

PICTURING RHYTHM: RAVEL'S *MIROIRS*

by

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## Chapter 1: Background

After establishing his reputation as a composer by writing *Jeux d'eau*, the *String Quartet*, and *Shéhérazade*, Ravel sought to explore new possibilities in piano technique and harmonic language while writing *Miroirs*, a set of five pieces for solo piano, in the fall of 1904. Ravel said in an autobiographical sketch, "The *Miroirs* from a collection of pieces for piano, which mark a change in my harmonic development, are pronounced enough to have upset those musicians who had had the least trouble appreciating my style."<sup>1</sup> The adventurous use of harmony is shown particularly in the first and last pieces of the set, "Noctuelles" and "La vallée des cloches." An abundance of dissonant harmonies and appoggiaturas are utilized in "Noctuelles" as an effective tool to capture the image of a clumsy moth. As in "La vallée des cloches," quartal harmonies are used throughout the piece.

To help us understand the meaning of the title, Ravel revealed the inspiration for *Miroirs*:

"The title *Miroirs*, five piano pieces composed in 1905, has authorized my critics to consider this collection as being among those works that belong to the impressionist movement. I do not contradict this at all, if one understands the terms by analogy. A rather fleeting analogy, moreover, since impressionism does not seem to have any precise meaning outside the domain of painting. In any case, the word Mirror should not lead one to assume that I wish to affirm a subjectivist theory of art. A sentence by Shakespeare helped me to formulate an opposite position: 'The eye sees not itself/ But by reflection, by some other things'."<sup>2</sup>

Even though it seems like Ravel was trying to distance himself from the word "impressionist," *Miroirs* is truly a work that belongs to impressionism for its evocative nature. Each piece of the set vividly depicts the imaginative scenery that the titles describe: a moth, a sad bird in the forest, a boat on the ocean, a clown, and bells. The quotation from Shakespeare suggests that we understand ourselves by observing our surroundings. In my opinion, Ravel himself acts as a mirror, using his musical language to

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<sup>1</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 72.

<sup>2</sup> Arbie Orenstein, *A Ravel Reader: Correspondence, Articles, Interviews* (New York: Columbia University Press, 1990), 35.

reflect and depict particular images in each composition as if we were viewing various scenes through his lens.

Each of the five movements was dedicated to a member of Les Apaches, a group that was founded by Ravel and his friends, who were musicians, poets, painters, and critics. Members included Ravel, Ricardo Viñes, M.D. Calvocoressi, Léon-Paul Fargue, Igor Stravinsky, Delage, etc. They were linked by their shared enthusiasm for Debussy's music, especially the opera *Pelléas et Mélisande*. The name was created by Ricardo Viñes and refers to artistic ruffians or hooligans. Ravel and his friends considered themselves to be an outcast group that was unrestrained by conventions and stood by their beliefs regardless of whether they were accepted by the majority. The gatherings first started on Saturdays and were held either at the studio of Paul Sordes on rue Dulong, at the home of Tristan Klingsor on avenue du Parc Montsouris, at the apartment of Maurice Delage on rue de Civry, or at the rented cottage of Delage in Auteuil.<sup>3</sup> They would discuss music, poetry, painting, and the arts and provide opportunities to share their works with each other, these meetings often lasted through the night.

“Noctuelles” was dedicated to the poet Léon-Paul Fargue, who became a lifelong friend of Ravel. Fargue wrote that “Ravel shared our predilections, our weaknesses, our manias for Chinese arts, Malarmé, Verlaine, Rimbaud and Corbière, Cézanne and Van Gogh, Rameau and Chopin, Whistler and Valéry, the Russians and Debussy.”<sup>4</sup> They were not only friends who shared similar interests in the arts, Fargue's poetry had a huge influence on Ravel, especially in the realm of imagination. According to Émile Vuillermoz, another member of Les Apaches, “through the imaginative influence that he exerted on Ravel in particular, Fargue has his place in the history of the music of this period.”<sup>5</sup> What is interesting is that Fargue wasn't just a dedicatee, Ravel also drew inspiration from his poetry in the creation of “Noctuelles”. The use of the title “Noctuelles” might come from Fargue, since it is not a commonly used word in French. In two of the members' accounts of an early Apaches meeting, Vuillermoz and Maurice

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<sup>3</sup> Arbie Orenstein, *Ravel: Man and Musician* (New York: Columbia University Press, 1975), 28.

<sup>4</sup> Léon-Paul Fargue, *Maurice Ravel* (Paris: Domat, 1949), 15.

<sup>5</sup> Paul Roberts, “Reflections: Ravel, Debussy, Léon-Paul Fargue- Miroirs.” In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 48.

Delage, Fargue read a poem to them in a bleak tone, "Les noctuelles des hangars partent, d'un vol gauche, cravater des autres pouters (In the shed, night moths take off, in awkward flight, and circle around other beams.)"<sup>6</sup>

This line comes from an untitled poem in Fargue's *Poèmes*. This poem illustrates natural images including night moths circling the lights, birds singing in the trees "swollen with shadow," as well as manufactured objects like a railway station or worn-out engines. Real scenes and surreal objects like "the bus for the Hotel of Little Hell" interweave with each other and create a quiet, dark fantasy world. The last phrase perfectly captures the entire mood of the poem: "Oh do not dream. Keep watch over these distant scenes, soft as sobbing, until the curve of dawn, towards the Delivrandes, where we will suffer again."<sup>7</sup> To imitate a moth flying, Ravel used complex rhythm, harmony, and abrupt interruptions to accentuate the sense of aimlessness. The entire piece is in a somber, quiet, but tense mood, which perfectly matches the poetry.

The second piece of the set, "Oiseaux tristes," was actually the first to be composed. Ravel gave the first performance of this piece at an Apaches meeting on October 11th, 1904. Viñes was the only one who gave positive feedback, while others were confused by his new style of writing, which, according to Calvocoressi, made Ravel "disconcerted to find us indifferent to a piece into which he had put so much of himself."<sup>8</sup> It seems like Ravel believed that his craftsmanship was exhibited in "Oiseaux tristes" because it showed his most typical way of thinking. It evokes an image of birds lost in the oppressiveness of a very dark forest during the hottest hours of summer.<sup>9</sup> It is written in a through-composed form, in which only a few bars (mm. 7–9) were repeated and transposed. Ravel's idea of writing in a free form coincided with Debussy's. Viñes revealed at an Apaches meeting that "Debussy was dreaming of a kind of music

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<sup>6</sup> Paul Roberts, "Reflections: Ravel, Debussy, Léon-Paul Fargue- Miroirs." In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 49.

<sup>7</sup> Léon-Paul Fargue, *An English Translation of Léon-Paul Fargue's Poèmes*, trans. Peter S. Thompson (Lewiston, NY: The Edwin Mellen Press, 2003), 89.

<sup>8</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 59.

