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Chopin's Études, Op. 10: Historical Context, Musical Analysis, Kinesthetic Insight, and Practice Strategies

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ABSTRACT

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The study provides a comprehensive guide for improving the performance of Chopin’s Études, Op. 10, revered as the seminal concert études in nineteenth-century piano literature. Chapter 1 delves into the historical evolution of piano études, contextualizing the emergence of Chopin’s compositions within the broader context of keyboard literature and mechanical advancements in piano. This exploration reveals the influence of early nineteenth-century piano études on Chopin, particularly through similar motifs that highlight the unique technical challenges of each étude. Chapter 2 analyzes Chopin’s Études, Op. 10. It commences with a concise overview of the historical context surrounding the composition of Chopin’s études, followed by an exploration of their structural framework. This chapter thoroughly examines the formal, motivic, and harmonic elements in the études. This analysis demonstrates how Chopin innovatively adapted the ternary form to articulate his unique musical narratives, thereby illustrating the potential for musical depth and complexity within the constraints of the étude genre. The comprehensive analysis in Chapter 2 lays the groundwork for the following performance insights. Chapter 3 focuses on practical approaches, recommending ways to refine the execution of Chopin’s études through Body Mapping, a concept that Barbara and William Conable developed. This method emphasizes kinesthetic awareness and leverages the detailed analyses from Chapter 2 to offer practical advice tailored for pianists. It aims to improve both technical execution and the depth of interpretation, enabling performers to approach these challenging pieces with greater understanding and physical awareness. Thus, this study illuminates the historical and analytical aspects of Chopin’s Études, Op. 10, and connects these findings with concrete performance techniques, promoting a comprehensive method for mastering these essential works in the piano repertoire.
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Pianist and composer Frédéric François Chopin (1810-1849; birth name: Fryderyk Franciszek Chopin) exhibited exceptional dedication to advancing piano technique. This commitment is evident in his foundational writings and compositions, including the unfinished method book “Projet de Méthode” (Sketch for a Method), as well as his collections of Piano Études Op. 10, Op. 25, and Trois nouvelles études. Among Chopin’s works, the Études Op. 10 and Op. 25 stand out as pillars of classical piano literature, showcasing his unique harmonic language and demanding a high level of technical proficiency, thus establishing them as a standard for advanced pianists. In his writings, Chopin emphasized the importance of addressing technical aspects directly, favoring practical techniques that enhance the technical side of the art over theoretical abstractions.\(^1\) Additionally, recollections from Chopin’s students provide further insight into the composer’s keen interest and emphasis on efficient piano technique.

Chopin’s emphasis on the importance of using proper piano techniques aligns with my belief in the fundamental role of practical techniques for performing any piece of music while prioritizing pianists’ comfort and injury prevention during the performance. However, executing technically demanding pieces like études may pose challenges, potentially leading to muscular strain or discomfort. While the concept of “training fingers” has emerged as a solution to navigate these challenges, I advocate for an alternative approach that transcends mere muscular gymnastics.

\(^1\) “So we are not dealing with more or less ingenious theories, but with whatever goes straight to the point and smooths the technical side of the art” from Eigeldinger, Chopin: Pianist and Teacher as Seen by His Pupils, 23.
Chopin’s Études, Op. 10, are widely regarded as pinnacle works in piano literature, presenting a rich tapestry of technical challenges. Frequently featured in piano competitions and college auditions, these études serve as works for comprehensive assessments of a pianist’s technical and musical abilities. The intricate motives of the études, characterized by subtle changes in harmony driven by nonharmonic tones, present unique challenges that demand meticulous attention to articulation and touch for flawless execution.

Modern pianos feature heavier action than those used during Chopin’s era, demanding a more powerful touch from pianists. Consequently, a more efficient technique is necessary to accurately execute Chopin’s works on the modern piano as intended by the composer. Despite extensive literature discussing Chopin’s études, practical guidance for mastering their technical intricacies remains limited. Existing resources often recommend practicing alternative compositions, passages, or modified rhythms for preparation. However, advocating for more efficient and direct technical suggestions is crucial, not only to improve the quality of the performance of études but also to develop techniques applicable to a broader range of compositions.

In light of these considerations, this dissertation aims to provide a comprehensive exploration of the historical background of the étude genre and the evolution of the piano. It also offers detailed musical analyses of Chopin’s 12 Études, Op. 10, while providing foundational kinesthetic knowledge essential for understanding the efficient utilization of the human body in piano performance. Through analytical and pedagogical strategies tailored to the Op. 10 études, this study ensures a holistic approach to mastering their technical demands while preserving the integrity of Chopin’s artistic vision.
CHAPTER ONE: Development of Piano Études

1.1. Definition of the Étude

The étude emerged in the early nineteenth century, coinciding with the rise of the piano as the dominant keyboard instrument in domestic settings. During this period, amateurs often pursued piano playing for social purposes. While compositions with didactic purposes already existed before the nineteenth century, their attributes and intended audiences diverged from most études composed during the nineteenth century. Furthermore, before the nineteenth century, the distinction between study pieces and other musical works was not well defined, as the practice of creating compositions exclusively dedicated to technical development had not yet begun. Hence, the terms “study” and “exercise” were used loosely to describe various forms of musical literature, unlike their more specific connotations in the nineteenth century.

*The Harvard Dictionary of Music* defines étude as “a composition designed to improve the technique of an instrumental performer by isolating specific difficulties and concentrating his or her efforts on their mastery.” An exercise and a study carry distinct nuances. An exercise is a brief musical figure or passage that can be repeated as desired, either in its original form or transposed across various scales or keys. On the other hand, a study is a self-sufficient musical work primarily focusing on technical development. This distinction is highlighted in Robert Schumann’s *Studien für das Pianoforte nach Capricen von Paganini, Op. 3 (Études for piano after Paganini Caprices, 1832)*, where he designates his compositions as “studies” following the “Übungen (exercises)” in the preface, which are short exercises targeting specific technical difficulties to be addressed in the studies. Schumann elaborates on the definition of the étude in

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his writings for *Die Neue Zeitschrift für Musik*, IV (*The New Journal of Music*, 1836), stating that:

In a comprehensive sense, every piece of music is an etude, and the simplest piece is often the most difficult one. But we must demand of a typical etude that it contains a certain aim, such as the promoting of dexterity, or the conquering of an individual difficulty of technical, rhythmical, expressive, or interpretative character. If there are varied difficulties within the piece, then it belongs to the type of Caprice. In that case, one might just as well study longer, coherent concert pieces which of late contain, as is common knowledge, all sorts of difficulties that demand much study time.⁴

Schumann’s remarks highlight the distinctiveness of études from other musical compositions by emphasizing their singular objectives in each work, such as promoting dexterity or overcoming particular technical, rhythmical, expressive, or interpretative challenges. This characteristic serves as a defining attribute of nineteenth-century études.

1.2. **Predecessors of the Piano Étude**

Numerous remarkable keyboard compositions were crafted with pedagogical intentions in the first half of the eighteenth century.⁵ Composers conceived these works as instructive tools, but not all were explicitly titled to reflect their didactic purposes. Furthermore, even when such titles were present, they did not necessarily imply shared characteristics among the compositions, as observed in nineteenth-century études. Instead, these works often adhered to preexisting forms in terms of their overall scope and nature.

In his dissertation titled “The Development of the Etude for Pianoforte,” Ganz categorizes the precursors of études into variation, toccata, prelude/praeambulum/intonatio,

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⁴ Ganz, “The Development of the Etude for Pianoforte,” 39, translation of the article “Etüde” by Menrath from *Die Musik in Geschichte Und Gegenwart: Allgemeine Enzyklopädie der Musik*.
Handstücke, and piano schools/methods/courses of study. Building upon Ganz’s work, this section will classify the precursors to nineteenth-century keyboard études into three distinct categories. The first category comprises compositions explicitly labeled to indicate their purpose, such as “lesson,” “study,” or “exercise.” The second category includes works of various musical forms found in instrumental treatises and instruction manuals. Lastly, the third category comprises compositions such as variations, toccatas, and preludes, which, despite not bearing instructional titles or being included in formal treatises and instruction manuals, possess qualities akin to études and have significantly contributed to the evolution of piano études.

**Keyboard Literature with Instructive Titles**

The following examples represent a curated collection of keyboard compositions predating the nineteenth century that are explicitly titled using the words “lesson,” “study,” or “exercise.”

First, in 1696, Henry Purcell’s posthumous publication, *A Choice Collection of Lessons for the Harpsichord or Spinnet*, was released by his widow. Preceding the works is a concise preface in which Purcell discusses fingerings for ascending and descending scales, meter, note lengths, and embellishments. Notably, the fingerings recommended in the collection’s preface differ from modern practices that involve the thumb passing under longer fingers. Instead, Purcell suggests a traditional fingering approach for the scales, where pairs of longer fingers, the third and the fourth, alternate to ascend or descend the scale (refer to Example 1.1). The suggestion of fingering offers a glimpse into the pedagogical thought of the late seventeenth century.
The compositions in the collection consist of Baroque dance suites, which Häfner’s book Die Entwicklung der Spieltechnik und der Schul- und Lehrwerke für Klavierinstrumente (The Development of Piano Playing Techniques and the Instructive Works for Keyboard Instruments) describes as the English counterpart of German Händstücke. Additionally, Ganz, in his dissertation, further elaborates on this description, stating that the pieces are “not lessons in the pedagogic sense of the word, but short musical settings played at the end of a pupil’s instruction period.”

Example 1.1 – H. Purcell’s A Choice Collection of Lessons for the Harpsichord or Spinnet, Example from the Preface Describing Scale Fingering

Also, Francesco Durante’s Sonate per cembalo divisi in studii e divertimenti (Sonatas for Harpsichord Divided into Studies and Divertimentos, 1737) encompass sonatas for the harpsichord that exhibit a contrapuntal texture (refer to Example 1.2). The term “study” in the title of the sonatas likely refers to the exploration of compositional study rather than technical study. This is evident as the pieces do not prominently feature typical virtuosic elements found in

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6 Häfner, Die Entwicklung der Spieltechnik und der Schul- und Lehrwerke für Klavierinstrumente, 17.
7 Ganz, op. cit., 50.
keyboard studies, such as scales, repeated notes, prolonged trills, etc. Instead, the sonatas employ contrapuntal writing, which was prevalent in keyboard compositions of the time.

In addition, Johann Sebastian Bach’s four-part Clavier-Übung (Keyboard Practice) series serves as another example of literature with an instructive title from the eighteenth century. The works were published between 1731 and 1741, encompassing a diverse array of keyboard works. The first volume, published in 1731, features six partitas for harpsichord (BWV 825–830). The second volume, published in 1735, includes works for harpsichord with two manuals: Italian Concerto, BWV 971, and French Overture, BWV 831. The third volume, published in 1739, consists of organ works, such as Prelude and Fugue in E-flat Major, BWV 552, 21 Chorale Preludes, BWV 669–689, and Four Duets, BWV 802–805. Lastly, the fourth volume, published in 1741, showcases the renowned Goldberg Variations, BWV 988, written for harpsichord with two manuals. The Clavier-Übung presents musically and technically intricate pieces intended for advanced or professional musicians. While the technical complexity varies across the variations
within the *Goldberg Variations, BWV 988*, some passages present significant technical challenges by employing the hand-crossing technique (refer to Example 1.3), which may be less demanding to perform on a two-manual harpsichord than on single-manual keyboard instruments. Regarding Bach’s *Clavier-Übung*, Charles Rosen highlights that:

Almost all of Bach’s published music is printed under the title of keyboard exercises: the Partitas, Italian Concerto, Four Duets, the Chorale Preludes arranged in the order of the mass, and the Goldberg Variations. These are instructive works for composers as well as players (the difference was not marked at the time), and to the published music must be added the Inventions for two and three voices, the Art of Fugue, and the Well-Tempered Keyboard—all of these specifically for the keyboard player, and almost all requiring great virtuosity.®

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Example 1.3 – J. S. Bach’s *Goldberg Variations, BWV 988*: Variation 17, mm. 1–10

® Rosen, op. cit., 362.
Furthermore, Domenico Scarlatti’s *30 Essercizi per gravicembalo* (*30 Exercises for harpsichord*, 1738) comprises a collection of sonatas that exhibit a similar range to his other harpsichord sonatas. Despite its title bearing the term “exercise,” the contents of the work show little difference from sonatas or other pieces not labeled as exercises. Instead, in line with his extensive collection of keyboard sonatas, the *30 Essercizi* adhere to the structure of single-movement binary-form sonatas. Each exercise employs various keyboard techniques, including scales, arpeggios, repeated notes, trills, and hand-crossing techniques. Moreover, in addition to using technical passages, most of the *essercizi* features a contrapuntal texture. The opening excerpt of *Essercizio*, No. 21, is presented below, showcasing a contrapuntal texture.

Example 1.4 – D. Scarlatti’s *30 Essercizi per gravicembalo*, No. 21, mm. 1–24
**Works Included in Instrumental Treatises and Instruction Manuals**

In contrast to keyboard literature with instructive titles, several works existed without explicit titles that included the term “study” while maintaining an educational purpose. Typically, these works were included in instrumental treatises and instruction manuals, often accompanied by author-provided fingerings or suggested embellishments. While not all the compositions discussed here exhibit stylistic similarities to nineteenth-century études, they share a common characteristic of clear instructional intent.

Girolamo Diruta’s toccatas, featured in his treatise *Il transilvano* (1593), exemplify notable instances of this genre. Diruta’s work provides valuable insights into organ performance, counterpoint, and composition. His toccatas present various technical challenges, including scales, turns, and trills, reflecting the idiomatic organ techniques prevalent during his time (refer to Example 1.5, where the toccata prominently features scale passages).
Example 1.5 – Toccata Di Grado del Primo Tuono from G. Diruta’s treatise Il transilvano

Compared to other compositions found in treatises or instruction manuals, Diruta’s toccatas most closely resemble nineteenth-century piano études. As depicted in Example 1.5, they employ idiomatic keyboard techniques characterized by virtuosic scale passages performed by both hands. Given the substantial relevance of the toccata genre to keyboard études, this connection will be further explored later in this chapter.

The eight preludes in François Couperin’s treatise L’art de toucher le clavecin (The Art of Playing the Harpsichord, 1716) are other notable examples. Couperin’s instructive treatise focuses on performance practices for keyboard players, encompassing crucial aspects such as the performer’s posture at the keyboard, touches, fingerings specific to harpsichord playing, and stylistic ornamentations.
Example 1.6 – F. Couperin’s *L’art de toucher le clavécin*, Second Prelude
In addition, C. P. E. Bach’s *Versuch über die wahre Art das Clavier zu spielen* (*An Essay on the True Art of Playing Keyboard Instruments*, 1753) includes Probestücke (“Example pieces”) that serve as practical illustrations of the methods explained in the essay itself. The essay covers various aspects of performance, including fingering, embellishments, intervals, thorough bass, accompaniment, improvisation, and musical interpretation, providing comprehensive guidance for achieving expressive and nuanced performances on keyboard instruments. As exemplified in one of his sonatas (refer to Example 1.7), C. P. E. Bach’s approach tends to provide more intricate fingering instructions than Couperin’s, who seems to prioritize explicitly notated ornamentations over detailed fingering guidelines.

