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The role of harmony and timbre in Maurice Ravel's cycle *Gaspard de la Nuit* in relation to form

A thesis submitted to
Music Theory Department at
Norwegian Academy of Music
in partial fulfilment of
the requirements of the degree of
Master's in Applied Music Theory

Spring 2020

Norges musikkhøgskole
Norwegian Academy of Music

I dedicate this thesis to all my former, current, and future students.

Gaspard has been a devil in coming,
but that is only logical since
it was he who is the author of the poems.

My ambition is to say with notes
what a poet expresses with words.

Maurice Ravel

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Foreword

This thesis is a result of my long-term interests in music of the French Impressionism and especially the music of Maurice Ravel. Aside from scientific contribution to research within this subject area, in the focus of my interest should remain direct, creative, and exploratory approach showing the connection between theoretical interpretation and musical practice. Moreover, I believe that my research would be helpful for readers to acquire the new insight in issues and questions of contemporary music theory.

Acknowledgements

First and foremost, I would like to thank my supervisor Erlend Hovland for his invaluable supervision and strong support during my studies. Thanks as well to professors Anders Tykesson and Peter van Tour for their help, suggestions and encouraging my work on this thesis. I am also grateful for having the opportunity to study with Professor Lasse Thoresen who acquainted me with new analytical methods. Also, I am thankful for having support from my friend and fellow student Bendik Sells. Finally, thanks to my dear family members who have always supported my decision to move abroad and study at the Norwegian Academy of Music. Without help of all these people the completion of this thesis would not be possible.

List of symbols and abbreviations

- — musical sentence/phrase
-  — musical period
-  — Structure composed of fragments
- **T, S, D** — major (diatonic) tertian chords on Tonic, Subdominant or Dominant tonal function
- **t, s, d** — minor (diatonic) tertian chords on Tonic, Subdominant or Dominant tonal function
- **7** — seventh-chord
- **9** — ninth-chord
- **mm.** — measure
- **small letters**, e.g., **a:** — minor key (in tables only)
- **capital letters**, e.g., **A:** — major key (in tables only)

Abstract

The thesis examines the issue of formal design in one of the most significant piano works by Maurice Ravel, *Gaspard de la Nuit*. Primarily, the study shows how harmony, timbre and formal design of the piece are interrelated. Formal analysis of Ravel's works requires a specific approach since the role of harmony in Impressionism is more coloristic than kinetic. Additionally, timbre becomes an important structural marker which helps explaining the form. Methodically, the thesis is based on different types of analysis with the aim of exploring how harmony and timbre are co-constructive elements in the constitution of form. Ultimately, the thesis argues the necessity for an eclectic approach in explaining the structure of the piece. The analytical results should contribute to better understanding of the impressionistic music and stimulate further research among both researchers and performers.

Keywords: Maurice Ravel, *Gaspard de la Nuit*, piano music, impressionistic harmony, coloristic property of harmony, timbre, sonority, color, formal analysis, form-constituting.

Sammendrag

Oppgavens tittel: «Harmonikk og klang sine roller i forhold til form av Maurice Ravels syklus *Gaspard de la Nuit*»

Masterarbeidet undersøker problemstillingen til formstruktur i et av de mest betydningsfulle klaververkene av Maurice Ravel, *Gaspard de la Nuit*. Studien viser først og fremst hvordan stykkets harmonikk, klang og formstruktur henger sammen. Formanalyse av Ravel sine verk krever en spesiell tilnærming siden rolle av harmonikk i impresjonismen er mer koloristisk enn kinetisk. I tillegg til det oppstår klang som en viktig strukturmarkør som er med på å forklare formen. Oppgaven er basert på forskjellige analysemetoder med målet om å utforske hvordan harmonikk og klang er samkonstruktive elementer i formdannelse. Til slutt viser oppgaven nødvendigheten av en eklektisk tilnærming for å forklare stykkets struktur. Analytiske resultater skal bidra til bedre forståelse av impresjonistisk musikk og stimulere til videre forskning blant både forskere og utøvere.

Chapter 1

Introduction

1.1 Preface

The research will try to study the formal design in one of the most significant piano works by Maurice Ravel, *Gaspard de la Nuit*.[1] My ambition is to show how harmony, timbre, and form are interrelated within this iconic piece. Methodically, the thesis will be based on different but hopefully complementary types of analyses. The aim of the thesis is to show how harmony and timbre are connected and co-constructively constituting the musical form in *Gaspard de la Nuit*.[2]

1.2 Presentation of the research questions

Formal analysis of Ravel's piano works is a challenge due to their multiple complexity. Understanding the role of different musical components is of the great importance for analyzing Ravel's music. In the study, I have chosen to focus on one of the greatest and the most complex Ravel's piano works, the triptych *Gaspard de la Nuit*.

In impressionistic music, the relation between harmony and form tends to become problematic. In the present study, I will give priority more to the coloristic

1. "After successfully completed piano works, such as *Pavane pour une infante défunte, Jeux d'eau, Miroirs* and *Sonatine*, Ravel wrote one of his most significant works, *Gaspard de la Nuit* (1908). The title of the piece, as well as the titles of its movements ("Ondine," "Le Gibet" and "Scarbo"), were taken from the titles of the poems by Aloysius Bertrand. These poems, whose lyrics Ravel attached to the score, so that each selected segment of one poem precedes the appropriate movement, inspired Ravel to write a programmatic piece for piano. Even though, he continued to enrich the 20th century piano literature by composing significant works, it seems that there is no solo piano piece in which he had achieved such level of mastery within his oeuvre after composing *Gaspard de la Nuit*." [translated from Serbian] Igor Radeta, *Semiotic analysis of narrative within the cycle 'Gaspard de la Nuit'* (Belgrade: Faculty of Music, 2011), 10.

2. The term 'form-constituting' is used by Thomas Grey in: Thomas S. Grey, *Wagner's Musical Prose: Texts and Contexts*, New Perspectives in Music History and Criticism (Cambridge: Cambridge University Press, 1995), 27.

and less to the 'kinetic' role of the harmony.[3] On a general level, the harmonic language used in *Gaspard de la Nuit* is typical for Ravel's music where chordal/functional relationships are frequently ambiguous. Hence, the harmony is less tonally constructive, but it shows more coloristic properties.[4]

On the other hand, timbre appears as an integral element of Ravel's musical language in *Gaspard de la Nuit*. By encompassing several musical parameters which influence timbre creation, it manifests and interrelates with other elements. In other words, timbre in *Gaspard de la Nuit* might be defined as a multidimensional feature of sound that comprises a complex system of elements which are variable and interrelated. Moreover, to be able to explain the role of harmony and timbre in the formal design of *Gaspard de la Nuit*, we should know the substance of their relationship. Within a work in which functional harmonic analysis does not fully explain a chord progression, we must explore how harmony still relates to the creation of musical form. Finally, the thesis should provide the answers to the following research questions:

- To what extent is harmony a form-constituting element in *Gaspard de la Nuit*?
- How could we define and explain the relation between harmony and timbre in the piece?
- What is the role of timbre in *Gaspard de la Nuit*?