<sup>9</sup> *Ibid*, 73.



whose form was so free that it would sound improvised, of works that would seem to have been torn out of a sketchbook after playing *D'un cahier d'esquisses* for Viñes."<sup>10</sup>

The piece starts with a bird call, which was inspired by a blackbird's song Ravel heard while he was visiting the forest of Fontainebleau.<sup>11</sup> The vivid contrast between the lovely, fluid birdsong in the high register and the dark forest depicted by the dissonant, agitated harmony and rhythm in the middle and low registers helps to make clear the picture Ravel is attempting to convey. On the final page, Ravel even begins a passage that resembles a cadenza and instructs performers to avoid abrupt tempo changes by using the phrase "presque ad libitum." Interestingly, this piece was dedicated to the virtuosic pianist Ricardo Viñes, because, according to the composer himself, "it was fun to inscribe to a pianist a piece that was not in the least pianistic."<sup>12</sup>

The following piece, "Une barque sur l'océan" is the longest among the five in the set, and it is dedicated to the painter Paul Sordes. Again, the use of the word "barque" reflects Ravel's peculiar choice of titles. It refers to a small boat in French, however, Ravel chose to use the word "barque" which is also not commonly used like "noctuelles". Fargue's influence can be found here as well because the same word "barque" was used in his poem "La rampe s'allume" which portrays a dramatic, stormy scene that corresponds with the piece. The music is filled with a fluctuating stream of waves created by perpetual arpeggios. It is not the sunny day out on the sea that Ravel is picturing. We get to experience the sea under various kinds of weather: it can be calm, sunny, and beautiful, but also treacherous and cruel at times. The unpredictable sea is portrayed through the use of a full spectrum of dynamics. The volume ranges from ppp to ffff, and passages that contain a crescendo from pp-ff are heard regularly. The full range of the keyboard is used in conjunction with a wide dynamic range to simulate the sound of an orchestra. In fact, Ravel arranged an orchestral version of "Une barque sur l'océan." He was not happy with the performance, which took place in 1907, the only time it was performed during his lifetime. At the

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<sup>10</sup> Alexis Roland-Manuel, *A la gloire de Ravel* (Paris: Editions de la Nouvelle Revue Critique, 1938), 65.

<sup>11</sup> Paul Roberts, "Reflections: Ravel, Debussy, Léon-Paul Fargue- Miroirs." In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 56.

<sup>12</sup> M. D. Calvocoressi, *Musicians Gallery: Music and Ballet in Paris and London* (London: Faber, 1933), 66.

beginning of the piece, a melody that is played by the thumbs of both hands in alternation emerges from arpeggios in the left-hand part. The melody is the barque, which is surrounded by the sea produced by the outer layers of sound. As Ravel said, "neither the oboe, cor anglais, nor muted trumpet can match the resonance of the original timbre." Messiaen also commented on this, saying "there exists an orchestral kind of piano writing which is more orchestral than the orchestra itself and which, with a real orchestra, it is impossible to realize."<sup>13</sup>

In his book "Reflection: The Piano Music of Maurice Ravel," the author, Paul Roberts, identified a potential literary influence on this composition. He pointed out that two poems from Fargue depicting the sea resonate with the atmosphere "Une barque sur l'océan" evokes. There is a sense of mystery and danger in both poems, "La rampe s'allume" and "La mer phosphorescente perle entre les arbres (The Phosphorescent Sea Pearls Between the Trees). In "La rampe s'allume," a barque comes in through the darkness when the sea "clamors and flames black," while a monster awaits when "a small barque paddles with all its heart" in the latter poem.<sup>14</sup> Sonorous texture and kaleidoscopic harmony are used to great effect to convey a dark, mysterious quality.

The fourth piece of the set, "Alborada del gracioso," is dedicated to the music writer and critic M.D. Calvocoressi and is the most well-known due to its notorious difficulty for performers. Two specifically hard techniques involved are repeated notes and double-note glissandos. Perlemuter recalled that Ravel wanted him to play the repeated notes really lightly.<sup>15</sup> It would have been easier to achieve this effect on pianos back then because of their lighter action. The same is true for double-note glissandos, for which I place my thumb horizontally for the ascending glissando. According to Perlemuter, Ravel valued a good single-note glissando over a subpar double-note glissando.<sup>16</sup> Therefore, a single-note glissando

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<sup>13</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 74.

<sup>14</sup> Paul Roberts, "Reflections: Ravel, Debussy, Léon-Paul Fargue- Miroirs." In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 62.

<sup>15</sup> Vlado Perlemuter and Hélène Jourdan-Morhange, *Ravel According to Ravel*, trans. Harold Taylor (London: Kahn & Averill, 1988), 25.

<sup>16</sup> *Ibida*, 26.

can always be an option. For the brilliant effect, I think that playing the glissando with the appropriate dynamics and accents is crucial.

Ravel makes an effort to replicate the sounds of the castanets and guitar on the piano, which are the two main instruments used in Spanish music. Ravel has always been enamored of Spanish music, which is probably a result of his mother's Basque ancestry. Ravel said in an interview that his mother used to lull him to sleep by singing guajiras. Perhaps it's because of this link that he feels so attracted to Spain and its music.<sup>17</sup> He had already written "Habanera" in his *Sites auriculaires*, and later on, he would produce works like *Rhapsodie espagnole*, *L'heure espagnole*, and *Boléro* after "Alborada del gracioso." This piece is written in a mixture of multiple Spanish dance forms, such as jota and fandango. Jota is a rapid dance in triple meter, its characteristic rhythm includes triplets, which are seen in the outer sections of "Alborada del gracioso."<sup>18</sup> Ravel, on the other hand, avoided using a triple meter in favor of alternating between a compound duple and a triple meter at 6/8 and 9/8. The hemiola created in the 9/8 section resembles the rhythmic traits of Fandango. The contrasting middle section, or copla (stanza), is written in *cante jondo* style, which means deep song. Its tempo is noticeably slower than the previous section, and it is written in a calm and somber mood.<sup>19</sup> The melody alternates with instrumental interludes that imitate the sounds of drums and guitar.

Ravel has explained how he chose the title and how he wants it translated to English in his letter to Ferdinand Sinzig of Steinway and Sons in New York. He writes in the letter: "I understand your bafflement over how to translate the title 'Alborada del gracioso'; precisely why I decided not to translate it. The fact is that the gracioso of Spanish comedy is a rather special character and one which so far as I know, is not found in any other theatrical tradition. We do have some sort of equivalent in the French theater: Beaumarchais's Figaro. But he's more philosophical and less well-meaning than his Spanish

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<sup>17</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 74.

<sup>18</sup> Paul B. Mast, "Style and Structure in *Iberia* by Isaac Albéniz" (PhD diss., University of Rochester, 1974), 104.

<sup>19</sup> *Ibid.*

ancestor. The simplest thing, I think, is to follow the title with the rough translation ‘Morning Song of the Clown’ [Aubade du bouffon]. That will be enough to explain the piece’s humoristic style.”<sup>20</sup>

Spanish comedy was developed in the Golden Age of Spanish theater in the late sixteenth and early seventeenth centuries. The leading composers were Lope de Vega, Tirso de Molina, etc. In his fast-paced three-act plays, Lope de Vega combines drama and comedy as well as seriousness and humor. Gracioso, a role that is half servant and half clown, is a crucial part of the play. Lope de Vega was inspired by the Italian theater, the Commedia dell’Arte. There is a similar role, Harlequin (Arlecchino in Italian), in the improvised comedy of Italian theater. Harlequin is also an aristocrat, like Gracioso. However, the difference between the two theaters is that improvised comedy heavily relies on mime; they rely on motions to deliver the humor, especially by using a crack from his slapstick. According to Lope de Vega in his treatise from 1609, “The New Art of Writing Plays,” the gracioso is an important medium by which the playwright could “hold up a mirror to nature.”<sup>21</sup> This quotation, which is congruent with the one from Shakespeare, explains why Ravel included this piece in *Miroirs* along with four other works that feature images. The role of Gracioso is to manipulate the plots and make comments on them. It exists both in play and as an observant outsider. This reminds me of how Ravel always wanted to distance himself from the art he created. The gracioso in this piece might be a reflection of the composer himself.

