THE THIRTY CAPRICES OF SIGFRID KARG-ELERT:

A COMPREHENSIVE STUDY

by

CHIA-FEN TSAI

A dissertation submitted to the Graduate Faculty in Music in partial fulfillment of the requirements for the degree of Doctor of Musical Arts, The City University of New York

2008

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ABSTRACT

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Adviser: Professor John Graziano

The *Thirty Caprices*, Op. 107 by Sigfrid Karg-Elert (1877-1933) are widely known and highly valued by professional flutists for their great usefulness in developing advanced performance techniques. Karg-Elert intended these Caprices to be used as by flutists as a comprehensive pedagogical method that would elevate their ability to master some "impossible demands" founded in the orchestral works of his contemporary composers, such as Berlioz, Wagner, Strauss and Mahler. In the edition of the *Caprices*, published by Carl Fisher in 1969, a preface and an appendix that were written by the composer in 1919 are included. These two sections served as a compendium of the melodic and harmonic structures of the pieces, and were intended to help flutists to

understand not only their progressive pedagogical logic, but their musical sensibility and expressivity as well. Unfortunately, many other editions failed to include Karg-Elert's preface and appendix. This deprives flutists of a fuller understanding of the musical values that the composer meant to enrich the caprices' function as technical exercises.

The purpose of this dissertation is to investigate how the caprices help flutists comprehend music unfamiliar to them. The first part of this dissertation gives an overview of Karg-Elert's desire to create a suitable literature for early-twentieth-century flutists that would enable them to master the technical challenges of newly-developed instruments and equally new musical languages. The second part analyzes the musical contents of the *Thirty Caprices* and their pedagogical purposes in four areas: motive, harmony, texture, and tonality. The third part examines performance practice issues raised by this work, including articulation, embouchure flexibility, and rhythm. The fourth part contains an in-depth analysis of the Thirtieth Caprice, which integrates all the compositional ideas presented partially in the other twenty-nine caprices. A table provides a concisely instructional compendium of all the thirty caprices, as well as a list of probable misprints from the various editions. This table may serve as a tool to promote a more comprehensive knowledge of Karg-Elert's *Thirty Caprices* for flute and, consequently, better-informed performances of this important work.

獻給我的父母

To my parents

ACKNOWLEDGMENTS

During the writing of this dissertation, I have been blessed by the support of many people. I thank the faculty of the Music Program of the Graduate Center, the City University of New York. This dissertation would not have been completed without their guidance.

I am deeply grateful to my advisor, Professor John Graziano, an outstanding mentor who inspired me with his challenging questions and supported me with continuous encouragement. My first reader, Prof. Peter Basquin, must be thanked for his time and careful consideration in helping me with insightful comments that fostered many improvements. I am forever thankful to Prof. Tara O'Connor, my dear flute teacher and the second reader, for her excellent guidance and exceptional generosity in sharing her expertise over many years. I would like to express my great appreciation to Prof. Sylvia Kahan, who, in addition to serving on the chair of the committee, generously helped me with her astute opinions and meticulous work during the revision process.

I extend thanks to the publishing house Carl Fisher , LLC for granting me the copyright permission that is cited in the examples and in the appendix; Margaret Farrell, for spending time on my syntax from the first stage; Marie Herseth Kenote, a noted

expert on Karg-Elert's flute music, for responding to my queries; Anthony Caldicot, Chairman of the Karg-Elert Archive, for offering the information I needed; my good friends, I-Chen Chen, and her husband, Raymond Chuang, for their generous hospitality when I was in New York; my teachers in Taiwan, Hwei-Jin Liu, Li-Man Sun, and Chung-Wen Tsai for their encouragement and attention to my personal and professional growth.

I could not have started or completed this work without the support of my beloved husband Chao-Cheng Lin, as well as my in-laws, Meng-Tsung Lin and Tsai-Lien Huang. They constantly gave me the confidence I needed and took care of my infant son, allowing me the time and space necessary to move my work forward. Finally, my deepest gratitude goes to my parents, Ming-Tu Tsai and Chin-Chueh Chih, who offered me an opportunity to explore the wonderful world of music. They spoke words of love and cheer that motivated me to complete this doctoral degree, and I would like to dedicate this dissertation to them.

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INTRODUCTION

The Purpose of the Dissertation

The purpose of this dissertation is to make a complete and comprehensive study of the *Thirty Caprices for Flute,* opus 107, by the German composer Sigfrid Karg-Elert (1877-1933). These caprices are widely known and used by flutists because of their value as advanced technical studies. However, these caprices deserve consideration as more than tools of physical training on an instrument, for they serve to develop one's musical sensibility.

Composed during the years of 1915 and 1918, the *Thirty Caprices* were dedicated to Karg-Elert's comrade from the First World War, Carl Bartuzăt (1882-1959). Bartuzăt was then the principal flutist of the Leipzig Theater and Gewandhaus Orchestra. Karg-Elert wrote a preface in Leipzig, in May of 1919, to address why he composed the *Thirty Caprices*.[1] He observed that the development of the modern flute, especially the Böhm system flute, answered the "impossible demands" imposed upon flutists by earlier composers, such as Berlioz, and Wagner, Richard Strauss, and Mahler. If not for these demands, instrument-makers would not have developed the modern instrument so quickly. While composers widely extended the language of the instrument, performers were

[1] See appendix A for a complete English translation.

facing constantly increasing technical challenges. However, the contemporary educational literature was not up to the task of helping performers deal with the new trends in orchestral works. Therefore, Karg-Elert wrote the *Thirty Caprices* to bridge the gap between the educational literature and orchestral excerpts.

The *Thirty Caprices* are unique pedagogic references for learning the features and styles of the orchestral works of the late nineteenth and early twentieth century. In addition to the preface, Karg-Elert wrote an appendix laying out the logical development of modern figurations, in an effort to address his theoretical ideas. Unfortunately, there are very few editions that contain Karg-Elert's preface and appendix, which means most performers that do not have access to them. This can be a serious problem. The performer may spend a lot of time overcoming the technical difficulties, but in the end, he may not benefit from the main ideas of the musical constructions. Even if one has read Karg-Elert's instructions, one may not comprehend them properly. The instructions are all general ideas regarding intervals and harmonies, and performers may not have enough experience or knowledge to recognize them from a series of notes.

This dissertation is intended to reveal the musical components of the *Thirty Caprices*, and help performers to apply them in a pedagogical manner. The first part of this

dissertation is a study of the background of the composer and the flute, as well as literature related to the subject. As Karg-Elert is mostly known as a player and composer of music for organ, it is interesting to discover why he composed flute works, especially for the Böhm system flute. The second part analyzes the musical contents: motive, harmony, texture, and tonality. Examples are provided to reveal the original ideas of those musical constructions. The third part addresses performance practice issues. There are three topics discussed: articulation, embouchure flexibility, and rhythm. The fourth part contains a complete analysis of the thirtieth caprice and a study guide for all thirty caprices.

The *Thirty Caprices* were published in 1924[2] and have been issued by many publishers. I have five editions – by International Music Company; the A. Kalmus Edition of Warner Bros. Publications; the Well-Tempered Press; Southern Music Company; and Carl Fischer. The contents of these scores are almost the same; only the Carl Fischer edition has the preface and appendix, translated from Karg-Elert's German version. One of the five, published by Southern Music Company, has corrected some of

[2] Alwin Wollinger, *Die Flötenkompositionen von Sigrid Karg-Elert* (1877-1933) (Frankfurt am Main, Germany: Haag und Herchen, 1991), 30.

the possible errors.[3] There has neither been much detailed research, nor any dissertations written exclusively on this subject up to now. Two articles related to this subject were published in *Flute Talk* magazine.[4] A book, *Die Flötenkompositionen von Sigfrid Karg-Elert (1877-1933)*, written by Alwin Wollinger, introduces all the flute compositions of Karg-Elert, although the discussion of *Thirty Caprices* only occupies five pages. Wollinger points out that the *Thirty Caprices* contain various styles from Baroque to atonal. Wollinger chooses caprices no. 6, no. 8, no. 22, and no. 23 to illustrate the different musical styles.[5] Additionally, there is one recording of caprice no. 30, performed by G. Ittzés.[6] A DVD of Karg-Elert's *Thirty Caprices* was released in 2005, performed by Amy Porter[7]; it includes study guides, as well as valuable historical information, was provided by Marie Herseth Kenote, who is an acknowledged expert on Karg-Elert's flute music.

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[3] From an album, *The Modern Flutist*, *8 Etudes de Salon by DonJon*, *30 Caprices by Karg-Elert, Orchestral Studies for Flute, Alto Flute and Piccolo*. The editor is unknown.

[4] George Hambrecht, "30 Caprices for Flute by Sigfrid Karg-Elert." *Flute Talk* 6, no. 9 (May/June 1987): 16-21; Douglas Worthen, "Sigfrid Karg-Elert's Flute Works." *Flute Talk* 13, no. 1 (Sept. 1993): 13-19.

[5] Wollinger, *Die Flötenkompositionen*, 30-34.

[6] Sigfrid Karg-Elert, *Late Romantic Impressions by Sigfrid Karg-Elert*, performed by Gergely Ittzés, flute, and József Gábor, piano (Hungary: Hungaroton Records LTD, 2000).

[7] Amy Porter, *Karg-Elert 30 Caprices for Flute- A Study Guide with Amy Porter* (Media Farrago Studios, 2005).

PART ONE

CHAPTER 1

BIOGRAPHICAL SKETCH OF SIGFRID KARG-ELERT

His Life and Musical Influences

Born on November 21, 1877, in Oberndorf-am-Neckar, Germany, and deceased in Leipzig on April 9, 1933, Sigfrid Karg-Elert was an outstanding German organist, pedagogue, composer and keyboard player. He dedicated his life to promoting the harmonium. His best-known compositions are for this instrument, the Kunstharmonium,[1] and for organ.

Childhood

Karg-Elert's father, Johann Baptist Karg (1823-1889), was a small-town newspaper editor and writer; his mother was Marie Friederike Ehlert (1839-1908). Karg-Elert was the youngest of their twelve children. In 1883, the family moved to Leipzig, where

[1] The larger harmonium is called 'Kunstharmonium' in German: "The 'Kunst-Harmonium,' [is] an instrument usually of two manuals, with considerable resources in tone-color of the imitative-orchestral type." Quoted from "Sigfrid Karg-Elert (composer)-Short Biography," (accesed 4 Oct. 2007) http://www.bach-cantatas.com/Lib/Karg-Elert-Sigfrid.htm

Karg-Elert's father died seven years later. His mother had to raise the family with very little money. Financial difficulties prevented Karg-Elert from getting a good musical education. Fortunately, a wealthy patron gave the family an old square piano,[2] so Karg-Elert could continue learning music.

Education

Karg-Elert was a member of the choir at St. John Church in Leipzig and began piano lessons with cantor Bruno Röthig. Without any theoretical training, Karg-Elert began to compose sacred works for choir, including motets, and a Christmas cantata. Cantor Röthig was so impressed by the young composer's talent that he conducted several of Karg-Elert's choral works. Later, Röthig decided to send Karg-Elert to Grimma to study to be a schoolteacher. In Grimma, the fourteen-year-old Sigfrid devoted himself to composing and studying the flute, oboe, and clarinet. However, not satisfied with the idea of being a schoolteacher for all his life, Karg-Elert broke contact suddenly with his patrons and set out on his own in 1893. He walked for two days to Markranstädt, where for three years he made a living as a freelance musician. Simultaneously, he started to

[2] Wollinger, *Die Flötenkompositionen*, 10-11.

study books in various fields, including philosophy, natural science, and music theory. Still dissatisfied with life of Markranstädt, Karg-Elert moved to Magdeburg, where he played the oboe, clarinet, and horn for a living. Unfortunately, this did not last long. Karg-Elert was arrested for trying to change his name to Siegfried von Markranstädt and was asked to return to Markranstädt.[3]

In 1896, Karg-Elert won a scholarship to study at the Leipzig Conservatory. His teachers in the conservatory included Paul Homeyer (1853-1908), the Gewandhaus organist, and pianist Karl Wendling (1851-1914). Salomon Jadassohn (1831-1902), a pupil of Franz Liszt, taught Karg-Elert music theory. Carl Reinecke (1824-1910) and Emil Nikolaus von Rezniček (1860-1945) both taught him composition.[4] In Leipzig, Karg-Elert made a living as an orchestral musician and bar pianist. He had to change his appearance with a fake beard and wig[5] since, as a student of the Leipzig Conservatory, he was not allowed to play in the bar.

In 1900, with the support of the Conservatory, he gave a successful premiere as

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[3] "Exotic Impressions: Flute Works by Karg-Elert," (accessed 5 May 2004) http://www.leonarda.com/composers-LE/comp335.html

[4] Wollinger, *Die Flötenkompositionen*, 12; Frank Conley: 'Karg-Elert, Sigfrid', *Grove Music Online* ed. L. Macy (accessed 5 May 2004), http://www.grovemusic.com

[5] Exotic Impressions.

soloist in a performance of his first piano concerto. His performance so impressed Alfred Reisenauer (1863-1907)[6] that his scholarship was extended. At this point, he looked forward to a career as a performer. After a triumphant tour of Germany, he attended the composition classes of Robert Teichmüller (1863-1939) for a year and a half in order to better his understanding of compositional theory. This decision upset Reisenauer.[7]

Career

In 1902, Karg-Elert was appointed as the head of the piano master class at the conservatory at Magdeburg on the recommendation of the Leipzig Conservatory. He appended his mother's maiden name, Ehlert, to Karg, and changed his last name to "Karg-Elert". This surname appeared in *Musikwoche*, in which his first song, also his first composition, was published. In 1903, Karg-Elert met Edvard Grieg (1843-1907), and they became friends. Grieg encouraged him to continue composing and became an important influence on his musical style. Grieg advised him to study the music of the seventeenth and eighteenth centuries, especially the contrapuntal forms and dance idioms.

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[6] Reisenauer was a pianist and composer.

[7] Conley: 'Karg-Elert, Sigfrid'.

Study of this music awakened Karg-Elert's love for classicism. Additionally, Grieg introduced him to many publishers and promoters. At Grieg's suggestion, Karg-Elert changed his first name from "Siegfrid" to "Sigfrid"[8]. During the same period, he fell in love with a fine keyboard player named Maria Oelze. They soon became engaged. Unfortunately, Maria's father did not approve and they did not get married. At this point Karg-Elert suffered an emotional collapse. He isolated himself and composed continuously.

Karg-Elert had begun to compose for the harmonium by 1903 under the influence of August Reinhard (1831-1912), who was also a German composer and an advocate of the harmonium. One of Karg-Elert's harmonium works was accepted in August Robert Forbeg's publication *Sechs Skizzen* in the same year. Karg-Elert numbered this composition as op.10 to make people believe that it came from an experienced composer. It unintentionally began a tradition of confusing opus numbers that do not reflect the chronology of his works. Forberg also introduced Karg-Elert to Carl Simon, a Berlin publisher and harmonium specialist, who accepted Karg-Elert's harmonium works.

In March 1906, Karg-Elert made his Kunstharmonium debut. His organ

[8] Ibid.

compositions were also heard although the earlier pieces were arrangements of harmonium works. Max Reger (1873-1916) and Karl Straube (1873-1950) were two admirers of his organ works. Inspired by Reger, Karg-Elert's early organ works display a touch of J.S. Bach.

During the next decade, Karg-Elert became increasingly well-known as a composer in England, America, and Australia.[9] His composition style showed the influence of many diverse contemporary composers, such as Debussy and Schönberg. The influences of Impressionism and Expressionism are particularly evident in two works, *Impressions Exotiques,* op. 134, and *Suite Pointillistique*, op. 135.

Karg-Elert had married Minna Louise Kretzschmar in 1910; the marriage produced two children. At the outbreak of the First World War, Karg-Elert enlisted in the 107th infantry regiment. He played the oboe, horn, saxophone and even the lyre in the regiment band. He was also a popular accompanist for their many concerts. He wrote many important works for wind instruments during the war years, including most of his flute repertoire.

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[9] Exotic Impressions; "Notes for *Karg-Elert: Pièces Exotiques*, Robert Ford, flute, and Claudette Caron, piano" (Hummingbird Records, 2000), (accessed 5 May 2004) http://www.brandonu.ca/Music/People/FacultyPages/fordr/CD_covers/Recordings.htm

In 1917, he failed to gain the position of organist at Berlin Cathedral. The resulting crisis propelled him towards a new direction in composition that had germinated during the war, when he made an in-depth study of many orchestral works. He came to consider the works of his contemporaries as "fruitless artistic self-indulgence,"[10] and he started to embrace "the purity of classical and romantic art."[11] In order to distinguish this new style from his earlier period, he put a "b" after his later opus numbers and destroyed about 20 works. As he later told Paul Schenk, he "began again in C major, and prayed to the muse of melody."[12]

In 1919, Karg-Elert was engaged as instructor of composition, pianoforte, and music theory at the Leipzig Conservatory, a post previously occupied by Reger. However, he still yearned for a post as church organist, but never succeeded.

Beginning in 1924, Karg-Elert gave weekly radio harmonium recitals. Because he was unwilling to move his instrument to other places, he played from home. He performed his Second Harmonium Sonata (1909-12) at his fiftieth birthday celebration, which was celebrated with concerts and radio broadcasts. In 1930, he participated in a

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[10] Conley: 'Karg-Elert, Sigfrid', (accessed 24 October 2006).

[11] Ibid.

[12] Ibid.

"Karg-Elert Festival" at the church of St. Lawrence Jewry in London. However, under the political situation of the moment, his reputation in Germany declined. He wrote to his English friend Godfrey Sceats in 1926:

> Because some of my works have French or English titles I am automatically an 'Ungerman.' Someone to be boycotted. . . . One is immediately dismissed as a Jew, traitor or Bolshevik.[13]

In 1932, Karg-Elert toured the United States in an effort to solve his financial problems. Already in poor health due to heavy smoking, and diabetes and neuralgia, the tour was a musical disaster and was badly reviewed as "utterly impossible" and "total chaos."[14] Although he was offered a teaching position at the Carnegie Institute in Pittsburgh, his deteriorating health ultimately forced him to turn down the other. He died on April 9th, 1933, and was buried in Southern Cemetery in Leipzig.

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[13] Ibid.

[14] Ibid.

Karg-Elert's Flute Works during the First World War

Karg-Elert's considerable contribution to flute literature during the First World War (1914-1918) is one of the most exciting and least explored areas in the repertoire. Most of his flute compositions are associated with Carl Bartuzăt. The reason that his flute music had remained largely unknown for most of the twentieth century may be attributed to a combination of factor; including French domination of the flute repertoire, availability, and performance difficulty. Karg-Elert himself is so strongly associated with organ literature that his other compositions may have been eclipsed.

Karg-Elert wrote twenty-two flute works. The variety of styles shows the composer's intention to break new ground for the flute, and provides a link between the late-Romantic, the Expressionistic and the Impressionistic literatures.

Based on the source from Wollinger's *Die Flötenkompositionen von Sigfrid Karg-Elert*, table 1.1 lists all flute works by Karg-Elert. Where there is uncertain information, the work is given in brackets.[15]

[15] Wollinger, *Die Flötenkompositionen*, 104.

Table 1. 1. The Flute Works by Karg-Elert

Published Works		**Unpublished Works**	
Kanzone, op. 81	1912/13		
Sinfonische Kanzone, op. 114	1917		
Sonata Appassionata, op. 140	1917		
Sonate in B Major	1918		
Jugend	1918/19		
		Kammersinfonietta	1918/19
30 Caprices, op. 107	1918/19		
Impressions Exotiques, op.134	1919		
Suite Pointillistique, op. 135	1919		
		[Tagore-Hymnen]	1919
		Partita Retrospettiva	1919
		Kammerstudie/Haydn	1920
Mozart Kadenza	1920		
		Sinfonia Exotica	1921
		Three Impressions	1921
		Radierungen	1921
		Musik	1922
		Renaissance (1916)	1925
		Trio Buccolico (1916)	1925
		Tagore Hymnen (1919)	1927
		Concerto for Flute	1929
		Quintet	1930

As seen in the table 1.1, there are seven published works, composed during the First World War. Besides the *Thirty Caprices*, the other six works are *Sinfonische Kanzone*, op. 114, for flute and piano; *Sonata Appassionata*, op. 140, for flute solo; *Sonate in B Major*, op. 121, for flute and piano*; Jugend*, op. 139a, for flute, clarinet in A, horn and piano*; Suite pointillistique*, op. 135, for flute and piano; and *Impressions exotiques*, op.

134, for flute and piano. These six works for flute and other instruments represent distinct compositional styles between the late-Romantic, the Expressionistic, and the Impressionistic literatures. The *Thirty Caprices* serve as miniature studies for all these six pieces. In addition, some of caprices show a neoclassical style.[16] In his preface to the *Thirty Caprices*, op.107, Karg-Elert writes:

> These Caprices, as well as my other works for flute, composed between 1915 and 1918, owe their inception to the eminent artist Carl Bartuzăt, principal flutist of the Leipzig Theatre and Gewandhaus-Orchestra at whose side I played the oboe in a good military band during the war.
>
> . . . . The 30 Caprices originated from the urgent need of forming a connecting link between the existing educational literature and the unusually complicated parts of modern orchestral works by Richard Strauss, Mahler, Bruckner, Reger, Pfitzner, Schillings, Schoenberg, Korngold, Schreker, Scriabin, and Stravinsky; and the most modern virtuoso soli. . . . Besides this, the caprices explore new and untrodden paths in technique; a technique which may be required from one day to another in some new impressionistic or expressionistic work.[17]

Karg-Elert composed many other flute works. Some are unpublished; others are mentioned by the composer, but have not been located. These works are highly valuable for further research, but are beyond the scope of this dissertation.

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[16] Caprices no.1 to no.4.

[17] Karg-Elert, Preface to the *30 caprices* (New York: Carl Fischer, 1969), [2-3].

CHAPTER 2

THE FLUTE FROM THE LATE NINETEENTH CENTURY TO THE EARLY TWENTIETH CENTURY

The history of music for the flute and the history of the instrument itself are intimately related. Ardal Powell noted in his book *The Flute* that the *Thirty Caprices* were written for the Böhm flute.[1] However, an article in *Grove Music Online* indicates that the flute works of Karg-Elert's were probably written for the Reform flute and dedicated to Rudolf Tillmetz's (1847-1915) pupil, Carl Bartuzăt.[2] Tillmetz was a student of Böhm and a principal flutist in Bayreuth under Wagner's baton. However, Wagner persuaded him to switch back to conical ring-key flute in the 1880s. So which instrument did the composer have in mind when he composed the *Thirty Caprices*?

Flute development was flourishing in the late nineteenth century. Many new models arose in this period, and each model had its own supporters. In order to know the *Thirty Caprices* better, we have to know the differences between these two kinds of

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[1] Ardal Powell, *The Flute* (New Haven: Yale University Press, 2002), 323.

[2] Jeremy Montagu and others: 'Flute', *Grove Music Online* ed. L. Macy (accessed 10 February 2007), http://www.grovemusic.com

flutes, as well as to become familiar with the literature written for them and the studies that were composed for the instruments.

In the following section, I will discuss the differences between the Böhm flute and the Reform flute. The Meyer flute will also be discussed since it is the predecessor of the Reform flute.

The Böhm Flute, the Meyer Flute, and the Reform Flute

The Böhm Flute

The invention of the modern flute can be traced back to Theobald Böhm (1794-1881). Böhm was a man with an industrious nature. As early as 1824, the flutist Karl August Grenser (1794-1864)[3] identified him as one of the most renowned makers.

Böhm designed several kinds of flutes. The most significant models were made in 1829, 1832, and in 1847. In 1829 Böhm made an old-style conical-bore flute; his second model, which featured a combination of ring keys and rod axles (the ring key flute), was made in 1832. The Böhm-system flute of 1847 was a cylindrical-bore

[3] Karl August Grenser (1794-1864) was a flutist in the Leipzig Gewandhaus Orchestra. His grandfather (1720-1807) was a famous instrument maker in Dresden, and his father (1756-1814) was also an instrument maker. The three generations share the same name.

instrument. Böhm cylindrical flute Number 1 is now preserved in the Library of Congress, Music Division. This model provided the basis for all modern flutes.

In the following paragraphs, the "Böhm flute" refers to the Böhm-system flute.

One of the biggest differences between the old-system flute and the Böhm flute is the arrangement of the tone holes. The old system is arranged in a diatonic scale while the new system is based on a chromatic scale. In constructing his 1847 flute, Böhm drilled a hole for each semitone, each in its correct position, and then devised a mechanism and fingering system capable of controlling those holes. The tone holes were larger than those in the old-system flute, and Böhm started to use metal for the flute body rather than wood. This change in materials resolved several problems of performance and addressed the lack of volume that was common with the old-system flutes.

The Böhm flute quickly became popular with professional players in France, England, and the United States, although most of German flutists rejected Böhm's designs. Proponents of the old conical keyed flute were not willing to relinquish the old instrument's wider variety of tone in order to gain smoother technique. Also, in Germany, the size of the orchestra was smaller in comparison to English orchestras of the

time. For example, the Gewandhaus orchestra adopted the old-system flute in order to get a better tone quality.

The Meyer Flute

The Meyer flute was designed by Heinrich Friedrich Meyer (1814–1897). It was a type of old-system flute. Meyer's firm flourished in Hanover from 1848 until the early twentieth century. The company enjoyed a worldwide reputation because of the uncommonly mellow tone of its flute. The company produced many kinds of old-system flutes, including Schwedler flutes. Meyer flutes were immensely popular in the second half of the nineteenth century and became the standard for playing the flute parts in the works of Schumann, Tchaikovsky, Brahms, Mahler and Richard Strauss. In military bands, Meyer flutes continued to be popular for an even longer time. The brothers Franz (1821-1883) and Karl Doppler (1825-1900), Jules Demerssmann (1833–66), William Barge (1836-1925), and Joachim Andersen (1847-1909) were important figures associated with the Meyer flute in Europe. Ernesto Koehler (1849–1907), Wilhelm Popp (1828–1903), and Adolf Terschak (1832–1901) wrote methods and studies for this instrument.

The Reform Flute

By the late nineteenth century, the German conical flute evolved into the Reform flute, which also belonged to the old-system flute family. It was created in 1885 by Maximilian Schwedler (1853–1949) of Leipzig, an opponent of the Böhm flute. This Reform flute was based on Meyer's design. The most striking feature of this instrument was the addition of raised bosses or cusps above and below the embouchure hole. This innovation helped to expedite the air stream into the flute. German flutists used the Reform flute as late as 1928. Nevertheless, it was not a perfect innovation due to complicated fingering. In her dissertation, Amy Sue Hamilton discusses performance problems that persisted when the flutists were still using the Reform flute:

> In 1928, the flutist Macaulay Fitzgibbon claimed that the "ultramodern" school of composers, such as Richard Strauss, had absolutely no mercy on the lungs or the fingerings of the *unfortunate* flutists performing their works. Citing *finger-twisting* passages of enormous difficulty, Fitzgibbon believed that Strauss had reached the limit of the technical capabilities of the flutist. These technical goals were rarely reached by contemporary flutists, and he assumed that many of these passages were composed for an overall effect; therefore, each note need not be accurately played. Fitzgibbon also noted the adverse effect that these loud, fast upper-register passages had on flute intonation in the orchestra.[4]

[4] Amy Sue Hamilton, "The Relationship of Flute Construction to the Symphonic Role of the Flute and Orchestral Performance Practice in the Nineteenth Century" (D.M.A. diss., Northwestern University, 1984), 531.

The Böhm flute, Meyer flute, and Reform flute, were all widely played by performers of the late nineteenth century to the early twentieth century. Each model has its advantages and supporters. Generally speaking, Meyer and Reform flutes were popular in Germany, and Böhm flute was popular in other European countries. Although Karg-Elert was a German, we can not automatically assume that the *Thirty Caprices* were written for the Reform flute. However, Karg-Elert refers directly to the Böhm flute in his preface. Therefore, we can speculate that he is writing for this instrument.

Flute Literature: Solo Pieces, Chamber Works, and Orchestral Works

Major Pieces for the Böhm flute

Based on a list in the dissertation of Irna Priore,[5] major pieces for the Böhm flute during the period before 1920 are included in table 2.1. Karg-Elert's compositions are excluded since they were introduced in the previous chapter.

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[5] Irna Priore, "The Flute and Piano repertoire of Joachim Andersen: A Pedagogical Approach" (D.M.A. diss., The City University of New York, 1993), 46-61.
There are two problems in the List of the Major Pieces in the Repertoire for Flute (in Chronological Order by Composer) in Priore's dissertation:

1. On page 46: Théodore Dubois (1837-1924) – Sonata, might be an incorrect attribution. There is only a "*Sonata*" composed by Pierre Max Dubois (1930-1995).
2. On page 47: Claude Debussy – Syrinx (1913), is also problematic. In Nancy Toff's *The Flute Book* and *The Flute* of Powell, the work's date of composition is given as 1912, and premiered by Louise Fleury in 1913; in *Grove Music Online*: 'Debussy', (accessed 02 July 2007), it is dated 1913.

Table 2. 1. The Major Works for Böhm Flute from 1870 to 1920

Carl Reinecke (1824-1910)	♪ Sonata *"Undine",* op. 167, 1882 (dedicated to A.de Vroye)
Camille Saint-Saëns (1835-1921)	♪ *Romance,* op. 37, 1871 (dedicated to A.de Vroye)
Paul Taffanel (1844-1908)	♪ *Andante Pastorale et Scherzettino*, 1907
Charles Marie Widor (1844-1937)	♪ *Suite for flute and piano* (dedicated to Paul Taffanel), 1898
Gabriel Fauré (1845-1924)	♪ *Fantasie for flute and piano,* op. 79, 1898 (dedicated to Paul Taffanel) ♪ *Morceau de concours*, 1898
Benjamin Godard (1849-1895)	♪ *Suite de 3 Morceaux: Allegretto, Idylle. Valse*, op. 116, 1890
Cécile Chaminade (1857-1944)	♪ *Concertino for flute and orchestra*, 1902
Georges Hüe (1858-1948)	♪ *Fantasie*, 1913
Claude Debussy (1862-1918)	♪ *Syrinx*, 1912 (dedicated to Louis Fleury) ♪ *Sonata for flute, viola, and harp*, 1915
Phillipe Gaubert (1879-1941)	♪ *Nocturne et Allegro scherzando*, 1906 (dedicated to Paul Taffanel) ♪ *Sonata*, 1918
Georges Enesco (1881-1955)	♪ *Cantabile et Presto*, 1904 (dedicated to Paul Taffanel)
Alfredo Casella (1883-1947)	♪ *Sicillienne et Burlesque*, 1914
Charles Griffes (1884-1920, American)	♪ *Poem*, 1918 (written for George Barrère)
Jacques Ibert (1890-1962)	♪ *Pièce for flute solo*, 1919
Arthur Honegger (1892-1955)	♪ *Danse de la Chèvre for solo flute*, 1919 (dedicated to René de le Roy)[6]

[6] The dating of this piece is problematic: it is given as 1919 in Priore's dissertation; as 1921 in *Grove Music Online*: 'Honegger', (accessed 02 July 2007); as 1926 in *Grove Music Online*: 'Flute', (accessed 02 July 2007), as well as in *The Flute* by Powell; and as 1932 in *The Flute Book* by Nancy Toff.

From this table, we can easily see that many of the solo works are French, demonstrating that the biggest support for the Böhm flute came from France. Starting in 1860, the Paris Conservatoire commissioned pieces for the Böhm flute. Paul Taffanel (1844-1908) was one of the most important figures in the promotion the Böhm flute. He joined the Paris Conservatoire in 1893 as a flute professor and founded the *Société des Instruments à Vent* (Society of Wind Instruments) in 1879. The music comissioned by this organization had greatly influenced Europe, including inspiring a revival of the woodwind quintet. The flute was again brought back as a chamber music instrument, and the pieces composed for the *Société* that included flute were numerous, for example, Camille Saint-Saëns' *Caprice*, op. 79, for piano, flute, oboe, and clarinet, and the *Suite* of Widor.

Major Pieces for the Old-System Flute

There were many notable musicians who composed for the Meyer flute as well. Among them were the virtuosi flute players and composers Karl and Franz Doppler, the flutists of the Vienna Philharmonic. They exerted great influence as performers and teachers. The Böhm flute experienced great opposition in Germanic-speaking countries because of musicians like the Dopplers. Notable compositions that were probably

conceived for the old-system flute around the late nineteenth century are listed in table 2.2:

Table 2. 2. Major Works for the Old-System Flute from the Late Nineteenth Century to the Early Twentieth Century

Jean Louis Tulou (1786-1865)	♪ *Solos for flute and orchestra*, opp. 79, 82, 94, and 96
Franz (1821-1883) and Karl (1825-1900) Doppler	♪ *Fantaisie Pastorale Hongroise*, op. 26
Carl Maria Reinecke (1824-1910)	♪ *Concerto*, 1908 (dedicated to Maximillian Schwedler who was using a Reform flute)
Jules Demerssmann (1833-1866)	♪ *Six Solo Concerti for Flute*

Orchestral Works

The earliest use of the Böhm flute in the orchestra was noted as early as 1839 by a French flutist, Vincent Dorus (1812-1896), who played Berlioz's *Roméo et Juliette* on a conical ring-key Böhm flute; Theodor Winkler (1834–1905) was the first orchestral player to use the Böhm cylinder flute in Germany. He was the principal flutist of the Weimar Hoforchester between 1842 and 1862 under the baton of Franz Liszt; Moritz Fürstenau (1824-99) was another flutist who played the Böhm flute in Germany. He played in an orchestra conducted by Richard Wagner. However, Wagner thought that the Böhm flute was too loud and forced Moritz to return to his old instrument.

Wagner's comment regarding the Böhm flutist is cited by Ardal Powell in *The Flute*:

> [*Piano*] can quite easily be required from the strings, but by contrast [is] quite difficult from the winds, particularly the woodwinds. A softly sustained *piano* is hardly obtainable from them any more, particularly from the flutists, who have transformed their formerly so soft instruments into mighty shawms.[7]

Most German flutists were against the Böhm flutes until the end of First World War. Before then, they preferred to use an old-system flute, such as the Meyer or Reform flutes.

During the late nineteenth and early twentieth centuries, composers such as Brahms, Debussy, Ravel, Richard Strauss, Mahler, Bruckner, Schönberg, and Stravinsky tended to write more solo passages for flute in their orchestral works. It is almost impossible to categorize which passages were especially written for which kind of flute. It can generally be assumed that the German composers preferred to use the old-system flute, such as the Meyer or Reform flute, while the French composers were in favor of the Böhm flute. For example, as Powell notes in *The Flute*:

> In 1886, Brahms, who had learned the flute in order to play Kuhlau's flute sonatas, wrote to Schwedler praising the 'especially full-bodied, beautiful and powerful tone' of his newly-developed flute (Reform flute), as well as his playing

[7] Powell, *The Flute* (New Haven: Yale University Press, 2002), 191.

of it.[8]

The above evidence suggests that Brahms was a supporter of the Reform flute.

French composer Debussy's *Prélude à l'après-midi d'un faune* was premiered on December 22, 1894 with George Barrère playing its famous flute solo on a Böhm flute. Still, there were exceptions. German composers, like Richard Strauss and Mahler, also had many experiences working with Böhm flute players. Thus it is hard to specify which orchestral excerpt is composed for a certain kind of flute.

The Rise of Teaching Manuals (Methods and Studies)

With all the solo pieces, chamber music, and orchestral passages written for flute, there were still flutists that could not handle the demands of the music. Even though the Böhm flute brought about the possibility of developing a greater flute technique, a need for teaching manuals arose.

At the Paris Conservatoire, P.H. Camus (b. 1796), wrote the first study, *Méthode pour la nouvelle Flûte Boehm*, in 1839. Vincent Dorus, the other enthusiast of Böhm's flute, wrote *L `Etude de la Nouvelle Flûte* around 1840.[9] In 1860, they introduced the

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[8] Ibid., 199.

[9] Ardal Powell: 'Bibliography of Flute Method Books,'(accessed 5August 2008) http://www.flutehistory.com/Resources/Lists/Flute.methods.php3

cylindrical Böhm flute at the Conservatoire when Dorus succeeded Tulou as professor of the flute. Joachim Andersen, one of the founders of Berlin Philharmoic, who played the Meyer flute, also wrote a lot of studies for the old-system flute in the late-nineteenth century.[10]

The other earliest method books for Böhm flute are *Metodo per il Flauto Cilindrico Alla Böhm*, op.103, written in 1847 by Emanuele Krakamp (1813-1883); *Grand Method for Flute, Boehm System* written in 1880 by Henri Altès (1826-1895); *Neuste practische und vollständige Methode des Flötenspiels,* op. 205, written c.1870 by Wilhelm Popp (1828-1902); *Praktische Flötenschule/Ecole pratique de la flute*, written in 1880 by Wilhelm Barge; and *Die Flöte und das Flötenspiel*, written in 1871 by Böhm himself.[11] Additionally, Karg-Elert wrote the *Thirty Caprices* in 1918 as well as most of his flute literature during the First World War.

Let us return to the question posited in the beginning of this chapter – What instrument did Karg-Elert have in mind when he composed the *Thirty Caprices*? Was it a Reform flute or was it a Böhm flute?

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[10] Joachim Andersen wrote eighth important studies for flutists: *24 Studies,* op. 15, *24 Studies*, op. 21, *24 Studies*, op. 30, *24 Studies*, op.33, *24 Studies*, op. 60, *24 Studies*, op. 63, *26 Little Caprices*, Op.37, and *18 Studies*, Op. 41. These studies all begin in C major and continue to pieces in keys with increasing numbers of sharps and flats.

[11] Powell: 'Bibliography of Flute Method Books'.

The *Thirty Caprices* were dedicated to the eminent artist Bartuzăt, who was the principal flutist of the Leipzig Theater and Gewandhaus Orchestra. According to Powell, Bartuzăt was shown holding a Reform flute in a 1906 photograph, but had switched to the Böhm flute immediately before or during the war.[12]

In a section of *Die Flötenkompositionen von Sigfrid Karg-Elert* by Wollinger, There was a quote from Bartuzăt about Karg-Elert's flute works:

> Karg-Elert let us realize that the *flauto traverso* is not suitable for contemporary music, and a new instrument that is suitable to use in the orchestra has appeared. Karg-Elert used all his heart to compose for the flutists, to promote their abilities rather than drawing a line to confine them.[13]

The *flauto traverso* is the old-system flute, and the new instrument mentioned in this article is the Böhm flute.

In the preface to the *Thirty Caprices*, Karg-Elert wrote:

> These Caprices are therefore meant to be a synthesis of all the possible progressive technique demanded by the character and construction of the modern flute, above all the unparalleled Böhm flute; . . . . The construction of the modern flute (especially the Böhm flute) is such as to reveal, with the greatest ease, wonders which would

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[12] Powell, *The Flute*, 193.

[13] Wollinger, *Die Flötenkompositionen*, 24: ". . . . Sie macht aus der uns bekannten Flauto traverso, die man eigentlich gar nicht mehr ernstgenommen hat, ein neues, in den heutigen Konzertsaal passendes und auch den Streichinstrumenten ebenbürtiges Instrument. Karg-Elert hat seine Werke in ehrlicher Begeisterung für die Flöte geschrieben, und zu wünschen wäre nur, daß alle Flötisten, die nicht auf ihrer Höhe stehen bleiben wollen, dieses Neuland betreten." [Author's paraphrase]

have been considered almost impossible only thirty years ago.[14]

The evidence in this preface directly states that the modern flute, especially the Böhm flute, better enables the flutist to master the difficult music being written by current day composers. This suggests that the *Thirty Caprices*, as well as Karg-Elert's other flute works composed during the First World War, were written for the Böhm flute.

[14] Sigfrid Karg-Elert, *30 Caprices for Flute Op. 107*, [2].

PART TWO

AN ANALYSIS OF THE MUSICAL CONTENTS

An Overview of the *Thirty Caprices*

Serving as preparatory exercises for orchestral excerpts, the *Thirty Caprices* are intended for flutists who are at an advanced level. In my teaching experience, I have observed that most players are confused by the complexity of the work's notation. This confusion often results in a hesitant performance. Some players believe that it is not hard to overcome the technical difficulties of the caprices. However, if the players understand the original purpose of the *Thirty Caprices* and follow the instructions, they will have the ability to analyze and express the music. Furthermore, they will be able to adapt the skills they attain to contemporary music practice.

Table 3.1 contains basic information from the score on each caprice. Excepting caprice no. 30, *Chaconne*, all of the other caprices are very brief. The *Thirty Caprices* are composed by similar technique which is developed from one or two motivic elements. Most of the caprices have clear sections; however, the others (caprices no. 7, no. 11, no. 15, no. 25, no. 26, and no. 29) do not have any principal divisions.

Table 3. 1. The Information of the *Thirty Caprices*

No.	**Key**	**Time Signature**	**Expressive Indication**	**Total Length**
1	C Major	4/4	*Tempo giusto.*	25 measures
2	D minor	3/8	*Un poco mosso, ma non brillante.*	49 measures
3	F Major	4/4	*Allegro alla Händel (non troppo brillante.)*	26 measures
4	C Major	3/4 5/4 4/4 3/2 3/4	*Velocissimo e brillante.*	44 measures
5	D Major	4/4	*Allegro giusto.*	25 measures
6	C minor	3/4	*Appassionate e stretto.*	63 measures
7	A minor	10/8	*Moto perpetuo.*	32 measures
8	F Major	6/4	*Con molto brio.*	28 measures
9	G Major	6/16	*Rapido e brillante.*	46 measures
10	A Major	9/16	*Leggero e veloce.*	33 measures
11	F# minor	6/8	*Velocissimo e molto leggero.*	32 measures
12	G Major	4/8	*Leggero, grazioso e veloce.*	24 measures
13	E♭ Major	2/4	*Leggerissimo e grazioso.*	50 measures
14	E minor	4/8	*Moto perpetuo.*	21 measures
15	B♭ Major	6/16	*Mosso e leggerissimo*	48 measures
16	G minor	11/8 10/8 11/8 10/8 11/8	*Un poco mosso, umoristico.*	17 measures
17	A♭ Major	12/8	*Leggero veloce, giocoso.*	17 measures
18	D minor	3/8	*Adagio* *(quasi cadenza).*	18 measures

No.	Key	Time Signature	Expressive Indication	Total Length
19	E Major	2/4	*Vivacissimo, scintillante.*	41 measures
20	whole-tone scale	4/4	*Ardito capriccioso ed assai mosso.*	24 measures
21	B Major	3/4	*In tempo di Walzer.*	41 measures
22	D minor	2/4	*Agitato ed appassionato.*	24 measures
23	C# minor	3/4	*Adagio appassionato (quasi recitativo).*	26 measures
24	E♭ Major	7/16	*Rapido quanto e possibile (con suono sempre aguzzo).*	36 measures
25	C minor	6/8 (3/8)	*Un poco vivace e capriccioso.*	20 measures
26	B minor	4/4	*Capriccioso, con civetteria.*	24 measures
27	E Major	9/8	*Un pochettino mosso (ben articolato).*	33 measures
28	B♭ minor	12/16 (4/8)	*Sciolto, elegante e rapido.*	16 measures
29	F# Major	6/16	*Velocissimo e frizzante.*	42 measures
30	F minor	3/4	*Chaconne.*	76 measures

In order to develop a more efficient teaching method and performance practice, it is necessary to investigate, in as much detail as possible, the various elements of the musical contents of the *Thirty Caprices*, such as motivic construction, harmonic progression, and technical demands. As every caprice is intended to achieve several goals, the *Thirty Caprices* will be considered separately and grouped into two pedagogical categories: the first is concerned with the musical content, while the second

addresses performance practice issues. The musical content section will include analyses of the motives, harmonies, textures, and tonalities; performance practice issues of each caprice will address issues of articulation, embouchure flexibility, and rhythm.

CHAPTER 3

MOTIVE AND HARMONY

Motive

The melodies that Karg-Elert wrote are derived from very short motivic figures. He develops the piece by numerous sequences, imitations, and transformations. The essential element of motive is frequently conceived through scales and chords. The rhythmic patterns of the motives are quite simple. Most of them utilize a single note value, such as all eighth notes or all sixteenth notes. The articulation of each caprice helps define the character of melody. When the motive repeats, some subtle differences are applied to it. This performance practice issue will be discussed later in the pedagogical section. However, the articulation will still be referred to in the examples of motives below.

My discussion of the motives is divided in three categories. First, I examine articulation. It is divided into four subcategories:

A. Motives with short slurs

B. Motives with long slurs

C. Motives with all staccatos

D. Motives with a mixture of slurs and staccatos

Second, each subcategory is subdivided into two rhythmic groups:

a. applied to a single rhythmic pattern

b. applied to multiple rhythmic patterns

Third, each group deals with various musical styles used by the composer.

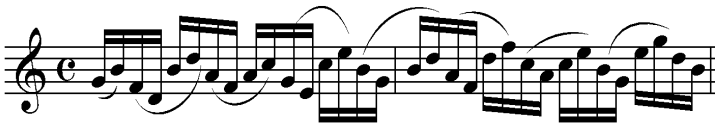
A. Short Slurs

a. Applied to a Single Rhythmic Pattern

In broken chords:

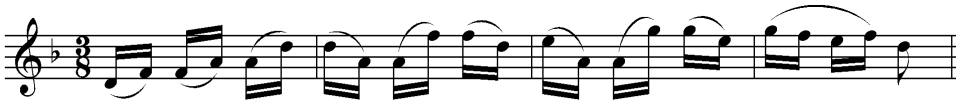
Example 3. 1. No. 1, in C major, mm. 20-21.

Re-grouped by slurs.



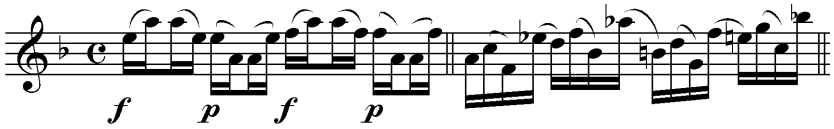
Example 3. 2. No. 2, in D minor, mm. 1-5.

In a hopping passage.



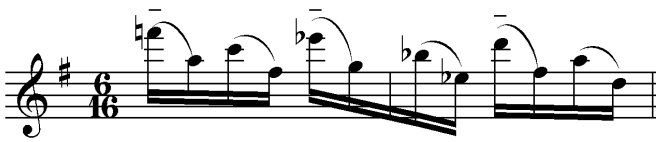
Example 3. 3. No. 3, in F major, m. 11 and m. 15.

The first example (m.1) is composed in a contrasting hopping style, and the second (m.2) is a series of dominant seventh chords; however, the slurs connect to a pitch from the following chord.



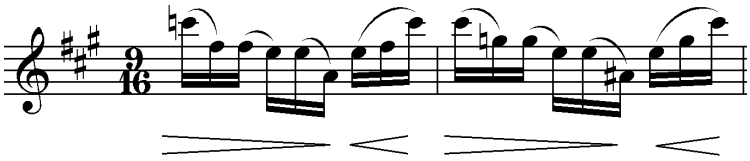
Example 3. 4. No. 9, in G major, mm. 17-18.

A hemiola passage.



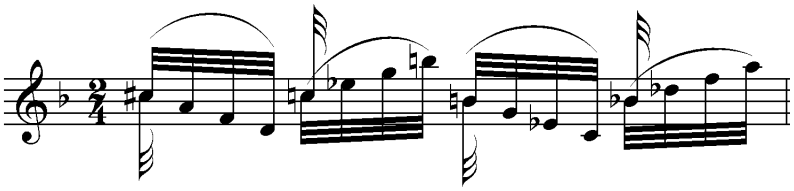
Example 3. 5. No. 10, in A major, mm. 20-21

The metrical pattern of each measure is grouped as 2+2+2+3 by slurs.



Example 3. 6. No. 22, in D minor, m. 15.

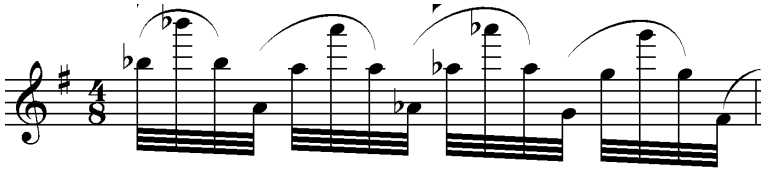
A succession of seventh chords moves in descending chromatic linear motion.



In chromatic passages:

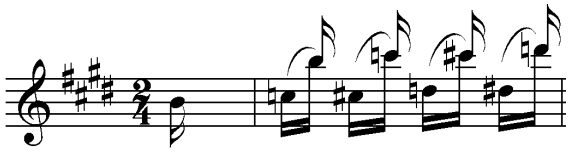
Example 3. 7. No. 12, in G major, m. 12.

A chromatic descending scale leaps across three registers.



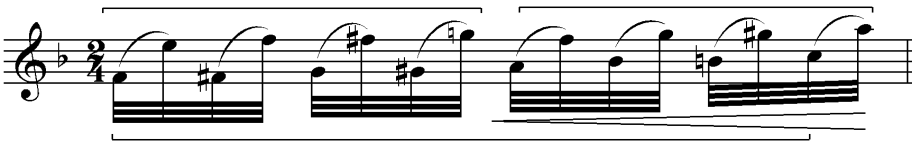
Example 3. 8. No. 19, in E major, mm. 29-30.

Two chromatic scales are arranged in a two-voice texture.



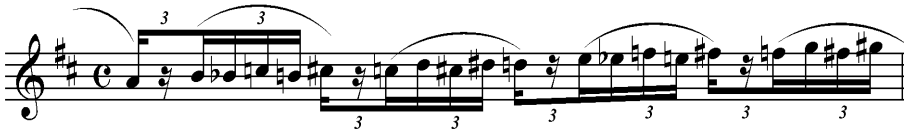
Example 3. 9. No. 22, in D minor, m. 21.

Two chromatic scales move in parallel motion; the upper chromatic scale is interrupted in the middle.



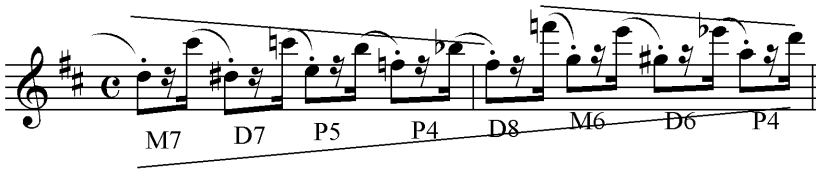
Example 3. 10. No. 26, in B minor, m. 9.

