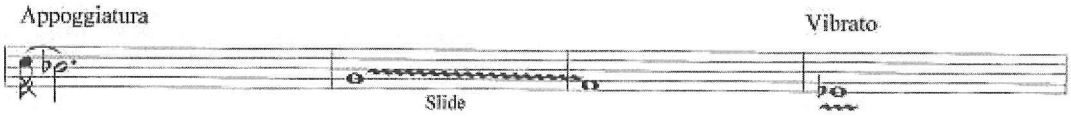
[73] Chang, Sahun. *Korean Traditional Music*. Seoul: Jung-Eum Publishing, 1976. pp. 321.
[74] Ibid, pp. 322.

glissando, and appoggiatura, which leads some to argue that Korean music is not truly pentatonic, but only has the illusion of being pentatonic.

Ex.8 Pentatonic scale: Ascending Scale

Ex. 9 Tetratonic scale: Descending Scale



Ex. 10 Tritonic scale: Descending Scale

Table 1: *Kyemyonjo* and its Ornamentations

Pentatone	Ornamentation	**Tetratone**	Ornamentation	**Tritone**
Eb-F-G-Bb-C	appoggiatura, glissando, and vibrato	Bb –G–F- Eb	vibrato	Bb-F-Eb
Chongdaep		Yongsanhoesang		Pansori, Sajo

Ornamentation plays a vital role throughout *Tuyaux sonores*. It is felt especially strongly in the trembling notes that act as main-tones mm. 134 -140. Yun related this to Daoism in the way single entities exist independently, as well as being parts of a larger whole.

Chapter 3. Musical Development

Isang Yun's musical development can be broken up into three stages. In the first stage, between 1958 and 1963, Yun came to realize the direction he wanted his music to go. As he worked with Western twelve-tone technique and his own notions of main-tone technique to reflect Korean stylistic elements, Yun blended elements of Western and Korean styles to create a hybrid musical sound. In the second stage, between 1963 and 1976, Yun developed his sound in the space between music and noise.[75] He expanded his concept of tonality, developed his own style of Brush-tone notation, and refined his sense of sonority by incorporating the dynamics of main-tone to include *Hauptton*. Finally, having carved out a unique musical identity, Yun introduced these techniques into various genres such as opera, symphony and ensemble music from 1977 until his death in 1995.

Isang Yun mentioned in interviews that his musical maturity was realized after his introduction into Europe.[76] Specifically, I believe the most formidable time in his career was between 1958 and 1963, when he spent time in France, Germany and Korea. Yun's development between these years was marked by three important events in his life: learning and mastering the serial (twelve-tone) technique, interacting with Western composers, and multiple trips to North Korea. The culmination of these experiences enabled him to blend a variety of styles and ultimately discover his musical identity.

The Gangseo Daemyo (강서대묘) of the Koguryu dynasty of North Korea would lay the foundation for Yun's concept of main-tone.[77] At the moment Yun began to immerse himself in

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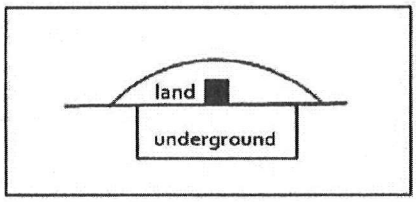
[75] Schwarz, pp. 397.
[76] Yoo, Youngdae. *Isang Yun his compositional technique as manifested in the two clarinet quintets*. Louisiana State University and Agricultural and Mechanical College, 2000. pp.13.
[77] Rinser, pp. 108.

Western musical theory, he was invited by a diplomat friend to go to North Korea in 1963. With ideals of solidarity and reunification, Yun accepted the invitation (which would later lead to his banishment from South Korea). During the visit Yun was taken to a tomb called Gangseo Daemyo (강서대묘), the final resting place of an unknown emperor from the Koguryu kingdom.[78] This tomb would greatly inform Yun's concept of main-tone.

Korean burials places are slightly different from cemeteries in the West. Rather than rows of graves, Korean burial sites have only a handful of tombs, usually from the same family. These tombs, located either on mountains or open plains are identified by grass covered domes that rise from the ground (see figure 3). Each dome house has only one or two occupants.

Figure 3. The Structure of Korean tomb



Gangseo Daemyo, built around the sixth century C.E., houses a fresco wall mural within the burial chamber. Proper Asian architectural alignment, commonly referred to as Feng-shui in the West (derived from the mandarin pronunciation of the Chinese characters for wind and water, 風水), is important in the building of a tomb. The four walls of Gangseo Daemyo are carefully aligned to face the four pivotal directions, and contain painted symbol of animals or mythical creatures. Each creature represents a Sasindo (사신도), a guiding spirit that helps navigate the journey of the dead from this world to the next. The four spirits are the blue dragon

[78] Ibid, pp. 108.

(east wall), the white tiger (west wall), the red phoenix (south wall), and the black tortoise with serpent (north wall). (See, figure 4)

Figure 4. The Mural Paintings in the Gangseo Great Tomb (고구려 강서 고분 벽화 구조)

North

(black tortoise with serpent)

West (white tiger)

East (blue dragon)

South (red phoenix): Entrance

The observer enters the room in the center, and rotates to allow her to take in the artwork. Therefore, the paintings become interwoven. A dichotomy is then created in which each creature alone feels complete, while together they also create an esthetic beauty that balances both strength and grace. This artwork had a profound impact on Isang Yun. In his doctoral thesis on Yun's clarinet quintets, music scholar Youngdae Yoo quotes Yun:

> I was speechless. The paintings were beautiful and powerful. These colors radiating from the darkness, the impression that this underground grave room made as a whole, was overwhelming. Most fascinating to me was the flowing elegance of the direction of line. [79]

The experience set the direction Yun's musical composition could take. With the Daoist notion of duality in mind, Yun recognized that the distinct musical styles of West and East, like the animals, could exist independently, but have would have a more profoundly powerful effect when unified. From this moment until the end of his life, Yun would wed Asian and European musical styles in his compositions.

[79] Yoo, pp. 110.

Chapter 4. Yun's Graphic Notation

Table 2. Yun's Notational Symbols by Yun (translated by Dr. Huck Hodge)

Ex. 1	Tempos	Takes 15 seconds per staff-line
Ex. 2		Indicates pitch and duration. If no exact tone is given, the performer should choose one at will
Ex. 3	◊	Mild harshness- chords that should include little dissonant harshness Eg.  or  or  Performer may choose outer tones
Ex. 4	◊	A chord that is somewhat harsh with great emotion in a short time
Ex. 5	▯	Very harsh chords with many adjusted tones: cluster
Ex. 6	▭	The Length of chords
Ex. 7	▭	Some tones may change within the chord length
Ex. 8		Chord expansion or contraction
Ex. 9		Tones in quick succession. sometimes also non-legato
Ex. 10		Successions of tones at will, (but) in correspondence with the symbol
Ex. 11		Combination of two tones of the same timber
Ex. 12		Thin(er) Brush stroke-like chord motion
Ex. 13		Wide(r) Brush stroke-like chord motion Elbow Joint-chord
Ex. 14	▯	Short hit
Ex. 15		Downward glissando
Ex. 16		Upward glissando
Ex. 17	 or	Neighbor tones change at will
Ex. 18		Legato:two different notes are connected tightly

The Symbols of Interpretive Gerd Zacher

Ex. 19		Somewhat shorter than notated
Ex.20		Somewhat longer than notated
Ex.21		Clusters between the given pitches

While the concept of graphic notation was not invented by Yun, he did create many of his own symbols. Table 2 above decodes the symbols Isang Yun's created and used to graphically notate his compositions.

Yun derived many of his graphic characters from the principal Daoist notion of duality—the balancing act between y*in* and *yang*. In table 2, examples 7 and 17 represent this duality visually. Their larger tube shapes represent sustained chords characteristic of the female *yin*, while their small details represent fast changing notes characteristic of the male *yang*. Yun's indication of tempo in *Tuyaux sonores* is also unique. He prescribed neither meter nor metronome tempo marks, but instead indicates time duration of 15 seconds per line.

Yun felt this kind of Picasso-esque abstractness lent itself nicely to the spirit of spontaneity: because of the ambiguity of the notation, a good deal of improvisation is required of performer. While the use of twelve-tone technique serves to anchor the music (in a set scale), the graphic notation provides freedom of creative expression. Yun believed this juxtaposition encapsulated the duality of y*in and yang*.

As discussed earlier, Yun incorporated Brush-tone technique into his graphic notations for composition. His brushstrokes are either wide or narrow, depending on the desired sonic effects. The brushstroke gives the performer the understanding of both the relative key range and the approximate time duration. A wide brushstroke indicates a wider range of keys over a sustained duration; a narrower brushstroke indicates the converse. (See example 12, and 13 in table 2)

Yun's graphic notation offers tone color and rough structures rather than exact pitch.[80] In *Tuyaux sonores,* principal tones or notes are used as main-tones represented by various kinds of

[80] Rinser, pp. 237

shapes such as lines, oval, rhombi, and upright-rectangles, with hair-like wisps surrounding or inside the shapes themselves. Yun designed this technique to emulate the Daoist philosophy of change. As mentioned, Daoist philosophy emphasizes the role of change within the lifecycle: birth, growth, and death. In *Tuyaux sonores*, this cycle reflects the importance of tone transformation over duration of time, and is symbolized by the emergence of sound into existence: birth is represented when a tone begins its trajectory through space; life is when it finds harmony within its surroundings, and death, when it is enveloped by the universe and fades into silence.

Finally, Isang Yun's oval-shape notation represents three different levels of dissonance. *Tuyaux sonores* starts off with a moderately harsh pitch in a lively motion, and is followed by varying degrees of tension and dissonance (see example 3 in table 2). Besides the oval, Yun also used a rhombus and standing squares to represent three levels of dissonance. Where the tubes indicate the duration of time, the hairs, either outside or inside, indicates active notes.

Yun emphasized color and effect over precision and accuracy. He mainly used the principal stop for the organ registration. As such, individual performances of *Tuyaux sonores* are vastly more different than performances of traditionally-notated pieces. *Tuyaux sonores* is completely dependent on the imaginative interpretation of the performer.

Chapter 5. Analysis of *Tuyaux sonores*

I. Before Analysis

My analysis was made possible by using Zacher's partial realization of *Tuyaux sonores,* which Yun himself approved of, as scaffolding from which to transcribe a full realization. This allowed me to establish the first complete score of *Tuyaux sonores* in modern musical notation. Furthermore, Yun, as a Daoist, analyzed his two pieces titled, *Fluktuationen* (관현악을 위한 "유동", 1964) , and *An der Schwlle* (On the Threshold, 사선에서, 1975)[81], which concepts I fold into my analysis (see, Daoism in Asian Influence, chapter 2). Yun's Daoist music is nonlinear. It is for this reason that his written directions are so important and helpful for both the performer and listener. For example, when listening to his music it is hard to distinguish climaxes and other aspects of musical development. When Yun's ideas behind his musical notations are understood, it is only then possible to analyze the dynamics of the music. What follows makes uses of three components: Zacher's partial realization, my full realization (based on Zacher's performance), and my understanding of Daoist concepts within the framework of musical symbolism.

II. Discrepancies in Transcribing *Tuyaux sonores*

Although Yun intended *Tuyaux sonores* to sound different for each performance, it is important to have consistency in the notation of the composition. Although my transcription required careful rigor, I understand that it may not appeal to all organists. I encourage others to use my work along with their own improvisation. Considering Yun's philosophical outlook,

[81] Rinser, pp. 135-6 and pp. 242.

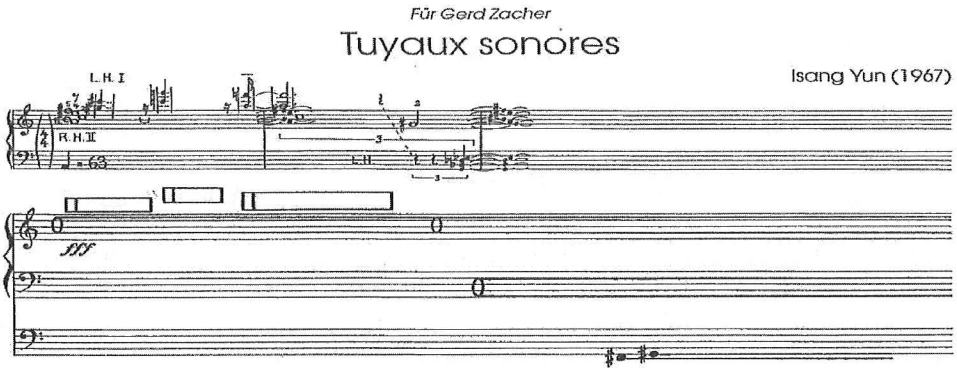
musical trends of his era, and his intentions for the piece, I encountered a few discrepancies while transcribing *Tuyaux sonores.*

As mentioned, Gerd Zacher, a friend of Yun's from the Darmstadt conventions, transcribed a reliable partial realization of *Tuyaux sonores.* Zacher's interpretation is similar to Ligeti's graphic notational organ piece titled *Volumina* (1962) in its insistence on non-determinacy, the importance of silence, and the reduction of the effects of harmonies.[82] However, though Yun approved Zacher's interpretation, I found six significant dissimilarities between his transcription and Yun's original graphic notation of the piece (sections partly realized by Yun and Zacher are noted in Appendix A).

The most obvious distinction between Yun's and Zacher's transcriptions is the glaringly different tempo markings. As shown in ex.1, Table 2, Yun indicated that one line of music takes roughly 15 seconds, however, in Zacher's realization, staff lines range between 16 and 22 seconds. In Zacher's transcription, he marks the tempo at 63 quarter notes per minute (see ex. 11); however, in his recording, there are only 60 quarter beats per minute. For consistency, I chose to mark the tempo in my own realization of the piece at 60 quarter notes per minute.

[82]Schwartz, pp. 397.

Ex. 11 Tempo Marking by Gerd Zacher



Tuyaux Sonores by Isang Yun
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The second dissimilarity between the two transcriptions has to do with the sweeping brush technique parts, which are not recognizable by the ear due to their fast tempo and neutralized sound.[83] Here, I transcribed the notes by measuring the physical space and location of each brushstroke on the staff to determine pitch, duration, and frequency. The spatial distance between notes, upon which performers are meant to improvise (see ex. 7), reflects the uncertainty and spontaneity of Daoism.

A third distinction between the transcriptions comes from the fact that Zacher added silent parts between sections in his transcription (see ex. 12). Although Yun did not graphically indicate silence in the third system on page 3, Zacher performed silence in three places: mm. 34-36 (corresponding to page 3 of Yun's graphic notation, see Ex. 12 and 13), m.117 (corresponding to Yun's page 10), mm. 127-137 (corresponding to Yun's page 11, see Ex. 14), and mm. 174 until the end of the piece (corresponding to Yun's page 15). I believe Zacher's additions of silence are reasonable; Yun believed in Daoism, which stresses silent meaningful

[83] Schwartz, Pp.397.

meditation; the way sound units harmonize with nature through silence reflects that.[84] Moreover, aleatoric musical philosophies of the twentieth-century emphasized the importance of silence, as evidenced in *Volumina* by Ligeti.

The fourth distiction in the transcriptions is evident in places were Zacher also removed parts to have a softer sonority in his performance. (see ex. 14. mm.127-137 corresponding to Yun's page 11). In mm. 127-134, two clusters disappear as well as two tones, A and B on the pedal section in m.132. Zacher's decreasing motion before the silence is reasonable. It is a section related to Daoism, the activity between *yin and yang*. After being alive, one gets down to *yin* which is silent.

A fifth noticeable addition in the recording is Zacher's organ registration in recording, which helps to create dramatic effects and define the evolvement of main-tones. The beginning section register *Flute* represents chaotic energy in the universe. When the music develops, we hear *strings* as a background tone with *principal or mixture* as a main-tone. Eventually, the reed stops are added for a stronger effect and to give color to the sonority.

All of these helped to contribute to my full transcription of Yun's music along with my understanding of how to analyze this work. I would like to point out that the time duration is important for each performer to consider about. Although the time to play is restricted by transcribing all the notes in the realized music score, performers should be free to use their own time duration and judgement between sections considering the acoustic environment.

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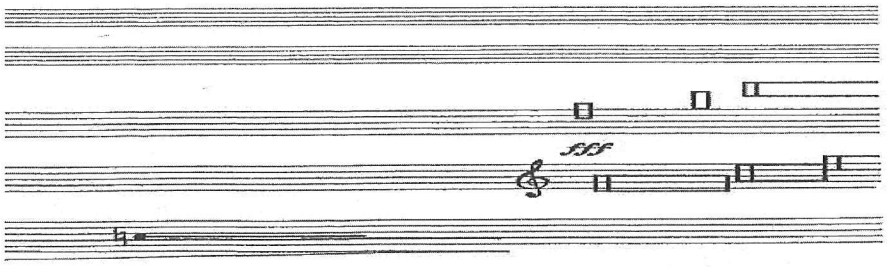
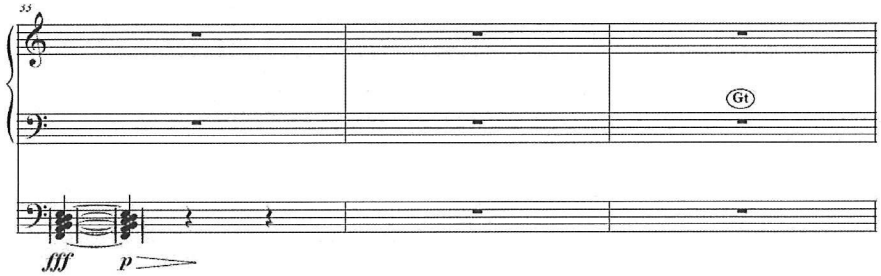
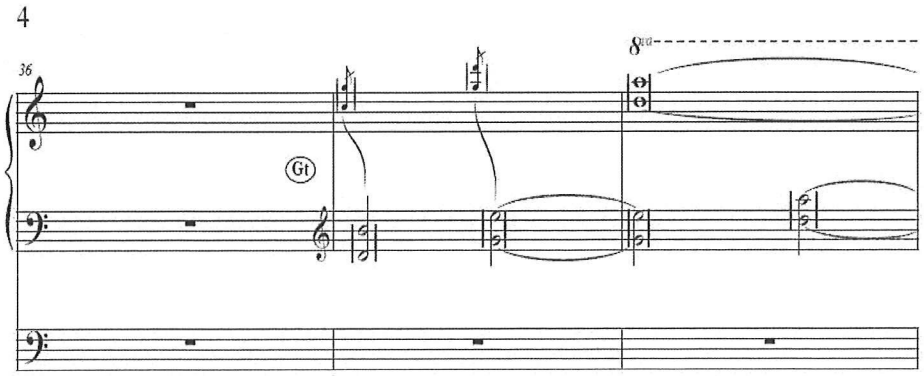
[84] The traditional Korean Buddhist chanting during Morning Prayer, in which musical tones continue until the end of the service without pause, unlike *yin*, the element in Daoism.

Ex. 12 Page 3 in Yun's Graphic Notation

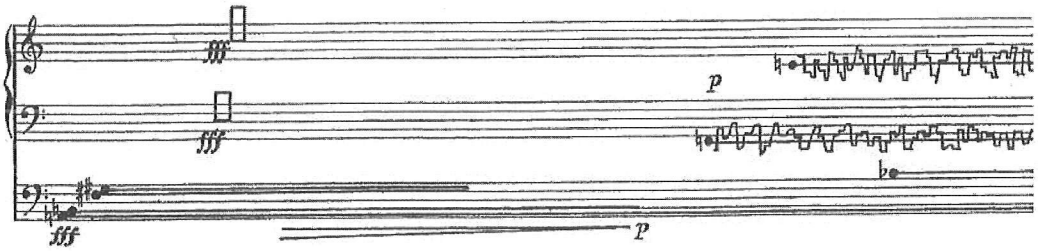


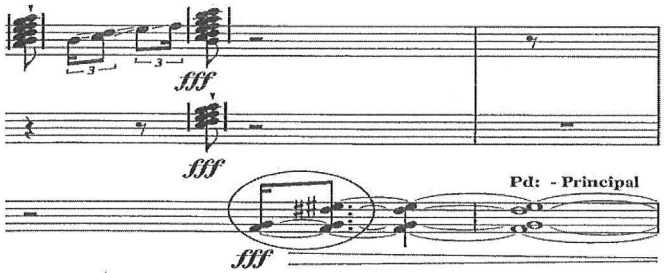
Ex. 13 Transcription of Zacher's Performance mm. 34 – 36

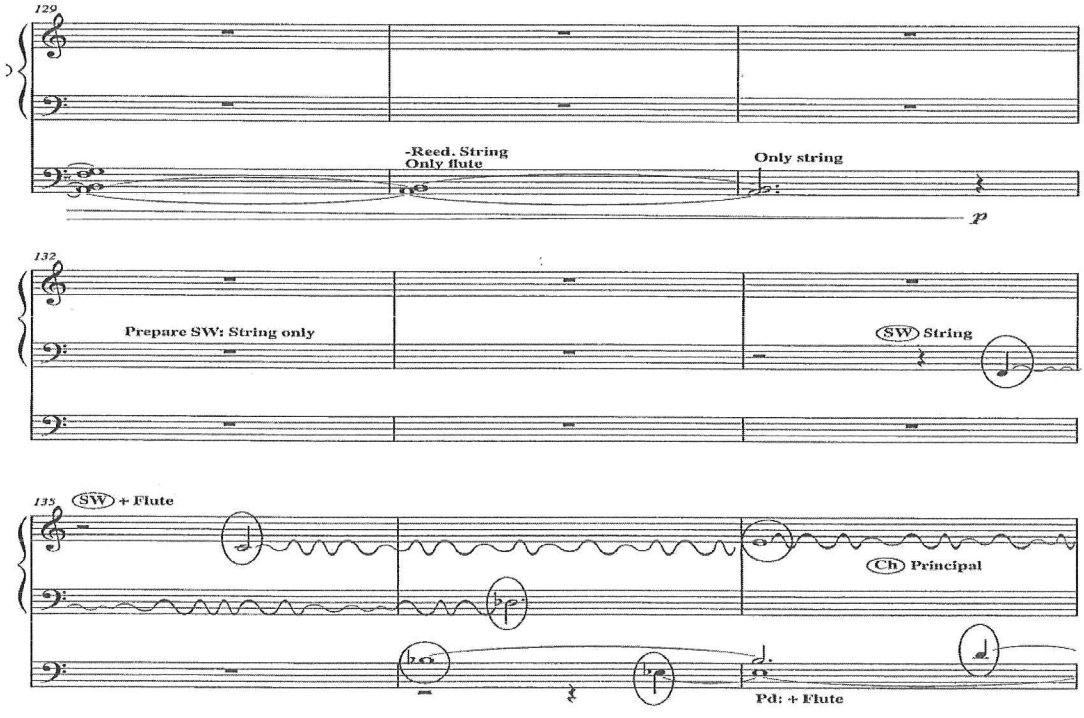




Ex. 14 Zacher's change from the Graphic score by Isang Yun (mm.127-137 corresponding to Yun's page 11)







III. Analysis

Tuyaux sonores lasts for about eleven minutes. Within the eleven minutes of Zacher's performance, the music maintains a linear structure, which is not discretely noticeable at first glance. This structure leads the listener through three distinct phases: prelude, development, and postlude, which I realized only as a result of the transcription process.