The last piece, “La vallée des cloches,” was dedicated to the composer and pianist Maurice Delage. A spatial, resonant effect was created by carefully planning the sound and rhythm of five sets of bells. A sense of randomness is created by the rhythm in the opening section, therefore, its sound resembles that of multiple bells ringing with their echoes. Not only does Ravel use different registers to emphasize the difference in the tone quality of the bells, but he also notates with three staves as a visual symbol. In this piece, he uses quartal harmony to capture the sound of bells. According to Robert Casadesus, Ravel’s idea for this piece came from hearing multiple bells in Paris strike at midday.<sup>22</sup> The

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<sup>20</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 75.

<sup>21</sup> Paul Roberts, “Reflections: Ravel, Debussy, Léon-Paul Fargue- *Miroirs*.” In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 65.

<sup>22</sup> *Ibid*, 70.

last piece contains one of the moments that I love the most about this piece. In the middle section, a wonderful, sonorous melody appeared between two sets of bells. It is a magical moment when lyricism is introduced in this piece. The melody reacts to the bells as an emotional response. The contrast between the background bells and the heartfelt melody brings together one of the most touching moments of the set. Ravel is very specific about the touch for this piece, he wishes the performer to accentuate the difference in the sound of different bells. From his instructions to Henriette Faure, Faure recalls that “at the opening, he tried to get me to play the carillon of double semiquavers in the right hand and the more settled sounds of the high octave bells that punctuate them in the left, on two very distinct levels. And the whole thing had to remain within a pianissimo which he could, in some mysterious way, achieve without it sounding feeble. The insinuating character of the high left-hand octaves means that one mustn’t use the wrist, which would only over-ink the sketch.”<sup>23</sup> The final chords, according to Faure, should sound like the Savoyarde, the huge bell that rang out daily across Paris from the La Basilique du Sacré Cœur de Montmartre.<sup>24</sup>

The first performance of *Miroirs* was given by Ricardo Viñes in a recital of the Société nationale de musique on January 6th, 1906. It received positive reactions from the audience and the critics in general. “Alborada del gracioso” was immediately appreciated and was encored.<sup>25</sup> This piece was published by Eugène Demets in 1906, whose catalog was taken over by Max Eschig after his death.

## Methodology

In my analysis, I am going to use the methodology that Harold Krebs introduced in his book “Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann.” In his opinion, the meter of a work is a union of different layers, which can be divided into three categories: pulse layers, micropulses,

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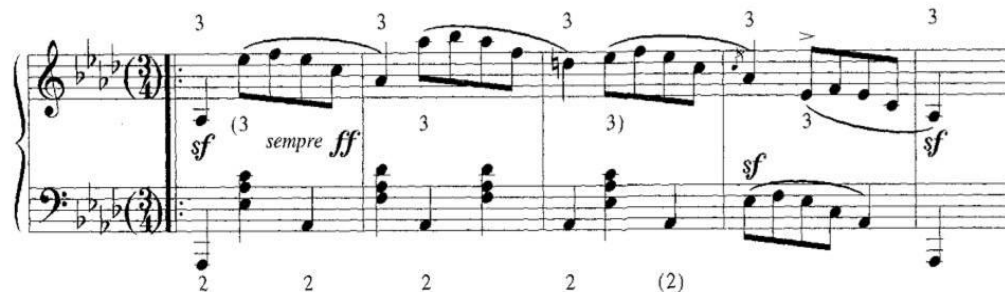
<sup>23</sup> Henriette Faure, *Mon maître Maurice Ravel* (Paris: ATP, 1978), 79-80.

<sup>24</sup> Paul Roberts, “Reflections: Ravel, Debussy, Léon-Paul Fargue- *Miroirs*.” In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 72.

<sup>25</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 78.

and interpretive layers. Pulse layers generally refer to constant, recurring beats on the surface level. Micropulses are the fastest-moving metrical attacks. The layers that have greater importance are the interpretive layers that move slower than the pulse layers. Like the pulse layer, it also contains regular and consistent attacks. However, these attacks attribute to accents that are highlighted by different aspects of music, such as dynamic accents, harmonic accents, registral accents, texture accents, and so on. The recurring numbers of these accents are considered the “cardinality” of the layer.<sup>26</sup>

In their interactions, these layers produce metrical consonance when they align and metrical dissonance when they don't. Metrical dissonances are categorized into two groups: grouping dissonance and displacement dissonance. For the first category, two or more interpretive layers that have different cardinality are superimposed on a musical passage.<sup>27</sup> Here is an example from the book:



**Example 1.1. Schumann “Prélude” from *Carnaval*, Op. 9 mm. 28-32**

Two layers can be found in this passage of Schumann’s *Carnaval*: a three-layer in the right-hand melody which corresponds with the metrical layer and a two-layer that is brought up by the recurring two-note pattern in the left hand. The denotation of this kind of dissonance begins with a G, which stands for grouping dissonance, and is followed by two or more cardinality numbers, with the larger integer listed first.<sup>28</sup> Therefore, G3/2 is how the metrical dissonance is notated for this passage.

<sup>26</sup> Harald Krebs, *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann* (New York: Oxford University Press, 1999), 23.

<sup>27</sup> *Ibid.*, 31.

<sup>28</sup> *Ibid.*

The second kind of dissonance encompasses a confluence of interpretive layers that have the same cardinalities but are displaced in a syncopated fashion. Normally the metrical layer, which correlates with the time signature, is the referential point to determine how the other layers are displaced.<sup>29</sup> The displaced layer can be heard either forward or backward, depending on how we interpret the musical phrase.<sup>30</sup> If forward shifting is appropriate for the analysis, then it is notated as  $Dx+y$ , with D for displacement, followed by the x, which is the shared cardinality, plus y, which is how many beats the shifted layer is away from the metrical layer. If the shifted layer acts as early anticipation, then it would be notated as  $Dx-y$ .<sup>31</sup>



**Example 1.2. Schumann *Papillon* Op. 2 No. 10, mm. 24-28**

The example provided above demonstrates displacement dissonance. The right-hand melody and the offbeat accents are both 3-layers; however, the layer emphasized by accents shifts out by two quarter notes. Given that the harmony of the accented layer is a member of the same sonority as the metrical layer, this particular instance should be recognized as a forward displacement dissonance. Therefore,  $D3+2$  is a suitable description of the metrical dissonance of the passage.

Ravel successfully creates fluidity in *Miroirs* by utilizing metrical dissonance. He employs metrical dissonance to increase the music's flow and, at times, to make it more agitated and unsettling in order to more effectively convey the image. Ravel combines metrical dissonances with other rhythmic

<sup>29</sup> Harald Krebs, *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann* (New York: Oxford University Press, 1999), 34.

<sup>30</sup> *Ibid.*, 35.

<sup>31</sup> *Ibid.*

devices in order to capture the color, aura, and characteristics of each musical painting. In the next chapter, I will analyze the second piece, "Oiseaux tristes" in detail to demonstrate how he achieves a free, through-composed form with the aid of metrical dissonance. Chapter 3 will also analyze two additional pieces, "Noctuelles" and "La vallée des cloches," to show how Ravel uses metrical dissonance in combination with other compositional techniques to enhance the character of each piece.



## Chapter 2: Analysis of “Oiseaux tristes”

“Oiseaux tristes” starts with a lonely birdcall from afar. The piece consists of two measures that showcase two key motifs that will be heavily utilized and developed. In the first measure, a single note, B flat, is presented with a short-long rhythm with an accent on the first note. A rapid arabesque directly follows the previous measure and completes the birdsong. Despite the dynamic, it is important to differentiate the touch for accented and unaccented notes. Perlemuter remarks in his book *Ravel According to Ravel*, the arabesque must not be played strictly in time but more quickly to preserve the character in order to capture the brisk birdsong.<sup>32</sup> In Ravel’s piano roll of the piece, he also plays the arabesque much faster than how it’s notated on the score to imitate the birdsong.<sup>33</sup> The birdcall ends with a long note in both measures, which creates a feeling of suspense.