Example 1.7 – C. P. E. Bach’s *Versuch über die wahre Art das Clavier zu spielen*, Sonata I
Finally, the *12 Handstücke zum Gebrauche beim Unterrichten* (12 Hand Pieces for Instruction) is featured as an appendix to Daniel Gottlob Türk’s treatise *Klavierschule* (1789). Notably, almost every note within these Handstücke is accompanied by fingerings, providing detailed guidance. These pieces present technical challenges and convey specific emotions or characters that align with them. Türk further expanded his repertoire by composing an additional 60 Handstücke, which are included in his collection titled *Sechzig Handstücke für angehende Klavierspiele* (1792).

Example 1.8 – D. G. Türk’s *Klavierschule*, Handstuck No. 1
The works titled with instructive intent before the nineteenth century display a diverse range of forms and styles. Yet, aside from their didactic function, their direct stylistic influence on nineteenth-century études appears limited. Nevertheless, exploring works composed with educational intention in the seventeenth and eighteenth centuries provides valuable insights. The term “study” in Baroque works indicates not only the technical advancement of instrumentalists but also the nurturing of compositional skills, making the works appeal to a broader audience beyond just keyboard players. Additionally, this highlights the existence of didactic works prior to the nineteenth century despite stylistic dissimilarity.

On the other hand, various Baroque works not categorized as studies or included in didactic publications played a significant role in shaping the groundwork for the nineteenth-century piano études, particularly in composing virtuosic passages that were idiomatic for piano. These works were realized within musical forms like variation, toccata, and prelude. The improvisational nature shared by all three forms allowed composers to expand and embellish passages without significant limitations imposed by the structure of these musical forms.

**Variation**

The variation, both as a musical form and as a compositional technique, provided composers with the opportunity to create technically demanding figurations while adding diversity to given themes. In the variation form, a piece typically begins with a simple melodic line and corresponding harmonic progression. Throughout the piece, the melody usually varies while retaining the harmonic structure and the attributes of the original theme. One of the earliest examples of using the variation technique is shown in Antonio de Cabezón’s collection of *diferencia* from the sixteenth century. The *diferencia*, a term meaning “variation” in sixteenth-
century Spanish instrumental music, was a common practice in compositions for solo instruments like the vihuela, lute, or keyboard. Composers like Cabezón would take melodies from Spanish folk songs, dances, and other musical forms, ornamenting them heavily to create their own diferencias. This practice of creating variations was later continued and expanded upon by composers such as Couperin, Rameau, and Handel. The influence of the variation technique on the writing style of keyboard études is discussed by Häfner in his previously cited book:

Within the ‘variation’ with its infinitely rich possibilities, there was room to play with all types of training for fluency of each hand, both hands together, individual finger and finger groups, playing figures in turn with numerous rhythmic possibilities, types of strokes, etc. Therefore, the technique of variation has been of great importance for the development of practice pieces since the earliest times of keyboard music.

Moving into the nineteenth century, Schumann expanded upon the fusion of variation technique with piano études in his work Études in Form von Variationen—Symphonische Étuden (Symphonic Études), Op. 13. In this composition, the original theme consists of a simple series of chords that highlights colorful harmonic shifts, followed by variations that present different technical challenges. As a result, the piece maintains an overarching structure of variation while preserving each variation as an independent étude. For instance, in variation (étude) VI, Schumann maintains the contour and substantial part of the harmonic progression of the theme while introducing technically brilliant rhythm and texture (refer to Examples 1.9.1 and 1.9.2).

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10 Whiteside, “A Stylistic Analysis of the Fugas, Tientos, and Differencias of Antonio De Cabezón and an Examination of His Influence on the English Keyboard School,” 24-25.

Example 1.9.1 – R. Schumann’s *Symphonische Étuden, Op. 13*, Theme, mm. 1–8

Example 1.9.2 – R. Schumann’s *Symphonische Étuden, Op. 13*, Étude VI, mm. 1–8
Toccata

The toccata, which originated in fifteenth-century German manuscripts and appeared in print during the sixteenth century, underwent several formal changes over the centuries. Toccatas were originally defined as “freely composed keyboard music, independent of the dance, of cantus firmi or any vocal model.”¹² This inherent freedom is often expressed through brilliant keyboard passages, a quality also found in nineteenth-century études.

Toccata, derived from the Italian word toccare, meaning “to touch,” was primarily associated with solo keyboard and lute compositions.¹³ Toccatas aim to evoke a whimsical and improvisatory feel, often incorporating resplendent passages throughout the composition. This effect suggests that the performer is experimenting with diverse passages through improvisation, capturing the essence of spontaneousness and technical exploration inherent to the genre. In the 16th century, most toccatas were characterized by a predominantly chordal style, where one hand would perform dazzling runs against chords played by the other hand.¹⁴

During the Baroque era, the performance practice of toccatas maintained their improvisatory nature until composer G. Frescobaldi introduced a new style characterized by sectional structure (refer to Example 1.10, where the piece starts with plain chords that develop into runs). These sectional toccatas featured alternating improvisation sections, showcasing runs and arpeggios, and more structured sections employing chords or fugues. Later Baroque composers adopted this sectional approach, which is evident in J. S. Bach’s renowned Toccata and Fugue in D minor, BWV 565, which consists of distinct toccata and fugue sections (refer to Examples 1.11.1 and 1.11.2). In Toccata and Fugue in D minor, BWV 565, passages are infused

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¹⁴ Bradshaw, op. cit., 186-87.
with idiomatic keyboard techniques, including runs, division of hands, and alternation, which are also prominently featured in nineteenth-century piano études. After J. S. Bach, the tradition of composing multi-thematic and multi-sectional toccatas declined, returning to the non-improvisatory and mono-thematic character reminiscent of earlier times before Frescobaldi. Therefore, nineteenth-century toccatas share similarities with études regarding their focused and non-improvisatory nature.

Example 1.10 – G. Frescobaldi’s *Toccate e Partite, Libro 1*, Toccata No. 8, mm. 1–10
Example 1.11.1 – J. S. Bach’s *Toccata and Fugue in D minor, BWV 565*, Toccata
Example 1.11.2 – J. S. Bach’s *Toccata and Fugue in D minor, BWV 565*, Fugue

**Prelude**

A prelude is an introductory piece that establishes the tonic or key for the following composition. The preludes in J. S. Bach’s *The Well-Tempered Clavier* exemplify the genre. Baroque preludes share specific characteristics with toccatas\(^{15}\), placing them in a similar category: both exhibit an improvisatory nature, partially or entirely, and both are often coupled with and precede another piece, typically a contrapuntal work. However, unlike sectional toccatas from the era of Frescobaldi to J. S. Bach, preludes are mono-thematic or mono-motivic, which means that the entire composition revolves around a singular central theme or motive,

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persistently reappearing throughout the piece.\textsuperscript{16} Such a compositional technique finds resonance in numerous piano études composed during the nineteenth century. In addition to the similar compositional technique, preludes function similarly to études as they mentally and physically prepare the performer for more extensive and more musically complex compositions. An exemplary illustration is provided by Example 1.12, a prelude excerpted from \textit{The Well-Tempered Clavier}. Particularly noteworthy is the conclusion of this prelude, which exhibits a highly improvisatory character, establishing the piece’s key.

Example 1.12 – J. S. Bach’s \textit{The Well-Tempered Clavier, Book I, BWV 866},
Prelude in B-flat Major, mm. 14–20

\textsuperscript{16} Ganz, op. cit., 46-48.
In conclusion, the educational materials and musical forms discussed in this section bear relevance to nineteenth-century études in various aspects. Works with instructive titles serve a didactic purpose similar to études, serving as valuable learning tools. Compositions within treatises and instruction manuals share commonalities, including practical guidance from the composers, such as suggestions on fingerings and embellishments. The influence of variations is evident in the development of compositional techniques. Toccatas often showcase brilliant passages, contributing to developing idiomatic keyboard passages. Finally, preludes frequently revolve around a single theme or motive, mirroring the structure observed in many études.

1.3. Rise of the Piano and Its Mechanical Advancements

After conducting several experiments dating back to the 1690s, Bartolomeo Cristofori invented the piano in 1709, naming this new keyboard instrument gravicembalo col piano e forte, which translates to “harpsichord that can play both soft and loud.” In 1711, the contemporary journalist Scipione Maffei provided a detailed description of Cristofori’s pianos. This description, translated into German in 1725, was widely distributed, introducing musicians to this innovative instrument. Notably, J. S. Bach encountered a piano crafted by Gottfried Silbermann, initially expressing dissatisfaction. However, he later approved Silbermann’s subsequent instruments, and in 1747, he performed on his piano at Frederick the Great’s court. As its name “gravicembalo col piano e forte” suggests, the piano distinguished itself from the harpsichord by featuring a graded dynamic that the latter, as a plucked-string instrument, could not produce. The piano utilized a complex mechanism for constructing the actions of the keyboard, incorporating intricate parts that make up the keys (refer to Figure 1).

\[^{17}\text{Rowland, A History of Pianoforte Pedalling, 9.}\]
As seen in Figure 1, the piano actions involve elaborate systems of levers that encompass the keys. These systems transmit the motion initiated by the player’s fingers to pivoted hammers, and the hammers, in turn, strike the strings and rebound to allow for uninterrupted vibration. The force exerted by the player’s touch is then amplified through leverage, which directly influences the velocity of the hammers and, consequently, the volume they generate.\(^\text{19}\)

The piano gained little popularity among musicians when first introduced to the world. One reason was the intricate construction of the piano key mechanisms, resulting in a high possibility of poor construction and malfunction compared to the contemporary keyboard instrument, which was the harpsichord.\(^\text{20}\) Another reason was its softer and duller timbre compared to that of the harpsichord, as written by Maffei:

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\(^\text{20}\) Lowrance, op. cit., 1–14.
Some professors have not given to this invention all the applause that it merits; …it has appeared to them that the voice of the instrument, being different from the ordinary, is too soft and dull, an impression produced on first placing the hand on the instrument, given that we are accustomed to the silvery sound of other gravecembali. … There has been further opposition raised that this instrument does not have a powerful tone and is not quite as loud as other gravecembali. To this, one may answer, first, that it has more power than they give credit, when someone wishes and knows how to produce it, by striking the keys with force; and second, that it is necessary to accept things for what they are, and not consider, as regards one end, something that is designed for another. This is properly a chamber instrument, and it is not adaptable for church music, or for a large orchestra.21

In the early to mid-1700s, the piano underwent modifications in its compass and witnessed significant mechanical advancements. Over time, two distinct schools of piano building, namely the English and the Viennese, emerged by the 1780s. These schools distinguished themselves by crafting pianos with unique designs regarding actions and strings. The fundamental design of the Viennese piano was created in Augsburg by Johann Andreas Stein (1728–1792), an organist and keyboard maker. Stein pioneered the piano action using escapement mechanisms. This new type of piano action gave players enhanced control over the hammers, particularly when playing softly, and displayed remarkable responsiveness to the player’s touch (refer to Figure 2).22 In London, John Broadwood (1732–1812) built the pianos using so-called English action (refer to Figure 3), which remained the foundation of the modern piano action. The pianos built by the two schools stood apart from each other: specifically, the Viennese pianos made before ca. 1780 were mostly double-strung23, while the English piano was typically triple-strung, and the head of the Viennese action’s head was positioned toward the player, while that of English action’s hammers was located away from the player.

21 Pollens, The Early Pianoforte, 57.
22 Latcham, “Stein, Johann (Georg) Andreas,” Grove Music Online.
Later, in 1820, the English piano’s action underwent further modification by Sébastien Érard, who developed the “double escapement” action (refer to Figure 4).

![Diagram of Viennese Action by Stein of 1786](image1)

Figure 2 – Viennese Action by Stein of 1786

![Diagram of English Action by Broadwood of 1795](image2)

Figure 3 – English Action by Broadwood of 1795

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24 Grover, op. cit.
25 Grover, op. cit.
In addition to the innovatively designed double escapement action, incorporating more robust materials like metal braces and heavier strings strengthened the piano’s frame, enabling it to withstand much higher string tension than earlier versions. These crucial innovations made the piano capable of producing a more powerful sound and greater expressiveness. Consequently, nineteenth-century composers were inspired to compose countless piano works as they recognized the instrument’s ability to convey their deepest emotions and vivid, sometimes even theatrical, sentiments.  

In the late eighteenth and early nineteenth centuries, the piano gained immense popularity in Vienna, a vibrant center of European musical life. Gradually, the piano surpassed the clavichord and harpsichord to become the primary domestic keyboard instrument, playing a vital role in the social gatherings of the middle-class bourgeois. This prompted an influx of pianists who flocked to the city for study and performance, with Viennese-made instruments gaining

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26 Grover, op. cit.
27 Colt, “Early Pianos: Their History and Character,” Early Music 1, no. 1, 29.
28 Gillespie, Five Centuries of Keyboard Music, 197.
widespread favor for their quality and playability. Notably, Viennese pianos were recognized for their lighter keys and shorter resonance.

In comparison, English pianos exhibited heavier keys and more extended resonance, often called “after-ring,” owing to less efficient damper pads. These distinct characteristics influenced composers to favor one piano over the other, leading to varied compositional styles and markings on their scores depending on the specific piano they used. For instance, J. B. Cramer, the English composer who used English pianos, explicitly indicated *staccato* and rests in his études to ensure the player cuts the note short. In his étude, as shown in Example 1.13, he employs a sequence of rests and *staccato* in succession to accentuate the brief articulation of the notes in mm. 3–4. Van Oort referred to this practice as “counter-resonance notation” in his dissertation.29

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Example 1.13 – J. B. Cramer’s *Étude Op. 30, No. 17*, mm. 1–8

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29 Van Oort, op. cit., 30.
30 Ibid.
1.4. Early Nineteenth-Century Piano Études

The piano’s rise in popularity prompted the emergence of several new musical forms featuring the piano. Compositions such as Lieder, sonatas for piano and other instruments, piano trios, quartets, and more highlighted the instrument’s versatility and expressive range. Evidence of the piano’s prevalence can be found in the “Universal Circulating Music Library” catalog, published by London’s Novello in the 1770s, where over three-quarters of the listed Continental and English musical works required piano.31

As previously discussed, the études as we recognize them today can be traced back to the nineteenth century. This era witnessed a surge in the popularity and refinement of the piano, leading to the creation of études that served as indispensable tools for both amateur enthusiasts and aspiring professionals. Designed to improve piano skills and prepare musicians for the technical demands of contemporary compositions, these studies played a pivotal role in piano pedagogy.

Before Chopin’s contributions, several composers in the late eighteenth and nineteenth centuries had already delved into the realm of études. Often presented in sets, these études focused on a singular theme or technical challenge, occasionally organized around distinct key relationships. While having commonalities with Chopin’s works in texture and figuration, each composer brought their own creative flair to their études.