This music is different from the clear sections that are common in Western music, in that the cadence and phrases were left ambiguous. Asian music places a greater emphasis on tonal color rather than melodic or harmonic progression. As such, main-tones are an effective tool to help navigate through transformations in the music.

Yun's music is primarily written in graphic notation, with only specific notes indicated to help anchor the performer's musical imagination (e.g., pitch direction is provided). The majority of his indicated notes are in the pedal part. As such, when discussing certain indicated notes, I refer to notes in the pedal board unless otherwise stated. Of the notes, which are clearly marked, Yun primarily focused on the twelve-tone row.

When he studied in Europe, Yun came to the realization that clear phrasing, while absent in Korean music, is more developed in the West.[85] Though phrasing is present in western music today, this was not always the case. From the 4th to 14th century, music in the West was called ecclesiastical music. Ecclesiastical music took its phrasing from nature. The same philosophy is present in Korean music, which is derived from Buddhist and Daoist traditions. Yun viewed Korean music as not yet having gone through the same evolutionary process as western music. He attempted to merge the two styles while noticeably preserving traditional Korean elements.

[85] Feliciano, pp. 33.

a. Prelude (mm. 1-36)

The first phase, the prelude, originally seemed to be noisy and without absolute pitch. After listening, transcribing and analyzing this music, I have come to the realization that it is more than just chaotic sound. This led me to see the prelude as three sections divided by tone color through registration.

First, the listener is introduced to three different levels of density, as seen in ex. 3 of table 2. These varying levels of density are realized in Appendix A, mm. 1, 6, and 12. This density parallels the kind of chaos that is experienced in a birth or creation. Like all things that come into existence, there is a moment of turmoil – a point at which the new creation meets the universe, and vice versa. The former is trying to understand its new surroundings, while the latter is trying to figure out how to cope and make room for this newcomer, main-tone A# in m. 22. But within this chaos, there is structure as well.

Table 3. Prelude in the Sound Structure according to the record
(According to the record by Gerd Zacher; performance time 11: 25 minutes)

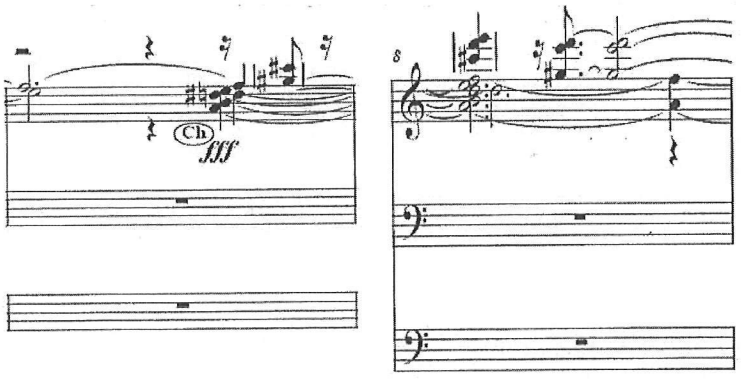
Section		measure	Sounds Elements	Features
I Prelude	Chaos	mm.1-21	-Sustained Hauptton -Three levels of density	mm. 1, 6, and 12
	Birth	mm. 22-33	F# & f#-G# (Frame work)	An A# Main-tone appears in m. 22: Birth and transformations
	Silence	mm. 34-36	Silence for 3 measures	Silence before developing

The first important structural element in the piece is the F#. It is the highest note of the first cluster. By the end of this first section, F# appears again in measure 23 (Yun's notation in page 2), but this time it is now the lowest note in the register within the pedal part. Thus, F# acts as bookends in the first section of the introduction. The use of F# within the register from the

highest to the lowest note affords a sense of closure, like a period at the end of a sentence. It is important to point out that the first cluster with the F# is actually Zacher's realization in Yun's *Tuyaux sonores*. Yun only specified F# in the pedal at the end of the fourth measure. This F# is combined with G# in measure 23 to introduce the first two notes of Yun's twelve-tone series. As mentioned earlier, Yun uses the twelve tones throughout his piece to serve as anchors for the structure throughout the intended improvisation; otherwise, the piece runs the risk of drifting into extreme space – either chaotic noise or dead silence.

The next important element of the structure is found in the registration. Zacher uses a different registration for the first two sections of the prelude. Although the first section (mm.1-5) is chaotic, it gets neutralized by the fact that the registration is for flute plus mixture, an unusual juxtaposition to the classical listener's ear. Contemporaries of Yun who pursued this new sonority investigated the space between music and noise. The second section (mm. 6-11), begins with heavier tone density and dissonance. Here, the principal added to the flute plus mixture makes the dynamic change more flexible. At one point there is a blending of more dissonance with a release of tension; the listener is overwhelmed by crashing bursts of sound in the chaos.

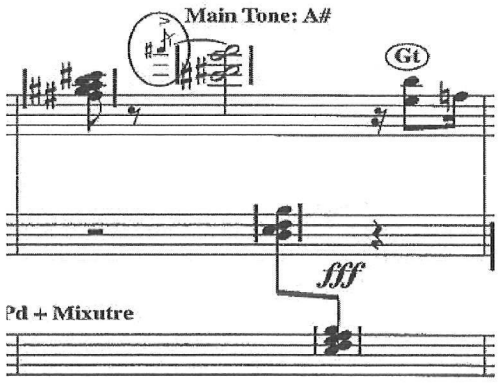
Ex. 15 Crashing Bursts mm. 7-8



The third section of the introduction (mm. 12-17) blends the registration of the first two sections. In terms of tone color or density, the third section is lighter than the second section, but heavier than the first. It also makes use of a wider range of register than the second, due to the fact that the second section lacks a pedal part.

The end of the introduction takes on a different character than the preceding three sections. I view the transition mm.17- 18 as a bridge that contrasts in dynamics and structure to what preceded it. Measure 19 introduces a cluster of triple rhythms followed by arpeggios in m. 20 and m. 21, creating a sense of stability amid the chaos that has prevailed up to this point. On the second beat of measure 22, high up in the musical stratosphere, an A# emerges like a pure beam of light, though it quickly loses footing as it tumbles down and disperses into sound resembling a myriad of crystal shards. This is where the birth takes place, the moment in which something tangible finally appears and comes into existence: a main-tone. This section represents the Daoist concept of birth as an entity emerging from chaos.

Ex. 16 Birth in m. 22

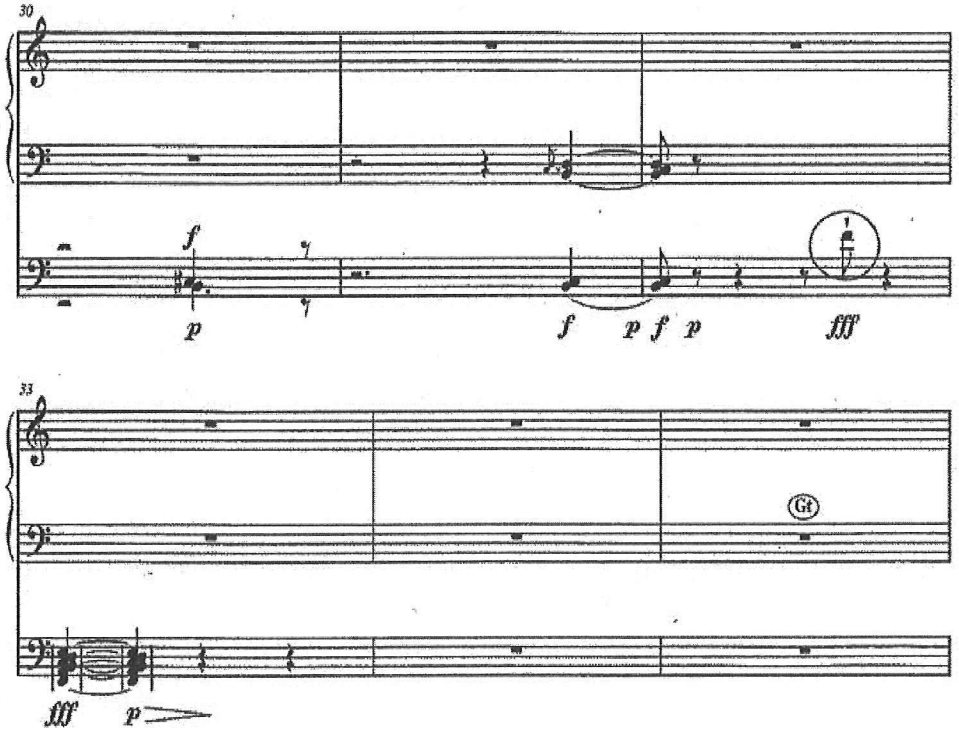


Again, F# and G# give an appearance at measure 23 on the pedal. These two return again at the end of the introduction, and are transposed into B and C#, respectively (m.30). This major

second produces the *Yeoeum* (the motif repetitions from the earlier phrase) that brings an end to the introduction of *Tuyaux sonores* mm. 30 -33. This is then followed by silence to identify that the first phase is completed.

"The encounter comes with the threat and with the chaos in the first part. At the same time there are always moments of stillness and moments of rest."[86]

Ex. 17 *Yeoeum* mm. 30-33



b. Development mm. 37 - 134 (third beat)

The development begins after the silence where the journey of the main-tone A# continues. Here, Yun fully displays his twelve-tone row (mm.52-53 and mm.76-79). He also introduces, what I believe, is a form of a phrase he designed to suit Asian musical language: an

[86] Rinser, pp. 135-136.

incomplete twelve-tone row followed by a complete one, a second complete one, then another final incomplete one. At the end of the development, Yun implements his Brush-tone notation to indicate closure.

Table 4. Development in the Sound structure according to the record

Section		measure	Sounds Elements	Features
II Develop -ment	Growth	mm. 37-75	1st Twelve-tone row Main-tone Bb	- start with soft registration -first twelve-tone row -yeoeum - Main-tone A# transformed into Bb in m. 46 - softer registration - stillness underly*ing* activity[87]
		mm. 76-117	2nd Twelve-tone row	- Crescendo- decrease again -Main-tone appears at a high pitch B b transformed to B in m. 110 (Introduction of brush tones)
	Climax	mm. 118 - 131	Brush- tones with wide range of clusters	energy and strain
	Silence	mm.132- 134 (third beat)	silence for 9 beats	ends in silence

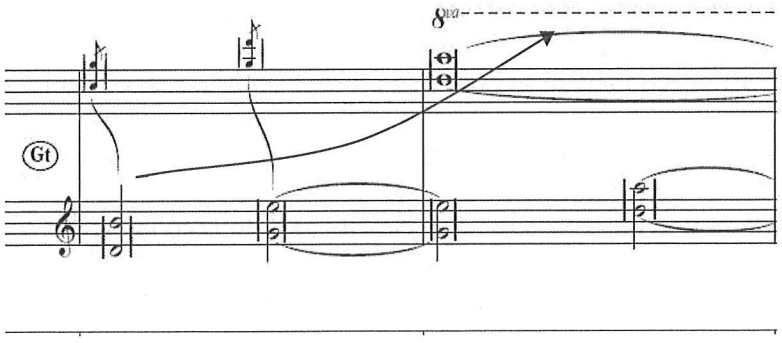
While this development represents the journey of the initial A#, it does not necessarily reemerge in its original form, but instead bends and changes throughout the piece. This concept of the musical growth of a note should be viewed in the same way one views chronological photographs of a person: there are shades of similarity between a childhood photo and the adult whom that child grows up to become. However, they are not identical. For Yun, the main-tone represented evolutionary possibility.[88] Likewise, Yun's musical journey starts off with A# but ends with Bb in measure 46 (page 4 in Yun's score), which indicates developmental growth.

[87] Rinser, pp. 271.
[88] Ibid, pp. 132.

In the first section's development (mm.37-65), the A# that was born in the prelude takes root and matures into a more actualized self. To begin the cluster, the twelve tones are experimented upon in a more structured manner than in the prelude, making use of a major second as a motif unit; Yun uses the major second, a common interval in Korean music, to expand from two tones to the full twelve-tone row with transformations. The Korean *pyongjo* (평조) and *ujo* pentatonic scales, and the *kyemyonjo* (계면조) tetratonic scale, all begin with a major second. The major second is quite common to the Korean ear.

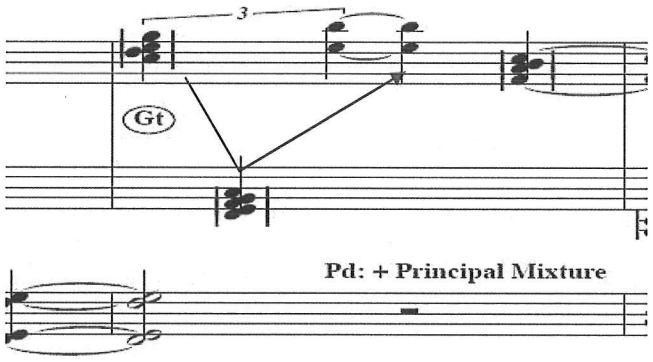
F# and G# represent the first and second notes of Yun's twelve tones row in *Tuyaux sonores*. It should also be noted that F# and G# are a major second apart. This following example shows how the intervals of seconds are important. They are the first to reemerge again in m. 42 with F and G quickly sliding into alignment with F# and G#, which form a chord in the pedal that is followed by a rest on the third beat of m. 43. The notation that led up to this point (mm. 37- 38 in the manual), ascends (as indicated by the arrow in the example below). The direction of this motion is taken over and continued by the two intervals of the second.

Ex. 18 Ascending motion mm. 37-38



In mm. 43, it takes on a descending motion followed by an ascending one. While this occurs, the four notes in the pedal undergo a transformation in m. 44, with F# and G# becoming A and B, and F and G becoming C# and D# respectively. There is a Daoist duality at work here. On one hand, the notation in the manuals goes through several changes. On the other hand, Yun uses the second interval to instill consistency. Even though the notes themselves in the pedal change, they maintain the same pitch class.

Ex. 19 Descending and ascending in m. 43

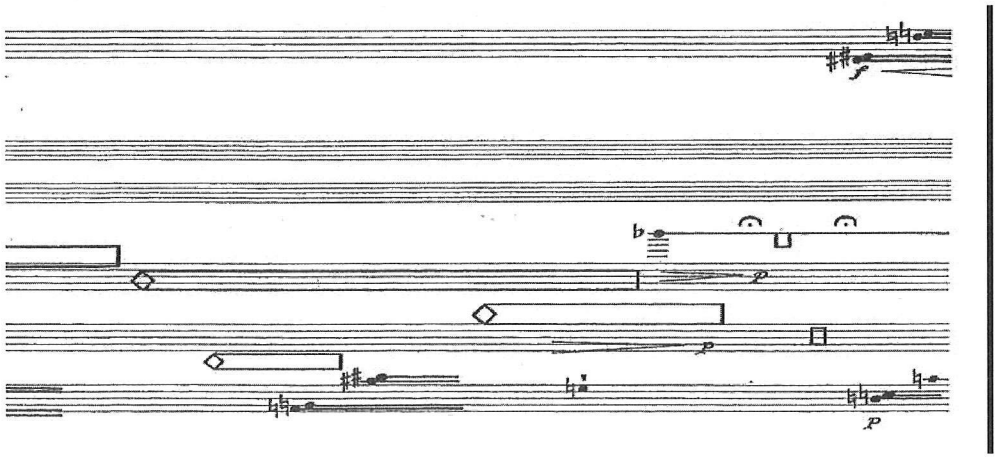


At the top of the ascent, in measure 46, Yun indicates a Bb as the top note – the second time that Yun clearly specified a note in the manuals. The first time, this note appeared as the birth of the A# in the introduction section measure 22. These notes are in enharmonic classification with A# equivalent to Bb. Therefore, Yun brings about consistency between the two sections, the prelude and development. Everything except those two notes has been written with graphic notation in the manuals. Yun reverts back to graphic notion once he indicates Bb. In addition to A# and Bb being the only two indicated notes in the Great manual, they serve similar roles as they are both sustained and standout as high notes. These two notes combined

with Yun's Daoist background leads me to assume that they are, in fact, the same note (elaborated further below).

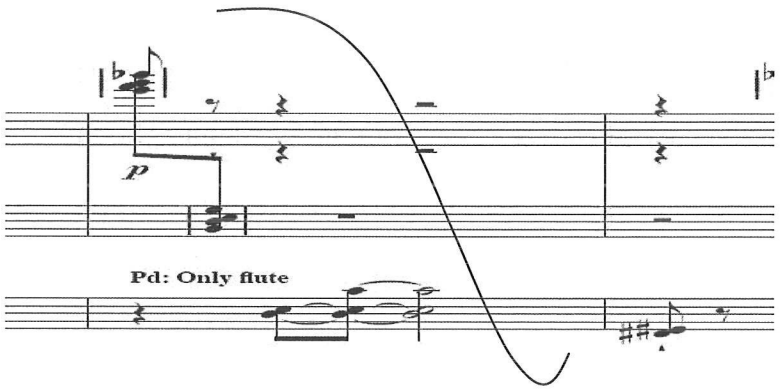
Following the appearance of the Bb, two interesting things occur. First, in the pedal (m.46), the second interval undergoes another transformation. This time the four notes change to three; A and B become D and E, and C# and D# reduce to just C, with C on the top of the pedal. Considering the previous structure (where F and G become C# and D#), it is expected that C# and D# would become C and D with D on the top. However, Yun drops the D in order to soften the sonority and reduce the dynamic (see ex. 20).

Ex. 20 Interval seconds on page 4 in the Yun's graphic score



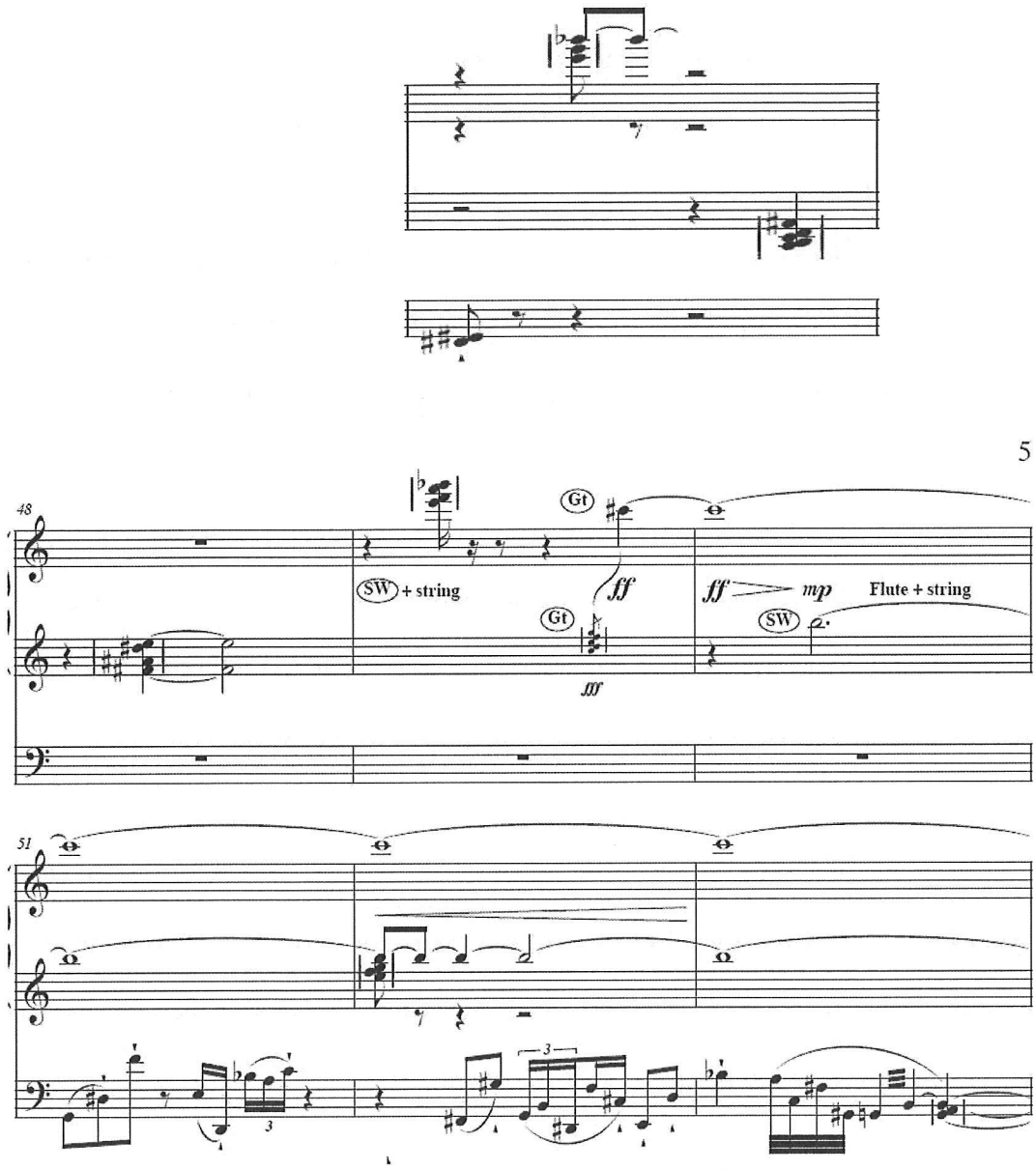
The second interesting occurrence is the direction of progression the music takes after the Bb; it plunges downward in the manuals and bounces back up in the pedal (mm. 46-47, see Ex. 21)

Ex. 21 Descending motion mm. 46 - 47



At this point, Yun finally display a full twelve-tone row mm. 47- 51, but the ordering is broken: F#, G#, C#, D, G, D#, F, E, D, Bb, A and C, with C#, D in the manuals and the rest on the pedal. Notice that 7 and 4 are out of order (C#, D, respectively). Once this finishes, Yun indicates the correct ordering from 1 to 12 of his twelve tones in the pedal mm. 52-54, and concludes with *Yeoeum* at the end: 1,2,3,4,…3,4,3,4.