The image shows a musical score for the piano piece "Oiseaux tristes" from Ravel's "Miroirs". The score is for the first three measures. It is marked "Très lent" with a tempo of 60. The dynamic is "très doux pp". The time signature starts in 4/4, changes to 3/4 in the second measure, and returns to 4/4 in the third measure. The first measure contains a birdcall motif with an accent on the first note. The second measure features a rapid arabesque. The third measure concludes with a long note. The score is written for piano with a grand staff.

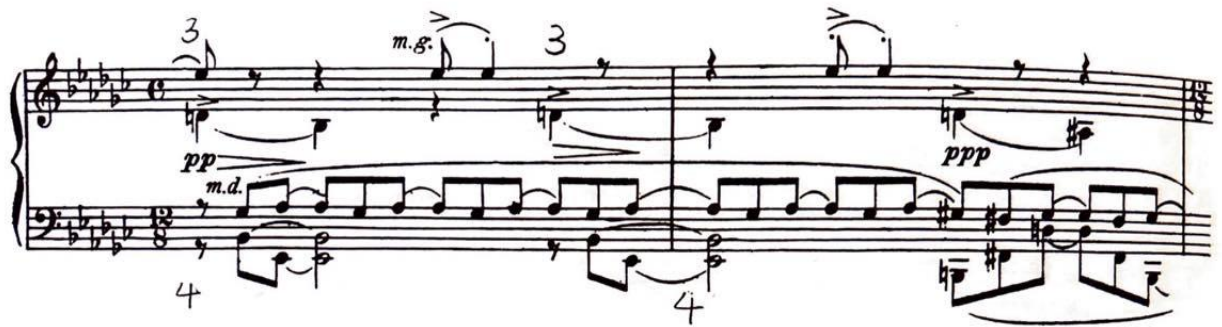
### Example 2.1. Ravel "Oiseaux tristes" from *Miroirs*, mm. 1-3

Starting in the third measure, Ravel ingeniously changed the time signature from 4/4 to 3/4. On the one hand, it implies the 3-layers in the following measure, but on the other, the seamless transition from m. 3 to the following phrase obscures the listener's perception of the meter. The 3-layer phrase is emphasized aurally through the change of time signature. The birdcall is not completed in the second statement, instead, only the motif in the first measure is kept in the following phrase. The oppressive and gloomy atmosphere is vividly depicted when the three other voices are added underneath the birdcall in

<sup>32</sup> Vlado Perlemuter and Hélène Jourdan-Morhange, *Ravel According to Ravel*, trans. Harold Taylor (London: Kahn & Averill, 1988), 21.

<sup>33</sup> Roger Nichols, *Ravel* (New Haven: Yale University Press, 2011), 73.

m. 4. Like the birdcall, each voice has its own characteristic rhythmic pattern. The alto voice features a sighing figure that includes two quarter notes descending by a third. The tenor contains triplet figures that are tied, which produces a perpetual feeling by avoiding the beats. The triplet figure tied to a half note introduces the pattern in the lowest voice, and the downward fifth drone adds the ideal finishing touch to the music's ominous tone. M. 4 begins with the accented downbeat of the alto voice, which designates the beginning of a group. The dynamic accent is then used on the fourth beat once more, designating the beginning of the second 3-layer group. Thus, a complete 3-layer group starts with the descending third motif and ends with the bird call in the top voice. The contrast between the 3-layer and the metrical layer produces a grouping dissonance of G4/3.



**Example 2.2. Ravel "Oiseaux tristes" from *Miroirs*, mm. 4-5**

After the reiteration starting on the fourth beat of m. 4, there is a liquidation of material, especially with the motif used in the alto voice. It is written as in its first statement, but is then repeated and accelerated in m. 6. The end of the phrase finally arrives on the downbeat of m. 7 and creates an overlap with the next phrase. The image of a dark, unsettling forest becomes more apparent due to the acceleration of the sighing figure.

Ravel composes a sentence form in his unique way, using metrical dissonance in mm. 3–6. The traditional sentence form is normally an eight-measure structure that contains two parts: presentation and continuation. The presentation begins with a two-measure basic idea, which is then repeated or slightly modified. The continuation phrase typically features fragmentation or liquidation and harmonic

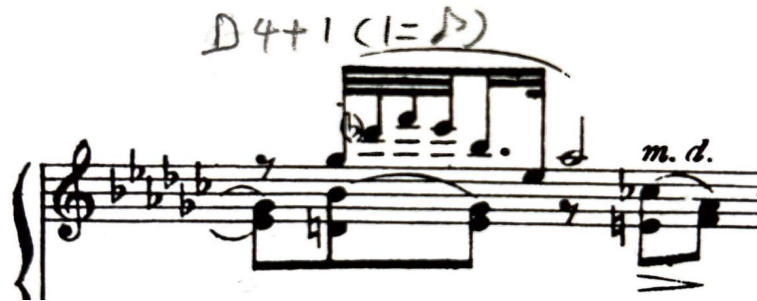
acceleration. In “Oiseaux tristes”, the sentence form is imbued with novelty brought by the grouping of dissonances and harmony change. The harmony also contributed to establishing the musical imagery. E flat minor major seventh is used in m. 4, and the harmony changes to a lower B minor major seventh chord. Eventually, the phrase ends with an A flat minor seventh chord in m. 7. In measure 5, Ravel respelled the notes that are shared in common with the previous measure, therefore, enharmonically, the bass note of the new harmony can be viewed as C flat as well. The continuous descent of the bass note in the phrase: E flat, C flat, and A flat expands the register, and the music literally falls into a deeper place with a lingering ominous feeling.

The image shows a musical score for the piece "Oiseaux tristes" from the album "Miroirs" by Maurice Ravel, measures 4 through 7. The score is written for piano and is in 3/8 time. It consists of two systems of music. The first system covers measures 4 and 5, and the second system covers measures 6 and 7. The right hand (treble clef) plays a melodic line with slurs and accents, while the left hand (bass clef) plays a descending bass line with slurs and accents. Dynamics include *pp*, *m.g.*, and *ppp*. The key signature is three flats (B-flat minor).

**Example 2.3. Ravel "Oiseaux tristes" from *Miroirs*, mm. 4-7**

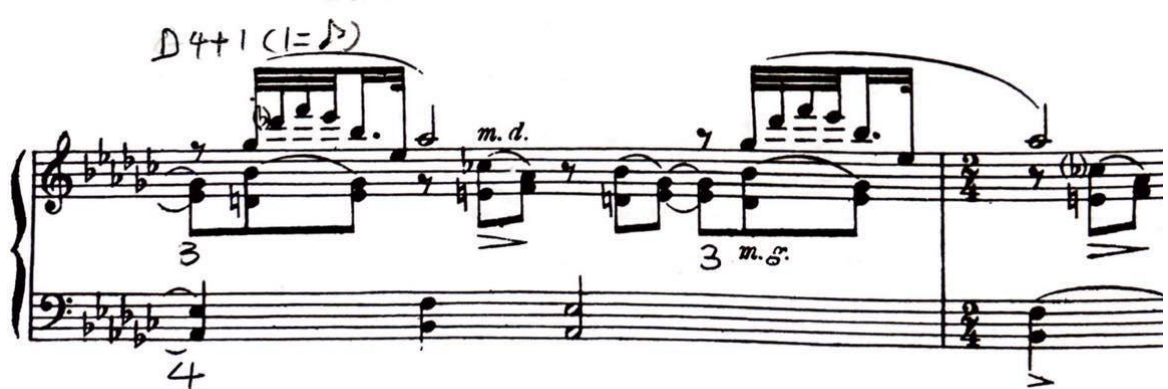
All of the information presented previously is preserved in a compressed manner in the new phrase beginning in m. 7. The alto and tenor voices of the preceding phrase merge and become one voice. Unlike the broken fifth interval we have heard, block intervals are now used in the lowest voice. Two different types of metrical dissonances can be detected in mm. 8–9. The first one is displacement dissonance, which appears in the top voice. The birdcall is finally completed with the return of the arabesque used earlier in the second measure. However, the decorated melodic line first shows up on the

downbeat. In the return of the same melodic line in m. 8, it is shifted because of the tied triplet figures underneath. Since the original statement of the motif is two beats long and it is delayed by an eighth note here, the cardinality of the metrical dissonance should be based on the number of eighth notes. Therefore, it is appropriate to describe the dissonance as  $D4+1$  (1=eighth note).