This section delves into selected études from the late eighteenth century to 1829, when Chopin began composing his famed sets: Op. 10, Op. 25, and Trois nouvelles études. By

31 Todd, Nineteenth-Century Piano Music, 4.
examining these earlier études, we gain insights into the musical landscape during Chopin’s formative years and discern potential influences or deviations in his later works.

1) Cramer, Johann Baptist (1771–1858) – 84 Études, Opp. 30 and 40 (1804, 1810)

English pianist and composer Johann Baptist Cramer learned piano from Muzio Clementi. Cramer became well-known for his impressive piano skills, earning Beethoven’s high regard for his proficiency and études. It is said that when Cramer released the études, Clementi remarked: “I understand that you have published two books of Studies. But I have long thought of composing some,” to which Cramer answered, “While you have been dreaming, I have accomplished the task.”

Cramer’s 84 études, known as Studio per il pianoforte, were published in two sets of 42 each in 1804 and 1810, and they stand as the composer’s most renowned work. In the set of 84 Études, Opp. 31 and 40, each étude focuses on a specific technical challenge, often involving sequences on a simple harmonic progression. The études are not organized by identifiable key relationships or in increasing order of difficulty, and they are all relatively short, typically lasting just a page or two. Generally, most études in Op. 30 are characterized by fast runs in one or both hands, which aligns with the typical image of études. Lively tempo markings like allegro, vivace, and con moto accompany this. However, a couple of exceptions exist – No. 11, marked as “lento,” and No. 12, marked as “moderato espressivo.” These deviate from the norm by featuring a slow melody in one voice while the other engages in quick trills or arpeggios (refer to Example 1.14).

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Compared to the *Op. 30* études, Cramer’s *Op. 40* études often require a more extended hand span. These études frequently involve substantial leaps and larger chords, spanning sixths or more, to be played by a single hand. Additionally, the composer seems to aim to provide variety in the purpose of each étude. For example, *Op. 40*, No. 26, features elongated trills accompanying chordal voices, similar to *Op. 30*, No. 11. However, in this case, the trill is assigned to fingers 3, 4, and 5, as opposed to 1 and 2 – which was the case of *Op. 30 No. 11*.  

33 While one hand trills with the fingers 1 and 2, the other voices play a chord progression in a choral style.
As in Chopin’s Études Op. 10, both sets of Cramer’s études also begin with a C Major étude. Compositional techniques between Cramer’s and Chopin’s works exhibit several similarities, particularly in their treatment of figurations. Specifically, both Cramer’s and Chopin’s études featuring fast runs, like a succession of sixteenth or thirty-second notes, tend to have a slower harmonic rhythm. This approach allows listeners to perceive notes coinciding with harmonic changes and even view the entire étude as a series of harmonic shifts rather than focusing on specific melodies. In both composers’ études, there are instances where one hand emphasizes the harmonic changes with chords while the other hand executes the run. However, Chopin incorporates a more significant number of non-harmonic tones, adding more color and richness to the texture (refer to Examples 1.15.1 and 1.15.2).

Example 1.15.1 – J. B. Cramer’s Étude, Op. 40, No. 14, mm. 31–40
2) Muzio Clementi (1752–1832) – Préludes et Exercices dans tous les tons majeurs et mineurs (Preludes and Exercises in All Major and Minor Keys), Op. 43 (1811)

In his later years, Muzio Clementi, a distinguished pianist, composer, music publisher, and editor garnered recognition as the “father of the pianoforte” and the “father of the pianoforte sonata.” His expertise in navigating technically challenging passages, particularly the thirds for which he gained notable acclaim, is prominently displayed in compositions like his Toccata, Op. 11. However, his Sonata, Op. 2, the so-called “Octave Lesson,” truly set him apart. This composition, characterized by its innovative use of idiomatic piano textures, was especially novel for audiences of the time:

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Clementi’s powers burst on the London public in the late 1770s in the shape of his Op. 2 sonatas, including the notorious ‘Octave Lesson’ (op.2 no.2) which, unfortunately, remained his best-known work for the rest of his long career. For a time, he was apparently the only performer who had the technique to play passages in rapid 3rds and octaves, as even Mozart recognized after the often-described contest before the emperor in 1782; and he was soon famous all over Europe. The Op. 2 sonatas are rather empty pieces, but they use textures of a kind never heard before, and can well be called the first idiomatic music for the piano.\(^{35}\)

Clementi’s Op. 43 études offer insights into organizing études as a cohesive collection, mainly focusing on arranging them based on key relationships. The entire set is designed to encompass all keys: it commences with C Major, followed by its relative key, A minor. The sequence then progresses through keys with one flat (F Major and D minor) and one sharp (G Major and E minor) and continues with keys having two flats, two sharps, and so forth, ultimately covering all the keys in the circle of fifths. Most of the études, except for the last few, are preceded by a short prelude or two in the corresponding key.

Nearly all these études primarily focus on ascending and descending scale passages rather than addressing other keyboard techniques like arpeggios, thirds, sixths, octaves, trills, or leaps. This distinguishes these études from those by Cramer’s, Chopin’s, and even Clementi’s own Gradus ad Parnassum, Op. 44. At the end, Clementi included the Grand exercice dans tous les tons majeurs et mineurs (Grand Exercise in All Major and Minor Keys), where the scale passage modulates from C Major to all possible major and minor keys (C Major – A minor – F Major – D minor, etc.) and returns to C Major at the end.


Comprising 100 pieces for keyboard, the extensive three volumes of *Gradus ad Parnassum* (*Steps to Parnassus*) showcase a diverse array of styles, including études, preludes, fugues, canons, sonata-like movements, and character pieces. Published in 1817, 1819, and 1826, this extensive collection reveals Clementi’s versatility. Half the pieces are explicitly organized into tonally related suites, each featuring three to six movements. In *Gradus ad Parnassum*, various piano techniques are explored, encompassing scales, arpeggios, broken chords, a succession of thirds, sixths, Alberti bass, and sustained outer voices with a faster-moving inner voice, to name a few.

Clementi’s compositions, beyond showcasing his virtuosity, have left a lasting impact on subsequent generations of composers, influencing piano technique and composition. An exemplary instance of this influence is found in his Étude No. 15, where Clementi employs thirds in diverse directions within the right hand. This technique evokes parallels with Chopin’s Étude Op. 25, No. 6 (refer to Examples 1.16.1 and 1.16.2), yet with distinctive nuances. Unlike Chopin, who maintains a consistent focus on thirds throughout his piece, Clementi starts with thirds but then ventures into various chord sizes and figurations, adding an interesting twist. On the other hand, Chopin sticks to thirds from start to finish, contrasting their compositional scheme.
Example 1.16.1 – M. Clementi’s *Gradus ad Parnassus*, Op. 44, No. 15, mm. 1–20

Example 1.16.2 – F. Chopin’s *Étude Op. 25*, No. 6, mm. 15–18
Another example showcasing Clementi’s technical skills and the similarities between his and Chopin’s études is found in Étude No. 68, reminiscent of Chopin’s Étude Op. 25, No. 8 (refer to Examples 1.17.1 and 1.17.2). Like the études dealing with thirds mentioned earlier, Clementi, in his étude, employs different chord sizes beyond just sixths, while Chopin sticks to the sixths throughout. Additionally, Clementi keeps the left-hand figuration of his étude simple by frequently alternating between two notes or two chords. In contrast, Chopin’s étude demands a broader left-hand reach, with its overarching contour and larger chords. Nonetheless, the similarities found in both the composers’ études show Clementi’s influence on the composers of the younger generation.

Example 1.17.1 – M. Clementi’s *Gradus ad Parnassus, Op. 44, No. 68*
Friedrich Kalkbrenner (1785–1849) – *24 Etüden durch alle Tonarten (24 Studies in All Keys), Op. 20 (ca. 1825)*

The set of 24 études explores all chromatic keys in ascending order, following the pattern of major keys followed by their parallel minor keys, akin to J. S. Bach’s *The Well-Tempered Clavier*. For instance, No. 1 is in C Major, No. 2 in C minor, No. 3 in D-flat Major, No. 4 in C-sharp minor, and so on. While most of the études feature fast tempo markings with virtuosic passages that are typical of an étude, there are a few exceptions, such as No. 12, which exhibits a contrapuntal texture, and a few études that do not have fast tempo markings. The figurations and texture the composer employs are not too different from Clementi’s or even Chopin’s, although Kalkbrenner’s études mostly lean toward a more bravura style than the delicate style of Chopin.
Examples 18.1 and 18.2 demonstrate the similarity between one of Kalkbrenner’s and Chopin’s études. Apart from the broader range used by both hands in Chopin’s étude, in both Kalkbrenner’s and Chopin’s études, the left hand not only outlines the harmony but also carries a melodic role.

Example 1.18.1 – F. Kalkbrenner’s Étude Op. 20, No. 19, last page
Example 1.18.2 – F. Chopin’s *Étude Op. 10, No. 8*, mm. 1–11
5) Carl Czerny (1791–1857) – A Plethora of Étude Collections

Czerny composed over a thousand études throughout his lifetime, but most lean toward exercises or finger drills rather than études with character-piece-like qualities. As a result, despite being renowned for his ceaseless production of pedagogical piano works, Czerny faced opposition from other composers, particularly Robert Schumann, who criticized his works for lacking quality and originality.36

Each set of Czerny’s études typically revolves around one or two specific technical challenges, such as velocity, legato and staccato playing, left-hand-focused techniques, and octave passages. Some sets also feature a progressive series of études designed to build skills gradually. Also, in contrast to the études discussed earlier, which were intended for more advanced players, Czerny’s massive étude collection aimed to cater to a broader audience, ranging from beginners to advanced students. Czerny’s études earned recognition for their focused approach to developing essential aspects of piano technique, such as finger dexterity, agility, strength, and independence.

Chopin’s letters prove that the two composers met during Chopin’s time in Vienna before Chopin began composing his études.37 While there might have been some influence from Czerny, it is challenging to establish a direct stylistic connection between their respective études due to the practical and mechanical nature of Czerny’s études. However, it is worth recognizing the widespread popularity of Czerny’s études during that era. Chopin was likely acquainted with Czerny’s études and the various technical focuses and figurations employed in them, which he might have adapted and integrated into his compositions in a distinctive manner.


Moscheles, a renowned pianist-composer of the nineteenth century, commissioned Chopin to write Trois nouvelles études as a contribution to the piano instruction book “Méthode des méthodes de piano.” His playing, as well as his études, were well-regarded among composers of his time, and his études were admired for their combination of technical challenges and artistic expression.

Before Chopin started composing his Études Op. 10, Moscheles had already published his 24 Études, Op. 70, which included several pieces that bore resemblances to Chopin’s études. For instance, the third étude featured a right-hand inner voice scale with additional notes on top, which has a texture similar to Chopin’s Étude Op. 10, No. 2, where Chopin turns the figuration upside down (refer to Examples 1.19.1 and 1.19.2). Likewise, the thirteenth étude in Moscheles’s set resembled Chopin’s Étude Op. 25, No. 6 in its use of scales in thirds. Additionally, like Chopin’s Études in Op. 10 and Op. 25, Moscheles’s set of études includes a few slow études aimed at practicing to produce refined tones rather than focusing on agility.
Example 1.19.1 – I. Moscheles’s Étude Op. 70, No. 3, mm. 1–10

Example 1.19.2 – F. Chopin’s Étude Op. 10, No. 2, mm. 1–6
In summary, the études introduced above exhibit several shared characteristics: they are typically brief in length, with each étude primarily focusing on a specific technical challenge. Additionally, except for most of Czerny’s études, they possess a character-piece quality rather than merely finger exercises. These traits of the genre of étude influenced Chopin’s études to different extents, and he took the genre to new heights by prioritizing musical expression over technical challenges, surpassing the accomplishments of his predecessors.
CHAPTER TWO: Analyses of Chopin’s Études, Op. 10

2.1. **Composition of Chopin’s Études, Op. 10**

Frédéric Chopin was born in Żelazowa Wola, a village located six miles from Warsaw. Demonstrating exceptional musical talent from an early age, he started composing and performing in public during his teenage years. Notably, at the age of seventeen, he gave a concert with his *Variations on “Là ci darem la mano” for Piano and Orchestra, Op. 2*, which brought him significant fame, marking the beginning of a brilliant musical career.

In November 1830, Chopin bid farewell to his hometown and traveled to Vienna, where he resided for eight months before settling in Paris. During his time in these three cities, Warsaw, Vienna, and Paris, Chopin’s artistic journey flourished and evolved, shaped by diverse cultural influences and experiences. When Chopin was just twenty-one, Schumann published a favorable review of Chopin’s *Variations, Op. 2*, in the *Allgemeine Musikalische Zeitung*. Schumann’s famous remark about Chopin, “Hats off, gentlemen, a genius,” was made at that time, signifying the profound impact of Chopin’s music on his contemporaries.\(^{38}\)

Chopin’s *Études, Op. 10*, comprised of twelve brilliant and innovative piano études, composed between 1829 and 1832 and dedicated to Franz Liszt. This composition period spans three stages of Chopin’s life: Warsaw, Vienna, and Paris. Consequently, *Études, Op. 10*, provide valuable insight into the initial phases of Chopin’s compositional style. Despite their early creation in Chopin’s career, it is essential to emphasize that these études are in no way less accomplished than the works of his contemporaries. They distinctly demonstrate an exceptional level of sophistication in both harmonic language and technical mastery.

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A few years following the publication of *Études Op. 10* and *Op. 25*, these works received a favorable review in *The Musical World*, which cites Czerny’s comments alongside the reviewer’s assessment:

No set of studies, in our minds, meets this view of the essential objects of a studio so perfectly as the “*Etudes pour le pianoforte par Frederic Chopin.*” There is nothing ephemeral in their character, or construction as compositions - the harmony is solid and excellent, the superstructure elegant and novel in passage, and rich and melodious in its cantilena; but notwithstanding these valuable and important features in the work--the development of a mechanism, a systematic mechanism is always the primary consideration with the composer. M. Czerny has, we understand, said of this work that it forms a new era in the history of pianoforte performance. We can unhesitatingly declare that the student who masters its details, having an observant eye to its principles, will forget the meaning of the word “difficult, at least as connected with composition for the pianoforte.³⁹

In the nineteenth century, it was common to feature works by pianist-composers in concert programs if a personal connection had been established with the composer, such as through a teacher-student relationship.⁴⁰ Most compositions by leading pianist-composers were initially performed by the composers themselves or the composer’s students, gaining recognition over time as part of the standard repertoire. However, Chopin’s works took a slightly different trajectory as he preferred the intimate salon setting over sizeable public concert halls for his performances. Consequently, his reputation as a composer was directly established through the merits of his works, which fellow artists integrated into their public concert presentations. Notable pianist-composers who showcased Chopin’s works in their concerts included Clara Schumann and Franz Liszt, and their programs frequently featured selections from Chopin’s études.