Ex. 22 Twelve-tone and *Yeoeum* mm. 47- 53



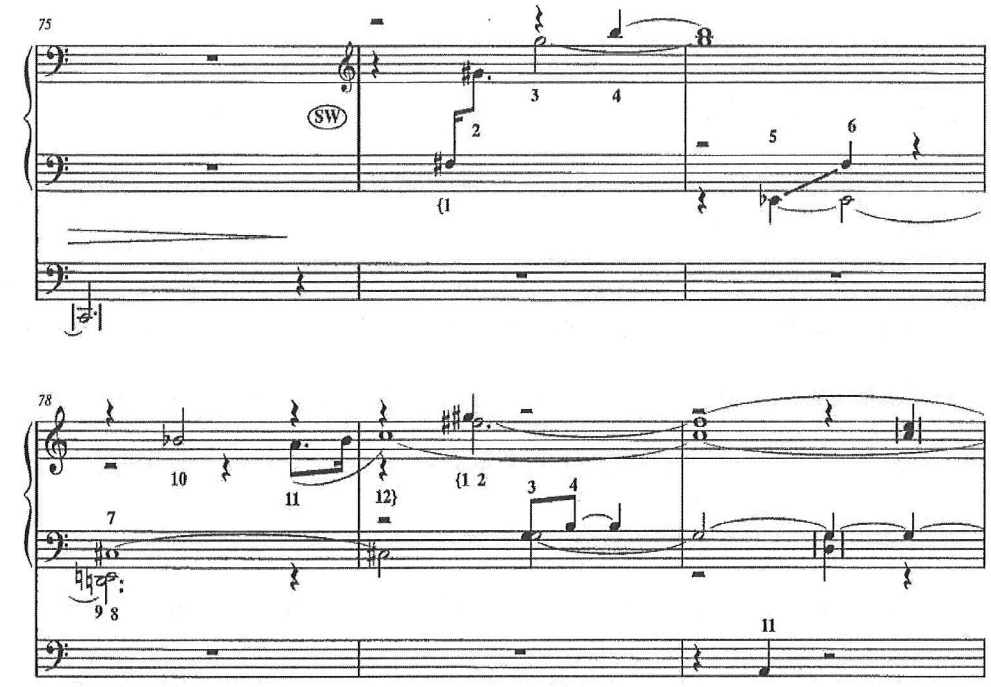
This is followed by improvisation on the notated interval of a second. This continues until the second beat of m. 73 where stillness emerges, with only a C# in the pedal sustained until m. 75. The improvisation of this part of the development is metaphoric of development after

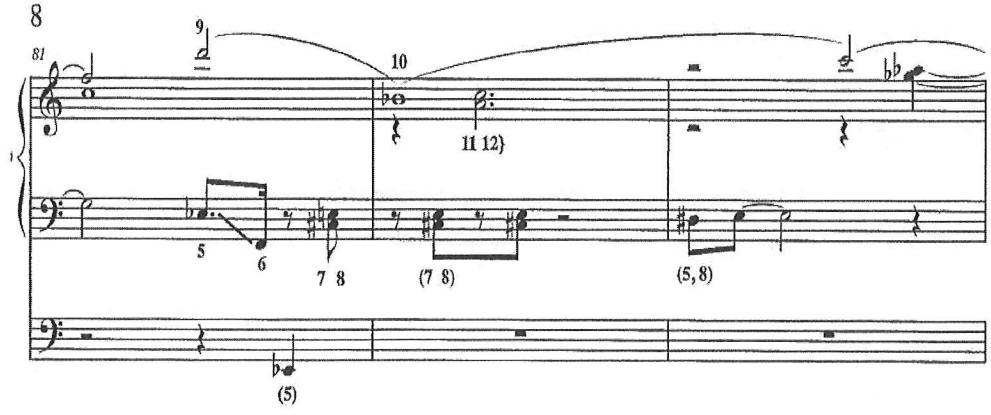
birth. At the same time, the second intervals take on more of a central role than before, where, in the second interval, mm. 49-50 created by C# and B, the single unit emerges from the chaos of the growth section. C# and B are the only two notes of the broken twelve-tone form that are notated in the manuals (all the other notes are notated in the pedal). They are also out of order in the broken form. Beside the twelve-tones, the C# and D combination permeate this section as they swim through waves of improvisation. Finally, the A# from the prelude is reborn and transformed into Bb in m. 46. The relationship that exists between A# and Bb is extended to the evolution of the notes C# and D; it is my belief that these notes should not be viewed as different entities, but one and the same.

The single note is the entrance of the entity, while the major second represents its journey through space. Daoism emphasizes the development of an individual entity and the progress it makes through life. The transformation of a note is a process present throughout the entire piece. Whereas before, the seconds serve supportive functions in the pedal, here they serve central functions like phrasing.

The second part of the development opens with the twelve-tone pattern at m. 76. Here Yun begins by using a twelve-tone row correctly ordered from 1 through 12 in the manual. This is followed by a broken form of the twelve tones. Here, though, while in the same pitch class, the twelve-tone row exists in a higher range. (See Ex. 23)

Ex. 23 Broken Twelve-tone mm. 76 - 83 followed by example of Complete Twelve-tone



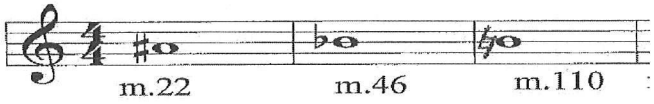


A main-tone appears again at m. 110, where the musical journey seems to take rest – the mature B is actualized, ready for what life has in store for it. The main-tone is on the Choir manual and not on the Swell manual which is a clearer register *principal* from *flute*.

The third part of the development starts on the second beat of m. 118 and concludes at the third beat of m. 131, followed by silence. After the second part ends with stillness in measure 117, Yun uses only Brush-tone writing through the entire third section of the development. All of the music leading up until this section seems linear in comparison to what preceded it. Brush-tone technique is a type of improvisation that gives the musician freedom to express wild emotion. Thus, the third section of the development is entirely climactic. The development ends with silences from measure 132 to the third beat of the measure 134.

The main-tone progression occurs from the prelude and continues through the development. It starts with A# in m. 22, Bb in m. 46, and B natural in m. 110. These main-tones transform in postlude as the form a coalition of main-tones that culminate into silence, *yin.* (See ex. 24)

Ex. 24 Main-tone progression



c. Postlude: mm. 134 (fourth beat) – 179.

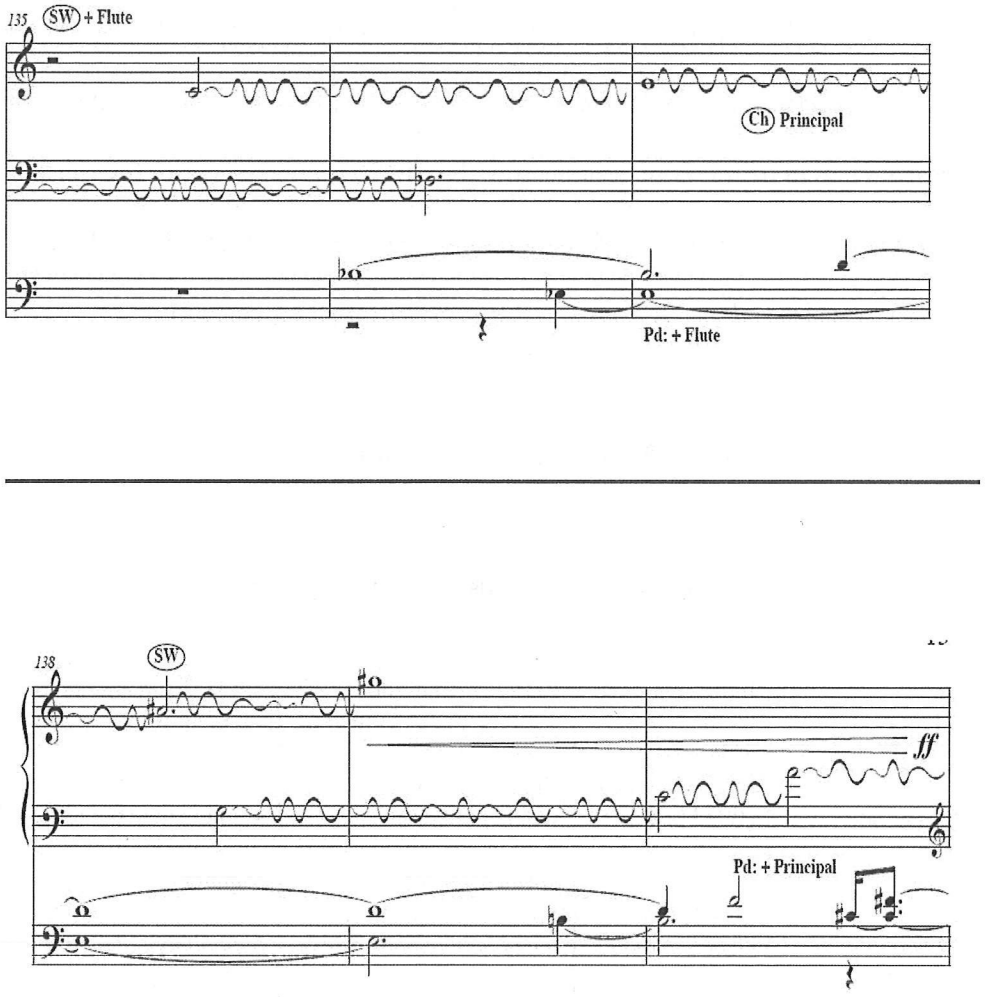
The postlude can be considered in three sections. I view the first section as reconciliation, which starts on the fourth beat of m. 134 and carries, in three parts, to m. 150. The second section, represents a kind of freedom contained within m. 151, and lasts until the third beat of m. 159. The postlude concludes in the third section, and goes from the fourth beat of mm. 159 -173 with the last two measures silent. It seems to fall short of finishing perfectly.

Table 5. Postlude in the Sound Structure

Section		measure	Sounds Elements	Features
III Postlude	Reconciliation	mm. 134 (Fourth beat) - 150	tremolos in a variety of main tones and clusters	many different Main-tones existing together mm.134-150
	Freedom	mm. 151- 159 (third beat)	Brush, glissando, waves, different degrees of clusters, and appoggiaturas	-Zacher's complete realization -rapid growth and development -crescendo: higher and higher in register
	Almost Perfect	mm.159 (fourth beat) -173	biggest registration, more active with triple rhythms, powerful noise	stronger registration with reeds for cadence, but not quite successful ascending closure, demonstrating Yun's unfinished desire
	Silence	mm. 174-175	silence	United with nature in silence

The beginning of the postlude starts with many main-tones coming together with trembling sounds (e.g., vibrato, oscillation, etc.), not unlike in traditional Korean music, where main-tones are always produced with vibrato.

Ex. 25 Trembling Effect



This trembling effect creates a sense of reconciliation in the music with soft sounds that counterbalance the wild conclusion to the development. The second section of the postlude feels particularly free; Yun used ornamentation and Brush-tone writing to create a soaring feeling.

The conclusion of the postlude has a heavy registration where the music takes on a progressively ascending feel. The ascent in the pedal is heroic and triumphant; however, the piece concludes suddenly with a D in the pedal that comes off unevenly causes the music to

conclude unsatisfactorily. This unsettled ending reflects Daoism, which stresses progression and continuity rather than a firm conclusion.

The lack of resolution in the ending reminds me of a story that Yun reminisced about in a conversation with Rinser. While his mother was pregnant with him[89] she had a dream in which she saw a dragon. Typically, in Asian cultures, the dragon is an extremely positive symbol that represents the emperor. However, in his mother's dream, the dragon was injured and could not fly. As such, the dragon was unable to ascend to heaven. The concluding section of *Tuyaux sonores* leaves me with this feeling of incompleteness, as a journey that cannot be completed.

[89] Rinser, pp. 27.

Chapter 6. Conclusion

The twentieth-century marked an era of new sonority in music composition in which innovators like Isang Yun were able to find homes. Encouraged by like-minded composers such as Messiaen, Stockhausen, and Ligeti, Yun was inspired to develop a new musical language and pioneer his own unique, culturally-hybridized sound.

Isang Yun's compositions strike an elegant balance between Eastern and Western elements. They employ Asian sonorities, main-tones, and indefinite phrasing, with expressional Western tools such as notation and twelve-tone technique. Gerd Zacher's partially realized transcription of *Tuyaux sonores* not only enabled me to transcribe *Tuyaux sonores* from graphic notation into standard musical notation, it also offered a window into a better understanding of Asian philosophy, as Yun attempted to introduce Western listeners to traditional Korean ideas through sonority. This new understanding of Daoist philosophy shed light on Yun's compositions, particularly the use of main tones, their transformations, and silence.

Also innovative was Yun's graphic notation, which allows the artist a large degree of freedom through improvisation – the freedom to incorporate their own ideas and feelings into performance. The two existing recording of Yun's *Tuyaux sonores* (the first performed by Gerd Zacher, the second by Peter Schumann), vastly different in their sound, stand as prime examples of this freedom.

The years in which Isang Yun wrote music were a particularly liberating time for composers. They were finally free to produce compositions in their own unique musical languages. These new languages pose interesting, unprecedented challenges to musicians seeking to perform this music. Those interested in aleatoric composition philosophies which

advocate for experimenting with new sonorities and investigating the space between tonality and atonality, will be drawn to Isang Yun's *Tuyaux sonores*. My hope is that this exposition the piece and the cultural-historical context provided, coupled with my original transcription, will provide valuable guidance for performance of this complex composition.

References

Chae, Sooah. *The Development of Isang Yun's Compositional Style through an Examination of His Piano Works*, Houston: University of Houston, 2003.

Chang, Sa-Hun. *History of Korean Traditioal Music,* City: Jung-Eum Publishing, 1976.

Clendinning, Jane Piper, and Marvin, Elizabeth West. *The Musician's Guide to Theory and Analysis*, W.W. Norton, 2005.

Feliciano, Francisco, F. *Four Asian Contemporary Composers: the Influence of Tradition in Their Works,* Quezon: New Day Publishers, 2004.

Hakgojae. *An Illustrated Guide to Korean Culture: 233 Traditional Key Words*, Seoul, Korea, 2002.

Herald Kunz, Ed. Gerd Zacher, Perf. *"Isang Yun,"* Wergo 1970. LP recording.

Hinton, David. *Chuang Tzu The Inner Chapters*, Washington D.C., Counterpoint, 1997.

Kim, Inwha. *The Integration of Eastern and Western Cultural Elements*, Indiana University, 2007.

Kim, Yong-ok. *Tool Kim Yong-ok I Mal Hanŭn Noja Wa 21-segi.* Vol. 2, Seoul: Tongnamu, 1999.

Kunz, Herald. "Yun, Isang." Oxford University Press, 4 June 2014, website: <http://www.Oxfordmusiconline.com>

Mitchell, Stephen. *Tao Te Ching.* New York: Harper & Row, 1988.

Occhiogrosso, Peter. *Joy of Secys*, New York: Doubleday, 1994.

Rinser, Luise. *The Wounded Dragon,* Byeon, Jiyeon (trans.), Seoul: Minsokwon, 2010.

Schumann, Peter, Perf. *"Isang Yun, Tuyaux sonores"* from *Neue Orgelmusik auf Elektroninorgeln*, Cantate: 1972, LP recording.

Schwartz, Elliott, and Childs, Barney. *Contemporary Composers on Contemporary Music*,

Cambridge: First Da Capo Press, 1998.

Slonimsky, Nicolas. *The Concise Edition of Baker's Biographical Dictionary of Musicians*, Fenton: Schimer, 1988.

Stolba, Marie K. *The Development of Western Music: A History*, Dubuque: W.C. Brown, 1990.

Straus, Joseph Nathan. *Introduction to Post-Tonal Theory*, 3rd ed. Upper Saddle River: Prentice Hall, 2005.

Yi, Suja. *Nae Nampueyen Yun Isang,* Seoul: Changjak kwa Bipyeungsa, 1998.

Yoo, Youngdae. *Isang Yun: His Compositional Technique as Manifested in the Two Clarinet Quintets*, Louisiana State University and Agricultural and Machanical College, 1996.

Wilhelm, Hellmut, and Wilhelm, Richard. *Understanding the I Ching*, Princeton: Princeton University Press, 1995.

李, 弘稙. *Kuksa Taesajon*, Seoul: Chimun'gak, 1984.

임, 종욱. *Tong*yang*hak Taesajŏn*, Seoul: Kyŏngin Munhwasa, 2006.