**Example 2.4. Ravel "Oiseaux tristes" from *Miroirs*, m. 8**

This phrase is a good example of the interaction of different interpretive layers, for it not only has displacement dissonance but also grouping dissonance. In contrast to the 4-layer, which is the metrical layer, the bird call delineates a 3-layer in mm. 8–9. It starts with the shifted bird call and ends on the third beat in measure 8. The harmony underneath goes from an A flat minor ninth chord to an upper neighbor sonority, which is a B flat minor ninth chord, then returns to the previous chord. Ravel even goes so far as to alter the time signature in m. 9 in order to complete this complex phrase.



**Example 2.5. Ravel "Oiseaux tristes" from *Miroirs*, mm. 8-9**

Thus we have three statements of the opening birdcall, the first one being the original, unaltered version, and the last two being variations of the opening statement. Each of the last two derives from the

opening statement, but they elaborate on different material. The phrase from mm. 3–6 is based on the motif that contains a single note in a short-long rhythm, and the following phrase alters the arabesque motif used in measure 2. The attempt to build a piece that is written in free form is demonstrated by these variations. It seems like the music is always evolving with the combination of old and new musical ideas. The music is truly impressionistic and enables us to visualize it. It starts with a close-up shot zoomed in on the blackbird; as it flies away, we get a wide shot of the dark, gloomy forest. Eventually, a full shot of the forest and the bird is presented with the blend of the bird call and the musical material presenting the forest.

Beginning in m. 10, the temperature increase causes the forest to become more agitated. The frequently occurring triplet figures have been maintained and are what drive the music's flow. In the course of a three-bar transition from mm. 10–12, Ravel employs rhythmic acceleration using metrical dissonance and the superimposition of multiple layers to create the effect of a busier and noisier forest. It keeps the tied triplets from the previous section in m. 10 and introduces regular, untied ones in m. 11 in order to interrupt the floating, senseless feeling that is portrayed from the beginning of the piece. It also drives the music in a new direction. In m. 12, the single-note motif used in the birdcall is combined with the bass voice in the left-hand part while the tied triples are played by the right hand. However, the triplets are moved forward by a sixteenth note, resulting in  $D6+1$  (1= sixteenth note). Three different layers interact with each other and generate a bustling sonority that is highlighted by the birdcall peeking through.

**Example 2.6. Ravel "Oiseaux tristes" from *Miroirs*, mm. 10-13**

The rhythmic acceleration doesn't cease, it goes further nonetheless with the sixteenth-note triplets in m. 13. While the rhythmic notation continues to use eighth-note triplets, a different grouping is also indicated: 2-layers are indicated by the alteration of C# and D#. Grouping dissonances G3/2 here brings more agitation to the music. Finally, the eighth-note triplets are taken over by thirty-second notes in m. 15 with a flourish of sound that forms the peak of the entire piece. G3/2 proceeds throughout the whole passage, most obviously at the beginning with the repetition of Es.

How Ravel modifies the rhythmic and motivic material in this section is what I find most fascinating. According to the previous discussion, the rhythmic activity increases in intensity as it moves from eighth-note triplets to sixteenth-note triplets and finally to thirty-second notes. On the contrary, the motivic process undergoes something quite the opposite. The sighing figure and the birdcall appear in the middle of the measure in m. 13. The register for each motif switches when compared to the first statement in m. 4. The birdcall is now reduced to just one note, while the sighing figure has been inverted to an ascending third in a high register. The same is repeated in the following measure in pp, as an echo. If we only focus on the F# single-note bird call in mm. 13–14, we can see that they are creating an augmented version of the original birdcall. The second F# is longer than the first one, so the short-long rhythm is still employed but stretched out over two measures. The musical flourish in m. 15, just like the beginning of

the piece, can be considered a fancy version of the arabesque following the birdcall. As a result, the opening motifs continue to serve as the foundation for almost all of the musical concepts presented here. The brilliant climax is brought together as an organic whole by rhythmic acceleration combined with motivic augmentation, and the passage can also be seen as an alternative to the opening. Ravel makes an effort to use motivic ideas economically and varies them continuously. The music gradually returns to the somber, quiet atmosphere starting in m. 17, using the same rhythmic devices as in the previous acceleration passage but in a reversed order, from thirty-second notes to sixteenth-note triplets and then eighth-note triplets in m. 18. The music was brought back by rhythmic deceleration with the same rhythmic activities in reverse, which again illustrates how this piece is perceived as one ongoing process.



The musical score consists of five systems of piano accompaniment. The first system begins with the instruction *expressif* and dynamic markings *p* and *pp*. The second system includes a handwritten note *D6+1 (= B)* and dynamic markings *pp*, with triplet markings *2* and *3*. The third system features the instruction *lointain* and dynamic markings *pp*, with an *8* marking. The fourth system includes the instruction *mf pressez* and dynamic markings *mf*, with *2* and *3* markings. The fifth system concludes with a dynamic marking *f*.

E. 1159. D.

Example 2.7. Ravel "Oiseaux tristes" from *Miroirs*, mm. 10-16



It seems like the music recedes to the beginning in m. 21 with the familiar motivic ideas, except that they are now reiterated in a new key. Similar to the phrase in mm. 7–9, two layers of metrical dissonance remain intact in mm. 22–23. The shifted bird call that is labeled as D4+1 (1= eighth note) initiates the phrase, and it is superimposed on the interpretive layer G4/3 which is against the metrical layer. The small bridge in mm. 23-24 also reminds us of the beginning of the middle section in m. 10.

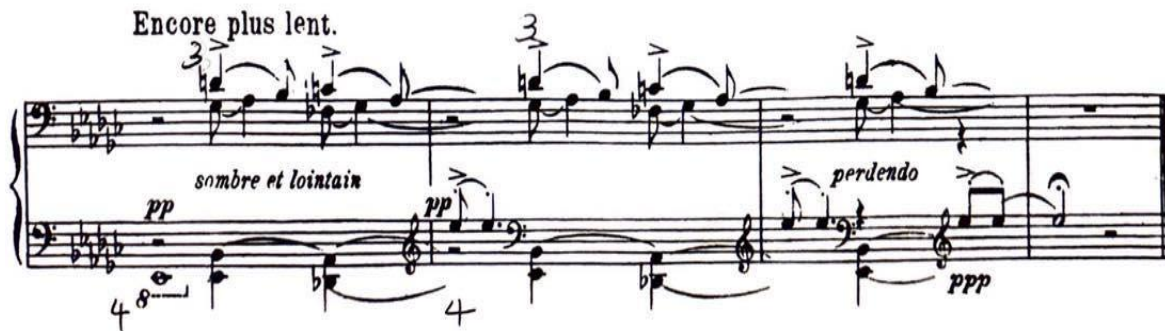
The image shows a handwritten musical score for Ravel's "Oiseaux tristes" from the album *Miroirs*, measures 21-24. The score is written for piano and consists of two systems of staves. The first system covers measures 21 and 22, and the second system covers measures 23 and 24. The music is in G major and 3/4 time. It features a piano (*pp*) dynamic. A handwritten annotation "D4+1 (1= eighth note)" is placed above a bird call motif in measure 22. Another handwritten annotation "G4/3" is placed below the bass staff in measure 22. The score includes various rhythmic patterns, such as triplets and eighth-note figures, and complex harmonic textures.

