

## Structure in Beethoven's Op. 111 Piano Sonata

Ludwig van Beethoven's late period (1812-1827) came with grand Symphonies, String Quartets, and Piano Sonatas. His late works were generally compositional works written for fewer individuals. He no longer followed traditional structural writing and diverged from formal sonata form structures and movement numbers. The Opus 111 No. 32 Piano Sonata was one of these examples, in which he created a new platform of composition by merging standard sonata form with fugal material. Much of his late works consist of fugal material, with Op. 111 marking his final piano sonata which was completed in 1822. The Op. 109-111 final piano sonatas were requested by Adolf Schlesinger, a Berlin publisher. Unlike the previous sonatas, the final Op. 111 sonata solely consists of two movements, omitting a third. The sonata is Beethoven's last C minor work, which has been a commonly used key for much of his grand compositions. Ludwig van Beethoven innovates the concept of sonata form and a fugue in a single movement, with another instigating a new collaboration of an Arietta with 6 Variations, all in his final solo piano masterpiece.

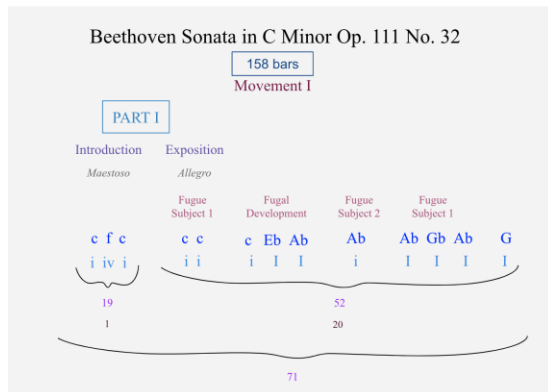
Opening the movement with an ominous double dotted rhythmic motive set in a French overture style, Beethoven presents an introduction to the fugal material to come. Typical of his compositional style (prevalent in all his works), Beethoven provides unexpected changes in dynamic and color. The arpeggiated chords are synonymous to an opera setting in which the chords serve as an introduction for the singer. A French overture style is often separated into two sections: prelude and fugue. The prelude section is often characterized as slow with a theme of double dotted rhythms serving as notes inégales, commonly used in the Baroque era. A well-known musical example of this concept of a French overture is in Johann Sebastian Bach's C minor Prelude from BWV 1011 Cello Suite No. 5, composed around 1717. The opening of the Prelude presents a dramatic C octave followed by a sixteenth note rise and fall establishing the dark key. Although notated without double dotted elements, the concept of the French overture is present in this movement. All dotted rhythms are played as late as possible to create a lilt feeling, as if avoiding ascending doom. Contrasting from the opening prelude in cut time, the fugal material of the movement is presented in 3/8 meter with several presentations of the fugal subject, modulating through different keys, ending in a picardy third in C major. The fifth cello suite prelude is a microscopic timeline of Beethoven's Op. 111 Piano Sonata in a nutshell. Similar to the cello suite, Beethoven opens the sonata with a dramatic *Maestoso* French overture highlighting tonic and subdominant in harmony with an emphasis on double dotted rhythms, holding back from the ascending doom as much as possible with each chromatic descending tied rhythm. Following the *Maestoso* prelude-like section, Beethoven introduces a fugue with reoccurring statements in varying keys. Fast-forwarding ahead to the end of the second movement closing the whole sonata, Beethoven closes the piece in the parallel major of the home tonic key from the opening first movement. This concept of opening in C minor and closing with C major is parallel to J.S. Bach's format of the fifth suite.