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It was thus largely through pianists who had had direct contact with Chopin in Paris that his music first began to gain acceptance in concert programmes. Among those who helped spread knowledge of his music, Liszt was influential: as was mentioned earlier, he often included some of the shorter pieces in his concert programmes from 1837 onward. Frequently, these were selections from the études, the first set of which Chopin had dedicated to Liszt. Individual études from Opp. 10 and 25 became the first pieces by Chopin to appear in many pianists’ concert programmes.41

Regarding the études, one of Chopin’s contemporary reviewers noted that even for experienced pianists of the time, Chopin’s music posed new and unexpected challenges, the musical nuances of which were not always readily apparent from the printed score alone.42 In addition, according to a London reviewer in 1844, Chopin’s études were considered to be “more in vogue now than those of any other master, and that a thorough acquaintance with his works is considered a sine quâ non in the education of all pianistes[sic] who aspire to public display.” 43

2.2. Musical Analysis of Chopin’s Études, Op. 10

2.2.1. Tonal Interrelationship among the Études

Each Op. 10 étude is closely related to one another, particularly in terms of their tonal plan. Although Chopin’s rationale for selecting specific keys for each étude remains elusive, a discernible tonal interplay permeates the collection. Chopin adeptly employs relative and parallel key relationships and the perfect fourth or perfect fifth interval to establish harmonic cohesion across the set of études. The chart below elucidates the keys of Chopin’s Études, Op. 10, and their interrelationships.

41 Ibid, 30.
42 Samson, op. cit., 30.
As observed, études No. 1 and No. 2 are composed in relative keys, similar to No. 3 and No. 4, as well as No. 5 and No. 6. Additionally, the minor-key études are consistently dominant or subdominant from the major-key études that follow: A major (No. 2) to E Major (No. 3) and C-sharp minor (No. 4) to G-flat/F-sharp major (No. 5).

For the second half of the *Op. 10* set, after returning to C Major in No. 7, the key of No. 7 (C major) and No. 8 (F major) are a perfect fourth apart, allowing the last note C of No. 7 (tonic of C major) to become the first note (dominant of F major) of No. 8. Moreover, No. 8 and No. 9 are in a parallel key relationship, No. 10 and No. 11 are again a perfect fifth apart. No. 11 and No. 12 are in relative keys.

The selection of keys forms a unified connection among the twelve études, highlighting Chopin’s deliberate strategy in bringing them together as a cohesive set.
2.2.2. Ternary Form

The ternary form is a musical structure comprising three parts, often represented as “ABA.” In ternary form, the initial A section establishes fundamental musical elements such as key, melody, harmonic progression, rhythmic features, and texture, serving as the foundational basis of the composition. The subsequent B section usually introduces a contrasting mood compared to the A section, presenting new musical materials. The final section circles back to the A section, remaining identical to the initial presentation or featuring varying degrees of modification. This final return of the A section provides a sense of closure to the piece, effectively framing the middle section and offering the listeners familiar material.

Every étude within the *Op. 10* set adheres to the ternary form, often concluding with a coda after the return to the A section. Due to the genre’s inherent mono-thematic nature, Chopin does not introduce entirely new motives or tempos in the B section – the consistency in tempo is especially evident in the *Op. 10* études. However, he cleverly employs the ternary structure to facilitate key shifts or to provide a distinct treatment of the existing motive within the B section. For instance, many études undergo modulation to the dominant or relative key area in the B section, alteration of harmonic rhythm, or highlighting of different melodic voices. In addition, the B section tends to be more energetic than the A section, similar to the contrast between development and exposition in sonata movements due to faster harmonic changes or subdivisions of figurations.
2.2.3. Analysis of Each Étude

**Étude in C Major, Op. 10, No. 1, Allegro**

The first étude of the *Op. 10* set establishes a connection with the Baroque-era basso continuo practice, evoking the characteristics of sustained bass lines often found in Baroque music’s continuo parts. This connection, combined with the fact that the right hand arpeggiates over a sustained pedal tone in the left hand, has prompted certain music theorists, including Charles Rosen, to propose that Chopin’s *Étude in C Major, Op. 10, No. 1* bears a resemblance to J. S. Bach’s *Prelude in C Major, BWV 846* from *The Well-Tempered Clavier, Book I* (refer to Examples 2.1 and 2.2.1).\(^{44}\)

Example 2.1 – J. S. Bach’s *The Well-Tempered Clavier, Book I, BWV 846*, Prelude in C Major, mm. 1–8

\(^{44}\) Rosen, op. cit., 361-362.
In addition to the sustained left-hand octaves, this étude showcases expansive arpeggios spanning more than four octaves in each large “arch” extending over every two measures. Together with the sustained bass and damper pedal, these arpeggios create substantial aural phrases that evolve and change tonal color as cohesive units. Within a single large arch, four smaller arpeggios ascend, followed by another four descending arpeggios, each executed with a single “block” of hand position. Example 2.2.1 labels each block that the right hand plays within each hand position with brackets. Note that in each block, in other words, the four-note arpeggio, the uppermost note aligns with every beat due to its offbeat initiation at the arch’s inception. This strategic design ensures technical uniformity, enabling the right hand’s fifth finger to consistently emphasize the accented notes during the arch’s upward and downward movement. From Chopin’s choice to align the fifth finger with the accents, rather than any other fingers, one can infer that he understood the fifth finger’s capacity to handle accentuation during arpeggiation. This insight aligns with the physical structure of the arm, a topic that will be explored in greater detail in the following chapter.
In this étude, the harmony changes every measure or two, creating a sense of extended breaths. Particularly notable is the A section (mm. 1–16), where the harmonic rhythm unfolds gradually, except for the quarter-note passing chords in m. 5. This deliberate pacing gives a sensation of slow yet brilliant motion as the bass line drives the harmonic shifts. At the same time, the right hand, with its arpeggiated sixteenth-note passages, adds hues to the chords. An example occurs in mm. 7–8, where the right hand navigates complex figures.

Example 2.2.1 – F. Chopin’s Étude Op. 10, No. 1, mm. 1–8
The suspended 9♭ and 4 in m. 7 resolve to 8 and 3, while the left hand sustains the G octave. This results in a somewhat unconventional hand position, challenging for the pianist, yet for the listener, it unfolds as a rich tapestry of gradual and nuanced color changes within the harmonies. From the beginning of the B section (m. 17–), passing chords happen more frequently, as shown in example 2.2.2, contributing to a more dynamic atmosphere.

Moreover, as the B section concludes, Chopin combines a descending fifth sequence in the bass in mm. 42–44 with more frequently fluctuating arpeggios in the right hand. After the sequence, each of the right hand’s highest notes descends in mm. 45–46, as well as the accented F in m. 48 highlights the chromatically ascending line as it progressively distances itself from the bass line. This is followed by the dominant seventh in m. 48, effectively guiding the music back to the main key, C Major (refer to Example 2.2.3).

Example 2.2.2 – F. Chopin’s Étude Op. 10, No. 1, mm. 15–20
Concluding the recapitulated A section, the chromatically descending bass line alludes to a subsequent elaboration in mm. 59–66. As soon as the bass line finally returns to C Major tonic in m. 69, the following coda accentuates the dominant note, G, in the bass, sustained as a pedal tone. Over this G, the right hand arpeggiates the diminished seventh chords, which finally arrives at the dominant of G Major and resolves to the tonic.
**Étude in A minor, Op. 10, No. 2, Allegro**

Similar to the first étude of the set, *Op. 10, No. 2*, also demands considerable agility from the right hand. This étude introduces three distinct voices: the upper voice features rapidly moving sixteenth notes, primarily played with the top three fingers of the right hand, progressing in a crawling fashion; the middle voice comprises mainly two-note chords played on each beat, executed by the right hand’s thumb and index finger; the lowest voice involves a light accompaniment figure played by the left hand. The contour of the right hand’s “arc” at the beginning measures is intriguing: the peak of the arc does not align with the strong beat, with the peak of it falling on the second beat of the second measure (refer to Example 2.3.1).\(^{45}\)

---

*Op. 10, No. 2*, follows a structured ABA’ form, with each section exhibiting similar proportions. The tonal framework of the étude distinguishes the A section from the B section, not only by beginning in the key in relative relationships but also by contrasting the harmonic complexity between the two sections (refer to Figure 6, where the underlined keys comprise a sequence by tonicization).

A (mm. 1–18): A minor

B (mm. 19–35): FM (mm. 19–20) → Gm (mm. 21–22) → Am (mm. 23–25) → Gm (mm. 26–27)

→ FM/Fm (mm. 27–28) → Gm (mm. 29–30) → Am (mm. 31–35)

A’ (mm. 36–44): A minor

Coda (mm. 45–49): A minor (Picardy cadence)

Figure 6 – Tonal Trajectory of F. Chopin’s *Étude Op. 10, No. 2*

In the A sections, the harmonies are predominantly straightforward, featuring tonic, subdominant, dominant, and secondary dominant chords. Despite this apparent simplicity and balance, Chopin skillfully incorporates chromaticism and frequently introduces augmented sixth chords, characteristic elements of nineteenth-century compositions. For example, he introduces accented French sixth chords toward the conclusion of four-bar phrases in the A sections, as shown in Example 2.3.1.

Moreover, the B section is more harmonically intricate than the A sections. It starts in F Major, a sixth away from the main key of A minor. The widespread use of chromaticism throughout the composition facilitates this tonicization. In the remaining part of the B section, Chopin skillfully employs chromatic modulations featuring augmented sixth chords until the bass eventually settles on the dominant note, E (refer to Example 2.3.2).
Example 2.3.2 – F. Chopin’s Étude Op. 10, No. 2, mm. 19–32

The fingering employed in this étude is notably innovative. It necessitates playing chromatic scales with the right hand’s fingers 3, 4, and 5. This is due to the simultaneous requirement of fingers 1 and 2 to play the middle voice chords. Consequently, the execution involves a crossover between the fingers 3 and 4, introducing complexity beyond the conventional approach of playing the chromatic line with fingers 1, 2, and 3.

Étude in E Major, Op. 10, No. 3, Lento ma non troppo

Étude Op. 10, No. 3, is one of the two slow études within Op. 10, the other being Op. 10, No. 6. Chopin’s autograph initially indicated a tempo marking of Vivace ma non troppo, which was later altered to Lento ma non troppo in the published score. Today, it is customary to perform the B section, indicated by the marking Poco più animato, with a livelier tempo than the A sections.

The étude embraces a texture reminiscent of a style of Classical-era string quartet, featuring four distinct voices with a melodic emphasis on the first violin, represented by the topmost line (refer to Example 2.4.1). Given the string-quartet-like texture of the composition, the pianist must skillfully navigate the separation in tone color to play each voice line while maintaining a cohesive sense of connectivity within.
Example 2.4.1 – F. Chopin’s Étude Op. 10, No. 3, mm. 1–4

In terms of formal structure, this étude diverges from a conventional balanced ternary form by reintroducing only a segment of the A section in the A’ section. Figure 7 depicts which portion of the A section recurs in the A’. Additionally, Chopin extends the cadence at the conclusion in the A’ section by inserting the three measures where the A minor sixth chord and the tonic alternate, imbuing the passage with a lingering emotional resonance (refer to Example 2.4.2).

\[
\begin{align*}
\text{A (mm. 1–21) – B (mm. 21–61) – A’ (mm. 62–77)} \\
\text{A mm. 1–5 → A’ mm. 62–66} \\
\text{* The same except for the pickup at the beginning of A} \\
\text{A mm. 14–21 → A’ mm. 67–77} \\
\text{* Cadence expanded with iv\(\frac{6}{4}\) (borrowed chord from E minor) and I in mm. 73–75}
\end{align*}
\]

Figure 7 – Comparison between A Section and A’ Section in F. Chopin’s Étude Op. 10, No. 3
Example 2.4.2 – F. Chopin’s Étude Op. 10, No. 3, mm. 70–77

Regarding the étude, Chopin’s biographer Frederick Niecks writes that:

The third (Lento ma non troppo, in E major) and the sixth (Andante, in E flat minor) may be reckoned among Chopin’s loveliest compositions. They combine classical chasteness of contour with the fragrance of romanticism... With regard to the above-named Lento ma non troppo (Op. 10, No. 3), Chopin said to Gutmann that he had never in his life written another such beautiful melody.\(^{46}\)

In line with Chopin’s notes on the étude, the melodic line prominently shines in the A sections. However, while the multiple voices persist in the B section (mm. 21–62), the focus is not always on the “first violin.” Right from the beginning of the B section, the tenor line becomes more active and assumes a melodic role, departing from its static nature in the A section. Furthermore, the B section adopts a style reminiscent of Beethoven’s motivic writing, characterized by instrumental nuances rather than vocal expression. This shift is accentuated by

\(^{46}\) Niecks, Frederick Chopin, as a Man and Musician.
faster-moving lines featuring predominantly sixteenth notes, complemented by the indication of “Poco più animato.” Additionally, the harmonic rhythm in the B section quickens compared to the A section, attributed to the frequent use of sequences and modal exchanges (refer to Example 2.4.3).

Example 2.4.3 – F. Chopin’s *Étude Op. 10, No. 3*, mm. 21–36
Étude in C-sharp minor, Op. 10, No. 4, Presto

Étude Op. 10, No. 4 unfolds with relentless sixteenth-note runs embellished by neighboring tones, escape tones, and arpeggios. Commencing with a vigorous descent (scale degrees 5-4-3-2-1) in the right hand above the dominant bass, the étude emphasizes the tonal contrast between different harmonies or keys. For instance, in the initial four-bar phrases, Chopin juxtaposes not only the keys on the scale degree 1 (C-sharp minor; mm.1–4) and the scale degree 5 (G-sharp minor; mm. 5–8) but also the textures – each hand takes turns playing the running passage and the accompanying chords, alternating roles phrase by phrase.

Example 2.5.1 – F. Chopin’s Étude Op. 10, No. 4, mm. 1–9
Continuing the trend observed in preceding Op. 10 études, this piece presents a more dynamic B section characterized by heightened shifts in harmonies and textures. Similarly to Op. 10, No. 3, this étude also adopts a modified ternary form (see Figure 8).

<table>
<thead>
<tr>
<th>Section</th>
<th>Measure</th>
<th>Tonality</th>
<th>Texture</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1–16</td>
<td>C♯ minor</td>
<td>16th-note runs (R. H.) + chordal accompaniment (L. H.)</td>
</tr>
<tr>
<td>B1</td>
<td>17–32</td>
<td>G♯ minor → Sequences → E minor</td>
<td>16th-note runs (R. H.) + chordal accompaniment (L. H.)</td>
</tr>
<tr>
<td>B2</td>
<td>33–50</td>
<td>F♯ minor → Sequences → V⁹ of C♯ minor</td>
<td>Chordal melody (R. H.) + 16th-note accompaniment (L. H.) / 16th-note runs on both hands</td>
</tr>
<tr>
<td>A’</td>
<td>51–71</td>
<td>C♯ minor</td>
<td>16th-note runs (R. H.) + chordal accompaniment (L. H.)</td>
</tr>
<tr>
<td>Coda</td>
<td>71–82</td>
<td>C♯ minor</td>
<td>16th-note runs (R. H.) + chordal accompaniment (L. H.) / 16th-note runs on both hands</td>
</tr>
</tbody>
</table>

Figure 8 – Formal Structure of F. Chopin’s Étude Op. 10, No. 4

The B section can be divided into two parts, each featuring contrasting textures. The first part of the B section (mm. 17–32) maintains the texture established in the preceding A section, featuring a sixteenth-note run in one hand accompanied by short chordal figures in the other. Conversely, the latter portion of the B section (mm. 33–50) dispenses with the chordal accompaniment, instead introducing a chordal melody in the right hand. Each melodic phrase in this section is followed by descending sixteenth-note passages across the register. Both parts commence with a sequence, as indicated by the boxed highlights in Examples 2.5.2a and 2.5.2c. Between the two sequential passages, mm. 29–32 features other sequential passages with shorter spans, also arranged in sequence, highlighted within brackets in Example 2.5.2b.
Interestingly, as the sequences marked with blue brackets conclude, even shorter segments of sequences commence, overlapping at the downbeat of m. 31. These passages require particular attention from the pianist, especially concerning the right-hand passages, as lack of relaxation of the thumb can lead to muscular fatigue.