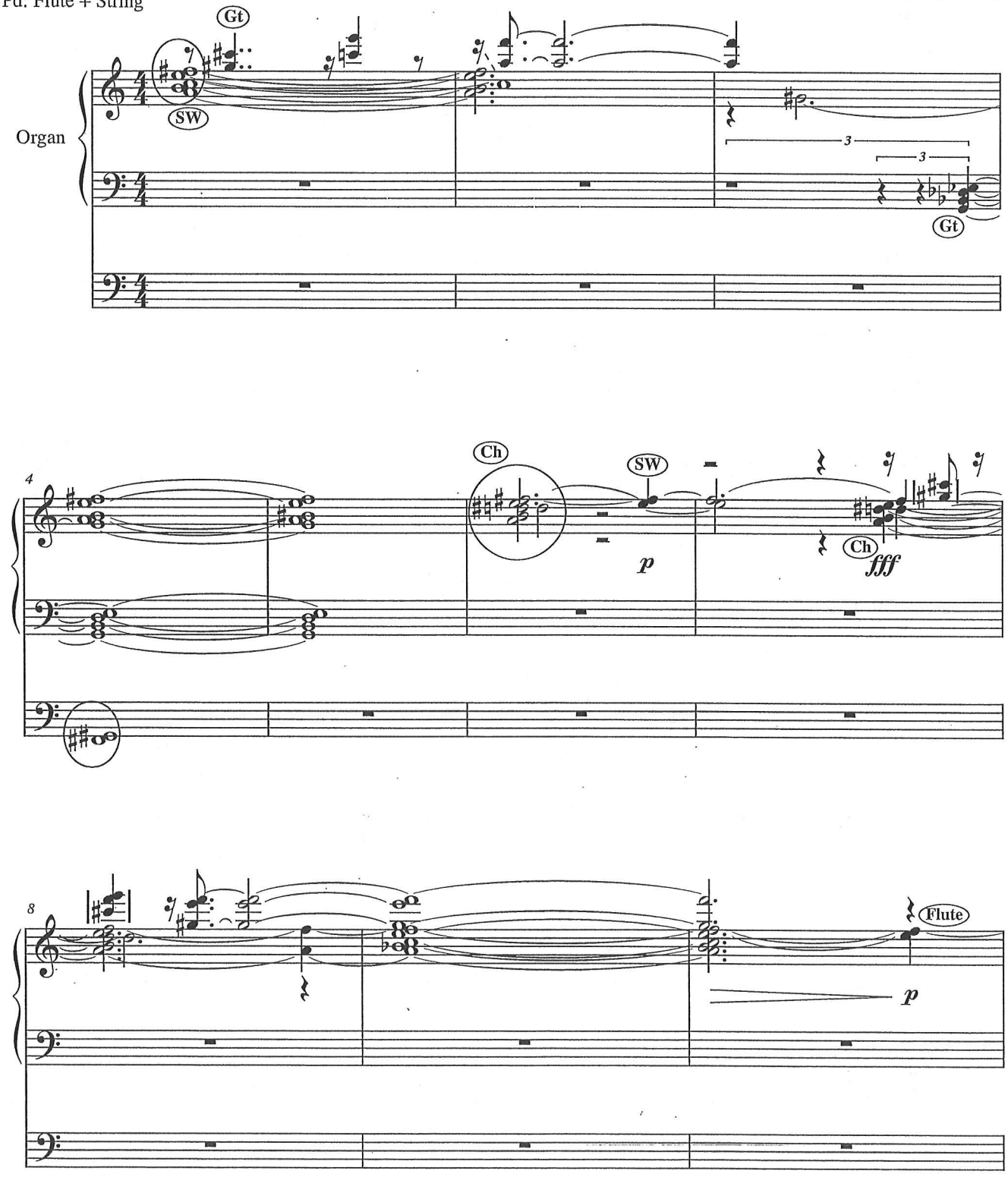
Tuyaux Sonores

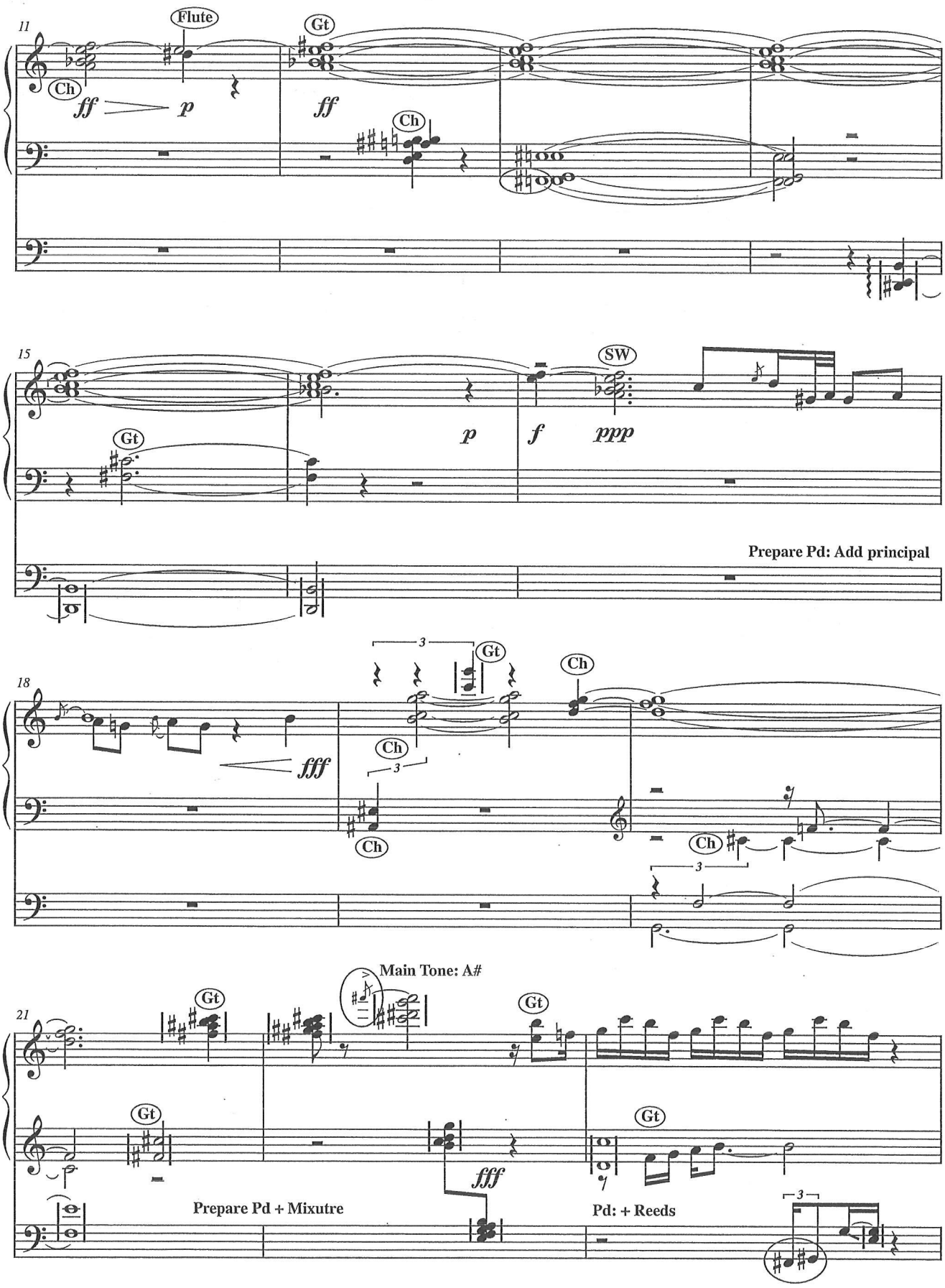
Complete Realization

SW: Flute
Gt: Mixture
Choir: Principal
Pd: Flute + String

♩ = 60

Isang Yun
Notated by Eunjung Jung

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Prepare Pd: Add principal
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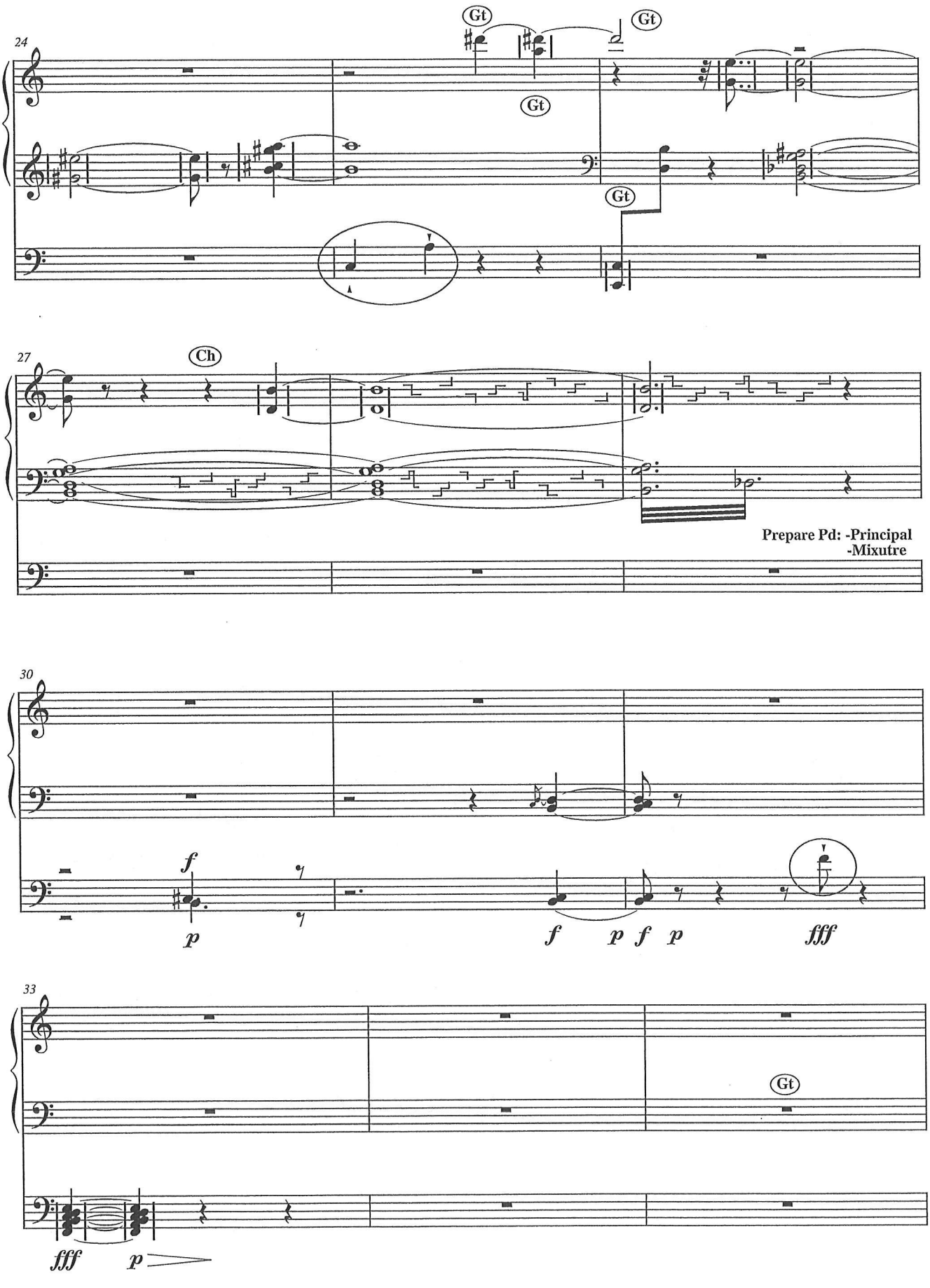
Prepare Pd + Mixutre
Pd: + Reeds
3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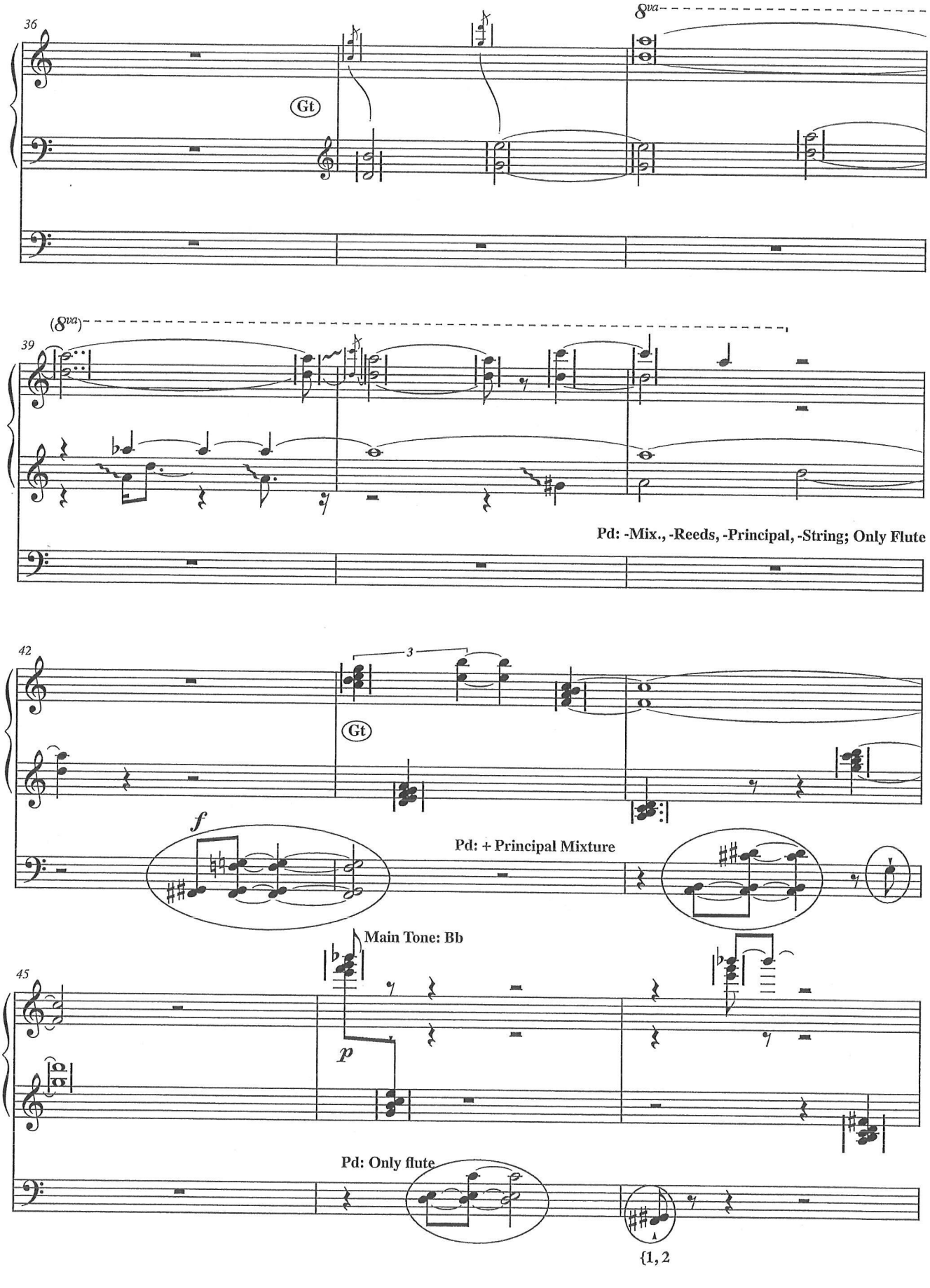
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Pd: -Mix., -Reeds, -Principal, -String; Only Flute
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Pd: Only flute