1.3 Context, relevance, and background for the project

General features of Ravel's harmony fit in the common characteristics of the impressionistic musical language: weakened sense of tonality, abundant use of dissonances without resolution, emphasis on coloristic properties of harmony, etc. However, the overall tonal structure of this composition is not questionable. Yet, it is necessary to mention the terms that most closely describe the specificities of

3. See more about kinetic role of harmony in: Zvonimir Nagy, *Embodiment of musical creativity: the cognitive and performative causality of musical composition* (London, UK: Routledge, 2017), 160.
4. The term 'coloristic property of harmony' is used in: Lincoln Ballard and Matthew Bengtson, *The Alexander Scriabin companion: history, performance, and lore* (Lanham Rowman et Littlefield, 2017), 257.

tonal/modal relationships in harmonic language of this composition such as 'non-functional harmony' and 'extended tonality.'[5] The term 'extended tonality' implies expanding the tonal volume to all twelve tones, and accordingly, increasing the number of degrees included in harmonic progressions.

Considering the coloristic properties of Ravel's harmony, the relationship between harmony and timbre in Ravel's musical language could be better explained by using the term 'sonority.' The use of the term refers to a sonic totality with coloristic features which does not necessarily relates to tonal harmony and/or tertian order of tones. Further, it is also important to mention that sonority can manifest in both horizontal and vertical manner. The mentioned terms do not completely determine Ravel's harmonic language but significantly simplify the analytical procedures.

It should be further mentioned that the harmonic structure of this composition is usually featured by vague, and often non-existing cadencing. For this reason, such organization of tonality makes the process of defining music syntax and form quite difficult. Consequently, the traditional analytical principles are not fully applicable in this context. In other words, the harmony in *Gaspard de la Nuit* does not always act as the most significant element in creation of form.

Along with the coloristic properties of harmony, timbre arises as an important element of form-constituting. By putting the timbre into perspective as a considerable factor, the analysis of form design in *Gaspard de la Nuit* is significantly facilitated. Yet, Ravel sets up his own system of tonal relationships, contending that the sense of tonal/formal unity and their relationship can be achieved by non-conventional means. Ultimately, the methodological solution should be taking several musical parameters into consideration, as well as finding the common points of their influence on musical flow and formal design.

5. See more about the term 'non-functional harmony' in: James E. Frazier, *Maurice Duruflé: The Man and His Music* (New York: University of Rochester Press, 2007), 102. The term 'extended tonality' is used by Dejan Despic. Dejan Despic, *Harmonija sa harmonskom analizom* [*Harmony with harmonic analysis*] (Belgrade: Institute for Textbooks and Teaching Aids, 2002), 414. [translated from Serbian]; See also: Peter Kaminsky, "Ravel's Late Music and the Problem of 'Polytonality', "*Music Theory Spectrum,* Vol. 26, No. 2 (Fall 2004): 237–264. *JSTOR*, www.jstor.org/stable/10.1525/mts.2004.26.2.237

1.4 The State of the Art

In this section of the chapter, we will give a critical review of the existing literature on *Gaspard de la Nuit.* The purpose is to present the relevant works regarding Ravel's music and the present research area. We will especially concentrate on those parts of the literature which are the most relevant to the research questions. Moreover, there is a lot of literature regarding analysis of harmony and form in Ravel's works, but a serious lack of literature dealing with analytical methods related to their correlation to timbre. Thus, we will focus on the research within this area. Furthermore, this is also a general deficiency that has not radically changed since Wallace Berry in 1987 wrote that the "structural implications of timbre have been too little explored in the existing literature."[6]

The personality and works of Maurice Ravel attract both musicologists and theoreticians. During the second half of the 20th century and the first decade of the 21st century, the music of Maurice Ravel was not explored sufficiently. Regarding the literature related to this thesis, this section shall present the works that thematically cover relevant analyses of Ravel's piano music and *Gaspard de la Nuit*. Among several works within this area, we can find different sources.[7]

The Cambridge Companion to Ravel gives a comprehensive insight into Ravel's creative work.[8] Editor Deborah Mawer makes a significant effort to provide the reader with the full comprehension of the diversity of Ravel's compositional methods. The content of the book is divided into three parts: "Culture and Aesthetics;" "Musical Explorations;" and "Performance and Reception." Moreover, the authors of the texts methodologically cover several fundamental issues. *The Cambridge Companion to Ravel* is very informative, but it does not possess the adequate level of methodological unity

6. Wallace Berry, *Structural functions in music* (New York: Dover Publications, 1987), 294.
7. See: Roy Howat, *The Art of French Piano Music: Debussy, Ravel, Fauré, Chabrier* (New Haven: Yale University Press, 2009); Alfred Cortot, *French piano music,* trans. Hilda Andrews (London: Oxford University Press, 1932); Louis Aguettant, *La musique de piano: des origines a Ravel* (Paris: Éditions Albin Michel, 1954).
8. Deborah Mawer, ed., "The Cambridge Companion to Ravel," in *Cambridge Companions to Music* (Cambridge: Cambridge University Press, 2000).

regarding certain aspects. Therefore, it is difficult to achieve entire insight into the manner of the research.

On the other hand, in *The New Grove Dictionary of Music and Musicians*, Barbara L. Kelly emphasizes the importance of giving appreciation to historical phenomena.[9] This work is suitable for academic research regarding Ravel's piano music and the research proceeds gradually and chronologically. This source is also useful for music theoreticians, as well. The book is beneficial because of the discussions related to "harmony in chamber music, Ravel's relation to the orchestra, ballet and dance, vocal music, opera spectacles, performance on the first recordings of Ravel's music, and to the reception of his music in the 20th century."[10] Nevertheless, this book does not provide us with an extensive information about *Gaspard de la Nuit*.

Furthermore, we must give the greatest priority to the works where author's aspiration was to gain a comprehensive insight into a research. One of them is the remarkable work of Vladimir Jankélévitch, titled with the surname of the composer.[11] In his work, Jankélévitch offers a wide-open field and a deep insight into the aesthetics and poetics of Maurice Ravel's complete oeuvre. Description of piano music is an important segment of this book. The author divides the book into three parts. The first part deals with Ravel's path through three different phases and this is accomplished by a biographical and chronological presentation. The second part of the book deals with the most important aspects of Ravel's artistic skills, exposed in the following order: "the challenge, instrumental virtuosity, rhythm, harmony, modes, and counterpoint."[12]

Moreover, we should also mention Olivier Messiaen's book *Analyses of the piano works of Maurice Ravel*, at least because of the title.[13] It contains numerous thoroughly analyzed components of different pieces such as understanding harmonic language, rhythmical plan, analogy with Messiaen's "Modes of limited transposition," together

9. Barbara L. Kelly, "Ravel, (Joseph) Maurice," in *The New Grove Dictionary of Music and Musicians*, Second Edition, Volume 20, ed. Stanley Sadie and John Tyrrell (Oxford University Press, n.d.). https://doi.org/10.1093/gmo/9781561592630.article.52145.
10. Ibid.
11. Vladimir Jankelevitch, *Ravel* (New York: John Calder Publishers, 1959).
12. Ibid.
13. Olivier Messiaen and Yvonne Loriod-Messiaen, *Analyses of the piano works of Maurice Ravel* (Paris: Durand, 2005).

with Ravel's tone sets, and finally, understanding musical processes on the micro plan. It is also important to indicate that Messiaen's book takes into consideration only following works: *Ma mère l'Oye, Gaspard de la Nuit* and *Le tombeau de Couperin*. From my point of view, this book has a very well-organized holistic approach, but when it comes to the method of research, many analytical aspects are neglected. The book further lacks an idea of wider insight regarding Ravel's piano music.