A shift in continuous chromatic dotted rhythms builds up to the *forte* first statement of the fugal motive. Sixteenth note rhythmic displacements following the first entrance of the fugue subject succeeds, intensifying to a small climax in runs that immediately dies away into the second full entrance in *piano* of the subject. The statement of the second fugue entrance is followed by an abandonment of the fugue for a short transitional section of contrary motion with the bass rising as the soprano cascades down. The transition seamlessly flows into the statement of the fugue subject consisting of scale degrees 1-3-7 in the alto voice. Up until the first statement of subject 2, there are sixteenth notes or eighth notes consistently throughout the exposition section; the running sixteenth notes and eighth notes continuously alternate between hands. That consistent flow of a rhythmic motor allows the energy to flow forward for dramatic effect. The fugue entrances continue to present themselves in different keys with constant modulations in place. Two measures preceding the presentation of subject 2 in measure 50 consists of large half note jumps in register serving as a last crying outburst before a complete scenery change. Subject 2 is very similar to the concept of theme 2 in a traditional sonata form. Since Beethoven formulated this movement in a fugal-sonata hybrid form, many existing elements of both forms are blended together and can serve as two ideas in collaboration. The second subject briefly presents a new idea, only to be interrupted by a brief wind down into *Adagio*, as if serving a short break during a marathon run before immediately getting back on their feet with descending sixteenth notes leading to the fugal subject. Beethoven continues to mix the concept of sonata form with a fugue setup, alternating between compositional elements of each. After providing different elements of the fugue, he presents a coda-like closing section of the exposition that immediately is interrupted into developmental material of the fugal subject in which the bass continues to state the subject of scale degrees 1-3-7 while modulating and having the right-hand soprano cascading with constant sixteenth notes with displaced *sforzando* markings on every third beat of the bar.

The concept of repeat signs for sections is common in sonata form, not in fugues. Beethoven marks a repeat sign for the exposition section, fitting the format of a sonata form. Since a fugue is not a form, Beethoven's concept of creating a hybrid form of both is quite avant-garde for his time.

As presented in *figure 1*, the tonal diagram for the introduction and exposition is mixed with fugal entrances. The opening introduction presents a tonal center of C minor, followed by the subdominant, F minor, back to tonic, C minor. The closing of the prelude-like section seamlessly transitions to the first statement of fugue subject 1 in C minor. Like modulations and thematic developments in a traditional sonata form, Beethoven presents development-like sections of the fugal theme, in which the subject is elaborated, transposed, or augmented. The fugal developments are presented with an underlying idea of subject 1 in C minor, Eb major, and Ab major. The key relations of Eb serves as the mediant to C minor, while Ab serves as the submediant. Beethoven changes the key signature from three flats for C minor, to four flats, ready to introduce Ab major with a new idea. Next, subject 2 is presented in a new tonic, Ab major, followed by a sudden interruption into subject 1 with repeated statements modulating from Ab major, to Gb major, back to Ab major, closing with chromatic ascending sixteenth notes hinting at G major, the dominant of C minor putting the exposition section to a dramatic close.

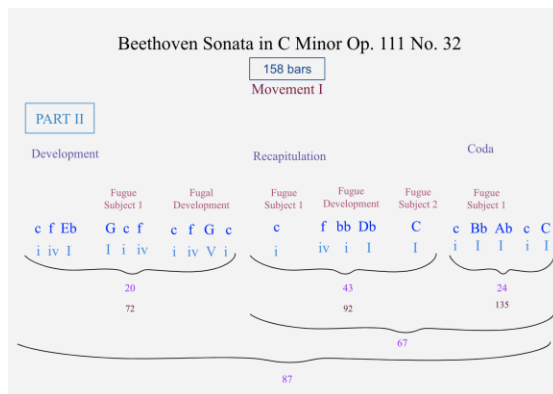
Figure 1. Op. 111 Movement I Part I Diagram



The development section once again mixes with the fugue material through another statement of subject 1. Beethoven presents a combination of subject 1 opening material with an augmented version of the subject idea in half notes above the existing subject. Sixteenth note flourishes continue to serve as transitional material similar to sonata form, only to be interrupted by more statements of the fugal material. Beethoven then changes the key signature to two flats, although Bb major and G minor are not presented. Instead, the development section opens establishing C minor. Fugal subject 1 continues to be tossed around back and forth in varying keys, quickly ending the traditional section of a sonata form development section.