The modulation from the end of the B1 section to the new key in B2 occurs abruptly, with the cadence of B1 transitioning a whole step up to F-sharp minor. In this modulation, the root (E) and the third (G) of the E minor tonic ascend a half step, while the fifth (B) remains, transforming into the leading tone (vii°) of F-sharp minor (refer to mm. 32–33 in Examples 2.5.2b and 2.5.2c). The addition of the seventh note (D) further accentuates the sudden modulation, especially with the forceful beginning with sforzando, creating a fuller sound. Additionally, the inclusion of D aids the pianist in attaining a stable hand position, which would otherwise be unstable, given that the first and second fingers play a narrow minor third interval while the fifth finger stretches to play an octave away from the thumb.
Example 2.5.2a – F. Chopin’s Étude Op. 10, No. 4, mm. 17–24

Example 2.5.2b – F. Chopin’s Étude Op. 10, No. 4, mm. 29–32
Example 2.5.2c – F. Chopin’s Étude Op. 10, No. 4, mm. 33–41
Toward the conclusion of the B section, harmonic tension intensifies with the sequential progressions featuring diminished seventh chords. A notable example occurs in mm. 41–42, where the progression from the tonic (i) to the diminished seventh (vii\(^7\)) chord in G-sharp minor in m. 41 moving up by a step to A-sharp minor in m. 42. Subsequently, mm. 43–44 presents a sequence moving up by a half step, a vii\(^7\) chord in F-sharp minor, followed by G minor (notated as vii\(^6\)^4/2 of A-sharp minor), and finally resolving back to G-sharp minor. The bass note of the G-sharp minor chord in m. 44 serves as the foundation for the V\(^9\) chord in the home key of C-sharp minor, further enhancing the harmonic tension and eventual resolution, as the left hand introduces a descending scale (5-4-3-2-1) from the end of m. 50 to the downbeat of m. 51 (refer to Example 2.5.3). Mirroring the contrast observed at the beginning of the A section, this clear juxtaposition between the extended dominant and the subsequent resolution to the tonic imparts yet another layer of contrasting character to the piece.

The coda exclusively showcases the sixteenth-note figuration utilized in the second part of the B section (see mm. 35–36 in Example 2.5.2c), executed by the right hand for four measures (mm. 71–74). This pattern is then loosely mirrored by the left hand for the subsequent four measures (mm. 75–78), culminating in a brilliant arpeggiation of the C-sharp minor chord at the end.
Étude in G-flat Major, Op. 10, No. 5, Vivace

Popularly known as the “Black Key Étude” or simply “Black Keys,” this piece carries a lighthearted character. Throughout the étude, the right hand exclusively engages with the black keys throughout the piece. An exception occurs in m. 66, just before the coda, an F natural is introduced within the chord (refer to the highlighted box in Example 2.6.1).

The structure and harmonic progression in this étude are more straightforward than other pieces in the Op. 10, relying on traditional chord progressions for the most part (refer to Figure 9).
<table>
<thead>
<tr>
<th>Section</th>
<th>Measure</th>
<th>Tonality</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1–16</td>
<td>G♭ Major</td>
</tr>
<tr>
<td>B</td>
<td>17–48</td>
<td>D♭ Major → A♭ Major (mm. 33–40, V/V of G♭) → D♭ Major (mm. 41–48, V of G♭)</td>
</tr>
<tr>
<td>A’</td>
<td>49–66</td>
<td>G♭ Major</td>
</tr>
<tr>
<td>Coda</td>
<td>67–85</td>
<td>G♭ Major</td>
</tr>
</tbody>
</table>

Figure 9 – Formal Structure of F. Chopin’s Étude Op. 10, No. 5

The unique constraint that confines the right hand to the five black keys places the responsibility on the left hand to alter the harmonic palette. Notably, in the mm. 23–32 of the B section, the left hand takes an active role in introducing chromaticism. In contrast, the right hand remains confined to a restricted register, oscillating in an alternating up-and-down motion (refer to the highlighted bass line in Example 2.6.2). The sequential passages driven by the left hand’s chromaticism arrive at A-flat Major, which is the V/V of G-flat Major, and prolong the chord until it resolves after eight measures.
Example 2.6.2 – F. Chopin’s Étude Op. 10, No. 5, mm. 24–32

Toward the end of the B section, in mm. 41–48, the left hand maintains a quasi-melodic function before returning to the A section (refer to Example 2.6.3), prolonging the dominant of G-flat Major. The left hand maintains its chromatic character by incorporating neighboring tones and passing chords.

Example 2.6.3 – F. Chopin’s Étude Op. 10, No. 5, mm. 41–48

At the end of the coda, the étude culminates with an octave pentatonic passage that amusingly traverses the black keys, a playful nod to the piece’s predominant use of the black keys.
Étude in E-flat minor, Op. 10, No. 6, Andante

Similar to Étude Op. 10, No. 3, this étude adopts a slow tempo, distinguishing itself from the prevailing fast tempo markings of the majority of études. Like the third étude, this étude also features a multi-voice texture with the melodic topmost line. However, in contrast to the third étude’s primary key and Classical-era string quartet texture, this étude is characterized by a minor key and a dark atmosphere, evoking a distinctly Romantic-era ambiance.

The étude follows an intriguing tonal trajectory. In the A section, set in E-flat minor, the presence of six flats and the prevalence of shallow intervals naturally give rise to numerous chromatic passages. This abundance of chromaticism contributes to a somber atmosphere that aligns harmoniously with the chosen key (see Example 2.7.1). Additionally, diverging from the relatively more rapid pace of the middle voice, the melodic line at the top unfolds more deliberately, akin to a sung melody, distinctly setting it apart from the accompaniment lines.
The harmonic progression in the B section is even more interesting than in the A section. In the B section, the right hand handles the middle voice, and the left hand delivers the bass line through octave chords. After the sequential passages in mm. 17–20, Chopin employs a harmonic progression where the tonic of G minor resolves to the scale degree 3 of E Major. Simultaneously, the scale degree 3 of G minor chromatically ascends to become the dominant of E Major (see Example 2.7.2). This “step up” briefly brightens the atmosphere for four measures, not just in mode shift but also technically. The pianist now navigates a more ergonomically comfortable key, departing from the previously intricate E-flat minor, mirroring the emotional contrast intended for this section.

Figure 10 illustrates the tonal trajectory of the first half of the B section, while Example 2.7.3 showcases the frequent harmonic changes in the latter half. The bass line descends chromatically (highlighted in Example 2.7.3), with other voices also descending chromatically at their own pace. Coupled with the diminuendo, this descending chromatic line effectively provides a sense of mitigation.
Figure 10 – Tonicizations in mm. 17–28 of F. Chopin’s Étude Op. 10, No. 6

Example 2.7.2 – F. Chopin’s Étude Op. 10, No. 6, mm. 19–24
Example 2.7.3 – F. Chopin’s Étude Op. 10, No. 6, mm. 29–40

In the latter half of the Op. 10 set, Étude Op. 10, No. 7 revisits the key of C Major, which is the key of the first étude in the set. Despite sharing the same key, No. 7 introduces a more intricate interplay of chromatic notes. While the first étude painted a broader picture, this one delves into a finer, more detailed texture. Addressing multiple technical challenges simultaneously, étude No. 7 incorporates double-note chordal play in the right hand, repetition on the lower note of the right hand, and legato execution in the left hand. Throughout, the right hand navigates a double-note passage with repetition in the lower notes and the fluctuating upper line. In contrast, the left hand weaves a melody-like line comprising chromatic elements and leaps.

The A section spans from the opening to m. 16. In the A section, with successive chords in the right hand and highly chromatic passages in the left, the pianist has the flexibility to shape the melodic focus. For example, highlighting the uninterrupted chromatic line can be achieved by emphasizing the chromatic ascent in the right hand of the first measure (G, A♭) as the left hand continues the chromatic descent from A♭ to F. Similar strategies can be employed in m. 4, where the bass line ascends from E to F♯, carried through the right hand’s descent from G to F. Alternatively, highlighting every other note in the right hand provides another avenue for interpretation (refer to Example 2.8.1, where the possible melodic line for each case is distinguished with red and blue highlighters).
Example 2.8.1 – F. Chopin’s Étude Op. 10, No. 7, mm. 1–4

Similar to preceding études, the B section of this étude maintains a faster harmonic rhythm than the A section. In contrast to the A section, where various melodic focuses are possible depending on the highlighted voice, the B section more distinctly designates the higher notes of the right hand as the melodic line while assigning accompaniment figures to the left hand (refer to Example 2.8.2 – the highlighted notes make the melodic line). Figure 11 illustrates the tonicizations occurring within the B section.
Example 2.8.2 – F. Chopin’s Étude Op. 10, No. 7, mm. 17–25

D minor (mm. 17–18)
C Major (mm. 19–20)
G Major (mm. 21–30)
F Major (mm. 30–31)
D Major (m. 32)
C Major (m. 33)

Figure 11 – Tonicizations in the B Section of F. Chopin’s Étude Op. 10, No. 7
Étude in F Major, Op. 10, No. 8, Allegro

Étude No. 8 shares similarities with Étude No. 1, employing a similar compositional approach of crafting extended chords through arpeggios spanning multiple octaves. The distinction in No. 8 lies in the use of smaller-sized chords for each octave, reducing the need for extensive finger spreading as in No. 1. Additionally, unlike the sustained bass in No. 1, No. 8 features a left hand with an almost melodic quality, marked by abundant nonharmonic tones and grace notes. This interplay continues until the later part of the B section in mm. 37–60, where the left hand aligns with the right hand’s sixteenth-note runs.

The structure of the arpeggiated chord is intricately clever, adding an extra layer of complexity to the technical challenge. Each blocked form, or in other words, before the player crosses a longer finger over the thumb, does not consistently align with the strong beats, as depicted in Example 2.9.1. Alongside the accents marked on every beat, this étude compels the player to execute finger crossings seamlessly, avoiding unnecessary accents.
Example 2.9.1 – F. Chopin’s Étude Op. 10, No. 8, mm. 1–8

The B section initiates with a rendition of the opening material, now transposed to D minor. Subsequently, after eight measures, the left hand becomes actively involved in executing sixteenth-note figures, predominantly mirroring the directions of the right hand’s figures (refer to Example 2.9.2).
Example 2.9.2 – F. Chopin’s Étude Op. 10, No. 8, mm. 29–45
In a strategic juxtaposition with fragments of material from the A section, Chopin utilizes mirrored arpeggio figures as a dynamic force to facilitate the chromatic modulation into a key of F Major when returning to the A section (refer to Example 2.9.3).

Example 2.9.3 – F. Chopin’s Étude Op. 10, No. 8, mm. 55–61

**Étude in F minor, Op. 10, No. 9, Allegro, molto agitato**

The étude’s texture comprises a distinct *slur-staccato* melody in the right hand accompanied by the left hand. However, the left hand’s accompaniment figure goes beyond a mere outline of the chord progression. Marked with *legatissimo*, the left-hand figures serve not only as a harmonic foundation but also provide a subtle backdrop for the right hand’s agitated...
and syncopated *slur-staccato* melody. Also, the changing notes in the arpeggiated left hand give the piece another layer of melodic line (refer to Example 2.10.1).

Example 2.10.1 – F. Chopin’s *Etude Op. 10, No. 9*, mm. 1–6

The A section (mm. 1–16) maintains a generally subdued dynamic characterized by *piano* and *sotto voce*, with the right hand exclusively handling a single-note melody. In contrast, the B section exhibits heightened instability and passion, employing louder dynamics, octave passages in the melodic line, and localized tempo fluctuations incorporating *stretto* and *accelerando*. The expressive marking of *appassionato* further intensifies this emotional shift. Notably, the octave passage in the right hand and the ascent of bass notes to the high register in mm. 25–28 culminate in the musical apex, amplifying the emotional impact. This climax is succeeded by passages with an echo effect for eight measures at the end of the B section (refer to Example 2.10.2).
Example 2.10.2 – F. Chopin’s Étude Op. 10, No. 9, mm. 25–36

The structure of this étude is particularly intriguing, arguably the most so among the twelve études. Unlike others, where the A and B sections exhibit distinct materials in terms of tonality, phrasing, harmonic rhythm, and motives, in this étude, the texture of the B section recurs in the A’ section. However, the A’ section (mm. 37–56) does not entirely replicate the initial A section. While the first eight measures mirror the initial A section, except for the addition of mordents in the melody, the melody in mm. 45–48 incorporates the octave passage
introduced in the B section, integrating it into the right-hand line. Figure 12 delineates the structure, tonality, and motivic usage in *Op. 10, No. 9*.

<table>
<thead>
<tr>
<th>Section</th>
<th>Measure</th>
<th>Tonality</th>
<th>Motive</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1–16</td>
<td>F minor</td>
<td>Slur-staccato melody starting at the weak beat</td>
</tr>
<tr>
<td>B</td>
<td>17–36</td>
<td>Db Major → Gb Major → F minor</td>
<td>Singing line (mm. 17–24), Octave <em>slur-staccato</em> starting at the weak beat (mm. 25–28), Echo effect (mm. 29–36)</td>
</tr>
<tr>
<td>A’</td>
<td>37–48</td>
<td>F minor</td>
<td>Slur-staccato melody starting at the weak beat</td>
</tr>
<tr>
<td>(B’)</td>
<td>49–64</td>
<td>F minor</td>
<td>Octave <em>slur-staccato</em> starting at the weak beat (mm. 49–56), Echo effect (mm. 57–64)</td>
</tr>
<tr>
<td>Coda</td>
<td>65–67</td>
<td>F minor</td>
<td>16th-note tremolo in <em>ppp</em></td>
</tr>
</tbody>
</table>

Figure 12 – Motivic Usage in F. Chopin’s *Étude Op. 10, No. 9*


This étude fully explores the potential of a minimal motivic concept, where the right hand alternates between a single note and a sixth, while the left hand arpeggiates a spread-out chord. Throughout the composition, Chopin adeptly introduces complexity by incorporating variations in groupings, articulations, and dynamics while preserving the motive.