Naomi Shibatani's PhD thesis "Contrasting Debussy and Ravel: A Stylistic Analysis of Selected Piano Works and *Ondine*" is based on discussing the differences between Claude Debussy's and Maurice Ravel's musical languages.[14] The thesis is comprised of the comparative analyses of both Ravel's and Debussy's "Ondine." In her discussion, Shibatani also includes analyses of "form/structure, themes/melodies, modes/tonality, rhythm/pulse, harmony, pedal/ostinato, tone range/texture, etc."[15] Despite all the segments that the author includes in her work, the reader could notice that the thesis gives insufficient information regarding certain characteristics of Ravel's piano music.

Further, we should mention Stelio Dubbiosi's PhD thesis "The piano music of Maurice Ravel: an analysis of the technical and interpretative problems inherent in the pianistic style of Maurice Ravel."[16] He discusses the pianistic style by analyzing technical and performative aspects of Maurice Ravel's piano music. Also, the author includes the analytical approach. Unfortunately, the author takes into consideration only the two piano concertos, not *Gaspard de la Nuit,* or any other work for piano solo. In this way, he omits not only many of the works in which the piano is significantly engaged (both in technical and instrumental manner), but he also does not accomplish the ambition exposed in the title of the study. From the title of the work, the pianistic technique should bring some other reveals of Ravel's piano music. Yet, the pianistic technique is very important when it comes to the explanation of piano timbre.

14. Naomi Shibatani, "Contrasting Debussy and Ravel: A Stylistic Analysis of Selected Piano Works and *Ondine*" (PhD diss., Rice University, 2008).
15. Ibid.
16. Stelio Dubbiosi, "The piano music of Maurice Ravel: An analysis of the technical and interpretative problems inherent in the pianistic style of Maurice Ravel" (PhD diss., New York University, 1967).

Ultimately, Dubbiosi's study remains the only comprehensive and systematic work on Ravel's piano music based on a holistic approach.

Another interesting study is Igor Radeta's doctoral dissertation "The Piano music of Maurice Ravel: hermeneutical reflections of the logoseme."[17] In his PhD thesis, Radeta intends to present an essential overview of Ravel's piano music by using an unconventional 'logosemic method.' "The hermeneutic, semantic, and meaningful potential of musical work" is set as the main theoretical issue of the thesis.[18] Radeta analyzes Ravel's works by using a combination of methods derived from interpretative praxis, as well as from textual presentation, narratology, historiography, semiotics, music analysis, and philosophy. The thesis introduces the "term/concept/method of logoseme, as a hybrid meta-theoretical plateau."[19] The study could be characterized as a source of many complex and valuable information. Yet, the thesis consists of several interconnected parts describing Ravel's piano music and text. Additionally, Radeta writes about Ravel's "non-musical" sense related to music history, as well as about a coherence between Bertrand's poems and *Gaspard de la Nuit*.[20] The entire study can be used as a source for further research since it includes many possible solutions regarding the understanding of timbre. Radeta's doctoral dissertation gives many useful thoughts concerning relation between the poems and the music, but these ideas are not conveyed systematically. The thesis lacks however an analytic argumentation of certain aspects.

17. Igor Radeta, "The piano music of Maurice Ravel: hermeneutical reflections of the logoseme" (PhD diss., Faculty of Music in Belgrade, 2019).
18. Igor Radeta, "The Piano Music of Maurice Ravel: Hermeneutical Reflections of logoseme," *New Sound,* No. 54, (II—2019): 188.
19. Ibid., 188.
20. Here, we summarize the writing about Bertrand by Valentina Gosetti: Louis-Jacques-Napoléon "Aloysius" Bertrand (1807-1841) was a French writer who introduced the Prose poetry in the French literature, which significantly affected poets from the period of Symbolism. Bertrand wrote poems in a bound style, but it was not appropriately acknowledged at the audience. His capital work is *Gaspard de la Nuit*, a collection of prose poetry, that inspired Maurice Ravel to write the famous cycle. *Gaspard de la Nuit* was published in Angers, a year after Bertrand's death, and only a few dozen copies were sold. However, Charles Pierre Baudelaire and Stephane Mallarme have discovered the piece of art that is considered as a meaningful today, as well as that it served as a great source of inspiration for poets from the period of Modernism. Valentina Gosetti, *Aloysius Bertrand's Gaspard de la Nuit: Beyond the Prose Poem* (Cambridge: Legenda, 2016), 21.

Roy Howat's book *The Art of French Piano Music: Debussy, Ravel, Fauré, Chabrier* can be considered as one of the most essential studies about *Gaspard de la Nuit*.[21] Howat gives an extensive formal and harmonic analysis of *Gaspard de la Nuit* comparing it to works of other composers. In addition to the analyses, Howat explores performing challenges in Ravel's music. However, his presentation does not relate timbre with harmony or form.

As the editor, Peter Kaminsky provides a very important wide-ranging study of Ravel's music in his book *Unmasking Ravel: New Perspectives on the Music*.[22] The book is divided into three parts, where the part called "Ravel's Approach to formal process" comprises a detailed formal analysis of "Scarbo," written by Kaminsky. He writes about thematic structure and harmony but does not reveal any ties to timbre.

Despite the fact that there are many analyses of harmony and form of Ravel's music, we do not find any study which relates them to timbre. Specifically, none of the studies about timbre's influence on form-constituting deals with *Gaspard de la Nuit.*

1.5 Methodology

The present section will give a methodological overview of the thesis, along with a short explanation of the qualitative methods which will be employed in the analysis. Implementation of different analyses has as goal to explain how various parameters contribute to form-constituting in *Gaspard de la Nuit*. Methodologically, the investigation will be conducted through the comparative exploration of different musical components in the piece.

As previously mentioned, the harmony in *Gaspard de la Nuit* has primarily coloristic properties. Moreover, it still contributes to form-constituting in the piece. On the other hand, thematic materials in the piece indicate the form to some extent. Ravel's conventional way of thinking in terms of form design influenced my approach

21. Howat, *The Art of the French piano music.*
22. Peter Kaminsky, ed., *Unmasking Ravel: New Perspectives on the Music* (University of Rochester Press, 2011).

to the form analysis. Thus, the analysis of form will identify thematic materials showing their role in a musical syntax. Gradually, different syntactic units will be placed into higher-level structures such as sentences, periods, etc. In this way, the form analysis will demonstrate to what extent the themes/motifs can define various formal units/sections. The analysis will be based on the similarity of thematic units and their role in the syntax structure. A review of the macro-formal structure of the cycle will also be introduced since it is closely related to the thematic cohesion of *Gaspard de la Nuit*.

In the analytical chapters, we will examine the features and activities of various musical parameters in the piece. Specifically, we will explain different elements which affect timbre creation in *Gaspard de la Nuit.* By use of the term 'sonority,' the harmonic analysis of the piece will directly indicate coloristic properties of harmony and its relation to timbre.

The methodology in the chapter six includes the analysis of timbre through harmony, dynamics, texture, and other elements. Here, it is important to underline the lack of interest in timbre analysis in the existing music theory literature.[23] However, different analyses of timbre can be most often found under cognitive and acoustic research. Nevertheless, timbre analysis within the thesis will be adapted to the context of this study. Because of its ambiguities, the timbre will in the present text be explained and investigated from different perspectives. This will answer many questions concerning the interrelation between color, harmony, and form. Furthermore, the analysis of timbre should demonstrate its role as a form-constituting element.