Descending chromatic scale in minor seconds and major seconds.



Example 3. 11. No. 26, in B minor, mm. 16-17.

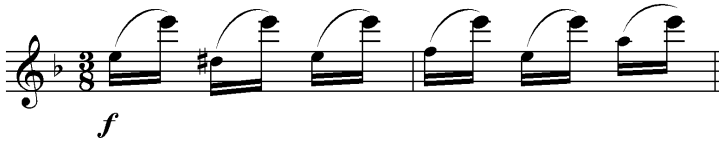
Chromatic scales are presented in a two-voice texture with diminished intervals in contrary motion



Passages with pedal points:

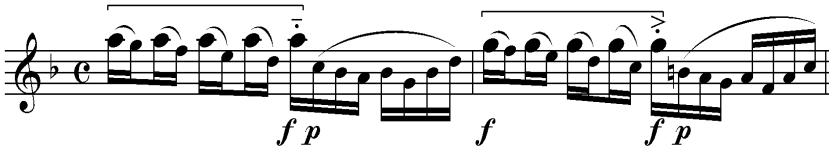
Example 3. 12. No. 2, in D minor, mm. 27-28.

On the off beat in the upper voice.



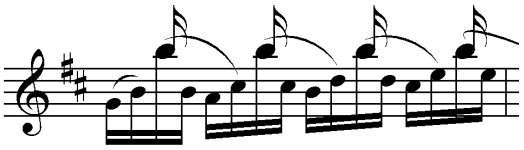
Example 3. 13. No. 3, in F major, mm. 5-6

On the down beat in the upper voice.



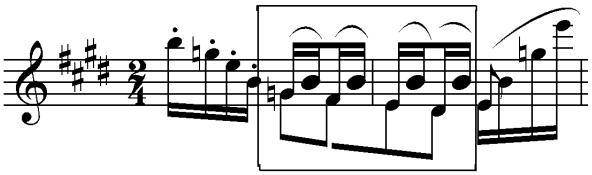
Example 3. 14. No. 5, in D major, m. 22.

On the third note of groups of sixteenths.



Example 3. 15. No. 19, in E major, mm. 11-12.

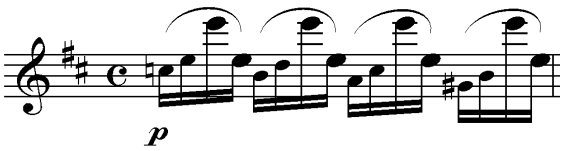
On the off beats in groups of sixteenth notes.



<u>In ostinato passages:</u>

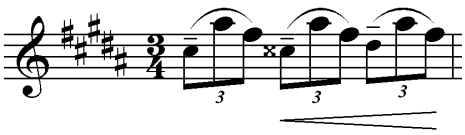
Example 3. 16. No. 5, in D major, m. 7.

Thirds in a descending scale.



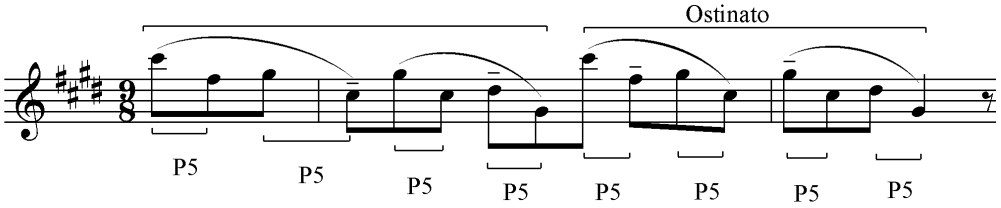
Example 3. 17. No. 21, in B major, m. 13.

In a chromatic linear progression.



Example 3. 18. No. 27, in E major, mm. 2-4.

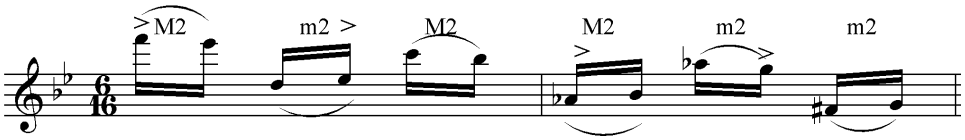
In perfect fifths, slurred with tenuto. Tenutos are on the beats while the slurs are four-note groupings.



In a two-voice texture:

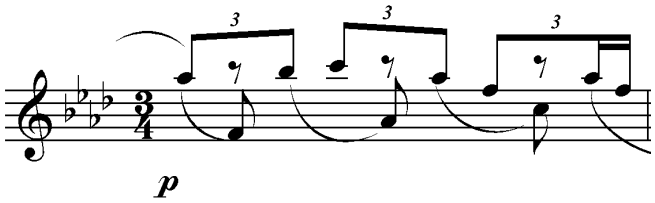
Example 3. 19. No. 15, in B-flat major, mm. 25-26.

With appoggiaturas; the slurs and accents imply two metrical patterns; the passage is grouped as 2+2+2 by slurs, but as 3+3 by accents.



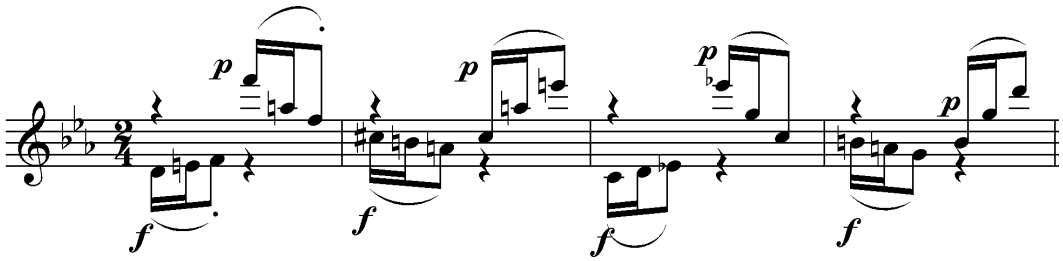
Example 3. 20. No. 30, in F minor, m. 21.

A hopping passage in the style of melody and accompaniment.



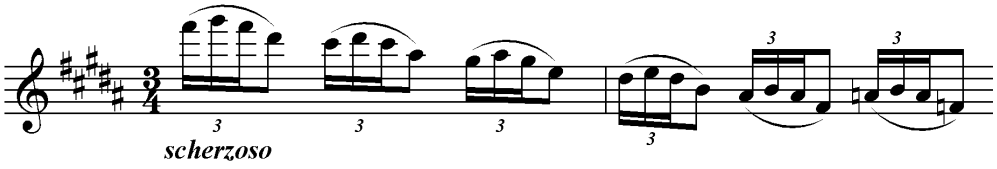
Example 3. 21. No. 13, in E-flat major, mm. 21-24.

Notated antiphonally in two contrasting voices.



<u>In an ornamented passage:</u>

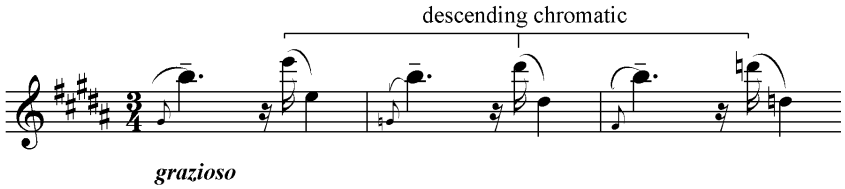
Example 3. 22. No. 21, in B major, mm. 36-37.



In dotted rhythms:

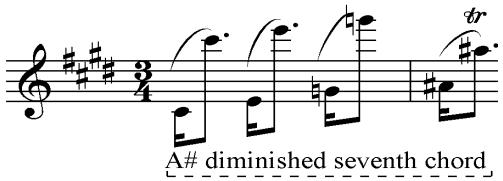
Example 3. 23. No. 21, in B major, mm. 9-11.

Pedal point with grace notes.



Example 3. 24. No. 23, in C-sharp minor, mm. 12-13.

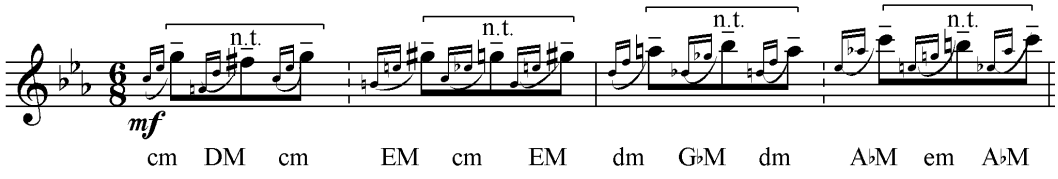
Two-octave skips; the Scotch Snap rhythm is adopted in a chord passage.



In combination:

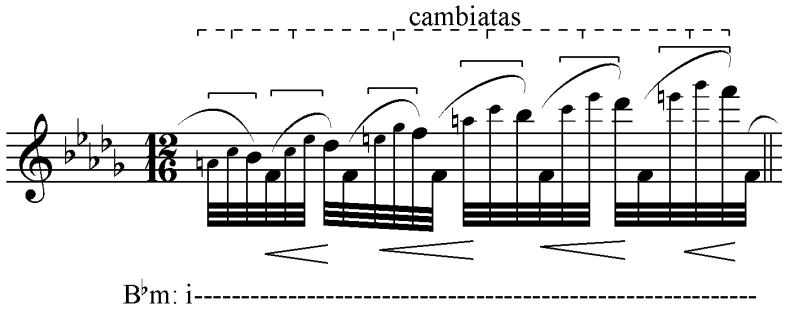
Example 3. 25. No. 25, in C minor, mm. 1-2.

A passage moves with upper or lower neighboring tones; the main notes are ornamented by broken chords.



Example 3. 26. No.28, in B-flat minor, m. 15.

A B-flat minor chord in arpeggio style elaborated by cambiatas, and the fifth of the B-flat minor chord is emphasized in the lower voice as a pedal point.

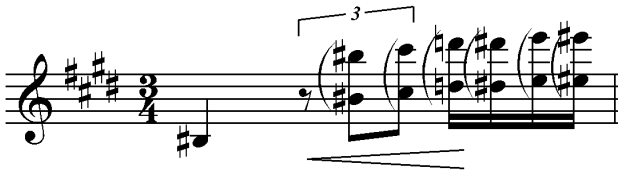


b. Applied to Multiple Rhythmic Patterns

In octaves:

Example 3. 27. No. 23, in C-sharp minor, m. 16.

An imitation of violinistic double stops.

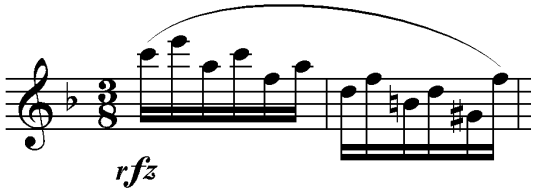


B. Long Slurs

a. Applied to a Single Rhythmic Pattern

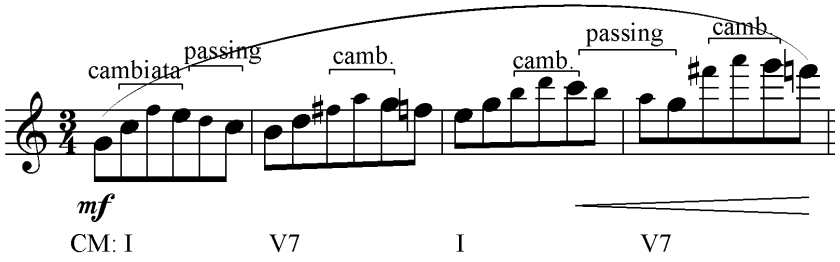
In broken chord passages:

Example 3. 28. No. 2, in D minor, mm. 13-14.



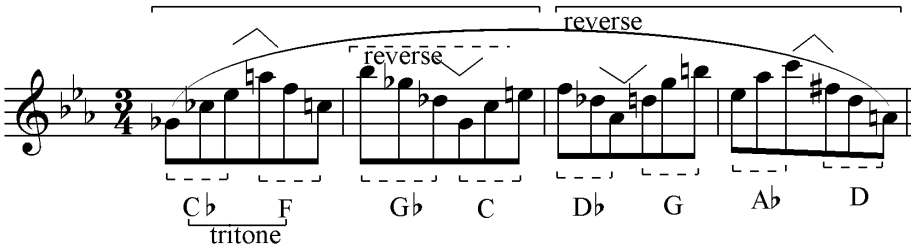
Example 3. 29. No. 4, in C major, mm. 1-4.

With non-harmonic tones.



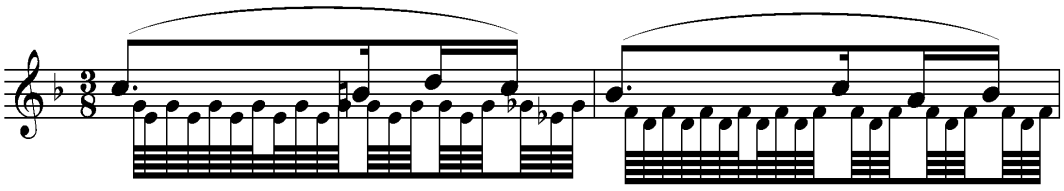
Example 3. 30. No. 6, in C minor, mm. 34-37.

In a series of major triads; the second measure is a reverse of the first measure, and the second period in the passage of the third and fourth measures is a reverse of the first period.



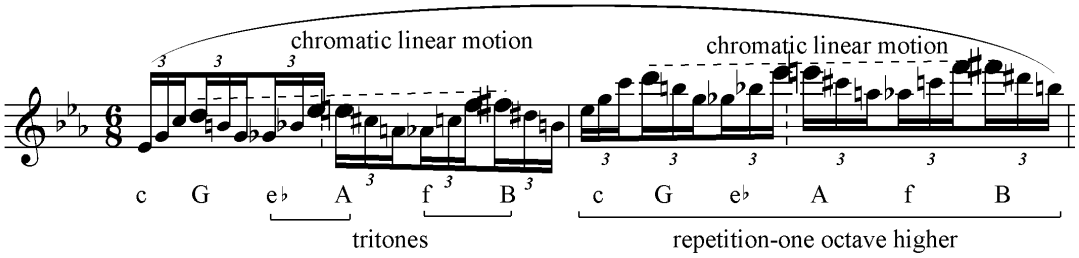
Example 3. 31. No. 18, in D minor, mm. 5-6.

In the style of melody and accompaniment.



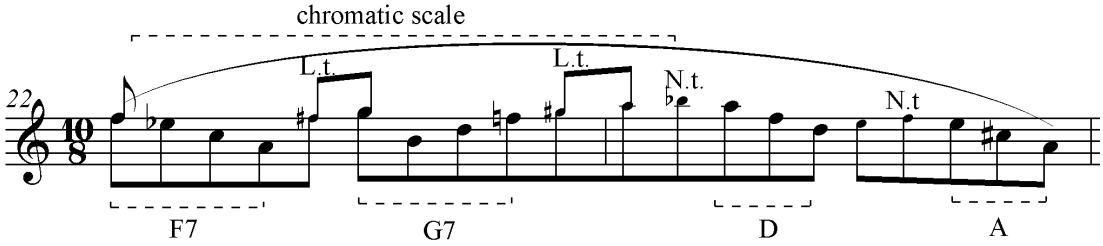
Example 3. 32. No. 25, in C minor, mm. 18-19.

This passage is constructed from an alternation of minor and major chords that move in chromatic linear motion.



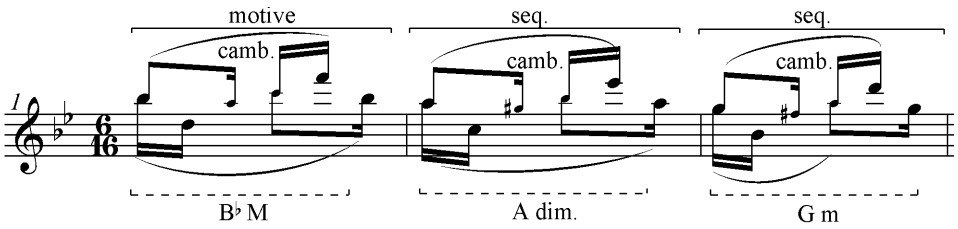
Example 3. 33. No. 7, in A minor, mm. 22-23.

Broken chords elaborated by non-harmonic tones; five eighth notes as a group; chromatic linear motion is notated by Karg-Elert.



Example 3. 34. No. 15, in B-flat major, mm.1-3.

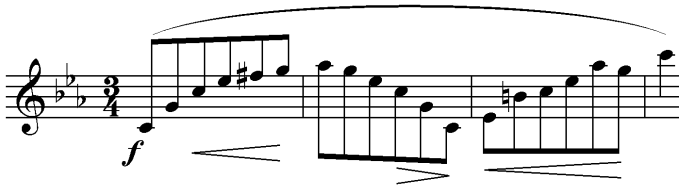
Broken chords elaborated with non-harmonic tones in a two-voice texture.



In scales:

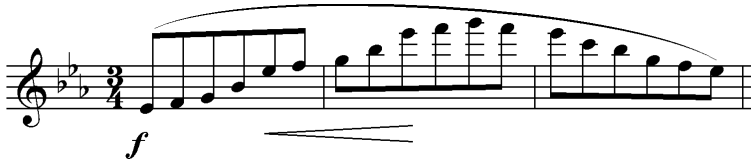
Example 3. 35. No. 6, in C minor, mm. 1-4.

In a hexatonic scale, C, E-flat, F-sharp, G, A-flat, B.



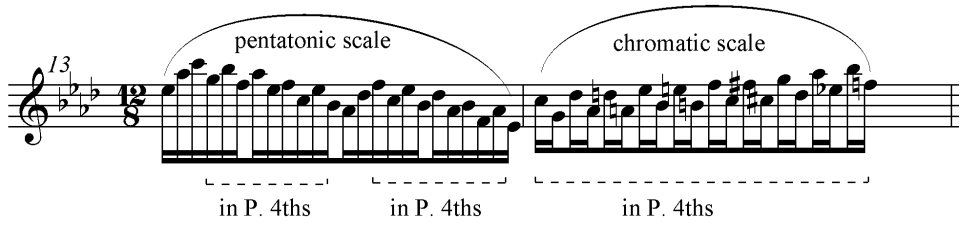
Example 3. 36. No. 6, in C minor, mm. 18-20.

In a pentatonic scale, E-flat, F, G, B-flat, C.



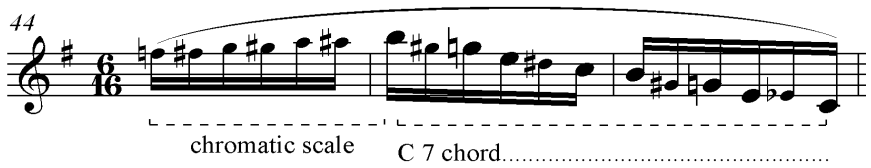
Example 3. 37. No. 17, in A-flat major, mm. 13-14.

An intervallic exercise, in which a succession of the perfect fourths is utilized in this passage: measure thirteen contains a pentatonic scale, while measure fourteen contains a chromatic one.



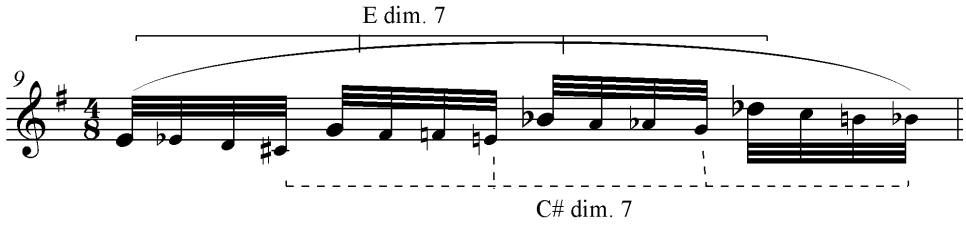
Example 3. 38. No. 9, in G major, mm. 44-46.

A C seventh chord is elaborated with chromatic notes.



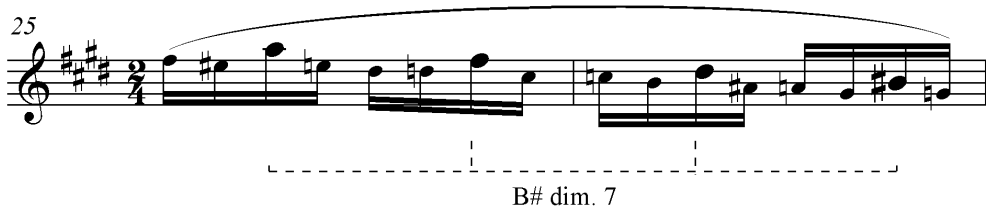
Example 3. 39. No. 12, in G major, m. 9.

A diminished seventh chord is elaborated with an interrupted chromatic scale.



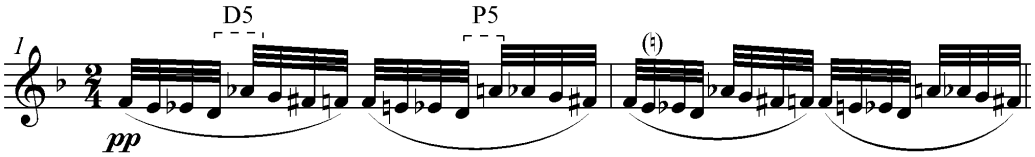
Example 3. 40. No. 19, in E major, mm. 25-26.

A chromatic scale is interrupted by a B-sharp diminished seventh chord.



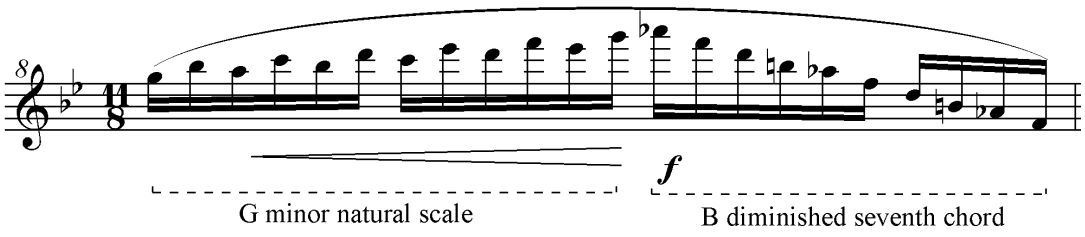
Example 3. 41. No. 22, in D minor, m. 1.

This interrupted chromatic scale contains two intervallic exercises illustrating diminished and perfect fifths.



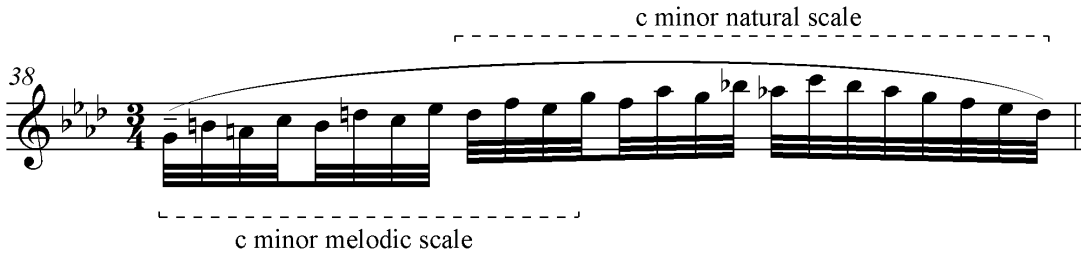
Example 3. 42. No. 16, in G minor, m. 8.

A G minor natural scale and an arpeggiated B diminished chord.



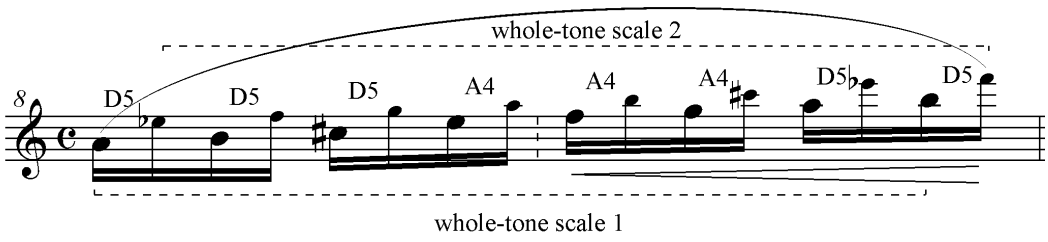
Example 3. 43. No. 30, in F minor, m. 38.

A C minor scale in thirds; in the forms of melodic and natural scales.



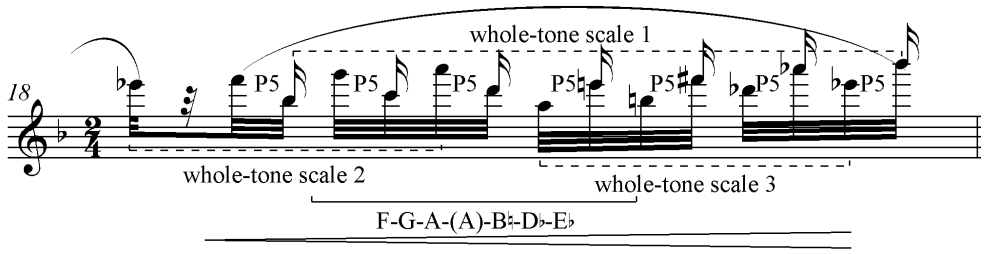
Example 3. 44. No. 20, in whole-tone scale, m. 8.

Tritone exercise; two whole-tone scales are a tritone apart which produce a succession of tritones (diminished fifths, or augmented fourths).



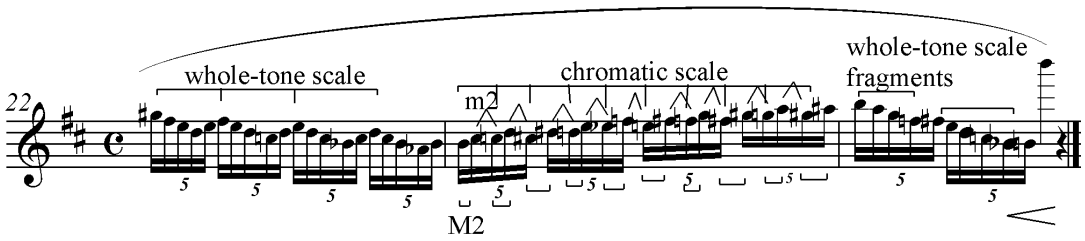
Example 3. 45. No. 22, in D minor, m. 18.

Whole-tone scales are notated in a two-voice texture in perfect fifths. The first tetrachord of the higher scale starts on E-flat. At the completion of the tetrachord, there is an octave transfer of A, after which the second tetrachord of the scale continues. The octave transfer on the second beat of measure eighteen allows scale 1 to shift from the lower to the upper scale.



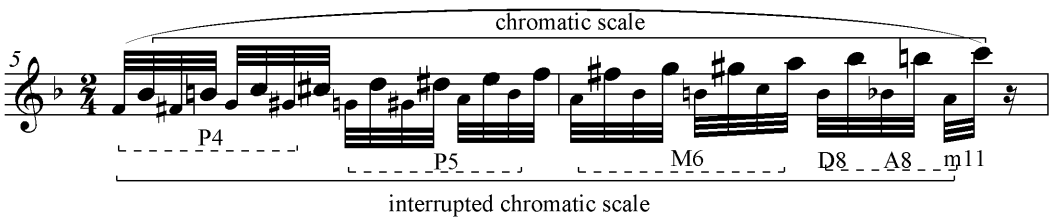
Example 3. 46. No. 26, in D minor, mm. 22-24.

This quintuplet passage is an intervallic exercise of major seconds; measures twenty-two and twenty-four are based on whole-tone scale tetrachords; in measure twenty-three, rising major seconds are interrupted by a descending minor second.



Example 3. 47. No. 22, in D minor, mm. 5-6.

An exercise of extended intervals (from perfect fourths to elevenths); this passage is based on two chromatic scales.

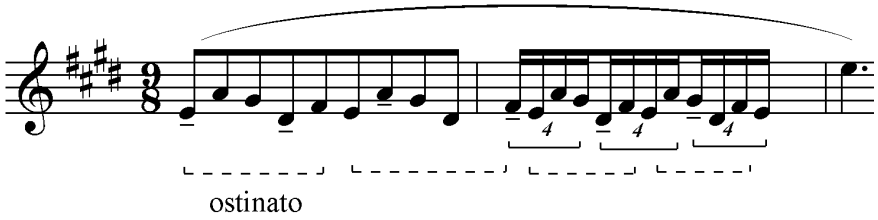


b. Applied to Multiple Rhythmic Patterns

<u>In an ostinato passage:</u>

Example 3. 48. No. 27, in E major, mm. 31-33.

A five-note ostinato is utilized in two kinds of metrical patterns; beats are emphasized by tenutos.



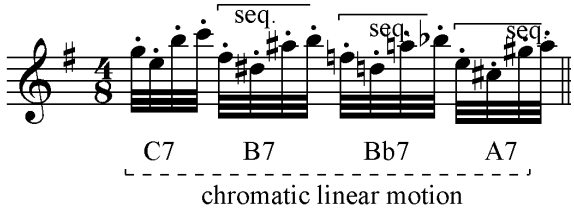
C. All Staccato

a. Applied to a Single Rhythmic Pattern

In broken chord passages:

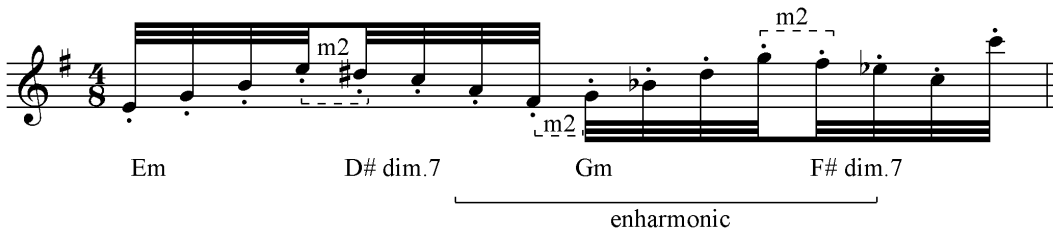
Example 3. 49. No. 12, in G major, m. 4.

Broken chords move in chromatic linear motion.



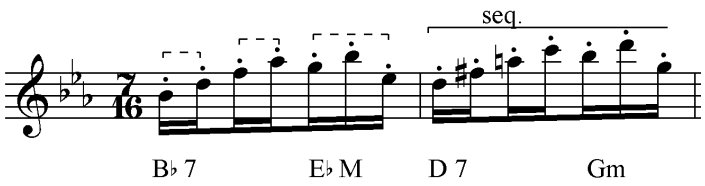
Example 3. 50. No. 14, in E minor, m. 1 and m. 3.

Minor and diminished seventh chords in alternation.



Example 3. 51. No. 24, in E-flat major, mm. 1-2.

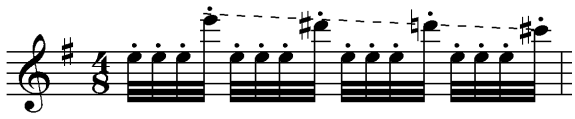
Dominant seventh chords resolve to tonic chords; the metrical grouping of the motive is 2+2+3.



In a pedal point passage:

Example 3. 52. No. 12, in G major, m. 10.

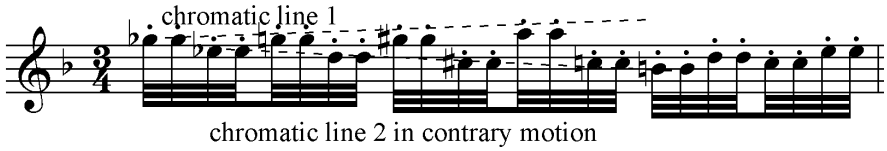
A passage outlining a descending chromatic scale.



In a chromatic passage:

Example 3. 53. No. 30, in F minor, m. 49.

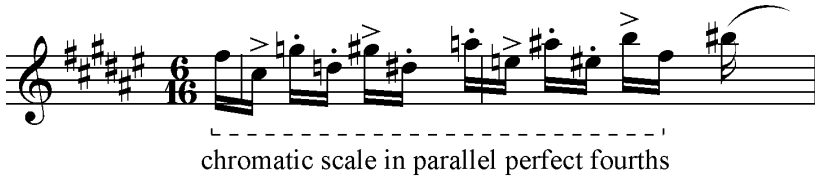
Two chromatic scales move in contrary motion.



In parallel motion:

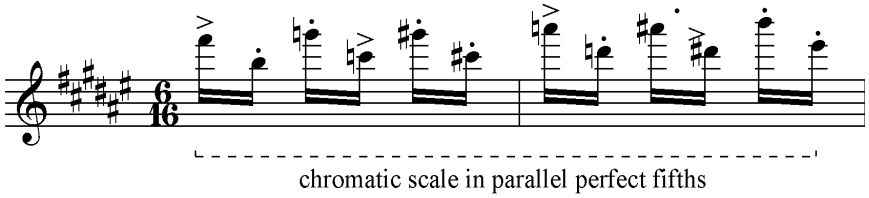
Example 3. 54. No. 29, in F-sharp major, mm. 20-22.

A chromatic scale in perfect fourths.



Example 3. 55. No. 29, in F-sharp major, mm. 31-32.

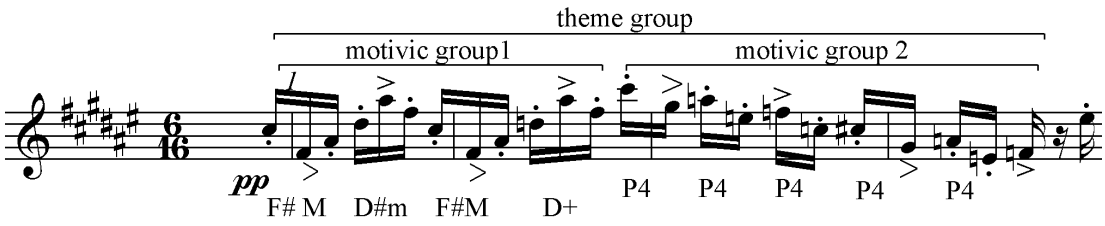
A chromatic scale in perfect fifths.



In combination:

Example 3. 56. No. 29, in F-sharp major, mm. 1-4.

The theme contains two motivic groups; the first group is constructed from four broken triads, while the second group uses dyads of the fourth.



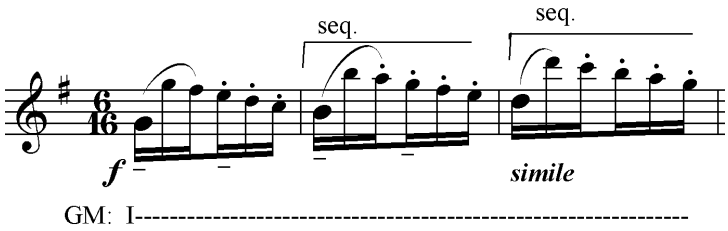
D. Mixture (Slurs and Staccatos)

a. Applied to a Single Rhythmic Pattern

In scales:

Example 3. 57. No. 9, in G major, mm. 1-3.

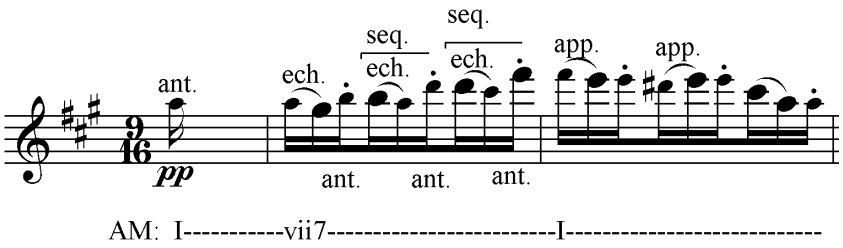
Scales outline a single harmony.



In chords:

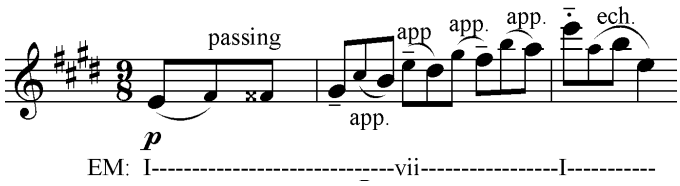
Example 3. 58. No. 10, in A major, mm. 1-2.

A motive in hopping style; chords are ornamented by non-harmonic tones.



Example 3. 59. No. 27, in E major, mm. 1-2.

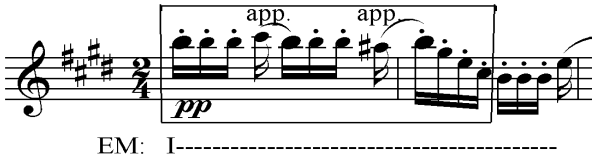
Chords with non-harmonic tones.



In a pedal point passage:

Example 3. 60. No. 19, in E major, mm. 1-2.

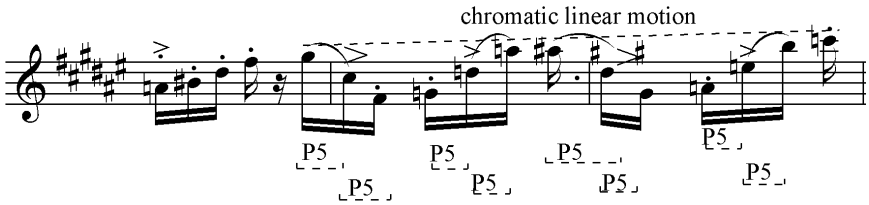
On a single chord with appoggiaturas.



In fifths:

Example 3. 61. No. 29, in F-sharp major, mm. 8-10.

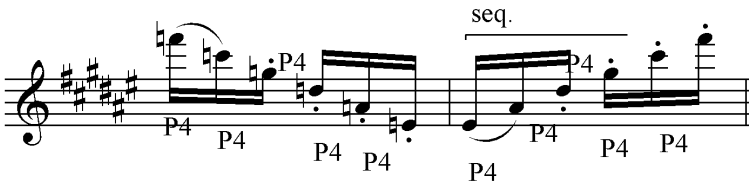
An intervallic exercise of the perfect fifth; three sixteenth notes form a motivic unit, and each unit is constructed of a dyad of perfect fifths, but accents on the beat contradict the grouping.



In perfect fourths:

Example 3. 62. No. 29, in F-sharp major, mm. 33-34.

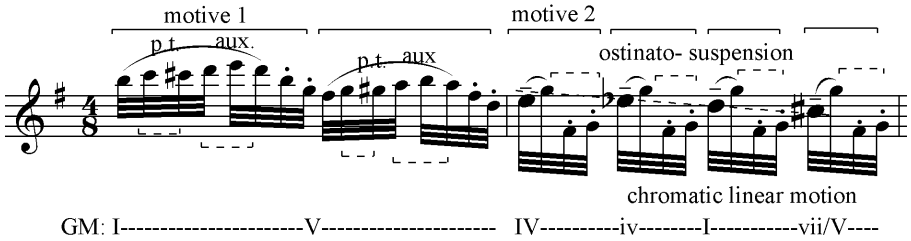
An imitation of the violin springing bow; the passage is constructed of a succession of the perfect fourths; measure thirty-four is a sequence of measure thirty-three in contrary motion.



In combination:

Example 3. 63. No. 12, in G major, mm. 1-2.

In measure one, the G major chord is elaborated on by passing and auxiliary tones; in the second measure, the ostinato in both the upper and lower voices creates a suspension while the melodic line in the middle moves chromatically.

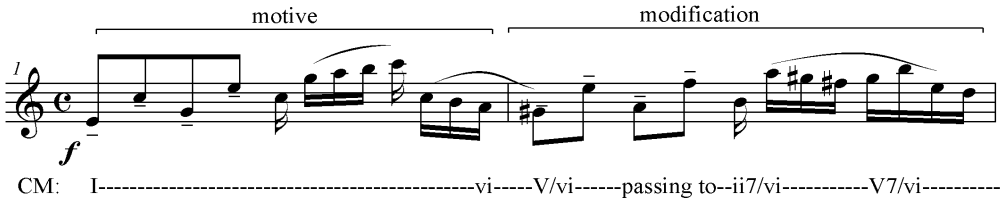


b. Applied to Multiple Rhythmic Patterns

In broken chord styles:

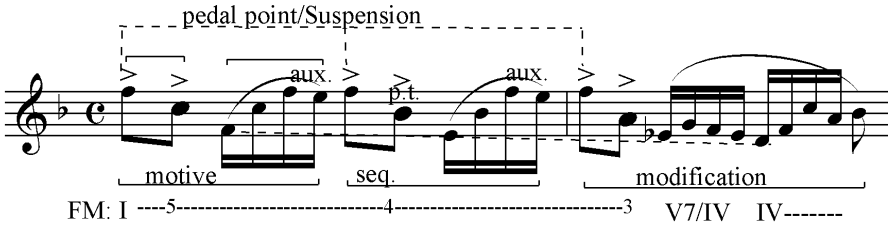
Example 3. 64. No. 1, in C major, m. 1.

Measure two is a modification of measure one; it is articulated differently as well.



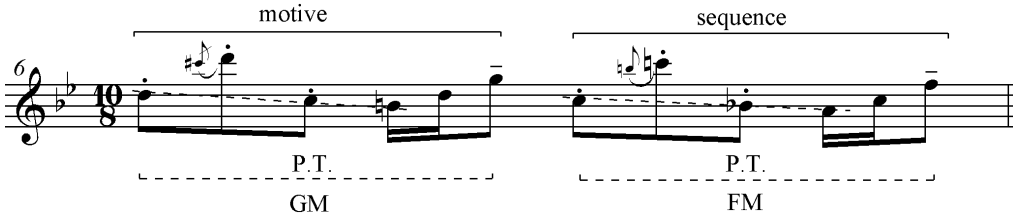
Example 3. 65. No. 3, in F major, m. 1-2.

Broken chords are connected with non-harmonic tones.



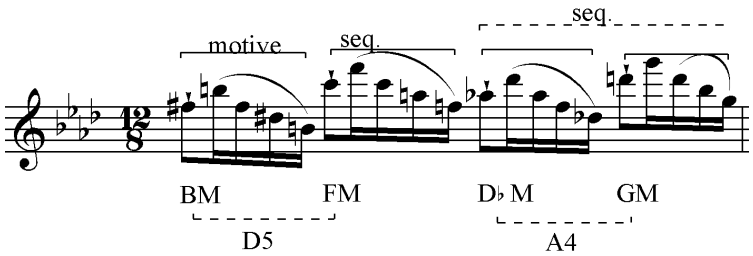
Example 3. 66. No. 16, in G minor, m. 6.

Broken chords are ornamented with non-harmonic tones.



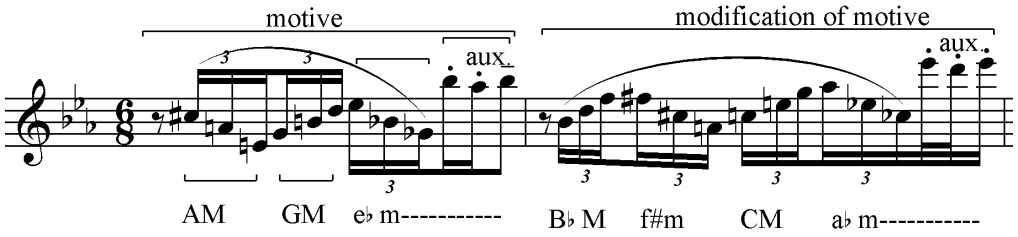
Example 3. 67. No. 17, in A-flat major, m. 8.

The motive is developed through sequences; the first sequence answers the motive by rising a diminished fifth; the second half the measure is also a sequence of the first half one step higher.



Example 3. 68. No. 25, in C minor, mm. 5-6.

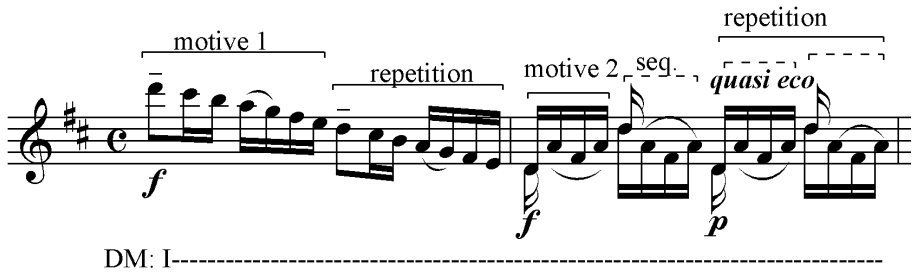
The motive is constructed from broken triads in triplets and is completed by an auxiliary note on the last beat; the second measure modifies the motive with an added triplet broken chord and a shortened auxiliary note.



In combination:

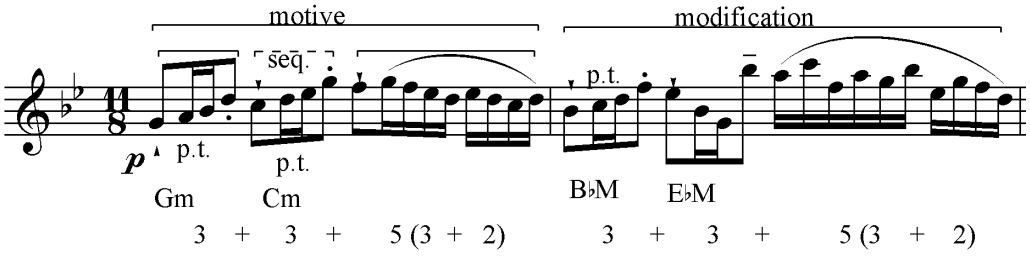
Example 3. 69. No. 5, in D major, mm. 1-2.

The phrase begins with a major scale as the first motive and continues with the broken D-major triad as the second motive in a two-voice texture; the second part of each measure is a repetition of the first.



Example 3. 70. No. 16, in G minor, mm. 1-2.

The motive consists of two parts. The first part is an arpeggiated triad with a passing tone that is repeated a fourth higher; the second part is based on a descending natural minor scale. The 11/8 meter is grouped as 3+ 3+ 5(3+2) in both measures.



As a German composer and organ virtuoso, Karg-Elert was influenced by a logical and constructive composing style from Johann Sebastian Bach. He also imitated the compositional techniques of developing short motives of Ludwig van Beethoven. It has been shown that Karg-Elert used very short and simple figures as motivic cells, and logically developed them into more complex transformations. These cells are developed by featuring a specific interval, scale, chord, or a combination of elements, in order to fulfill the didactic function of the *Thirty Caprices*. Although some of the melodies seem to lack an aesthetic sense for seamless repetitions and sequences, as written in the preface, the goal of the *Thirty Caprices* is to help the flutist in developing the capability of analyzing the musical construction logically from a series of notes. Therefore, it is sometimes difficult to identify the original motive, since Karg-Elert usually ornamented the motive with non-harmonic tones, non-diatonic scales, or parallel intervals. Thus, it is important to discover the essential motive before practicing these caprices. By studying these logical compositions, the performer will gradually develop his analytical capability to identify the motive and secondary modifications; and moreover, to improve his reading ability and technical proficiency.

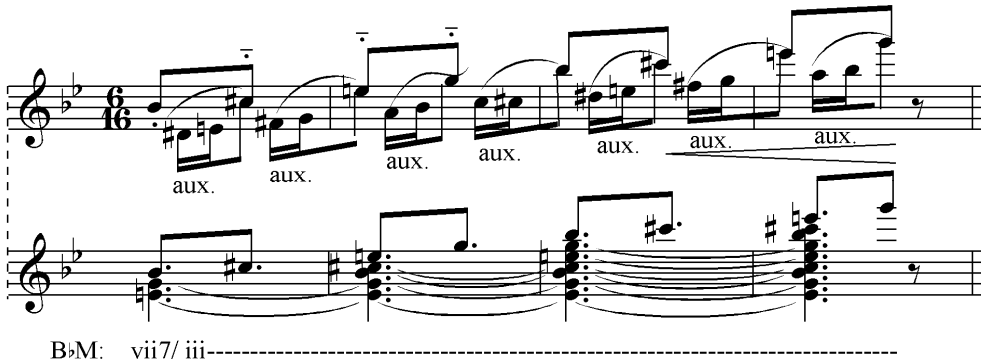
Harmony

The *Thirty Caprices* demonstrate Karg-Elert's harmonic invention although it stays well within the norm of the period. Karg-Elert used a diverse chord vocabulary including sevenths, ninths, secondary sevenths, augmented sixths, and Neapolitan sixths, as well as borrowed notes, added-notes, and augmented, diminished, and half-diminished chords. The use of a chromatic melodic line hidden in the harmonic progressions is an important characteristic of his composing technique. Although composing for a single melodic instrument, such as the flute, he usually presented the full chord, utilizing a range as wide as possible with ornamentations. The resulting sonority is rich and brilliant. Karg-Elert did not hesitate to use a succession of all permutations of the seventh chords, especially in transitions or for creating an impact. Influenced by the unorthodox usage of harmonic colors of Debussy and Scriabin, Karg-Elert was fond of experimenting with exotic sonorities. This is obvious in his use of pentatonic, hexatonic, and whole-tone scales, as well as the tritone. In addition, triads and other chords are added by many non-harmonic tones and non-diatonic scales. These decorative notes sometimes cause difficulty in identifying the main chord. Here are some harmonic examples from the *Thirty Caprices*:

1. Diminished seventh chords:

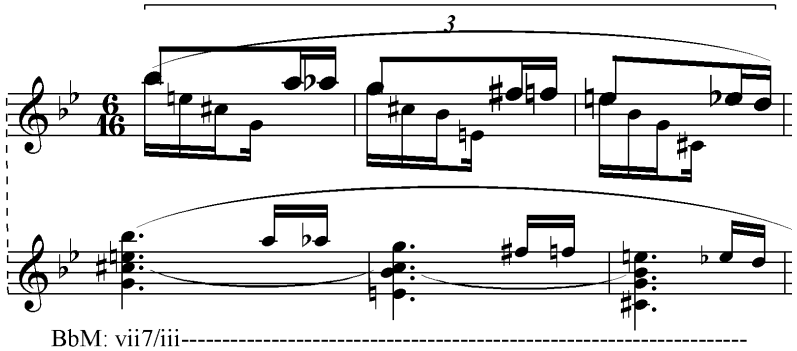
Example 3. 71. No. 15, in B-flat major, mm. 27-30.

The inversions of a C-sharp diminished seventh chord are elaborated on by auxiliary tones; the C-sharp diminished seventh chord is prolonged for four measures and creates a suspended sonority.



Example 3. 72. No. 15, in B-flat major, mm. 39-41.