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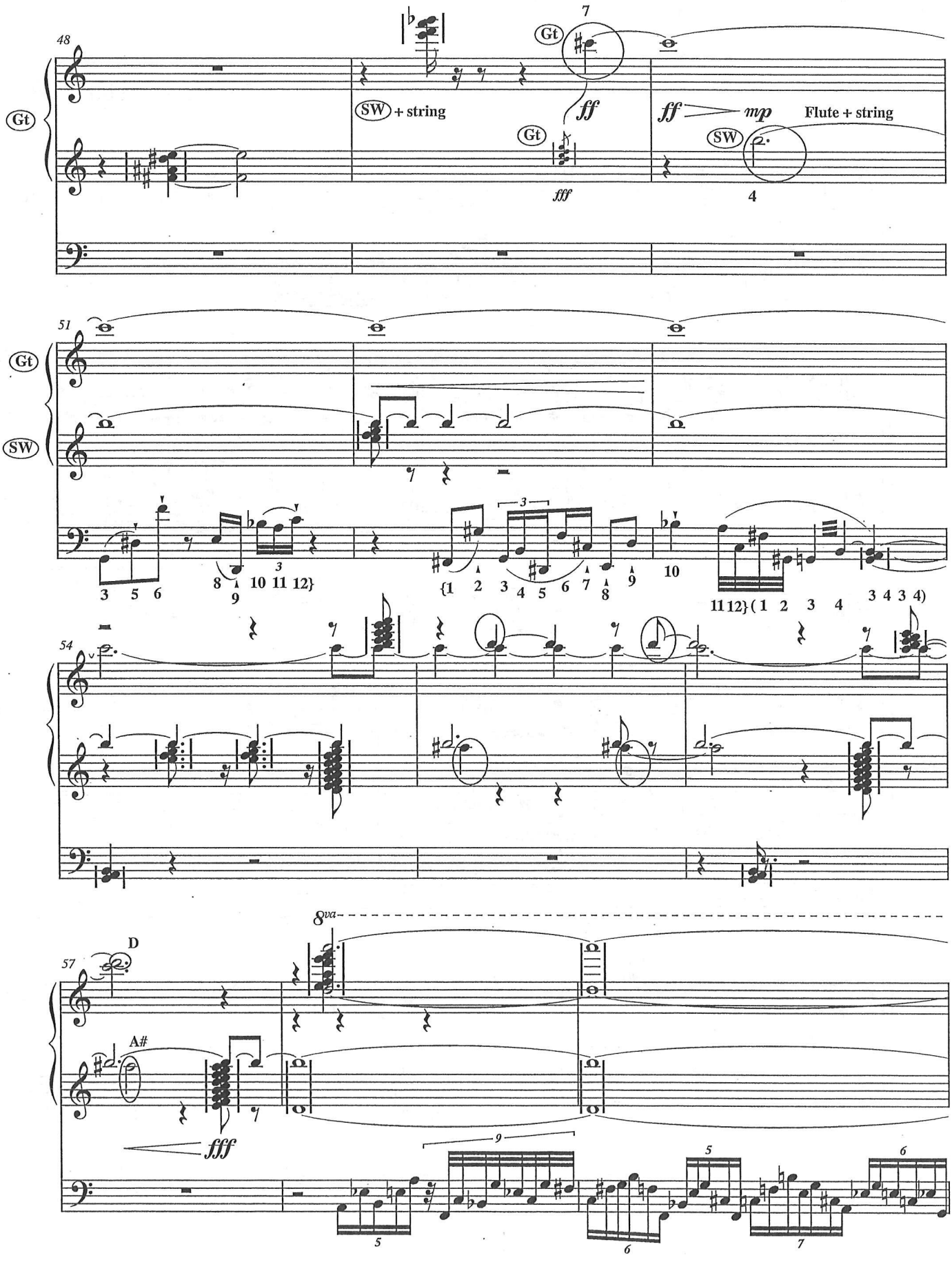
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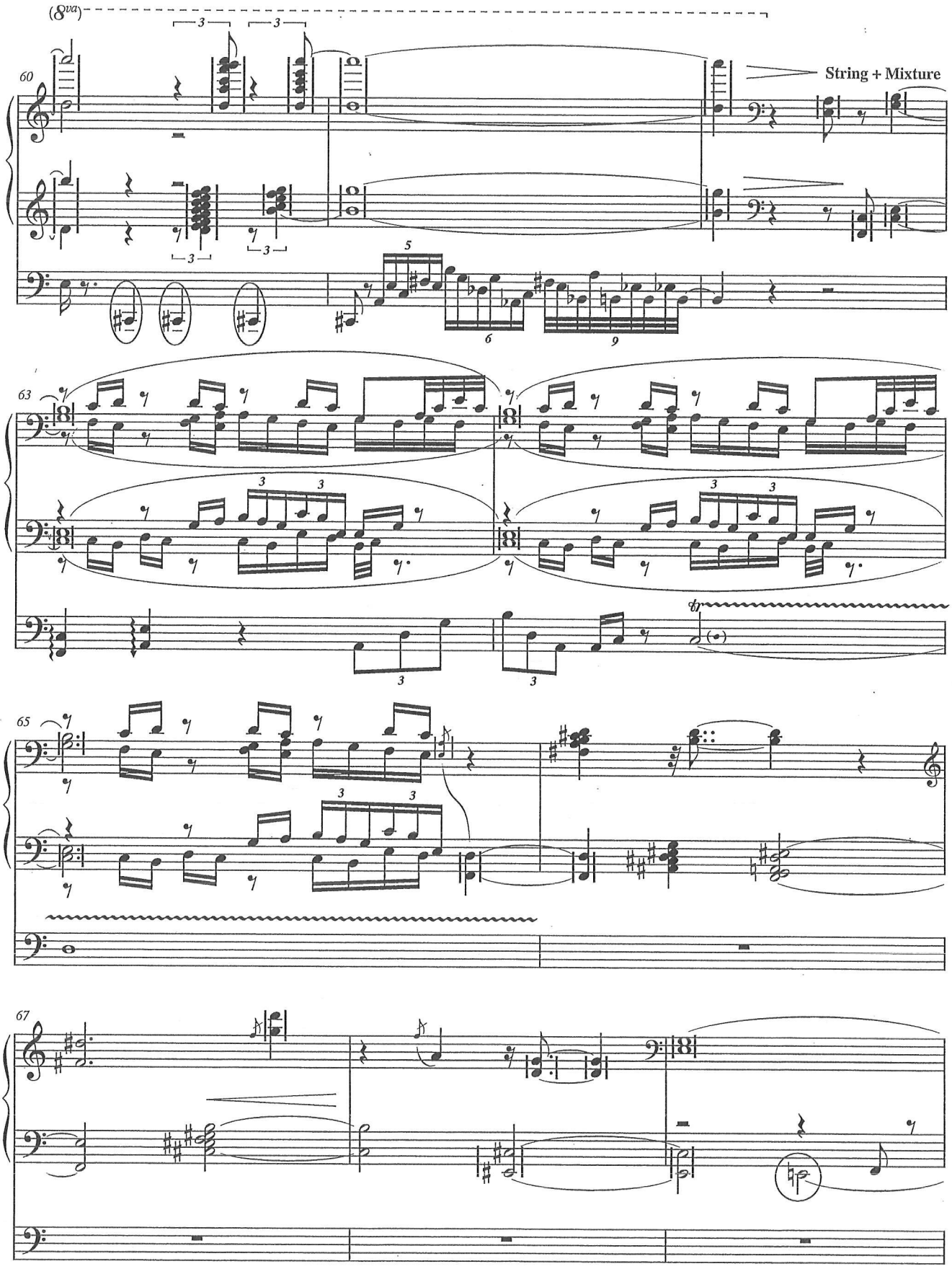
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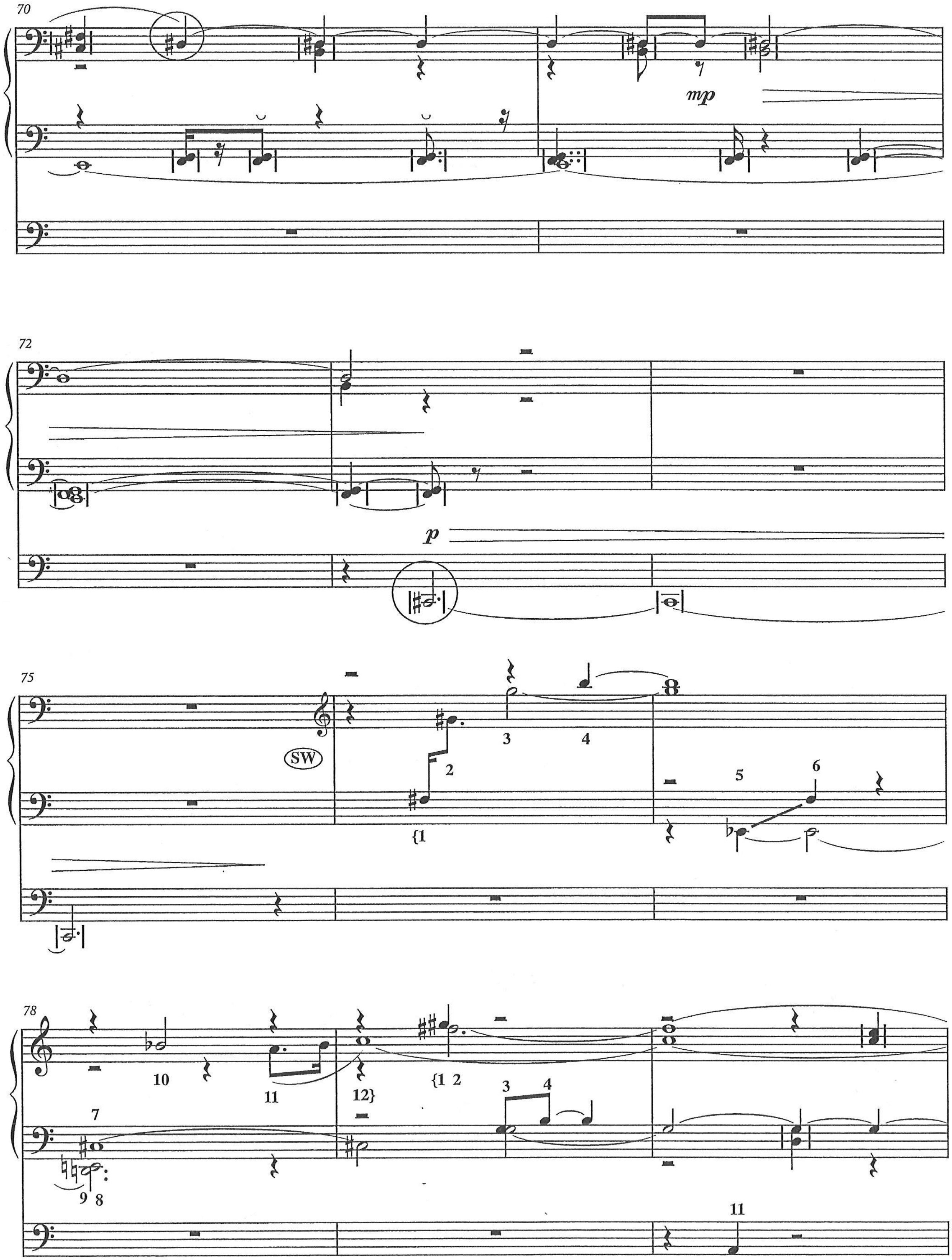
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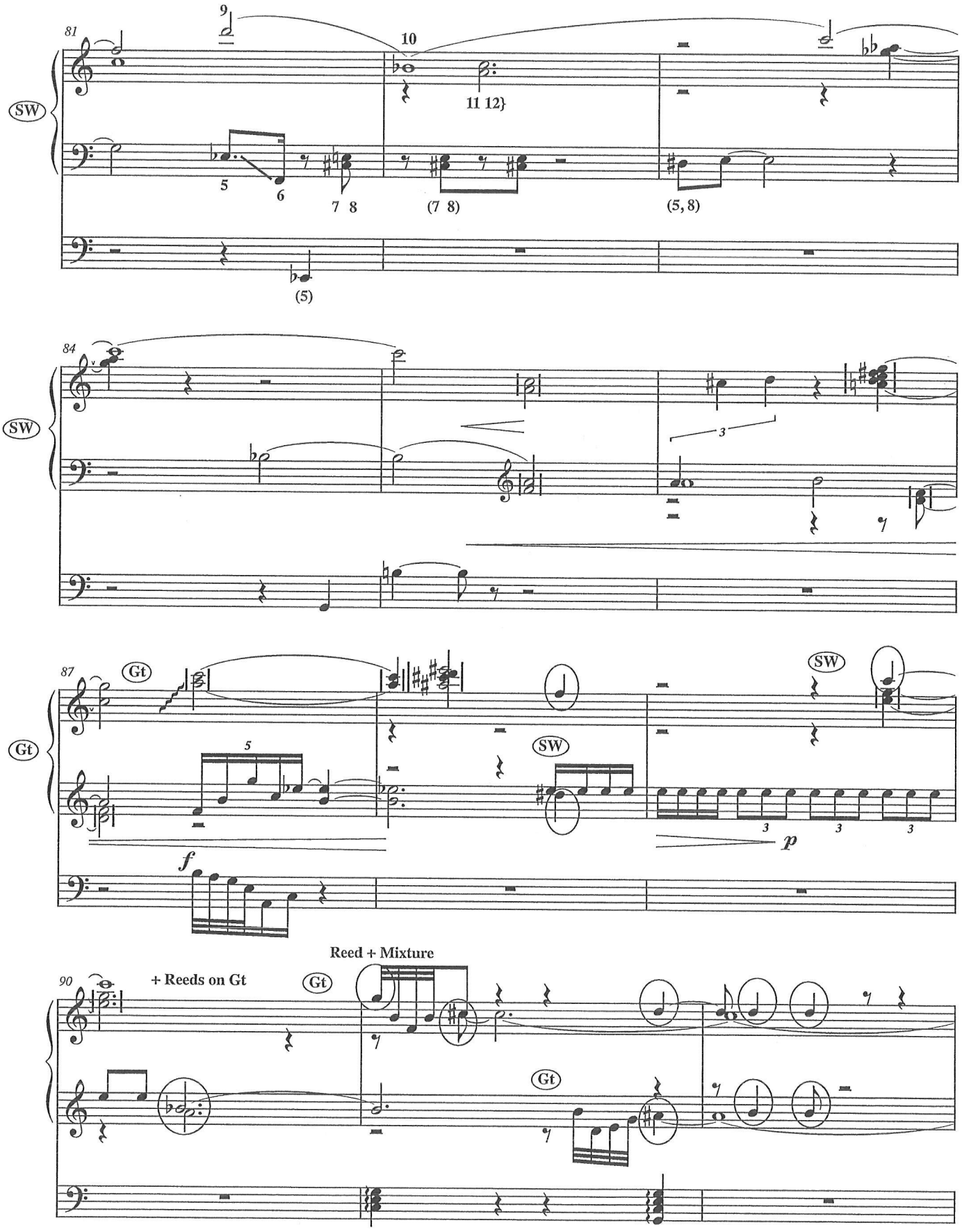
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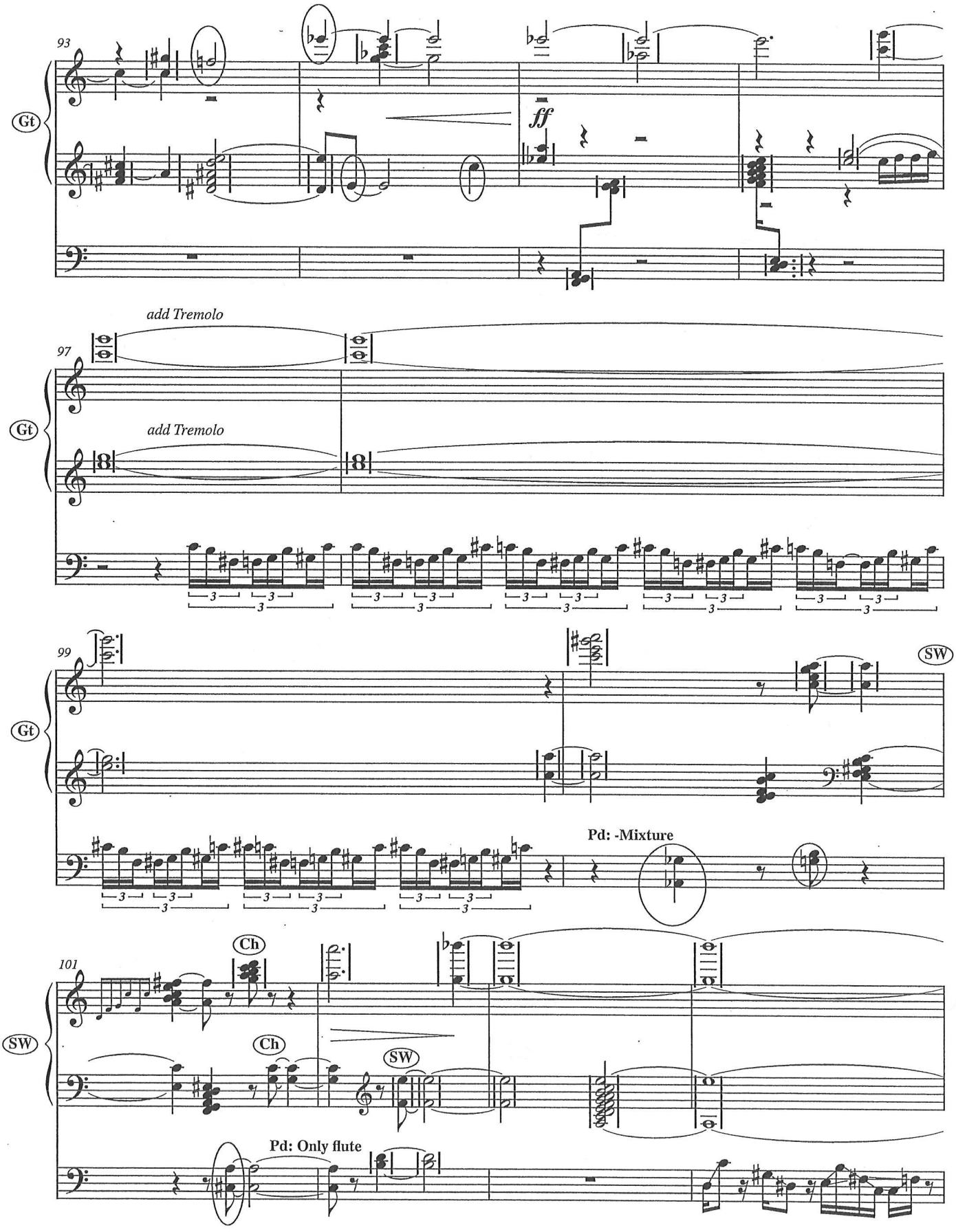
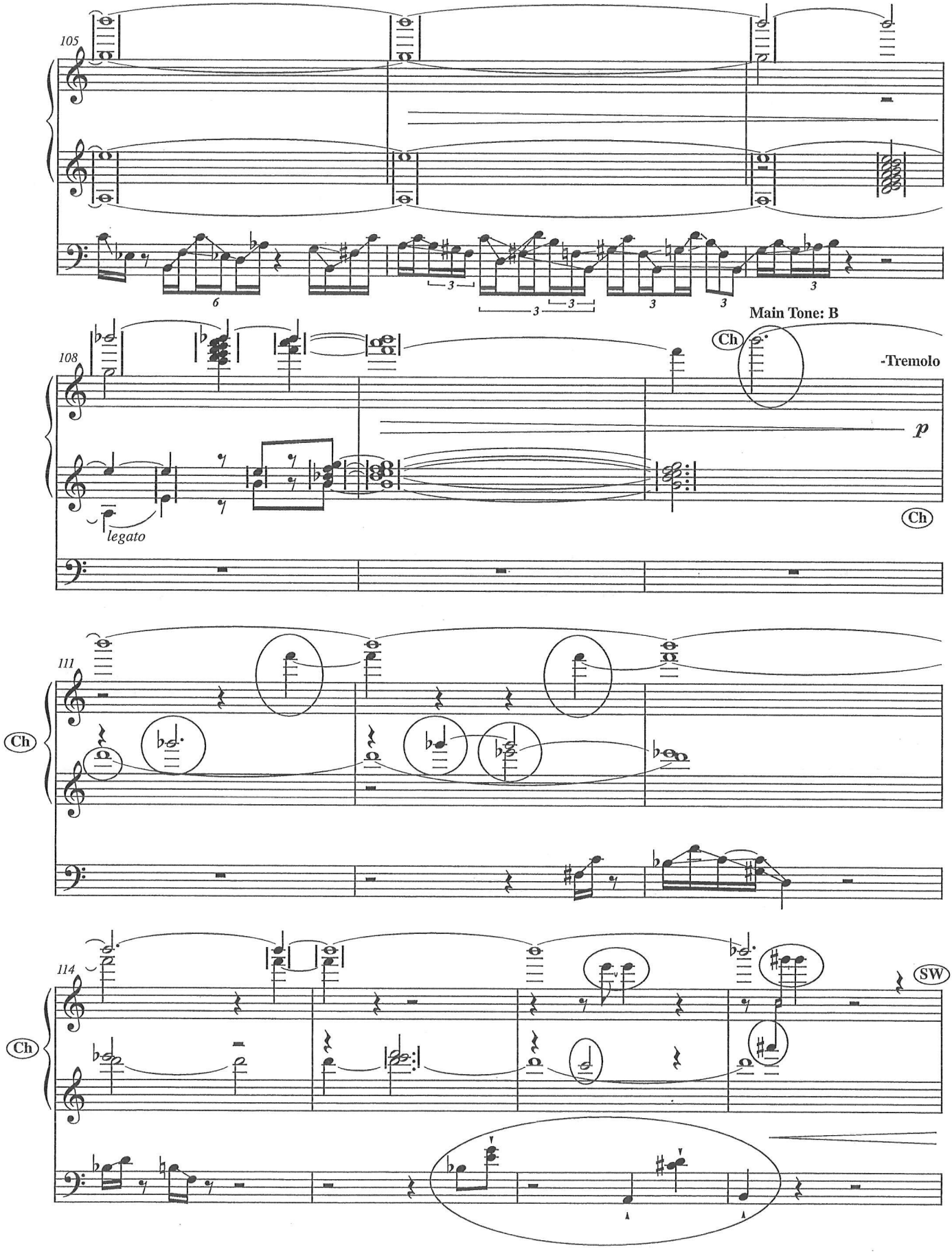
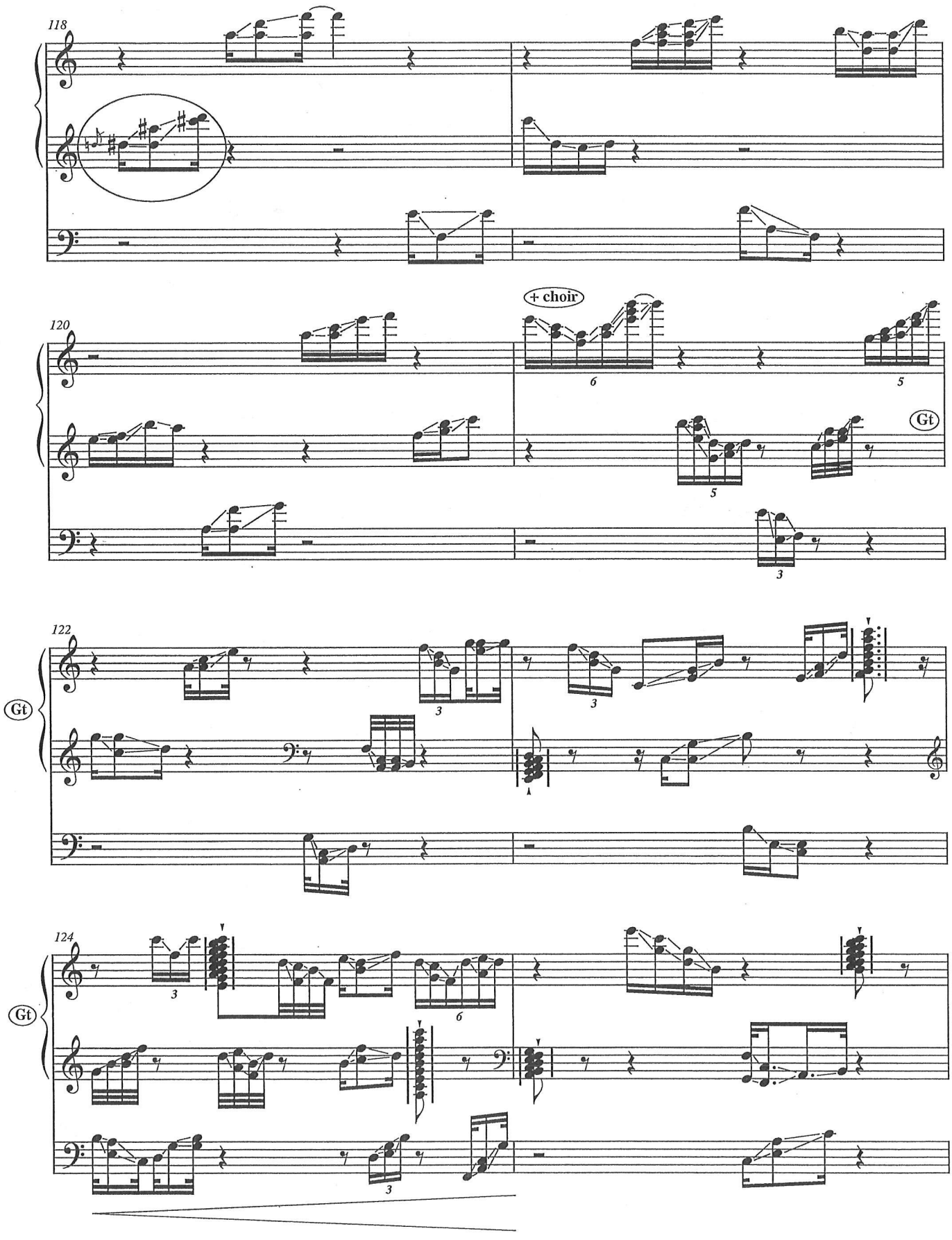
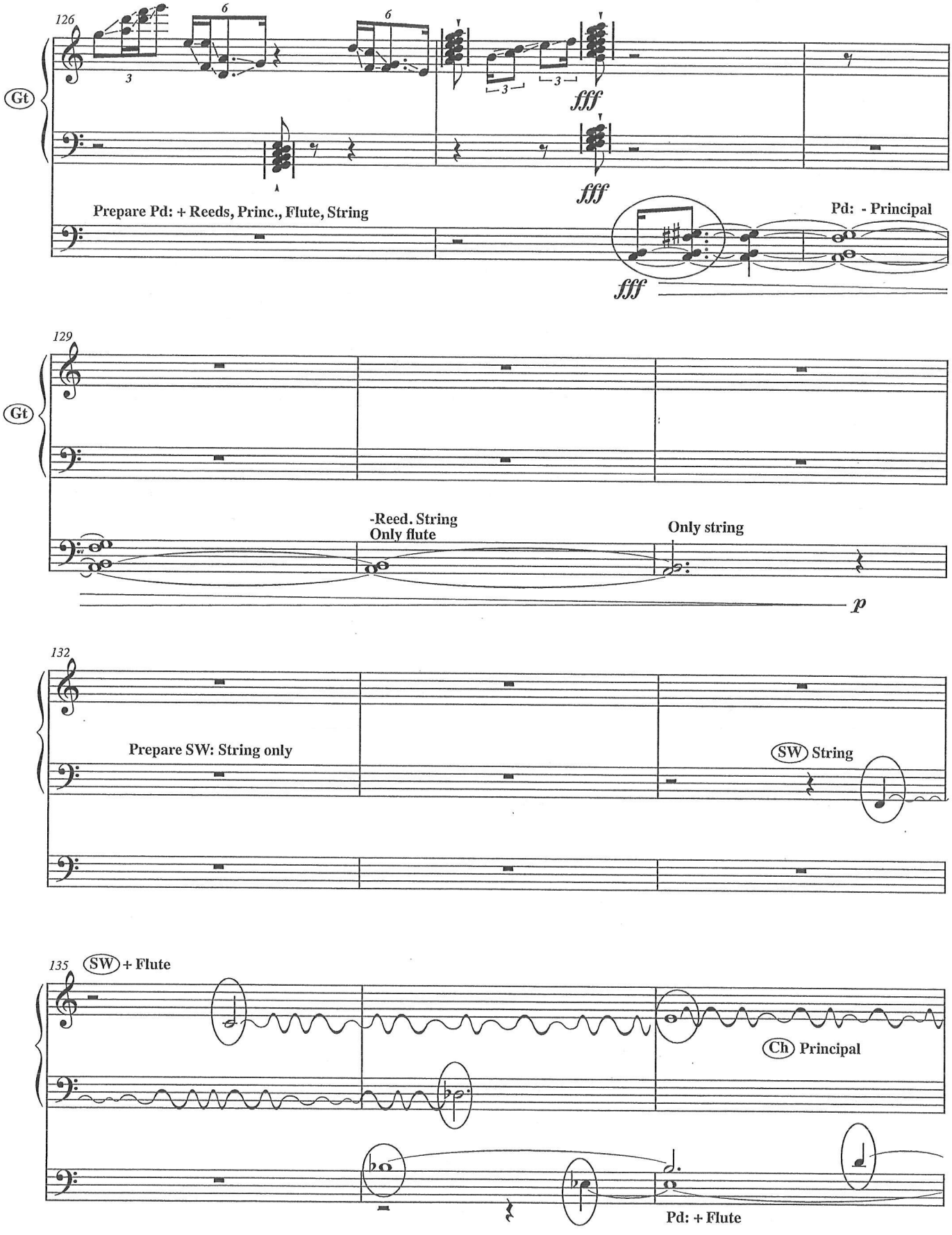
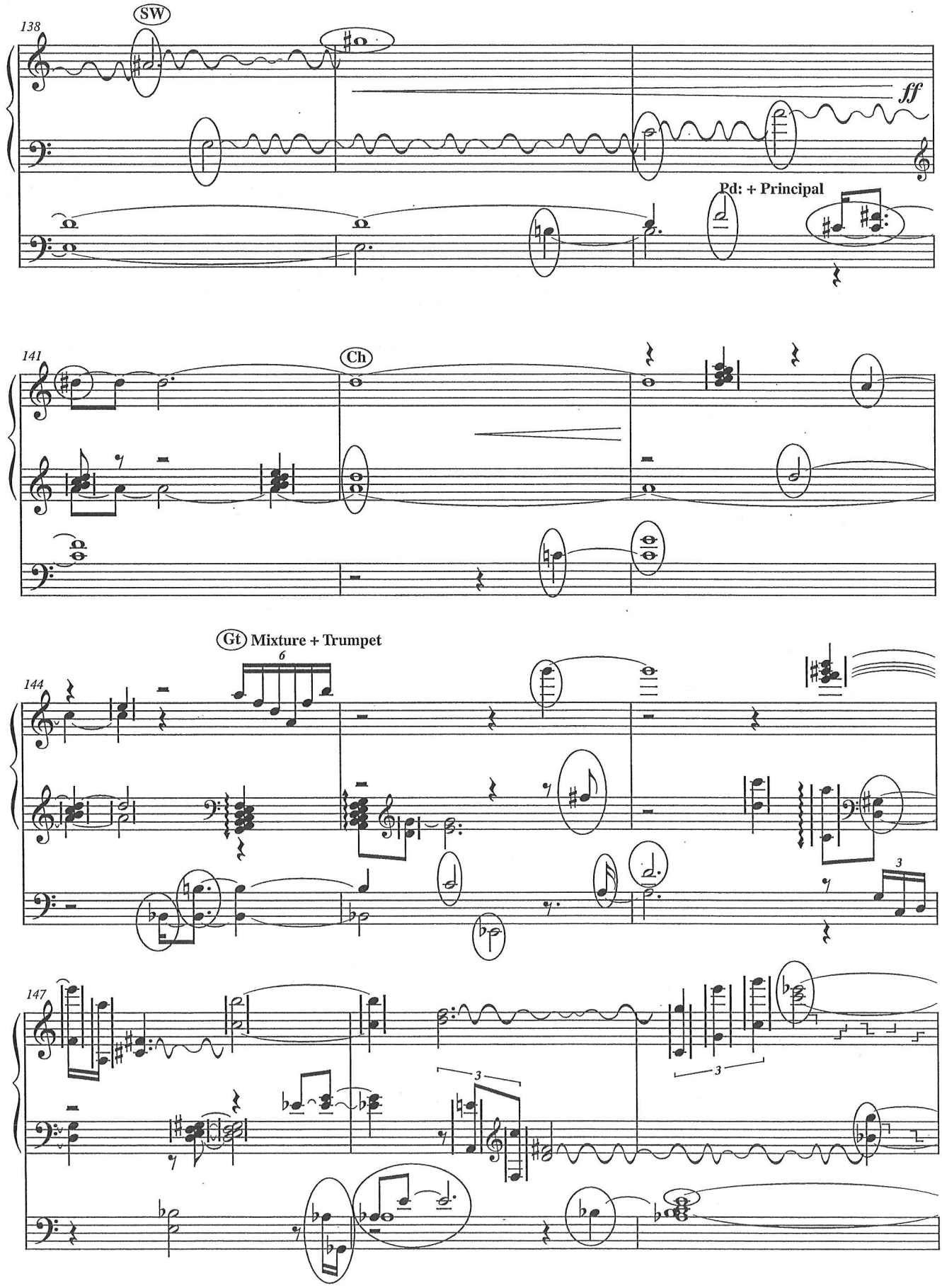
90
+ Reeds on Gt
Gt
Gt