23. Megan Lavengood discusses why timbre is neglected in the literature: "Most analysis done by music theorist involves looking at a notated score of the music. Visual representations of music, like the notated musical score, have clear advantages as analytical objects over the recording alone. For instance, analysts can take in the music at their own pace, rather than needing to keep up with a recording. Furthermore, they can make connections between non-adjacent musical elements more easily than if they were bound to the progression of the music in time. Of course, musical scores also encourage the analysis of certain musical parameters more than others—rhythm, pitch, and text are much more frequently analyzed than timbre, because a score does not represent timbre in any great detail." Megan Lavengood, "A new approach to the analysis of timbre" (PhD diss., The City University of New York, 2017), 13.

Additionally, the importance of music performance and the relationship between Bertrand's poems and Ravel's piece will be discussed in a separate chapter. The reason for this is to provide the reader with an idea as to how we can combine and interrelate different analytical perspectives with the poetic content to which Ravel directs the listener and the performer of this piece. Given the complexity of the work any singular analytical method will only give an inaccurate theoretical interpretation of the music.

In other words, the analytical presentation of *Gaspard de la Nuit* requires an eclectic approach. The use of different methods along with knowledge of Bertrand's poems contribute to a fuller understanding of the music. The poems are important in explanation of the piece in general.

1.6 Thesis objectives

The goal of the thesis is to show how interrelation between harmony and timbre can better explain the form of *Gaspard de la Nuit*. To be specific, the form of the piece cannot be determined only by analyzing the thematic design. The thesis will try to show how harmony and timbre must be perceived together as the form-constituting elements. Furthermore, the thesis will try to reveal some ideas as to how Ravel uses timbre as an integral element of his compositional language.

1.7 Thesis outline

The thesis consists of seven chapters.

Chapter one presents the background and relevance for the research, giving the literature overview. It also defines research questions, methodology, and thesis objectives.

Chapter two reveals different aspects of *Gaspard de la Nuit*. It explains the necessity of applying different analytical techniques in the methodology. Moreover, it

presents the role of interpretation as a significant aspect of the piece. Besides, the chapter describes the relationship between Bertrand's poems and Ravel's piece.

Chapter three discusses structural role of different musical components in *Gaspard de la Nuit* by emphasizing their interrelation. The purpose is to familiarize the reader with the key-elements of Ravel's musical language used in the piece.

Chapter four explores formal/thematic design of *Gaspard de la Nuit* by analyzing thematic materials, syntactic units, and the form of each movement. Among others, the chapter describes Ravel's approach to formal design as a characteristic of his compositional language. Macro-form and thematic unity of the cycle are also discussed in the last sections of the chapter.

Chapter five investigates harmony in all movements of *Gaspard de la Nuit.* It begins with the description of the characteristics of Ravel's harmonic language. The chapter tends to explain to what extent harmony acts as a form-constituting element in each movement of the cycle. Additionally, the harmonic analysis demonstrates coloristic features of harmony in the piece.

Chapter six clarifies the role of timbre as an important formal marker in *Gaspard de la Nuit*. Among others, it defines different features of timbre as a form-constitutive element. Regarding timbre analysis, the specific methodological approach is applied. The chapter methodology employs relevant terms from the area of cognitive music theory. Finally, the chapter identifies how timbre articulates formal margins in *Gaspard de la Nuit*.

Chapter seven summarizes the analytical results given within the analyses of form, harmony, and timbre. It tends to answer to the research questions from the introduction chapter. Along with the thesis summary, it offers the possible options for further research.

1.8 Clarification of important terms

Before we start with the next chapter, it is necessary to define and explain the significant terms which will be frequently used through the body of the text.

1.8.1 Functional and coloristic uses of harmony

In *Gaspard de la Nuit*, harmony is used for both functional and coloristic properties. Edward T. Cone explains these significant aspects of harmony which are relevant for this thesis. He writes that the "functional harmony is the use of chordal progressions to define a key according to the standard usages of tonality; whereas coloristic harmony is the use of chords for their own sake, for their sheer sound, for either the sound of the chord itself (V9, whole-tone, etc.) or its contrast with its neighbors."[24] In other words, the term 'coloristic harmony' refers to the case when harmony is used for its coloristic properties. The differences between these two uses of harmony in *Gaspard de la Nuit* will be elaborated in the chapter five.

1.8.2 Sonority

In the thesis, the term 'sonority' implies the coloristic use of harmony. In the context of Ravel's harmony, the term sonority implies the collection or order of tones which do not necessarily relate to functional harmony/tonality, or tertian organization of tones. These collections may show more, or less tonal integration, but each combination possesses a distinctive coloristic property.[25] Further, the term sonority also involves both vertical and horizontal effect of harmony.

1.8.3 Timbre

For the purpose of this thesis and the analysis in the chapter six, the term 'timbre' could be described as an organized multidimensional character of sound which possesses

24. Robert P. Morgan, ed., *Hearing and Knowing Music: The Unpublished Essays of Edward T. Cone* (Princeton University Press, 2009), 165.
25. See more in: Norman Cazden, "Tonal Function and Sonority in the Study of Harmony," *Journal of Research in Music Education* Vol. 2, No. 1 (1954): 21-34. www.jstor.org/stable/3343732

'functional possibilities.'[26] As an integral part of Ravel's musical language, timbre will be perceived through its structural implications and the ability of form articulation. However, timbre may involve both sonority and the timbral function created by use of particular playing techniques, piano pedals, dynamics, counter-rhythmic, etc.

26. See more in : Pierre Boulez, "Timbre and Composition—Timbre and Language," trans. R. Robertson, *Contemporary Music Review* Vol. 2, No. 1 (1987): 161–72.

Chapter 2

Different aspects of *Gaspard de la Nuit*

2.1 Preface

In order to fully understand a piece of music in a wider context, it is necessary to approach the piece from several points of view. This is especially important in the present, in Ravel's *Gaspard de la Nuit.* Considering various facets which are related to the piece, it is essential to distinguish them before we start analyzing.

2.2 Purpose of analyzing

All participants in the musical process (listener, performer, and composer) can benefit from analyzing. Analysis is of great importance for full understanding of the piece. Before we start "applying" different analytical tools, it is important to answer the question: Why are we using certain analytical techniques? The answer to this question could be broad. Clearly, by dividing the piece into distinctive components, it is easier to argue and explain its functionality, as well as to perceive the composer's intentions and techniques used in a specified piece. But also, the analysis may facilitate the communication between the composer and the performer.

In the first place, we may suppose that analysis can reveal something about the manner how we perceive a certain musical piece. According to the well-known article of Kofi Agawu, "How we got out of Analysis, and How to get back in again," analysis could be described as an aid to perception.[27] It serves to train the listener's ear and to broaden the appreciation. Likewise, Walter Riezler writes that "analysis is here to demonstrate the 'blind' listener to enter it in more wisely and more productive way of listening."[28] Further, he explains the purpose of analyzing:

27. Kofi Agawu, "How We Got out of Analysis, and How to Get Back in Again," *Music Analysis* 23, no. 2/3 (2004): 270, Accessed May 25, 2020. www.jstor.org/stable/3700446.
28. Walter Riezler, *Beethoven*, trans. G.D.H. Pidcock (New York: Vienna House, 1938), 20.