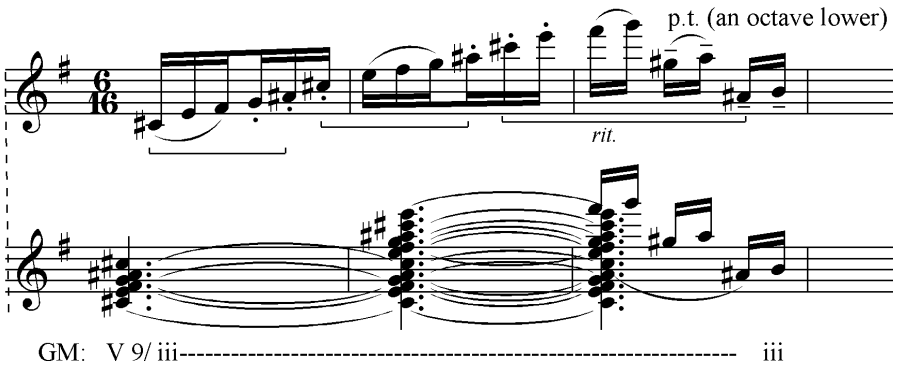
Inversions of the diminished seventh chord are elaborated by a descending chromatic line.



2. Ninth chord:

Example 3. 73. No. 9, in G major, mm.47-50.

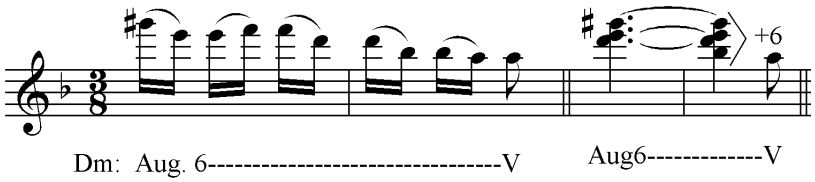
The ninth chord root F-sharp repeats in different registers; the last group is elaborated on by the passing tones, G, A-natural, and B.



3. Augmented sixths:

Example 3. 74. No. 2, in D minor, mm. 42-43.

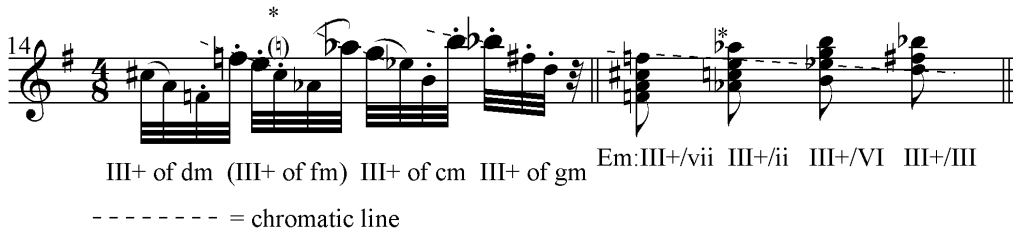
The augmented sixth chord resolves to dominant chord.



4. Augmented and diminished triads:

Example 3. 75. No. 12, in E minor, m. 14.

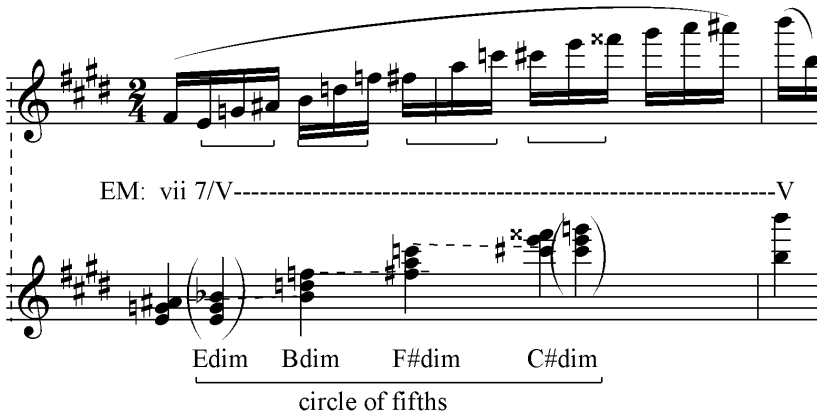
A succession of augmented triads is elaborated on by chromatic linear motion.



* A probable error for C# note in the second beat; the chord apparently should be a natural on C.

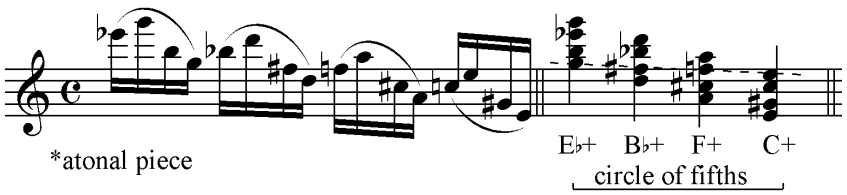
Example 3. 76. No. 19, in E major, mm. 38-39.

A chromatic leading line reflects a succession of diminished triads and circle of fifths relations.



Example 3. 77. No. 20, in whole-tone scale, m. 21.

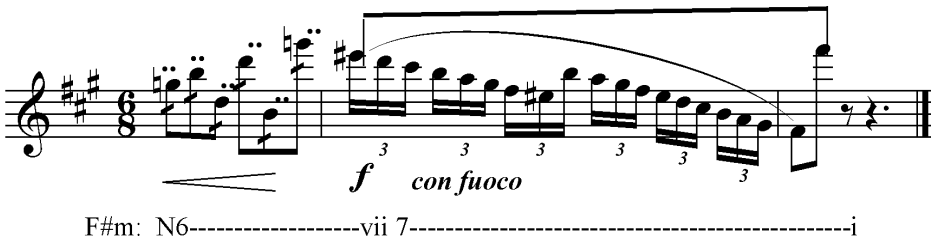
A succession of augmented triads moves in chromatic linear motion and in a circle of fifths.



5. Borrowed and altered chords:

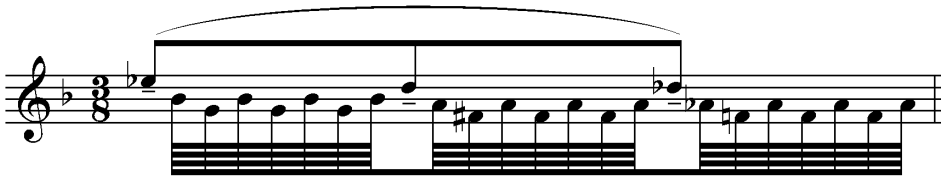
Example 3. 78. No. 11, in F-sharp minor, m. 30.

A Neapolitan sixth chord is presented in broken leaping style.



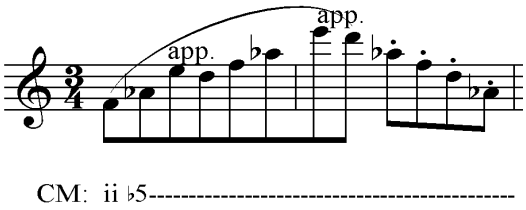
Example 3. 79. No. 18, in D minor, m.3.

Chromatic linear motion is created by a Neapolitan sixth, and borrowed and altered chords; the last chord is a respelled major triad of E-sharp, G-sharp, C-sharp.



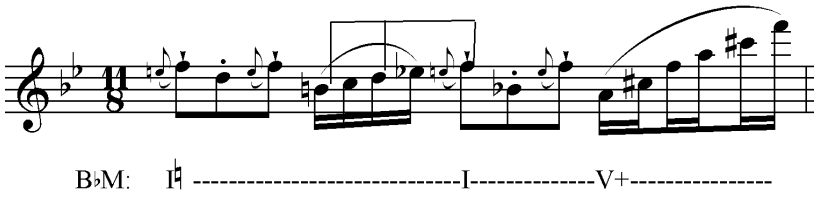
Example 3. 80. No. 4, in C major, m. 12.

D minor chord in C major is altered with a flatted fifth note.



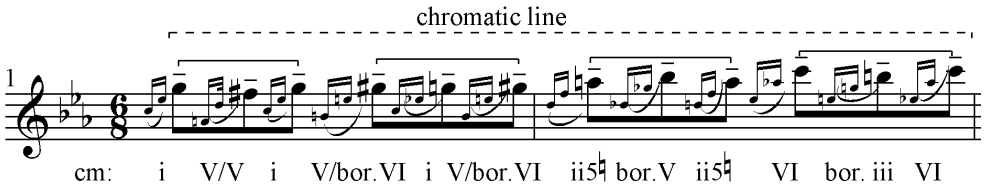
Example 3. 81. No. 16, in B-flat major, m. 11.

B diminished triad is presented in B-flat major; and the dominant chord is altered with a sharp fifth note.



Example 3. 82. No. 25, in C minor, mm.1-2.

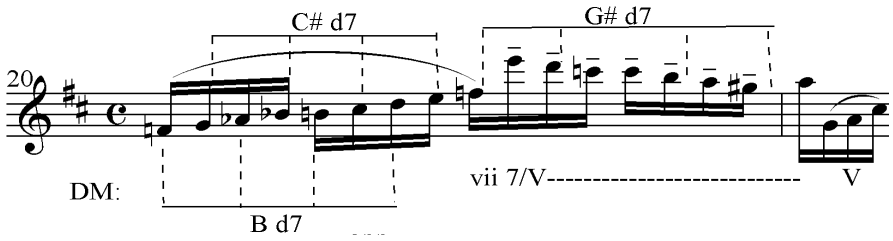
A chromatic line is harmonized exotically.



6. Polychords:

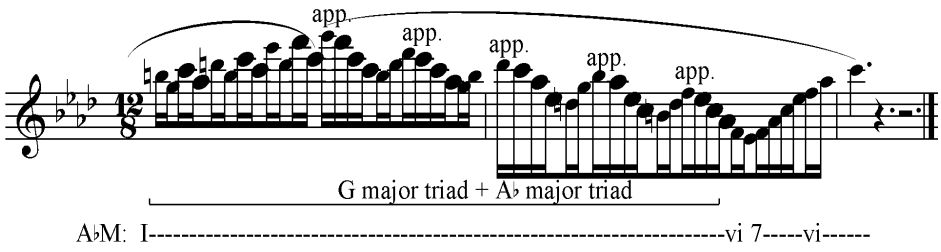
Example 3. 83. No. 5, in D major, m. 20.

A mixture of C-sharp diminished seventh and B diminished seventh chords.



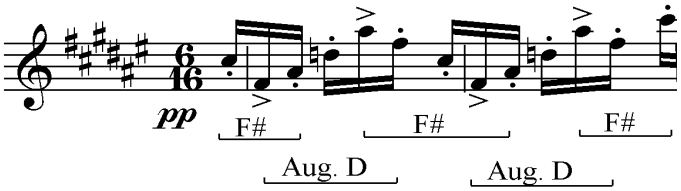
Example 3. 84. No. 17, in A-flat major, mm. 15-17.

A mixture of an A-flat major triad and a G major triad is ornamented with non-harmonic tones.



Example 3. 85. No. 29, in F-sharp major, mm.1-2.

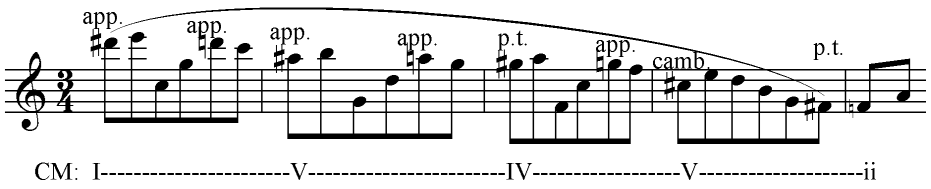
F-sharp major and Augmented D triads are juxtaposed; metrical groupings and beats suggest the change of chords.



7. Ornamented chords:

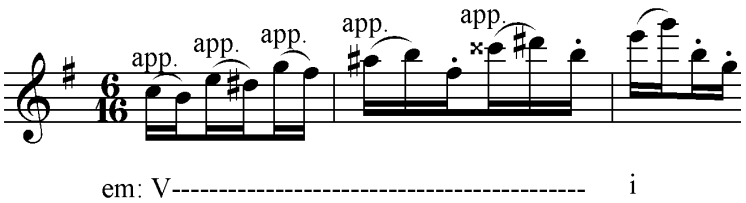
Example 3. 86. No. 4, in C major, m.5.

The harmonic progression is ornamented by appoggiaturas, cambiatas, and passing tones.



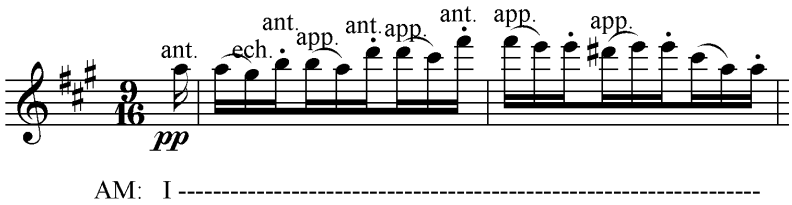
Example 3. 87. No. 9, in E minor, mm. 34-35.

The dominant chord is ornamented by appoggiaturas.



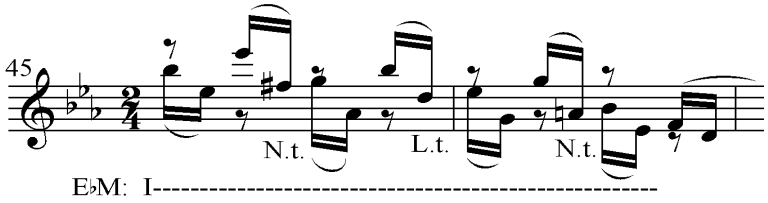
Example 3. 88. No. 10, in A major, mm.1-2.

A major chord is elaborated with anticipations, an echappee, and appoggiaturas.



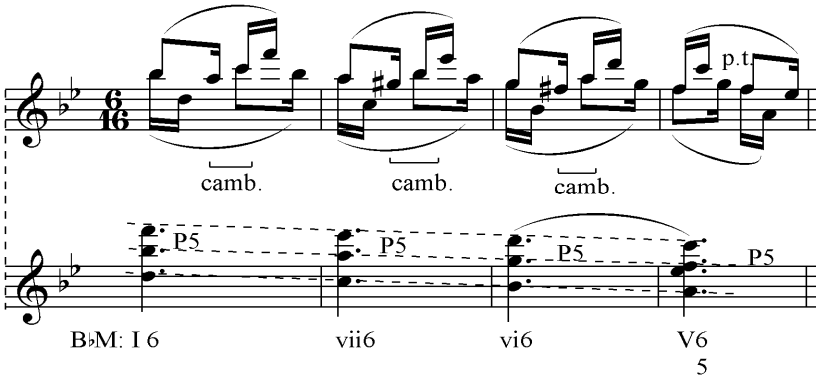
Example 3. 89. No. 13, E-flat major, mm. 45-46.

The E-flat triad is presented in a two-voice texture, elaborated on by lower neighbors and a leading tone.



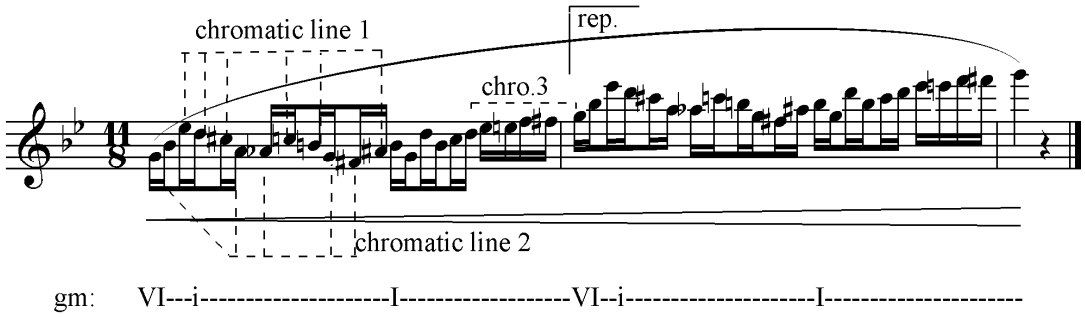
Example 3. 90. No. 15, in B-flat major, mm. 1-4.

Chords move in a parallel descending linear motion with cambiatas and passing tone.



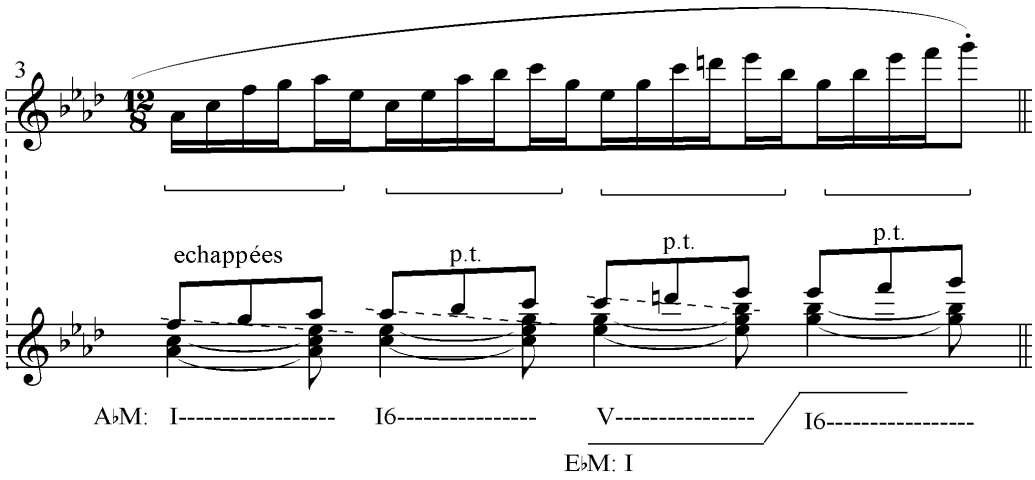
Example 3. 91. No. 16, in G minor, mm. 15-17.

Chords are ornamented chromatically; chromatic lines 1 and 2 also belong to the same descending chromatic scale from E-flat to G.



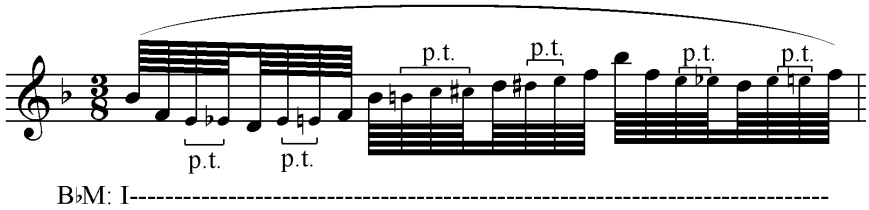
Example 3. 92. No. 17, in A-flat major, m. 3.

Chords are elaborated on by non-harmonic tones; there are three pairs of descending figures, F to E-flat, A-flat to G, and C to B-flat.



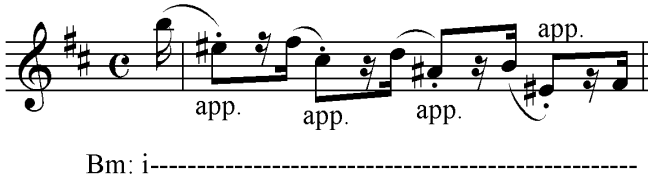
Example 3. 93. No. 18, in B-flat major, m. 11.

The B-flat triad is ornamented with chromatic passing tones.



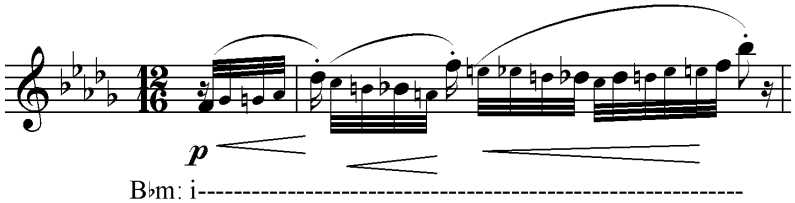
Example 3. 94. No. 26, in B minor, m. 1.

The tonic chord is ornamented by appoggiaturas, starting from the up beat.



Example 3. 95. No. 28, in B-flat major, mm. 1-2.

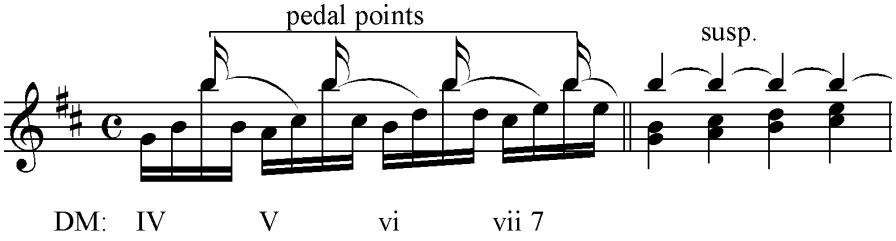
The B-flat minor triad is elaborated on by chromatic scales.



8. Pedal points as suspensions:

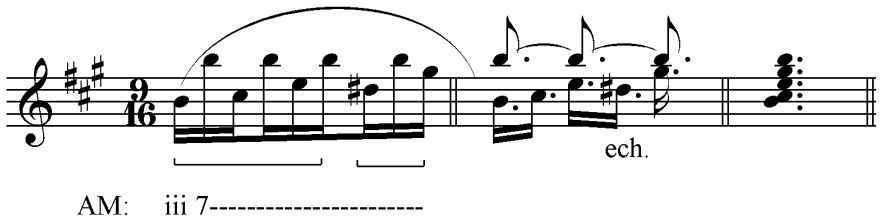
Example 3. 96. No. 5, in D major, m.22.

The harmonic progression is presented in an ascending linear motion with a suspended B note in the high register.



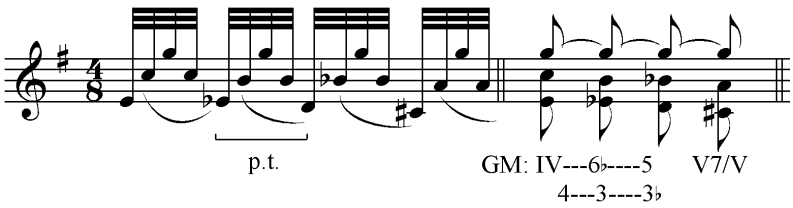
Example 3. 97. No. 10, in A major, m. 13.

The C-sharp half-diminished seventh chord contains an echappée note with a suspended seventh note.



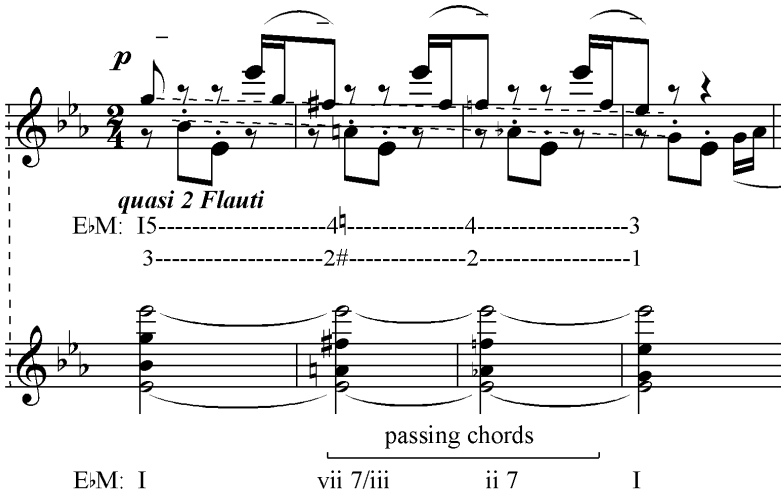
Example 3. 98. No. 12, in G major, m. 22.

Two chords are connected by chromatic passing chords.



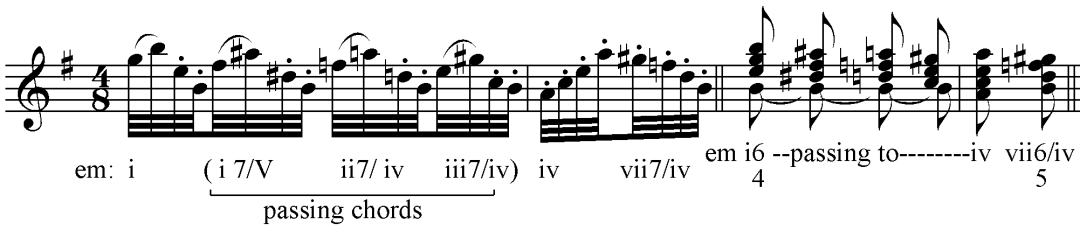
Example 3. 99. No. 13, in E-flat major, mm.1-4.

The tonic chord has chromatic passing chords in between; the suspended root of the tonic occupies the bass and top lines.



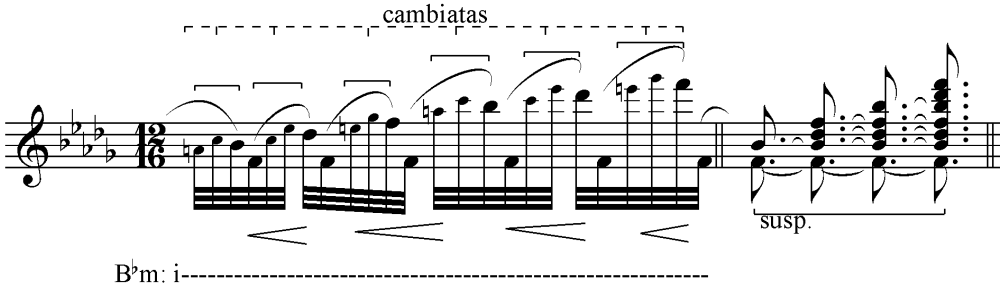
Example 3. 100. No. 14, in E minor, m.2.

An E minor to A minor progression, with passing chords in a chromatic linear motion.



Example 3. 101. No. 28, in B-flat minor, m. 15.

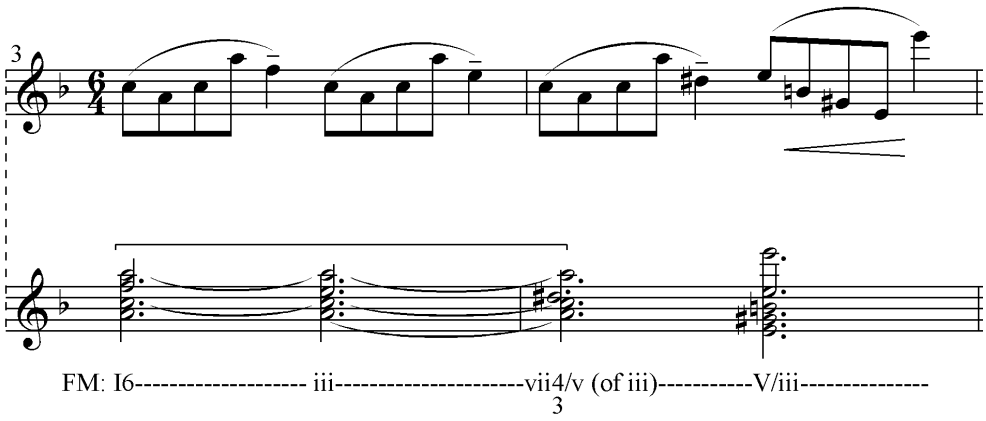
The B-flat minor triad is elaborated by cambiatas.



9. Ostinato as Suspension:

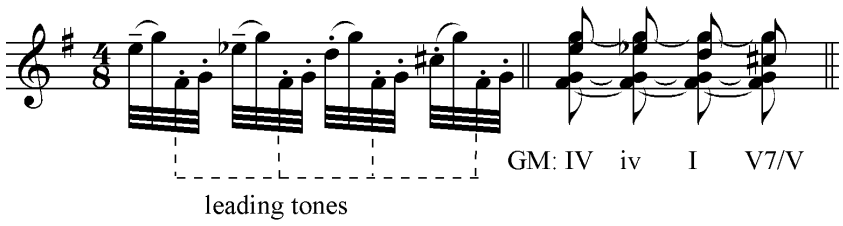
Example 3. 102. No. 8, in F major, mm. 3-4.

The ostinato serves as the suspended base; the melodic line is hidden inside of the chords.



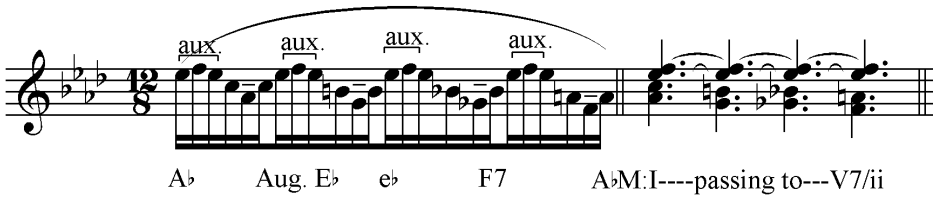
Example 3. 103. No. 12, in G major, m. 2.

The chords appear in chromatic linear motion; these chords have the same chord notes, G, and leading tones, F-sharp.



Example 3. 104. No. 17, in A-flat major, m. 1.

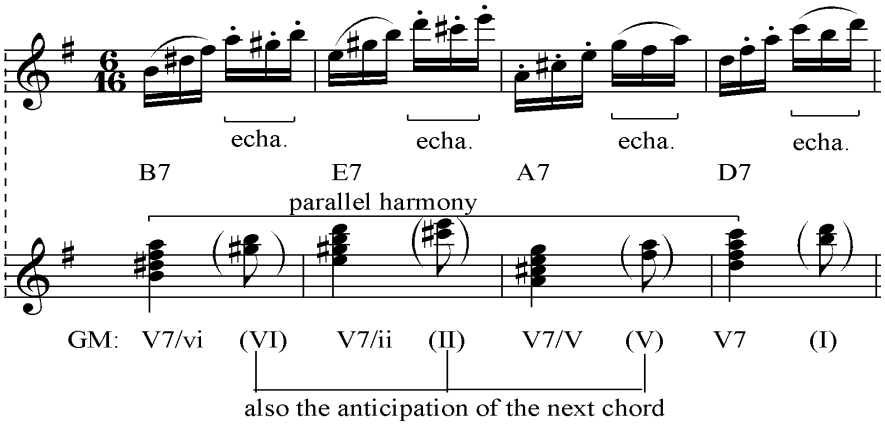
Two chords are connected by passing chords in chromatic linear motion with the same chord notes, E-flat, and auxiliary tones, F.



10. Circle of the fifths:

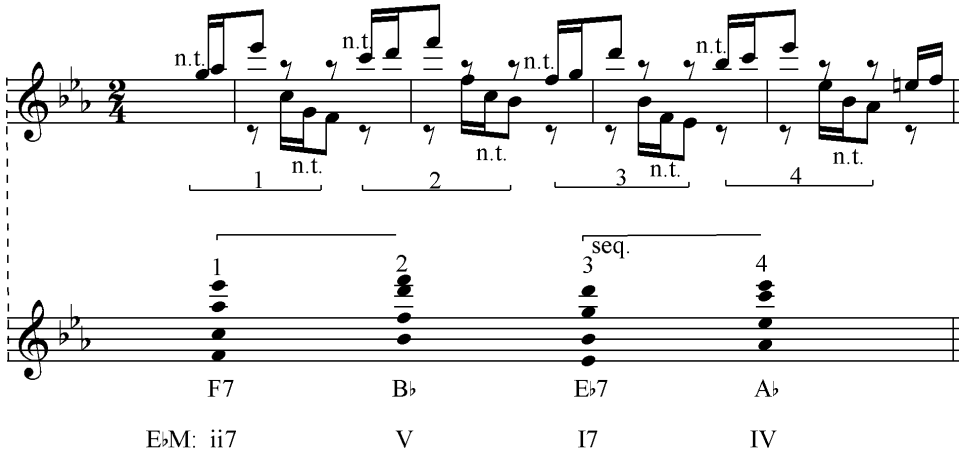
Example 3. 105. No. 9, in G major, mm. 9-12.

Four pairs of dominant seventh chords resolve to tonic chords in circle of fifths, B-E-A-D; the echappée groups perform two harmonic functions; one is the resolving chord without roots, and the other is the anticipation of the next dominant seventh chord.



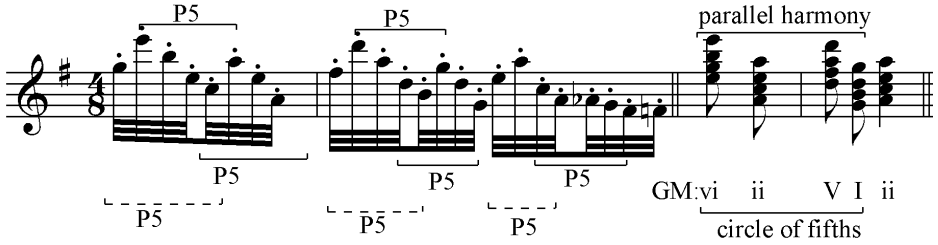
Example 3. 106. No. 13, in E-flat major, mm.32-36.

This passage is presented in a two-voice texture; the chords are ornamented with upper or lower neighbor tones.



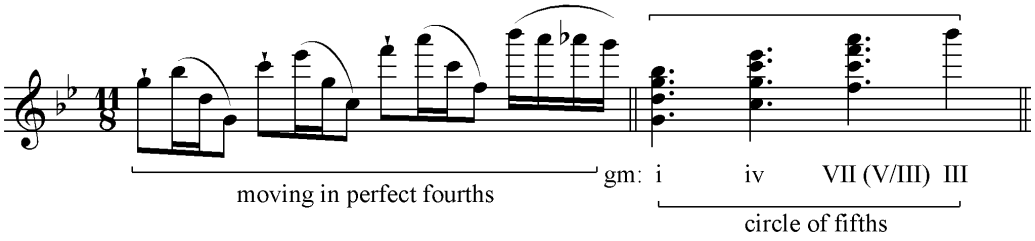
Example 3. 107. No. 14, in E minor, mm. 17-18.

The circle of fifths is adopted for a parallel harmonic progression; the chords move in perfect fifths linearly.



Example 3. 108. No. 16, in G minor, m. 13.

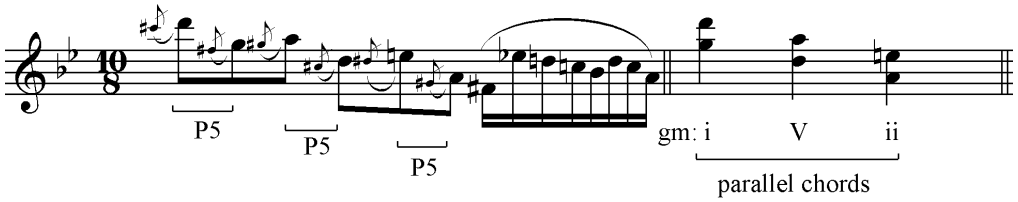
The circle of the fifths moves in ascending parallel motion.



11. Parallel fifths:

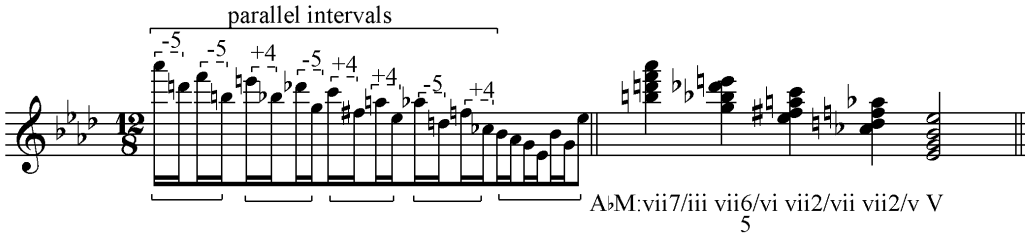
Example 3. 109. No. 16, in G minor, m. 4.

The chords without thirds create a succession of parallel open fifths.



Example 3. 110. No. 17, in A-flat major, m. 4.

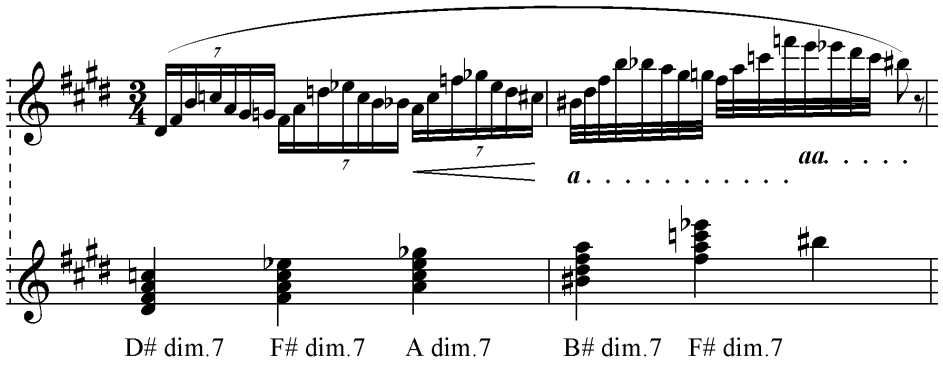
A succession of parallel tritones (augmented fourth/ diminished fifth) is contained within a series of diminished seventh chords.



12. Enharmonic:

Example 3. 111. No. 23, in C-sharp minor, mm. 10-11.

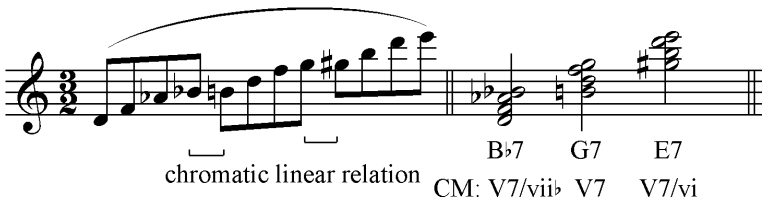
Enharmonic diminished seventh chords are ornamented with passing tones.



13. Triadic or seventh chords in succession:

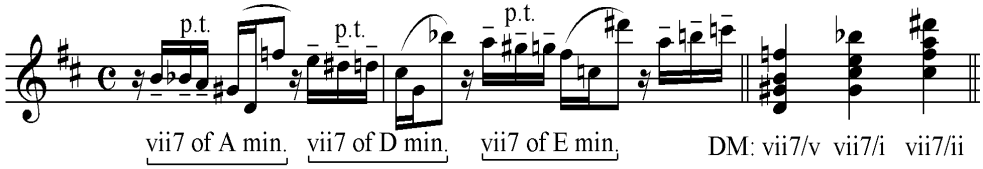
Example 3. 112. No. 4, in C major, m. 23.

First inversions of dominant sevenths connect chromatically; these chords move in a parallel motion.



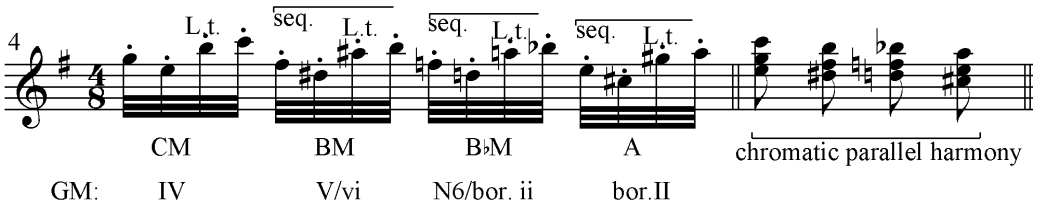
Example 3. 113. No. 5, in D major, mm.17-18.

Diminished seventh chords with passing tones move in a parallel motion.



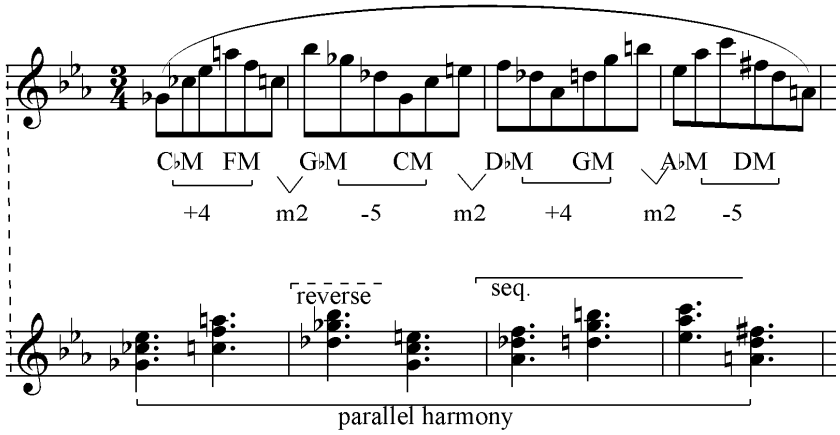
Example 3. 114. No. 12, in G major, m. 4.

Major triads move in parallel and create a chromatic linear motion.



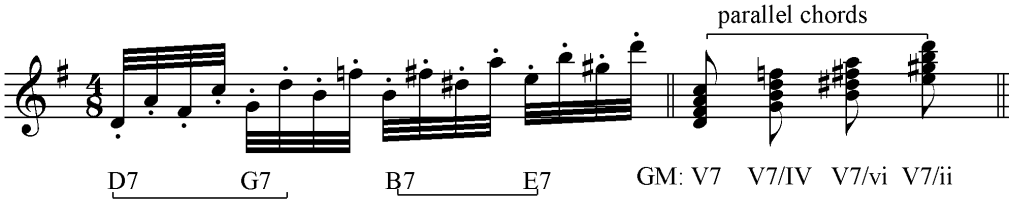
Example 3. 115. No. 6, in C minor, mm. 34-38.

Four pairs of major triads move in parallel motion; each pair is presented in a tritone relation of the augmented fourth or diminished fifth, and connects to the next pair at the minor second; this passage contains two periods, and the second half of the period is a reverse of the first half.



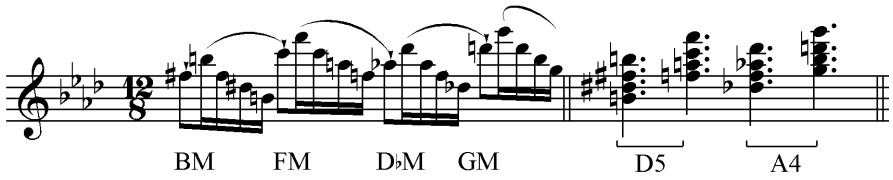
Example 3. 116. No. 12, in G major, m. 19.

A succession of dominant sevenths divides into two pairs, each of which contains a dominant-tonic progression.



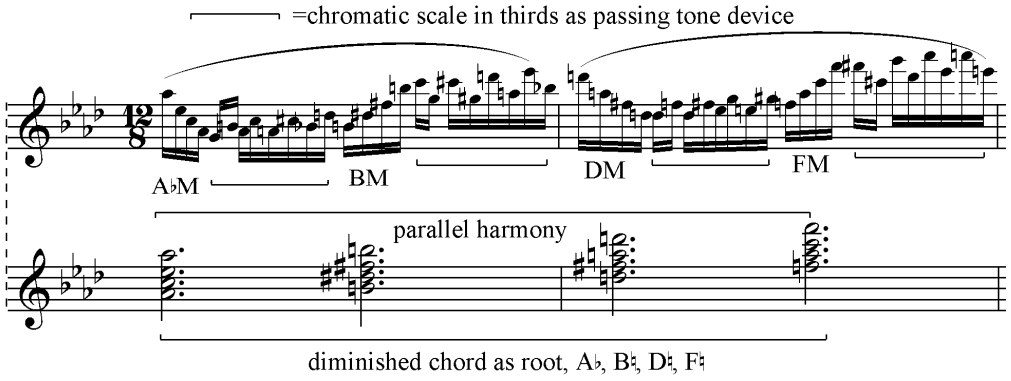
Example 3. 117. No. 17, in A-flat major, m. 8.

Two pairs of major triads move in parallel motion; the chords of the first pair are a diminished fifth apart; the chords of the second pair are an augmented fourth apart.



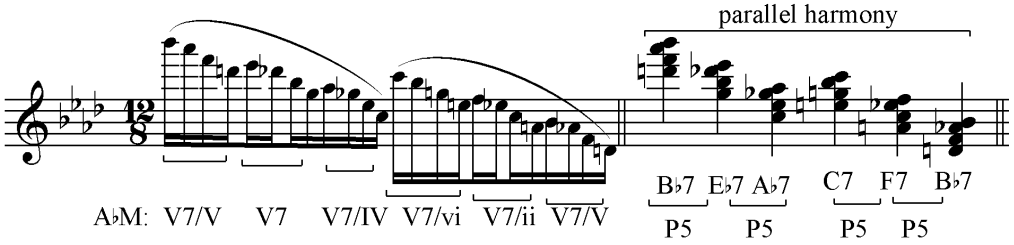
Example 3. 118. No. 17, in A-flat major, mm. 9-10.

Parallel major triads are elaborated on by a chromatic scale in thirds; a diminished chord serves as the root.



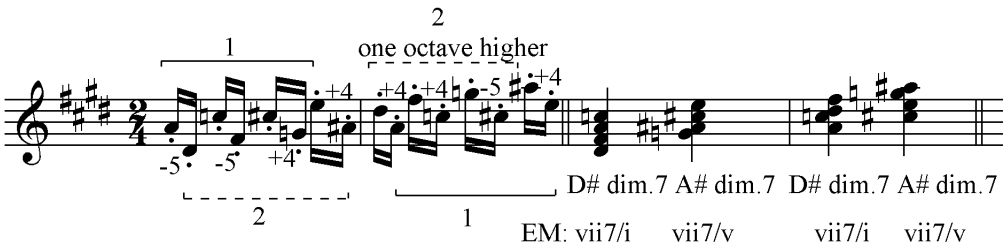
Example 3. 119. No. 17, in A-flat major, m. 11.

Dominant seventh chords move in parallel fifths; this passage is divided into two groups by slurs, and each group contains three seventh chords; these seventh chords are a perfect fifth apart, and the second group is a sequence to the first group.



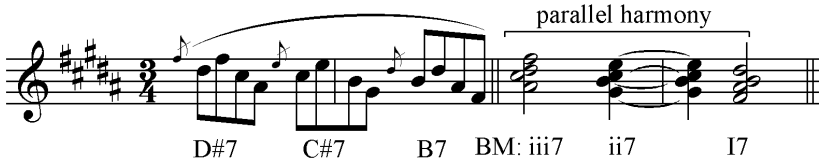
Example 3. 120. No. 19, in E major, mm. 17-18.

Broken diminished seventh chords are arranged in a two-voice texture and set in tritone relations of augmented fourths or diminished fifths; the upper and lower voices are reversed in the second measure.



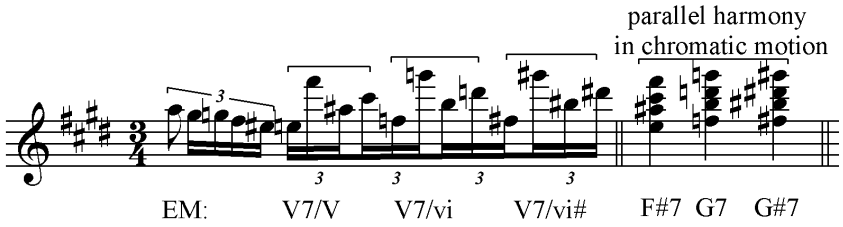
Example 3. 121. No. 21, in B major, mm. 5-6.

A succession of seventh chords moves in parallel motion.



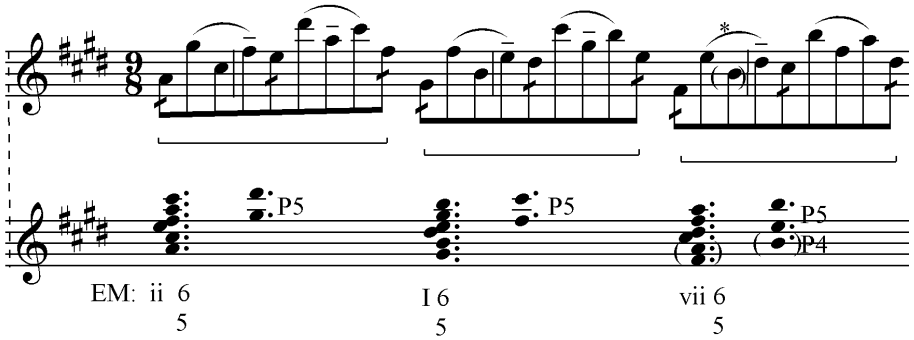
Example 3. 122. No. 23, in E major, mm. 20.

A succession of dominant seventh chords moves in a chromatic parallel motion.



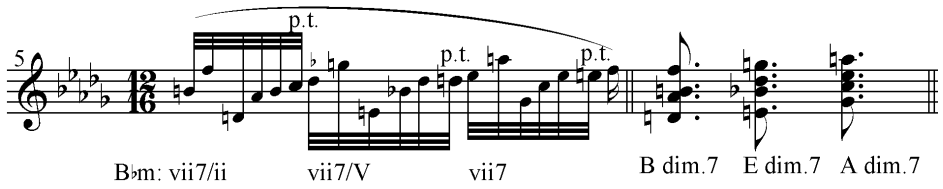
Example 3. 123. No. 27, in E major, mm. 6-9.

Perfect fifths are added to seventh chords; in the third group, the B with an asterisk might be an error; the correct note is probably an A, following the previous two patterns.



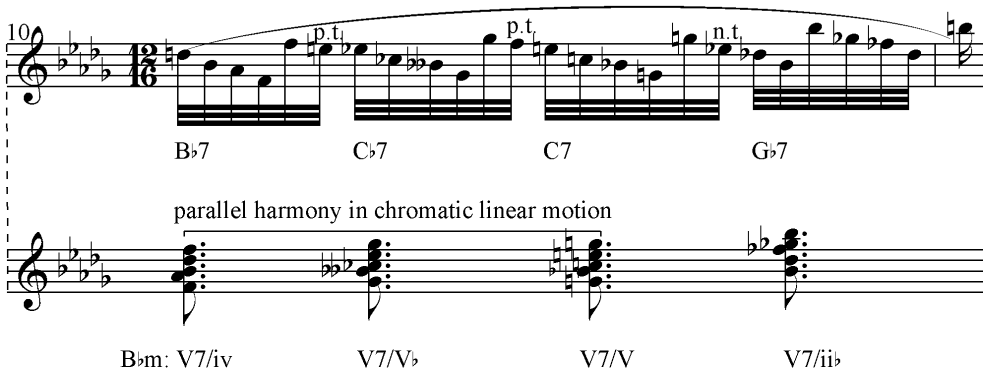
Example 3. 124. No. 28, in B-flat minor, m. 5.

A succession of step-wise diminished seventh chords is connected by chromatic passing tones.