As presented in *figure 2*, the development and recapitulation sections constitute part two of the movement. The development begins in C minor, travelling to the subdominant, F minor, then to a new tonic of Eb major with each iteration of the fugue subject material. Subject 1 is then presented with an augmented version establishing G major as the tonic, followed by a succeeding statement in C minor, then to F minor, the subdominant. As presented in the exposition, the fugal material undergoes a sonata form development in which the material is presented in new ways. These statements are presented just as Beethoven changes the key signature back to three flats for C minor. The fugal statements are presented in 1 measure durations starting in C minor, followed by F minor, G major, and back to C minor. This progression outlines i-iv-V-i, a very traditional compositional progression.

Figure 2. Op. 111 Movement I Part II Diagram

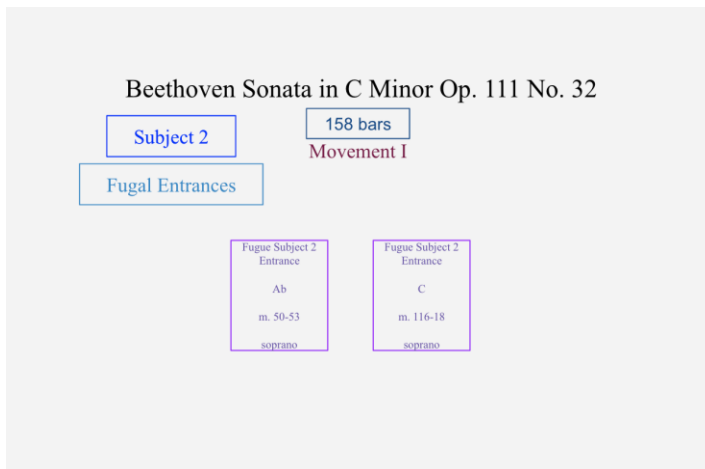


The recapitulation section begins with a full entrance of the fugue subject in C minor, similar to the first full entrance from the exposition section, fulfilling the sonata form setting of a reoccurring theme in the recap. Once again, sixteenth notes in contrary motion briefly abandon the fugue subject, only to be introduced once again in an F minor continuation with modulations on the subject. The golden ratio happens to be located in measure 97, amidst the transition back to subject 1. The form and presentation of ideas is identical to the exposition with another outburst of register jumps two measures before another statement of subject 2, this time in C major. A new section is introduced that leads into a coda-like section with fugal statements, underlying the progression with modulations.

Beethoven dramatically modulates and abandons the fugal subject to material fitting for a sonata form coda section, fading to C major.

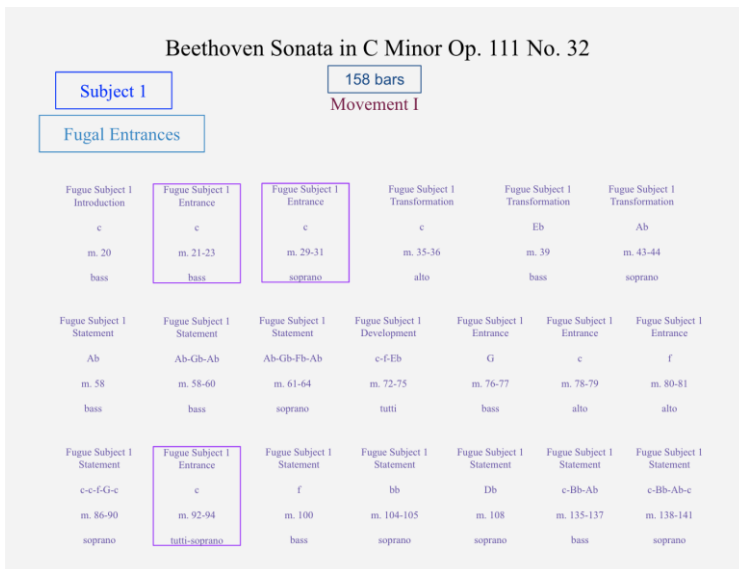
In *figure 3*, the presentation of subject 2 is outlined. Subject 2 serves as new thematic material that contrasts completely from Subject 1. The elements of this subject are very similar to the idea of theme 2 in sonata form. The subject is very lyrical and beautifully presented in Ab major with a slow descending line that reintroduces the dotted rhythm idea from the introduction section. Following the subject, a flourishing improvisatory transition is presented in a fantasy-like manner before returning to subject 1 material. The next iteration of subject 2 occurs in the recapitulation section, parallel to the form in the exposition. This presentation is now in C major, followed by the same improvisatory runs that transition into new territory that was not presented in the exposition before.