> What the 'analysis' of music can do for us, and what makes it valuable, even indispensable - is this, and this only: it can sharpen the ear of the unperceptive listener in such a way as to enable him to appreciate the music's organic growth; and it can therefore teach him to hear better, and so to intensify his impressions of what he hears, and not to substitute for an adventure of the living spirit a process of conscious thought...[29]

According to Ian Bent and Anthony Pople, we cannot observe the analysis as simply a "ritual," because the analysis is always situated as an on-going process.[30] Analysis gives us an open wide field of thinking in several directions. It is "never to be done process" of research.[31] Yet, Joseph Kerman argues in his article that we need to understand that "analysis is not science but ideology."[32] Further, he writes: "From the standpoint of the ruling ideology, analysis exists for the purpose of demonstrating organicism, and organicism exists for the purpose of validating a certain body of works of art."[33] This can be true, but it can also be contradictory.[34] As we cannot "place" each piece of music into a specified type of analysis, then we cannot say that the purpose of a certain musical piece is its confirmation of a specific epoque/period, or a way of composing. Music is a living phenomenon.[35] It changes over time and it is conditioned by many other circumstances that we sometimes are unfamiliar with. There will always be new details that could serve as a new material and "proof" of composers' intention. Finally, we might argue that according to Kerman's understanding, every matter in music research is ideological.

Analysis allows us to deal with music directly. If we do not know how to set up the analyzing process and which answers we are looking for in it, then we will not

29. Ibid., 20.
30. Ian D. Bent and Anthony Pople, "Analysis," in *The New Grove Dictionary of Music and* Musicians 2*nd rev.* Vol. 1, ed., Stanley Sadie and John Tyrrell (Oxford University Press, 2001): 256.
31. Ibid., 257.
32. Kerman explains the term 'ideology': "By ideology, I mean a fairly coherent set of ideas brought together not for strictly intellectual purposes but in the service of some strongly held communal belief. Fundamental here is the orthodox belief, still held over from the late nineteenth century, in the overriding aesthetic value of the instrumental music of the great German tradition. Of this, the central monuments are the fugues and some other instrumental compositions of Bach and the sonatas, string quartets, and symphonies of Mozart, Beethoven, and Brahms." Joseph Kerman, "How we got into analysis, and how to get out," *Critical Inquiry* Vol. 7, No. 2 (The University of Chicago Press, 1980): 314-315.
33. Ibid., 315.
34. Ibid., 315.
35. Theodor W. Adorno, *Current of Music* (John Wiley & Sons, Oct 16, 2014), 250.

discover its significance. Regarding that, analytical methods appear as an important component of analyzing. Most analytical methods are dealing with similar kind of inquiry, even though they may be different at the first glance. Basically, if we divide musical work into several smaller or larger independent parts, we investigate whether there are components that are of the greater or lesser importance and in what context they appear in one musical piece. One piece could be based on perhaps smaller or larger components and we may ask how these components can serve as a basis for further analytical process. It also raises the question of whether there is an interconnection between these smaller parts and if this interconnection actually does explain something important about the music. Is there any point if we analyze the piece just for its own sake? The answer is: no. Regarding this, Nicholas Cook writes that analysis is not independent research:

> Personally, I dislike the tendency for analysis to turn into a quasi-scientific discipline in its own right, essentially independent of the practical concerns of musical performance, composition or education. [36]

Yet, an analyst is not just a person who is dealing with historical and biographical models. According to Walter Riezler, there are several aspects, called "external factors," specific elements that are not "hearable."[37] If we do not know how to "unfold" them, then we cannot present the piece in a right way. There is a significant relation between analysis and composition, as well. Further, Kofi Agawu explains how analysis should relate to composition:

> Depending on the kind of metalanguage employed, summaries or synopses of analyses do not always make inspiring narratives. If the narrative seems interesting, chances are that it is less of a summary than a speculative projection that is not organically linked to the analysis. A good analysis leads you back to the composition; you re-enter that world, reconsider its making, and resume the process of exploration. [38]

36. Nicholas Cook, *A guide to musical analysis* (Oxford University Press, 1994), 3.
37. Riezler, *Beethoven*, 20.
38. Agawu, "How we got out of Analysis," 275.

Further, he describes what the analyst does in the analysis:

> In the analytical moment, we push through the labyrinth of technical structure towards Adorno's truth content. We push forward in a compositional mode, playing with elements, rearranging them to see what might have been, and entering into rigorous speculation about music as intentional discourse. We look vigilantly for relations, connections, and ways of relating and connecting.[39]

Thus, the analyst deals with structure and the different relationships of elements within it. According to Adorno, analysis should be "concerned with structure, with structural problems, and finally, with structural listening."[40] Since Ravel prefers traditional forms and employs many traditional compositional devices in *Gaspard de la Nuit*, then we can apply some conventional analytical tools in the approach to this work. However, the choice of the analytical methods will be discussed in the following chapters.

In the next sections, we will point to the other aspects of *Gaspard de la Nuit*, such as interpretation and relationship between Bertrand's poems and Ravel's piece. According to Adorno, in order to fully comprehend an artwork, "mere identification and pure musical analysis are not enough."[41] In fact, he points out that analysis "should facilitate the consideration of the artwork in the complex and evolving environment within which it exists."[42] Therefore, it is important to present the other aspects of this piece before we start analyzing.

39. Ibid., 275.
40. Teodor W. Adorno, "On the Problem of Musical Analysis," *Musical Analysis* Vol. 1, No. 2 (1982): 173.
41. Robert P. Morgan, *Music Theory, Analysis, and Society*: S*elected essays* (New York: Routledge, 2017), 258.
42. Ibid., 258.

2.3 Interpretation of *Gaspard de la Nuit*

As previously mentioned, interpretation is an important segment of Ravel's music. However, interpreter's role is essential since his/her goal is to deliver composer's idea to the listener. Interpreter bridges the "gap" between composer and listener. Glenn Gould believes that performing artists can be divided into two categories: those that seek to exploit their instrument, and those that do not.[43] Further, he states:

> Examples of the first category are Liszt and Paganini, as well as any number of "allegedly demonic virtuosi of more recent vintage." Musicians of this category are determined to make the listener aware of their relationship with their instrument, and they allow that instrument to become the focus of attention. In the second category we find artists who try to "bypass the whole question of performing mechanism" to create an illusion of a direct link with the musical score. A musician of this kind helps the listener to achieve a sense of involvement, not with the performer but with the music. [44]

Regarding virtuosity, *Gaspard de la Nuit* is often stated in the literature as a pure example of transcendental virtuosity.[45] On the contrary, Gould insists on overcoming technical difficulties in any piano piece and focusing primarily on musical demands.

During interpretation in a musical context, a message is delivered by the interpreter who has a duty to perceive a deliberate musical idea or conception through the musical text. Of course, it must happen before a musical piece is performed and perceived by the listener.

In a performing process, there is always a certain extent of risk regarding level of freedom. However, if an interpreter does not convey composer's intentions in an adequate manner, the listener may not entirely comprehend a piece. On the other hand, if a piece of music is associated with "extramusical" or programmatic content which additionally explains the piece, then the listener should be acquainted with it. That is particularly relevant to Bertrand's narratives which precede each movement

43. Glenn Gould (1932 – 1982) was renowned Canadian pianist.
44. Excerpt from Glenn Gould's interview within the documentary *Richter: The Enigma*, a film by Bruno Monsaingeon.
45. See, for example: Maurice Hinson, *The pianist's dictionary* (Bloomington: Indiana University Press, 2004), 63.

of the score of *Gaspard de la Nuit*.[46] The knowledge of these poems is an important segment for better understanding the piece—for both interpreter and listener. Accordingly, all participants of musical process (listener, performer, and composer) are faced with necessity of analyzing.