**Example 2.8. Ravel "Oiseaux tristes" from *Miroirs*, mm. 21-24**

What's different this time is that the music takes off and launches a small cadenza after m. 24. Despite the fact that the sound is new, passages in the cadenza contain a ton of recycled material. To illustrate, the motif, which contains two notes that ascend by a half step, can be traced back to the tied triplet figures in m. 4. The grouping determined by the ascending half step plays against the eighth-note triplet figures, which conform to the metrical layer. Also, the grouping dissonance G3/2 appears in large quantities in the middle section. This passage is followed by several statements of arabesque bird calls. This cadenza contains the same motivic ideas as the intense B section that are arranged and varied in different ways, as if a fleeting image, a reminiscence of the zenith, flashes in front of our eyes.

The coda soothes the anxiety brought on by the cadenza in m. 26 by slowing down the pace of harmonization. These three bars (mm. 26–28) expand one harmony and add a bass note to the harmony in each measure. Finally, the bass reaches down to the low E flat, the tonic in m. 29. The selection of motive

and rhythmic structure in the final three measures illustrates a feeling of nostalgia. Motivically speaking, the ending relates to the phrase shown in mm. 4–5 and is another variation of the passage. The grouping dissonance G4/3, which is used in mm. 4–5, is kept in the coda as well. The chords are similar to the passage in m. 8 because they alternate harmonically between the tonic E flat minor major seventh chord and its lower neighbor chord. This piece ends with fragments of what has happened since the beginning and vanishes with distant bird calls. According to Perlemuter, “Ravel wanted the chords to dominate completely. The great problem is that the other notes should nevertheless be heard sounding in the distance.”<sup>34</sup> The forest is no longer rambunctious, we can no longer see the blackbird, but the birdsong still lingers indistinctly.



Example 2.9. Ravel "Oiseaux tristes" from *Miroirs* mm. 29-31

<sup>34</sup> Vlado Perlemuter and Hélène Jourdan-Morhange, *Ravel According to Ravel*, trans. Harold Taylor (London: Kahn & Averill, 1988), 22.

### Chapter 3: Combination of metrical dissonance and other devices

The perception of writing a piece in a free form using rhythmic devices such as metrical dissonances is not particular to "Oiseaux tristes," but also in other pieces within *Miroirs*. Ravel employs these rhythmic devices in various ways to highlight the distinctive elements of each piece, depending on the various images he wants to portray. The use of metrical dissonances in combination with other compositional devices by Ravel to evoke various images will be analyzed in this chapter. I will analyze two other pieces from *Miroirs*, the first piece, "Noctuelles," and the last piece, "Vallée des cloches." Ravel uses a large number of metrical dissonances and interruptions to capture the fluttering moth and its cluelessness in "Noctuelles." While in the last piece of the set, "La Vallée des cloches," metrical dissonances are paired with the layering of multiple musical materials to convey the image of various bells striking at midday.

Ravel successfully obscured the sense of time in the first section of "La Vallée des cloches," so that we hear five different sets of bells ringing at the same time without the restriction of a meter. A set of distant bells is immediately introduced at the beginning of the piece; the bell strikes, with its echo following in the higher register. Despite the fact that both octaves are meant to be played with *pp*, they should be played at various dynamic levels to suggest the echo effect. Shortly after the bells are joined by quartal harmonies in the right hand, the right-hand part is to be played "softly and without accents," as stated in the score. Ravel could have used regular sixteenth notes for the oscillating sonorities, but instead, he moves on with sixteenth-note triplets, which are meant to improve the music's flow. These sixteenth-note triplets are composed in groups that contain four notes, further obscuring the metrical meter. Therefore, a grouping of metrical dissonances is created. Patterns created by the four-note groups coexist with the six sixteenth-note triplets that conform to the metrical level. G6/4 would be the apt denotation for the metrical dissonance used here. The layer formed by these sixteenth notes is the fastest moving layer, which is underneath other sets of bells that are a wash of colors added to the bell sounds. The colors that compliment the bell suggest the use of a pentatonic scale in mm. 3-5.

**Example 3.1. Ravel “La Vallée des cloches” from *Miroirs*, mm. 1-3**

Metrical dissonance is employed in the bells as well. Each set of bells has its own characteristic and signature rhythm. Ravel shifts the bells rhythmically and varies their rhythm to create a feeling of randomness. The first set of bells is introduced in the first two measures with G sharps on two octaves. The first one is followed by its echo in a higher octave on the second beat. This set of bells makes its appearance in varied rhythms in the first two measures. It is changed even more in the rest of the first section (mm. 3–11). To illustrate, Ravel inserts an extra eighth rest between the two octaves in m.5 and delays the bell by an eighth note in m.7 to achieve the effect that blurs the metrical beats. (insert mm.4-5)

**Example 3.2. Ravel “La Vallée des cloches” from *Miroirs*, m. 7**

Another set of bells also changes the rhythm in mm. 4-5. It is a descending fourth figure written in a short-long rhythm played by the left hand. When it first appears, it starts on the offbeat of beat 1, but Ravel shifts the bell by an eighth note, so its second appearance is on the second beat instead. The appropriate notation for the displacement dissonance is  $D3+1$  (1= eighth note).



**Example 3.3. Ravel “La Vallée des cloches” from *Miroirs*, mm. 4-5**

These minor, undetectable adjustments may seem inconsequential, but they actually distort the listener's understanding of the piece's metrical structure. A murmuring harmonic sonority is surrounded by three groups of bells striking at random with various colors, rhythms, characteristics, and registers.

A sense of randomness is also presented in the first piece of the set, "Noctuelles." However, it is a different kind of randomness compared to the spatial, solemn “La vallée des cloches.” It is more chaotic and unpredictable, like a fluttering moth. The feeling of chaos is already well-established at the beginning of “Noctuelles” through its use of rhythm, harmony, and dynamics. On top of triplets played by the left hand, sixteenth notes are written in an interesting way that embodies the motion of the moth. The slight pulse in the middle of the second beat and the fast, fleeting passage right afterward depict a moth stopping and flying away. The small pulse in the right-hand part divides the first measure into two parts, thus forming a two-layer. Consequently, in the first two measures, there are  $G3/2$  grouping dissonances in addition to cross-rhythms. The dynamic, which suggests that the moth is flying erratically, begins in *pp* and crescendos throughout the measure before returning to *pp* in the following measure. It is flying towards us for a moment, then suddenly disappears and makes its appearance somewhere else. According to Vlado Perlemuter, “Ravel insisted very much on the little crescendo and diminuendo hairpins returning to their starting point.”<sup>35</sup> Harmonically, it also enhances the disorienting feeling by using lots of appoggiaturas.

<sup>35</sup> Perlemuter and Jourdan-Morhange. *Ravel According to Ravel*, p.19.