Figure 3. Op. 111 Movement I Subject 2 Diagram



A full entrance of fugue subject 1 is presented only three times throughout the whole movement, all in C minor (*figure 4*). Statements of the subject occurs a total of 36 times throughout the whole movement, some of them lasting only one measure. These statements are typically grouped in a specific section of the movement, and there are a total of 20 sections where the subjects are grouped together with transitional material in-between each. Additionally, Beethoven presents the fugue subjects in different voices throughout, between bass, alto, soprano, or tutti in octaves. The format of the whole movement begins with a C minor overture, presents fugue subjects in a variety of keys, closing with a coda section in C major, completing the hybrid fugal-sonata form of Beethoven's composition.

Figure 4. Op. 111 Movement I Subject 1 Diagram













Contrary to the first movement, Beethoven diverges from a fugal-sonata hybrid form into a hybrid form of an Aria with variations, similar to the concept of theme and variations. In *figure 5* and *figure 6*, the overall structure of each variation is presented with the key areas provided. Although the complexity of rhythms and modulations are exquisite, Beethoven's overall structure of key areas oscillates between the home key of C major, and the relative minor, A minor. The Aria (Aria A) is first introduced in C major in a 9/16 meter with beautifully lyrical and tonal progressions with a repeat of the 8-bar phrase. This initial Aria is then presented in A minor with another 8-bar phrase. Variation 1 (Variation 1a) is presented in a fairytale manner. A bass line of underlying sixteenth notes creates a beautiful foundational layer for the melody line above. This variation is once again repeated, followed by another

iteration back in the relative key of A minor (Variation 1b). Variation 2 is presented with a jumpy and cheerful rhythmic motive in 6/16. Opening in C major (Variation 2a), the variation is a dialogue between two voices in a conversational manner between the right and left hand. As always, Beethoven continues in a mellow A minor statement of the variation (Variation 2b) continuing the dialogue. Out of nowhere, Variation 3 (Variation 3a) interrupts in a buoyant and optimistic manner in a 12/32 meter. The meters and rhythms continue to undergo diminution through each variation. The conversational element from Variation 2 continues in Variation 3 with the

bass ascending in skips arpeggiating up with the soprano answering in descending arpeggiated jumps. Beethoven adds his signature element of *sforzando* dynamics on weak beats. Variation 3b continues in A minor with a mysterious quality through contrasts between a *forte* ascending bass line in conversation with a *piano* descending soprano line. Beethoven alternates between C major and A minor throughout this variation.

Figure 5. Op. 111 Movement II Variations Chart

Aria A		CM
Aria B		am
Variation 1a		CM
Variation 1b		am
Variation 2a		CM
Variation 2b		am
Variation 3a		CM
Variation 3b		am
Variation 4a		CM
Variation 4b		am






Succeeding Variation 3 is Variation 4 (Variation 4a), with a C major pedal point in the bass back in 9/16 meter. The variation is very similar to a lullaby in which the bass line oscillates with an offbeat soprano outlining the melody. Following this statement is ascending runs and beautiful chromatic runs in the soprano voice like a distant memory. This then returns to the initial pedal point introducing Variation 4b now in A minor. Beethoven continues and repeats the running chromatic section from earlier now in A minor, gradually transitioning back to C major with beautiful arpeggiated chords in an improvisatory manner before the Coda section of Variation 4.