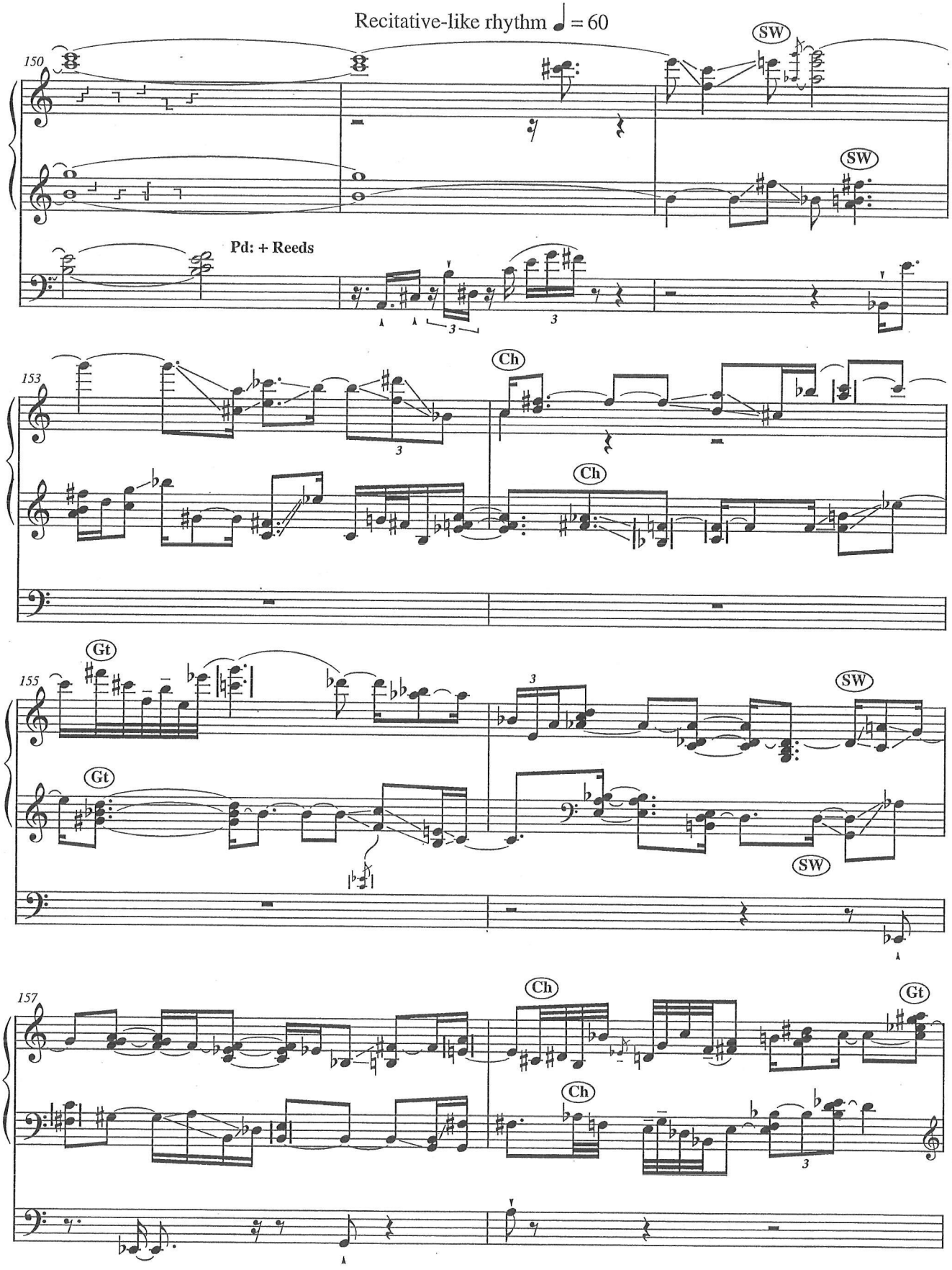

93
Gt
ff
add Tremolo
97
Gt
add Tremolo
99
Gt
SW
Pd: -Mixture
101
SW
Ch
Ch
SW
Pd: Only flute

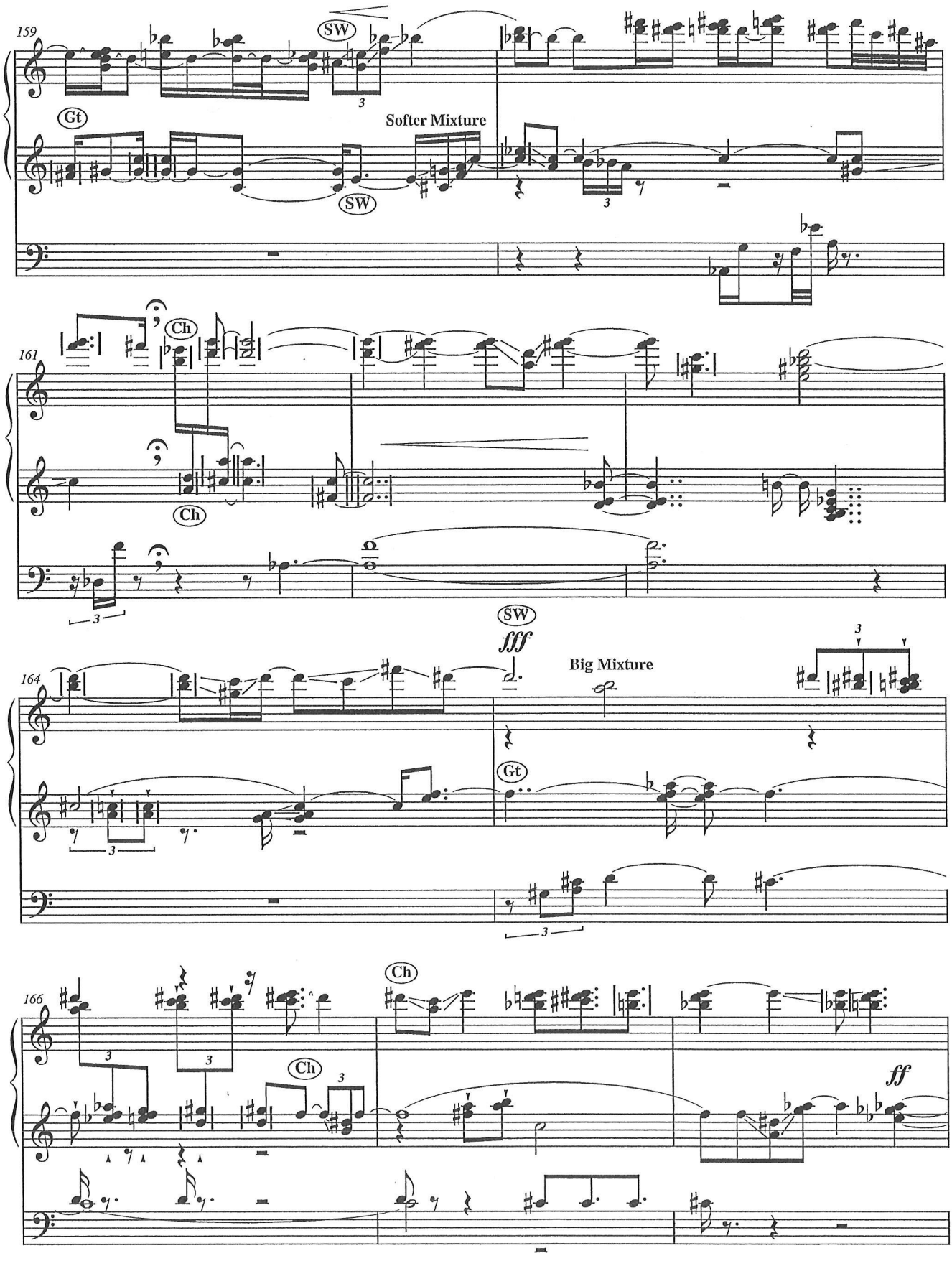

105
6
3
3
3
3
3
Main Tone: B
108
Ch
-Tremolo
p
legato
Ch
111
Ch
114
Ch
SW

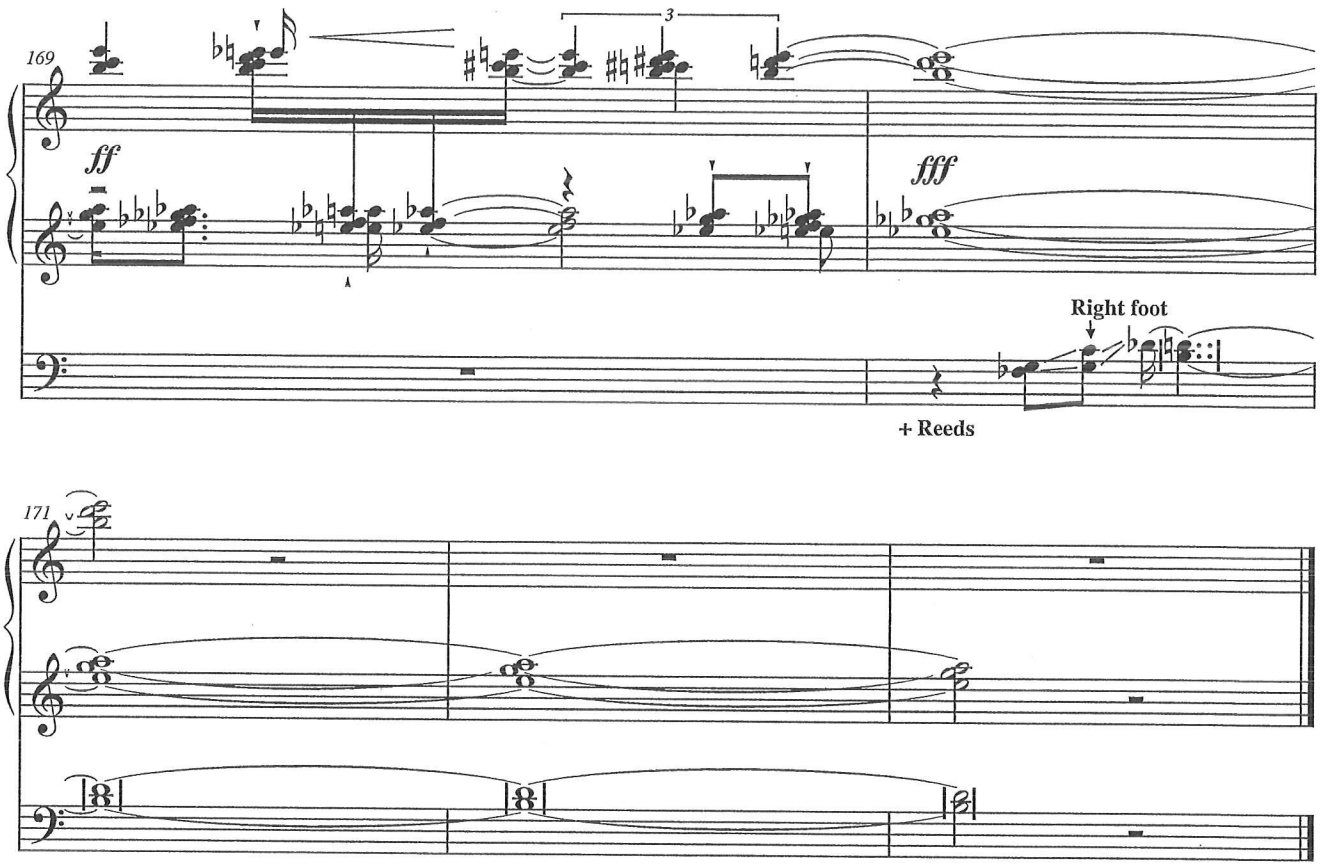

118
120
+ choir
Gt
122
Gt
124
Gt


126
Gt
fff
fff
Prepare Pd: + Reeds, Princ., Flute, String
Pd: - Principal
fff
129
Gt
-Reed. String
Only flute
Only string
p
132
Prepare SW: String only
SW String
135
SW + Flute
Ch Principal
Pd: + Flute


138
SW
ff
Pd: + Principal
141
Ch
Gt Mixture + Trumpet
144
147


Recitative-like rhythm ♩ = 60
150
SW
SW
Pd: + Reeds
153
Ch
Ch
155
Gt
Gt
SW
SW
157
Ch
Ch
Gt


159
SW
Gt
Softer Mixture
SW
161
Ch
Ch
3
SW
fff
164
Big Mixture
3
Gt
3
166
Ch
3
3
Ch
3
ff


169
3
ff
fff
Right foot
+ Reeds
171

Appendix B

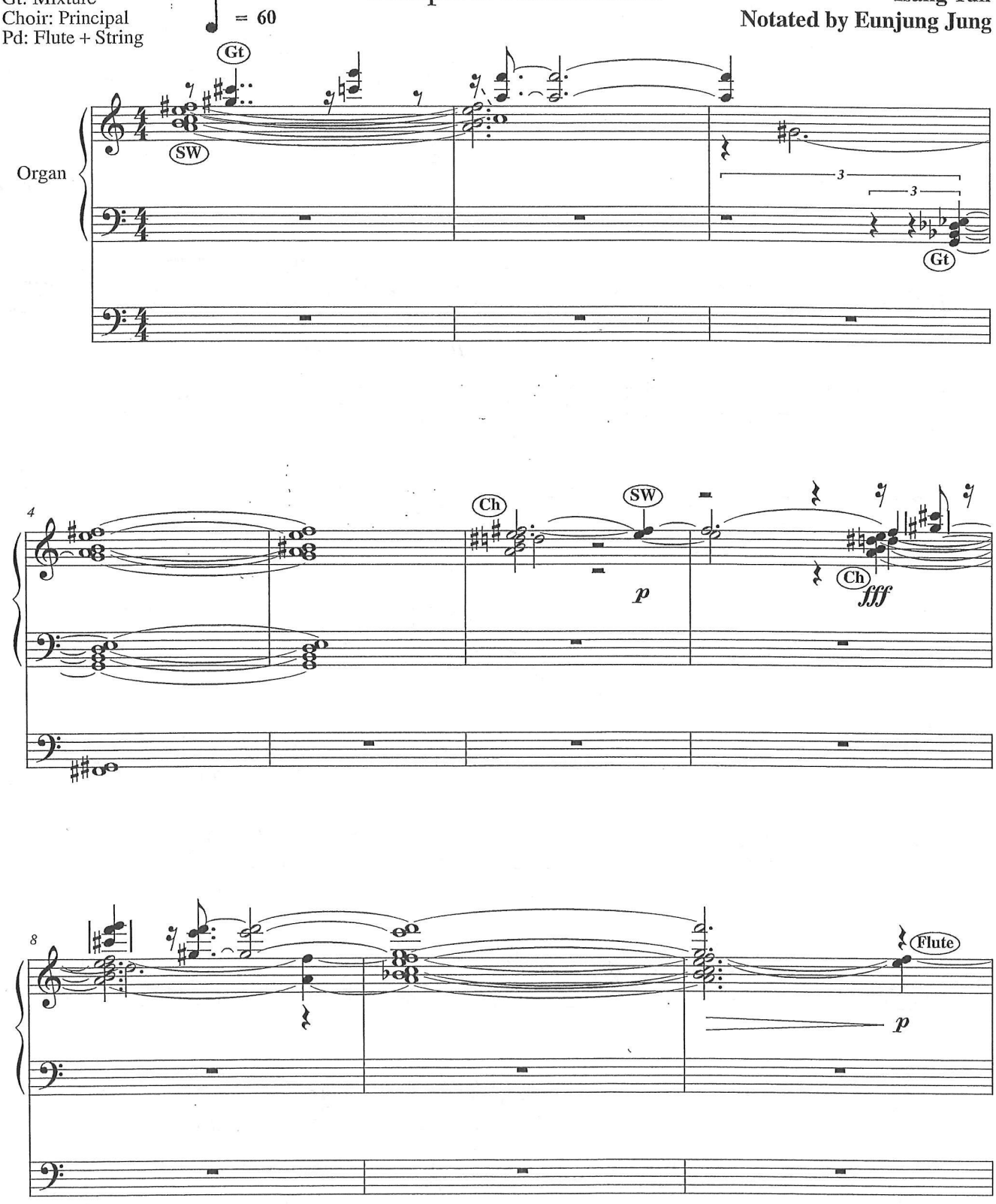
Transcription by Eunjung Jung

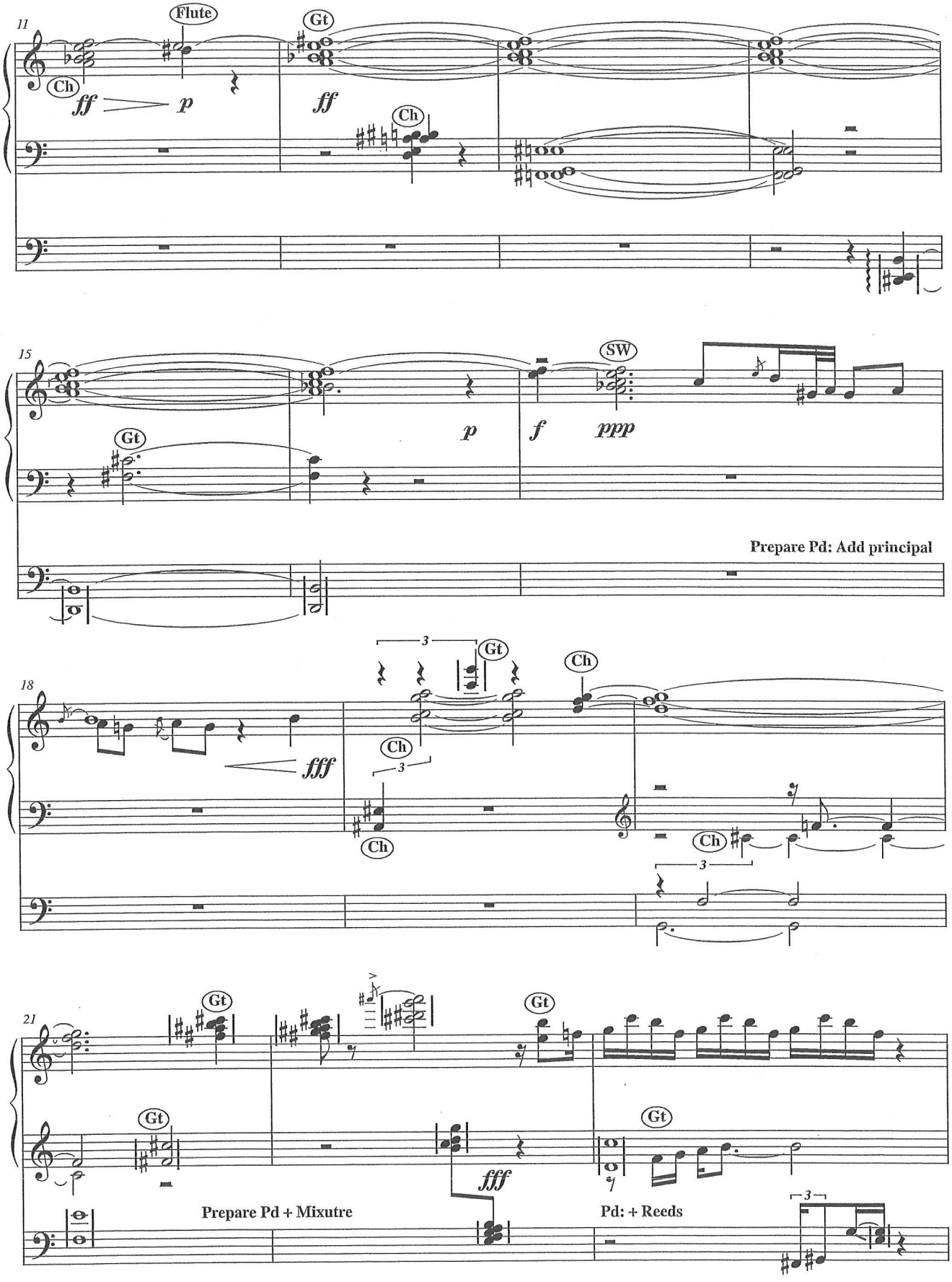
Tuyaux Sonores

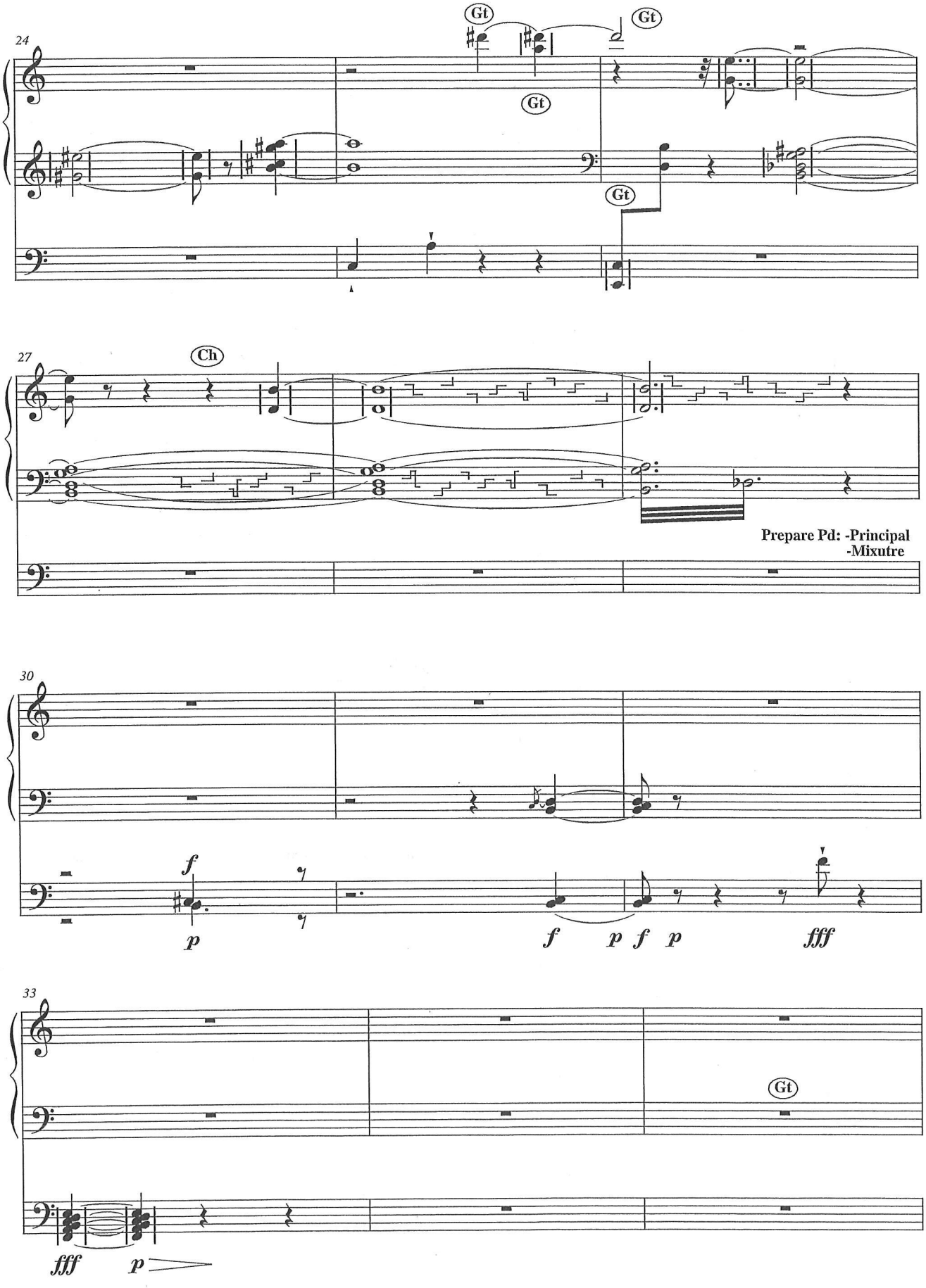
Complete Realization

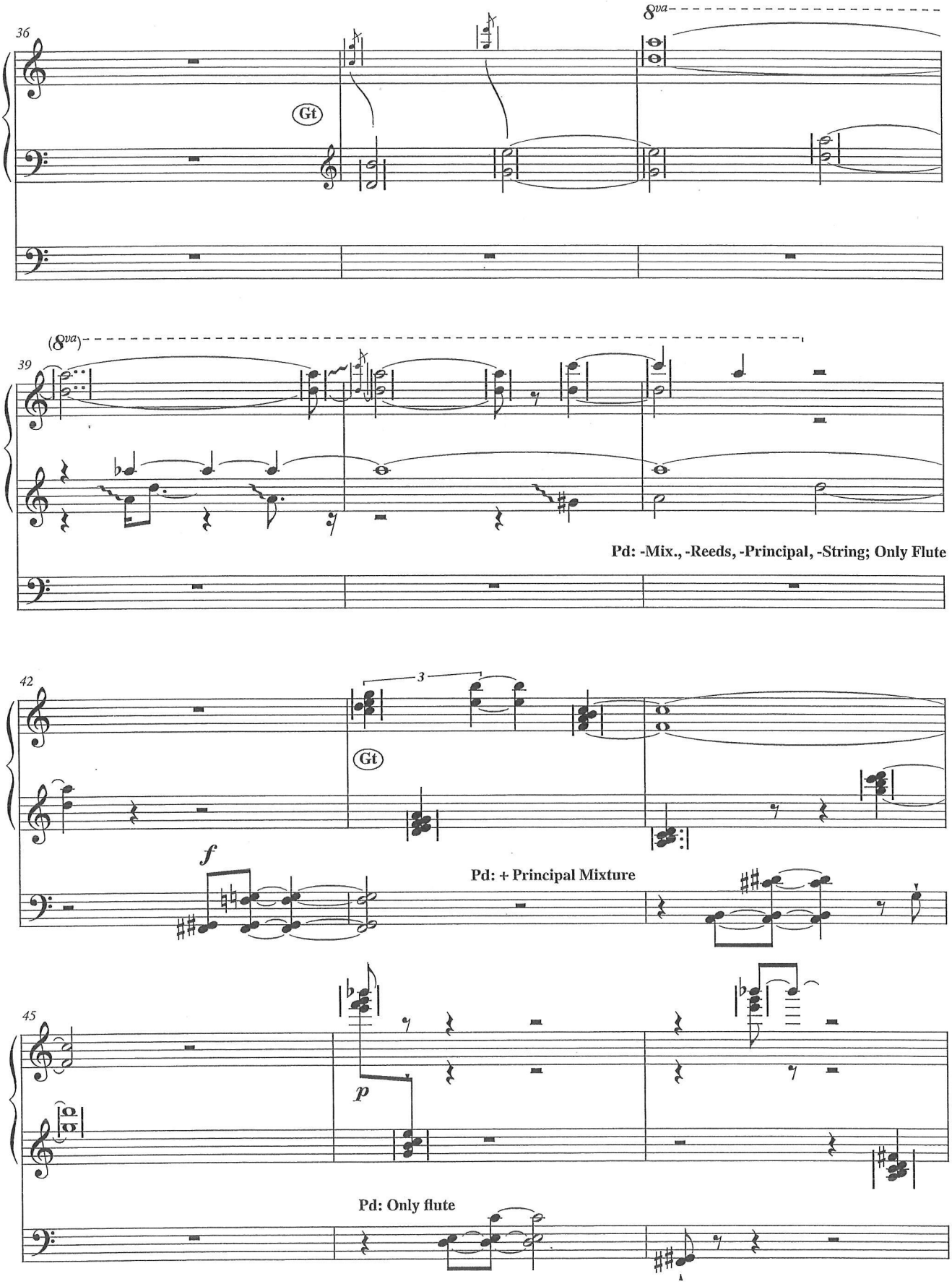
Isang Yun
Notated by Eunjung Jung

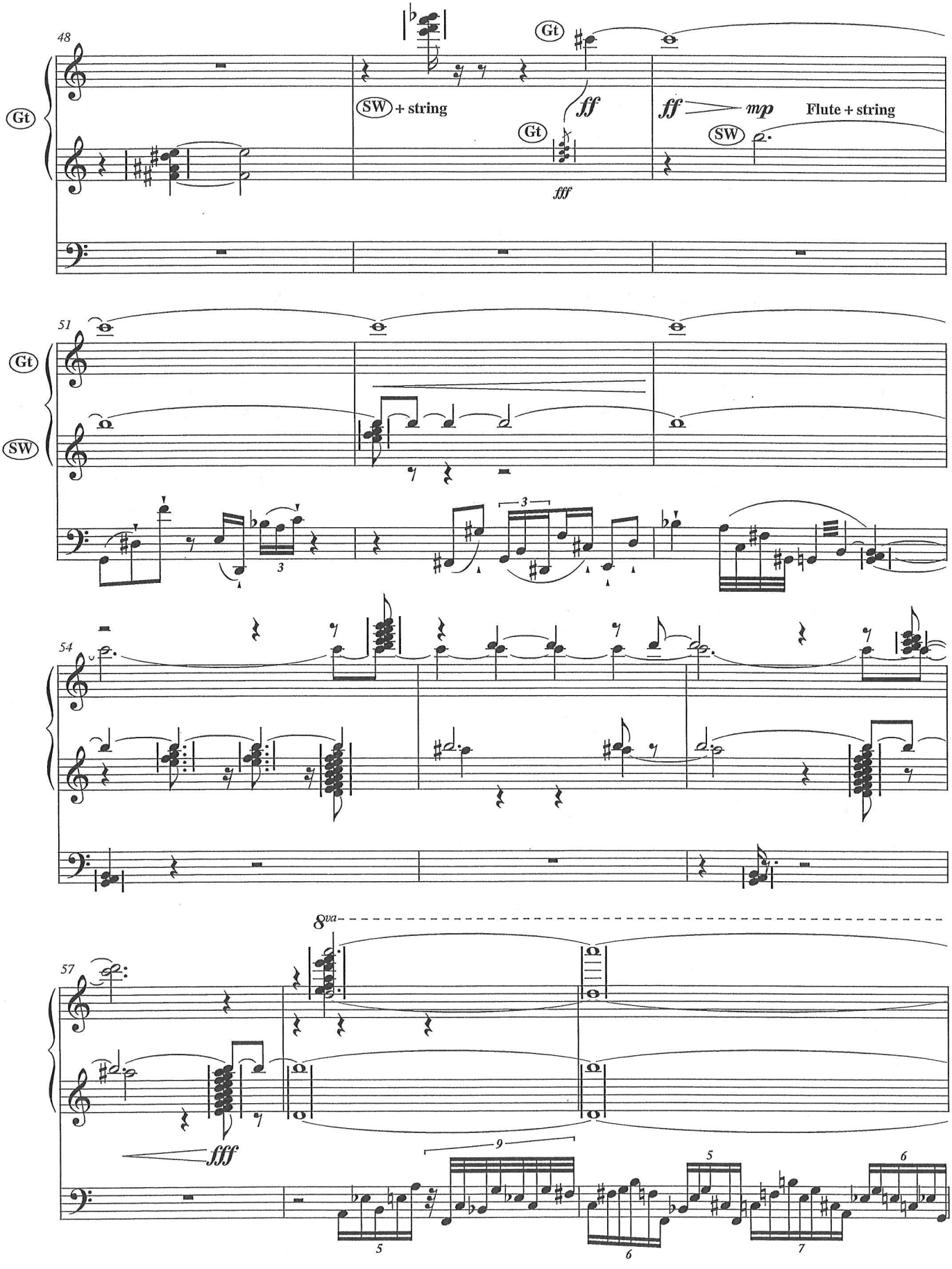
SW: Flute
Gt: Mixture
Choir: Principal
Pd: Flute + String