Undoubtedly, dealing with musical and technical/expressive skills would enable interpreter to generate a personal interpretation of the piece. On the other hand, one must be able to convey an entire composer's idea in the first place. Consequently, the individuality of interpretation is given the second priority, as we could conclude from Glenn Gould's statement. The most significant task for any interpreter is to be engaged in exploring all possible fields related to selected composition before interpretation. However, a pianist must be "equipped" with knowledge about other crucial aspects of a piece, such as stylistic and historical elements, even though they are not included in a score. It is also necessary to possess some knowledge about author's individuality, a certain musical language, and 'musical grammar.'[47]

Since Ravel's *Gaspard de la Nuit* is conditioned of the performance which delivers specific composer's intentions to the listener, the role of the performer is decisive. In the chapter six, we will describe how differences in interpretation affect timbre perception. Finally, if we analyze the piece by listening, the quality of interpretation may influence the analysis.

46. Louis Jacques Napoléon Bertrand (20th April 1807 – 29th April 1841).
47. Mario Baroni, Simon Maguire, and William Drabkin. "The Concept of Musical Grammar," *Music Analysis* Vol. 2, No. 2 (1983): 175-208.

2.4 Relationship between Bertrand's poems and Ravel's piece

Regarding Ravel's attitude to the musical tradition, it is the fact that he refers to it in his works to a great extent.[48] Ravel's relationship to tradition can be primarily identified through his "adaptation and manipulation of the traditional musical idiom."[49] In the context of this thesis, 'the traditional music idiom' could be primarily understood through Ravel's adapting of sonata form and his "unique response to formal, harmonic, and motivic conventions of sonata-form principles."[50]

The other aspect of Ravel's relationship to the tradition is his dealing with program music. The programmatic concept in music may be considered as a part of the tradition since it had originated long before the period of Impressionism. Barbara L. Kelly writes about Ravel's inclination to programmatic content. Also, she describes his creative process along with his obsession with details and structure:

> Ravel gives a tantalising clue to the impact of extra-musical/literary stimulus on his creative process. Most importantly, giving freedom to the imagination stimulates purely musical preoccupations with design, detail, and structure—in short with 'sombre abstractions.' Ravel's dual fascination with both Poe's imaginative world and his attention to formal approaches to structure is well documented.[51]

Furthermore, his treatment and incorporation of "extramusical" content/meaning into the music in *Gaspard de la Nuit* could be considered as his greatest achievement in the field of program music. Jonathan Kregor describes the piece as "Ravel's greatest and most explicit programmatic composition."[52] Kregor also depicts the way of thinking applied in *Gaspard de la Nuit* as the revolutionary in the context of program music:

48. Arbie Orenstein, "MUSIC: Maurice Ravel," *The American Scholar* 64, no. 1 (1995): 91-102.
49. Myers H., Rollo, "Maurice Ravel," in *Encyclopædia Britannica*, published on March 03, 2020, Accessed on 13/04/2020 https://www.britannica.com/biography/Maurice-Ravel
50. Sigrun B. Heinzelmann, Elliott Antokoletz, Gurminder Bhogal, Volker Helbing, Steven Huebner, Barbara Kelly, et al. "Playing with Models: Sonata Form in Ravel's String Quartet and Piano Trio," in *Unmasking Ravel: New Perspectives on the Music*, ed. Peter Kaminsky (University of Rochester Press, 2011), 143–79.
51. Barbara L. Kelly, *Music and Ultra-modernism in France: A Fragile Consensus, 1913-1939*, (Boydell & Brewer, 2013), 99.
52. Jonathan Kregor, *Program Music* (Cambridge University Press, 2015), 277.

> Indeed, *Gaspard de la Nuit* also represents a new stage in programmatic thinking. Whereas the overwhelming majority of programmatic compositions take a single perspective of a subjective experience as their aesthetic basis, *Gaspard de la Nuit* attempts to juggle multiple perspectives simultaneously.[53]

It is obvious that Bertrand's poems preceded the composition. In other words, Ravel created the music according to the literary impulse. There is no evidence that the poems have been added to the score as an "artificial" or additional element. However, before Ravel had a contact with Bertrand's cycle of poem *Gaspard de la Nuit*, he had had a basic idea in mind, still indistinct, but with a clear focus on a "fantastic programmatic content."[54]

Igor Radeta describes how Ravel "re-composed" the cycle. He writes that it was a complex idea, an idea of a multi-media nature, so that it encompassed the space beyond musical imagination. In order to develop it entirely, it required the contact with a literary impulse. If it had not been so, *Gaspard de la Nuit* would have never existed, and the piano piece that would have emerged separately from the influence of the poem would not have contained any of its qualities. Also, there would be no need to insert the text in front of each movement. *Gaspard de la Nuit,* as we know it today, is a complex work, marked by codes that are not just a musical value. Ravel did not finish the work until he had read the Bertrand's cycle and focused his inspiration on the three selected poems. Namely, "Ondine" is the ninth poem in the third of a total of six volumes of the cycle, and "Le Gibet" and "Scarbo" are next to each other in addition to the cycle, as the separate poems. It is clear, therefore, that Ravel also re-composed the textual elements of the poetic cycle into the new whole that has a different dramaturgical function than at the Bertrand's.[55]

The ambiguity of the term 'cycle' in analytical context should be imposed as an indispensable question since the chapter four deals with the formal design of the piece. In the first place, it is questionable in which context the term 'cycle' is used in *Gaspard de la Nuit*? If the poems did serve as the basis for the creation of the work, they now exist in the new form which consists of only three pieces. Also, the programmatic

53. Ibid., 278
54. Radeta, *Semiotic analysis*, 12.
55. Ibid., 12.

content and relationship between Ravel's pieces and Bertrand's poems allude to the fact that the term could be taken from Bertrand. If so, then the term does not provide us with a precise information which could help us create an appropriate musical/analytical interpretation of the work, mainly regarding its form. The original title is: "*Gaspard de la Nuit* - Three poems for the piano by Aloysius Bertrand," but in the literature, it can be also found as "Cycle *Gaspard de la Nuit*."[56] The fact is that the term 'cycle' in music is mostly used as a part of a title in order to describe formal structure of a certain piece (for instance: cycle of several pieces, suite, etc.). Further, if we use the term without the aforementioned information, then we could only guess macro-form of the piece. Therefore, the term 'cycle' is used here primarily in the literary, rather than in the musical connotation and, as such it exists in the literature.

56. Originally, in French: *Gaspard de la Nuit* - Trois Poèmes pour d'après Aloysius Bertrand

Chapter 3

Structural role of different musical components in *Gaspard de la Nuit*

3.1 Interrelation of elements within structural plan[57]

When we discuss the analytical approach to the music of Maurice Ravel, it is important to know the relationships among various parameters of his musical language. However, before we start analyzing, it is essential that the knowledge about these components is determined. Understanding the nature of the elements' interrelations ensures more precise final analytical results.