For instance, in the opening measures, the right hand accents the melody with every other eighth note, starting from the downbeat, contrasting with the left hand’s regular grouping aligned with each beat consisting of three eighth notes. The left hand’s sustained E-flat further heightens this rhythmic complexity, creating a syncopated effect. In mm. 5–8, Chopin adjusts the accents to align with the beats.
As the piece unfolds, Chopin introduces additional nuances, such as employing two-note slurs played softly in the right hand from measures 9 to 12, which differ from the initial presentation. Subsequently, from measures 13 to 16, both hands are instructed to play with a *staccato* touch, introducing another layer of variation (refer to Example 2.11.1, where the beginning of each phrase is highlighted; red for the right hand and blue for the left hand).
Structurally, as in *Étude Op. 10, No. 9*, this étude does not entirely revisit the initial A section. Instead, the A’ section seamlessly transitions into the coda in the latter half of the 8-measure phrase. Particularly noteworthy is the organization of the B section, which can be divided into three parts: mm. 17–28, 29–42, and 43–54. In the B section, Chopin employs a comparable approach to the A section, manipulating the same material to introduce different technical challenges through alterations in articulations and groupings. However, in this instance, the focus shifts to varying tonalities. Each part of the B section explores different keys and their modulations, adding depth and complexity to the piece’s harmonic landscape. For instance, the first part of the B section transitions from E Major (mm. 17–22) to a brief arrival in A-flat Major (m. 23), then to D-flat Major (mm. 24–28). The second B part begins with the same material as the beginning of the first part, but it shifts from A Major (mm. 29–34), another arrival of A-flat Major (m. 35), then to G-flat Major (m. 36–38) and E-flat Major (mm. 39–42). In the concluding part of the B section, there is a change in the left hand’s texture, shifting from arpeggios to mostly chordal patterns.

Throughout mm. 43 to 53, the composition is characterized by sequences and unresolved harmonies, lending a sense of continuous motion and development. Then, in the last two measures of the B section, mm. 53 to 54, Chopin employs an ethereal “B-double-flat Major” chord before returning to the home key of A-flat Major (refer to Example 2.11.2).
The instructions of *delicatissimo, legatissimo, and dolcissimo* in mm. 49–54 demand that the pianist perform this section with utmost care and precision, employing a controlled touch. This emphasis on technique serves to heighten the otherworldly moment in m. 54.

Example 2.11.2 – F. Chopin’s *Étude Op. 10, No. 10*, mm. 1–14
Étude in E-flat Major, Op. 10, No. 11, Allegretto

This étude presents successive arpeggios spanning large intervals in both hands, with many extending to tenths or even larger intervals. Typically, the melodic emphasis lies on the top notes in the right hand, necessitating the pianist to maintain a consistent and relative emphasis on the melodic line to shape the phrases effectively. The slurs guide the phrases’ direction, aiding the pianist in shaping the phrasing accordingly. While the melodic line predominantly resides on the top notes in the initial A section, there are exceptions to this pattern in the B section and the returning A section at the end. For example, in mm. 25–32 and 44–47, the melody is found within the inner voice of the right hand. In mm. 50–52, the melodic line shifts to the bass (refer to Examples 2.12a and 2.12b, where the melodic line in the inner voice is highlighted in red, contrasting with the top voice melody highlighted in blue).
Example 2.12a – F. Chopin’s *Étude Op. 10, No. 11*, mm. 24–35

Example 2.12b – F. Chopin’s *Étude Op. 10, No. 11*, mm. 42–54
In contrast to the A sections, which employ four-bar phrasing, the B section (mm. 17–32) features shorter phrasing, with each phrase lasting only a measure or two. Additionally, the B section introduces expressive markings such as *con forza*, *dolce*, and *dolcissimo*, necessitating more varied and frequent changes in dynamic levels and delicate shifts in touch.

Furthermore, unlike the A section, where the melodic line consistently resides on the top notes, the B section occasionally places the melodic line in the middle voice. Consequently, the pianist must devise a strategy to shape the melodic line in each instance, whether the emphasis falls on the top, middle, or bass, effectively conveying the direction of the phrases.

**Étude in C minor, Op. 10, No. 12, Allegro con fuoco**

This étude earned the nickname “Revolutionary Étude” as it is believed to have been composed in response to Chopin hearing news of the Russians taking Warsaw during the Polish-Russian War (1830–31) in September 1831. Set in the somber key of C minor, the turbulent sixteenth-note passages in the left hand evoke a sense of anxiety, combined with the slower-paced, dotted chordal melody played by the right hand.

Regarding Chopin’s treatment of arpeggios and runs, James Bakst describes:

Chopin’s arpeggios and runs are not generalized tonal movements, but individualized thematic formations unified with the musical imagery of his national programmatic conceptions, for example, the famous ‘Revolutionary Etude’ in C minor, and the ballades. Thereby Chopin enables the listener to perceive national feelings in the melodic and harmonic aspects of the compositions.

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47 Niecks, op. cit.
As Bakst suggests, throughout the piece, the sixteenth-note runs predominantly feature arpeggios that outline the assumed harmony and incorporate nonharmonic tones like neighboring and passing tones, as depicted in Example 2.13.1, where nonharmonic notes are highlighted.

Except for when the right hand joins to create unison with the left hand’s sixteenth-note runs, occurring at the beginning (mm. 5–9), upon the return to the A section (mm. 45–49), and at the conclusion (mm. 81–82), the right hand engages with the chordal melody. This melody begins with a dotted rhythm, as shown in Example 2.13.2a. The dotted rhythm evolves into more complex rhythms based on triplets upon the return to the A section (refer to Example 2.13.2b), effectively conveying increased agitation through rhythm.

Example 2.13.1 – F. Chopin’s Étude Op. 10, No. 12, mm. 1–9
Example 2.13.2a – F. Chopin’s Étude Op. 10, No. 12, mm. 10–15

Example 2.13.2b – F. Chopin’s Étude Op. 10, No. 12, mm. 50–57
Throughout the étude, the right hand’s melodic line exhibits either ascending or descending motion to regulate the level of passion. Between the dotted-rhythm motive, Chopin strategically incorporates descending voice-leading passages to temper the emotional intensity of the music. For instance, mm. 15–18 (Example 2.13.3), as depicted in Figure 13, illustrates this technique. Similarly, a descending passage occurs in the A’ section, spanning measures 65–76. This sequential passage serves to pacify the atmosphere, leading to a tranquil, *sotto voce* coda.

Example 2.13.3 – F. Chopin’s *Étude Op. 10, No. 12*, mm. 15–18

Figure 13 – Voice-leading in F. Chopin’s *Étude Op. 10, No. 12*, mm. 15–18
CHAPTER THREE: Pedagogical Approach to Chopin’s Études, Op. 10

3.1. **Kinesthetic Insight Applicable to Piano Performance**

3.1.1. **Introduction to the Concept of Body Mapping**

Expanding upon the historical examination of piano development and piano études, along with the analyses of Chopin’s Études, *Op. 10* provided in preceding sections, this chapter aims to explore practical applications of this acquired knowledge. Its primary focus is enhancing the performance quality of the *Op. 10* études by optimizing the physical capabilities of the human body. Given the extensive scope of Body Mapping knowledge, this dissertation focuses solely on select information that pianists can readily incorporate into their performance techniques. Precisely, emphasis is placed on conceptualizing the inner workings of the piano and on correct arm and hand usage. Traditionally, pianists have been exposed to misleading information regarding these aspects, so providing accurate guidance is crucial.

While interpretive suggestions, such as phrasing and climax planning, may be valuable, this chapter confines its focus to the explicit indications provided in the score edited by Ignacy Jan Paderewski. I believe that every interpretation is subject to the individual performer’s discretion. Instead, technical aspects are mainly discussed to enhance performance quality.

Before proceeding further, addressing prevalent technical misconceptions among pianists is imperative. These misconceptions include advice such as “using the weight of the arm to produce a warmer sound,” “circling the wrist downward when the scale ascends and upward when descending,” or “relying solely on finger strength to achieve a lighter touch.” While these suggestions may seem plausible, they are not entirely relevant to the mechanics involved in piano playing. Pianists can adopt a fresh perspective on technique by understanding the piano’s
construction, the physics of playing, and basic anatomical principles. This minimizes the risk of physical strain and injury and enhances performance quality.

Understanding the concept of body mapping proves beneficial for attaining quality movement in piano playing. Body Mapping, developed by Barbara Conable and William Conable, is introduced in Barbara Conable’s book, *What Every Musician Needs to Know about the Body*. The book presents Body Mapping as a means to improve musicians’ movement and prevent possible injury by acquiring awareness of how one’s body moves. The anatomical insights and performance suggestions in Chapter 3 are constructed based on Thomas Mark’s book, *What Every Pianist Needs to Know about the Body*. This book builds upon Conable’s work and offers detailed elaboration on the concepts discussed. According to Mark, individuals inherently possess “an internal representation of their body and its movements, which they utilize to coordinate actions. This internal representation is referred to as our body map.” He further explains that this body map “encompasses the structure, size, and function of our body and its various parts.” The premise of Mark’s book revolves around the notion that “the accuracy of this representation, rather than the actual structure, dictates how we attempt to move. If our body map is inaccurate, our movements may deviate from the true structure of our body.” By enhancing musicians’ somatic and kinesthetic awareness, Mark asserts that their quality of movement and, consequently, their overall playing proficiency can be significantly improved.49

In the following sections, different forms of “mapping” will be explored, each of which can be directly implemented in the performance of Chopin’s Études, Op. 10. Personal performance suggestions will also be provided. While these insights are tailored to Chopin’s

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études, the foundational knowledge and recommendations presented here equally apply to interpreting and performing other piano compositions.

### 3.1.2. Understanding Piano’s “Point of Sound”

Comprehending the intricacies of the piano mechanism, referred to as “mapping” the piano in Mark’s book, enables pianists to plan their movements to efficiently achieve their desired sound strategically. Efficiency is crucial, ensuring minimal energy is expended to produce the desired tone. Otherwise, pianists may unnecessarily exert excessive muscle strain to achieve the same outcome.

As explored in Chapter 1, the mechanism for producing sound in piano action differs from that of the harpsichord and clavichord. Unlike the harpsichord, which plucks the strings, or the clavichord, where the strings are struck and remain in contact, the piano action employs an escapement mechanism to drive the hammer toward the string. Therefore, pianists must grasp what aspects of sound production are controllable in piano playing. Understanding the structure of the piano action and the factors influencing sound production is essential for pianists to achieve mastery and artistic expression.

Figure 14 shows the internal structure of a modern grand piano action. When a key is pressed, intricate mechanisms collaborate to propel the hammer toward the string. Once the hammer strikes the string, it promptly disengages from it, allowing it to vibrate freely.

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50 Terminology used by Dorothy Taubman, according to Mark.
At the core of the piano’s action mechanism is a fundamental principle: pressing the key triggers the hammer to strike the string. Once this contact is made, the resulting sound remains fixed, with the note’s duration determined by the length of time the key is held down to keep the damper raised. Therefore, the only variable that influences the sound production is the speed at which the key is depressed. Hence, discussions surrounding the variation of finger and arm weight introduce unnecessary complexity. This is because the “weight” of the arm is not directly correlated with speed and thus cannot control the produced sound. Mark emphasizes that “the key reaches the point of sound before it reaches the keybed” and that “the volume and quality of the sound depend on the velocity of the key descent, not on the amount of weight or force delivered to the keybed.”

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52 Ibid.
known as “tone color” or “density of a chord” is determined by the combination of tones, each produced by notes with varying speeds of key descent and methods of using the pedals. Understanding and mapping where and how the sound is produced in piano can enhance the performance of several of Chopin’s *Op. 10* études, particularly in slow-paced passages. Pianists often face challenges in such passages, striving to vary tones and maintain a sense of connection among the limited number of notes.

In passages with faster tempi, the pianist’s approach may resemble the technique employed in Pointillism paintings, where individual short notes serve as dots forming a cohesive picture. Conversely, in passages with slower tempi, where notes linger, they function more like lines than dots. Consequently, the pianist should carefully anticipate and plan each successive note as the sound gradually diminishes following the initial strike of the hammer on the string. This demands sharp listening skills to perceive the evolving sound landscape and construct a smooth sequence of notes accordingly.

### 3.1.3. Developing Kinesthetic Awareness in the Arm and Hand

Understanding and effectively utilizing the arm and hand are crucial aspects for pianists. This comprehension enables pianists to engage corresponding body parts to execute required movements. It begins with adequately understanding the structure of joints and experimenting with the range of motion to optimize utilization. However, Mark noted in his book that many pianists mistakenly believe the arm begins where the shoulder ends, limiting mobility during piano performance. This misconception leads to treating the shoulder as a fixed entity, isolated from arm movements. By reconceptualizing the starting point of the arm as the innermost point

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54 Mark et al, op. cit., 68.
of the collarbone (refer to Figure 15 to locate the sternoclavicular joint), pianists can unlock their full potential, particularly in technically demanding compositions like études, which require the utilization of all available resources. Therefore, correct mapping and arm engagement are essential for achieving successful performance without injury.

Figure 15 – Structure of the Arm and Hand

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55 Ibid, 69.
Before applying this knowledge to actual compositions, it is essential to introduce key insights from Mark’s book. Joint structure fundamentally governs movement, and pianists can conduct experiments to understand the extent and range of motion at the shoulder and elbow joints. This understanding enables pianists to execute the wide range of movements necessary for playing passages spanning multiple octaves.

Several vital points regarding the arm and hand are pertinent for pianists. It is critical to grasp that the forearm rotation is facilitated by two bones: the ulna and the radius (refer to Figure 16). In this mechanism, the ulna remains fixed while the radius adjusts its position. This structural arrangement underscores the significance of aligning the ulna with the fifth finger, the rotational axis. This comprehension prevents the thumb from aligning with the forearm, promoting fluid and efficient movement, integral to producing resonant sound.

Upon grasping the rotational dynamics of the forearm, the subsequent focus lies on comprehending the intricate actions of the muscles. The muscles within the forearm, interconnected with the fingers through tendons, dictate the fine motor control essential for piano performance. Maintaining a natural curvature in the fingers, attainable through a neutral hand position, is imperative to mitigate muscular strain. Excessive curvature, employed in an attempt to control touch, can result in strain and discomfort, especially after playing rapid passages consecutively, as the unnaturally curved fingers utilize the forearm’s flexors.

Furthermore, just as the movement in the arm integrates that of the collarbone, it is beneficial to recognize that the fingers originate not from the base knuckles but from the wrist joint. This understanding allows pianists to perceive a sense of length in their fingers. By positioning the wrist as the highest point of an arch—without excessive elevation, as this can
hinder free movement—the elongated sensation in the fingers facilitates better *legato* than trying to initiate finger movement just from the base knuckles.