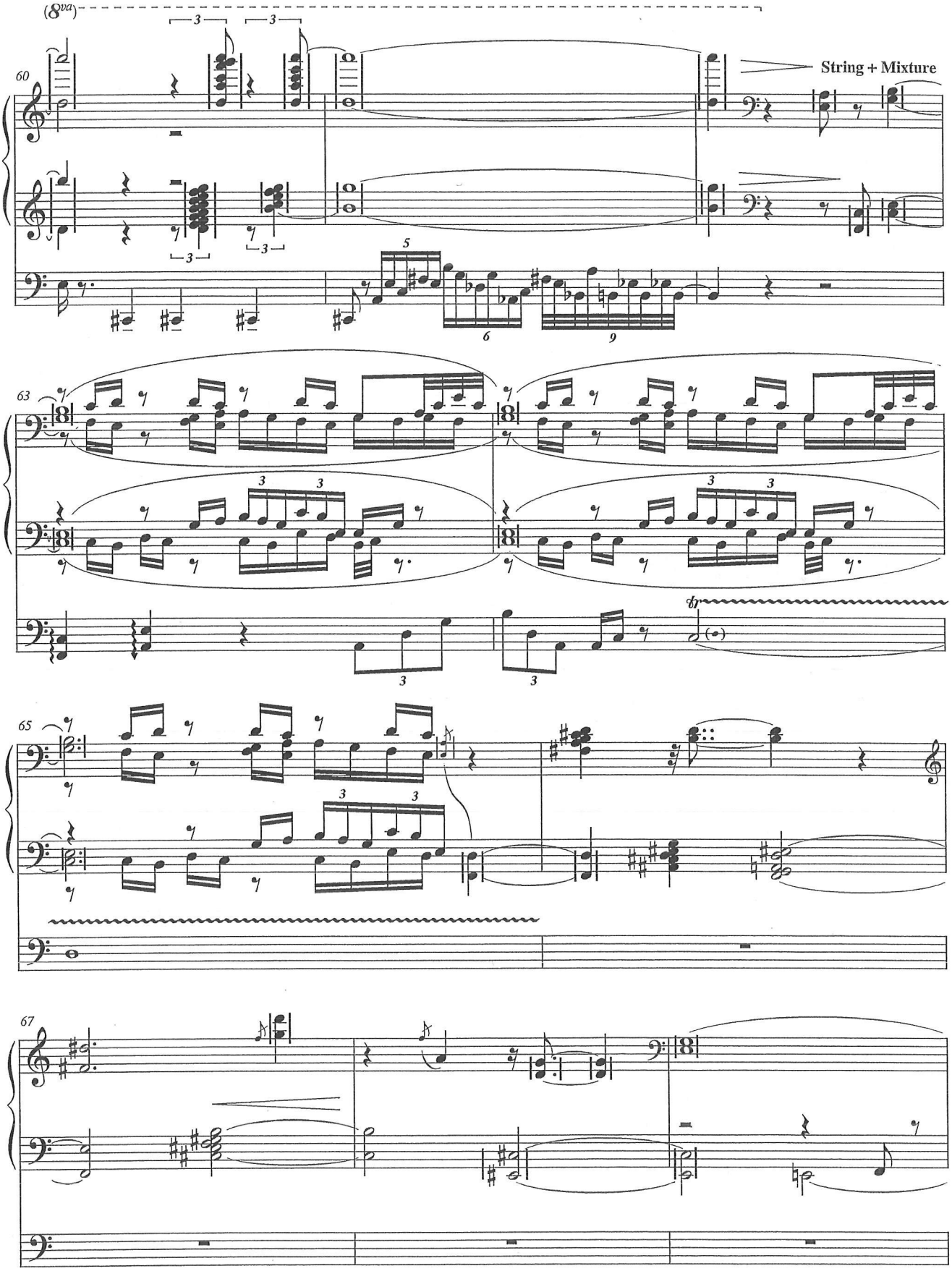


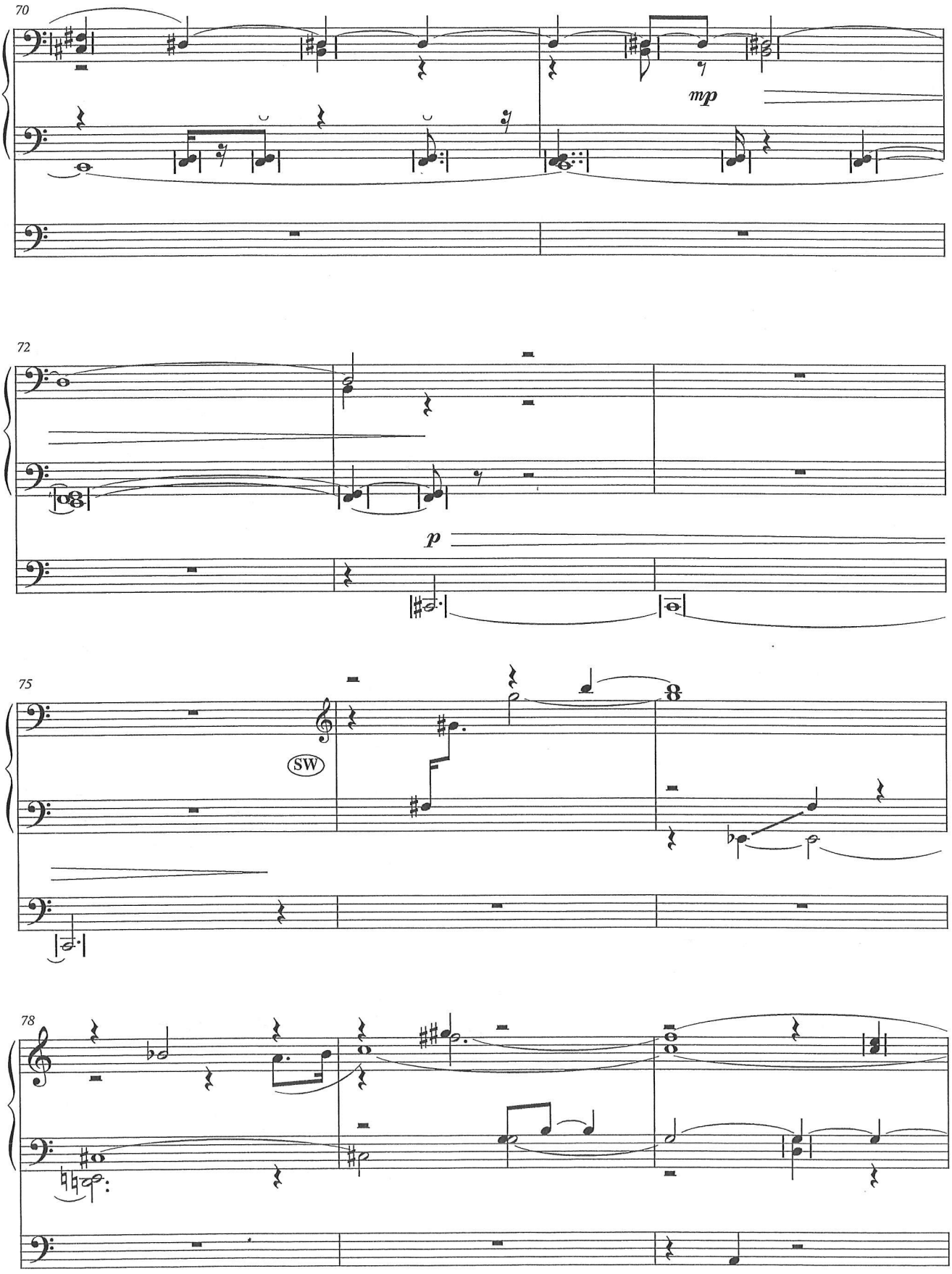

11
Flute
Gt
Ch
ff
p
ff
Ch
15
SW
Gt
p
f
ppp
Prepare Pd: Add principal
18
3
Gt
Ch
fff
Ch
3
Ch
Ch
3
21
Gt
Gt
Gt
Gt
fff
Prepare Pd + Mixutre
Pd: + Reeds
3

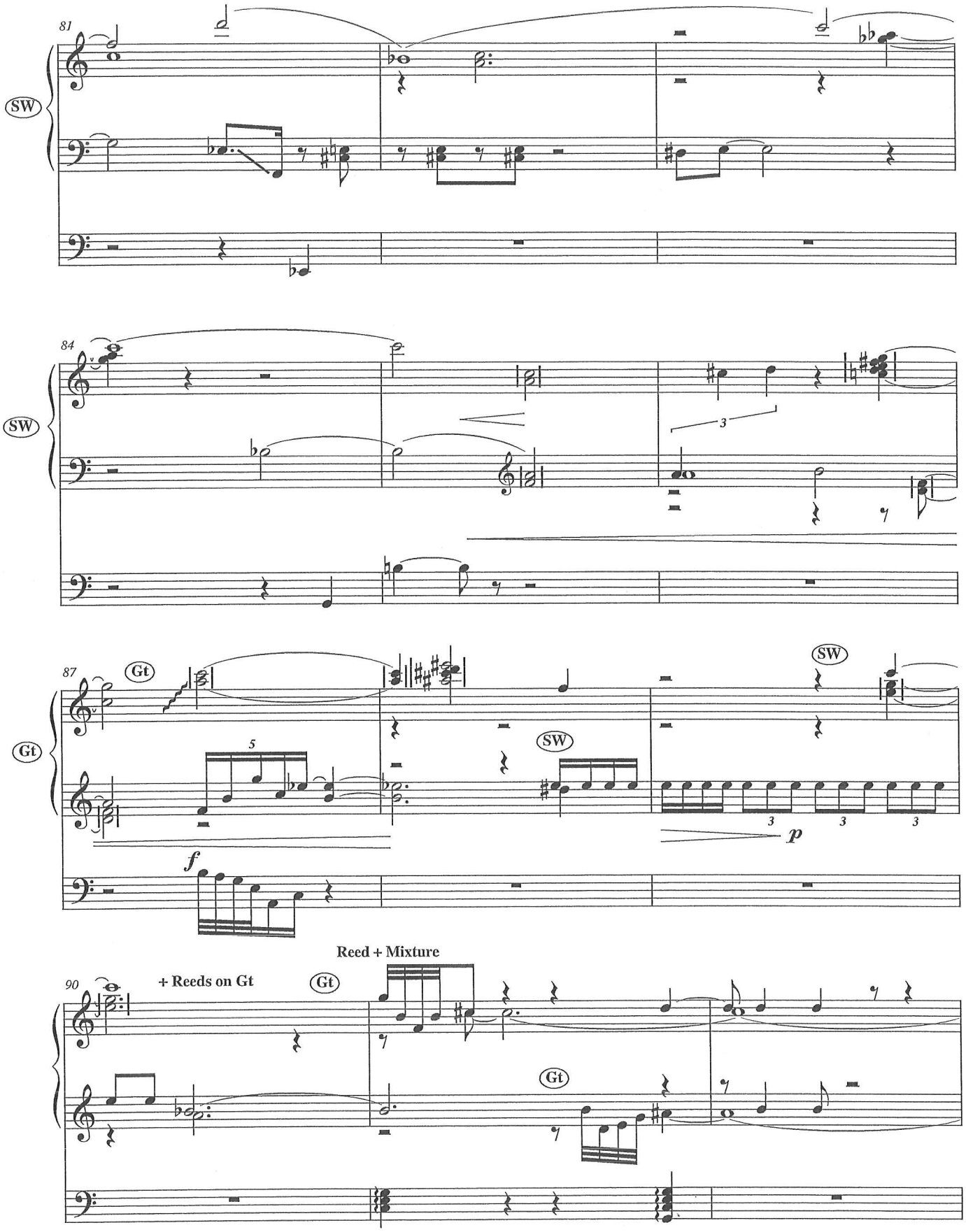

24
Gt
Gt
Gt
Gt
27
Ch
Prepare Pd: -Principal
-Mixutre
30
f
p
f
p
f
p
fff
33
Gt
fff
p

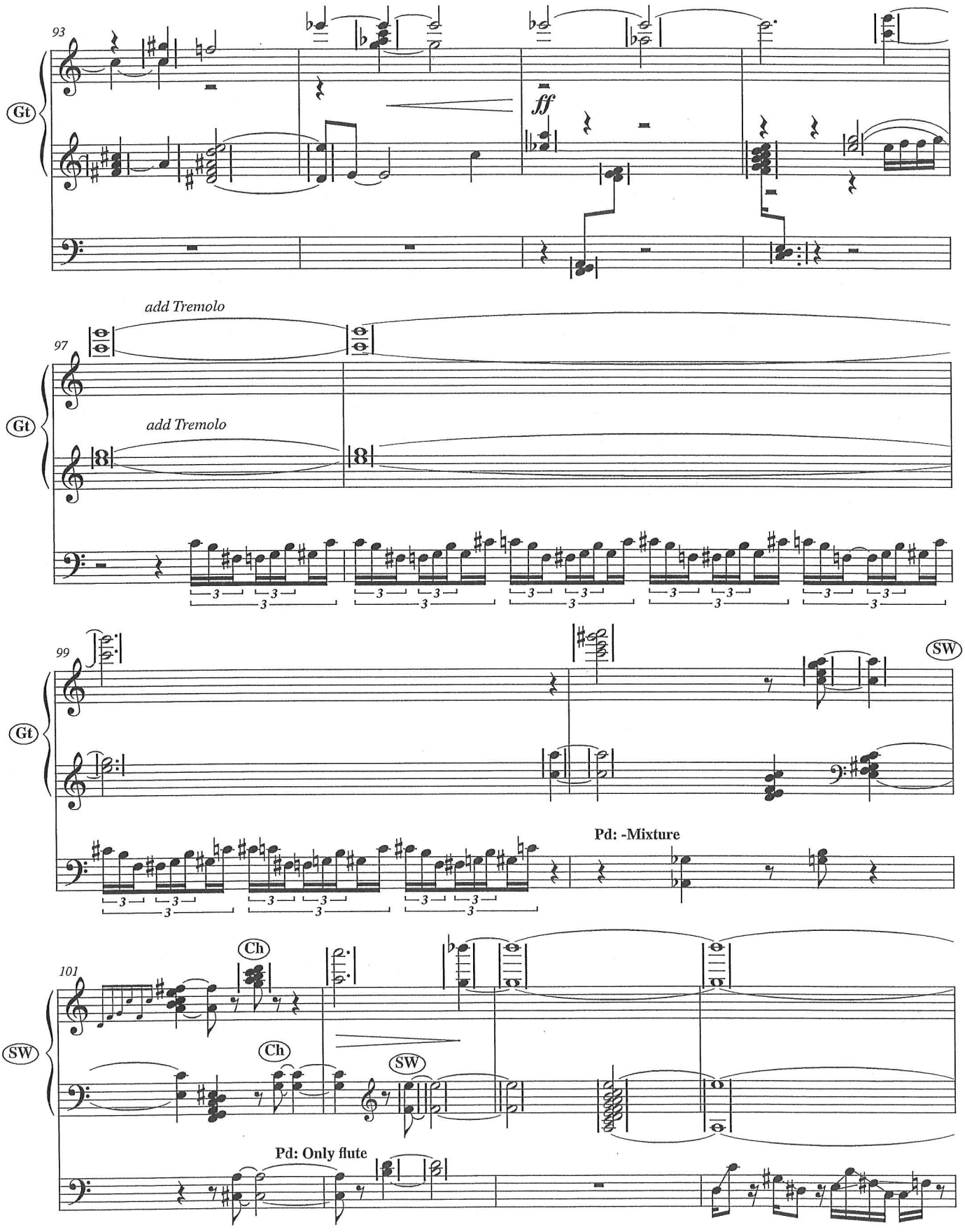

36
8va
Gt
(8va)
39
Pd: -Mix., -Reeds, -Principal, -String; Only Flute
42
3
Gt
f
Pd: + Principal Mixture
45
p
Pd: Only flute