The Coda section of Variation 4 opens in C major with a subtonic pedal point in the alto voice through trills. Beethoven transitions and marks the key signature of Eb major while gradually transitioning over from C major to Eb major. Variation 5 ensues back in the key signature of C major with an oscillating arpeggiated bass line with the opening Aria theme stated in the soprano voice with elaborated textures. The Variation (Variation 5b) is then repeated like the opening Aria statement in A minor with a thick texture and growth.

The Variation beautiful closes on a half cadence and begins Variation 6 with an introductory dominant pedal trill in the soprano with the Aria theme stated in the alto voice adding an oscillating bass line as it's foundation. Variation 6 is very fairy-like and atmospheric through the contrasting textures stacked together in harmony. The whole sonata closes with the final original statement of the Aria in C major through the last three measures cadencing with a perfect authentic cadence.

As notated in figure 7, the second movement of Beethoven's Op. 111 Piano Sonata consists of seven distinct sections: Arietta, Variation I, II, III, IV, V, and VI. The first 4 sections (Arietta, Variation I, Variation II, Variation III) are the only sections with repeat signs, and they are each 16 measures total. Beethoven's concept of equal proportions for phrasings and sections is very clear. Within these four sections, Beethoven only covers the tonal grounds of C major and A minor, constituting a total of 64 measures. Variation IV is the first to break away from the repeated form while additionally changing to a new meter of 9/16. The variation is relatively longer than the preceding sections, with an additional Coda section to close off the variation.

Figure 6. Op. 111 Movement II Variations Chart

Variation 4 Coda		CM- EbM
Variation 5a		CM
Variation 5b		am
Variation 6		CM
Coda		CM

The Coda section of Variation IV creates a subtonic pedal that glides into the new key of Eb major. The section briefly deters from pedal points and running sixteenths or thirty-second notes and allows for a flowing melody with dotted eighth notes throughout as if pausing time and taking a momentary break before returning to reality. Variation IV including the Coda, consists of 66 measures, similar in proportion to the total of measures from the first section. Furthermore, the golden ratio is strategically located at the start of the Coda section for Variation IV, serving as the landmark of 0.618. At this point, it's also the first return to a slower pace of music.

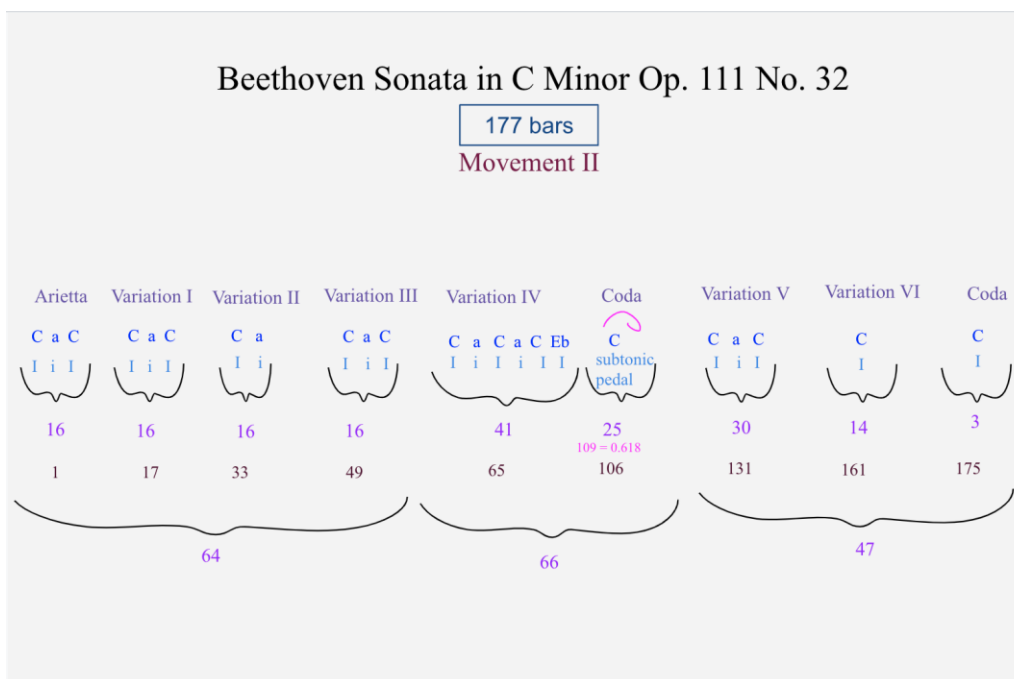
Variation V returns back to the home key of C major, similar to the key relations from the opening Arietta, going from C major to A minor, back to C major. The variation is 30 measures long, followed by Variation VI, cutting down to 14 measures all in the home key of C major. The variation moves in parallel motion of thirds ascending up and falling back down into a final cadential statement of the Arietta.