Très léger (♩ = 128 environ)

PIANO

**Example 3.4. Ravel “Noctuelles” from *Miroirs*, mm. 1-2**

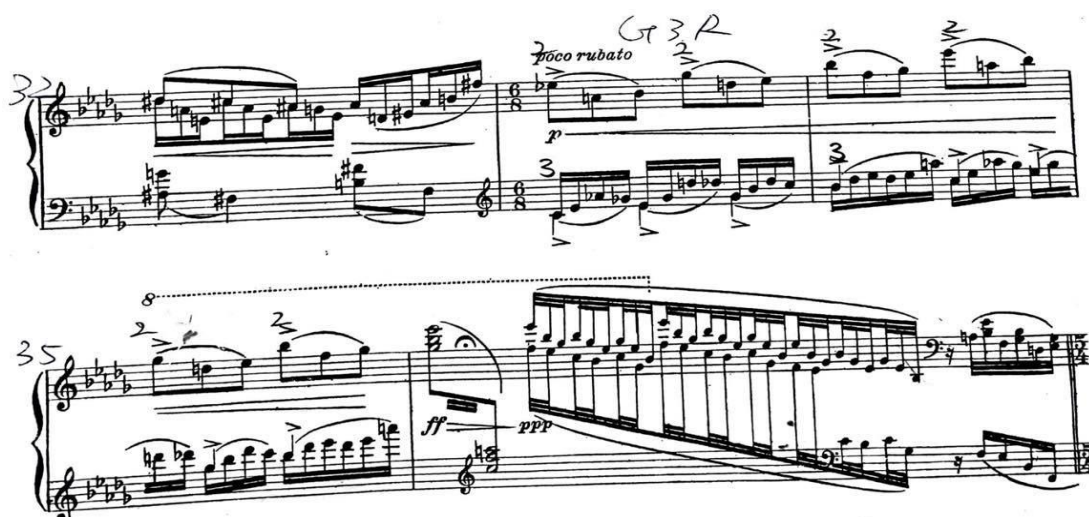
The consequence phrase similarly starts in m. 4. However, Ravel throws us off by destroying the structure of a phrase form and interrupting the music with a cadenza-like passage, which starts wildly in m. 6 and gradually comes to a full stop in m. 9. On the first page, Ravel already sets the tone for the entire piece with metrical dissonance, chromaticism, interruptions, and ever-changing dynamics, which will be seen throughout the piece.

**Example 3.5. Ravel “Noctuelles” from *Miroirs*, mm. 5-9**

Similar to “Oiseaux tristes”, the music is constantly evolving without literal repetition. Even though the second phrase starts the same way as the beginning, Ravel inserts a phrase expansion by repetition in mm. 12–13, which leads us to a new consequence phrase. It seems like Ravel is intentionally stirring up the phrase by adding minor details. Due to the use of triplets and quintuplets simultaneously in



m. 14, the music rushes in the second half of the measure within the irregular 5/8 meter. This phrase ends with an abrupt thrust of rapid notes, and it disappears as well as the first phrase. This Impressionist painting is enriched especially by interruptions. For example, Ravel inserts one measure in between phrases in m. 23 to depict a “gust of wind between the others which are expressive and sustained”, according to Perlemuter.<sup>36</sup> The dynamic range goes from *pp* to *f* within one measure. Ravel resumed the phrase and added an interruption that doubles as a flamboyant cadenza to finish the first section. It is by far the most expressive cadenza of all in the first section. Grouping dissonance, G3/2 is used as soon as the cadenza starts in m. 33. Two-layers appearing in the right-hand part are against the metrical layer shown in the left-hand part. The opposing two layers are made clearer by the accents that are given to divide the groups. Rubato is assigned at the beginning of the passage. In Perlemuter’s recount of his lesson, “Ravel asked him to bring out the accents in the left hand, and that is why the rubato is necessary... so that the triple rhythm takes its place calmly beneath the duple rhythm of the right hand, a subtle way of introducing the rubato.”<sup>37</sup> The music reaches a climax of exciting chordal trills that are accomplished by both hands and slowly fades away into the darkness in m. 36.



Example 3.6. Ravel “Noctuelles” from *Miroirs*, mm. 32-36

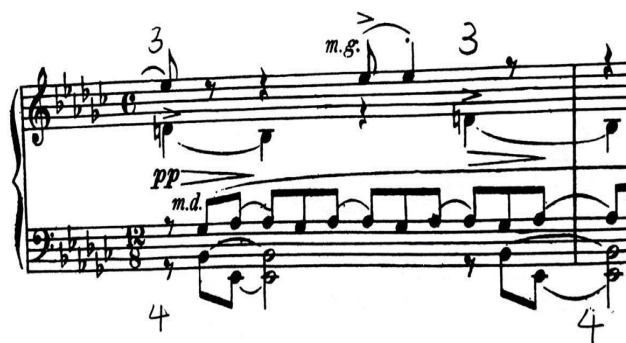
<sup>36</sup> Ravel according to Ravel, p.19.

<sup>37</sup> Ibid, p.20.

The middle section of the piece is dominated by a menacing syncopated ostinato that creates a mysterious and eerie atmosphere. The ostinato should be “vibrant at the beginning, then fade to become only a vibration, so that the theme may be played according to Ravel's marking: somber and expressive,” according to Perlemuter.<sup>38</sup> A sighing motif introduced in the melody reminds me of the same motif used in “Oiseaux tristes.” I don’t think this is a coincidence, considering the time of the composition of “Oiseaux tristes” is earlier than this piece. What’s more, birds’ singing is mentioned in Fargue’s poem which is the literary inspiration for “Noctuelles.” In the poem, Fargue writes that “a bird sings, in a questioning tone, from beside the track where night comes, near the water tank, over the tinkling flowerbeds, over the listening flowers, in the tree swollen with the shadow which already contains the whole of the evening.”<sup>39</sup>



Example 3.7a. Ravel “Noctuelles” from *Miroirs*, m. 38



Example 3.7b. Ravel “Oiseaux tristes” from *Miroirs*, m. 4

<sup>38</sup> Vlado Perlemuter and H el ene Jourdan-Morhange, *Ravel According to Ravel*, trans. Harold Taylor (London: Kahn & Averill, 1988), 20.

<sup>39</sup> Paul Roberts, “Reflections: Ravel, Debussy, L eon-Paul Fargue- Miroirs.” In *Reflections : The Piano Music of Maurice Ravel* (Montclair, NJ: Amadeus Press, 2012), 55.



A process of revitalization occurs at the changeover between the Pas trop lent section and the recapitulation. The syncopated ostinato is still present, but it has been shifted back to the beat so that it now serves as the drum beat. The opening motif is brought back in ppp in m. 63, but it's quickly interfered with by a longing melody that derives from the previous slow section. Ravel could have written the contrasting melody on the downbeat of m. 65, but he decides to interrupt the moth motif by shifting it two beats earlier. In my opinion, the displacement dissonance used here should be considered early anticipation, so D3-2 (1=quarter note) would be appropriate for the description of the metrical dissonance used here. Two motives alternate with each other and develop at the same time. The moth motif and the singing melody both become progressively shorter as the intensity of the development increases. Eventually, the moth motif wins over the lyrical motif that comes from the slow section and is repeated irrationally in m. 80. The left-hand part drops out in m. 80 and the moth motif remains, which forms two-layers. Because of the lack of the metrical layer, the music is predominantly filled with two-layers while fading away. In measure 84, the left-hand part unexpectedly joins strongly, surprising the listener, and we have now officially welcomed the true recapitulation. The cadence in D flat major is especially satisfying after the long buildup and results in a f in dynamic instead of the mf in the beginning (m. 3). Even though the recapitulation is not a literal repetition of the beginning, it is made more powerful with the manipulation of the motif and its rhythm in the transition.