The selection and relevance of analytical methods used in exploring Ravel's music should be directly related to his compositional way of thinking. In the literature, it is often stated that Ravel was obsessed with technical details and structure.[58] Regarding Ravel's composing philosophy, Igor Radeta writes:

> Ravel's piano music is characterized by a large number of intentional methods. This is a pure evidence of the composer's participation when it comes to the application of his own poetics in composing—he was striving to technical perfection and the ideal of the beauty. Regarding that, a coincidence during composing could be considered as an 'obstacle' in Ravel's music. For him, composing music as an artistic field was an intentional work on the sound.[59]

Consequently, his compositional philosophy imposes the necessity of explaining plenty of details in analysis.

Since the thesis deals with the formal design of *Gaspard de la Nuit*, it is necessary to clarify the organization and hierarchy of its elements. According to Tatjana Ristić,

57. Read about the term 'structural plan:' Glenn Spring and Jere Hutcheson, *Musical Form and Analysis: Time, Pattern, Proportion* (Illinois, Waveland Press, Inc., 2013).
58. For example, see: Arbie Orenstein, "Maurice Ravel's Creative Process," *The Musical Quarterly* Vol. 53, No. 4 (1967): 467-81.
59. Radeta, "The piano music of Maurice Ravel," 4.

the term 'structure/design' is used to determine "an organic inter-functional entirety."[60] It is organized so that every segment depends on the other, and gets its meaning and value only by its interrelation with the other segments and the entirety.[61] The structural plan of a music work consists of different segments - bigger or smaller parts of musical flow that have a certain interrelation. The segments reflect divisibility of the musical flow and can be represented by motifs, metrical-formal entities built of different types of fragments, as well as basic syntax entities, e.g. music sentences. If we go further to the higher level of the 'additive process,' those sentences can constitute larger entities within a musical form.[62] The most important matter of the structural plan is the order of the elements within the musical flow and their relationship regarding the entity. Since the organization of each system and each musical whole is based on its syntax, that means that the gravity of the structural plan is also based on the syntax.[63] The syntax organizes the order between all aforementioned relationships, and thereby, makes them possible. It is significant to remember the effects of a 'structural dynamics,' as an important factor within building the musical flow.[64]

The relationships among structural parts within a piece of music are usually established by different interaction mechanisms of structural elements.[65] These elements can be in more, or less intensive correlations. By higher or lower level of integration/disintegration of structural elements, their different interrelations can be achieved. The parts of the structure of a certain composition are coordinated by such interrelations. Because of the certain correlation, a hierarchy can be established. To be able to identify the manner how different structural elements affect the musical flow, we should comprehend their effects in the case of increased activity. The Table **3-a** by

60. Tatjana Ristić, *Prolegomena teoriji muzičke sintakse* [An Introduction to the Theory of Musical Syntax] (Belgrade: Zavod za udžbenike, 2009), 41. [translated from Serbian]
61. Ibid.
62. "The *additive* process entails the joining of units such as the phrase to form larger units." Glenn Spring and Jere Hutcheson, *Musical Form and Analysis: Time, Pattern, Proportion* (Illinois: Waveland Press, 2013), 26.
63. Berislav Popović, *Music form or meaning in music* (Belgrade: Clio, 1998), 18.
64. Robert K. Wallace, *Jane Austen and Mozart: Classical Equilibrium in Fiction and Music* (The University of Georgia Press, 1985), 5.
65. Ristić, *An Introduction to the Theory of Musical Syntax*, 42.

Wallace Berry illustrates changes of various musical components during their progressive actions.[66] Since the thesis deals with form of *Gaspard de la Nuit*, we will now consider the musical parameters which are the basic factors in form articulation.

Table 3-a: Correlation between structural elements and their progressive actions[67]

Element	**Progressive action** →
Melody, a line of contiguous pitches	**Up**; leap expecting closure, especially when dissonant; instability of tonal or other felt tendency
Harmony, the line of harmonic succession	**Away from tonic**; dissonant; inverted; complex forms; chromatic deviation from primary diatonic resource
Tonality, the line of tonal reference	**Away from primary system**, in relation to tonal "distance" and assuming referential adherence of primary I; chromatic succession and expansion
Meter, the succession of accent-delineated units	**Toward shorter units**; asymmetry and fluctuation; clarity of more frequent accent (acceleration); toward instability, departure from relational unit norm
Tempo, or rhythmic "pace"	**Acceleration** in rate of occurrence at given level
Texture, the line of changes in numbers and interactions of components	**Greater interlinear diversity** and conflict; increased density; wider spatial field
Timbre, events involving coloration, dynamic level, registral change, articulation	**Increased sonorous weight and penetration;** louder; higher registers – sharper "focus" of intense color; more percussive, stressed articulation

66. Berry, *Structural functions in music*, 11.
67. Ibid., 11.

3.2 Interrelation of different elements in *Gaspard de la Nuit*

At the beginning of the 20th century, there was a change in a structural position of certain parameters in the musical language. James Tenney writes that "since 1900, changes have occurred at all hierarchical levels."[68] In the epoque of Impressionism, the elements which had played the secondary role before, took over the primary role. Consequently, they became more prominent.

'Parametric change' can be most reflected in the role of timbre.[69] Through the music history, the importance and constructive role of timbre was permanently evolving. Regarding the "emancipation of timbre," Pierre Boulez writes: "Up to the 19th Century, the function of timbre was primarily related to its identity in addition to being charged with certain effective and symbolic characteristics."[70] Furthermore, Ravel transforms the role of timbre from the subordinate to the constructive parameter, incorporating it as an integral element of his musical language.[71]

On the contrary, harmony in Ravel's music changes its role due to the coloristic features.[72] Thus, the syntax and the form-constituting in Ravel's works become dependent on the other elements since the constructive role of harmony is changed. Nevertheless, the role of harmony in Ravel's works can be only understood as a deliberate action, as a part of his composing philosophy. Regarding Ravel's use of harmony, Alfredo Casella writes that "his music is characterized by harmonic refinement of extreme preciosity and of absolute perfection."[73]

A determination how a one system is established, proposes the implementation of the appropriate analytical approach which is compatible with that musical language. In that sense, it is necessary to explain the conception of the musical language and the structural plan in *Gaspard de la Nuit*. To be more precise, it is important to clarify the features of Ravel's musical language where the elements are

68. James Tenney, Larry Polansky, Lauren Pratt, Robert Wannamaker, and Michael Winter, "Form in Twentieth-Century Music: (1969–70)," in *From Scratch: Writings in Music Theory*, ed. Larry Polansky, and Lauren Pratt (University of Illinois Press, 2015), 56.
69. The term 'parametric change' in introduced in: Spring and Hutcheson*, Musical Form and Analysis,* 22.
70. Boulez, "Timbre and Composition," 161–72.
71. The role of timbre as a form-constituting element is elaborated in the chapter six.
72. The role harmony is elaborated in the chapter five.
73. Alfredo Casella, "Ravel's Harmony," *The Musical Times* Vol. 67, No. 996 (1926): 124-27.

not necessarily connected by their functional dependence. Thus, the factors of form-constituting in the piece are mostly unclear and they can be only explained by simultaneous interrelation among several musical components. Further, we shall make a short overview of the elements which interact with harmony and timbre in *Gaspard de la Nuit*.