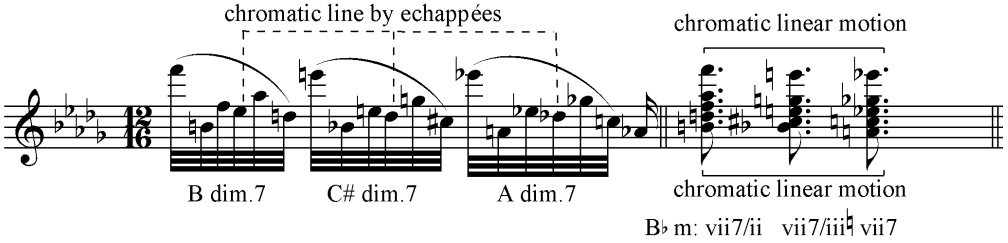
Example 3. 125. No. 28, in B-flat minor, m. 10.

A succession of secondary dominant seventh chords moves in a chromatic linear motion.



Example 3. 126. No. 28, in B-flat minor, m. 12.

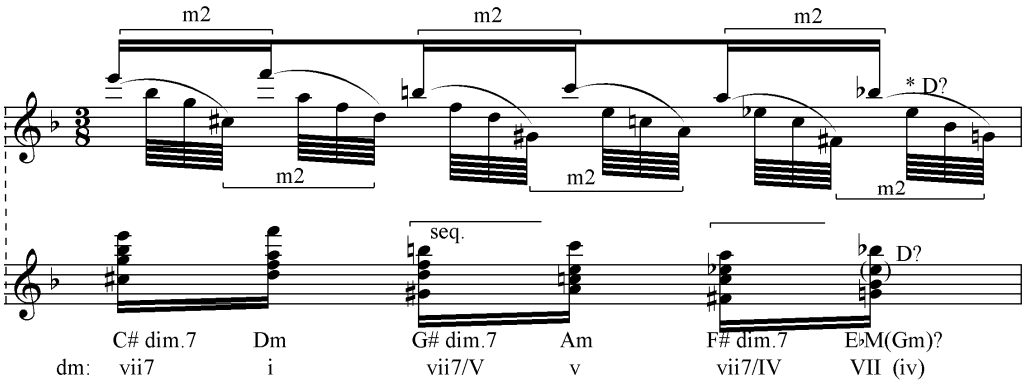
A chromatic passage is harmonized by diminished seventh chords, and elaborated on by echappées.



14. Succession of vii7 to I :

Example 3. 127. No. 18, in D minor, m. 9.

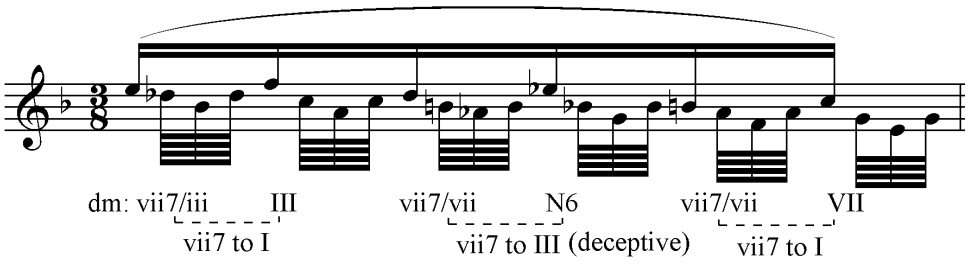
Seventh chords resolve to tonic chords; the pattern is in sequence; the top and bass lines of each pair are connected chromatically. In the third pair, the twenty-second note, E, is possibly a D.



15. Deceptive resolution:

Example 3. 128. No. 18, in D minor, m. 13.

A diminished seventh chord resolves to the major tonic chord; the diminished seventh chord of the second pattern does not resolve to the major tonic but rather, to the major mediant chord; the official resolution is delayed until the next sequence. However, one does not sense the deceptive resolution since the harmony progresses briefly through another key and the melody strongly directs with chromatic sequences.



Although harmonic vocabulary is employed abundantly in the music, the harmony is subordinate to the melody. It is apparent that the harmonic progression is mostly guided by the melodic succession; the chords are changed or inverted while the motivic patterns repeat. As a result, the harmonic progression is usually presented in parallel motion, such as in triads, seventh chords or in fourths, fifths; or serves as the root of a prominent

melody with inversions of chords. Some examples reveal that the voice leading is built in stepwise motion, and the harmonic progression is not sensed strongly while the color is changed by chords. On the other hand, the chords, especially in chromatic passages, are sometimes difficult to recognize because of two kinds of modifications: either by the use many non-harmonic tones, or by separated chord notes that are filled in with added notes.

To sum up, the harmony in the *Thirty Caprices* becomes more sophisticated as the pieces proceed. There are more and more parallel, augmented, diminished and unresolved chords. Karg-Elert seems to treat each chord individually rather than as part of a traditional functional harmonic progression. This harmonic style can also be found in the works of the other composers, such as in the parallel chords usages of Debussy and the chromaticism of Liszt and Wagner. Therefore, the performer should analyze the harmonies and look up the intervallic relations before playing those passages. Once he gets used to these patterns and can identify the central chord immediately, he has achieved the goal that Karg-Elert addressed in the preface of the *Thirty Caprices*.

CHAPTER 4

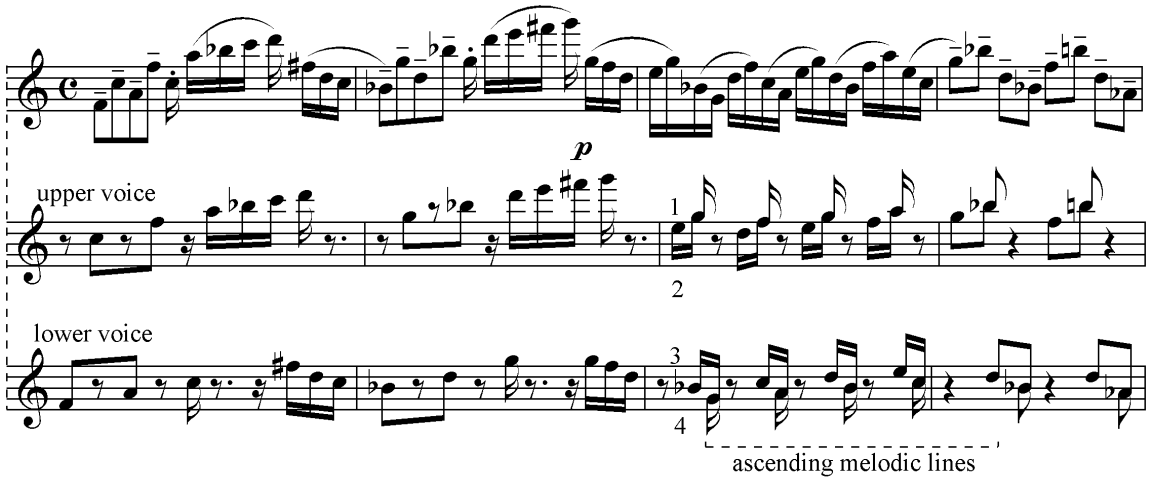
TEXTURE AND TONALITY

Texture

The common purpose of each caprice is to improve the player's capability to analyze chords; therefore, broken chords become the predominant motivic choice. The melodies are developed through Karg-Elert's use of broken chords in sequence, repetition, and imitation. The chords are usually modified heavily with non-harmonic tones and scales. While the main melodic lines are conceived in terms of the harmonic progression, the secondary notes create additional layers in the form of second or third voices. As a result, the texture of each caprice is complex and variable. We can find many layers in one passage. Sometimes the texture is polyphonic, but suddenly changes to a monophonic one. Some passages are presented in the homophonic style of melody and accompaniment, and some are in the style of two contrasting dialogues. The passages constructed by a juxtaposition of multiple melodic lines moving in parallel motion create an effect reminiscent of the double or triple stops of string instruments. In the following section, I will re-sketch the scores, and discuss the texture and voice-leading of examples.

As seen in example 4.1, the passage contained in measures fifteen to eighteen has a two voice texture; the upper and lower voices can be divided into four voices in the third measure; the main melodic line is taken by the lower voice from the G of the third measure in diatonic ascending motion to the D of the fourth measure. In measure eighteen, the two voices response to each other antiphonally in contrary motion. In addition, the note value of the dyad is an augmentation of the previous measure.

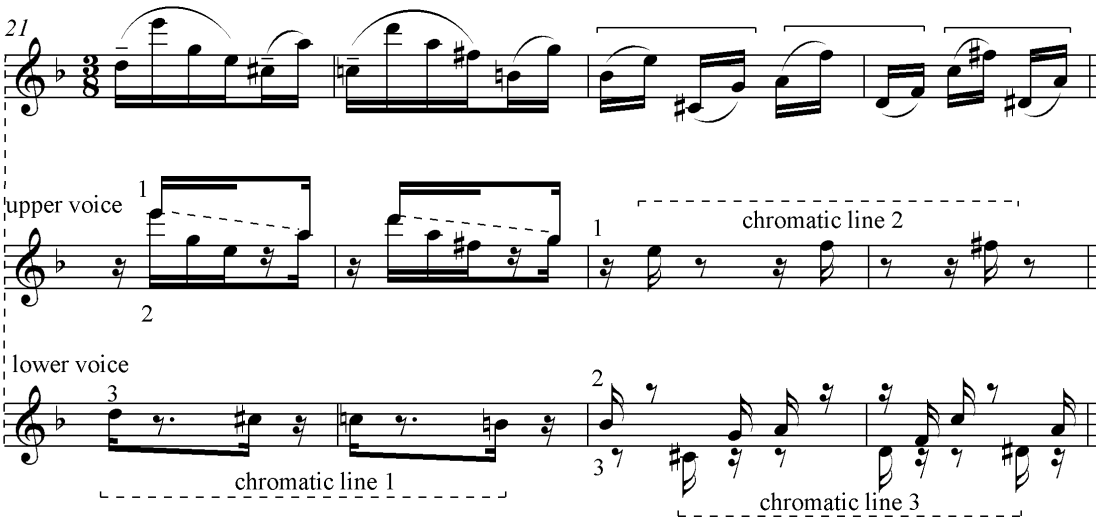
Example 4. 1. No. 1, in C major, mm. 15-18.



A chromatic passage is woven from three chromatic lines in example 4.2; the first chromatic line appears in the lowest voice from measures twenty-one to twenty-two. At

the same time, the upper voice presents a secondary melody containing two intervals of a fifth – E to A, and D to G – and is separated into two voices. The passage in measures twenty-three to twenty-four is a hemiola, in which the upper and lower voices answer each other antiphonally within a beat. The first and third voices present two individual chromatic lines.

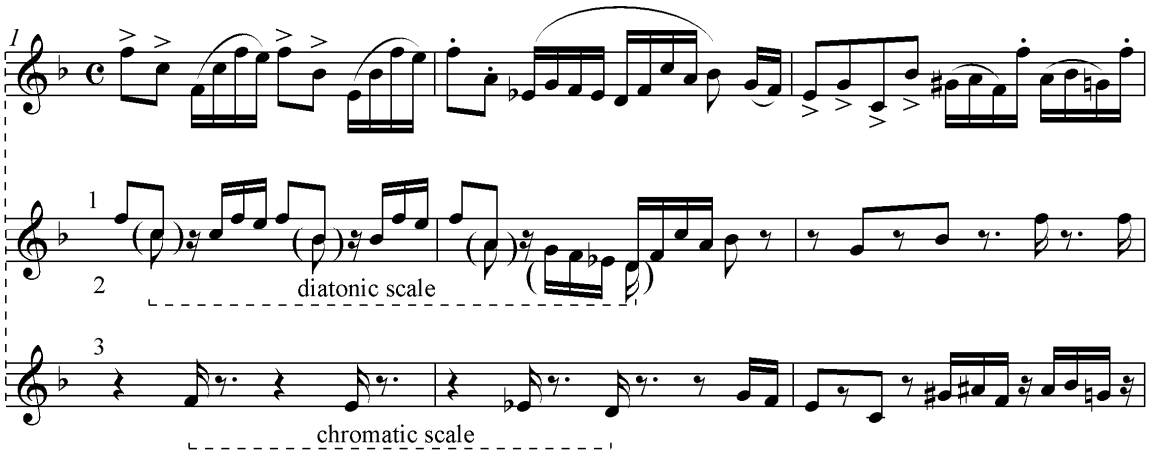
Example 4. 2. No. 2, in D major, mm. 21-24.



In measures one and two of example 4.3, there is a chromatic melody, F, E, E-flat, D contained in the lower voice. In the upper voice, the repeated root, F, functions as a pedal point to enhance the tonality. The diatonic melodic line takes shape in the lower

part, C, B-flat, A, G, F, E-flat, D. These two melodic lines merge on D on the third beat of measure two, and continue to B-flat to form a complete B-flat scale.

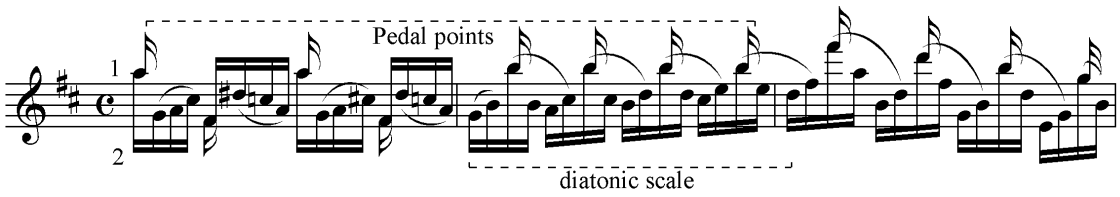
Example 4. 3. No. 3, in F major, mm. 1-3.



Example 4.4 is presented in a two-voice texture. The voices are indicated by adding sixteenth-note stems. The upper and lower voices are separated by wide leaps. The separate stems were added by Karg-Elert, which may represent his emphasis on delineating the two-voice texture. However, the highest voice of measures twenty-one and twenty-two should be treated as pedal points. As for measure twenty-three, the highest voice should be treated as a part of broken chord. We may also notice, as indicated, that there is a partial hidden diatonic scale in measure twenty-two. Measure twenty-two serves as a bridge between measures twenty-one and twenty-three. It

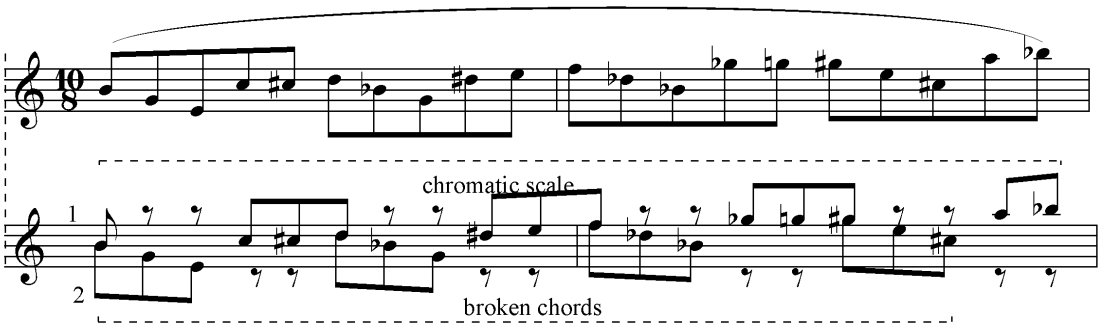
sustains the pedal point from measure twenty-one; it also starts the broken chord pattern that follows in measure twenty-three.

Example 4. 4. No. 5, in D major, mm. 21-23.



As seen in example 4.5, the chromatic melodic line is elaborated on by descending triads. The chromatic scale and the triads occur in contrary motion.

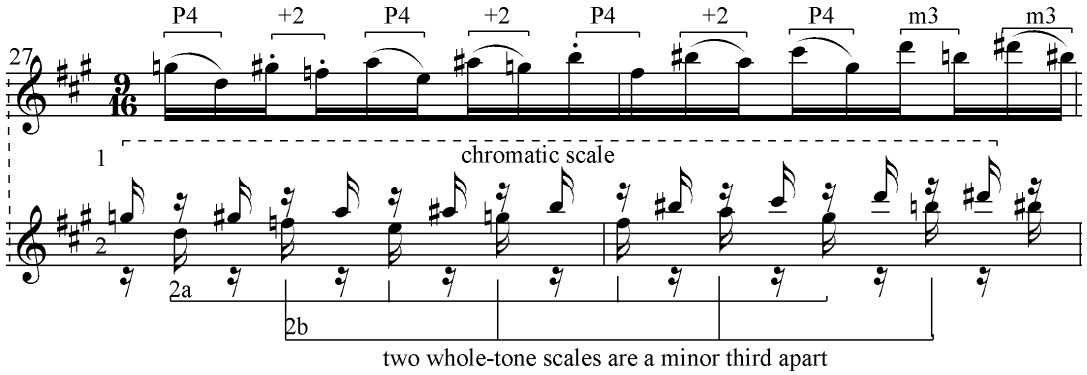
Example 4. 5. No. 7, in A minor, mm. 11-12.



The passage in example 4.6 exhibits a two-voice texture; the upper voice is an ascending chromatic scale, and the lower voice is partially constructed by two whole-tone

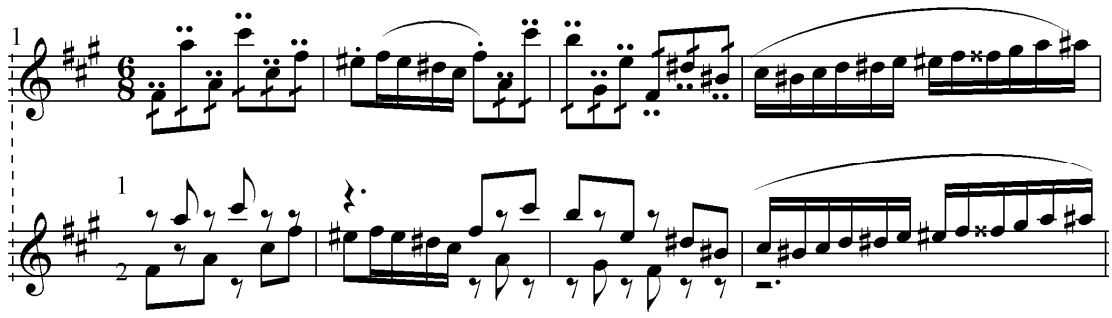
scales that are a minor third apart. Thus, the lower voice can be seen as in another two-voice texture.

Example 4. 6. No. 10, in A major, mm. 27-28.



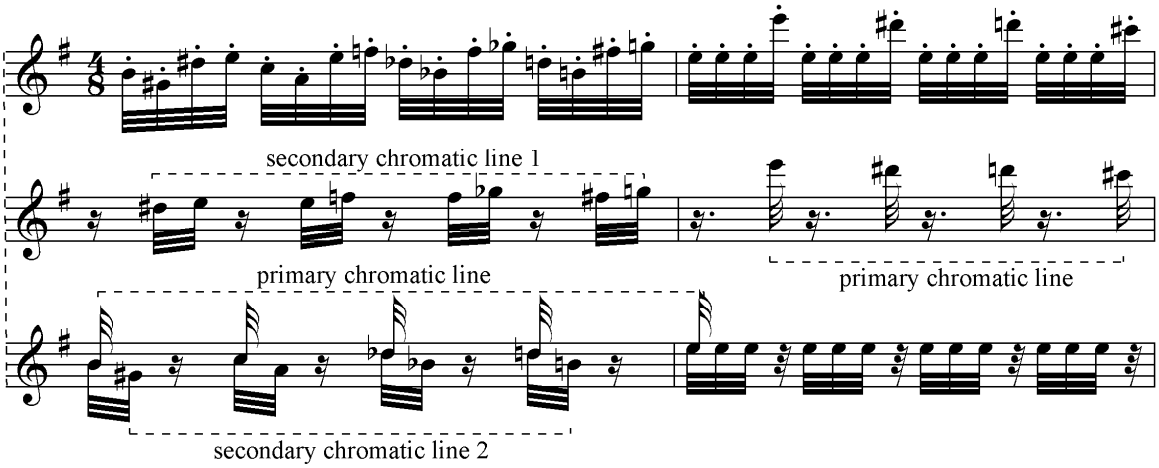
The leaping broken chords are sketched in a two-voice texture in example 4.7; the upper voice drops out as the lower voice continuous in measure two. Then in measures three and four, the upper voice carries the melody while the lower voice has a few notes.

Example 4. 7. No. 11, in F-sharp minor, mm. 1-4.



Measure sixteen of caprice no. 12, as seen in example 4.8, shows a style of broken major seventh chords proceeding in harmonic sequence with a chromatic scale occurring on the beats from B to E. In the second measure, the chromatic scale shifts to the upper voice, E, D-sharp, D, C-sharp. Also, in measure seventeen, a two-voice texture has appears as the primary chromatic line in the upper voice and a pedal point in the lower.

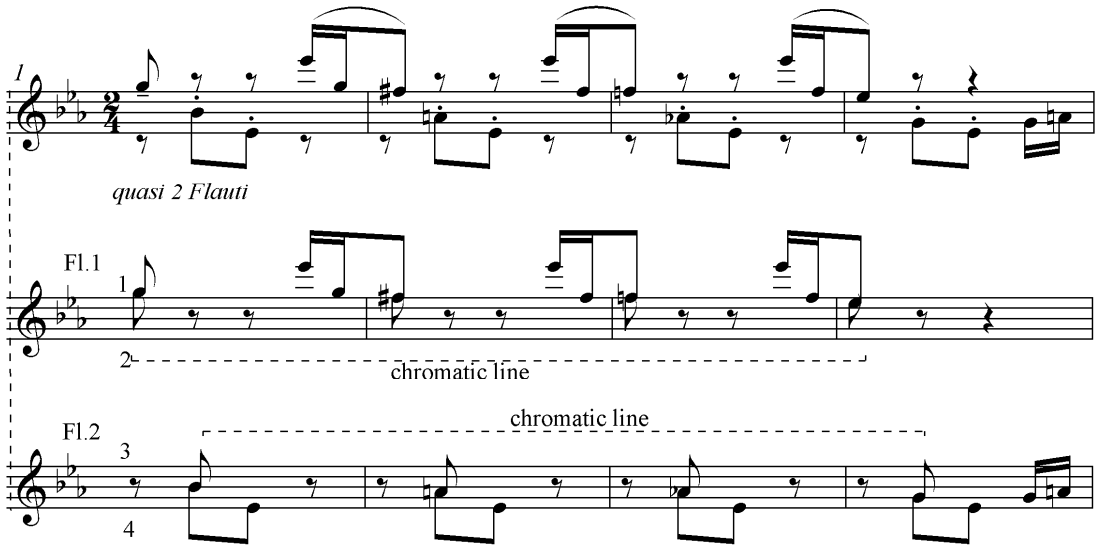
Example 4. 8. No. 12, in G major, mm. 16-17.



Caprice no. 13 is composed in a "quasi two-flute" style; each flute part has its own two-voice texture, with a chromatic melodic line and a pedal point. As seen in example 4.9, the legato upper flute part is the main melodic line; the staccato lower flute part is the

accompaniment.

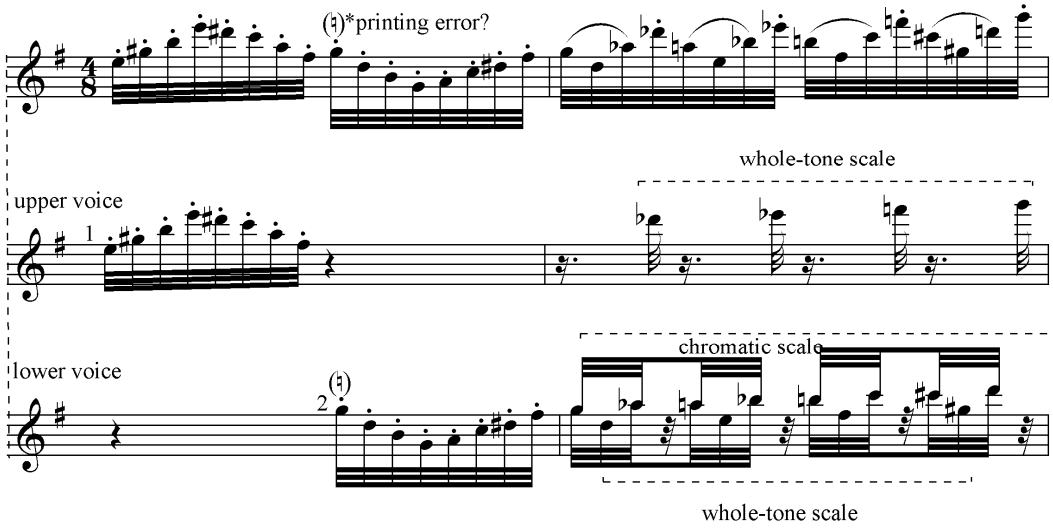
Example 4. 9. No. 13, E-flat major, mm. 1-4.



Karg-Elert uses the composing techniques of mirror and sequence in caprice no.14 (see example 4.10). Measure twelve exhibits an antiphonal two-voice texture, in which the upper voice is answered by the lower voice. An E major chord occurs within the first beat, while next contains a D-sharp diminished chord. The third beat is the mirror of the first beat, and the fourth is the mirror of the second beat. Thus, the third beat is read G, D, B, G, rather than G-sharp, D, B, G. Finally, the fourth beat is an inverted D-sharp diminished chord. In the second measure, the odd-numbered notes form a

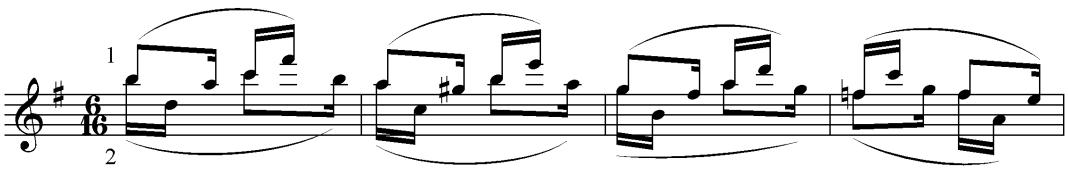
chromatic scale; and the others form two whole tone scales in the outer voices. The inner melodic line is G, A-flat, A, B-flat, B, C, C-sharp, D; the outer lines are whole-tone scales of D-flat, E-flat, F,G, and D, E, F, G-sharp, which belong to different systems (C and C-sharp whole-tone scales).

Example 4. 10. No. 14, in E minor, mm. 12-13.



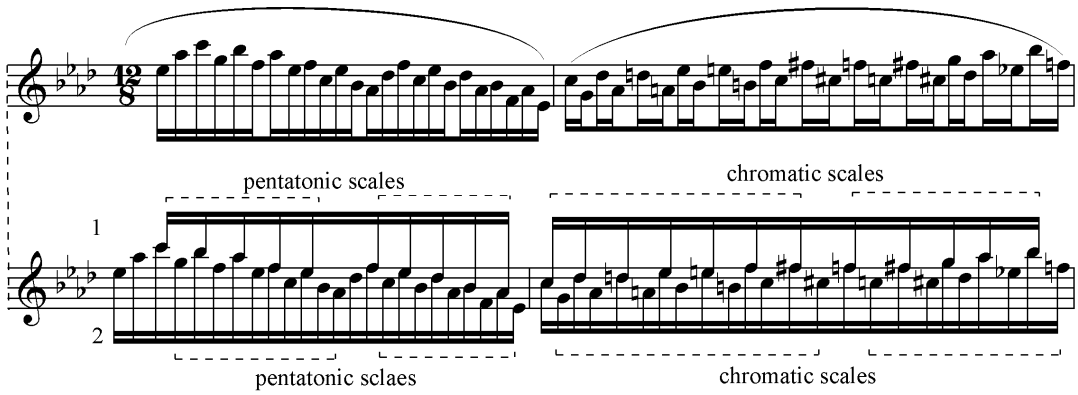
In example 4.11, the main melodic line is shared by the first and second voices. The notation clearly illustrates this feature of the passage.

Example 4. 11. No. 15, B-flat major, mm. 1-2.



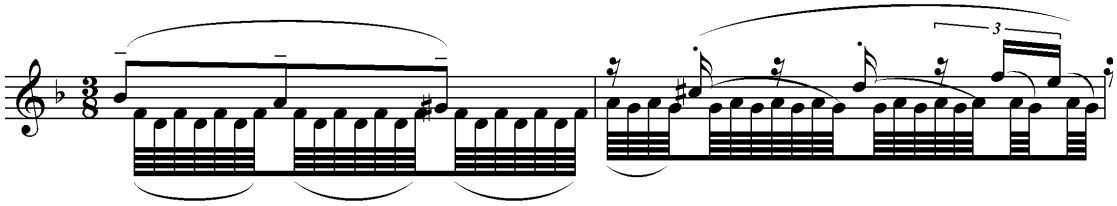
Karg-Elert utilizes pentatonic and chromatic scales in a two-voice texture in caprice no. 17 (see example 4.12); the passage also features rapid parallel scales in the upper and lower voices, which creates a special sonority reminiscent of double-stops.

Example 4. 12. No. 17, in C major, mm. 13-14.



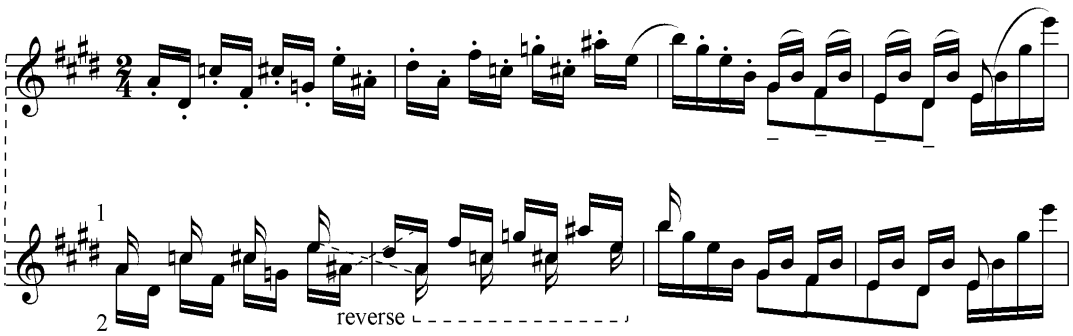
Caprice no. 18, as seen in example 4.13, is composed in a two-voice texture with the main melody in the upper voice and the accompaniment in the lower voice.

Example 4. 13. No. 18, in D minor, mm. 1-2.



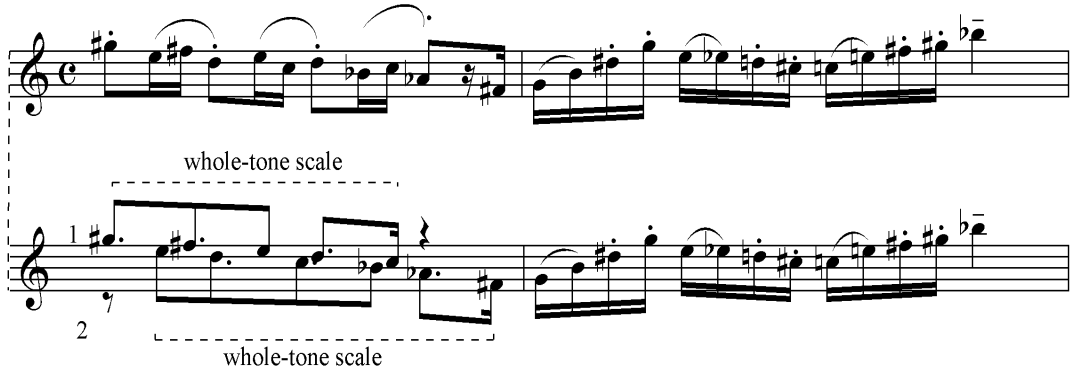
Measures seventeen and eighteen of example 4.14 illustrate a two-voice texture of invertible counterpoint. In measures nineteen and twenty, the main melodic line is transferred to the second voice.

Example 4. 14. No. 19, in E major, mm. 17-20.



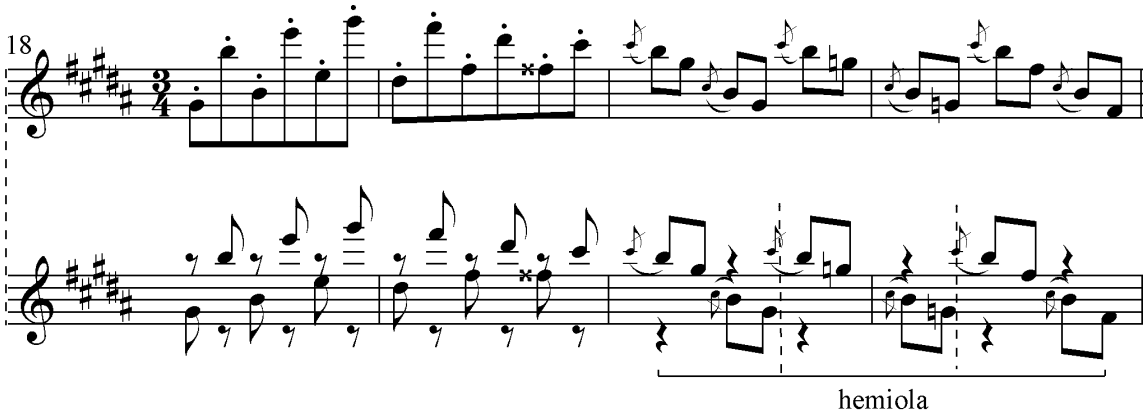
Although caprice no. 20 begins monophonically, one may notice, as indicated in example 4.15, that measure one consists of two whole-tone scales. The first beat of measure two contains an augmented triad chord; a chromatic scale occurs within the second beat; while the third and fourth beats present a whole-tone scale (C, D, E, F-sharp, A-flat, B-flat) without the D. These four beats fully display the synthesis of Karg-Elert's compositional style.

Example 4. 15. No. 20, in whole-tone scale, mm. 1-2.



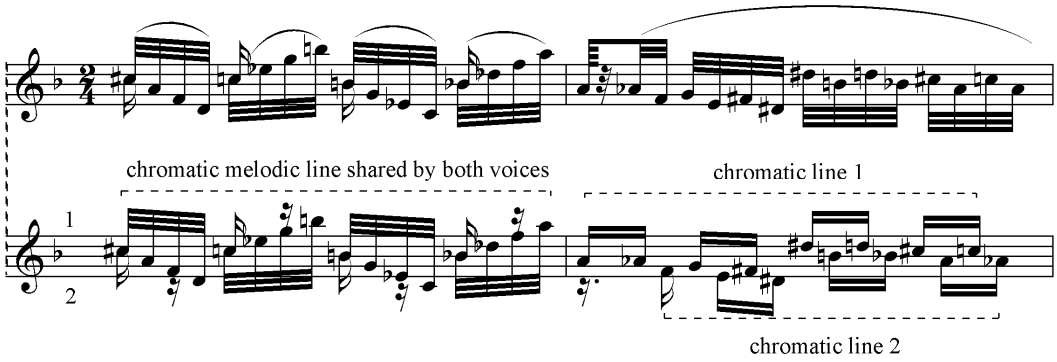
As seen in example 4.16, the leaping broken chords in measures eighteen and nineteen illustrate a two voice texture; the next passage, measures twenty and twenty-one, is a hemiola, the lower voice echoes the first voice an octave lower.

Example 4. 16. No. 21, in B major, mm. 18-21.



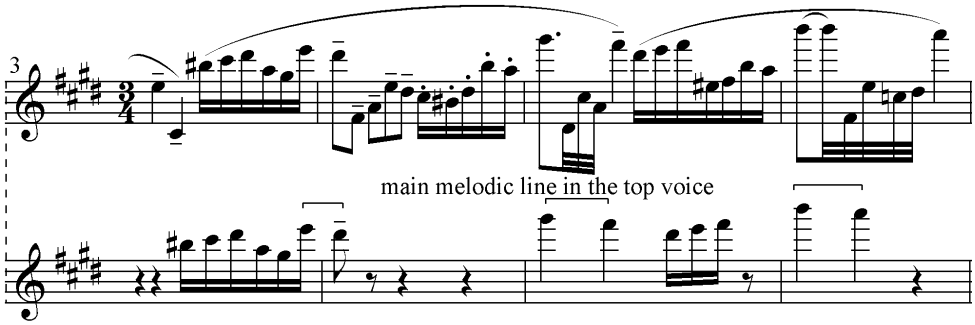
In caprice no. 22 (example 4.17), Karg-Elert notates the voice leading notes with a sixteenth-note stem in measure fifteen. In addition, this passage can be divided into a two-voice texture by the directions of stem; the leading voice is a chromatic line. In measure sixteen, the passage is constructed from two chromatic lines in thirds.

Example 4. 17. No. 22, in D minor, mm. 15-16.



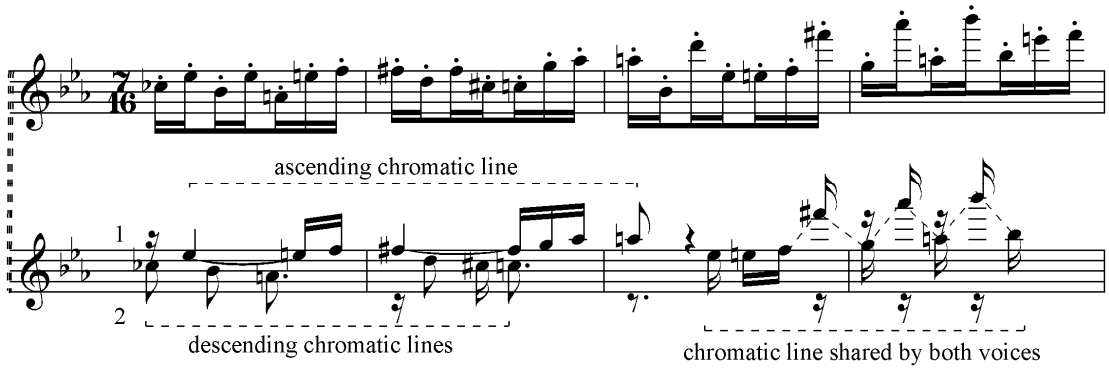
Caprice no. 23 is composed in recitative style; it is heavily ornamented (example 4.18). The main melodic notes occur in the top voice: E, in measure three to D-sharp, in measure four, G-sharp to F-sharp in measure five, and B to A in measure six.

Example 4. 18. No. 23, in C-sharp minor, mm. 3-6.



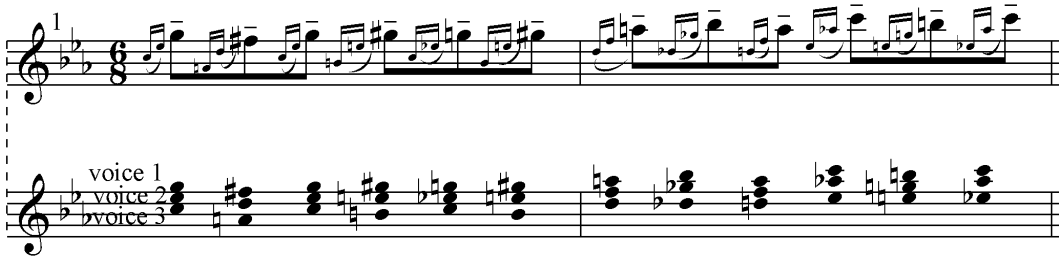
This chromatic passage, as seen in example 4.19, exhibits a two-voice texture; in measures twenty-eight and twenty-nine, the upper and lower chromatic lines are presented in contrary motion; in measures thirty and thirty-one, the chromatic line is shared by two voices in leaping style.

Example 4. 19. No. 24, in E-flat major, mm. 28-31.



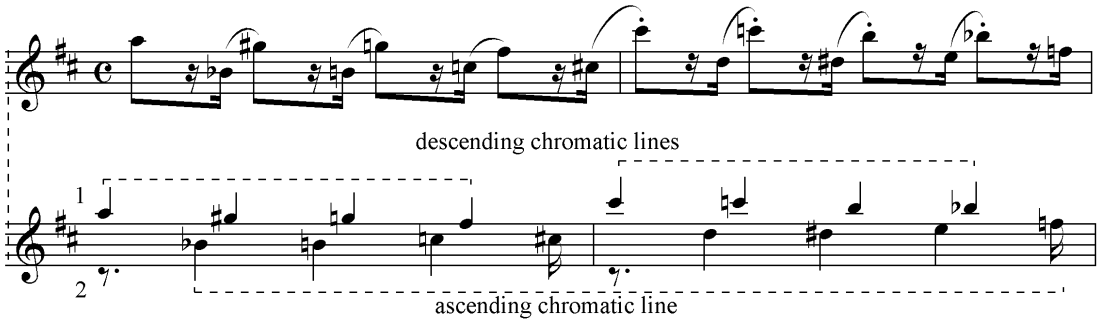
The main melodic line and its grace notes in example 4.20 establish a three-voice texture; the chromatic main notes and double grace notes create an effect of the triple stop technique of string instruments.

Example 4. 20. No. 25, in C minor, mm. 1-2.



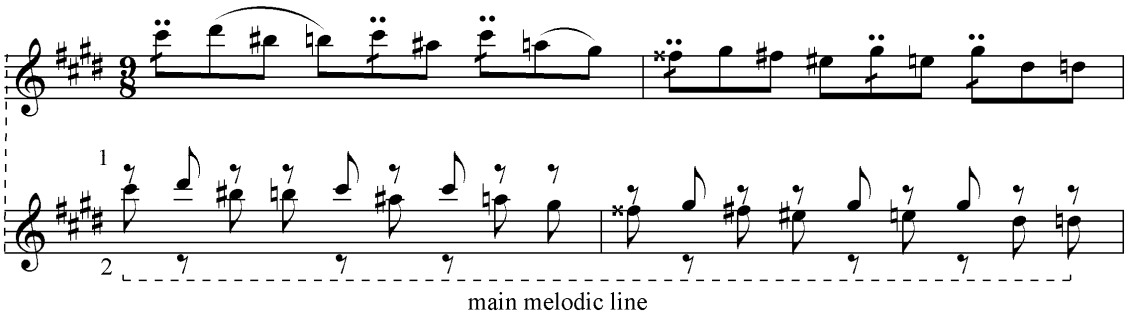
The chromatic passage that is presented in example 4.21 exhibits a two-voice texture; the chromatic scales presented by the first and second voices occur in contrary motion.

Example 4. 21. No. 26, in B minor, mm. 6-7.



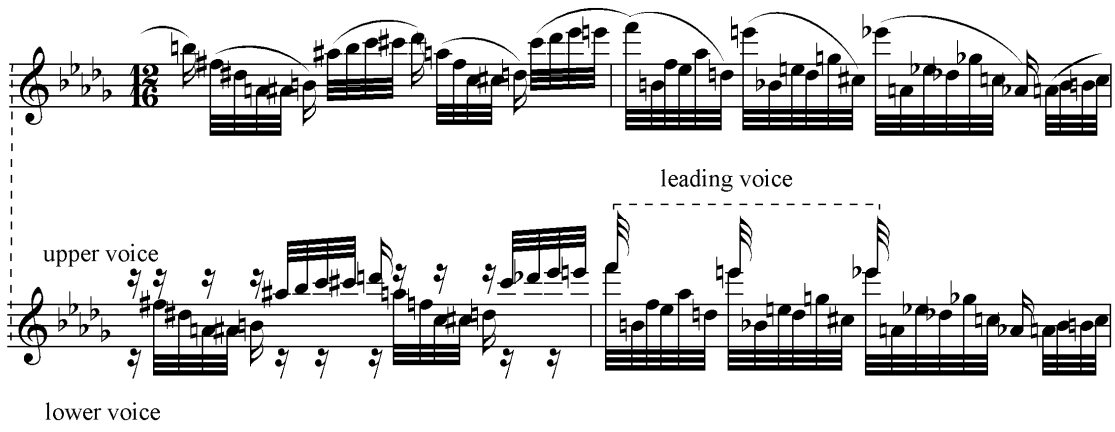
In example 4.22, the main melodic line reflects chromatic descending motion interrupted by the sixteenth pedal points in the upper voice.

Example 4. 22. No. 27, in E major, m 21-22.



The upper and lower voices of example 4.23 respond to each other in measure eleven. The lower voice can also be divided into two voices, proceeding in contrasting motion with the top voice descending while the lower voices rises.

Example 4. 23. No. 28, in B-flat minor, mm. 11-12.



The texture of the *Thirty Caprices* becomes a challenging issue for the performer since Karg-Elert combines all the musical components into a single melodic line. It may be related to his training as a composer and organist, since he was comfortable with composing multiple voices and structures. The rich harmonic structure employed in the melodic succession usually moves in stepwise motion. The voices that appear in the melody are contrapuntal; they sometimes move in parallel motion, and sometimes in contrary motion. In addition, the number of voices is changed by reducing or increasing

the parts. Although, Karg-Elert sometimes emphasized the voices with notations such as secondary stems or articulations, the performer still needs to study the harmonic patterns and voice leading of the music, in order to clearly demonstrate each layer of the complex construction.

Tonality

Deeply affected by the varieties of motivic transformation, harmonic devices, and textural diversity, the tonality of the caprices is interesting as well as being worthy of research by all performers. Written with the traditional tonal key signatures, the tonalities of the *Thirty Caprices* frequently move away from the key center right after the first phrase or measure. Most of the caprices contain wide-ranging inflections and non-traditional development. These harmonic inflections are temporary and mostly unprepared, since these caprices are relatively brief and do not use traditional applied dominants. Karg-Elert preferred to develop a passage by presenting a motive in sequences, usually in chromatic linear motion. These motives are usually based on a succession of specific chordal patterns; therefore, the tonalities created by these chromatic sequences, repetitions, imitations, developments, and transformations are usually ambiguous. In addition, the chords are usually heavily decorated by

non-harmonic tones that create a texture of multiple layers. The main and secondary voices are placed in juxtaposition, which blends the colors together and weakens the significance of the tonal center.

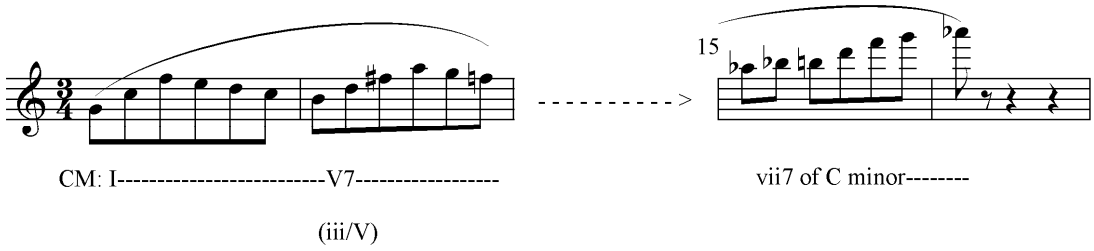
Karg-Elert seems to have intentionally designed a scheme of departure from the tonal center as far as possible which reminds me of one of the main features of the New German School, exemplified by Wagner and Liszt, who were known for their use of chromaticism and unresolved harmonies. However, after the adventure of exploring many different tonalities, every caprice always gets back to the opening tonic at the end.

The harmonic inflections (or key interchanges) in the *Thirty Caprices* are divided into approximately three groups. In the first group, from caprices no. 1 to no. 7, the harmonic progressions are more traditional, utilizing the parallel, dominant, and sub-dominant chords. In the second group, beginning with caprice no. 8, they largely migrate to distant harmonic regions. The caprices of the third group, which start with caprice no. 20, are based on non-diatonic or non-tonal concepts that hardly embody any specific tonal center. For instance, caprice no. 20 is based on whole-tone scales, and caprice no. 22 is based on the chromatic scale. Caprice no. 26 contains both whole-tone and chromatic scales.

In the following section, I will choose three caprices, nos. 4, 14, and 22, in order to demonstrate the three different tonal groups.

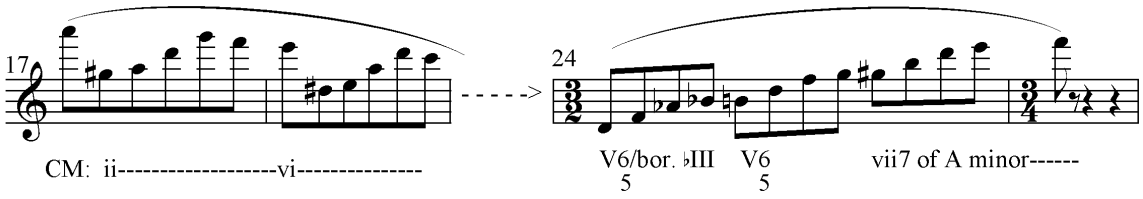
Caprice No. 4, in C major. This is an example of the first tonal group. As seen in example 4.24, the first section opens in C major, and ends with the diminished seventh chord of C minor.

Example 4. 24. No. 4, in C major, mm. 1-2, and m. 15.



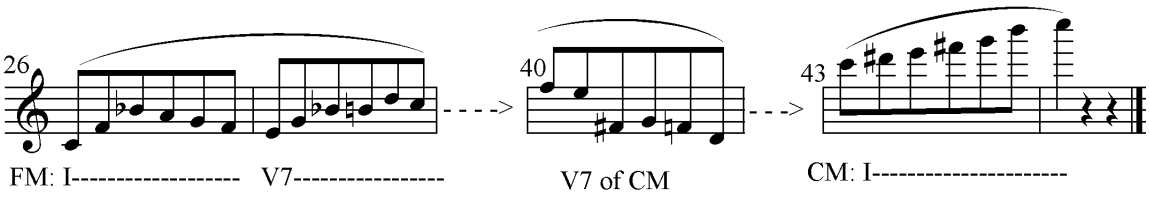
The second section of this caprice starts with a D in measure seventeen and A minor chords in measure eighteen, and ends with an A minor diminished seventh chord in measures twenty-four to twenty-five (see example 4.25)

Example 4. 25. No. 4, in C major, mm. 17-18, and mm. 24-25.



The recapitulation opens in F major in measure twenty-six, as presented in example 4.26. The dominant seventh chord of C major, appears towards the end (in measure forty) and leads the key back to C major.

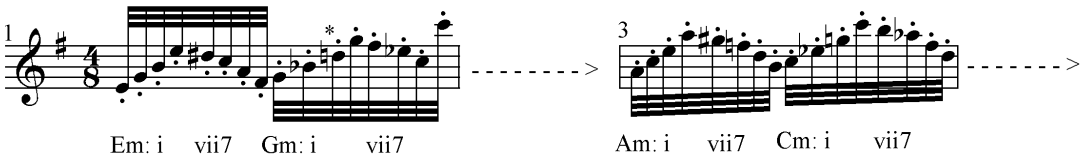
Example 4. 26. No. 4, in C major, mm. 26-27, m. 40, and mm.43-44.