Figure 16 – Ulna and Radius in the Right Arm (L: palm up / R: palm down)\(^\text{56}\)

\(^{56}\) Ibid, 82.
Lastly, recalling the structural and functional components of the piano’s action mechanism is crucial, as discussed earlier, as they directly influence sound production. Understanding that stroke velocity primarily dictates tone quality, pianists should focus on precise control of stroke speed. A practical tip for mastering stroke speed control involves experimenting with playing individual notes using each finger while varying the speed of attack. It is crucial to recognize that the variation lies not in the pressure exerted, but in the velocity of the keystroke. One helpful method is to envision the piano’s key as a seesaw, with one end holding the hammer and the other end controlled by the pianist’s finger. As the key is pressed, the forearm subtly rises as the elbow bounces, rather than the entire arm moving downward, akin to opening a bottle cap with an opener. Once accustomed to the sensation of controlling keystroke speed, pianists can progress to practicing various chord constructions and sizes, deliberately adjusting the speed of specific notes within the chord. In both instances, whether playing a single note or a chord, it is essential to ensure that the elbow remains aligned roughly with the top of the white keys when not depressed. Additionally, the wrist should be positioned slightly higher than the keyboard. This alignment fosters coordination between the wrist and elbow, thereby minimizing undue strain on the wrist, especially during passages with louder dynamics.
3.2. Practice Strategies for Chopin’s Études, Op. 10

Étude in C Major, Op. 10, No. 1, Allegro

In Étude Op. 10, No. 1, the right hand traverses a broad register, necessitating a considerable reach, especially in the higher octaves. While the left hand sustains bass notes, limiting the complete freedom of torso movement, pianists can enhance flexibility and efficiency by mentally registering the entire arm’s mapping, including the collarbone, as depicted in Figure 15. This comprehensive understanding enables a more fluid execution of multi-octave arpeggio passages. Rather than solely moving the arm laterally with a fixed shoulder blade, maximizing the circular motion permitted by the shoulder joint facilitates reaching the higher registers with increased mobility. Such movement should be integrated with the rotational movement stemming from the elbow for optimal execution.

As demonstrated in Example 3.1.1, when the right arm reaches the higher register in m. 1, the pianist should be mindful of opening the arm to an angle resembling an ascending glissando (red arrow). This results in the radius being less crossed against the ulna, facilitating the strike of each subsequent note more readily. Simultaneously, each block of the hand position (blue arrows) engages in a circular motion, albeit to a lesser extent, stemming from the clockwise rotation at the elbow. In contrast, in m. 2, the motion of the arm mimics that of a descending glissando, while the circular motion in the elbow occurs counterclockwise. One important point to remember is that the pianist should avoid lowering the wrist during both rotations. Specifically, the counterclockwise rotation should only be employed when the passage is descending, not ascending, to ensure ergonomic and natural utilization of the arm and wrist.

It is worth noting that the rotation discussed here is more of a sensation than overt movement easily observable to the eye. Excessive rotation is impractical when playing on a flat
keyboard surface and can negatively impact touch control. Instead, one should aim for a balanced sensation of rotation that facilitates fluid movement without sacrificing precision or control over keystrokes.

As described using the arrows in Example 3.1.1, it is adequate to consider both the rotational movements, one from the shoulder joint and the other from the elbow. This technique minimizes strain and enhances the pianist’s ability to traverse the wide range of registers seamlessly.

Example 3.1.1 – F. Chopin’s Étude Op. 10, No. 1, mm. 1–2

The images provided in Figure 17 offer an exaggerated visual guide on executing the first four notes of an ascending arpeggio in *Op. 10, No. 1*, demonstrating correct forearm rotation to prevent injury. The images are positioned as follows: upper left for the first note, upper right for the second, lower left for the third, and lower right for the fourth. These images specifically illustrate how to maintain a stable wrist height above the keyboard level throughout the motion, ensuring the wrist does not drop below the keys at any point. This method not only aids in preventing strain and injury but also contributes to a more fluid and efficient execution of the passage.
Simultaneously, the sustained octave chords in the left hand create their melodic line. It is common for pianists to apply excessive pressure to the keys between the chords to establish a connection, leading to unnecessary muscular strain. It is crucial to remember that once the sound is produced, no extra energy is required beyond what is necessary to maintain the key pressed for sustained notes unless pedaled. The produced sound will naturally decay over time, but there is nothing more the pianist can do to alter it. Consequently, attention should be directed toward the moment of attack, with efforts focused on varying the speed of the attack if one wants to highlight specific notes to create a line. For instance, one can emphasize a smooth descending line in mm. 42–49 (refer to Example 3.1.2).
Example 3.1.2 – F. Chopin’s Étude Op. 10, No. 1, mm. 41–51

To bring out the highlighted notes and maintain continuity in the left hand in mm. 42–44, the pianist should practice adjusting the attack speed of the thumb progressively faster each time if the intention is to make a crescendo. In mm. 45–49, except for the last beat in m. 46, usually
played with the second finger, applies the same technique to the fifth finger. That way, the pianist can create a coherent line that sounds like the notes are making a crescendo as they proceed without wasting energy. One thing to remember is to avoid tilting the hand toward the finger that plays the emphasized note or excessively curling the thumb.

**Étude in A minor, Op. 10, No. 2, Allegro**

In *Étude Op. 10, No. 2*, a notoriously challenging étude from a technical standpoint, the primary emphasis should be maintaining a natural curve of the fingers without excessively curling them (refer to Figure 18). Recognizing that the thumbs have one less joint than other fingers and move side by side when viewed from the top can help avoid unnatural movements. Same as the other fingers, the thumb bones also originate from the wrist. Therefore, it is beneficial to envision using the thumb from the wrist rather than relying on the bones connected with two end joints.

![Figure 18 - Excessive Curve (Left) vs. Natural Curve (Right)](image)

Similar to the recommendations for *Op. 10, No. 1*, the same principle applies here. As the passage ascends, the right arm should open, resembling an ascending glissando, and close as it
descends. Consistently aligning the fifth finger with the ulna is crucial, as aligning the thumb with the ulna can lead to a tightened wrist, potentially causing pain or injury. Also, the pianist should refrain from shortening the note length of the inner voice chords played by the thumb and index finger of the right hand. Attempting to play them *staccato* only adds unnecessary complexity to the right hand’s movement without contributing musically, as the left hand’s chords already achieve the *staccato* quality. Instead, it is more efficient to lightly place the fingers as the upper voice ascends and descends, avoiding excessive stress in the muscles.

Furthermore, as discussed in Chapter 2, this étude features several augmented sixth chords. These chords serve as emphasized preparations for the dominant chord, enriching the harmonic progression. To fully exploit their harmonic potential, it is advisable to accentuate both the chords’ bass and upper notes, ensuring that the audience distinctly perceives the essential components of the augmented sixth sonority. In this étude, while the bass notes are executed by the left hand, the notes constituting the augmented sixth interval relative to the bass are played by the right hand’s thumb. Hence, emphasizing the thumb of the right hand and the bass notes of the left hand effectively highlights the presence and significance of the augmented sixth chords.

For the left hand’s *staccato* chords, the pianist should consider the structure of the arm and hand and the concept of the “point of sound.” For a brief *staccato* attack, pianists can envision playing the chord by reaching the point of sound and releasing the keys promptly. When emphasizing certain chords, such as augmented sixth chords, for harmonic reasons, envisioning reaching the point of sound more swiftly can be effective. Additionally, because the *staccato* is already accomplished, trying to lift the hand off the key too high into the air is unnecessary. Instead, the hand can stay right above the key to minimize the energy required to play the same passage and reach the following chord more efficiently and accurately.
Étude in E Major, Op. 10, No. 3, Lento ma non troppo

Étude Op. 10, No. 3 is an excellent candidate for applying the previously discussed concept of “point of sound” mapping, as it is one of the two études in the Op. 10 set with a relaxed tempo marking. When attempting to execute the legato melody in the right hand, it is tempting to continue pressing the key further down even after it has reached the point of sound. This is because there is an intuitive belief that the more pressure applied to the fingertip, the better the individual notes connect to create the legato. However, suppose the pianist acknowledges the fact that their role is solely to determine the duration of each note, essentially preventing the note from being interfered with by the damper (refer to Figure 14 in the previous section to locate the damper). In that case, they can relax more effectively without exerting excessive effort to connect the notes — holding a key does not require much energy. Instead, the pianist must discern which notes require emphasis to achieve the desired sound, adjusting their touch accordingly.

One tip for enhancing legato is to initiate the subsequent note after a sustained one with a softer touch. This approach ensures continuity by seamlessly connecting the sound from the end of the preceding note to the start of the next, resulting in an uninterrupted phrase. For instance, in Example 3.2, at the beginning of Op. 10, No. 3, another sixteenth note succeeds a quarter note tied to a sixteenth note. In such instances, delicately playing the subsequent sixteenth note is adequate to make a smoother legato. This occurs twice in the given example.
The quartet-like texture of the piece demands a nuanced distinction in tone color between the voices. The pianist can envision aligning the inner voice of the right hand with the subtle rotation of the radius while maintaining alignment of the upper voice, or melodic line, with the stationary ulna. Although this mental alignment simplifies the process, it is essential to acknowledge the involvement of more complex muscular movements in reality. This approach of alignment helps alleviate tension that may arise from solely relying on muscular movement to control speed, thereby enhancing connectivity and relativity between the voices.

The strategy should be adjusted in the B section, where the soprano and alto mostly move in the same direction. Rather than separating the two voices with distinct movements, focusing on subtle rotational movements altogether proves more effective. Pianists should acknowledge that the rotational movement from the elbow joint aids in achieving a better legato, but the slight overlap between notes truly refines the legato playing.

*Étude in C-sharp minor, Op. 10, No. 4, Presto*

From a pianistic perspective, many of the sixteenth-note motives in *Étude Op. 10, No. 4*, exhibits an intriguing shape. Unlike movements in a stepwise motion, which naturally align each beat with finger numbers 1, 2, 4, or 5, followed by ascending or descending, the beats and hand
positions do not synchronize (refer to Example 3.3). The complexity is further compounded by the addition of eighth notes on the second sixteenth note in every beat and the upward stemmed last sixteenth notes in each beat, as observed in the right hand of m. 3 and the left hand of m. 7 in Example 3.3. Such double-stemmed notes reappear in m. 8.

Typically, such double-stemmed notes are utilized in polyphonic writing, and in piano music, it is generally assumed that notes with longer duration are played louder. However, due to the fast tempo of this étude, it is nearly impossible to discern whether specific notes are played longer or louder within the runs. They all sound similar, especially if the pianist employs the damper pedal. Therefore, it is reasonable to assume, particularly for the double-stemmed notes in measure 3, that such notation suggests technical feasibility rather than a change in what is heard. Thus, pianists can interpret it as a technical suggestion to facilitate passage playing. Indeed, it is easier to group the four sixteenth notes in each beat while holding the index finger and treating it as a momentary axis for rotation.
Example 3.3 – F. Chopin’s *Étude Op. 10, No. 4*, mm. 1–9

In the B section, there are sequential passages, as discussed in the previous chapter. Despite their similar appearance on the score, it is crucial to recognize that the physical approach should vary in each sequence block. This is because some passages start on black keys while others begin on white keys, necessitating different angles of the thumb. For example, in the first beats of mm. 41 and 42 (refer to Example 3.4), the shorter length of the black keys, relative to the white keys, necessitates the pianist to align the right hand’s thumb more with the radius than the ulna (Image on the left in Figure 19), contrary to the default position (Image on the right in Figure 19). Therefore, as soon as the fifth finger plays the E, the pianist should tilt the hand back to its natural position so that the fifth finger aligns with the ulna. This adjustment enables the second halves of mm. 41–42 to be executed correctly. Practicing the passages slowly while observing the physical adjustments needed and their extent will be beneficial.
Example 3.4 – F. Chopin’s Étude Op. 10, No. 4, mm. 41–43

Figure 19 – Right-Hand Position for m. 41–42 (L) and m. 43 (R) in F. Chopin’s Étude Op. 10, No. 4
**Étude in G-flat Major, Op. 10, No. 5, Vivace**

In the A section of this étude, a contrast in articulation between the right hand and left hand is required, similar to *Op. 10, No. 2*. The right hand executes a swift *legato* melody on the black keys, contrasting with the predominantly *staccato* chords played by the left hand. Consequently, distinct techniques must be employed for each hand, focusing on maintaining wrist flexibility. For the right hand, executing small, continual rotations with subtle angles facilitates fluidity, particularly given the predominance of small intervals. Conversely, the left hand employs a motion akin to dribbling a basketball, characterized by a flexible yet firm wrist that facilitates a bouncing action, treating each finger as an independent entity. Figure 20 illustrates an optimal hand and wrist position for playing chords of any size. It is essential to remember that the wrist joint comprises multiple bones, providing a balance of stability and flexibility. In *Op. 10, No. 5*, the left hand primarily maintains a hand position similar to that shown in Figure 20, adjusting finger positions to accommodate varying chord sizes. Similarly, the right hand maintains a neutral position but requires rotational movement, akin to turning a doorknob, to navigate the piece’s demands.

![Image](image.jpg)

**Figure 20 – Hand Position for Left Hand’s Staccato Chords in F. Chopin’s Étude Op. 10, No. 5**
Transitioning to the B section, where the left hand assumes melodic responsibilities, the sensation of using each finger individually becomes even more crucial than in the *staccato* chordal passages in the A section (refer to Example 3.5a and 3.5b). Although achieving a complete *legato* is not strictly necessary due to the use of the damper pedal, the pianist should try to connect each voice within the chord through deliberate finger movements. The pianist must visualize each single-note line within the chords as integral to the succeeding note, feeling the vertical movement of each finger as they progress through the passage.

Example 3.5a – F. Chopin’s *Étude Op. 10, No. 5*, mm. 24–27

Example 3.5b – F. Chopin’s *Étude Op. 10, No. 5*, mm. 41–48
**Étude in E-flat minor, Op. 10, No. 6, Andante**

Compared to *Op. 10, No. 3*, which also features a slower tempo, this étude incorporates even slower-paced passages across all voices except the tenor. Consequently, an increased degree of precision in note execution becomes essential. The pianist should meticulously discern between the layers of each voice line, ensuring that each retains its distinct continuity. Therefore, the pianist should control the fingers, prioritizing controlled speed in key pressing over any unnecessary tension in the palm or reliance on the “weight” of the arm. After devising how to phrase each passage and determining which notes play a pivotal role in altering the harmonic nuance, the speed of the keystroke should be adjusted accordingly.

The ethereal four-measure E Major passage in the B section demands a distinct tone color compared to the minor mode sections. To effectively achieve this, it is advisable to keep the volume of the inner voices soft while maintaining a more focused tone for the outer voices, which are highlighted in Example 3.6. This approach facilitates delineating the contrapuntal lines executed by the upper voice in the right hand and the bass in the left hand.