Beethoven's compositional technique added in his Op. 111 Piano Sonata is a culmination of ideas from his previous sonatas

during his late period style. The first movement presents such contrasting ideas through the Subject 1 of the fugue which consists of the concept of scale degrees 1-3-7, followed by a rising minor seventh, and descending eighth notes in step-wise motion followed by sixteenth note turns that then repeat the eighths and sixteenths once again. Contrastingly, Subject 2 is completely different from Subject 1 and instead, presents a lyrical melody that flows into a fantasia. Subject 1 is stated a total of 36 times while Subject 2 is presented only twice. This presentation deters from the traditional sonata form concept of a Theme 1 preceding Theme 2 with each presentation, allowing for equal proportions. Beethoven presents these contrasting ideas in a profound manner that was unheard of. Blending sonata form with a fugue was quite creative on his part. Opening with an introduction was standard and the style of a French overture was also normal, taking ideas from the Baroque period; however, following that with an *Allegro con brio* marking with a repeat sign marking the exposition section, only to be interrupted by fugal material was unheard of. His method of introducing the fugal subject in the same manner one would introduce a first theme was clever in his attempt to create a hybrid form. Although the concept of sonata form and fugues are completely different, Beethoven presents the material in a manner that avoids jarring the audience. He inserts moments of *ritard* and transitional material that flows naturally into a new idea. Even though a first-time listener may be confused in the form, a close analysis of the score itself presents Beethoven's intellectual ability of structure creation in his work. The repetition of Subject 1 allows the listener to have a reoccurring familiar idea that helps hold the structure of the piece together. The parallel structure of the exposition and the recapitulation additionally allows the listener to formulate a clear structural plan for the music.

The tonal plan of the Op. 111 sonata assists with the tonal scheme of the fugue. *Maestoso* opens in C minor and travels to the subdominant before returning to the home key. The exposition continues in C minor, Eb major, Ab major, Gb major, and G major, before returning to C minor. The development continues going through C minor, F minor, Eb major, and G major, while the development undergoes C minor, F minor, Bb minor, Db major, C major, Bb major, and Ab major, before closing in C major. This tonal plan for the sonata form outline is executed with each fugue entrance. Fugue Subject 1 is introduced in C minor and transformed to Eb and Ab followed by short statements modulating to Gb and Fb. Eb is a mediant relation to C minor, and Ab is a submediant relation to C minor. As would a theme, the fugue subject undergoes development venturing to f minor, the subdominant of C minor, and Eb major. As would a returning theme in the recapitulation section of a traditional sonata form, the full return of Fugue subject 1 in the recap section is back in the home key of C minor. Beethoven continues to go through progressions that are possible in a sonata form; however, he decided to present that flow through fugal subjects.

Figure 7. Op. 111 Movement II Variations Diagram



Along the lines of Beethoven's composition style, there are many cases where he abandons the fugue subject to allow the hybrid form to reveal itself structurally. In the exposition, Beethoven abandons the fugue subject four times. The first time is to allow for a short cadential close of a full subject 1 entrance by adding a *ritard* which flows into a contrary motion transitional material back to the fugue subject. The second time serves

as a transition into the first iteration of subject 2. Next, the third abandonment is additionally a transition from subject 2 back to subject 1, and the last case serves as chromatic transitional material once again, leading up to the development section.