Caprice No. 14, in E minor. This is an example of the second tonal group. Caprice no. 14, as seen in the first measure of example 4.27, opens with a specific harmonic pattern. The pattern is constructed from a tonic chord and its leading-tone diminished seventh chord. In measure one, the tonic of E minor (E) is connected to the leading tone (D-sharp), which does not resolve. Instead, Karg-Elert moves to G minor (G), which is followed by its leading-tone (F-sharp) tone. E minor and G minor are connected by F-sharp (the eighth thirty second note), which is the super-tonic of E minor, and also the leading-tone of G minor. Karg-Elert repeats the same technique in measure

three.

Example 4. 27. No. 14, in E minor, m. 1, and m. 3.



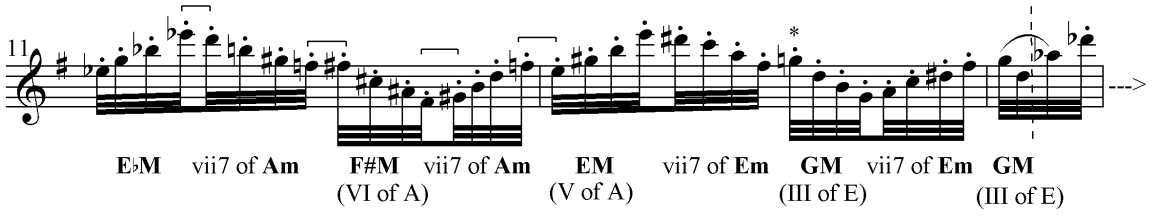
* = a probable error; there is no natural on this D on the score, yet I think it should have a natural sign in order to fulfill its harmonic role.

A new passage begins at measure five (see example 4.28). An ambiguous B chord, in which the pedal points are on B, appears in measure five. At measure seven, the harmony abruptly shifts to D. Karg-Elert applies sequences and pedal points to establish harmonic progression.

Example 4. 28. No. 14, in E minor, m. 5, and mm. 6-7.

As seen in example 4.29, the recapitulation passage begins in measure eleven with the harmonic pattern of a triad attached to its diminished seventh chord again. However, the harmonic pattern has been changed. In the first half of measure eleven, the tonality shifts constantly; the tonic of E-flat major (E-flat) is followed by the sub-dominant of A minor (D), and the sub-mediant of A minor (F) is followed by the tonic of F-sharp major (F-sharp). A minor and F-sharp major are connected by F, which is the sub-mediant of A minor, and also an enharmonic note (E-sharp) as the leading-tone of F-sharp major. In the second half of measure eleven, the tonic of F-sharp major is followed diatonically by the leading-tone of A minor (G-sharp). And the sub-mediant of A minor (F) leads to the tonic of E major (E) in measure twelve. The harmonic progression of measures eleven to thirteen is from E-flat major to A minor (tritone), to E major and minor (dominant of A), and to G major (mediant of E).

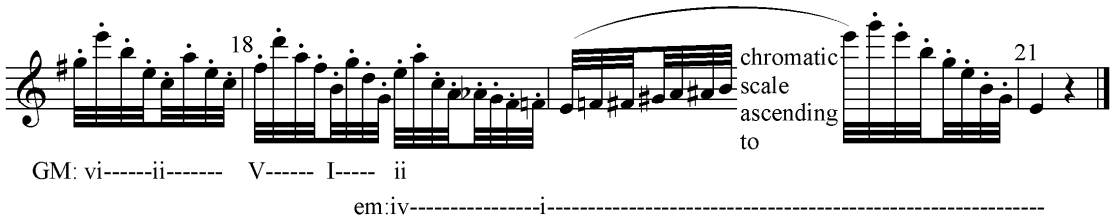
Example 4. 29. No. 14, in E minor, mm. 11-13.



* = a probable error; there is no natural on G on the score, yet I think it should have a natural sign in order to fulfill its harmonic role- an alternation of major and minor keys.

Towards the end of caprice no. 14, measure seventeen is in G major (see example 4.30), the relative major of E minor. The piece goes to E minor by a pivot chord in measure eighteen- - the super-tonic chord of G major- - which is also the sub-dominant of E minor.

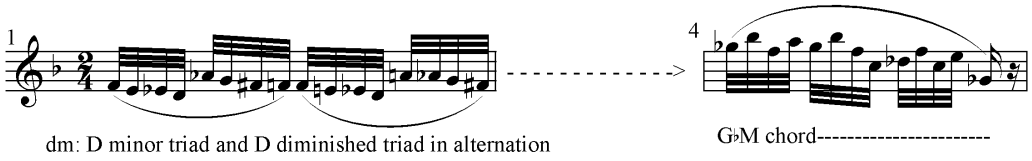
Example 4. 30. No. 14, in E minor, mm. 17-19, and mm. 20-21.



Caprice No. 22, in D minor. This caprice is an example of the third tonal group. Many chromatic devices are applied either as a transition to the next phrase or section, or to ornament chords, which places all twelve pitches at the same level of importance.

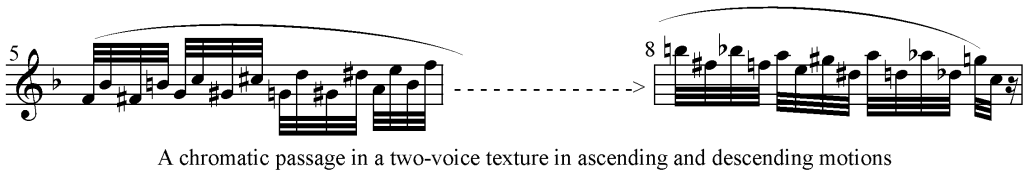
In the opening phrase, as given in example 4.31, the first half of measure one is a D diminished chord that chromatically changes to a D minor chord in the second half. The two chords are elaborated on by chromatic passing tones. The phrase closes on a G-flat major chord with chromatic elaborations in measure four.

Example 4. 31. No. 22, in D minor, m. 1, and m. 4.



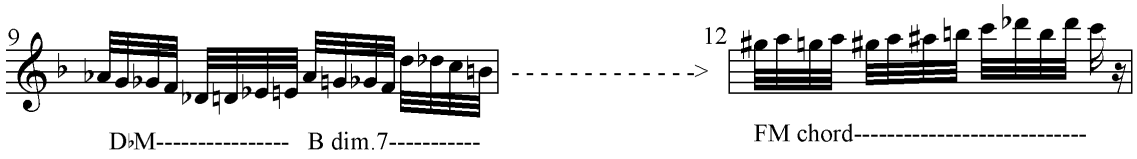
As seen in example 4.32, a chromatic passage in a two-voice texture starts the transition in measure five with an ascending motion that ends in measure eight with a descending motion that projects uncertain tonality.

Example 4. 32. No. 22, in D minor, m. 5, and m. 8.



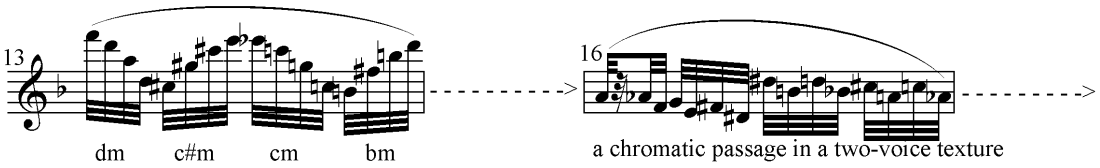
The thematic phrase shows up again in measure nine exhibiting bitonality in the mixture of a D-flat major triad and a B diminished seventh chord with elaboration of chromatic passing tones (see example 4.33). The phrase closes in measure twelve with an ascending chromatic line based on an F major triad.

Example 4. 33. No. 22, in D minor, m. 9, and m. 12.



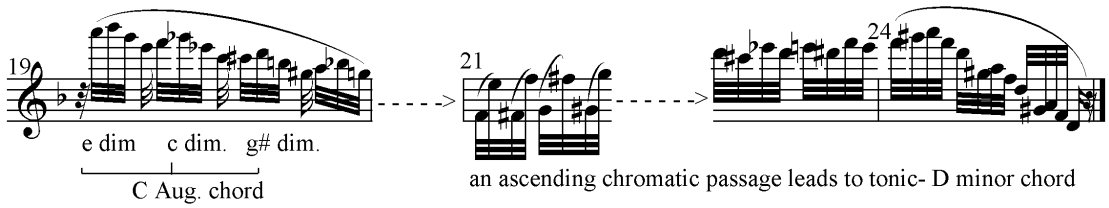
The new phrase is constructed from a succession of minor triads occurring in chromatic linear motion in measure thirteen of example 4.34, and followed by a transition in a two-voice texture. The transition starts in measure sixteenth, which is constructed from sequences that present a descending chromatic scale. The sequence is developed in ascending motion.

Example 4. 34. No. 22, in D minor, m. 13, and m. 16.



The closing section, given in example 4.35, commences with a succession of diminished triads in measure nineteen. The triads are elaborated on chromatically by appoggiaturas, and followed by a passage with descending chromatic lines in sequence in measure twenty. The chromatic sequence lands on F in measure twenty-one. Karg-Elert simply uses ascending chromatic scales in a two-voice texture as a leading passage in order to conclude the piece on the tonic.

Example 4. 35. No. 22, in D minor, m. 19, m. 21, and mm. 23-24.



The musical content of the *Thirty Caprices* is organized in tonal order from simple to complex. Although the *Thirty Caprices* were written in the twentieth century, they contain every musical style from Baroque to Expressionism. Generally speaking, Karg-Elert treats tonality in a traditional way. Regardless of the tonal group, the *Caprices* always start and end in the same key, except when it is a non-tonal caprice. The harmonic inflections in the *Thirty Caprices* are full of surprises and always interesting to analyze. You can hardly imagine what chord will appear in the next measure, especially in those caprices that belong to the second and the third tonal groups. As a performer, it is important to understand the tonality of every caprice which informs the structure of the music.

PART THREE

PERFORMANCE PRACTICE

Technical Demands

It is impossible to reach the level of performance perfection by depending only on a thorough understanding of the music and neglecting the importance of technical capability. For all flute players, the technical demands require more than the dexterity of fingers and the actions of arms. One also needs to consider diaphragmatic support, breath control, the action of the tongue and articulation, muscle control of the embouchure, mouth resonance and the use of the soft palate in controlling color. These aspects of technique have to be developed through long-term training and aided by guidance. In order to meet the student's needs, the instructor should assign appropriate studies according to their level. Generally, each study has one purpose, so that students can focus on one problem at a time. These studies are mostly published in groups and gathered as books. Some of them are organized systematically by level of difficulty, covering the twenty-four major and minor modes, and arranged by key signature. As a preparation for contemporary orchestral work, the *Thirty Caprices* is a rather advanced pedagogical work. The caprices are set in a progressive order of difficulty. However,

the basic technical aspects are not individually isolated or systematically organized. Therefore, students have to master those technical skills, which include stylistic interpretations and tonal flexibility, before dealing with the challenges. In the following section, I investigate the individual technical challenges of each caprice by breaking them down into three topics, so that instructors can help their students in a more efficient way. The topics are:

1. **Articulation**- Several types of articulation have been adopted in the *Thirty Caprices*; a table of articulation types found in the *Thirty Caprices* is followed by a discussion of musical interpretation and the physical execution of each type.

2. **Embouchure flexibility**- Here I discuss tonal expression and embouchure adjustment in modern flute technique. I investigate the registers covered and the widest intervals of each caprice, and demonstrate how they affect embouchure flexibility on the part of the performer.

3. **Rhythm**- This is a discussion of the use of rhythmic accent employed in melody, harmony, texture, articulation, and tempo.

CHAPTER 5

ARTICULATION

Articulation

From the construction of the motives, the *Thirty Caprices* can be divided into three groups: staccato, slur, and a mixture of staccato and slur. No matter which group they belong to, they all involve articulation concerns. Articulation is the punctuation of a note. By applying different articulations to each note, the piece is manifested differently. In all wind instruments, articulations are produced by tonguing. Tonguing is a valve-like action operated by the tip of tongue. In general, the tongue should be placed right behind the border of the palate and upper incisor teeth; this kind of move will stop the air stream, and create an attack when the air stream is released by moving the tongue away from the back of the teeth. Many sources compare flute tonguing and string bowing. Two of the references, one on the baroque flute, *On Playing the Flute* by J.J. Quantz (1697-1773), and the other on the modern flute, *The Flute Book* by Nancy Toff, have mentioned their equivalences. To sum up these authors comparison of tonguing practices with bowing; *staccato* tonguing is similar to the *sautillé* (Fr., bounced) or *spiccato* (It., detached) techniques used in bowing; *martellato* tonguing can be seen as

equivalent to the violin *martellé* (Fr., hammered) technique, which is notated with a carat or a combination of dots and accents; *mezzo-staccato* or *portato* tonguing is close to *Louré* (Fr., in bowing, a *legato* but with emphasis on each note), which is notated by a combination of a dot (or tenuto) and a slur. Normal single-tonguing is analogous to the violin *détaché* (Fr., in bowing, alternate up-and down- bows). When normal single-tonguing and *mezzo-staccato* tonguing is combined, as in a slurred *staccato* – *Tu-Du* (or *Ta-Da*, *Te-De*, *Ti-Di*) – this alternation is roughly equivalent to an obscure bowing known as Viotti-stroke.[1]

In the *Thirty Caprices*, Karg-Elert is quite specific about articulation; he utilizes numerous types of markings to prescribe how a note should be performed in accordance with the musical content. He designed and notated the articulations so finely that he sometimes applied different articulations in recurring passages.

Table 5. 1 shows the type of tonguing employed in each caprice, except for the regular single-tonguing and slurring.

[1] Nancy Toff, *The Flute Book, A Complete Guide for Students and Performers*. 2nd ed., (New York: Oxford University Press, 1996), 118.

Table 5. 1. Articulation

No	Staccato	Martellato/ Staccatissimo	Portato	Tenuto	Accent	Double-Tongue	Triple-Tongue	Flutter Tongue
1	X			X	X			
2				X	X			
3	X	X	X	X	X			
4	X							
5	X			X				
6				X	X			
7				X				
8				X				
9	X		X	X				
10	X							
11	X				X	X	X	
12	X			X				
13	X	X	X	X	X			
14	X	X			X			X
15	X		X		X			
16	X	X	X	X	X			
17		X		X	X			
18	X	X	X	X				
19	X			X	X			
20	X	X		X	X			X
21	X			X	X			
22					X			
23			X	X				
24	X							
25	X			X				
26		X						
27	X		X	X	X	X		
28	X		X		X			
29	X				X	X		
30	X		X	X	X	X		

As shown by table 5.1, most of the caprices involve several types of articulation. *Staccato*, *portato*, *tenuto*, and accent are perhaps the most common. The following section will discuss the individual characteristics of each articulation, and how Karg-Elert's use of articulation enhances some aspect of the piece.

Single-Tonguing

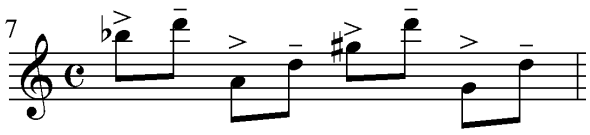
Single-tonguing is the most common form of articulation; nevertheless, its execution is governed by several conventions. The most common ways to indicate single-tonguing are those starting with *T* sound; *Ta, Te*, *Ti, Too,* and *Tu*. These differences in spelling refer to language customs and the character of the note. If one wants to produce less pronounced single-tonguing, the consonant may change to *D* as *Da*, *De*, *Di*, *Doo*, and *Du* for a rounder sound. By applying the different consonants, the character of single-tonguing can be varied by utilizing different areas of the teeth and palate. Meanwhile, the air column, directed by embouchure, is supported through the muscles of the abdomen. However, the sound is actually produced and sustained by the vowel, not by the consonant and the length of each note, can be varied. The flutist's choice of a vowel will affect the quality, character, and expression of the note. In *On Playing the Flute*, Quantz addresses how to apply single tonguing in different musical passages.[2] Although the book is a performance guide for Baroque music, the tonguing method is still practical for the modern flute. He suggests using the syllable, *Ti*, for short notes, and *Di* for slow and sustained notes.

[2] J.J. Quantz, *On Playing the Flute*, second ed., translated with notes and an introduction by Edward R. Reilly, (New York: Schirmer Books, 1985), 71-79.

In caprice no. 1 (see example 5.1), Karg-Elert applies accent and tenuto on the notes of a single tonguing passage, where registers alternate. The accented notes produce a hammer-like impact, and the tenuto notes should be held fully; the melodic line is linked by the accented notes that leap to different registers, B-flat, A, G-sharp, G. This passage can be varied by utilizing two different syllables; *Tu* for accents and *Du* for tenutos. With *Tu*, the action of the tongue is sharper, and it is thus easier to execute a decrescendo on accents; with *Du*, the attack is rounder, and the air stream is firmer and sustained longer. Thus the passage can practically be played with an alternation of

| *Tu-Du-Tu-Du* | *Tu-Du-Tu-Du* |.

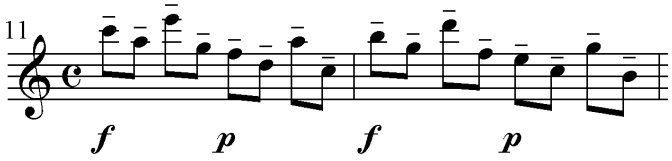
Example 5. 1. No. 1, in C major, m. 7.



In measures eleven and twelve (example 5.2), Karg-Elert constructs the passage by utilizing tenuto with contrasting dynamics. The contrasting of forte and piano dynamics is developed by producing different volumes (or weights) of air; to play louder, the abdomen should punch more; and to play softer, the abdomen should give out less air.

However, the angle of the air stream should be adjusted appropriately by embouchure to make sure the intonation is correct; for the louder and higher group, the angle should press down a bit, and for the softer and lower group, the angle should rise up more. Since all the notes are played with tenuto, the single-tonguing should use *Du*, in order to make sure all the notes are full enough. The abdomen should sustain the notes, even those that are meant to be played softly.

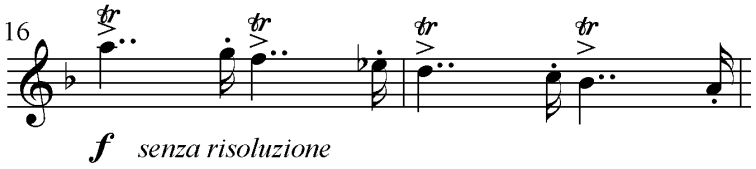
Example 5. 2. No. 1, in C major, mm. 11-12.



There is also a distinctive single tonguing, *Ti-Ri*, suggested by Quantz as indispensable for dotted rhythm; *Ti* is used for the first and succeeding shorter notes and *Ri* for a longer one. According to Quantz's treatise, *Ri* could naturally be used to create an accent, so it is used on the beat; *Ti* is sharper, so it is suitable for off beats. In caprice no. 3, one could apply this concept in the trilled dotted rhythm of measures sixteen to seventeen (see example 5.3). The whole passage could be tongued as: *Tu—TuRu—Tu | Ru—TuRu—Tu |*. The trills, marked *senza risoluzione* under the staff,

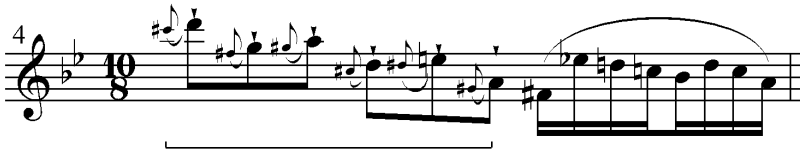
do not need to add terminations. In addition, the trills should only begin after the accents have been played clearly and released before the entrance of staccatos. The double dotted rhythms should be counted precisely in this passage.

Example 5. 3. No. 3, in F major, mm.16-17.



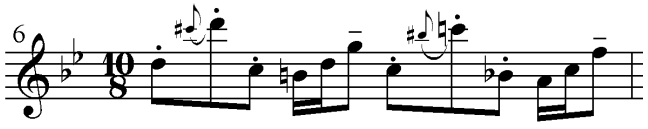
Martellato, analogous to *martelé* and *staccatissimo*, is a sharp, biting staccato. Karg-Elert illustrates it caprice no.16. Connected to grace notes, the main notes of example 5.4 do not need to be tongued again, but the *martellato* tonguing will apply to grace notes with *Tu*. For the shortest and firmest effect, one should punch the air stream briefly but forcefully from the abdomen while tonguing.

Example 5. 4. No. 16, in G minor, m. 4.



In example 5.5, there are three kinds of single-tonguing; a staccato on the first through third beats, normal tonguing on the fourth beat and a tenuto on the fifth beat. The second half of the measure is the sequence of the first half; thus, the passage is constructed in a regularly rhythmic pattern of 5 (3+2) + 5 (3+2). The first three *staccato* notes occur in big leaps which should be tongued with *Tu* for a lively effect, while the next two normally tongued sixteenth notes could use *Tu-Ku* for fluency. The fifth beat, originally a weak beat, is emphasized by a tenuto, which may be tongued with *Du*, in order to insure that the duration is long enough. The five-beat pattern is tongued as: *Tu-Tu-Tu-Tu-Ku-Du*.

Example 5. 5. No. 16, in G minor, m. 6.

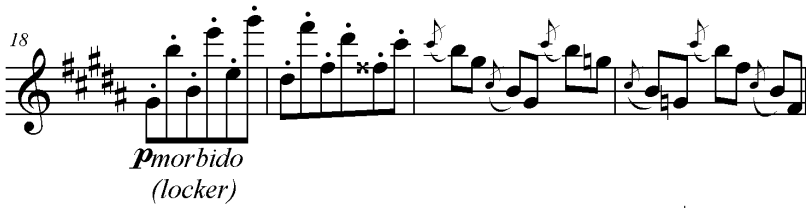


A *morbido* (It., soft, delicate.) and *locker* (G.., loose, gay, easy.) passage in a two-voice texture is presented in example 5.6, in which intervals are distantly spaced. In measures eighteen and nineteen, the performer needs to address the task of playing the staccato pitches that are spread out in different registers; in the lower register, the staccato

is difficult to play short; and in the higher register, the staccato is hard to tongue softly. The player must attend to many details in order to balance the tone quality between the low and high registers; for a low-register staccato, the embouchure should be more open, and the attack of tongue should be smoother. However, in order to keep the staccato lively, the abdomen should provide more power while exhaling in short bursts. Therefore, the staccato will sound like it is produced from one's chest rather than the mouth. The staccato in higher register is shorter naturally and easier to spring; however, keeping the volume down is much more difficult. To overcome the problem, the air stream should be faster, the embouchure should be smaller, while support from the abdomen should continue. The challenge in the first two measures is switching the embouchure from an open position to a smaller and firmer one, and the repetition of this action. Therefore, it would be very useful to apply two different syllables; *Du* for the low register, and *Tu* for the high. To tongue with *Du*, one should use a larger portion of tongue and tip at the back of the upper incisor, so that the embouchure can open a bit more. To tongue with *Tu*, one should use less tongue and tip at the border of the upper incisor and palate, or even on the lip, so that the embouchure is more forward. The technique needed in the last two measures is normal single-tonguing. The normal single-tonguing in this delicate passage is less difficult than staccato, since it is tongued

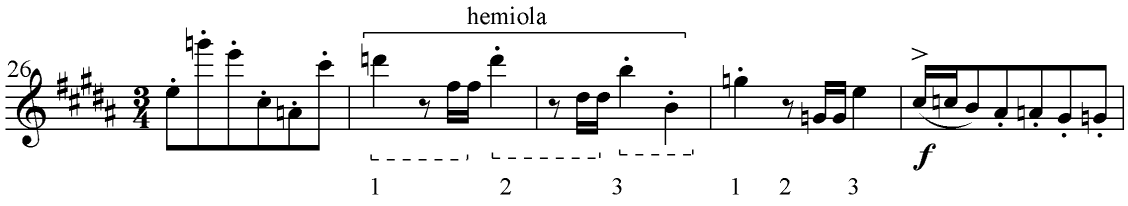
with milder action and sustained for a longer duration. For these reasons, the tone quality would naturally be softer.

Example 5. 6. No. 21, in B major, mm. 18-21.



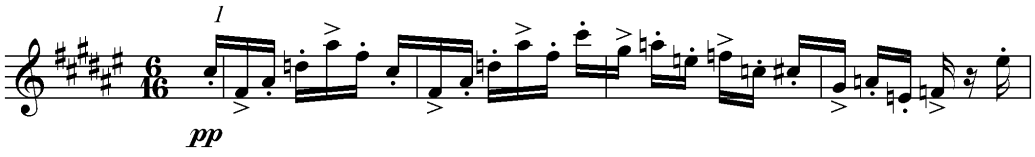
Karg-Elert makes two extraordinary points in caprice no.21, from measures twenty-seven to twenty-nine (see example 5.7). The first point is that Karg-Elert resets the beats in measures twenty-seven and twenty-eight. Therefore, the pulse of waltz becomes stretched. From the perspectives of melodic curve and metrical pattern, this passage is a hemiola, in which the meter is changed from 3/4 to 3/2. In addition to metrical change, the articulation of the hemiola passage is extraordinary as well; where Karg-Elert removes the staccato from the shorter notes (the sixteenths), but requires staccato on a longer one (the quarter notes).

Example 5. 7. No. 21, in B major, in Waltz style, mm. 26-30.



In example 5.8, the passage is characterized by an alternating articulation of staccatos and accents. The metrical grouping, which starts on the upbeat, changes from three notes a count to two notes a count while the articulation strictly emphasizes the downbeat and second beat of each measure. Staccato and accent distinguish two contrasting qualities; the duration of the staccato notes is, of course, much shorter than those on the accented ones and the staccato notes are dynamically much softer than the accented notes. The challenge is that the articulations do not match the melodic shape. One should avoid accenting the staccato notes, such as the C in measure two. The instructor can ask the student to re-articulate this passage following the melodic shape. Thus, the accents will fall on the first note of each metrical grouping. The student can then compare these two interpretations.

Example 5. 8. No. 29, in F-sharp major, mm. 1-4.

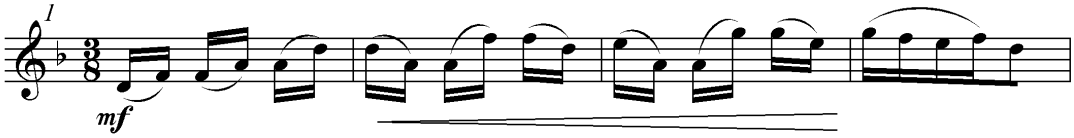


Slur

The slur is also produced by single-tonguing. As the passage is slurred, the player connects the notes without tonguing again. The length of slurs varies; longer slurs are expressively applied to lyrical or legato passages. Shorter slurs are usually utilized in scherzo passages. The caprices in which slur articulation is fundamental are no.2, no.6, no.7, no.8, no.17, no. 22, and no. 28.

In example 5.9, the opening phrase concludes with a longer slur in the fourth measure.

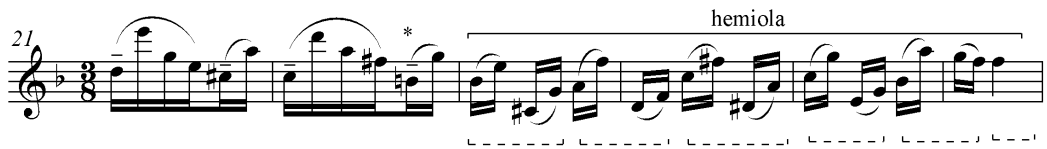
Example 5. 9. No. 2, in D minor, mm. 1-4.



In example 5.10, the slurs indicate a change in metrical grouping. The slurs in measures twenty-one and measure twenty-two are emphasized with tenutos to highlight the chromatic descending line; a hemiola passage is formed by short slurs in measures

twenty-three to twenty-five, which present a clear two-voice texture consisting of an alternation of medium-high and low registers.

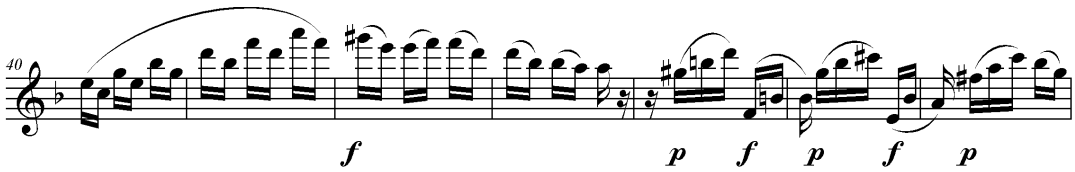
Example 5. 10. No. 2, in D minor, mm. 21-26.



* There is no tenuto in the original score, yet it is necessary to add a tenuto mark to B-natural to bring out the voice-leading.

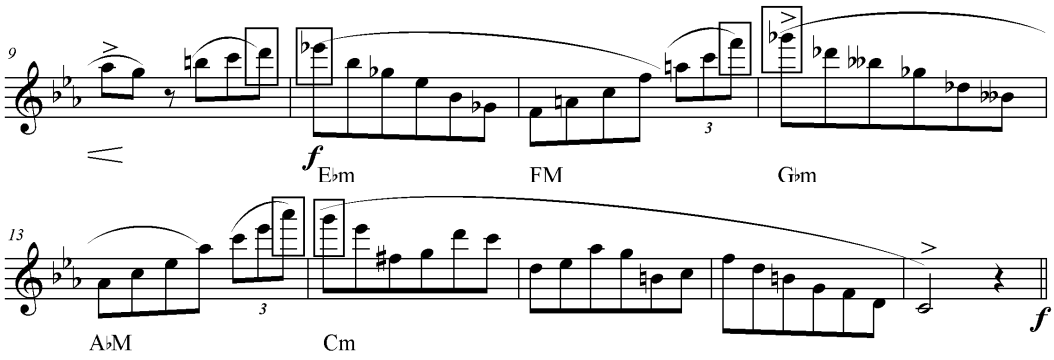
In example 5.11, the tension is expanded by a long slur from measures forty to forty-one. A long slur is applied to the scale in thirds, which drives the piece to a climax in measure forty-two; the short slurs in measures forty-two and forty-three should remain forte. The sixteenth rest in measure forty-four opens a new phrase; the shorter slurs in measures forty-four to forty-six reset the metrical grouping as three sixteenth notes a group with contrasting registers and dynamics.

Example 5. 11. No. 2, in D minor, mm. 40-46.



In addition to scales in thirds, Karg-Elert applies long slurs in arpeggios as well (see example 5.12). In this lyrical passage, a secondary melodic line in the top voice is heard; the emphasized melody spreads distantly, starting from D in measure nine to the tongued E-flat note in measure ten. Then the F of the first triplet group in measure eleven leads to the accented G-flat in measure twelve, and the A-flat in measure thirteen turns to the dominant G in measure fourteen. Finally, the section lands on the tonic C with a no-tonguing accent in measure seventeen.

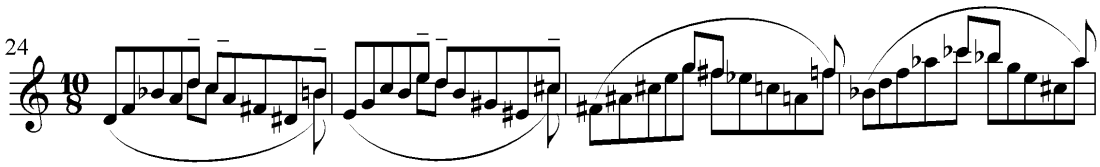
Example 5. 12. No. 6, in C minor, mm. 9-17.



Besides their articulated and expressive purposes, the slurs of the *Thirty Caprices* are sometimes used to indicate phrasings. In example 5.13, long slurs indicate the groups of sequences; the secondary chromatic melodies of the sequences are underlined by tenuto in the first two groups, without tonguing; the tenutos within the slurs should

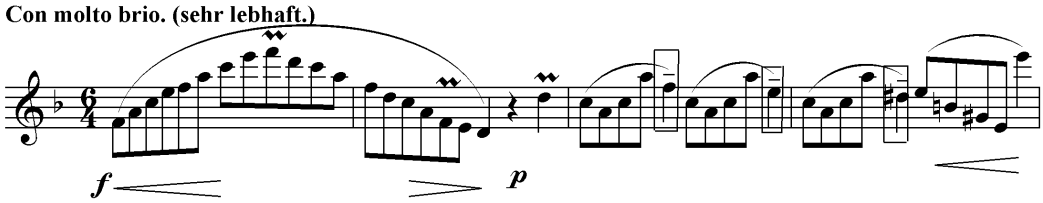
played by increasing the air volume, and stress, along with a slightly longer duration, in order to bring out the notes of the chromatic lines.

Example 5. 13. No. 7, in A minor, mm. 24-27.



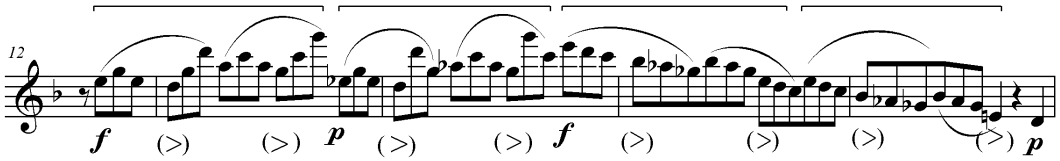
Karg-Elert again emphasizes a chromatic line with tenuto at the end of each slur (see example 5.14). The 6/4 meter is subdivided into 3+3 groupings; in measures three and four, the end of each group is F, E, D-sharp, which are the weak components of the compound duple meter, but which are transformed into the strongest beats by tenutos; the tenutos do not require the player to tongue again but should be produced by a larger air column within the piano dynamic; the duration will not be expanded since compared to the previous eighth notes, the tenuto notes are longer.

Example 5. 14. No. 8, in F major, mm. 1-4.



In the same caprice, the slurs, as seen in example 5.15, rephrase the meter into 12/8 and create a syncopated pattern. This caprice is originally in a 6/4 meter; however, each slurred group creates a symmetrically rhythmic pattern containing two dotted eighth notes; this passage begins at the last quarter of measure twelve which shifts the sensibility away from the original bar-lines. Therefore, even though Karg-Elert does not mark accents on the downbeat and second beat of each measure, the performer should emphasize these two beats.

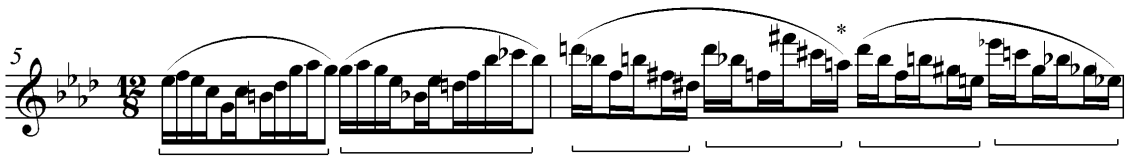
Example 5. 15. No. 8, in F major, mm. 12-16.



The long slurs in example 5.16 are applied to different metrical groupings. This caprice, no. 17, is in 12/8 time; according to the notation, there are two groups in measure five and four groups in measure six. However, Karg-Elert applied two long slurs in both measures. In measure five, the slurs suit the melodic shape well, but not so well in measure six. In measure six, Karg-Elert marks the first and third beats of the first three counts with accents and tenutos in order to emphasize the pattern of two against three, yet

the fourth count of measure six avoids any special emphasis. There are three possibilities for the articulation differences; first, if the score is correct, Karg-Elert might have wanted to end the phrase softly, so he did not mark the accent and tenuto. Second, it should have accent and tenuto in the fourth group. A third interpretation is that the second group should not have accent and tenuto, in accordance with the function of slurs as indicating phrasing in measure six.

Example 5. 16. No. 17, in A-flat major, mm. 5-6.

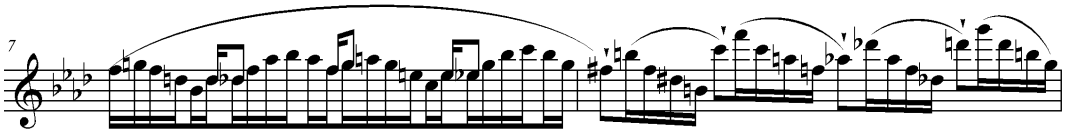


* It is an A-flat on the score, which is a probable error.

In example 5.17, the slurs occur across beats in measure eight, and the beats are highlighted by tonguing with staccatissimo. The lengths of the slurs indicate two different musical characters; the arpeggio sequential passage of measure seven is intensified by a slur and the tension is released by a staccatissimo on the down beat of measure eight. The staccatissimo notes in measure eight should be played as short as

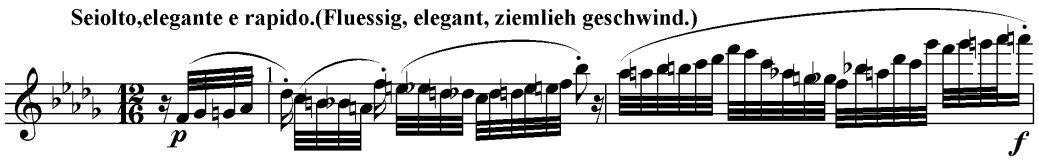
possible in order to detach the slurs with vigorous bounces. Different from the dotted staccatos, these staccatissimo notes with wedges imply a strong and short diaphragmatic accent on the first beats of each group. The notation of this articulation is somewhat ambiguous; therefore, the author suggests tonguing these notes in order to sharpen the attack.

Example 5. 17. No. 17, in A-flat major, mm. 7-8.



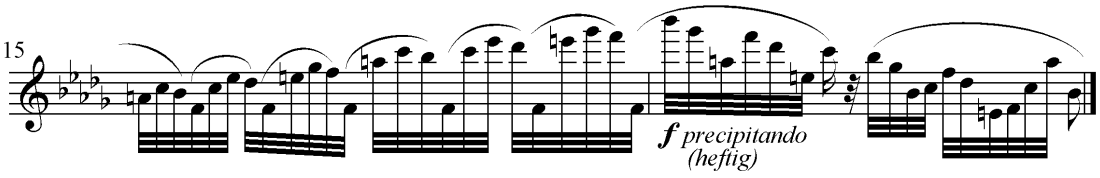
Karg-Elert's favoring of varying the end of a slur is seen again in example 5.18; this time, with staccato marks. The slurred-staccatos in measure one become a combination of normal single-tonguing and mezzo-staccato tonguing- *Tu-Du, Tu-Du*, *Tu—Du*. The three pitches of the B-flat minor chord, D-flat, F, and B-flat, are brought out by this technique.

Example 5. 18. No. 28, in B-flat minor, mm. 1-2.



The short slurs in measure fifteen of example 5. 19 bring out the pedal point F, and reset the metrical grouping of the 12/16 passage from the fourth note of measure fifteen. The metrical grouping is heard as four thirty-seconds. It is challenging to manage the counts and demonstrate metrical patterns at the same time.

Example 5. 19. No. 28, in B-flat minor, mm. 15-16.

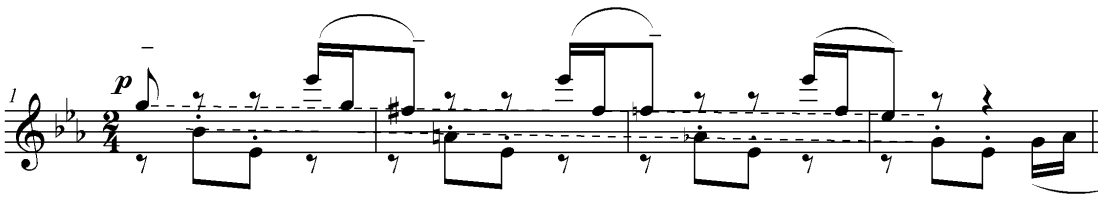


Mixture

In example 5.20, two patterns of articulation are presented in two voices. The lyrical melody in the upper voice is presented with a slur and tenuto on the final note, which occurs on the downbeat. The lower voice accompanies the upper voice with staccato notes. The staccatos should be performed lightly in this passage in order to match the overall character and role of this line as accompaniment. It would be helpful to imagine a gentle string pizzicato in the slower passage and try to imitate the sound

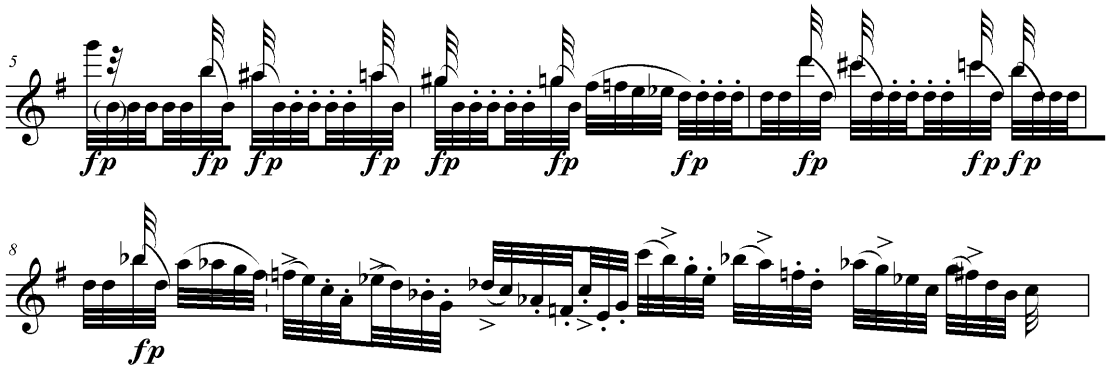
with full resonance.

Example 5. 20. No. 13, in E-flat major, mm. 1-4.



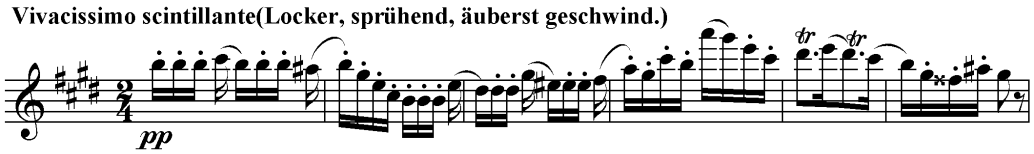
In measures five to eight, as given in example 5. 21, the chromatic line is highlighted by slurs and punched by fortepianos on each descent. The performer should pay attention to the pedal points; some of them are applied with normal tonguing, but others utilize staccato. The performer usually feels confused, since this kind of articulation seems random and not logical. It might be a printing error. I would suggest that the performer that they play all the staccatos on the pedal points. The original meter of this caprice is in 4/8; however, it is extended to six beats in measure eight. A new articulation pattern, starting at the third beat of this measure, paraphrases the whole passage. Furthermore, the pattern is modified before measure nine. Thus, the accent of each short slur shifts from the first note to the second note.

Example 5. 21. No. 14, in E minor, mm. 5-9.



Caprice no. 19 is an exercise in short slurs and staccatos (see example 5. 22). The short slurs link upper and lower neighboring notes to beats. The beats would be weakened by less tonguing, and the emphasis thus shifts forward to the upper and lower neighbors.

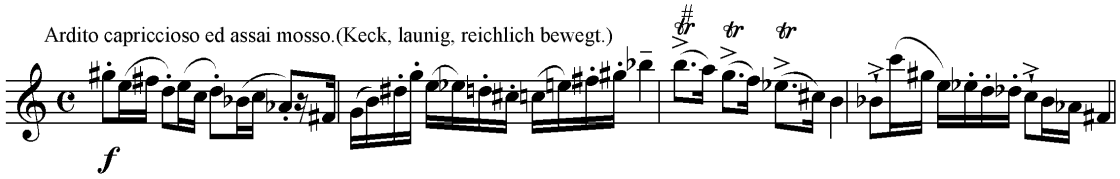
Example 5. 22. No. 19, in E major, mm. 1-6.



Example 5.23 contains seven kinds of articulation: staccato, slur, mezzo-staccato, tenuto, accent, normal tonguing, and *martellato* tonguing. In measure one, the beats are

brought out by staccatos, and the off beats are linked to beats by short slurs. In measure two, a new pattern is stated three times; the beats are brought out by short slurs, and the off-beats are tongued with staccatos. In this repeating pattern, the first note of the short slur should be pressed, and the second note should be released right away; this shorter duration will enhance the lively character of the staccatos. The utmost effect of the technique of this passage is the *martellato* tonguing in measure four. The B-flat and C should be extremely short and loud.

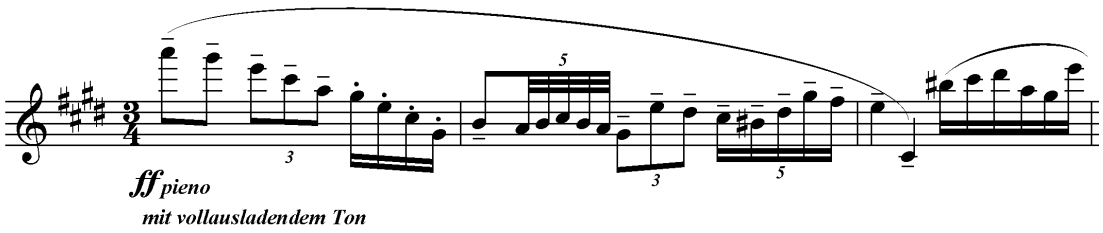
Example 5. 23. No. 20, in whole-tone scale, mm. 1-4.



Among the thirty caprices, caprice no. 23 is an extremely expressive and passionate piece. The first phrase, given in example 5.24, shows a quasi-recitative style; the tenuto and staccato notes require the player to tongue separately, although they are embraced in one slur. To develop the tone as fully as possible, the tenutos should be tongued with enormous vibrato, which is supported by exhaling a great quantity of air. This passage should not be interrupted by any breathing. Nevertheless, how to make use of the

limited quantity of the air in this extremely broad phrase is crucial. This phrase is based on C-sharp minor chord; the opening A and G-sharp notes should be played as brightly as possible, and the range of vibrato decreased gradually for the following notes. The G-sharp that begins the triplet group in measure two should be stressed longer than other notes in the same group, since it is the fifth of the C-sharp minor chord and is expected to resolve to the tonic. Vibrato should be widened for the E and C-sharp notes in measure three. Therefore, the tempo and rhythm will become flexible according to the natural tendency of dynamics. This phenomenon has been called *agogic*, a term first used and defined by Hugo Riemann (1849-1919), a music theoretician and philosopher, in *Musikalishe Dynamik und Agogik* (Hamburg: Rahter, 1884.)[3]

Example 5. 24. No. 23, in C-sharp minor, mm. 1-3.



[3] Michel Debost, *The Simple Flute from A to Z* (NewYork: Oxford University Press, 2002), 12.

Double-Tonguing and Triple-Tonguing

The most common syllable utilized to indicate double-tonguing is *Tu-Ku or Te-Ke*. For a passage articulated with mezzo-staccato or *louré*, one could alternatively apply *Du-Gu*. The second syllable *Ku* (or *Gu*) is an attack made by the middle portion of the tongue. The movement of double-tonguing is similar to a swing. The *Tu* happens when one withdraws the tongue, and the *Ku* happens when one slides the tongue forward. The execution of double-tonguing is a practical and logical technique. Double-tonguing is normally applied in the places where pitches are repeated, or in a rapid passage articulated with successive tonguing (normal or staccato). Although double-tonguing is an indispensable technique of modern flute technique, it was labeled as 'Babylonish gabble,' by W.N. James, in 1826.[4] He also wrote that it was 'one of the most disagreeable noises which the ear is subject to. It is, in fact, a complete jumble of notes, which have neither meaning, articulation, nor expression.'[5] The 'noises' he referred to is the fuzzy sound that comes from unequal execution with two different parts of the tongue.

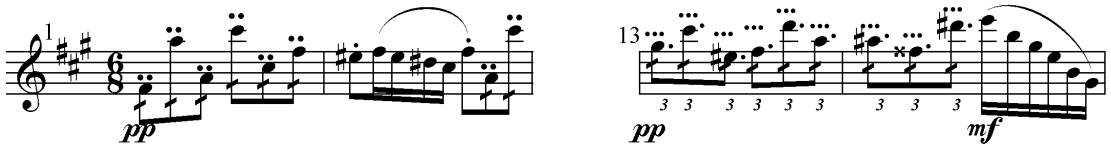
[4] Toff, *The Flute Book*, 119.

[5] Ibid.

Triple-tonguing is a combination of single-tonguing and double-tonguing. In triple meter, the articulation is naturally grouped as *Tu-Ku-Tu*, or *Tu-Tu-Ku*, depending on rhythmic patterns. As for applying double-tonguing or triple-tonguing on the same pitch, there are only four caprices (no. 11, no. 27, no. 29, and no. 30) that require double-tonguing, and only one (no. 11) requires triple-tonguing. However, one can apply them as necessary to any passage in the *Thirty Caprices*.

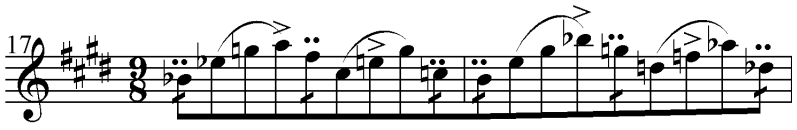
Double- and triple-tonguing is employed in caprice no. 11. (Example 5.25) The challenge is to make the tonguing equal while shifting between notes in different registers. The adjustments of the embouchure are difficult, since the movements of the embouchure should be made rapidly in these soft passages. Therefore, one needs to practice these passages at a slower tempo until one can manage the angle of air stream easily and naturally.

Example 5. 25. No. 11, in F-sharp minor, mm. 1-2 and mm. 13-14.



In caprice no. 27, the articulation of measures seventeen to eighteen is very complex and difficult to perform (see example 5. 26). This caprice is in 9/8 meter, and each measure has three counts. Nevertheless, double-tonguing is applied on the first beat of the first count, the second beat of the second count, and the third beat of the third count. On the other hand, the beats of the second and third counts are emphasized by accents without tonguing. When these two patterns overlap, the whole passage becomes awkward. The succession of double-tonguing across the measures, from C-natural to B, might increase the difficulty; since instead of double-tonguing, a player may expect a slur there. It helps if one emphasizes the B with a bit of pressure or a space between the two notes.

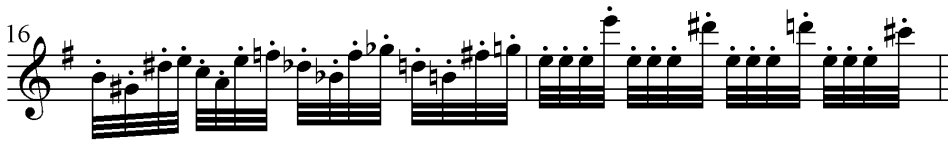
Example 5. 26. No. 27, in E major, mm. 17-18.