Example 3.6 – F. Chopin’s Étude Op. 10, No. 6, mm. 21–24

Étude Op. 10, No. 7, offers a great opportunity to apply the understanding of finger and wrist structure. The right-hand passages involve frequent transitions between black and white keys, requiring flexible wrist movements. The wrist movement and sensation akin to basketball dribbling, as discussed for the left hand in Op. 10, No. 4, apply to the right hand of Op. 10, No. 7, albeit with more frequent minor adjustments in hand position. Instead of rigidly maintaining a fixed wrist position, it is beneficial to cultivate a sense of a lengthened wrist and utilize it flexibly. Refer to Figure 21 to visually grasp the extent of the wrist’s length. Pianists should recognize that the wrist spans approximately two inches and comprises a series of three joints, affording it sufficient flexibility to accommodate minor adjustments continually made during the performance of the chordal passages in Op. 10, No. 7. Coupled with rotations of the radius, this approach facilitates achieving smooth legato in the top notes and executing repeated notes in the bottom notes without muscular tension.

![Wrist Bones](image)

Figure 21 – Wrist Bones (Right hand, palm up)\(^{57}\)

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\(^{57}\) Thomas Mark et al, op. cit., 88.
This étude presents at least two possible melodic lines in the right hand, as discussed in the previous chapter. Achieving connectivity between these lines requires careful listening and attention. Typically, a line that exhibits directional development, characterized by changes in dynamics and volume, gains connectivity. For instance, if the following note is played with a louder volume and this pattern continues over subsequent notes, the notes acquire directionality due to these dynamic changes. With this in mind, the pianist should emphasize the directionality between the notes they intend to highlight accordingly.

In the B section, marked *delicato* (refer to Example 3.7), the pianist should avoid employing too large movements, such as the in-and-out motion often taught (Figure 22), to prevent uncontrolled strokes. Specifically, if pianists perceive the wrist solely as a hinge-like structure, they may unintentionally play the major seconds closer to the end of the keybed, nearer to their torso, while the rest are played further from the keybed’s end. However, by avoiding tight fixation of the wrist and properly activating and relaxing the muscles in the forearm, the in-and-out movement becomes unnecessary (Figure 23). Thus, precise control utilizing very small rotational movements facilitated by the wrist joint and controlled engagement of the flexor and extensor muscles is required to maintain the prevalent major seconds in measures 17–23 soft.
Figure 22 – Not Recommended Right-Hand Position in m. 17 of F. Chopin’s *Étude Op. 10, No. 7*

Figure 23 – Recommended Right-Hand Position in m. 17 of F. Chopin’s *Étude Op. 10, No. 7*
Étude in F Major, Op. 10, No. 8, Allegro

This étude shares similarities with Op. 10, No. 1, in terms of the technical approach required. The rotations needed for the right hand of No. 8 are narrower in span compared to Op. 10, No. 1, as each block of hand position spans a narrower interval. However, the required technique resembles that of No. 1. Illustrated in Example 3.8, each arpeggio block does not always align with the strong beats, necessitating accents within the middle of each block at times. However, adjusting the attack speed for these accents during rapid passages can be challenging. In such instances, such as the downbeat of m. 2, resetting the hand position by releasing the preceding note slightly earlier and playing the downbeat note with a subtle bounce from the elbow can assist in shaping the passages according to Chopin’s intention.

Similar to the technique suggested for Op. 10, No. 1, the ascending arpeggios should be executed with an arm opening, as if playing an ascending glissando, while the reverse should be applied for descending arpeggios. This approach not only facilitates efficient and organic movement but also aids in shaping coherent passages.

A tip for pianists with small hands is to avoid attempting to connect notes that require finger crossing whenever possible, as the damper pedal will connect the notes anyway. Doing so can contribute to muscular strain if the pianist tries to stretch the crossing finger excessively. Instead, it is more efficient to execute the even runs effectively by executing one block of passage, such as a four-note run shown in Example 3.8.1, and shifting the hand position to play the following passage by the side.
Example 3.8.1 – F. Chopin’s Étude Op. 10, No. 8, mm. 1–8

The rotational movement of the forearm is essential in the B section as well. Pianists should initiate rotation from the elbow joint and refrain from constantly tilting the thumb toward the ulna. This rotational technique is equally applicable to the left hand when it participates in the arpeggio during the B section. Example 3.8.2 demonstrates the clockwise rotation (indicated by red arrows) and counterclockwise rotation (indicated by blue arrows) that pianists can employ when navigating passages requiring subtle adjustments. Figure 24 provides visual references for hand positions, illustrating neutral, clockwise-rotated, and counterclockwise-rotated positions.
Example 3.8 – Rotations in F. Chopin’s *Étude Op. 10, No. 8*, m. 37

Figure 24 – Right-Hand Positions: Neutral (Upper), Clockwise Rotation (Lower Left), Counterclockwise Rotation (Lower Right)
Étude in F minor, Op. 10, No. 9, Allegro, molto agitato

The melodic line played by the right hand in this étude predominantly features slur-staccato articulation, while the left hand’s accompaniment is marked legatissimo. With the tempo marking of allegro, molto agitato, this articulation creates an atmosphere of unease and agitation. From a technical standpoint, two approaches to executing slur-staccato are possible. One method involves slightly lengthening the note duration compared to its staccato version, producing a tenuto effect without fully sustaining the note. The other, more suitable for this étude due to its constant use of the damper pedal, involves subtly delaying the attack of each note, imparting a sense of uneasiness. In either case, visually separating each note is crucial for conveying the intended articulation to the audience. A slight bounce in the elbow, combined with a flexible wrist, aids in achieving this separation.

In the left hand, the thumb undertakes another layer of the melodic line, as discussed in the previous chapter (refer to Example 2.10.1 in Chapter 2). Effectively utilizing the thumb requires meticulous planning and execution to prevent undue stress on the tendons. Additionally, thoughtful consideration and precision are necessary for each note played with the thumb to ensure the formation of longer, cohesive phrases. To achieve this, the pianist needs to control not only the angle of rotation but also the attack of the thumb. This involves coordinating the downward movement in the thumb’s innermost joint and the radius’s rotation.

Proper rotation is essential to playing the entire accompaniment figures legatissimo. Especially if the pianist’s hand size is small, it is helpful to consider the second note of each arpeggiated figure as an imaginary axis for the rotation, with the highest point of the arc of rotation helping to guide the motion (refer to the axes marked in Example 3.9 and Figure 25).
Depending on hand size, the pianist can choose to either separate the bass and other notes in the left hand or connect them all.

Example 3.9 – Axes for the Rotation in F. Chopin’s Étude Op. 10, No. 9, mm. 1–3

Figure 25 – Left-Hand Position for the First Half of m. 1 in F. Chopin’s Étude Op. 10, No. 6

In the B section and subsequent A’ section, where the right hand carries the melody in octaves, as shown in Example 2.10.2 of Chapter 2, it is crucial not to lower the wrist, especially when executing the two-note slur. Instead, the pianist should keep the wrist at least parallel to or higher than the arm and innermost knuckle.

To execute this étude proficiently, a fundamental consideration is the appropriate utilization of the wrist, particularly in the right hand. While the wrist should exhibit flexibility, akin to the keystone of an arch, it should also provide structural support. It is essential to note that flexibility, in this context, does not imply a watery fluidity but rather a controlled suppleness. By adhering to this principle, pianists can determine the optimal wrist height for organic arm movement and effectively withstand pressure. While piano pedagogy often emphasizes avoiding collapsed knuckles, preventing wrist collapse holds even greater significance in mitigating strain.

With the supple yet firm wrist acting as a keystone, utilizing a bounce in the elbow can aid in articulating passages correctly. For instance, in the opening measures of the étude, where the right hand features passages with accents on every other eighth note in the 12/8 meter, the elbow bounce can assist in separating the two-note slurs and emphasizing the first notes of these slurs. Whenever the pianist plays an accent, increased pressure is exerted on the wrist, which must be supported to maintain stability.

In the B section, featuring sequential passages and chromatically modulating phrases toward the section’s end, incorporating the collarbone in mapping and utilizing a flexible wrist becomes necessary. As previously discussed regarding Op. 10, No. 4, the pianist should adopt a pianistic approach, ensuring that each passage is executed with the appropriate engagement of the collarbone, especially considering variations depending on whether the phrase starts on a black or white key.

When approaching the dynamic and color changes indicated as delicatissimo toward the end of the B section, the pianist must prioritize controlling the key attack speed with the fingers
over adjusting the angle of the radius rotation. This holds true even more so than when playing passages with louder dynamics. Solely relying on arm movement for delicate passages can impede the expression of subtlety and elevate the risk of missing notes, mainly when playing softly.

**Étude in E-flat Major, Op. 10, No. 11, Allegretto**

In *Op. 10, No. 11*, both hands feature arpeggio passages where specific notes within the chords require emphasis as they form melodic lines. Pianists commonly approach these chords using a sweeping movement to play multiple notes almost simultaneously with fixed fingers. However, this technique presents challenges in accurately controlling the speed of key descent.

To address this, pianists should first become accustomed to the sensations in the muscles and joints necessary for achieving the desired dynamic in phrasing. Subsequently, practicing playing only the notes intended for emphasis, i.e., the melodic line, using the same fingering as in playing the arpeggios can be beneficial.

Once comfortable with these sensations and with a clear plan for shaping the phrasing, pianists should focus on utilizing both finger movements stemming from the wrist and the rotation of the radius to execute the arpeggios effectively. It is essential to use the fingers individually while also using arm movement rather than keeping the base knuckle fixed and treating each arpeggiated chord as a single stroke.

It is also helpful to differentiate the articulation between the melodic lines and the rest. For instance, envisioning a tenuto or *legato* for the melodic line while playing the remaining notes lighter contrasts attacks, allowing the melodic line to be heard more clearly than simply
accenting the notes. This approach helps separate the melodic line from the other notes, resulting in a more nuanced performance.

**Étude in C minor, Op. 10, No. 12, Allegro con fuoco**

Similar to the sixteenth-note runs in *Op. 10, No. 4*, in *Op. 10, No. 12*, predominantly in the left hand. This time, the hand position does not align with the beats, as illustrated in Example 3.10, where brackets indicate the hand position. The pianist should place accents on every beat. Therefore, finger crossings should occur without accentuating the note played by the finger after crossing.

Example 3.10 – F. Chopin’s *Étude Op. 10, No. 12*, mm. 1–6

There are two strategies pianists can consider. It is, firstly, mastering the thumb’s speed control of the key attack to avoid accenting unwanted notes. An elongated mapping of the thumb, treating it as a single structure, can assist. This does not entail stretching the thumb and
fixing the knuckles but rather employing a firmer structure capable of withstanding pressure rather than curling and trying to use just the end joint.

Secondly, the movement required for rotation must be minimized. When crossing the thumb under longer fingers, such as the second or third finger in this étude, the arm moves up and to the side away from the torso, ensuring thorough note connection, as in the upper image in Figure 26. However, this induces wrist fluctuation, making it challenging to control the attack of each note, particularly as the wrist needs to swiftly descend to place the short thumb on the key. Therefore, pianists typically engage forearm muscles to reduce this fluctuation, leading to muscular strain. To mitigate excessive wrist fluctuation and muscular strain, it is more beneficial to release the preceding note before thumb crossing and move the hand sideways (refer to the lower images in Figure 26), as discussed in performance suggestions for Op. 10, No. 8.

As previously discussed for Op. 10, No. 10, the right hand’s chordal melody requires maintaining a firm wrist structure while being flexible in wrist joint utilization. The concept of the piano’s “Point of Sound” should be utilized to prevent energy waste from holding sustained notes too firmly. This is particularly important when performing passionate pieces, as the pianist’s mental agitation can influence the physical approach, necessitating the prevention of its impact on physical movement.
In the chordal passage in the right hand throughout the étude, Chopin introduces full, four-note chords with a softer dynamic (refer to Example 2.13.2a in Chapter 2). It is crucial to avoid missing any notes within the chord, a challenge when fixing the fingers to form a hand position and simply pressing them down simultaneously. Instead of executing them like stamping, a subtle vertical movement originating from the fingers is necessary to ensure control and accuracy, preventing missed notes. This sensation becomes more discernible when the pianist practices each line with corresponding fingering. It can be applied to chord playing once accustomed to the sensation and movement, enhancing overall chord performance quality.
CONCLUSION

This dissertation has examined the evolution of keyboard études, conducted thorough analyses of Chopin’s Études, Op. 10, and proposed strategies to mitigate physical strain and enhance technical proficiency.

In Chapter 1, a historical survey of keyboard études and the development of the piano was provided, encompassing an exploration of études composed by Chopin’s contemporaries. The chapter delved into the definition of the étude and its roots in didactical keyboard literature of the eighteenth century, which laid the foundation for the emergence of piano études in the nineteenth century. Additionally, the chapter offered insights into the cultural context surrounding the rise of the piano and examined selected piano études that served as precursors to Chopin’s work.

Chapter 2 presented the compositional context of Chopin’s études, exploring contemporary reactions to his music. Detailed analyses of Chopin’s Études, Op. 10, ensued, focusing on harmonic and motivic elements that necessitate specific technical approaches.

In Chapter 3, the concept of Body Mapping was introduced as an approach to kinesthetic awareness for pianists. This approach is designed to refine both practice and performance techniques, addressing not only the technical challenges pianists face but also the expressive limitations that arise from inadequate technique. The chapter emphasized understanding the structure of piano action and the integral arm and hand movements involved in piano playing. Furthermore, the detailed applications of these insights to each of Chopin’s Études, Op. 10, was provided in the chapter, emphasizing the adoption of organic movements informed by kinesthetic understanding.
Through this study, it became evident that educational and virtuosic works preceding the advent of piano études in the early nineteenth century contributed to the development of idiomatic keyboard passages showcasing technical prowess. The consolidation of the étude genre in the nineteenth century, particularly its focus on addressing specific technical challenges, coincided with advancements in piano technology, enabling composers to explore idiomatic piano passages. Chopin’s études, as analyzed in Chapter 2, showcased his masterful composition techniques, elevating the genre from mere practice pieces to concert-worthy compositions.

The last chapter proposed a paradigm shift in the perception of études, from mere exercises to be mastered through repetitive practice to compositions to be approached with proper body usage and efficiency. The incorporation of the Body Mapping concept into every étude was proposed as a means to enhance movement efficiency and prevent injury. Additionally, practical strategies were provided for bridging theoretical insights with physical execution. This pedagogical approach allows études to be analyzed based on the movements involved and establishes a link between physical understanding and musical execution, which greatly facilitates the musical interpretation for pianists.

This dissertation’s comprehensive exploration of the étude genre, detailed analyses of Chopin’s Études, Op. 10, and practical performance strategies offer hope that pianists can develop techniques that prevent fatigue and injury, thereby approaching études and piano performance in general with greater confidence and proficiency.
BIBLIOGRAPHY

BOOKS


DISSENTATIONS AND THESES


ARTICLES


SCores

Bach, Carl Philipp Emanuel. Versuch über die wahre Art das Clavier zu spielen, H.868, 870. First Edition. Berlin: Christian Friedrich Henning, 1753 (part one); George Ludewig Winter, 1762 (part two)


Chopin, Frédéric. Études, Op. 10, No. 2–6, 8–12. Holograph manuscript, 1829-32. The Fryderyk Chopin Institut, Warsaw (Nos. 3, 4, 5, 6, 8–10), Stiftelsen Musikkulturens Främjande, Stockholm (Nos. 2, 11, 12)