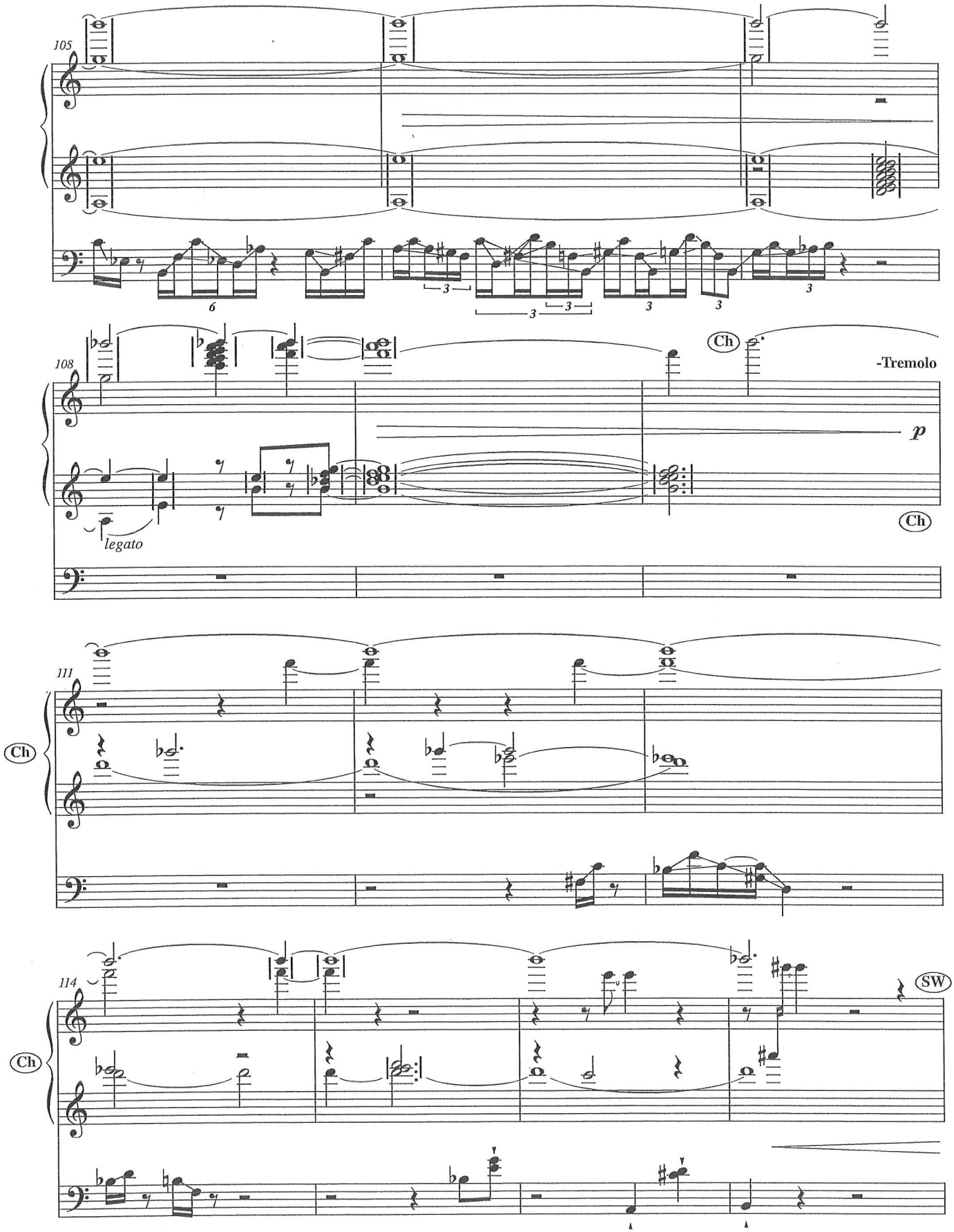

48
Gt
SW + string
ff
Gt
fff
ff mp
Flute + string
SW
51
Gt
SW
3
3
54
57
8va
fff
9
5
6
5
6
7

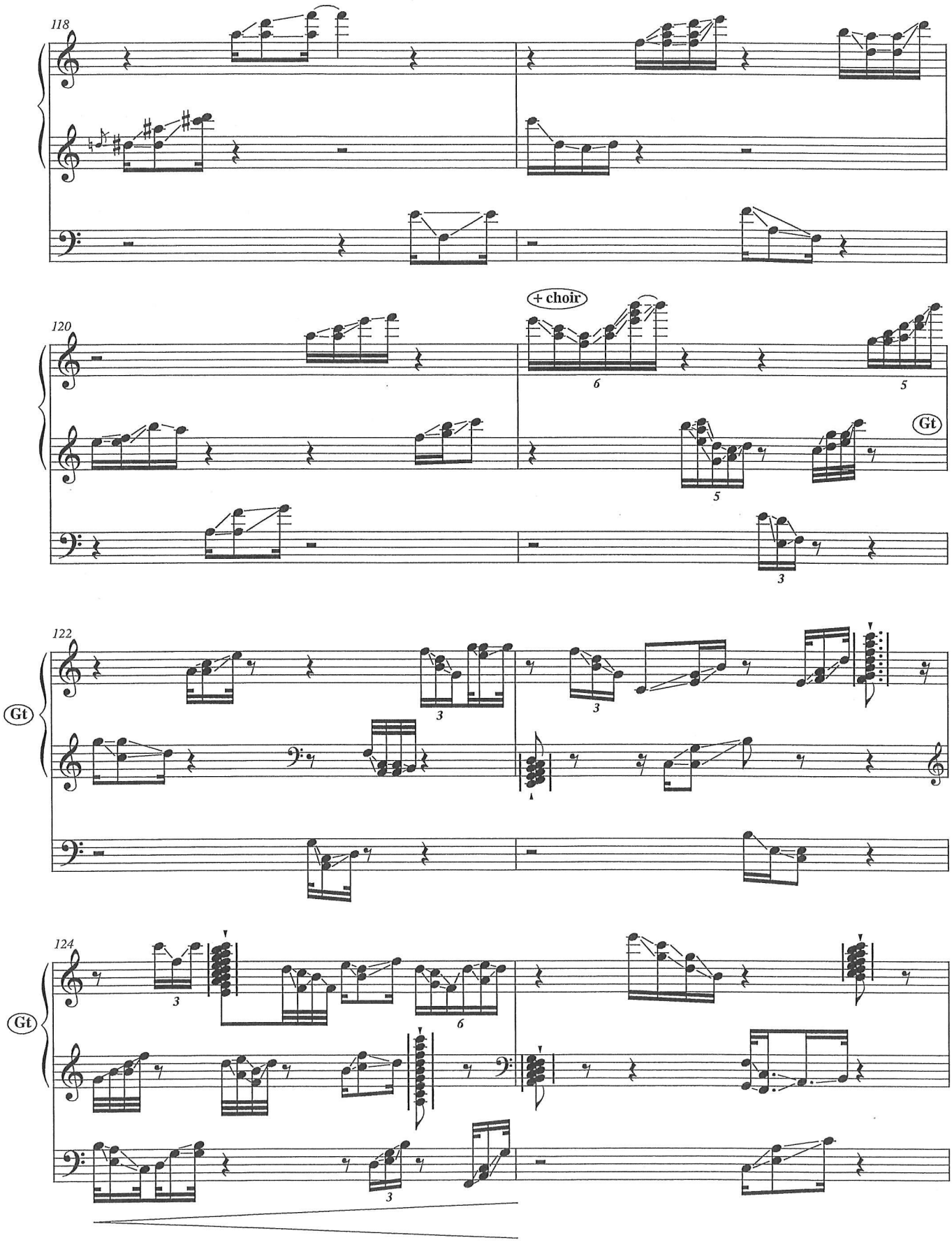

(8va)
60
String + Mixture
63
65
67

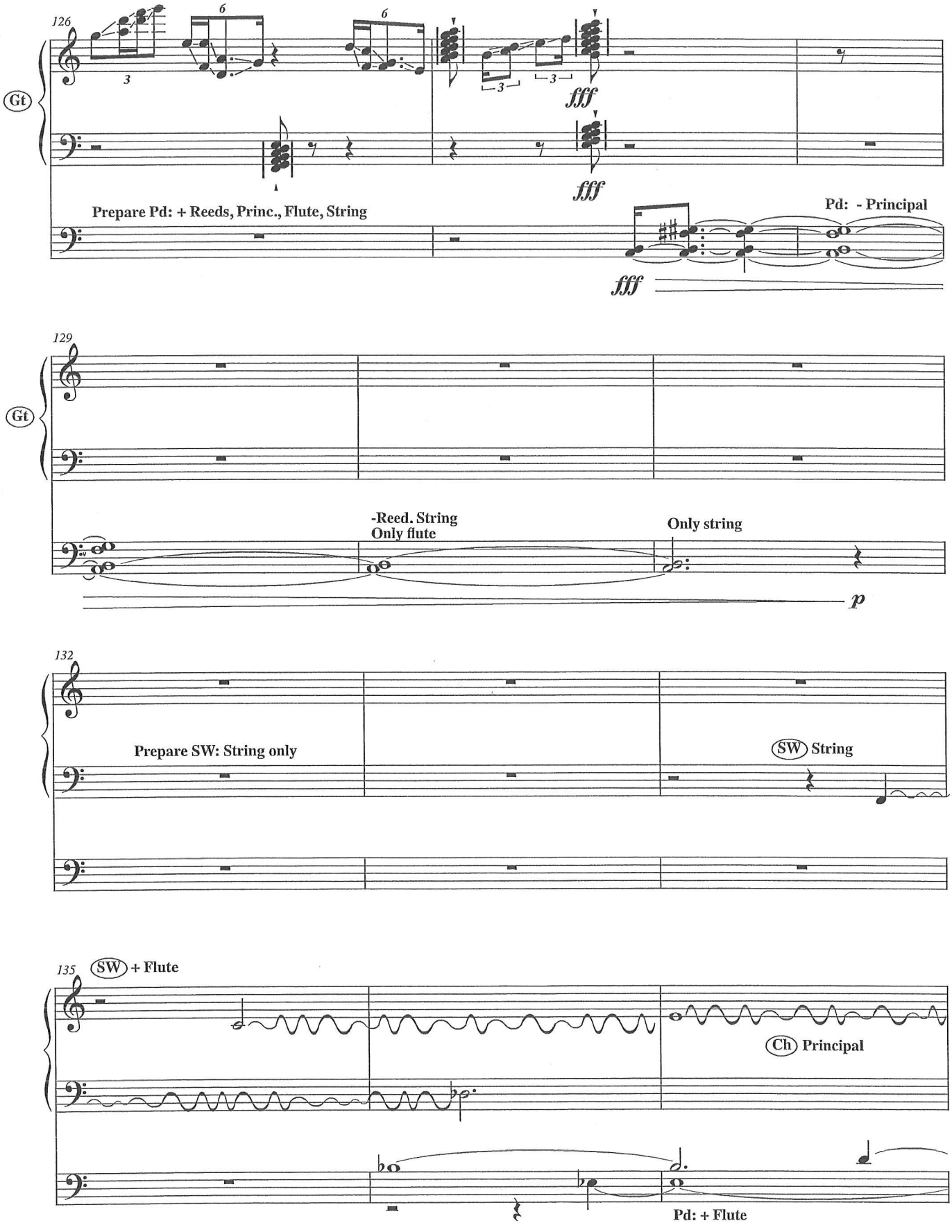

70
mp
72
p
75
SW
78

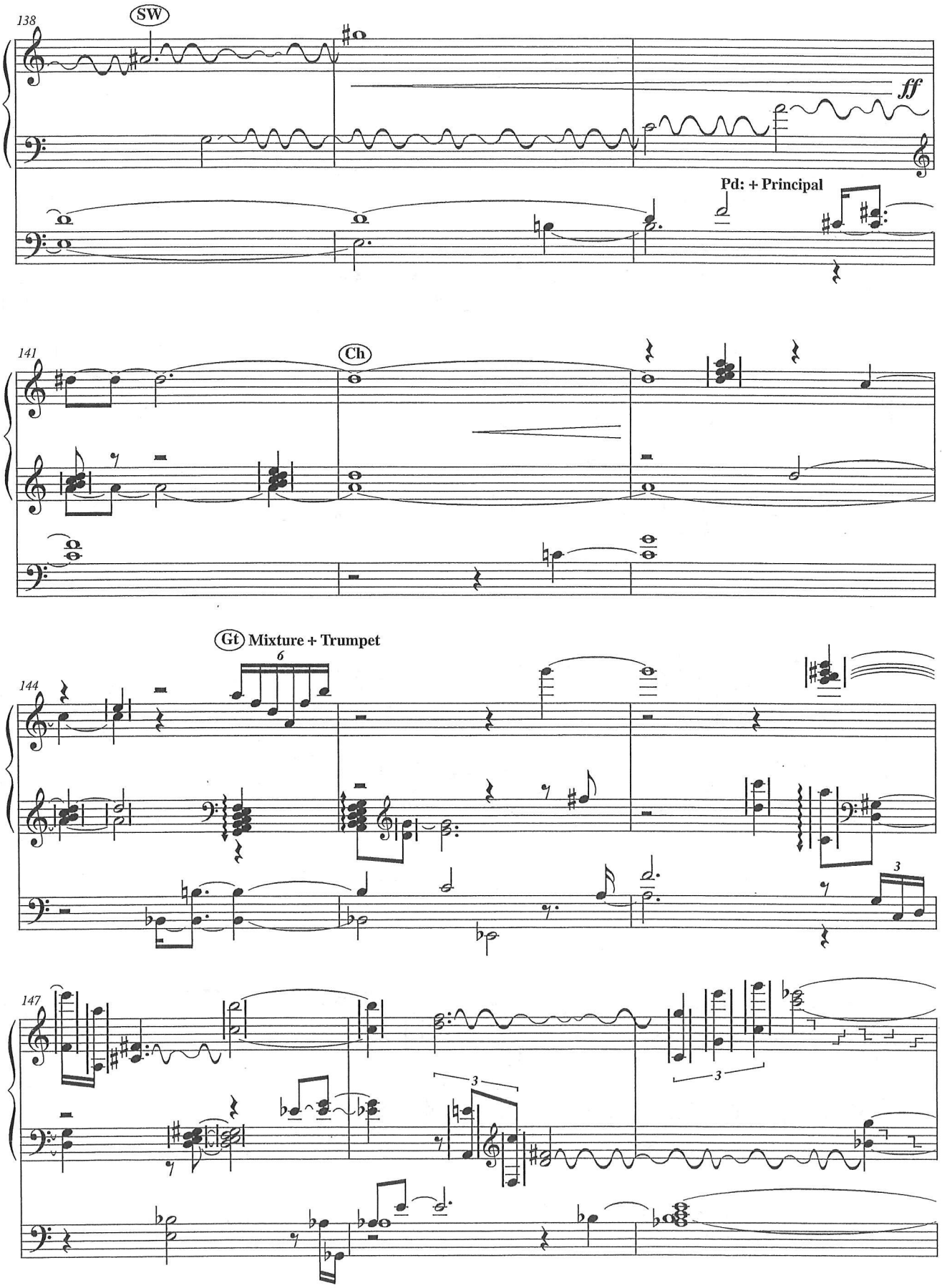

81
SW
84
SW
87
Gt
Gt
SW
SW
5
3
3
3
3
f
p
Reed + Mixture
90
+ Reeds on Gt
Gt
Gt

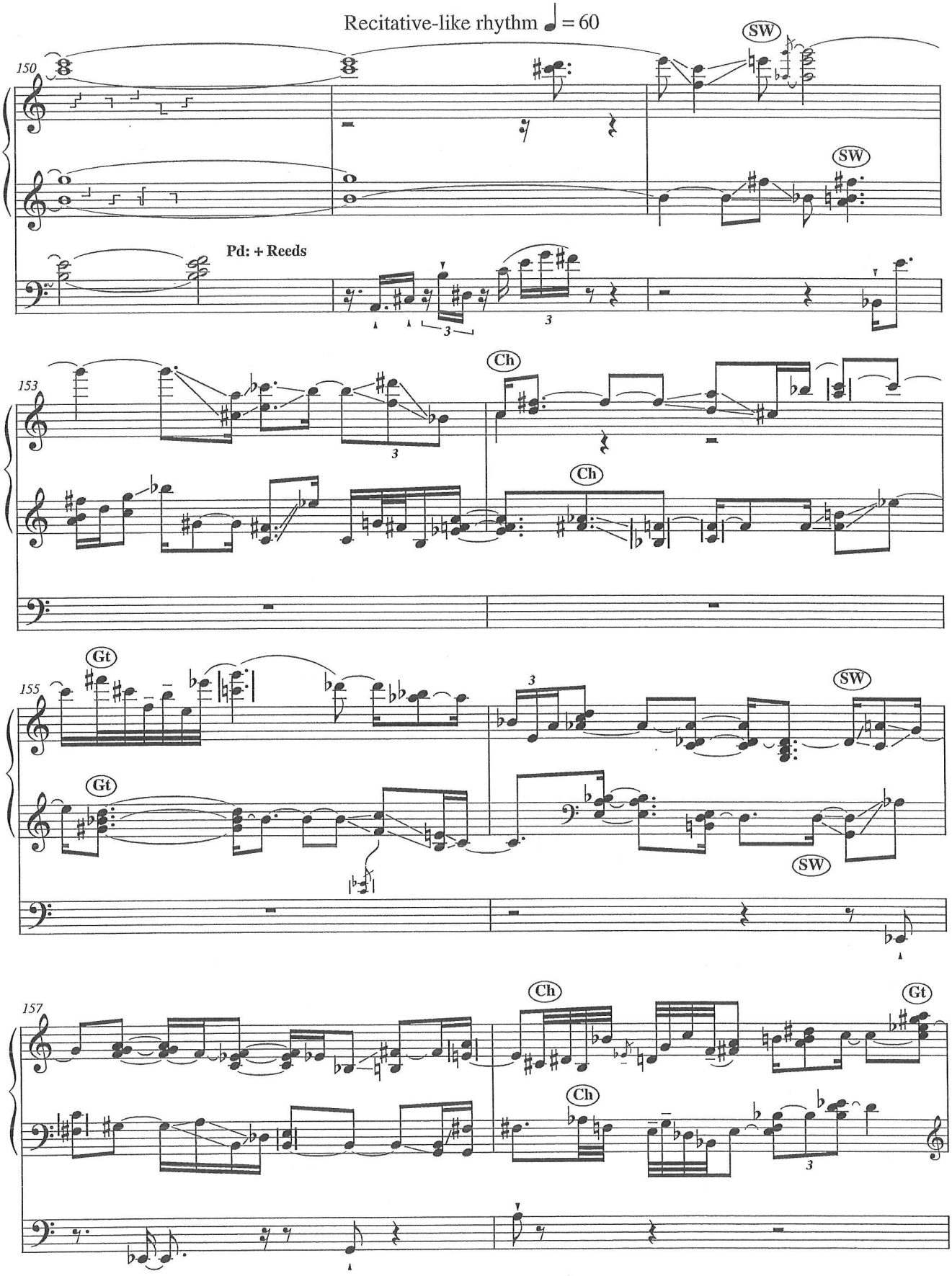

93
Gt
ff
add Tremolo
97
Gt
add Tremolo
99
Gt
SW
Pd: -Mixture
101
SW
Ch
Ch
SW
Pd: Only flute

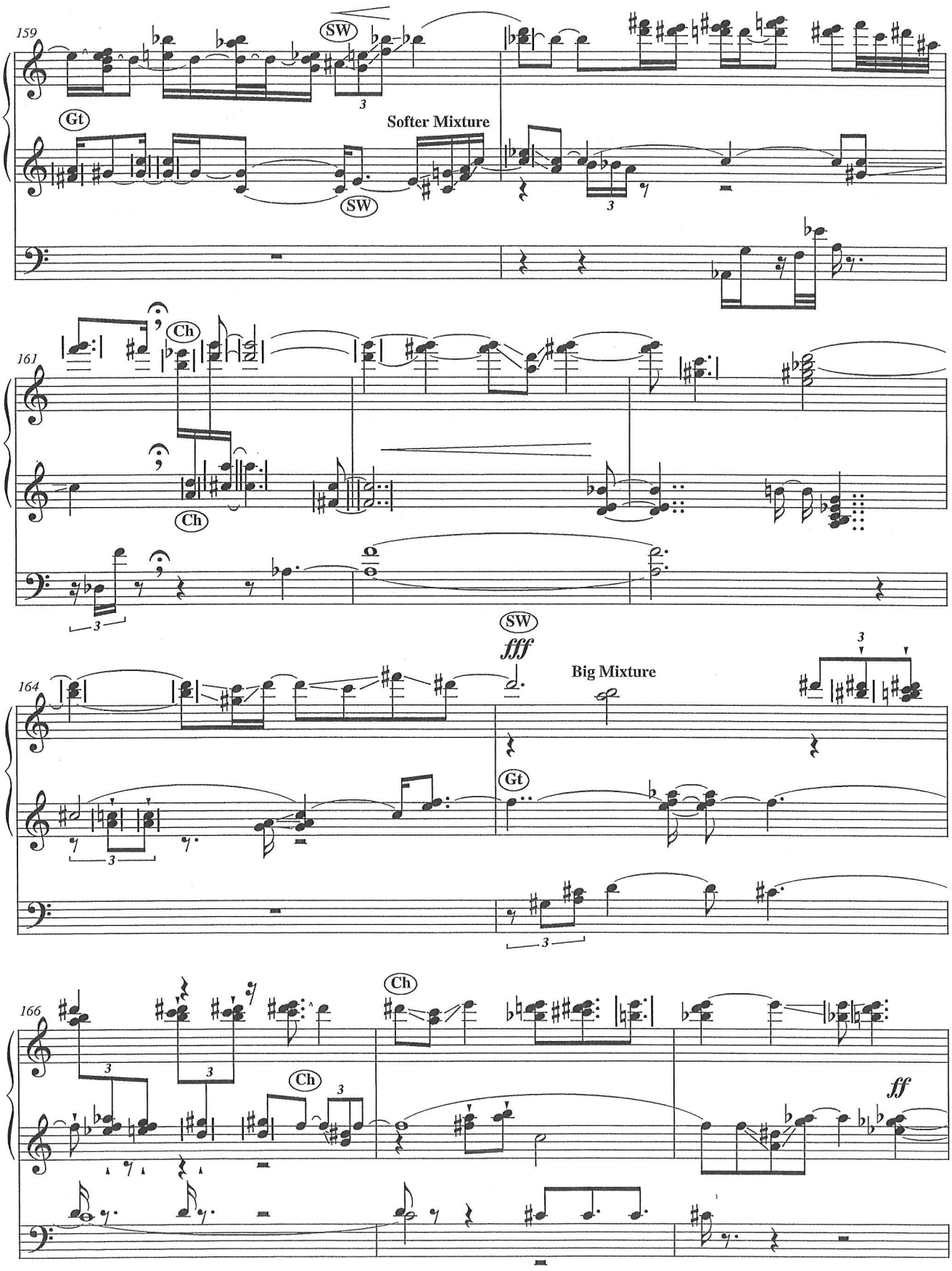

105
6
3
3
3
3
3
3
108
Ch
-Tremolo
p
legato
Ch
111
Ch
114
Ch
SW

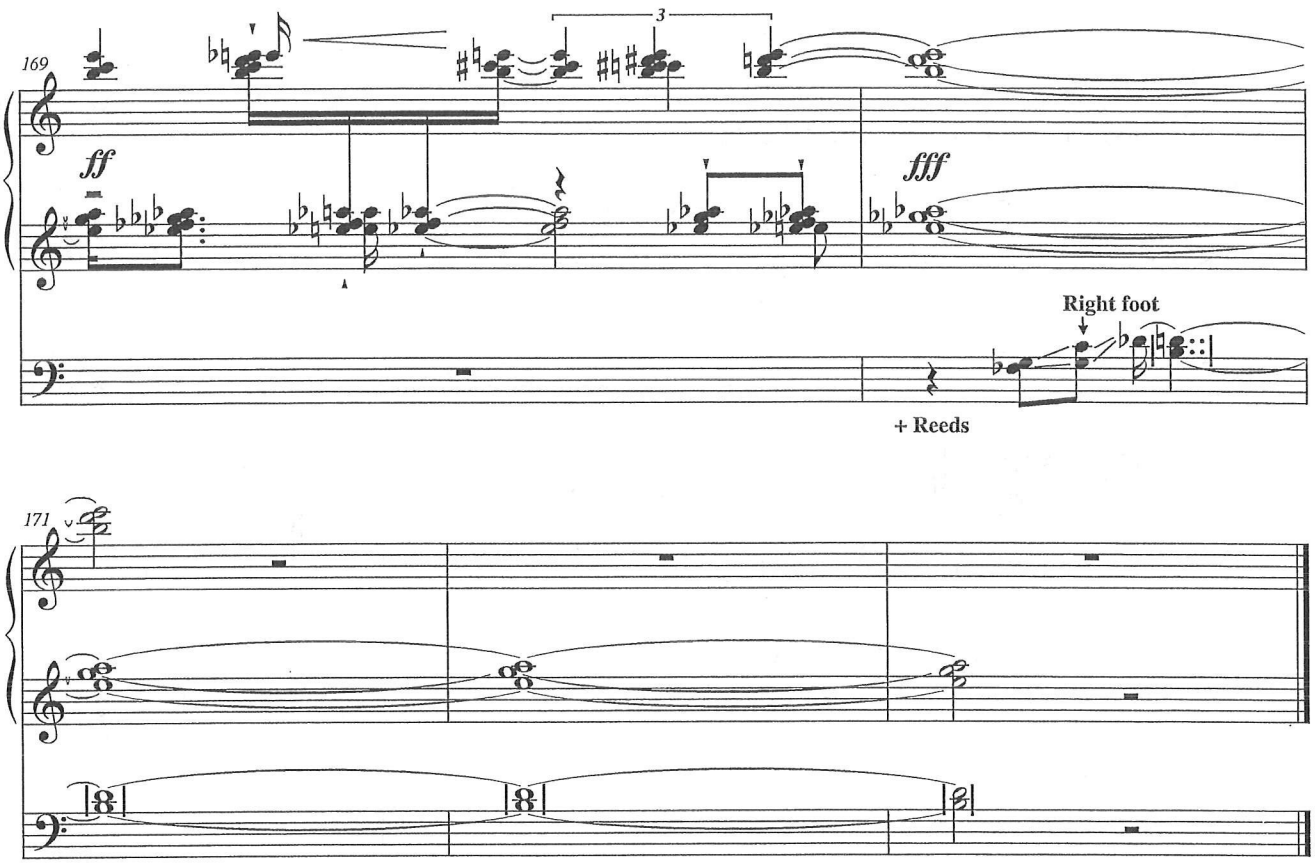

118
120
+ choir
Gt
122
Gt
124
Gt


126
Gt
fff
fff
Prepare Pd: + Reeds, Princ., Flute, String
Pd: - Principal
fff
129
Gt
-Reed. String
Only flute
Only string
p
132
Prepare SW: String only
SW String
135
SW + Flute
Ch Principal
Pd: + Flute


138
SW
ff
Pd: + Principal
141
Ch
Gt Mixture + Trumpet
144
147


Recitative-like rhythm ♩ = 60
150
SW
SW
Pd: + Reeds
153
Ch
Ch
155
Gt
Gt
SW
SW
157
Ch
Ch
Gt


159
SW
Gt
Softer Mixture
SW
161
Ch
Ch
164
SW
fff
Big Mixture
Gt
166
Ch
Ch
ff


169
3
ff
fff
Right foot
+ Reeds

171

VITA

Eunjung Jung was born in Daegu, South Korea in 1971. At the Kyemyung University in South Korea, she earned her Bachelor of Arts Degree in church music in 1993, and completed a Master of Arts degree in music in 1997. She completed her Doctorate of Musical Arts in 2014 at the University of Washington, U.S.A. She has taught music and performed throughout South Korea and the Northwest in America, and currently resides in Washington.