In addition to a doubling- or tripling-tonguing on the same pitch, double- and triple-tonguing can apply in fast passages as well. In example 5.27, measure sixteen can certainly be played with double-tonguing. However, the tonguing of measure seventeen

is variable. One can articulate pedal points by triple-tonguing, with either *Tu-Ku-Tu* or *Tu-Tu-Ku*. Alternating single-tonguing produced with different consonances is also possible: *Tu-Ru-Du*, or *Du-Ru-Du*, etc. The melodic notes, however, are in a rather higher register that requires the player to tongue with *Tu* in order to clearly distinguish them from the pedal points.

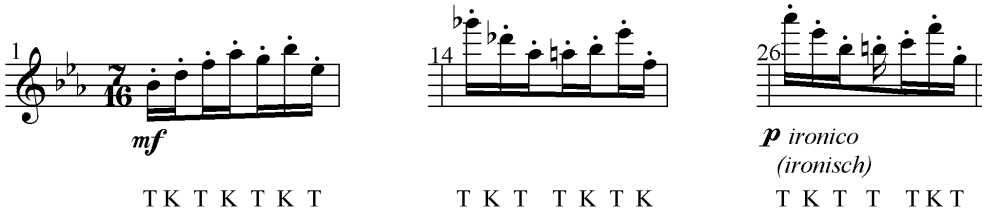
Example 5. 27. No. 12, in G major, mm. 16-17.



In example 5.28, the passage in 7/16 meter is grouped into three kinds of metrical patterns. To fulfill what Karg-Elert has indicated on the score, the staccatos could be produced by single-tonguing, double-tonguing, or triple-tonguing, in accordance with the metrical groupings. In the first measure, the metrical grouping is 2+2+3. The beats will fall on B-flat, F, and G. Thus, the articulation is two applications of double-tonguing plus one of triple-tonguing. In the middle example, the grouping is

3+2+2, and the beats are G-flat, A, and E. Therefore, the articulation is one triple-tonguing plus two double-tonguing. The last example is 3+1+3, and requires an alternation of triple- and single-tonguing.

Example 5. 28. No. 24, in E-flat major, mm. 1, 14, and m. 26.



Flutter-Tonguing

The technique of flutter-tonguing first appeared in *Don Quixote* (1896-97) by Richard Strauss. The idea of flutter-tonguing is to repeat the same note rapidly in order to create a tremolo effect. The shivering sound can be produced either from the tongue or the throat. There are many names used to designate this technique: *Flutterzug*, *coup de lange roulé*, *en roulant la langue*, *tremolo dental*, *tremolo roulé*, *vibrato linguale*, *vibrando*, *colpo di lingua*, *frullato*, *frullante*, *rullante*, *rullato*, and even plain *tremolo*.[6] The French names: *tremolo dental* and *tremolo guttural* imply two kinds of execution;

[6] Toff, *The Flute Book,* 120.

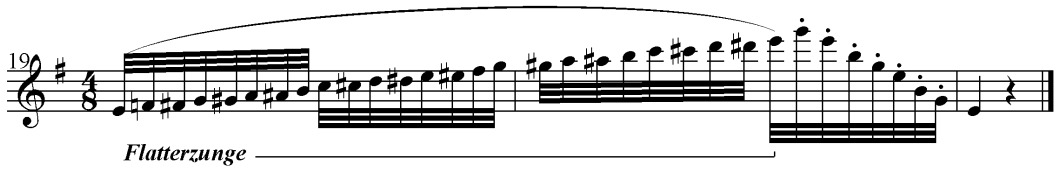
one is to place the tongue behind the upper teeth or the palate, and exhale with the sound *B-R-R-R*. The other is to emulate gargling from the throat while vibrating the uvula. The former execution usually sounds better in louder and higher passages because of more air pressure; and the latter usually works better in softer and lower passages. There are many languages in which one could pronounce similar consonants naturally in one or another way, such as the German *ch*, the Spanish *jota*, the Russian *kh*, the Hebrew *kh*, the Arabic *kh*, the French *r*, the Italian *r*, and so on.[7] Flutter-tonguing may seem natural to some players; however, many players do not learn it easily. The instructor can help them find a way of executing the technique and assign appropriate exercises so that they can produce the right timbre effectively and successfully.

This special technique is included in *Thirty Caprices* by Karg-Elert. Caprices no. 14 and no. 20 have passages with flutter-tonguing. In caprice no.14, a flutter-tonguing passage, as given in example 5.29, runs from the low to the high register. The air volume should increase as the chromatic scale ascends to the E in the second measure. If performers play with *tremolo guttural* from the throat, the vibration should also increase by putting more pressure on uvula. If performers wish to play with *tremolo dental*, the first note should be adjusted carefully to focus the tone quality. The most

[7] Debost, *The Simple Flute from A to Z*, 253.

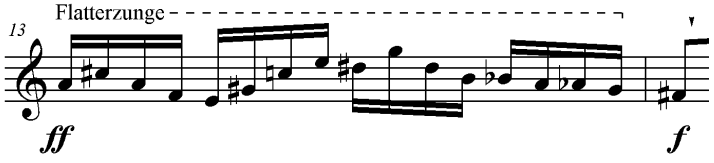
difficult part of playing this passage is that one's air might run out before the phrase has ended. Since a great quantity of air will be spent with the flutter-tonguing, tremendous support from the abdomen is necessary.

Example 5. 29. No. 14, in E minor, mm. 19-21.



In example 5.30, it is more challenging to play with flutter-tonguing because of the required dynamic and the intervals. The dynamic for this flutter-tongue passage is fortissimo, and its melodic shape is a curve. To sustain an even tone quality and dynamic volume, the shape of the oral cavity and the angle of the air stream should be adjusted in accordance with the melodic motion.

Example 5. 30. No. 20, in whole-tone scale, m. 13.



In our examination of the *Thirty Caprices*, we can see that Karg-Elert took articulation seriously and notated the caprices carefully in order to clearly express his intentions. His use of articulation challenges both the technical capability and musical interpretation of the performer. What confuses the performer while practicing the *Thirty Caprices* is that Karg-Elert liked to apply articulation on several levels in order to create a richly-textured melody. The articulation sometimes suits the melody well; however, sometimes it works against it. Therefore, there are slurs that begin on off beats but include, at the same time, accents or tenutos that emphasize beats. Nevertheless, the performer never feels comfortable with those simple-looking passages. The succession of staccatos or long slurs is usually accompanied by intervals that leap between registers.

To distinguish voices or phrases, different kinds of articulation are presented simultaneously, which transforms the flute into a quasi multi-voiced instrument. The challenge to the performer is not only to shift between different articulated patterns, but also to demonstrate contrasting dynamics or registers. Karg-Elert also favored using articulation to make his single note-value passages more sophisticated. The rhythmic pulses are created by changing metrical groupings that are arranged by articulation. Meanwhile, he always wants the performer to keep the beat in mind; he marks them

separately, which it results in a special notational style. There are staccato, staccatissimo, accented, or tenuto notes embraced in a single slur; and more often than not, they are only placed at the end of slur. Unfortunately, these kinds of notations usually cause ambiguities of tonguing; the performer is not sure what should be tongued and what should not. Therefore, it is important to understand the meaning of Karg-Elert's usage of articulation, so that one can accomplish an ideal interpretation accurately. My previous discussion is intended to help the performer to clarify every detail of the articulation problems in the *Thirty Caprices*. As a performer, I enjoyed researching the varieties of articulations that are carefully employed by Karg-Elert, and enjoy the challenge of playing them in a perfect manner. By mastering these pieces, performers can truly improve their tonguing techniques and extend their musical knowledge at the same time.

CHAPTER 6

EMBOUCHURE FLEXIBILITY AND RHYTHM

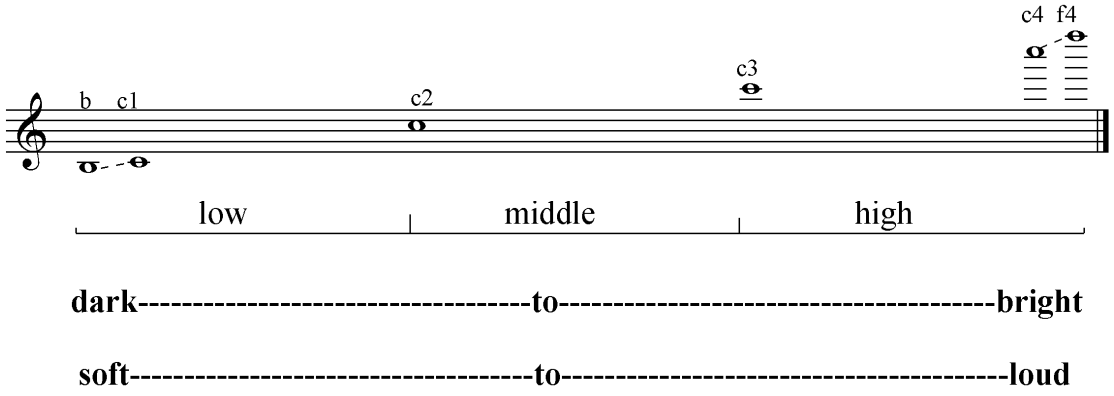
Embouchure Flexibility

One of the most important distinguishing characteristics between old and modern flutes is the tone quality. Compared to the mellow sound of the old-system wooden flute, the sound of the modern flute is much brighter and more powerful.

Embouchure flexibility is one of the most important issues in performance practice since the modern flute basically covers three full registers, and embouchure adjustment is required for the different registers. The registers of the modern flute contain four Cs, from the lowest c1 (middle C) to the highest c4, and can range from low B up to f4 nowadays, depending on the model of the flute. I will divide the total range into three parts and define them as low, middle, and high registers. Despite the independent but similar tone quality of the neighboring area, each register has its own characteristic advantages and deficiencies. The highest register sounds bright and powerful, the middle register sounds warm and tender, and the lowest register sounds dark and mellow. However, when one needs to express a contrasting tone color, these advantages become

deficiencies. Chart 6.1 shows the common relationships between registers, tonal characteristics, and dynamics.

Chart 6. 1



In this chapter, the pitches will be indicated with a register number to identify it exactly in the following discussion. The notes from the lowest C up to the B, will be grouped as the first register, indicated by c1 to b1; the notes from the third space C to the ledger line B will be grouped as the second group, indicated by c2 to b2; and the notes in the third and forth registers are indicated by numbers 3 and 4, respectively. The low B will be indicated without a number as b.

Embouchure flexibility plays an important role in playing across registers and spanning wide intervals. When one plays a chromatic scale from a lower note to a higher note, one finds that the muscles of embouchure need to change gradually from

open to narrow in order to direct the air stream from lower to higher angles. When one plays an interval, especially when the adjacent notes are in different registers, it is necessary to change the embouchure in accordance with the necessary adjustments. The wider the interval becomes, the more adjustment is needed.

In the *Thirty Caprices*, each piece uses all three registers and contains many wide intervals. Therefore, embouchure flexibility becomes enormously challenging to players while shifting registers from low to high. The following table is an illustration of the registers covered from the lowest to the highest notes, and the widest interval of adjacent notes of each caprice.

Table 6. 1. An Investigation of the Covering Registers and the Widest Intervals of the *Thirty Caprices*

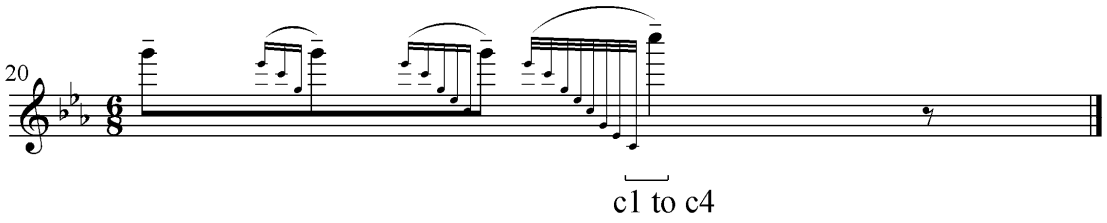
No.	**The Covering Registers**	**The Widest Interval**
1	From c1 to g3	Perfect 15th
2	From c-sharp 1 to a3	Major 13th
3	From c1 to f3	Major 16th
4	From c1 to c4	Major 10th
5	From d1 to a3	Perfect 11th
6	From c1 to a3	Minor 10th
7	From c1 to a3	Minor 10th
8	From c1 to b-flat 3	Perfect 15th
9	From c1 to g3	Perfect 12th
10	From d1 to a3	Minor 17th

No.	The Covering Registers	The Widest Interval
11	From d-sharp 1 to a3	Perfect 15th
12	From c1 to b-flat 3	Minor 9th
13	From c1 to b-flat 3	Major 17th
14	From d1 to g-sharp 3	Minor 13th
15	From c-sharp 1 to a3	Perfect 15th
16	From d1 to b-flat 3	Perfect 11th
17	From d1 to b-flat 3	Minor 9th
18	From c-sharp 1 to b-flat 3	Dim. 15th
19	From d-sharp 1 to b3	Minor 14th
20	From d1 to c4	Dim. 17th
21	From c-sharp 1 to b3	Dim. 19th
22	From c1 to b-flat 3	Minor 10th
23	From b-sharp to b3	Perfect 18th
24	From d1 to b-flat 3	Perfect 18th
25	From c1 to c4	Perfect 22nd
26	From d1 to b3	Perfect 15th
27	From c-sharp 1 to b3	Perfect 11th
28	From d1 to b-flat 3	Perfect 18th
29	From c-sharp 1 to c-sharp 4	Minor 10th
30	From c1 to d-flat 4	Perfect 19th

For all flute players, the highest and lowest notes are difficult to produce with good tone quality. In addition, when playing intervals wider than an octave, it is difficult to adjust the distance, and keep the tone quality equal. However, as seen in table 6.1,

Karg-Elert used all three registers in nearly every caprice; caprice no. 30 is especially difficult, with a range from c1 to d-flat 4, a note which is difficult to produce and cannot be played by some performers. Every caprice has a range of more than an octave. In addition, sixteen out of the *Thirty Caprices* contain intervals of a perfect fifteenth (two octaves) or larger. The widest interval, a perfect twenty-second (three octaves), can be found in caprice no. 25. In order to play this interval, the player needs to reach from the lowest c1 to the highest c4 immediately (see example 6.1).

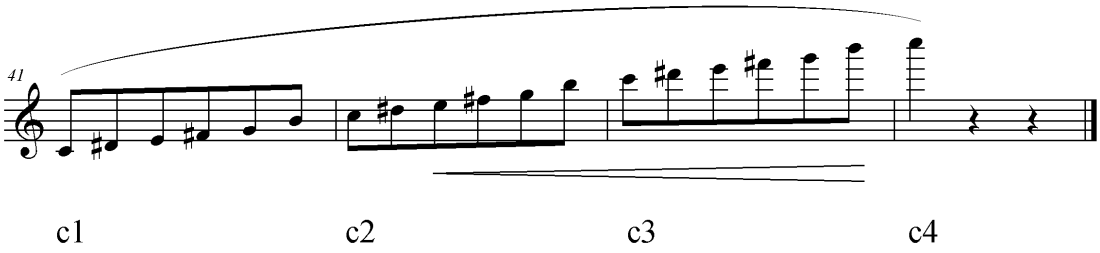
Example 6. 1. No. 25, in C minor, m. 20.



Moreover, there are many shifts between registers and intervals that require the cultivation of a flexible embouchure. One of the features in certain caprices is that Karg-Elert likes to cover three registers in one phrase, requiring the performer to adjust his embouchure gradually and continuously. The passage given in example 6.2 is constructed from a six-note scale with two repetitions, in different registers an octave apart. Since the flutist move through three different registers in these measures, the

embouchure must be appropriately adjusted. The notes at the start of the passage are in the lower register, and should begin with a relaxed embouchure. As the melody moves upward, air speed increases and the embouchure must gradually become more firm. increase the intensity and firmness as the melody moves to higher registers. The support of the abdomen and the air volume will increase gradually at the same time.

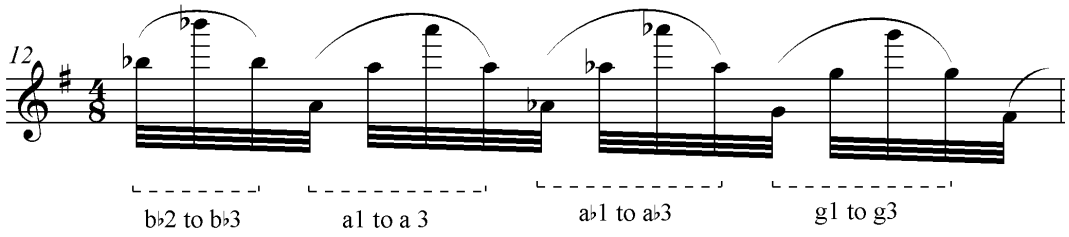
Example 6. 2. No. 4, in C major, mm. 41-44.



In some passages, the notes shift actively between three registers in an octave relationship. In these passages, the performer needs not only to adjust the embouchure actively but also to produce correct intonation at the same time. As seen in example 6.3, the melodic line jumps back and forth across three registers. To play an octave interval is not too difficult since the notes are based on the same overtones. However, the direction of the octave jump affects intonation issues. The performer will sense the difference in playing an octave in ascending or descending motion. This passage illustrates jumps in both directions. Here, the muscles used for embouchure need to

tighten and then loosen again. The common problem is that the muscles usually get tense in order to produce the higher note, and do not relax promptly for the succeeding lower note. Therefore, the problematic place of this passage will be the second recurring note of each legato group, b-flat 2, a2, a-flat 2, and g2. The performer should keep the muscles of the embouchure flexible enough to allow motion in the lips. This will help to correct intonation on these recurring notes.

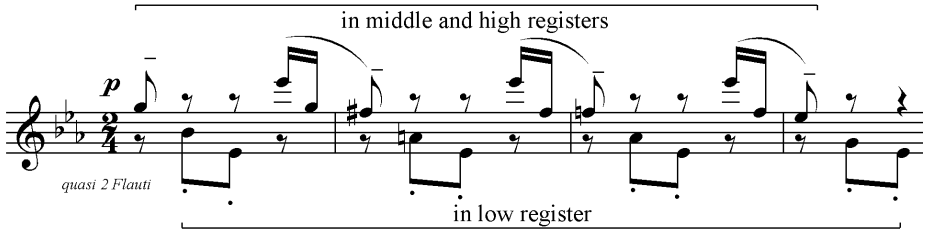
Example 6. 3. No. 12, in G major, m. 12.



Karg-Elert also utilizes different registers to distinguish different voices by tonal characteristics. In the upper voice, performers need to focus the embouchure more; but in the lower voice, to relax it. As the pressure of the embouchure increases, so will the air speed. In example 6.4, the upper voice covers the middle and highest registers while the lower voice stays in the low register. Meanwhile, there are wider intervals in each measure as the voices shift from e-flat 1 to e-flat 3. The embouchure should shift flexibly between voices. Fortunately, the adjacent notes are separated by staccato playing that gives space and time to adjust the embouchure and modify the air speed.

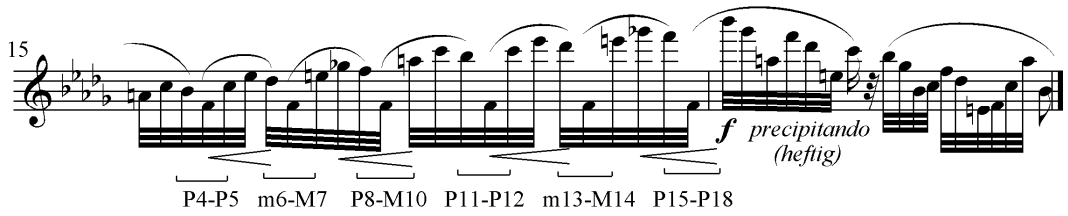
Compared to the lower voice, the upper voice contains more intervallic diversity. Its motive construction connects intervals with chromatic notes, which creates a combination of wide and narrow intervals. Thus, one needs to keep the embouchure flexible for these alternations.

Example 6. 4. No. 13, in E-flat major, mm. 1-4.



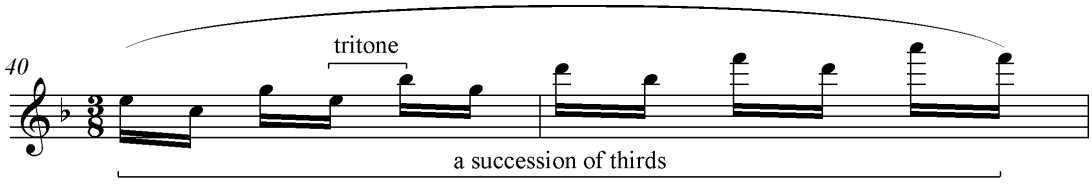
In measures fifteen to sixteen of caprice no. 28, as given in example 6.5, the melody contains ascending motion, starting in the low register, moving through the middle register, and ending in the high register. The intervals are increased while the pedal point recurs in the low register. To practice this passage, the performer's embouchure needs to keep flexible in order to adjust the angle of the air stream and increase the air volume. The angle adjustment of embouchure should be very flexible to allow for adjustment between extended intervals, the pedal point and neighboring notes.

Example 6. 5. No. 28, in B-flat minor, m. 15.



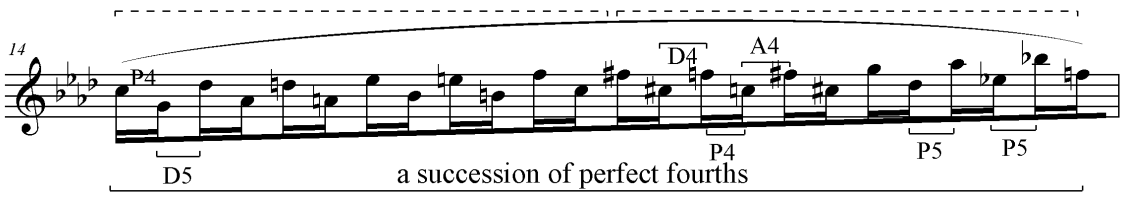
In some caprices, the intervallic progression clearly functions as an exercise to cultivate a stable and yet flexible embouchure; two examples are discussed: in example 6.6, the passage displays an ascending arpeggio in thirds. However, the thirds are reversed so that each group is connected to the next with wider intervals, the perfect and diminished fifth, which causes difficulty in shifting between the thirds and fifths smoothly. The performer should pay attention to these differences and adjust his embouchure appropriately. When the passage moves to the higher register, the embouchure gets firmer. As a result, one should increase the speed of air stream and use more support from the abdomen to push the intervals with more air volume while the notes get higher.

Example 6. 6. No. 2, in D minor, mm. 40-41.



The second passage is given in example 6.7. The chromatic passage does not require large intervallic shifts or jumps between registers; however, maintaining equal and smooth tone color in this long passage becomes challenging to the performer. The interval relation in the first half is a very strict alternation of perfect fourth to diminished fifth; however, there are a diminished fourth and a perfect fifth in the second half. Thus, if the intonation is not well controlled, this passage will sound bumpy and disordered.

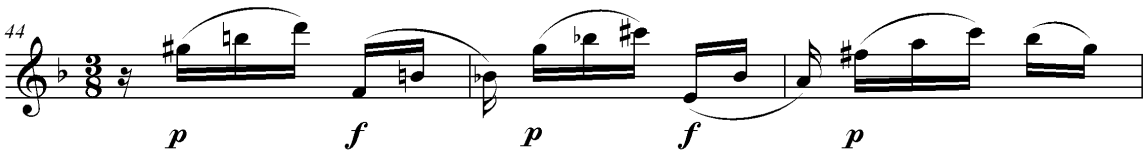
Example 6. 7. No. 17, in A-flat major, m. 14.



In addition to register and interval, Karg-Elert also adds contrasting dynamics to challenge one's embouchure flexibility. The relationship of the dynamics to embouchure adjustment is that when one plays softly, the embouchure gets narrower. As the dynamic becomes louder, the more the embouchure opens up. The other adjustment needed is in the angle of the air stream; when one plays softer, the pitch gets lower, and one needs to raise the angle in order to resolve the intonation problem. The passage in example 6.8 is presented in a two-voice texture. The dynamics contrast with the tonal characteristic of the registers; the performer needs to play softly in the upper

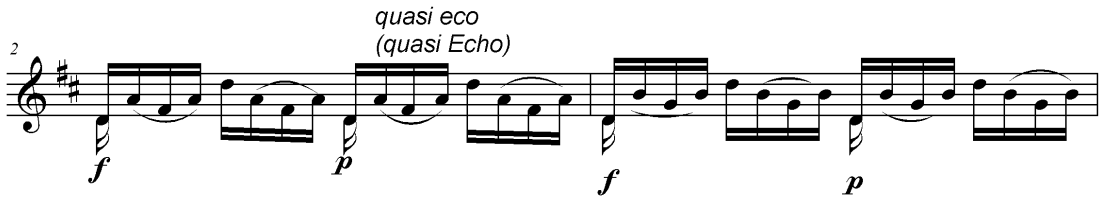
voice, which would normally be brighter and louder, and louder in the lower voice, which is usually darker and softer. In addition to shifting the pressure from tense to loose, the embouchure also needs to be adjusted instantly to change the angle from low to high.

Example 6. 8. No. 2, in D minor, mm. 44-46.



Another type of difficulty, seen in example 6.9 recurs when Karg-Elert applied different dynamics to repetitions. He also included textural instructions indicating that the soft parts are echoes. In order to express the contrast, the performer should apply less air volume and narrower embouchure, as well as raising the air stream to a higher angle to adjust the intonation.

Example 6. 9. No. 5, in D major, mm. 2-3.



It is possible that Karg-Elert made these arrangements on purpose to push the performer to the extreme of tonal expression and embouchure flexibility. The tonal expression consists of three acoustic presentations: the contrast of dynamics; the shift of pitch from lower to higher, and the change of color from brighter to darker. The technical control of tonal expression depends on modifying the air stream by its size, angle, or speed, which all relate to embouchure adjustments. As the contrast between the dynamics, registers, or colors increases, the embouchure needs to be adjusted. However, I do not mean to encourage performers to actively change their embouchures at all times. In fact, the ideal condition for embouchure is a stable but flexible one, which follows the natural flow of the melody. Unless the music contains an extraordinary curve, such as a big jump between registers or intervals, or sharply contrasting dynamics, we usually do not need to adjust the embouchure a lot. On the other hand, we always need to listen to what we have performed. Close listening will lead us to make all the necessary physical adjustments.

The other important concept is the homogeneity of the sound, which is one of the most important ideas of flute playing since the late nineteenth century French school. Homogeneity of sound has been discussed in the *Flute Book*; Murray Panitz, the flutist of

Philadelphia Orchestra, calls it a 'tonal match' in all registers.[1] Furthermore, Nancy Toff has addressed the concept of the homogeneity of the flute tone as follows:

> "What the concept of homogeneity of flute tone means, then, is not that all notes should sound alike but that adjacent notes should be congruous with one another—they should be qualitatively as well as quantitatively contiguous. Moreover, there should be an overall concept of tone quality that applies irrespective of register or octave."[2]

On the other hand, what makes good tone quality on the modern flute is a very personal question. It is safe to say, however, that good tone quality must be focused and resonant. To produce good tone quality, the embouchure should control the air stream to produce good projection. Tonal expression can then be flexible and capable of producing alternations of dynamics, pitch, and color.

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[1] As quoted in Toff, *The Flute Book*, 95.

[2] Ibid.

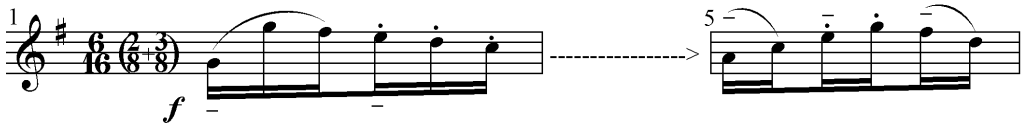
Rhythm

Rhythm is one of the essential elements of music. It refers not only to the timing, but also to the pulse of the music. Many aspects of rhythm have been considered in this dissertation, including: duration, accent, texture, and timbre, as well as its relation to the harmonic and melodic scheme. In the early twentieth century, composers employed a great deal of rhythmic modification as an important compositional technique. Irregular rhythmic patterns became the fashion. Igor Stravinsky (1882-1971) and Béla Bartók (1881-1945) were two exponents who successfully expressed the power of rhythm to the public. Karg-Elert, as part of the group of exponents, was aware that contemporary performers had to improve their rhythmic vocabulary immediately; in the *Thirty Caprices*, he employed syncopation, hemiola, cross-rhythm, poly-rhythm, *rubato*, and multi-meter. These rhythmic modifications will be discussed in the following section.

Caprice no. 9, given in example 6.10, is in 6/16 meter, which has two secondary meters; one is 2/8, with sixteenth note triplets in each beat, and the other is in the 3/8, two sixteenth notes in each beat, according to the pulses of each measure. However, the notation of the secondary meter is problematic; it should be noted as (2/♪. or 3/♪). The tenutos indicate two kinds of metrical groupings. When the measure is grouped in two

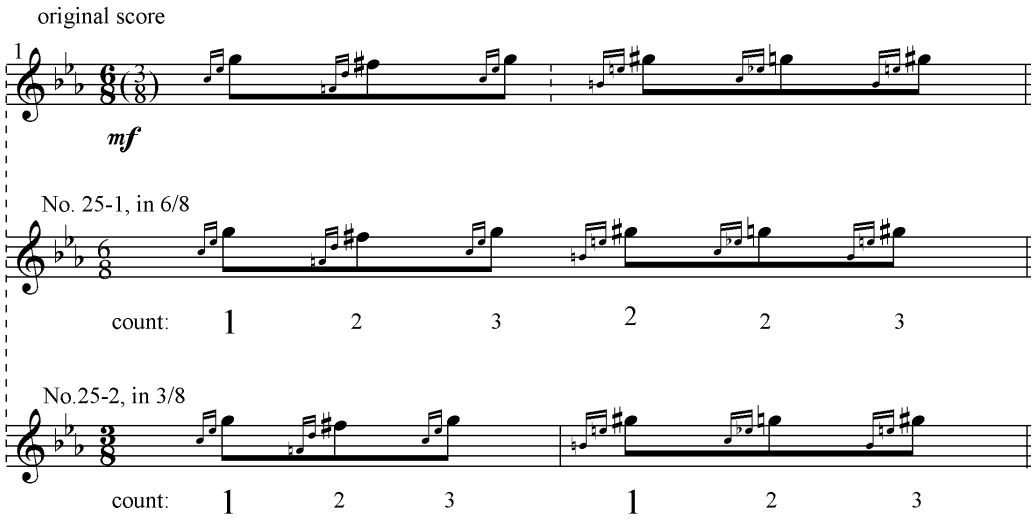
big pulses, it belongs to the compound duple meter with three sixteenths to a pulse. When the measure is grouped in three pulses, it is in a simple triple meter with two sixteenth notes to a pulse. These two meters dominate caprice no. 9 in a random order that transforms this caprice into one that is, in reality, multi-metered.

Example 6. 10. No. 9, in G major, m. 1 and m. 5.



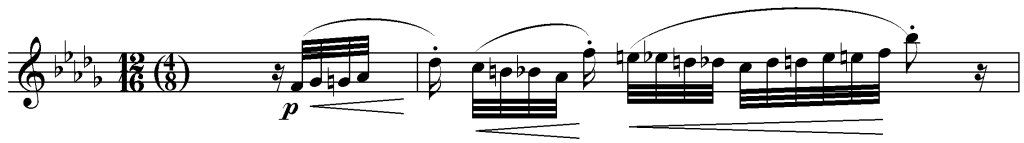
A similar case appears in caprice no. 25 (see example 6.11). Karg-Elert designated 6/8 as the primary meter and 3/8 as the secondary one. He placed broken bar lines in every single measure, in order to distinguish this subdivision. Based on the placement of bar lines, this caprice belongs to two different metric categories. If there are six eighth notes in a measure, the meter is 6/8, a compound duple meter. If there are three eighth notes in a measure, it is in a 3/8 meter, a simple triple meter. This case emphasizes the role and importance of the bar line to the melodic pulsing, as well as tempo. In the places where this caprice is in 6/8, each measure contains two big pulses. As a result, the melody sounds faster and more fluid. When a passage is in a 3/8 meter, there are three pulses in a measure and the melody sounds slower and steadier.

Example 6. 11. No. 25, in G minor, m. 1.



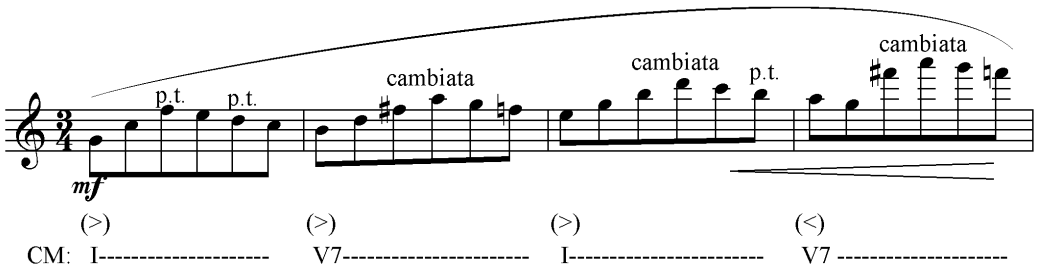
The third example with a secondary meter is caprice no. 28 (see example 6.12); the primary meter in this caprice is 12/16, a compound duple meter; and Karg-Elert indicates the secondary meter as 4/8 to show that each measure has four pulses. Again, the secondary meter should be noted as 4/♪. . To practice this caprice, the performer should articulate the first rest with their breath, and tongue the first note gently, in order to help the listener sense the unit of the pulse immediately.

Example 6. 12. No. 28, in B-flat minor, m. 1.



In addition to indicating the secondary meters, there are some caprices with multi-meters; caprice no. 4 begins in 3/4, then passes to 5/4, 4/4, 3/2, and returns to 3/4. In the opening phrase, as given in example 6.13, the harmonic progression and the melodic sequence are changed in each measure. Therefore, the performer should not count each measure in three but instead as one. Thus, the melody flows more freely at a fast tempo.

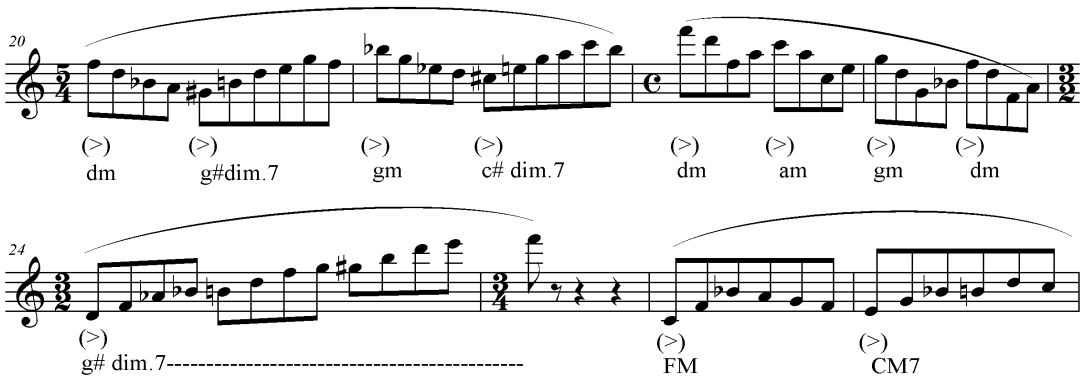
Example 6. 13. No. 4, in C major, mm. 1-4.



In example 6.14, the first metrical alternation happens in measure twenty, in which the meter changes to 5/4. The meter shifts constantly in this passage. The alternation of pulse matches its harmonic rhythm. In order to indicate the pulse clearly, the performer should emphasize the first note of each harmonic group; otherwise, he might lose the sense of rhythm and make the melody meaningless. In the beginning, the performer can subdivide the five beats of the 5/4 passage as two beats plus three beats, and emphasize the first note of each group, the F and G-sharp, in accordance with the

melodic figuration and harmonic progression. The asymmetric meter of the two plus three pattern creates a complex 'limping' quality which has been called 'aksak' by Brăiloiu after 1951.[3] It was called 'Bulgarian rhythm' by Bartók who employed it extensively in the 1930s.[4] Karg-Elert, who had been aware of this pattern, utilized it frequently in the *Thirty Caprices*. In measure twenty-two, the pulse of this passage becomes a regularly developing sequence with a steady two-beat pulse, which seamlessly shifts the melody into a 3/2 meter in measure twenty-four. Therefore, I suggest the performer play the first and third pulses of the 4/4 passage strongly, and only emphasize the downbeat of the 3/2 measure; in the rest of measure, they should make a diminuendo, in order to weaken the second and third pulses of the 3/2 passage gradually.

Example 6. 14. No. 4, in C major, mm. 20-27.



[3] James Porter: 'Europe, traditional music of.', *Grove Music Online* ed. L. Macy (accessed 7 June 2007), http://www.grovemusic.com

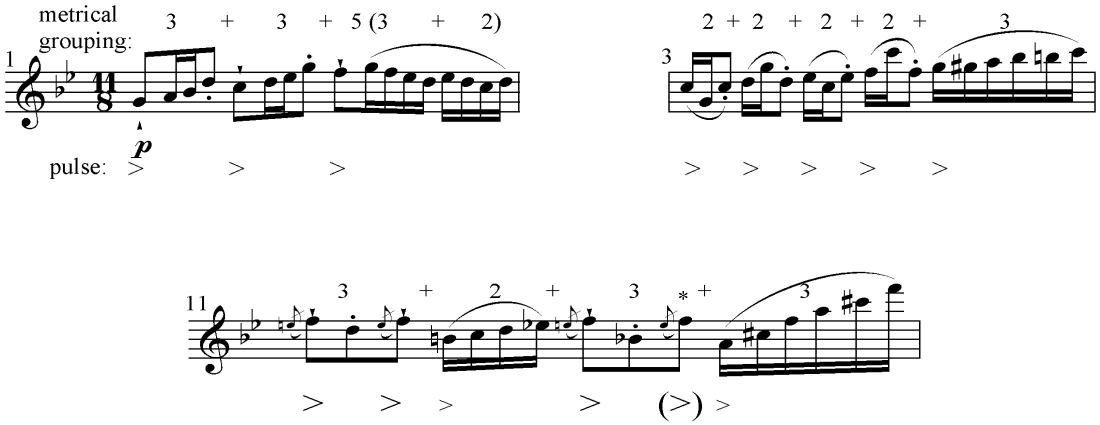
[4] Ibid.

Karg-Elert employed two uncommon meters, 11/8 and 10/8, in caprice no. 16. The melody is based on the smallest metrical unit of duple or triple beats. There are three combinations of the metrical grouping in the 11/8 passage (see example 6.15): 3 + 3 + 5 (3 + 2) in measure one; 2 + 2 + 2 + 2 + 3 in measure three; and 3 + 2 + 3 + 3 in measure eleven. This is use of 'aksak' rhythms, too.

In measure one, the first, second and third pulses are emphasized by staccatissimo, and the third and fourth pulses are connected by a slur. Therefore, this measure has three strong pulses. In measure three, only the last unit is a triple one. The pulse of this example is four short pulses plus one long pulse. In measure eleven, the first triple unit requires two staccatissimos that vary the pulses by giving the accent to both the first and third beats. As a result, there are five pulses in this measure, on the first, third, fourth, sixth, and ninth beats; the pulses with accents are stronger, and the pulse with slurs are weaker.

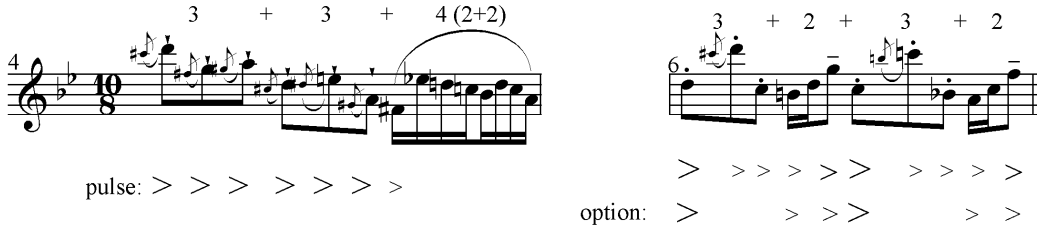
Despite of Karg-Elert's special usage of articulation that he likes to make subtle change in sequences, it is possible that the last grace note of measure eleven should have a caret as well.

Example 6. 15. No. 16, in G minor, m. 1, m. 3, and m. 11.



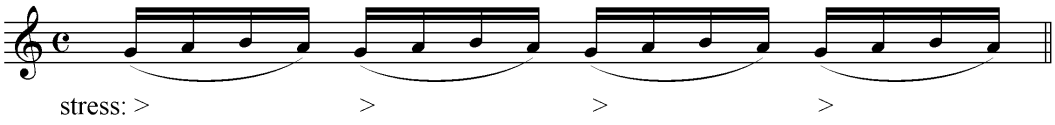
In the measures of 10/8 meter, there are two metrical combinations (see example 6.16). In measure four of example 6.16, the melody is constructed of a combination of 3 + 3 + 4 (2 + 2). However, the staccatissimos emphasize every beat of the triple unit, while the last four beats are combined by a single slur. Thus, the pulse of this passage starts with six strong, but short pulses and finishes with a long, but weaker pulse. In measure six, the melodic construction is symmetrically divided as two pairs of the 3 + 2 pattern. The triple units are indicated by staccatos, and the duple unit is modified by altering the weak beat into a strong one by the use of a tenuto. I suggest the performer subdivide this measure into five plus five beats. In addition, the accentual rhythm of the five beats is in the order of loud, soft, soft, soft, and medium. The other option is to only accent the first beat and the tenuto note of each group.

Example 6. 16. No. 16, in G minor, m. 4 and m. 6.



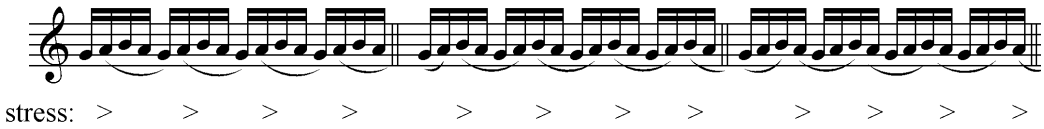
The accentual rhythm is intimately related to articulation. Articulation will provide rhythmic accents on the tongued notes. For example, if a succession of sixteenth-note groups is in a 4/4 meter piece, the first sixteenth note of each group is naturally the stressed one (example 6.17).

Example 6. 17.



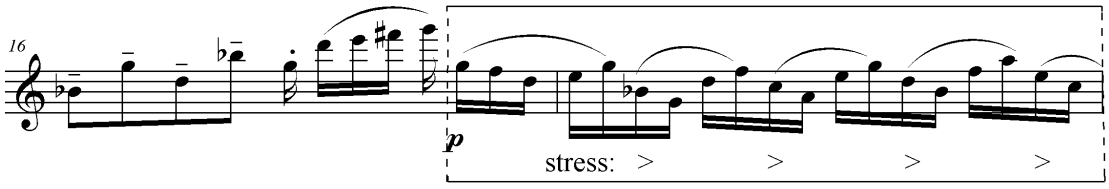
However, if slurs are applied to the second, or third, or fourth note of the group, the stress will shift to the second, or third, or fourth note, and create a secondary rhythmic pulse (see example 6.18).

Example 6. 18.



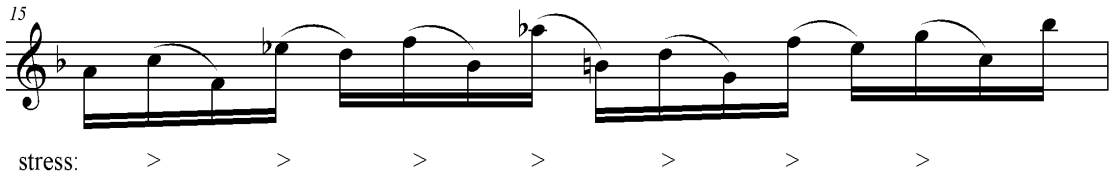
Thus, the tongued note is heard primarily within the slur group. In many single note-value passages, Karg-Elert varied the pulse or shifted the stress from the beat to off beat by applying various articulations. In measure seventeen of example 6.19, the beginning of slurs shifts to the third sixteenth note of each group, the strongest pulse then naturally moves to the third sixteenth note of each group. The voice leading, B-flat, C, D, E, outlining the first four pitches of a whole-tone scale then will be heard.

Example 6. 19. No. 1, in C major, mm. 16-17.



In example 6.20, the strong and weak pulses are shifted by slurs; the second and fourth sixteenth notes, which are normally weaker ones, are emphasized by tonguing.

Example 6. 20. No. 3, in F major, m. 15.



In both examples 6.19 and 6.20, the articulation patterns are stressed regularly on off beats, which creates a syncopation effect. In the *Thirty Caprices*, Karg-Elert frequently utilizes this technique to develop a more complex passage by setting metrical accent against articulated accent. The interaction of regular and irregular pulses, the beats and rhythmic accents, causes conflict that is confusing to the performer. In addition, Karg-Elert seems to de-emphasize the concepts of meter and bar line; rather, he composes the *Thirty Caprices* with the sense of "phrase-rhythm,"[5] as was the custom with composers in the Renaissance period.

Caprice no. 2 is constructed from eight different patterns, all indicated by slurs. In example 6.21, pattern "a" contains three beats indicated by three short slurs; in pattern "b", there is only one slur; thus this measure is counted in one. In pattern "c," two measures are combined by a slur and emphasized by a *rinforzando*; therefore, the duration of the pulse is doubled. In pattern "d," the third beat is separated by another slur; the pulse of this passage thus becomes irregular, with one long pulse followed by a short one (2 + 1).

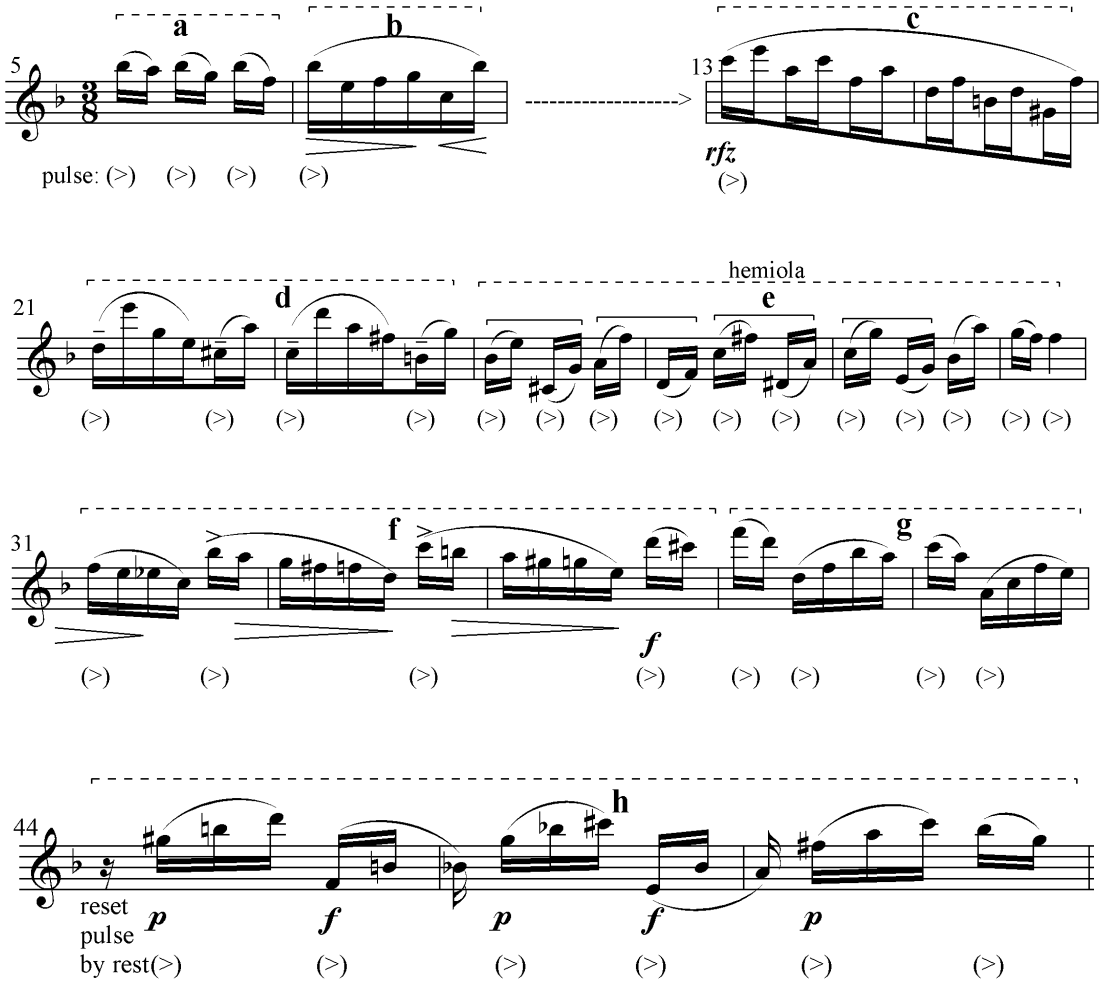
Pattern "e" is a hemiola passage with a play of two against three; the melodic curves

[5] Justin London: 'Rhythm', *Grove Music Online* ed. L. Macy (accessed 7 June 2007), http://www.grovemusic.com

are in pairs as in a two-voice texture and grouped by brackets. In pattern "f," the emphasis is shifted symmetrically to the third beat; the bar lines are re-ordered by two long slurs. Pattern "g" is a reversal of pattern "d", with one short pulse followed by a long one. The last example, pattern "h," starts with a sixteenth rest that re-phrases the passage into 3/16 meter. This rest simultaneously emphasizes and weakens the down beat; it announces a new unit of a pulse silently but powerfully. Compared to the other patterns, the unit of a pulse of pattern "h" becomes a dotted eighth note while in the others it is an eighth note. On the other hand, the contrasting dynamics also imply a two-voice texture.

These eight patterns all contain the same number of sixteenth notes in a measure; however, the slurs organize them into eight different accentual rhythms by modifying the sense of pulse. Patterns "d" to "h" distinguish the phrasing as well. Karg-Elert constructs phrase e, f, and h, by de-emphasizing the metric accent. In phrase e, the hemiola pattern is formed by six two-beat pulses; thus it is heard as in 2/8 meter. In phrase f, the slurs and accents make it asymmetrical. In phrase h, the contrasting dynamics create an auditory effect that implies 3/16 time.