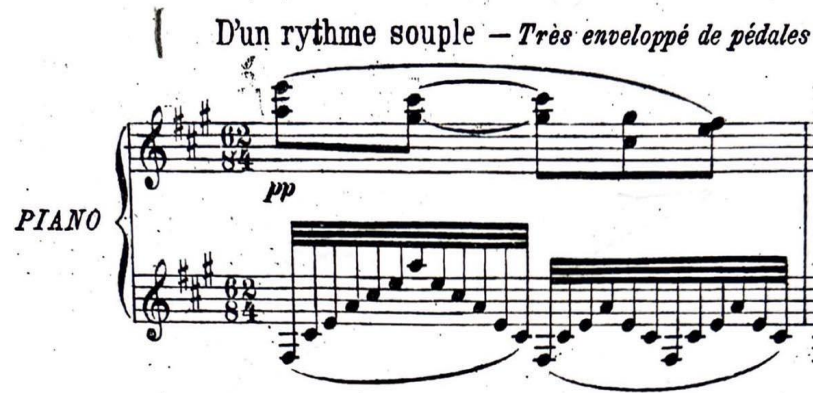


**Example 3.8. Ravel “Noctuelles” from *Miroirs*, mm. 80-85**

After a prolonged cadenza that is similar to the one before the slow section, Ravel briefly brought back the bird motif in the slow section. The music then ends with a highly technically demanding passage that engages both hands with chords. Despite its complexity, the passage should be played in *pp* with emphasis on the inner melody, which is an ascending chromatic scale. The moth finally flies away into the darkness.

In addition to metrical dissonances, the way Ravel develops a rhythmic motif is equally important to consider. Each piece of music stems from the motivic and rhythmic ideas presented at the beginning and evolves around them. In “Une barque sur l’océan,” three important musical ideas are introduced in the first measure. A recurring figuration in the piece is left-hand arpeggios, which represent the shifting nature of ocean waves. The falling third motif E-C sharp played by the right hand is an essential melodic motif that will be used and expanded later on. This piece is in 2/4, the right hand starts with two eighth notes that are followed by a triplet. Underneath the triplet, left arpeggios highlight the pulse of the eighth note with the grouping. Therefore, both hands play against each other due to cross-rhythm. In the right-hand part, the second eighth note is tied to the first note of the triplet, thus creating a slight pulse. The cessation and flow remind us of the beginning of the first piece, “Noctuelles.” A feeling of

uncertainty and unease is apparent in both pieces. However, “Une barque sur l’océan” is much calmer due to the following reasons. Compared to the appoggiaturas and changing harmonies in “Noctuelles,” Ravel uses only one harmony for the entire measure in “Une barque sur l’océan.” Cross-rhythms are used only in the second half of the measure in “Une barque sur l’océan,” while they are written at the beginning of the first piece. More support on the second beat in the left hand is beneficial in the performance because it helps with steadiness and prepares for the triplet in the right hand.



**Example 3.9. Ravel “Une barque sur l’océan” from *Miroirs*, m. 1**

The rhythmic pattern that switches between triplets and eighth notes is continued and emphasized. It turns into an alternation between duple and triple meter in later passages. Ravel switches between  $\frac{3}{4}$  and  $\frac{4}{4}$  to describe the clamoring sea and the turbulent waves. In mm. 38-39, ascending arpeggios arise from the bottom of the keyboard in *pp* and rapidly move towards the high register with a dramatic crescendo. Following the collision of the waves and the rocks in *ff*, the tides gradually recede. The ascending arpeggios are always written in  $\frac{3}{4}$  and the descending ones are in  $\frac{4}{4}$ . The natural music flow makes it easy to visualize the tempestuous waves moving toward and away from us. The rising and falling figures are preserved even after the stormy section in mm. 46-48. In my opinion, these triplets in the left-hand part can be played in a forward direction, and the falling eighth notes are played more relaxedly to reflect the flow of the waves.

38

19

39

*pp*

*ff*

dimituendo

40

*pp*

Example 3.10. Ravel “Une barque sur l’océan” from *Miroirs*, mm. 38-40

46

*très expressif*

*mp*

Example 3.11. Ravel “Une barque sur l’océan” from *Miroirs*, mm. 46-48

## Chapter 4: Conclusion

*Miroirs* draws its influence from a range of sources. It includes artistic sources like the Spanish Comedy, poetry by Léon-Paul Fargue, and paintings by Paul Sordes, as well as things Ravel has really heard or experienced. With the exception of the fourth piece, "Alborada del gracioso," each piece in the suite conjures up a distinct vision, and most of them feature scenes from the natural world. The visuals are made more vivid by Ravel's experiments with harmonies and rhythms. Ravel's use of metrical dissonances to produce fluidity in music is demonstrated through the in-depth examination of pieces from *Miroirs*. With grouping dissonance and displacement dissonance, he frequently modifies common phrase structures, such as sentence forms and period forms. The set contains numerous instances of interruption and phrase expansion to avoid rigid, balanced phrasing. Instead, the music constantly evolves and develops from previously presented musical ideas. Metrical dissonances pair with other compositional devices to enhance the characters of individual paintings. In "Noctuelles," for instance, abrupt breaks are used in combination with metrical dissonance to convey the erratic nature of a moth. A dark forest in the hottest hour is depicted by rhythmic acceleration and deceleration in "Oiseau tristes." In "Une barque sur l'océan," the fluctuation of sea waves is depicted by the constant alternation of duple and triple meters. The Spanish dance rhythms of "Alborada del gracioso" are combined with metrical dissonance, and the layering of numerous bells creates the spatial quality of "La vallée des cloches."

With the quartal harmonies, complex rhythms, dissonance, and virtuosity found in *Miroirs*, Ravel continued his new writing approach. In 1908, he composed *Gaspard de la nuit* for piano, one of his most well-known and challenging works. There are some similarities in compositional technique between the two pieces. In the first piece of *Gaspard de la nuit*, "Ondine," arpeggios are extensively used to depict sea waves. The figurations are similar to those employed in "Une barque sur l'océan." However, Ravel develops a wide range of innovative figurations to describe water in "Ondine." One of these is the well-known opening section, which has proven to be quite difficult for performers. A, an added minor sixth, is added to the C-sharp major chords, which are written in thirty-second notes and murmur in the

ppp. Ondine's alluring song is accompanied by an enigmatic, veiled background that is introduced right away in the opening line. Similar to "Une barque sur l'océan," passages in duple meter are interspersed with those in triple meter. In mm. 16–17, Ondine's song is composed in 3/4 and is followed by waves written in 2/4. Bertrand's poetry, "It is I, Ondine, brushing with these drops of water the resonant lozenge panes of your window," is powerfully reenacted in this passage.

The use of ostinato is one of Ravel's compositional signatures. It can be found in "Oiseaux tristes," "La vallée des cloches," and in the middle section of "Noctuelles." However, the texture of "Le gibet" is permeated by the tolling bell ostinato, which lasts throughout the piece. Even though Ravel claims to his friend Jean Marnold, to whom he dedicated "Le gibet," "It is the least difficult of the three."<sup>40</sup> The challenge is maintaining control of both hands while figuring out how to highlight various tonal elements within the layered texture. The virtuosity in "Scarbo" reminds me of "Alborada del gracioso," due to its extensive use of repeated notes. However, "Scarbo" encompasses more difficult piano techniques and is considered one of the most difficult standard repertoires for piano. Ravel's new direction, which he began with *Miroirs*, is carried on in *Gaspard de la nuit*.

In conclusion, *Miroirs* is a musical painting of five distinct images. Ravel attempts to capture the essence of his compositions through the use of vibrant harmonic language, intricate textures, supple rhythm, virtuosity, and lyricism. Rhythmic figures are carefully chosen to reflect the characteristics of each piece. Complex rhythms, such as metrical dissonances, give flow to the music and turn each painting into a moving picture.

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<sup>40</sup> Marguerite Long, *At the Piano with Ravel*, ed. Pierre Laumonier, trans. Olive Senior-Ellis (London: J.M. Dent & Sons Ltd, 1973), 91.

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