With a total of 36 statements of fugal subject 1, Beethoven treats them consistently throughout. Each entrance is clearly heard and presented in a manner that is obvious to the listener. The original fugue subject consists of quarter notes, dotted quarter notes, eighth notes, and sixteenth notes in unison. Each succeeding entrance is elaborated with ornaments such as additional harmonic support with the middle voices and bass for the soprano, and other iterations with different voicing. A common elaborated ornament is running sixteenth notes under the subject statement. In the development section, Beethoven adds trills and augmentations of the subject to allow for variety. The second movement of the Op. 111 sonata, *Adagio molto semplice e cantabile*, presents Beethoven's compositional technique of diminution through increasing rhythmic subdivisions while maintaining an overall stable pulse. Climactic sections of the Arietta theme are coincidentally the sections with the most thick and fastest rhythmic textures of the whole movement. Without the presence of a third movement to close the sonata, Beethoven expanded the size of the second movement, as "a farewell to the art form of the sonata" (Kinderman 251). Variation form was generally used in inner movements of sonata works; however, Beethoven formulated both the Op. 109 and Op. 111 in the same structure with a slow statement of the theme followed by rhythmic diminutions throughout the series of variations. Beethoven creates such contrasting characters between variations with the fourth variation contrasting so much from the previous ones, that it feels as though the character has been transfigured. The compositional techniques that Beethoven incorporated into the second movement creates a feeling of timelessness that formally closes his collection of piano sonata compositions.

Serving as Beethoven's final piano sonata, one can observe his compositional transformation. Beethoven's first piano sonata of his late period was the Op. 101 sonata in A major. The first movement is relatively short with a lyrical melody with simple rhythms in a sonata form structure. Next, his Op. 106 piano sonata in B♭ major is noticeably grander in size still in sonata form for the first movement; however, the movement comes with fugal material presented in the development section. The exposition and the development sections are very contrasting material, flowing back into the opening majestic material. This first movement is similar to the Op. 111 in the fact that both present fugal materials, however the Op. 111 presents the fugal subject as the main motive throughout the movement. Next, the Op. 109 in E major is noticeably smaller, however the material has matured compared to the previous sonatas with the presented material. The first movement opens with a short introductory material that is optimistic and suddenly turns painful through the Adagio section. The development returns in *Vivace* now in the

dominant key travelling to the submediant, subdominant, and dominant. The transposition section returns with the opening *Vivace* element continuing to the Adagio section now in the subtonic instead of the submediant. The *Vivace* section closes off with the Coda section with both halves in proportion to each other. This first movement reveals Beethoven's technique of presenting completely contrasting ideas within a piece. The opening fantasy-like quality is juxtaposed with a somber character. This element of juxtaposition is similar to his Op. 111 concept of juxtaposing fugal material with a standard sonata form structure. Furthermore, the Op. 109 and 111 both present a series of variations with hymn-like material. Beethoven's Op. 110 sonata preceding his Op. 111 returns to basics in tonality of the opening exposition section in Ab major with running arpeggiated thirty-second notes very similar to the Op. 111, as well as beautiful accompanimental figures supporting a melody. The Op. 111 sonata in C minor is a merging of all the compositional elements of the Op. 101, 106, 109, and 110.

The Op. 111 No. 32 Piano Sonata in C minor presents Beethoven's last existing composition for piano. Beethoven presents his culmination of techniques for solo piano through the structure and elements of the sonata. By providing a wealth of material through a French overture dating from the Baroque period, fugal material, and transformation of sonata form, he created a final gem that marked his courageous idea of incorporating a fugue into an existing sonata form template. Beethoven's final piano sonata will continue to satisfy audiences with the beautiful harmony, and inspire future composers to break boundaries and invent new concepts using existing content that will allow music to exist for centuries.

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