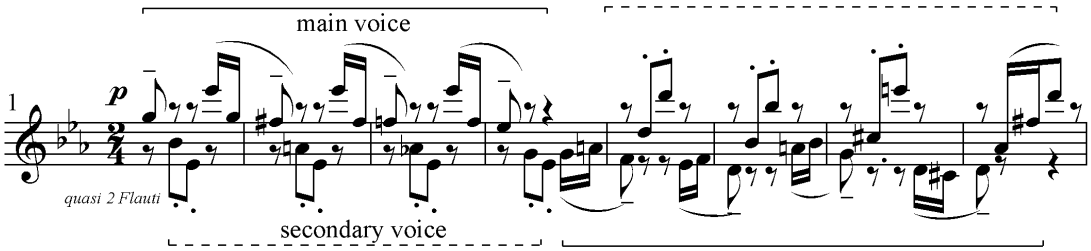
Example 6. 21. No. 2, in D minor, mm. 5-6, mm. 13-14, mm. 21-26, mm. 31-35, and mm. 44-46.



Karg-Elert also employed different rhythmic patterns to illustrate the main and secondary melodies. In the caprice no. 13, two rhythmic patterns present the main and secondary melodies. In example 6.22, the main melody is alternately taken by the upper and lower voices; from measure one to measure four, the main melody is in the upper part;

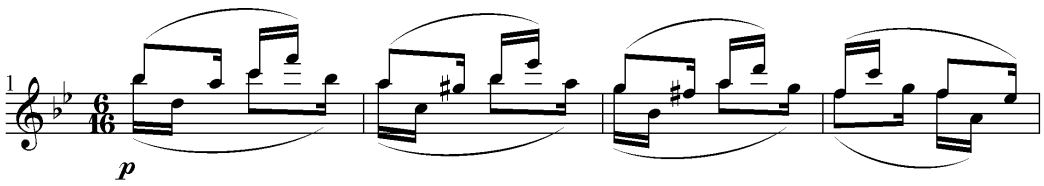
at the fourth beat of measure four, the slurred off beat rhythm of the main melody shifts to the lower part. This caprice is in a 2/4 meter; the entrances of both melodies occur on off beats but end on the beats. Karg-Elert particularly marks each downbeat with a tenuto to distinguish the voice-leading.

Example 6. 22. No. 13, in E-flat major, mm. 1-8.



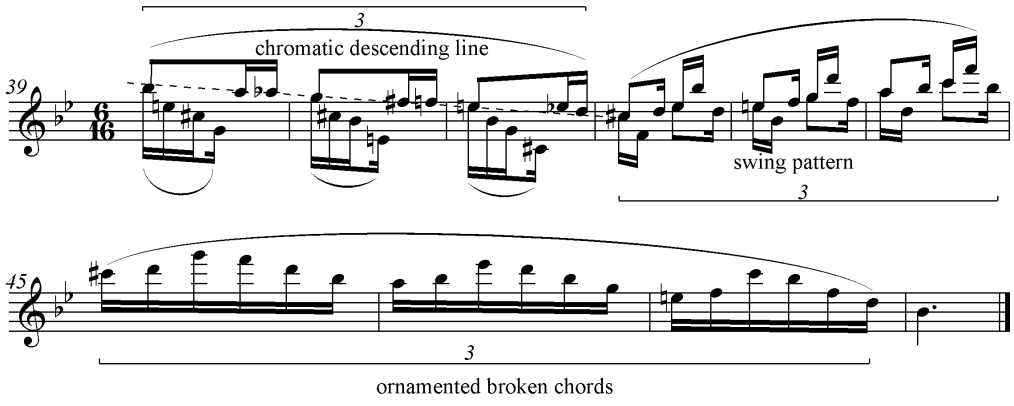
Different from example 6.22, in which two voices are distantly separated, the voices in example 6.23 are closely interlaced. The main melody, which exhibits a steady swing-like rhythm, is clearly indicated in the notation that it is shared by two voices.

Example 6. 23. No. 15, in B-flat major, mm. 1-4.



At the end of the same caprice, Karg-Elert slows down the pacing by reducing the number of pulses in each measure. From measures thirty-nine to forty-eight, as given in example 6.24, the pulse of each measure is reduced to one. Karg-Elert puts brackets, as well as the number three to indicate the phrasing. The metric notation distinguishes three rhythmic groups in the passage of measures thirty-nine to forty-seven. From measure thirty-nine to forty-one, the main voice, a descending chromatic scale, is in the upper part. From measure forty-two to forty-four, the swing pattern is called back and shared by both voices again. From measure forty-five to forty-seven, the passage becomes single voice and concludes the piece with three ornamented broken chords.

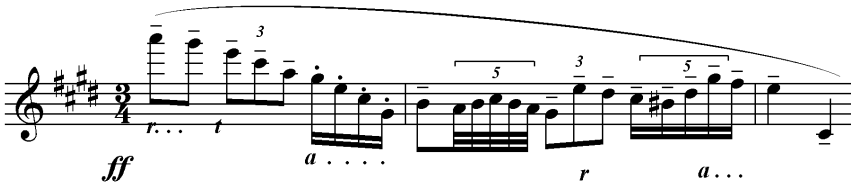
Example 6. 24. No. 15, in B-flat major, mm. 39-48.



In caprice no. 23, Karg-Elert applies the rubato technique by indicating ritardando and accelerando under the expressive melody. In example 6.25, the notes with longer values are stretched by the use of ritardando, and the shorter notes are pushed by the

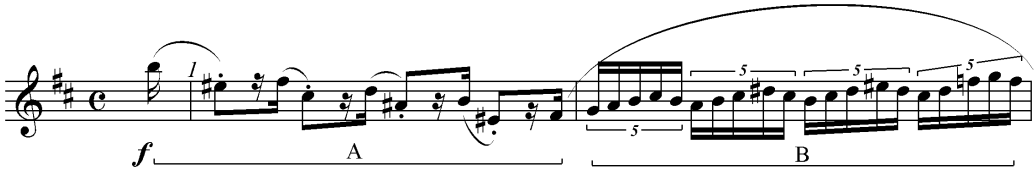
application of accelerando. Therefore, the original longer notes are emphasized by ritardando which create an agogic accent. As a result, the alternation of tension and release creates a very passionate passage. The most difficult part of performing this passage is the breathing. It is better not to take any breath if one wishes to make the phrase continuous.

Example 6. 25. No. 23, in C-sharp minor, mm. 1-3.



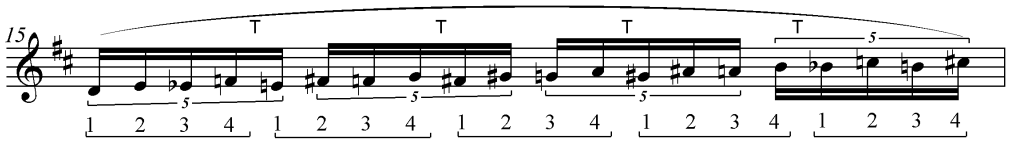
Caprice no. 26 is an exercise in playing the quintuplet. As seen in example 6.26, the opening phrase is constructed of two rhythmic patterns; measure one presents the first pattern, A, an upbeat sixteenth note followed by an eighth note; measure two presents the second pattern, B, five notes grouped in one beat. Karg-Elert annotated how to practice quintuplet rhythms under the score. He suggested that the quintuplets must be practiced as 2+3 at first, and then equally balanced later.

Example 6. 26. No. 26, in B minor, mm. 1-2.



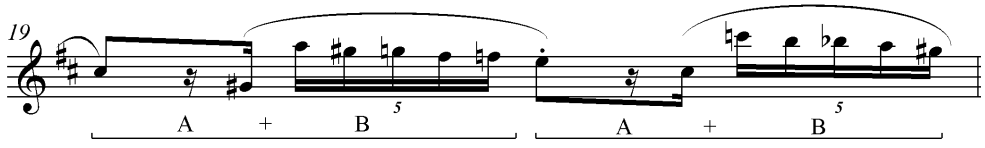
Measure fifteen of the same caprice, as given in example 6.27, is not easy to perform since the melodic shape does not fulfill the rhythmic pattern; the quintuplet passage is constructed from a partial chromatic scale in which the initial pitches of each group outlines a whole-tone scale. Karg-Elert grouped every four notes with "T" marks to let performer understand the essential construction of the melody.

Example 6. 27. No. 26, in B minor, m. 15.



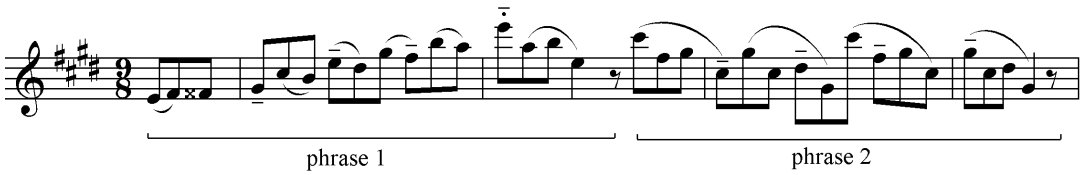
In measure nineteen, seen in example 6.28, Karg-Elert combined patterns A and B to establish a more difficult rhythmic subject.

Example 6. 28. No. 26, in B minor, m. 19.



Caprice no. 27 is also a good example for rhythmic practice; although it is consists of steady eighth notes, its articulations and tenuto markings make the performer uncomfortable in playing. The passage in example 6.29 is divided symmetrically into two phrases; each phrase contains six dotted quarter beats. However, they sound uneven due to the articulation. To practice this passage, one needs to start at a slower tempo, in order to capture every detail of the conflict between the metric accent (the tenutos) and the rhythmic accent (the articulations).

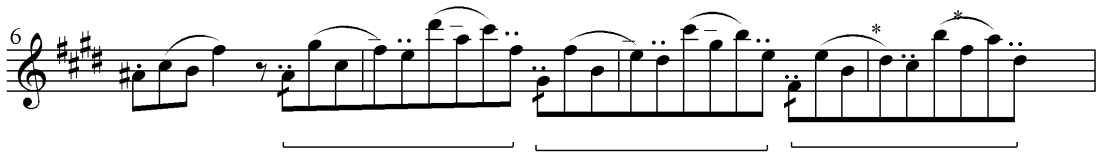
Example 6. 29. No. 27, in E major, mm. 1-4.



The metrical grouping of caprice no. 27 becomes quite interesting from measures six to nine. As seen in example 6.30, Karg-Elert indicates this passage with three brackets. Each one has double-tongued notes at the beginning, middle, and ending. Thus, the metrical pattern is arranged as 1+3+1+3+1. This combination of the cross-rhythm is quite peculiar because it is rare to use one eighth note as a basic unit of compound meter. On the other hand, the down beats of measures seven and eight are indicated by tenutos,

except the one that has been emphasized by the doubling of a note. However, in the third bracket, beats one and two of measure nine, in which I have annotated with asterisks, do not have tenutos, which might be errors. The most difficult part of performing this passage is to demonstrate two successive strong pulses, between the adjacent notes with tenuto and double-tonguing. For example, the F-sharp and E in measure seven, and E and D-sharp in measure eight.

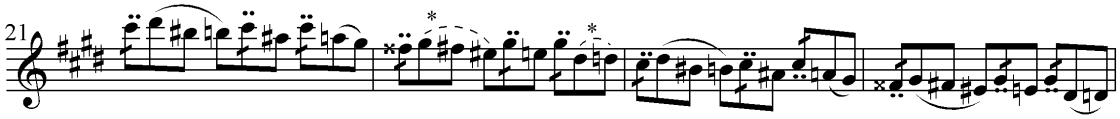
Example 6. 30. No. 27, in E major, mm. 6-9.



In the example 6.31, the pulse of measures twenty-one to twenty-four is again irregularly set by articulation. The first, fifth, and sevenths notes of each measure are emphasized by double-tonguing. This passage is much easier to perform since the double-tongued notes are well spaced. The pulse of this passage is clearly presented as an irregular metrical grouping of 4+2+3. In the second measure of this passage there is no slur indicated on the score. Observing the phrasing of this passage, the articulation of the second measure should follow the other three since they are sequences.

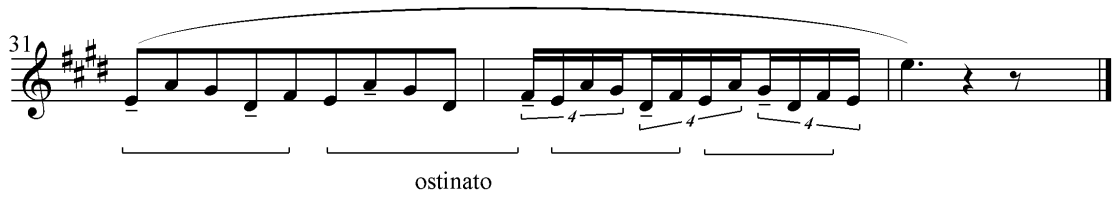
Therefore, I have added two dashed slurs with asterisks to indicate this error.

Example 6. 31. No. 27, in E major, mm. 21-24.



In the last phrase of this caprice, the five-note ostinato motive is arranged into two rhythmic patterns. (See example 6.32). In measures thirty-one and thirty-two, the five-not pattern is fitted into three and four units, which makes the melody heard as a whirl while the rhythm speeds up.

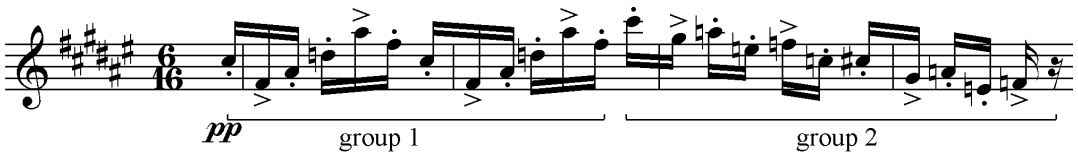
Example 6. 32. No. 27, in E major, mm. 31-33.



The metrical grouping of the caprice no. 29 is also set into a cross-rhythm in the ratio of 3:2, an ‘aksak’ rhythm again. In the first group of example 6.33, the passage is grouped into three-note units; in the second group, the unit consists of two notes.

However, the metrical patterns are disturbed by placing the first sixteenth note before the bar lines. On the other hand, Karg-Elert wanted the performer to enhance the steady pattern of two big pulses to a measure, and so he put accents on the first and fourth sixteenth notes of each measure.

Example 6. 33. No. 29, in F-sharp major, mm. 1-4.



The rhythmic technique of the *Thirty Caprices* seems complex but is quite logical in reality; Karg-Elert adapted two common rhythmic formulae, the duple and triple patterns, and altered them from simple to complex. The rhythmic patterns are established on the pulses of meter, tempo, note-value, articulation, harmonic progression, texture, and the metrical grouping. The pulse of each pattern circulates regularly; however, the music will eventually be heard as irregular. For example, a passage in duple meter is sometimes transformed into a complex one by employing a triple rhythmic pattern, or vice versa. And the passage with the regular pulse will be transformed into an irregular one with the application of cross-rhythm. To distinguish the voice, the polyrhythm is

applied. A variety of the articulation is employed mostly to indicate syncopation and hemiola. In order to increase the effect of the tension and release, the agogic accent is utilized to extend the duration of main notes, creating a rubato effect.

In addition to the use of uncommon meters, multi-meter is used to improve the counting ability of the performer. To practice these passages in a more efficient way, the performer should analyze and restore the circulations of each rhythmic pattern individually. He can then practice one pattern and sense the strong and weak pulses one at a time until he is able to add a second pattern without confusion. Fortunately, Karg-Elert usually notated the strong and weak pulses of each rhythmic circulation clearly. In addition to the diversity of the rhythmic patterns, the use of rests in the *Thirty Caprices* is worthy of consideration. Karg-Elert frequently used the rest as a mark to distinguish a new phrase, section, or rhythmic pattern.

PART FOUR

CHAPTER 7

CAPRICE NO. 30, CHACONNE

The last caprice, a chaconne, is a synthesis of the problems a performer faced in the *Thirty Caprices*. Karg-Elert unites all the exercises and motivic elements of the previous twenty-nine caprices (see table 7.1) by adopting the form of the chaconne, which makes this caprice extremely important in both its musical and technical aspects. This caprice was selected as the required repertoire of the 6th Jean-Pierre Rampal Flute Competition, one of the most important flute competitions in the world, because of its abundant musical components and transcendent technical difficulty.

Table 7. 1. Variations and Their Coordinate Caprices

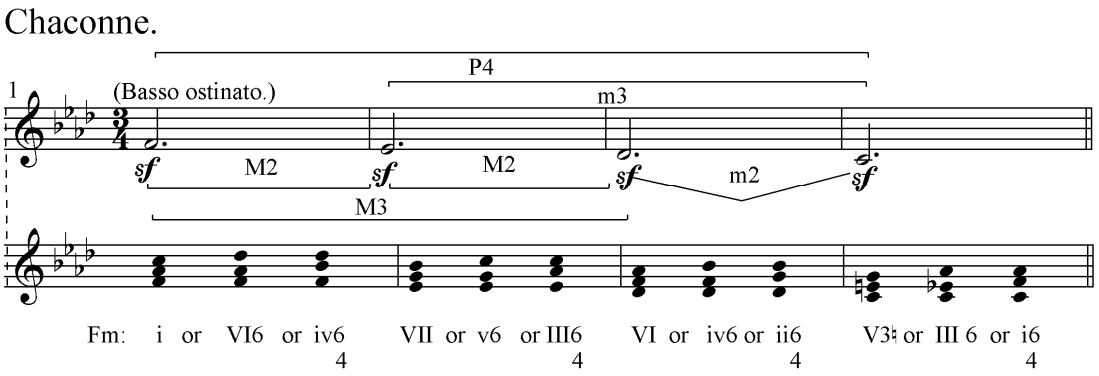
Var.	**Coordinate Caprices**
I	Caprice no. 1, caprice no. 3
II	Caprice no. 2, caprice, no. 3, caprice no.5
III	Caprice no. 4, caprice no. 6, caprice no. 7
IV	Caprice no. 2, caprice no. 3, caprice no. 5
V	Caprice no. 10, caprice no. 13, caprice no. 15
VI	Caprice no. 11
VII	Caprice no. 10, caprice no. 13, caprice no. 14, caprice no. 15, caprice no. 27
VIII	Caprice no. 2, caprice no. 3, caprice no. 6, caprice no. 7, caprice no. 8, caprice no. 20, caprice no. 23, caprice no. 25
IX	Caprice no. 2, caprice no. 16, caprice no. 17, caprice no. 18
X	Caprice no. 4, caprice no. 6, caprice no. 7, caprice no. 8, caprice no. 16, caprice no. 17, caprice no. 18, caprice no. 25, caprice no. 23, caprice no. 28
XI	Caprice no. 2, caprice no. 5, caprice no. 9, caprice no. 10, caprice no. 11, caprice no. 14, caprice no. 19, caprice no. 21, caprice no. 24, caprice no. 29

Var.	Coordinate Caprices
XII	Caprice no. 3, caprice no. 11, caprice no. 14, caprice no. 19, caprice no. 22, caprice no. 24, caprice no. 26, caprice no. 29
XIII	Caprice no. 8, caprice no. 9, caprice no. 11, caprice no. 12, caprice no 14, caprice no. 24, caprice no. 25, caprice no. 26, caprice no. 29
XIV	Caprice no. 3, caprice no. 6, caprice no. 8, caprice no. 11, caprice no. 12, caprice no. 14, caprice no. 18, caprice no. 25
XV	Caprice no. 12, caprice no. 14, caprice no. 15, caprice no. 16, caprice no. 17, caprice no. 19, caprice no. 20, caprice no. 22, caprice no. 26
XVI	Caprice no. 3, caprice no. 5, caprice no. 12, caprice no. 13, caprice no. 14, caprice no. 18, caprice no. 20, caprice no. 25, caprice no. 28, caprice no. 29
XVII	Caprice no. 3, caprice no. 4, caprice no. 6, caprice no. 7, caprice no. 11, caprice no. 12, caprice no. 13, caprice no. 14, caprice no. 18, caprice no. 20, caprice no. 21, caprice no. 23, caprice no. 27, caprice no. 28

The chaconne, in F minor, and in 3/4 meter, is constructed from a thematic basso ostinato, followed by seventeen variations. The tempo of the chaconne is moderate and

majestic. The tetrachord, F, E-flat, D-flat, C, is the bass motive of this caprice which is derived from a descending F natural minor scale. Karg-Elert uses this motive in a variety of ways. Each note in each measure can function as the root, the third, or the fifth of a triad (see example 7.1).

Example 7. 1. No. 30, mm. 1-4.



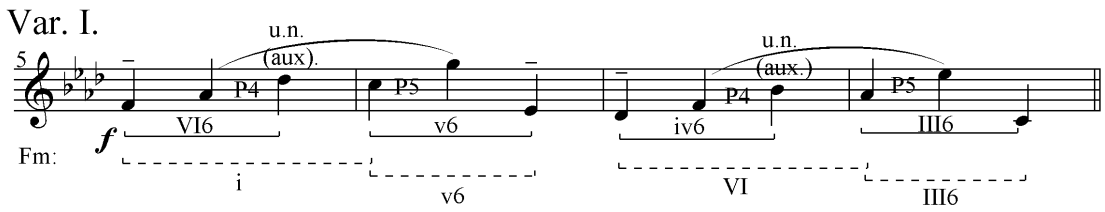
Thus, the context of the harmony affects the performance. The performer can give each note at least two different colors, depending on the chord to which it belongs. The notes contained in a major chord should be played more brightly and with greater confidence. The notes belonging to a minor chord should sound darker and heavier. The basso continuo is constructed from two whole steps and one half-step. Each note should begin with hammer-like tonguing, keeping the middle portion of the long tone broad, and releasing the note before going to the next one. Vibrato, however, should not be used excessively, and the tone quality must be pure and full of resonances. In the

following variations, the intervallic relations and different combination of implied chords becomes an interesting subject for exploration.

The rhythmic pattern of the basso ostinato is altered in variation I. (See example 7.2.) In measures one and three, the ostinato notes occur on the first beats; but in the second and fourth measures, they are heard on the third beats. The other notes in each measure create a chord with the main note. When we treat each measure as a single chord, the harmonic progression will be a succession of first inversion chords -- a D-flat major, C minor, B-flat minor, and A-flat major. However, the four-measure structure is divided symmetrically by articulation into two phrases. The slurs cross over the bar lines so that one hears the third beats of both measures one and three as the upper neighboring notes to the following measure. Therefore, the harmonic progression of this variation becomes a combination of starting from an F minor chord, followed by the first inversion of a C minor chord, and from a D-flat major chord to the first inversion of an A-flat major chord. Meanwhile, two kinds of articulation, tenuto and slur present the melody in a two-voice texture; the main notes played with tenuto in the lower register must be played with a broad and dark tone quality; the notes of the upper voice should be separated from the main notes while the perfect fourths and fifths intervals should be played lightly and

easily, with carefully controlled intonation.

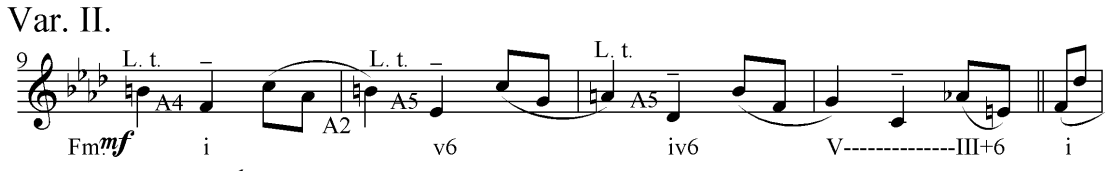
Example 7. 2. No. 30, mm. 5-8.



In the second variation, as given in example 7.3, the basso ostinato notes are placed on the second beat of each measure; therefore, weak beats are transformed into strong pulses. In measure eleven, the harmony is the first inversion of a B-flat minor chord; in measure twelve, a C major chord is followed by the first inversion of an A-flat augmented chord, which leads to the tonic of F minor in the next variation. The augmented intervals weaving in and out of the melody result in an exotic flavor. The B-naturals in measures nine and ten function as leading tones, which are separated from their neighbors, C, by the main notes; the A-natural in measure eleven is also a leading tone that is separated from its neighbor note, B-flat. As a result, the melody is again presented in two parts. The performer should separate the main part in the lower register and the secondary part in the upper register by giving more space and preparation to each

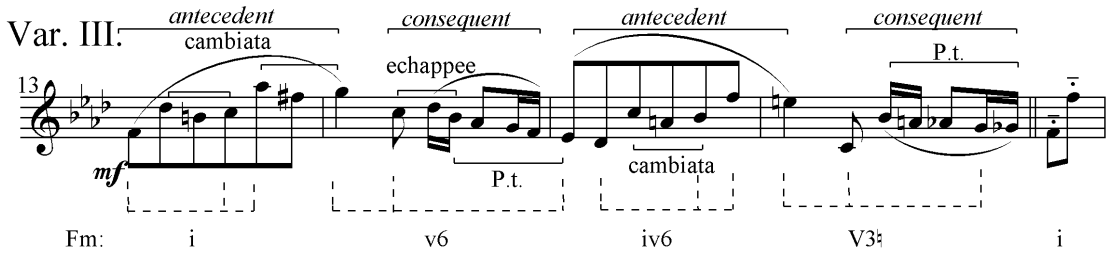
tonguing. This can be accomplished by playing the bass ostinato louder and the upper voice softer. In the last measure, the tempo could be a bit slower on the third beat, in order to lead the harmonic progression back to the tonic F minor in the third variation.

Example 7. 3. No. 30, mm. 9-12.



The structure of the third variation is symmetrically separated into two periods. (See example 7.4.) However, each period is constructed from an asymmetrical antecedent and consequent. The phrase that slurs over to the next measure is the antecedent, and the consequent begins on the second beat of the measure. Unlike the previous variations, the basso ostinato notes are not isolated but blend with chord notes in this variation. The third of the C minor chord, E-flat, does not appear in the measure fourteen but is delayed until the down beat of measure fifteen. The E-flat is immediately succeeded by D-flat, the third of the B-flat minor chord in measure fifteen. And one should play fully on these two notes, E-flat and D-flat, in order to imply the linier motion of the basso ostinato clearly.

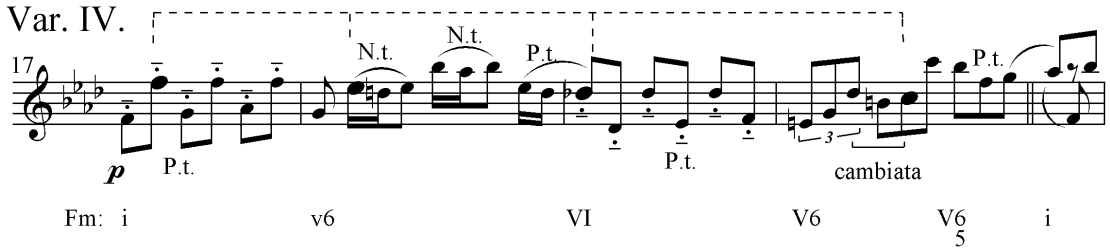
Example 7. 4. No. 30, mm. 13-16.



In the fourth variation, the dynamic is decreased (see example 7.5). The main notes of the basso ostinato, F, E-flat, D-flat, and C, are shifted to a secondary role; the F and D-flat become pedal points in the first and third measures, and the E-flat and C notes are heard on the off beats of the second and fourth measures. A new melodic line appears in the lower voice and the phrasing is constructed in two symmetrical phrases; each phrase contains an antecedent and a consequent. The main melodic line in the first phrase is F, G, A-flat, and G, from measures one to two, which is answered by D-flat, E-flat, F, and E-natural, in measures three to four. However, the second phrase is a modification of the first phrase; the pedal point and melody pitches are reversed, and the consequent phrase in measure four employs a triplet subdivision. There is no long lyrical phrase in this variation, but rather fragmental melodic lines, presented with portato articulations and short slurs. In accord with the harmonic contrast of minor and major

chords, the portato and slurs in the first phrase should be played delicately, but grandly in the second phrase.

Example 7. 5. No. 30, mm. 17-20.

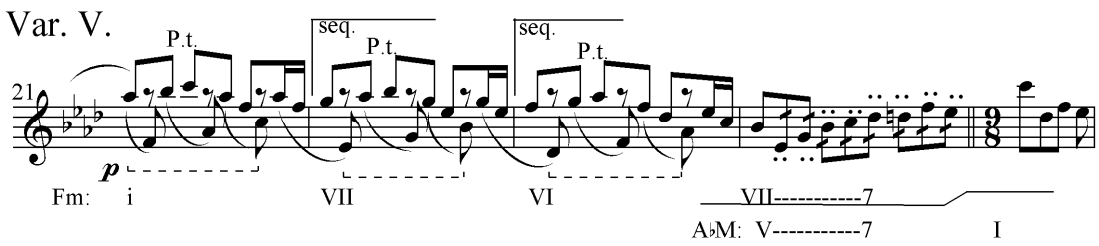


Carrying on the triplet pattern of the previous measure, the fifth variation adopts this pattern as its basic rhythmic unit. The time signature is therefore equivalent to a 9/8 meter. The melody of this variation, given in example 7.6, is notated in a two-voice texture. Measures twenty-two and twenty-three are sequences of measure twenty-one, and measure twenty-four serves as a bridge to the next variation. The broken chords in the lower register spell out the harmonic progressions clearly, beginning with the F minor tonic chord, and moving on to the E-flat major chord, D-flat major, and finally returning to E-flat major. In measures twenty-one to twenty-three, the main notes, F, E-flat, D-flat, are the roots of the chords; the last main note, C, is avoided in the down beat of measure twenty-four and is withheld for the next variation two octaves higher.

The first modulation takes place in measure twenty-four; the E-flat major chord derived from the F minor natural scale is equivalent to the dominant chord of A-flat major, a double-tongued measure leads to the tonic of A-flat major in the next variation. The intonation of the fifth variation is quite challenging to the performer since the wider intervals between the upper voice and the lower voice are slurred. One should maintain a flexible embouchure in order to make the adjustment properly and easily. Thus, the melodic line will still sound smooth although it moves in an abrupt curve.

The articulation is changed to single-tonguing before measure twenty-four in order to reveal the modification of the sequence; the sixteenth notes of measures twenty-one and twenty-two are chord notes, but the last two sixteenth notes of measure twenty-three, E-flat and C, are not chord notes of the D-flat major chord. In addition, the two-voice texture is merged into a single voice in the following passage. Therefore, at the start of measure twenty-four, lengthening the B-natural with the addition of rubato helps to smooth out this transition. To further facilitate this inflection, one should make a crescendo in the double-tonguing passage of measure twenty-four, and delay the arrival of the C at the start of the sixth variation.

Example 7. 6. No. 30, mm. 21-24.

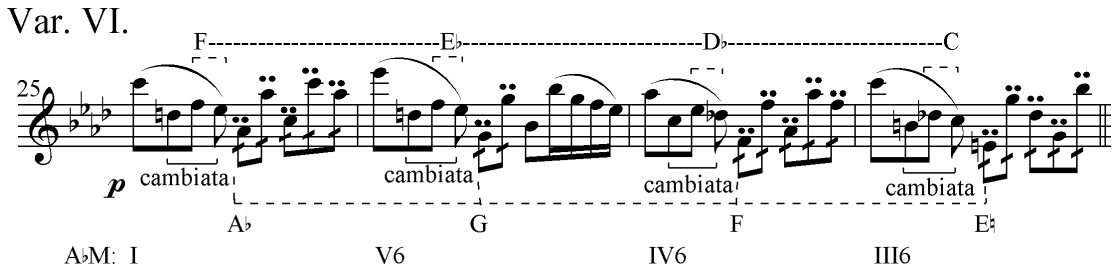


The double-tonguing is taken as a motivic element and adopted frequently in the broken chords of the sixth variation (see example 7.7). The harmonic progression, from an A-flat major chord, to its dominant chord, to its subdominant chord, and lastly to C major, develops a new ostinato, A-flat, G, F, E-natural. The original ostinato, F, E-flat, D-flat, C, is less important and less varied as the non-harmonic tones are heard in the background. The main melodic lines are brought out by long slurs and accompanied by broken chords that divide this variation into four phrases. One should play the slurred main melodic lines more brightly and separate them from the accompaniment of double-tongued broken chords.

The top notes of the first two phrases, C, and E-flat, are sequenced by the top notes of the next two phrases, A-flat and C in lower position. Therefore, the first two phrases should be brought out more strongly, and the dynamic should decrease a bit in the last

two measures. The double-tonguing should be light and smooth in order to join the chord notes to one another.

Example 7. 7. No. 30, mm. 25-28.



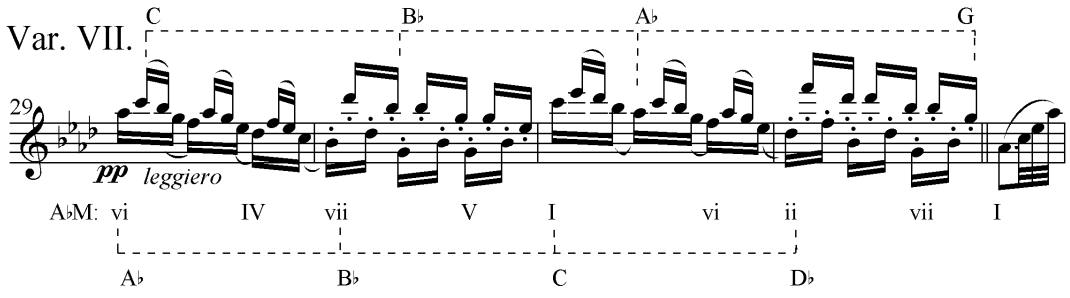
In the seventh variation, the rhythmic pattern is suddenly changed to a succession of running sixteenths (see example 7.8). This simple rhythmic pattern is altered into a complex one by presenting them in a two-voice texture. In measures twenty-nine and thirty-one, the motivic element is scalar; parallel scales in the upper and lower voices break up the melodic line making their entrances on the second and fourth notes of each group. In measures thirty and thirty-two, the motivic element is the chord; broken chords containing large leaps are shared by the two voices. Thus, a nimble *leggiero* character is demonstrated by articulation.

The harmonic progression exhibits a new rhythmic pattern as well, now that there

are two chords in each measure. In addition, a new ascending basso ostinato, A-flat, B-flat, C, D-flat, is heard. This basso ostinato is an inversion of the original intervallic concept of two whole steps plus one half-step, and jumps between different registers. On the other hand, the upper voice contains another version of the basso ostinato, C, B-flat, A-flat, and G, which transposes the A-flat ostinato, A-flat, G, F, E-flat, up by a major third.

For the performer, the ceaseless off-beat entrances make it hard to maintain a precise rhythm. The tempo usually slows down gradually. The best solution is to release the last note of the short slur quickly, and keep the beats of the pulses in mind. The intervals used in measures twenty-nine and thirty-one are narrow and played with short slurs, while the intervals in measures thirty and thirty-two are wider, played with staccatos. One needs to keep good intonation among the jumps of the staccatos, and an energetic stomach action for the lively short slurs and leaping staccatos.

Example 7. 8. No. 30, mm. 29-32.

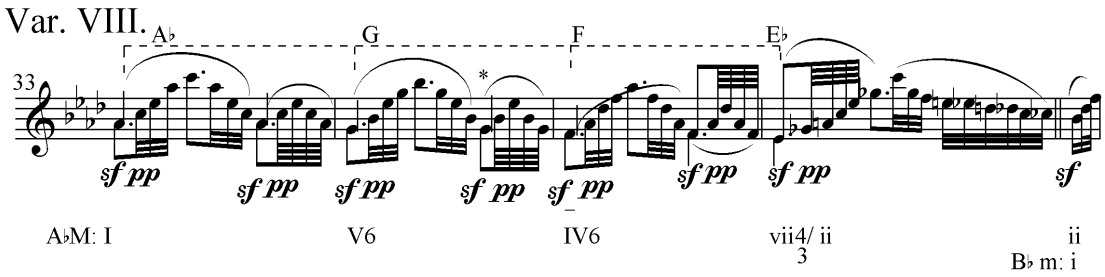


In contrast to the lively spirit of the seventh variation, the eighth variation goes for straightforward lavish arpeggios. In example 7.9, the A-flat ostinato, A-flat, G, F, E-flat, is punched out strongly in the lower register and on the first and third beats of measures thirty-three, thirty-four, and thirty-five. A dramatic change occurs in measure thirty-six, in that the color of the harmonic progression is altered through the use of a secondary seventh chord, where the dominant, E-flat major, would be expected.

Dexterity of finger technique and flexibility of the embouchure adjustment are both important in this variation. The dotted eighth notes must be emphasized fully. The arpeggios in the consecutive thirty-second and sixty-fourth notes need to be played fluently and neatly, and their volume should be kept soft while the line moves through the registers. In order to maintain steady volume in the arpeggio, from the lower register to the higher register, the player needs to make the air stream in this soft dynamic smaller but firmer in the upper register. The angle of the air stream will be set properly to facilitate the correct intonation of the highest notes by listening to the chords.

A printing error is seen on the third beat of measure thirty-four, where the eighth note, G, should be dotted. The auxiliary diminished seventh chord in measure thirty-six creates a bridge to the key of B-flat minor.

Example 7. 9. No. 30, mm 33-36.

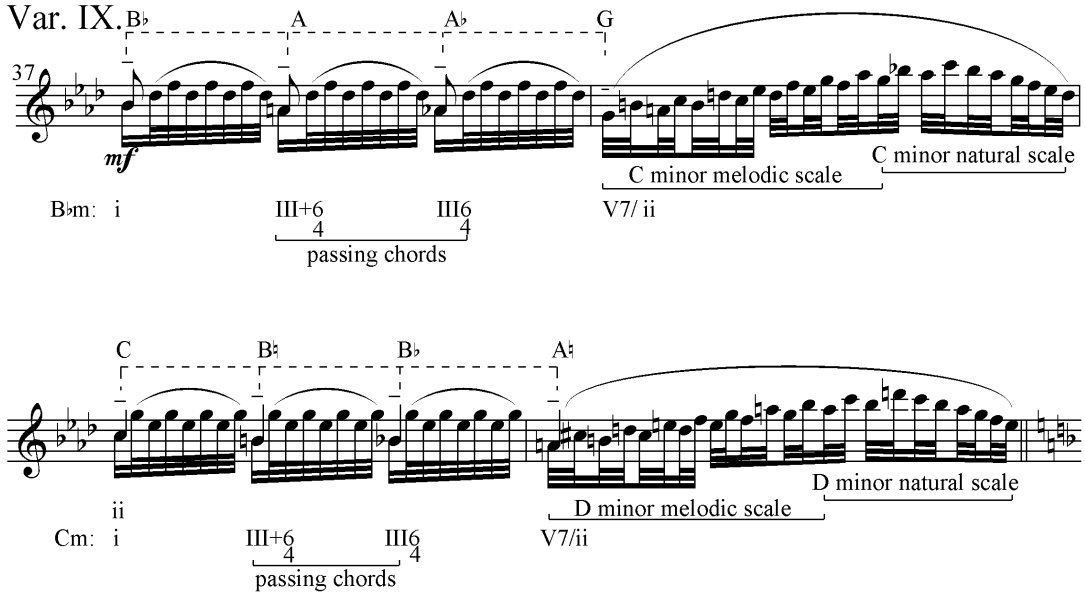


In the ninth variation, the tonality is still unstable. (See example 7.10.) The basso ostinato is varied chromatically as a path to new keys. In measures thirty-seven and thirty-eight, the basso ostinato, B-flat, A, A-flat, G, leads to C minor. In measures thirty-nine to forty, the chromatic ostinato is transposed a whole-step up to C, B-natural, B-flat, A. In measure forty, the D minor scale prepares for a modulation to D minor in the following variation.

Fingering technique is crucial in this ninth variation. The thirds of the scales require skillful cross fingering. The thirds in measures thirty-seven and thirty-nine accompany the main notes, so the movement of the finger should be kept quiet. The thirds in measures thirty- eight and forty are included in long slurs that require the support of the air volume in order to assistant the fingers. A crescendo could be applied to the descending scales of the third beats of the second and fourth measures to facilitate

shifting to new keys.

Example 7. 10. No. 30, mm. 37-40.



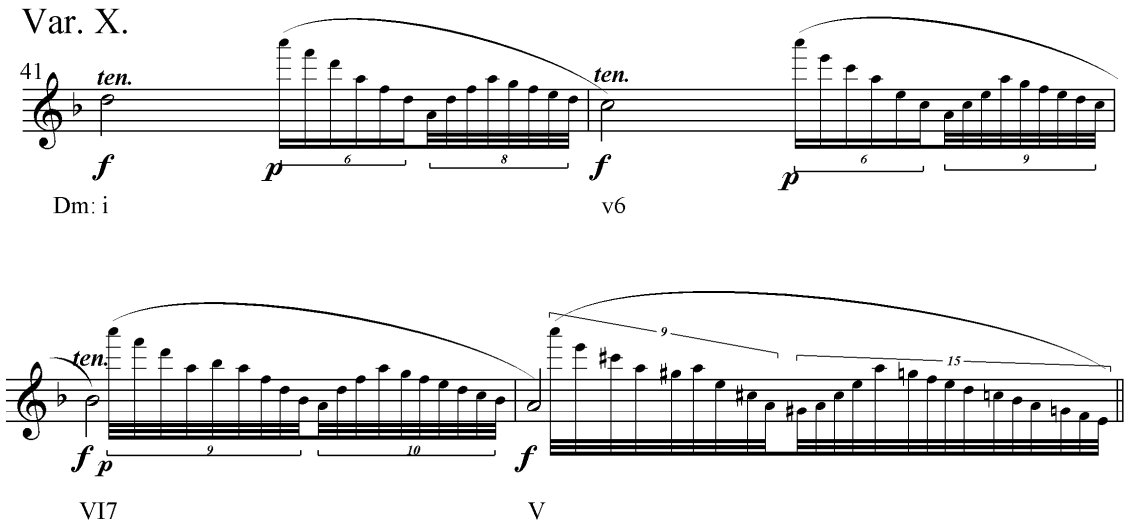
The key signature changes to D minor in the tenth variation, declaring the beginning of the middle section (see example 7.11).

The basso ostinato, derived from a D minor natural scale, is transposed to D, C, B-flat, A. Each of the main notes is connected by a brilliant scale and arpeggio passage. The harmonic progression is clearly brought out by rapid arpeggios, which begin with a D minor chord, progressing to an A minor chord, a B-flat major seventh chord, and ending with an A major chord. The main notes and the ornamented passages stand in

contrast to one another. One should begin these ornaments with soft tonguing and play the notes with fluid finger technique.

The wide intervals between the main notes and the high A notes of the ornamented passages are very difficult to control since one needs to play loud in the lower register, which is normally the softer one, and immediately switch to a soft dynamic in the highest register. To deal with the brilliant expression of the ornamentation, one should start the passages slower and increase the speed to the next main note.

Example 7. 11. No. 30, mm. 41-44.

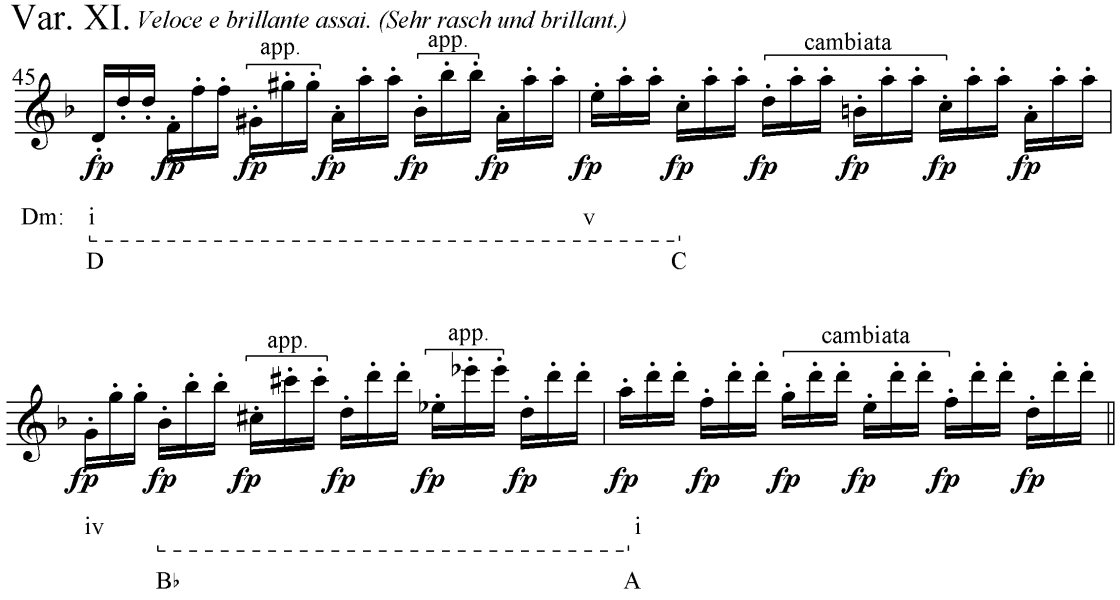


The eleventh variation, as given in example 7.12, is constructed from a succession of triplet sixteenth notes. The expression mark, *veloce e brillante assai (sehr rasch und brillant)*, means to play quite fast and brilliant. The melodic line is clearly presented in

the first notes of the triplet groups.

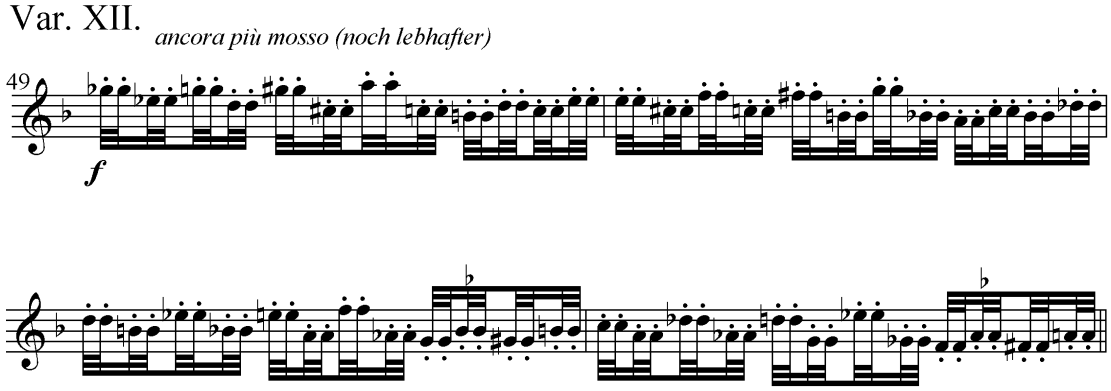
Two symmetrical phrases are heard; D, F, G-sharp, A, B-flat, A, E, C, D, B-natural, C, A, in measures forty-five to forty-six, and a sequence, G, B-flat, C-sharp, D, E-flat, D, A, F, G, E, F, D, in measures forty-seven and forty-eight. The sharpened fourth note of the D minor chord, the G-sharp in measure forty-five, gives the melody an exotic color, as well as the C-sharp, the sharpened fourth of G minor chord, in measure forty-seven. The bounce of the triplet, which is played with triple-tonguing, is important to the energetic presentation of the melodic line. The main notes are tongued with an accented *Tu* (or use *Du*), and the repeating notes are tongued as *Tu-Ku*.

Example 7. 12. No. 30, mm. 45-48.



The twelfth variation, as seen in example 7.13, is built on chromaticism. The D minor basso ostinato covers up the intricate melody; however, the construction of the melody is in fact quite logical.

Example 7. 13. No. 30, mm. 49-52.



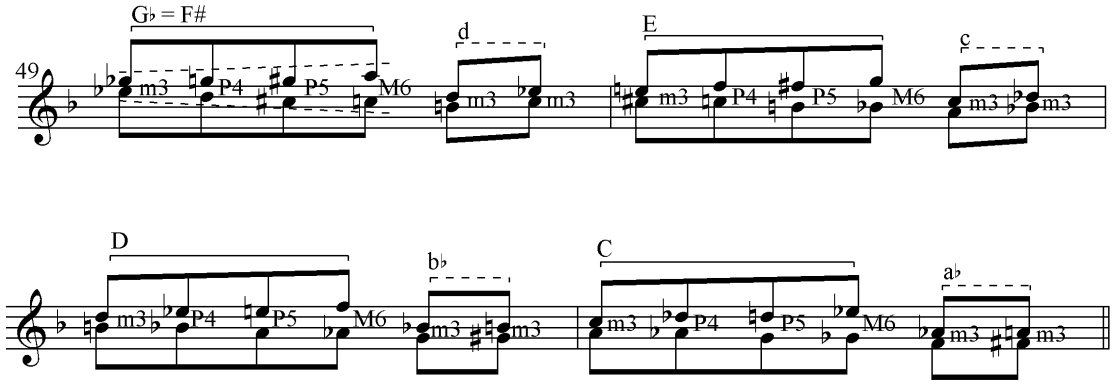
The four-note basso ostinato is modified chromatically in both ascending and descending motion, in which the melody could be re-sketched as example 7. 14. In measure forty-nine, the ascending chromatic line, G-flat, G-natural, G-sharp, A, contrasts with the tetrachord, E-flat, D, C-sharp, C-natural. The next three measures are sequences of the first measure. In addition, if one examines the same beat of each measure, one can find a whole-tone basso ostinato. For example, the first whole-tone

basso ostinato occurs on the first upper notes of measures forty-nine to fifty-two, which is G-flat (=F-sharp), E, D, C. The second notes of the upper voice of measures forty-nine to fifty-two also form a whole-tone basso ostinato, G, F, E-flat, and D-flat. Therefore, performers find several whole-tone tetrachords interweaving in this variation. As for the technical challenge, the performer needs to deal with even double-tonguing on the one hand, and the proper adjustment of the air angle on the other, since that the intervals between the voices progress from a minor third, to a perfect fourth, a perfect fifth, and a major sixth in the first two beats, and back to minor thirds on the last beat. To find the correct intonation of the intervals, one could simplify the phrase by waiving the doubling notes and varying the staccato articulation into a slur, and then play this version at a slow tempo and listen carefully until one knows how to adjust the embouchure.

As Karg-Elert asked that this variation should be played *ancora più mosso*, which means a still faster tempo, the endurance of the double-tonguing becomes very crucial. The most common problem is the failing of the tonguing action at the end of phrase or section. This fatigue may be caused by excessive movement of the embouchure and tongue, as well as a shortage of air. In order to overcome these problems, one should keep the rapid tonguing light and supply plenty of air, while keeping the phrasing in

mind.

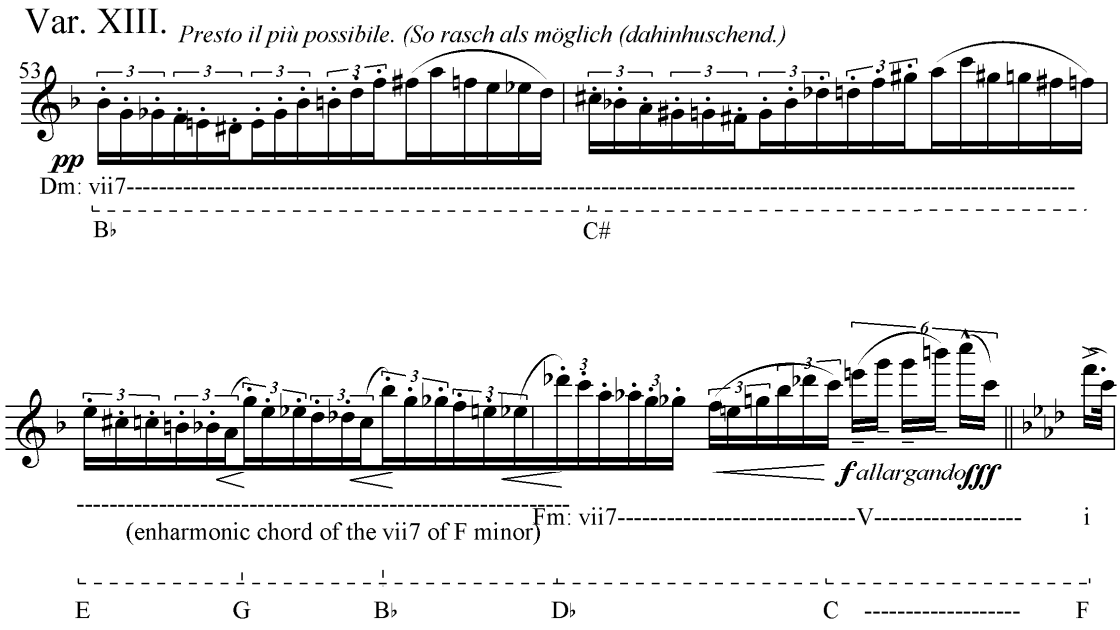
Example 7. 14. A re-sketch of no.30, mm. 49-52.



The thirteenth variation functions as a re-transition. The whole variation is based on a C-sharp diminished seventh chord, presented in arpeggio style and elaborated chromatically (see example 7.15). The climax is created by starting the variation with a very soft dynamic in a lower register and gradually passing to a very powerful dynamic in a very high register. The enharmonic technique is adopted in this variation to modulate back to F minor in the next variation. The harmonic progression begins on the C-sharp diminished seventh chord. It progresses to an E diminished seventh chord in measure fifty-six, and prepares for the C major chord at the end. The C major chord is the dominant of F minor, which resolves to the F minor chord in the next measure. One should present the harmonic progression by bringing out the voice-leading, B-flat, C-sharp, E, G, B-flat, D-flat, C, F, clearly. In addition, the diminished seventh chord and

the chromatic elaboration notes color the melody exotically. To paint the color more dramatically, one should follow the tempo, *Presto il più possible*, in accordance with the increasing tension. The third beat of measure fifty-six is abruptly slowed down, and the C major chord is to be played fully and broadly. The B natural, a non-harmonic tone, points forcefully to the high C and pushes the chaconne to its climax. The utmost of the tension occurs on high C that resolves to F, the beginning of the next variation.

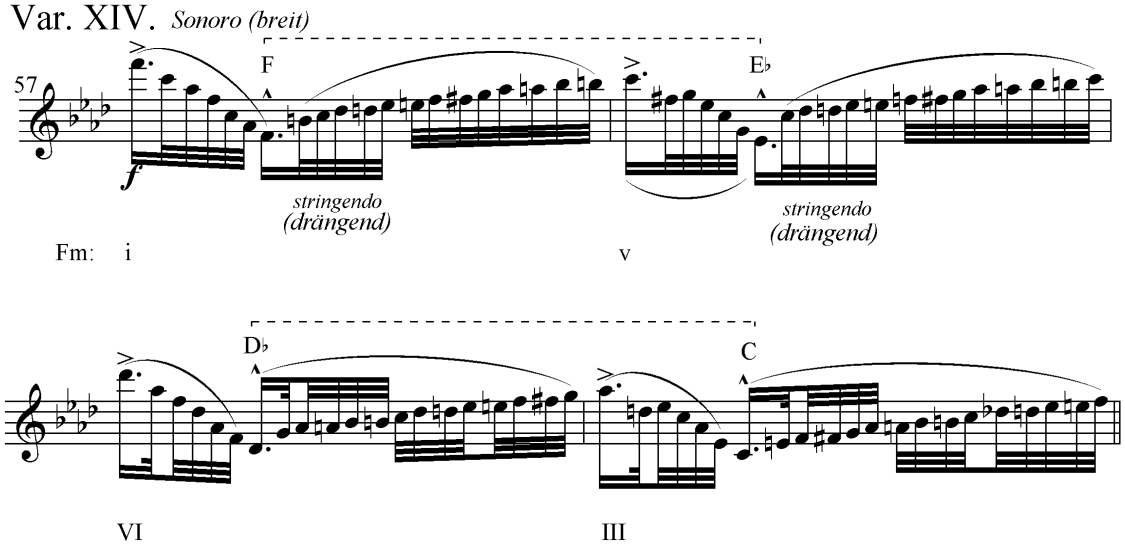
Example 7. 15. No. 30, mm. 53-56.



The fourteenth variation is the beginning of the recapitulation (see example 7.16). The downbeats of measures fifty-seven to sixty, F, C, D-flat, A-flat, are heard as a

counterpoint of the opening basso ostinato, F, E-flat, D-flat, and C. Meanwhile, the arpeggios clearly illustrate the harmonic progression in a relation of a circle of fifths, an F minor chord to a C minor chord, and a D-flat major chord to an A-flat major chord. This variation is to be played *Sonoro*, which means it must be played with a fully resonant tone. The chromatic runs should be accelerated and applied on crescendos to make them more splendid.

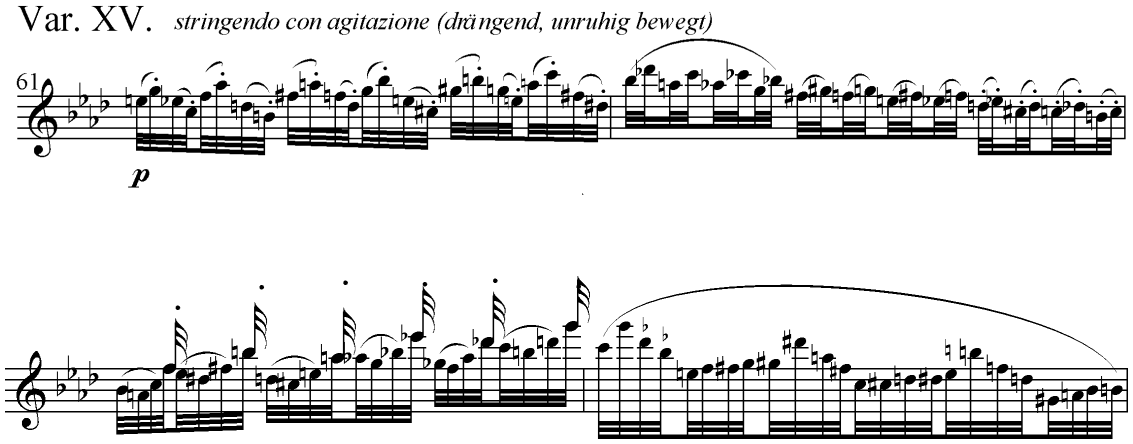
Example 7. 16. No. 30, mm. 57-60.



The chromaticism that is utilized in the middle section recurs in the fifteenth variation (see example 7.17). The articulation shifts frequently to suit the expression mark of *stringendo con agitazione*, which means to speed up excitedly. In measure

sixty-one, one should keep the action of tonguing and the abdomen energetic on the short slurs while lifting up the staccatos in the end. In measure sixty-two, the articulation is changeable; it starts with a long slur on the first beat, then passes to short slurs on the second beat, and shortens the short slurs with the staccatos on the third beat. In measure sixty-three, to bring out the staccato vividly, one should use more support from the abdomen. In the long slur of measure sixty-four, a subtle adjustment of embouchure and correct intonation between intervals is required for the curvy melody.

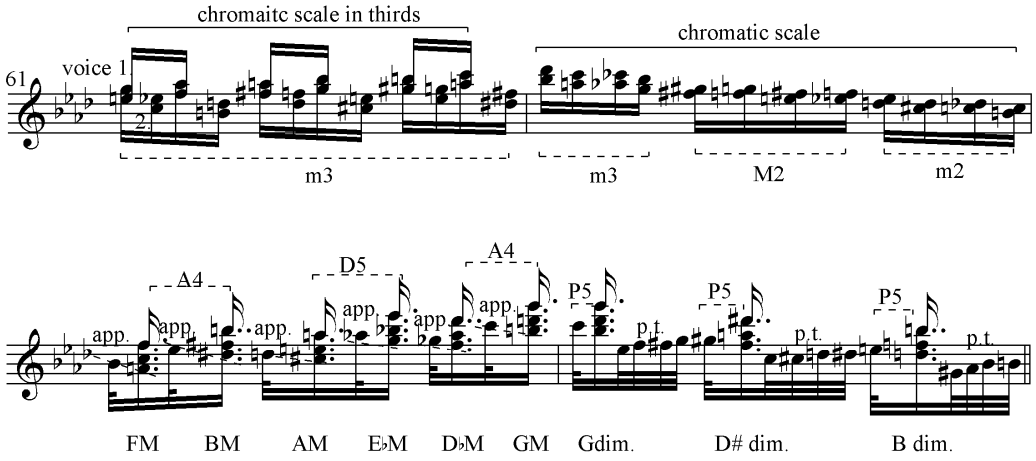
Example 7. 17. No. 30, mm. 61-64.



The F minor basso ostinato seems to be disregarded in the fifteenth variation, but its intervals, the minor second (D-flat to C), major second (F to E-flat and E-flat to D-flat), minor third (E-flat to C), are utilized. Variation fifteen can be re-sketched as example 7.18. In measure sixty-one, there are two voices, each containing a dyad of minor thirds.

In measure sixty-two, the texture of the variation becomes thinner. The chromatic melody is in the lower voice in descending motion from B-flat to B-natural. In measures sixty-three and sixty-four, the chromatic notes are used as non-harmonic tones; they are appoggiaturas in measure sixty-three and passing tones in measure sixty-four. In measure sixty-three, each set of major triads are an augmented fourth apart, while in measure sixty-four, the diminished triads outline an augmented chord that preceded them replace the tritones.

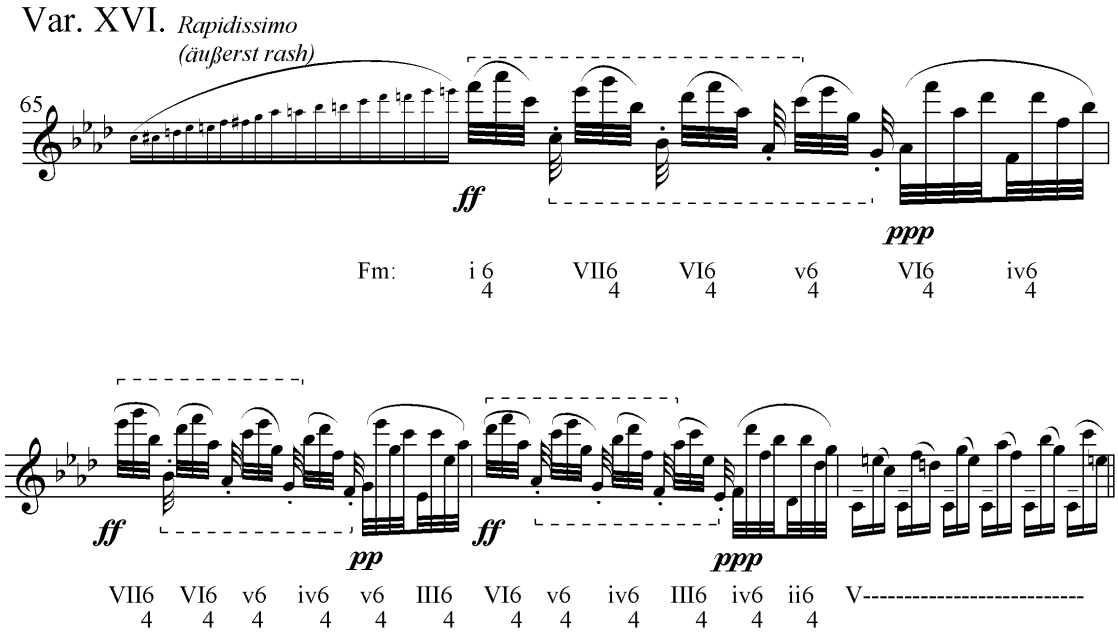
Example 7. 18. A re-sketch of no. 30, mm 61-64.



The sixteenth variation is a large scale work that commences with a speedy chromatic ascending scale (see example 7. 19). Broken chords jump through three registers, establishing a dense texture and an extremely rich sonority. In measure

sixty-five, the F minor ostinato is echoed by a contrapuntal line of C, B-flat, A-flat, G, in the lower register. Measures sixty-six and sixty-seven are sequences. The most challenging part of this variation is playing the wide intervals; there are rapid octave jumps, and the thirteenths are slurred. The main notes in the bass, such as the F, E-flat, D-flat, C, of measure sixty-five, should be punched with a lot of power. If one uses enough power on those notes, the following short slurs in the higher register will follow more easily. The thirteenth on the third beat is extremely hard to play because the pianississimo requires less air than is necessary to push from low to high. Therefore, in addition to the support of abdomen, one should carefully focus the embouchure on this beat. In measure sixty-eight, the wide range of intervals around the C pedal point can cause pitch problems. It is difficult to maintain the low Cs with the same intonation. However, the problematic point is not going from low C to the upper note, but in the opposite direction. One needs to confirm the intonation before playing the recurring low Cs. The *allaragando* marking is necessary in measure sixty-eight to introduce the last variation broadly and loudly.

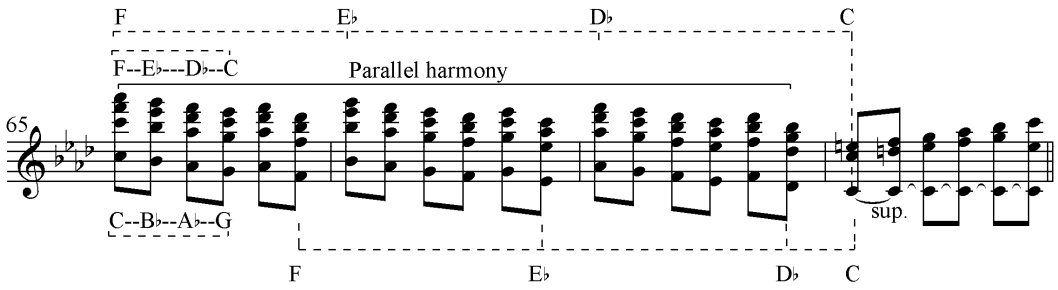
Example 7. 19. No. 30, mm. 65-68.



Example 7. 20 illustrates the construction of its harmonic progression. It can be seen that the main notes of measures sixty-five to sixty-seven are derived from chords in second inversion that double the fifths in the lower register. The chords move in parallel motion and the harmony changes at a steady pace. Thus, the melody is constructed solidly and grandly. In measure sixty-eight, the root of the dominant chord, C, repeats as a pedal point in preparation of landing on tonic. The F minor basso ostinato is not only brought out in the top, but also hidden in the last chords of measures with a very soft dynamic. The pedal point, C, is emphasized in measure sixty-eight with a tenuto that

creates a suspension.

Example 7. 20. A harmonic sketch of no. 30, mm. 65-68.



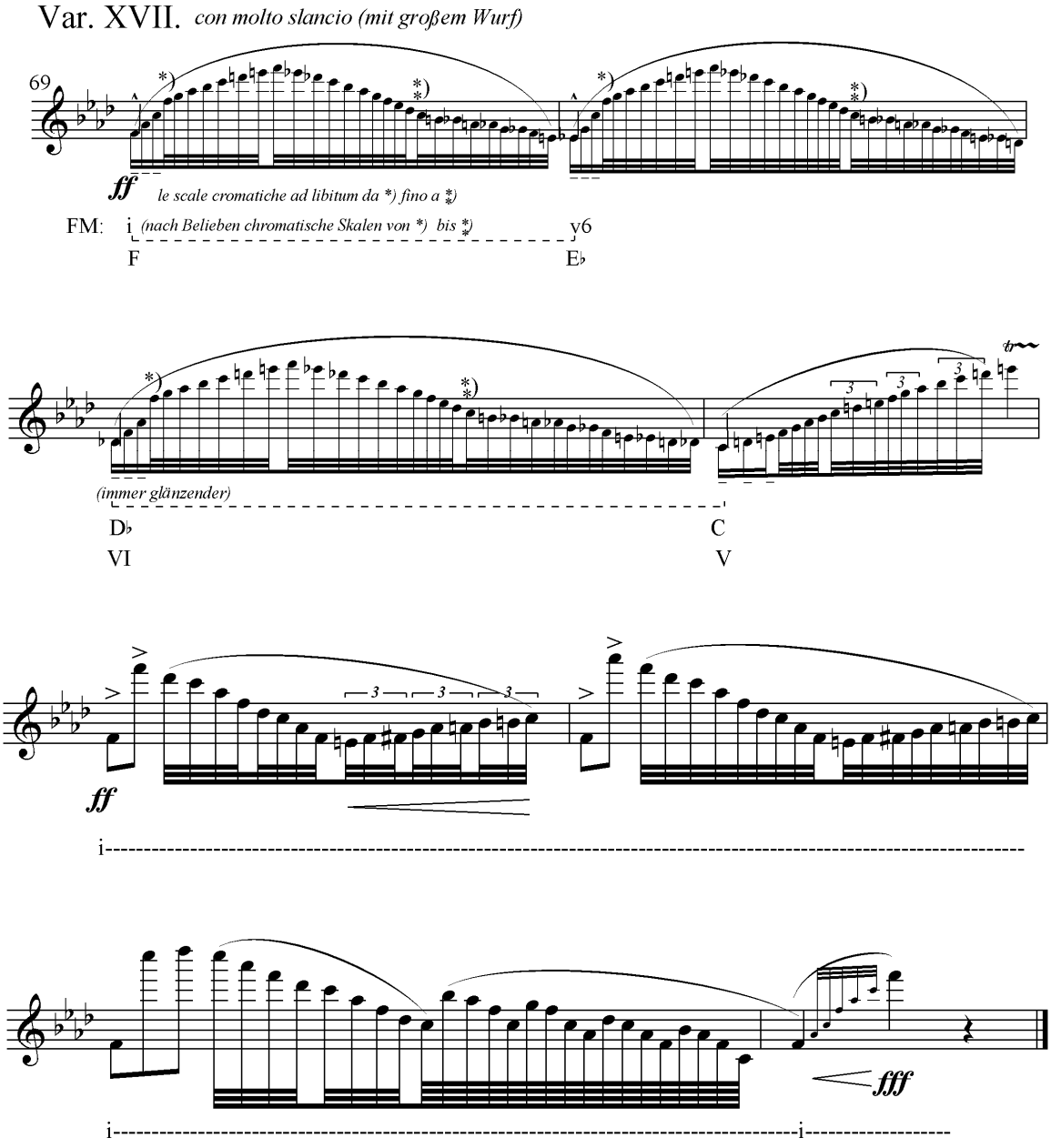
The final variation is the most brilliant one (see example 7.21). It is also the climax of the whole piece. The basso ostinato is elaborated impressively by full and rich groups of arpeggios, melodic minor scales, and chromatic scales. A big breath is required before the entrance, so that one can start the seventeenth variation *con molto slancio*, with a more vigorous spirit. In addition, the asterisks mean that one can add a chromatic scale after each arpeggio to make these passages more fantasy-like.

This variation is longer than the others. After a four-measure appearance of basso ostinato, which is harmonized in F minor, C minor, D-flat major, and C major chords, there is a four-measure coda based on F minor chord. The notes are clearly grouped by Karg-Elert. From measures sixty-nine to seventy-one, one should stress the first three

notes distinctly, then gradually increase the speed on the ascending scale, and scurry down the descending scales as fast as possible to the next main note. The *immer glänzender* means to play always more brilliantly. In measure seventy-two, the F minor melodic scale accelerates to the leading tone, E-natural, where the tension is increased with a trill. The tension is released when the F notes in measure seventy-three announce the beginning of the ending section. The big jumps on the first beats of measures seventy-three to seventy-five increase the intensity gradually, and the chaconne reaches its climax on the widest intervals of the piece, a perfect fifth, from F of the first register to C, D, of the fourth register.

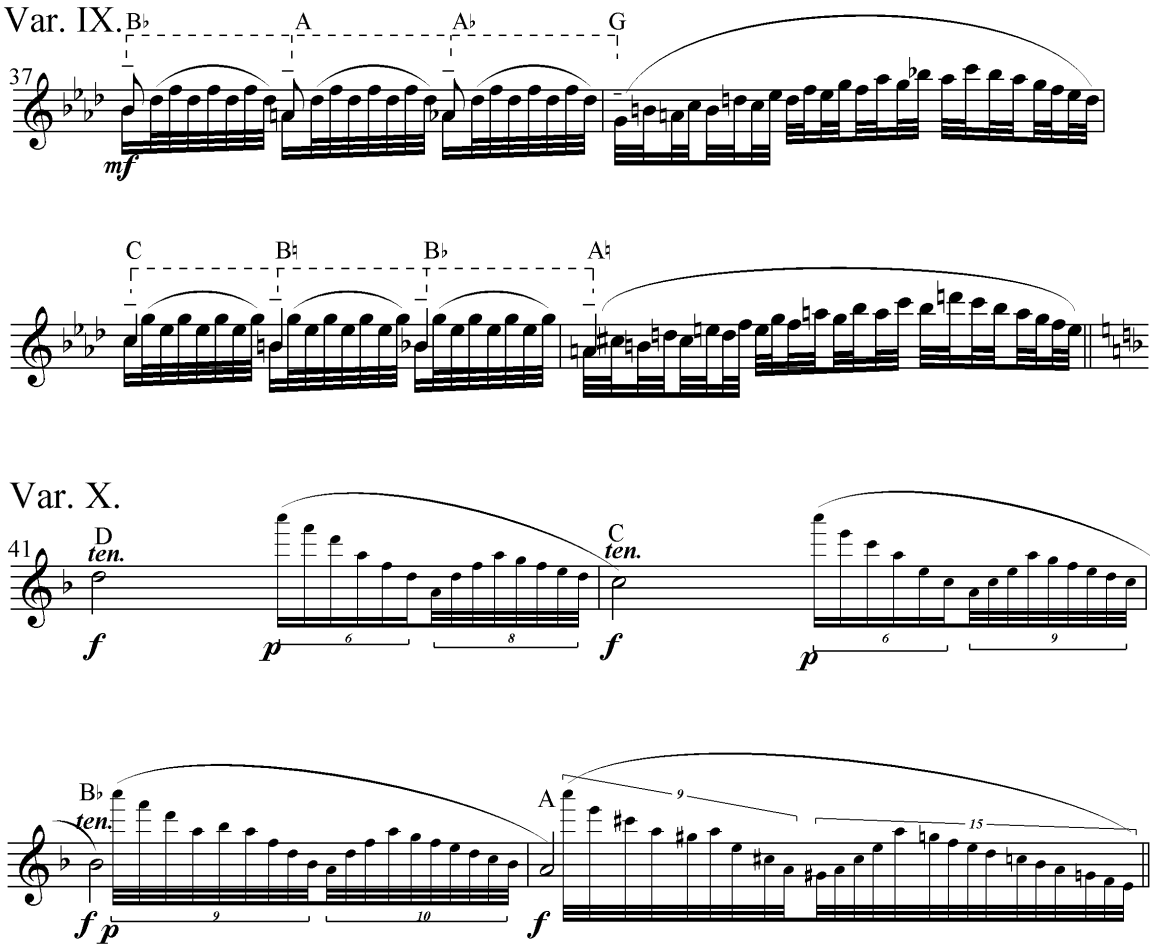
The performer should play the high C and D as brilliantly as possible and stress them with a lot of vibrato and support. One should keep the following arpeggios extremely splendid and play them swiftly, in order to conclude the chaconne majestically.

Example 7. 21. No. 30, mm. 69-76.



Instead of the conventional eight-measure basso ostinato, the ostinato of the thirtieth caprice, chaconne, only has four-measures. It is, however, developed abundantly by Karg-Elert. The seventeen variations are arranged from simple to complex, building the listener's expectations. The basso ostinato, a tetrachord, is modified plentifully; in variations one to four, the rhythms of the main notes are varied by adding non-harmonic tones. In the fifth variation, the F minor basso ostinato appears in an incomplete version. In the sixth variation, the F minor basso ostinato recedes to the background while the tonality turns to A-flat major, and a new A-flat basso ostinato, A-flat, G, F, E-natural, presents in the bass line. This new basso ostinato, is de-emphasized in the seventh variation, but is heard once more in the eighth variation. In the ninth variation, Karg-Elert prepares the modulation to D minor by developing the motivic element in sequence. The voice-leading of the sequence is B-flat, A-natural, A-flat, G, and C, B-natural, B-flat, A-natural, which leads to D, C, B-flat, A, in the tenth variation. (See example 7. 22.)

Example 7. 22. No. 30, mm. 37-44.



The middle section of the chaconne, from variations ten to thirteen, is in D minor. The twelfth and thirteenth variations are heavily ornamented with chromaticism. An enharmonic diminished seventh chord is employed in the thirteenth variation, which serves to shift the chaconne back to F minor in the fourteenth variation. The recapitulation is full of the chromatic color in that the F natural minor basso ostinato is

ornamented with various chromatic scales. In the fourteenth variation, ascending chromatic scales succeed the main notes, and in the fifteenth variation, the chromatic scale is woven in thirds. The sixteenth variation is introduced by a chromatic arpeggio, and the final variation concludes the chaconne brilliantly with plentiful chromatic groups.

In addition to the motivic variety, the arrangements of dynamic and tempo are also subtle and remarkable, in accordance with the distinct character of each variation. The basso ostinato in the theme section is regularly introduced with a sforzando, and the dynamic is gradually decreased in variations one to seven, in accordance with the decline of the basso ostinato. The softest point is the *pianissimo* in the seventh variation, where the motivic element is modified into a two-voice texture depicted clearly by the various articulations with a light and nimble *leggiero* character. When the A-flat major basso ostinato is drawn out again in the eighth variation, the sforzando returns on the main notes. Pianissimo is applied to the connecting arpeggios, distinguishing them from the main notes. On the other hand, the note values become shorter in the ninth variation, where the main notes are accompanied by the ceaseless thirty-seconds. The dynamic becomes louder in the transition to the middle section, and the D natural minor basso ostinato commences the middle section with forte long notes. The long notes are

contrasted by soft and fluent arpeggio and scale passages in a higher register. In the eleventh variation, the basso ostinato is suddenly modified into a staccato triplet rhythm that jumps between octaves with an exaggerated fortepiano. In the twelfth variation, the tempo gets faster on the double-tonguing chromatic scales, and the dynamic increases, building tension. The tension is released in the thirteenth variation with an abrupt pianissimo, while the triplets continue to fly by at a fast pace. The tension increases again while inversions of the C-sharp diminished seventh chord upgrade the pitch level to E diminished seventh chord. The crescendos are continuous, and the allargando pushes the tension to the extreme with the fortissimo high C. The tension is then released in the fourteenth variation. The F natural minor basso ostinato is highlighted with a dotted rhythm, and the succeeding *stringendo* chromatic scales celebrate the recapitulation. However, the main notes are respelled exotically in the fifteenth variation. Fragmental articulations are employed lightly and briskly to create the *stringendo con agitazione* effect. As a chromatic scale brings in the main notes in big leaps in the sixteenth variation, the tempo accelerates dramatically; in the first three measures, the fortissimo big leaps contrast with pianissimo slur passages. The final variation is the most vigorous one, in that the main notes are underlined intensively, and the dazzling minor and chromatic scales are delivered passionately. As the notes launch into the highest

register, the excitement is overwhelming and the chaconne comes to a thrilling conclusion.

As a performer, I feel the chaconne is the most interesting and challenging work among the thirty caprices. The variations progress from easier to more difficult and so one needs inexhaustible energy to make it to the end. The analysis is important, especially in those variations in which the modified basso ostinato is hard to identify. Finger dexterity is demanded and tonguing skill is required, showcasing the outstanding technique of the performer. Finally, the rhythmic changes (including the tempo), and dynamic contrast, are needed to unite the eighteen parts into a whole marvelous concert piece.

CHAPTER 8

SUMMARY AND CONCLUSION

Summary

The history of music and the history of the instruments are intimately related. Composers have responded to innovations by instrument-makers by seeking new possibilities for instruments. As composers extend the language of the instrument, performers have to face new technical challenges. Beginning in the nineteenth century, composers expanded the musical possibilities covered in the studies. Their imagination transformed these studies into important concert pieces. The etudes by Chopin (op. 10, 1833; op. 25, 1837), Scriabin (op. 8, 1894; op. 42, 1903; op. 65, 1912), and Debussy (twelve in two books, 1915) are the notable examples of concert étude for piano. Being the amalgamation of advanced technique and a method for developing overall musicianship, the *Thirty Caprices* is the first concert étude of the Böhm flute literature to provide a link with the orchestral excerpts.

This dissertation is meant to serve as a study reference for the *Thirty Caprices*. Part one introduces the life and musical influences of composer and provides historical

information on the flute from the late nineteenth century to the early twentieth century. The Böhm flute was gradually becoming a very popular instrument for flutists around the world in the late-nineteenth and the early-twentieth century, because of its easy fingering system, advanced mechanism, and bright tone color. However, it was the old-system flute, such as the Meyer and the Reform flute, that was adopted by most German composers and flutists till the 1920s, because of its conventional warm tone color. Most important of all, some flutists were not willing to switch to the unfamiliar Böhm system. Being a famous German organist and pedagogue, Karg-Elert took the lead in promoting the Böhm flute. In the preface to his *Thirty Caprices*, he mentioned that he thought the construction of the modern flute (especially the Böhm flute) was very advanced. Karg-Elert felt that the Böhm flute could be played with greater ease than the old-system flute. In addition, he was deeply influenced by his eminent friend from the First World War, Carl Bartuzăt, who was an outstanding flutist of his time and later supported the Böhm flute. Karg-Elert also found that composers in the late-nineteenth and the early-twentieth century, such as Richard Strauss, Mahler, Bruckner, and Stravinsky, had put great effort into creating a new vocabulary for the instrument. As a result, flutists were constantly adjusting to innovations and new compositional uses of the flute. Karg-Elert deeply believed that he could solve their problems by elevating the analytical

ability of the performer. Therefore, he took what he thought the most crucial elements of the modern musical style, and systematically incorporated them into the *Thirty Caprices*.

Parts two and three of this dissertation present seven topics, which will help players better understand the caprices; four address musical contents and three are on performance practice. Each topic is introduced with several music examples and supplied with analytic annotations. The first content topic concerns motive. Most of the caprices are constructed of short motives in a single rhythmic pattern, which are developed in sequences and imitations. The motives, which are derived from scales and chords, are sometimes modified by the use of intervals and non-harmonic tones. Harmony, the second content topic, includes a wide vocabulary of chords. Melodies hidden in the harmonic progression are one of the characteristics of Karg-Elert's compositional style. Also, he did not hesitate to employ dissonance. He usually wrote out the chord notes fully and elaborated on them with many non-harmonic tones. Therefore, the texture is dense, and when the harmonies are presented in parallel motion, several lines are juxtaposed and move simultaneously. The fourth topic of musical content is tonality, which is affected by Karg-Elert's use of harmonic color and the

adoption of the musical style. The tonality is usually conveyed away from the main key by frequent modulations or unconventional harmonic progressions. There are three groups of modulation; in the first group, the modulations are more traditional. In the second, the modulations largely involve in distant keys. In the third, the melodies and chords hardly embrace any specific tonal center.

The musical content is related to performance practice. Three of the topics of performance practice are articulation, embouchure flexibility, and rhythm. The articulation is notated thoroughly in each caprice. The phrasing, harmonic progression, pulse, and even the texture are implied and characterized by all kinds of markings, such as slurs, accents, staccato, staccatissimo, tenuto, portato, and *martelé* (*martellato*). Double- and triple-tonguing are not left out of the articulation category as well as the flutter-tonguing, which was a new technique of his time. Therefore, if the performer pays enough attention to the notation, he can understand the musical construction correctly and learn the various characteristic interpretations through all kinds of articulation while improving tonguing technique. Intervals and registers in the *Thirty Caprices* are often extended to exploit the advantages of the Böhm flute and to challenge the embouchure flexibility of the performer. Conforming to the trend of the early

twentieth century, as in the works of Stravinsky, rhythm is also an important topic to research in the *Thirty Caprices*. In addition to the changes of meter, syncopation, hemiola, cross-rhythm, and poly-rhythm are often adopted. Even in regular passages, pulses are sometimes shifted irregularly by different stresses. As a result, two or more rhythmic layers will occur at the same time. The performer needs to overcome this confusion and demonstrate both of the pulses clearly. In addition, the melodic line becomes more expressive and animated in rubato. The melody is emphasized by extending the main notes in with agogics.

All thirty caprices are marvelous works because of their abundant musical content and technical demands. From a pedagogical perspective, the *Thirty Caprices* include musical styles from the Baroque to those of the early twentieth century. Each of these styles is distinguished by its motive, harmony, texture, and tonality, which is intimately connected to issues of articulation, interval, and rhythm. A flutist who can master these caprices can certainly find what he needs and can achieve more comprehensive musicianship if he understands the caprices thoroughly.

Conclusion

A Study Guide of the *Thirty Caprices,* op. 107

In the *Thirty Caprices,* each study is unique and designed to achieve several goals. Each caprice will be evaluated from both the aspects of technical demand and musical comprehension. There are four degrees: medium, medium-difficult, difficult, and very difficult. I have not included an easy level since these caprices are designed for students or players who possess advanced performing ability. Thus, each caprice will be evaluated from two perspectives: technical execution and musical interpretation. The abbreviations for these eight levels are illustrated in table 8.1:

Table 8. 1. Difficulty Abbreviation

TECHNICAL EXECUTION	**MUSICAL INTERPRETATION**
T1 – medium level of the technical execution	**M1** – medium level of the musical interpretation
T2 – medium- difficult level of the technical execution	**M2** – medium-difficult level of the musical interpretation
T3 – difficult level of the technical execution	**M3** – difficult level of the musical interpretation
T4 – very difficult level of the technical execution	**M4** – very difficult level of the musical interpretation

Table 8.2 lays out the practicing point of each caprice. The first column of the table describes the musical character and pedagogical purpose of the caprice, including musical style, while the second column classifies its difficulty level. The third column of the table contains the suggested tempo of each caprice since there are no metronome markings on the score. However, I believe it is important to perform a piece at the proper tempo; this is especially important in the performance of studies, which have pedagogical purposes. Playing at the proper tempo at different stages of practice will help you overcome certain challenges. In the fourth column, probable errors in the score are noted. [1] Although it is usually seen a subtle change of notation in the *Thirty Caprices*, such as different articulation being applied in repetitions, there are several probable errors I found while doing the research. In addition to the issue of articulation, there are some misprints. Some of the corrections are considered logically regarding the consistency of harmonic progressions in the passages; for example, parallel harmony or imitative sequences.

[1] These corrections are based on the score published by Carl Fischer in 1969. Check my changes in the previous chapters.

Table 8. 2. A Study Guide of *Thirty Caprices*

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
1	In neo-Baroque style. Contrasting dynamics and various tonguing executions are applied to polyphonic passages.	**T1** **M1**	♩=76	
2	In neo-Baroque style. The broken chords and scales in thirds are articulated in short and long slurs. Crescendos and diminuendos are largely applied to sequences.	**T1** **M1**	♪=162	M. 22. The fifth note, B-natural, should be played with a tenuto.
3	In neo-Baroque style. Contrasting passages are demonstrated by various tonguing expressions. Trills are applied on dotted rhythm.	**T1** **M2**	♩=82	M. 12. The thirteenth note, C-sharp, should be a C-natural. M. 15. The thirteenth note, E-flat, should be E-natural.
4	In neoclassical style. It is a fast piece in multi-meter. Long phrases contain running arpeggios and scales.	**T1** **M1**	𝅗𝅥.=86	
5	In neoclassical style. Scales and broken chords are presented in a homophonic texture, jumping between registers. Various articulations and contrasting dynamics are included.	**T1** **M1**	♩=112	

No.	Musical Character and Pedagogical Purpose	Difficulty Level	Suggested Tempo	Printing Errors
6	In Impressionistic style. Expressive long slurred phrases are constructed from exotic scales. Embouchure flexibility and intonation control are required.	**T1** **M1**	𝅗𝅥.=64	
7	Long slur phrases with rapid scales and broken chords are grouped in quintuplets. Quintuplet groups are connected by non-harmonic tones chromatically. Fingering dexterity is demanded.	**T1** **M1**	♪x5=108	M. 27. The tenth note, A-flat, should be A-natural.
8	Long slur phrases are constructed of ornamented diatonic scales and broken chords in chromaticism. A whole-tone passage is included. Augmented broken triads in re-transition lead the piece dramatically to the recapitulation. Technical difficulties are created by twist fingerings and dynamic changes in long phrases.	**T2** **M1**	𝅗𝅥.=63	
9	Rapid sixteenth-note passages are presented in various metrical groupings. Successions of dominant and diminished seventh chords are widely adopted. The pulses of cross-rhythm are emphasized by articulation. Be careful of the different articulations in repetitions from measures one to three.	**T2** **M2**	♩.=90	

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
10	Nimble passages starting from the offbeat are presented in hopscotch style. Short slurs and staccatos alter the strong pulses to weak ones.	**T2** **M2**	♪.=144	M. 4 and m. 11. A sixteenth rest should be added after the fourth note of each measure, or the last eighth note should be dotted.
11	Double-and triple-tonguing are employed in leaps, followed by chromatic scales. An exercise of embouchure flexibility and tonguing.	**T3** **M2**	♩.=72	M. 26. The second note, C-sharp, should be double-tongued. M. 27. The seventh note, E-sharp should be an E-natural.
12	Scales, broken chords, and octaves are modified chromatically. Finger dexterity, embouchure flexibility, and tonguing technique are required.	**T2** **M2**	♪=124	M. 14. The sixth note, C-sharp, should be a C-natural. M. 16. The last note, G-flat, should be a G natural.

No.	Musical Character and Pedagogical Purpose	Difficulty Level	Suggested Tempo	Printing Errors
13	In a quasi two flutes style. Two contrasting characters -the graceful legato melody and the light staccato accompaniment- interweave throughout the piece. Be careful with the articulation of measures 21-22; m. 21 has staccatos on the end of slurs, but m. 22 does not.	**T2** **M3**	♩=80	M. 8. The second note, A-flat, should be an A-natural. M. 50. The last eighth rests in both parts should be quarter rests.
14	Chromatic. Perpetual thirty-seconds are organized as minor and diminished broken chords, as well as chromatic scales. Rapid staccato passages and short slurs alter the pulses irregularly. Octave-jumping between three registers are challenging to performer's embouchure flexibility. Flutter-tonguing is included. Be careful of the pedal points in measures 5-8; some of them have staccatos and others do not.	**T3** **M2**	♪=136	M. 1. The eleventh note, D-sharp, should be a D-natural. M. 12. The ninth note, G-sharp, should be a G-natural. M. 17. The fourteenth note, A-flat, should be A-natural. M. 20. The thirteenth note, G-sharp, should be G-natural. MM. 5-8. The pedal points might all need staccatos.

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
15	The main melody is interwoven by two voices, moving lightly among the successive triplet sixteenths. The performer needs to distinguish between the main and secondary voices of long slurred passages.	**T2** **M3**	♪.=114	
16	This is a multi-meter (changing meter) piece which is full of uncommon rhythmic patterns. Articulation alters the pulses irregularly.	**T2** **M2**	♪=204 or ♩.=68	M.11. The tenth note, F, should have a caret.
17	Successive sixteenths are constructed as broken chords. Exotic scales are presented in thirds, fourths, or other intervals, which move lightly and quickly. Finger dexterity is demanded in twist passages. The irregular pulses should be emphasized.	**T3** **M2**	♩.=80	M. 5. The eighth note, D-flat, should be a D-natural. M. 6. The twelfth note, A-flat, should be an A-natural (in an F-sharp minor chord). M. 12. The first note, E-flat, should be an eighth note.

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
18	This is a two-voice texture piece in quasi cadenza style. An extraordinarily long, lyrical, chromatic melody is harmonized by a tremolo-like bass part. A very difficult piece in musical interpretation.	**T3** **M4**	♪=63	M. 5. The thirteenth note, B-flat, should be a sixteenth note. M. 9. The twenty-second note, E-flat, might be a D (in a D minor chord).
19	Sparkling passages are decorated by light staccatos and short slurs. Articulation shifts frequently among fast successive sixteenth-note passages.	**T3** **M3**	♩=108	
20	This is a non-tonal piece that is constructed of whole-tone scales. There are several rhythmic patterns, and all kinds of dynamic and articulation. Flutter-tonguing is included.	**T3** **M3**	♩=96	M. 16. The tenth note, C-sharp, should be a C-natural.
21	In a waltz tempo. Duplet and triplet rhythms appear in rotation. Wide intervals in short slurs and big jumps in soft staccatos require difficult embouchure flexibility.	**T3** **M3**	♩=126	

No.	Musical Character and Pedagogical Purpose	Difficulty Level	Suggested Tempo	Printing Errors
22	It is a passionate chromatic piece. Restless chromatic scales are utilized in broken chords and intervals, employing long and short slurs. Minor and major thirds are elaborated by chromatic notes which mystically shade this caprice. Fingering dexterity is required, and the shifting intervals make it difficult to maintain good intonation.	**T3** **M3**	♪=116	M. 5. The fifteenth note, B-natural, should be a B-flat. M. 9. The tenth note, G-flat, should be a G-natural. M. 16. The thirteenth note, A-flat, should be an A-natural.
23	An extremely expressive piece in a quasi recitative style. Accelerando and ritardando are applied in long and lyrical passages. The embouchure flexibility and tonal expression are extremely challenging. The tone quality should be broad and full with resonance.	**T4** **M4**	♩=48	M. 16. The third beat should be D-naturals in octave.
24	This caprice contains a cross-rhythm exercise. The 7/16 meter is constructed of various metrical groupings. The pulse is irregularly varied; however, it goes well with its melodic shape and harmonic progression. Wild leaps in staccato make this caprice sound lively and vigorously. Double-and triple-tonguing should be played energetically.	**T3** **M3**	𝅘𝅥𝅯x7=54	

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
25	Major and minor broken chords in chromatic passages are harmonized exotically. Some passages are complex in rhythm. Doted triplets are included.	**T3** **M3**	♪=126	
26	Whole-tone and chromatic scales are utilized in the groups of quadruplet, quintuplet, and sextuplet. A rhythmic practice that requires a precise counting, especially for the equality of quintuplets.	**T3** **M3**	♩=104	M. 9. The first note of each sextuplet group should be a sixteenth triplet. MM. 6, 11, and 21. The pedal points could play with all staccato.
27	Passages in 9/8 meter contain cross-rhythm with various combinations of articulation. The irregular pulses should be emphasized clearly. Broken chords are ornamented with upper neighbor tones. A twisting passage from measures 21-24 is formed from chromatic scales which are irregularly interrupted by pedal points.	**T4** **M3**	♩.=96	M. 8. The last note, B, is positively an A. (In sequence.) M. 9. The first and fourth notes should have tenutos. M. 22. Two slurs should be added. The articulation should be the same with m. 21, m. 23, and m. 24.

No.	**Musical Character and Pedagogical Purpose**	**Difficulty Level**	**Suggested Tempo**	**Printing Errors**
28	Broken chords are separated distantly by chromatic scales, moving rapidly in long slurs. The fingering should move fluently and easily to express the elegance of the piece. The intervals and crescendos are extended a wide degree at the end.	**T3** **M3**	♪.=72	M. 16. The last note, B-natural, should be a B-flat.
29	The brisk, fast, staccato passages here are presented in cross-rhythm. The pulses are irregular and change frequently. The accents are crucial in performance.	**T4** **M3**	♪.=126	
30	A synthesis of the *Thirty Caprices* utilizes all exercising topics in the form of *chaconne*. A fantastic concert étude with a thematic basso ostinato section and seventeenth variations.	**T4** **M4**	𝅗𝅥=72	Var. IV. The seventh note of measure twenty, the B, should be a B-flat. Var. VIII. The ninth note of measure thirty-four, the G, should be dotted. Var. XIII. The eighth note of measure fifty-three, the G-flat, should be a G-natural.

The *Thirty Caprices* are an important study for the advanced flute player and provides us with a chance to discover the beauty of music via many layers of musical language through numerous eras. However, little research has been done on it. Thus, it is my hope that this dissertation contributes to academic research and pedagogic knowledge and becomes a handy reference for all flutists who are interested in making the best out of Karg-Elert's marvelous caprices. Additionally, this dissertation not only illustrates the *Thirty Caprices* well, but also helps performers to have the ability to analyze their musical contents. Furthermore, they can utilize the skills acquired in mastering the caprices in playing orchestral compositions and other flute solo works, just as Karg-Elert intended.

APPENDIX A:

PREFACE BY KARG-ELERT, THE ENGLISH TRANSLATION

This translated preface was published by Carl Fischer in 1969. The translator is unknown.

These Caprices, as well as my other works for flute, composed between 1915 and 1918 (Concerto, 2 sonatas, Chamber Study, Symphonic Canzona, Etchings, Partita, Suite Pointillistique, Monologues, Exotic Impressions), owe their inception to the eminent artist Carl Bartuzat, principal flautist of the Leipzig Theater and Gewandhaus-Orchestra, at whose side I played the oboe in a good military band during the war.

The 30 Caprices originated from the urgent need of forming a connecting link between the existing educational literatures and the unusually complicated parts of modern orchestral works by Richard Strauss, Mahler, Bruckner, Reger, Pfitzner, Schillings, Schönberg, Korngold, Schreker, Scrjabin, Strawinsky and the most modern virtuoso soli. They are therefore meant in the first place to serve as a technical preparation to these already existing works, viz: to help the flautists, by means of progressive and special studies, to attain the high standard demanded by them.

Besides these Caprices explore new and untrodden paths in techniques; a technique which may be required from one day to another in some new impressionistic or expressionistic work. Sure signs are to be seen that the demands made of the liveliest of all the woodwind instruments are rapidly increasing from year to year.

These Caprices are therefore meant to be a synthesis of all the possible progressive technique demanded by the character and construction of the modern flute, above all the unparalleled "Boehm flute"; and it was far from my intension to write work that "lies easily in the fingers". On the contrary, the student must learn what dose not lie easily.

All that is new and unaccustomed can obviously not lie easily at first. But the chief difficulty lies most often in the novelty of the constructive idea. Here it is quite impossible to achieve success without a rapid mental grasp of the formal structures, and an instantaneous grouping (as regards harmony, phrasing and motive) of the lower parts, which may, or may not, belong together. The appendix to these studies: "Analysis of complicated technical forms", should give useful hints in comprehending and memorizing the more complicated figurations.

The modern orchestral composer never considers the "convenient technique", but, where needed, his desire for expression create a new technique which often presents the most problem to the instrumentalists. Thus it is not only the virtuosi, but above all the composers (think of Berlioz, Wagner, Richard Strauss, Mahler etc.) who have extended and are still extending the language of the instruments. The requirements of virtuoso are most of physical, those of the composer of an aesthetic nature. The former takes his starting-point from the natural technique, based on the structure of the instrument (harmonies, position of keys or stops); the latter, on the other hand, has in mind only the individual effect produced by the tone-quality of the instrument. And unfortunately, these requirements are often not compatible with the physical structure of the instrument. It is by his improvements, to increase the physical characteristics of the instrument and hence to enlarge and intensify its technical scope. Without apparently "impossible demands" on the part of the composer, the instrument would scarcely have reached so high a degree of perfection.

The construction of the modern flute (especially the Boehm flute) is such as to reveal, with the greatest ease, wonders which would have been considered almost impossible only thirty years ago. The existing literature dose not nearly exhaust the unlimited technical possibilities. The typical modern literature has in especially hard kept pace with the development of the instrument, which is able to produce greater variety than might be supposed from these works.

The present Caprices take the classical technique of Bach, Händel and Mozart as their starting point and pass rapidly to the style of to-day. In some passages will be found obvious instances of the influence of typical forms of the violin (springing bow, Cadence arpeggios,) and of pianoforte technique (modern broken chords in elaborately varying harmonies), suitably adapted. This higher development of style or form through the technique of different instruments has from times old played a very remarkable part in

the history of technique.

The enormous progress made in domain of harmony urgently demands a corresponding development of intonation. Here, a clear recognition of the harmonic functions is the chief essential needed by the flautists to solve the given technical problems, if he would avoid leaping shortsightedly from one note to the next. Modern means of expression that occur frequently are: Scales in major seconds; in diatonic intervals interrupted by chromatics; chromatically repeating or recurring runs in curves; broken major second progressions; broken fourths, fifths, major seventh and minor ninths (resp. augmented or diminished octave); major second chords and harmonized fourths in arpeggios; chromatic or major second transpositions of large or small groups or motives; suspensions and anticipations freely approached or quitted; parallel and extreme breaks of two harmonically independent parts.

Rhythmical and metrical problems have been set, for the modern instrumentalist will only too frequently find himself confronted with similar tasks.

Finally attention must be given to articulation and phrasing, the difficulties of which must not be underestimated.

When all the difficulties accumulated in this work have been mastered – needless to say, only after a very gradual increase of speed – there should hardly be an orchestral work which could present insuperable obstacles to the executant. The "difficult" will always grow easy by overcoming the "more difficult".

Leipzig, May 1919.

Sigfrid Karg-Elert.

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