3.2.1 Role of dynamics

The dynamics significantly affects the structure of *Gaspard de la Nuit* at two levels. Specifically—At the micro level, dynamics determines the intensity of textural layers and so, helps their aural segregation. Generally—at the macro level, whereby it relates to the realization of gradations and climaxes in a musical form. However, all the climaxes in *Gaspard de la Nuit* are congruent with the beginnings of new formal sections/units whereby, they articulate the form. In the piece, dynamics shows a high degree of joined effect with other musical components: rhythm/duration, agogics, melody, and harmony. In the analysis of timbre, we will demonstrate how dynamic nuances follow harmonic circumstances. Also, the analysis will show that sudden dynamic shifts articulate formal boundaries in the piece. Additionally, dynamics helps timbre manifestation by creating 'acoustic atmosphere.'[74]

74. Gernot Böhme and Jean-Paul Thibaud, *The Aesthetics of Atmospheres* (New York, Routledge, 2016), 189; See also: Friedlind Riedel and Juha Torvinen, ed., *Music as Atmoshere: Collective Feelings and Affective Sounds* (New York, Routledge, 2019).

3.2.2 Role of rhythm

As the most informative parameter of the thematic structure in this composition, rhythm is exposed to the continuous transformations during motivic development. In many sections, constant rhythmical activity ensures a development of musical flow, for example, in "Le Gibet." Further, rhythm remains the only element of recognition/similarity of thematic materials in certain sections. A more prominent and more organized rhythmic flow may be considered as a "non-impressionistic" component in *Gaspard de la Nuit*. In the first place, we can perceive this phenomenon in "Scarbo," where Ravel evokes romantic piano texture in some sections.[75] Also, rhythm and metrics in "Scarbo" are associated with Spanish musical folklore.[76]

75. Within this movement, we can notice enriching the textural component by adding and superimposing several textural layers.
76. Ravel also used the Spanish musical folklore in his other works (for instance, within *Alborada del gracioso* from the cycle *Miroirs).*

Chapter 4

Formal/thematic analysis of *Gaspard de la Nuit*

'Gaspard de la Nuit' is one of the most astonishing examples of instrumental ingenuity to be found in the work of any composer.

Alfred Cortot

4.1 Preface

The discussion about Ravel's approach to musical form is quite neglected in the literature. Ravel is usually presented as the composer whose music is "...characterized by precise attention to detail, sharp outlines and clear forms."[77] Not even in the interviews, did Ravel himself provide us with unclear answers about his treatment of musical form.[78] From the analytical point of view, it is essential to be acquainted with Ravel's strategies of formal design in order to be able to decipher his compositional language. Yet, it is very often stated that he preferred traditional formal models such as sonata, rondo, concerto, etc.[79]

Regarding Ravel's traditional approach to form, we could raise a simple question: Why does he incline to conventional formal models beside so many innovations in harmony, orchestration, and other musical elements? Jennifer P. Beavers offers a possible answer about Ravel's inclination to the tradition in his works:

> Ravel's characteristic blending of traditional form and modern sounds are brought into close connection that reveal these dynamic tensions. On the one hand, his

77. Christopher Palmer, *Impressionism in music* (Hutchinson University Library, 1974), 10; See also: Maurice Hinson, *Anthology of Impressionistic piano music: Intermediate to early advanced* (Alfred Music, 2011).
78. Kaminsky, *Unmasking Ravel*, 85.
79. See for instance: Laura Hamer, "Perspectives on the Performance of French Piano Music," ed. Scott McCarrey and Lesley A. Wright, *Music and Letters*, Vol. 96, No. 1 (December 9th, 2014): 133–35.

> reliance on classical forms was a modern stance that stood in opposition to outdated romantic tendencies.[80]

Ravel's preferences to classical forms and clear thematic contours make that his compositional language is often connected to Neoclassicism in the literature. For instance, Elliott Antokoletz mentions *Gaspard de la Nuit* among the works which represent Ravel's "impressionist-neoclassical category."[81] Anyway, his inclination toward the conventional formal design will be used as the point of departure in this chapter.

The knowledge about Ravel's treatment of form will direct the methodological approach in the formal analysis. Lesley A. Wright writes that:

> Ravel's music is admittedly difficult to analyse and does not reveal itself easily. On the surface it may even appear that Ravel is using traditional forms, but, as in Debussy's music, the proportional element uncovers patterns that are more complex and intricate.[82]

By summarizing the abovementioned facts, one can conclude that the analytical approach to the form of *Gaspard de la Nuit* should be associated with the traditional methodology. Therefore, in this chapter we will "disassemble" the piece by analyzing it from larger to smaller levels. The methodology will include defining a formal/thematic structure of each movement, by showing used thematic/motivic units, as well as the function they have within larger formal units. By using a term "thematic unit," we will consider a differentiated thematic segment (made of one repeated/nonrepeated, or several different motifs that may together build a larger entity) that repeatedly appears during a certain movement. The aim of this method is to gradually introduce the reader to the issue of similarity of thematic materials in the piece, going from larger units to smaller ones, gradually including growing number

80. Jennifer P. Beavers, "Beyond Mere Novelty: Timbre as Primary Structural Marker in Ravel's Piano Concerto in G Major," *MTO – A journal of the society for Music Theory*, Volume 25, No. 4, (2019). https://www.mtosmt.org/issues/mto.19.25.4/mto.19.25.4.beavers.html
81. Elliott Antokoletz, *A History of Twentieth-Century Music in a Theoretic-Analytical Context* (New York: Routledge, 2013), 73.
82. Lesley A. Wright and Scott McCarrey, eds., *Perspectives on the Performance of French Piano Music* (Taylor & Francis, 2016), 199.

of details. However, thematic units will contribute to the understanding of the larger structural levels.

By analyzing the form of *Gaspard de la Nuit*, we will recognize the form building type, known as the 'evolutive principle.'[83] Beside the way of musical organization, this type of form building undoubtedly alludes to the structural relationship between Ravel's piece and Bertrand's poems.

Regarding the characteristics of this type of musical architecture, Vlastimir Peričić and Dušan Skovran write that the evolutive principle is a feature of the musical form as a developing process. It takes place in time and converges music with other arts that are related to time—first of all, with the literature.[84] The evolutive principle is characterized by disruption of a symmetry, avoiding clearly defined wholes, absence of literally repeated sections, permanent use of new thematic materials, building only one climax point, etc.[85]

This chapter should explain how this type of form building describes the formal design of *Gaspard de la Nuit* and Ravel's approach to musical form.

4.2 Formal and thematic structure of "Ondine"

The form of "Ondine" is a sonata form in which both subjects in the recapitulation appear in the reverse order in comparison to the exposition (see Table **4-a**).[86] Roy Howat describes the form of "Ondine" as "a sonata form by stealth," which "conceals

83. Vlastimir Peričić and Dušan Skovran, *The Science of Musical Forms* (Belgrade: University of Arts, 1986), 74.
84. This may refer to Bertrand's poems in this case.
85. Ibid., 74.
86. Closed analytical interpretation of the form of *Ondine* offers Oleksii Ivanchenko. See: Oleksii Ivanchenko, "Characteristic of Maurice Ravel's compositional language as seen through the texture of his piano works and the piano suite *Gaspard de la Nuit*," (PhD diss., University of Miami, 2015), 60-61. Further, Max Hylton Smith writes: "Ondine contains all of the signposts of a sonata-form work: a primary theme's establishment of the tonal centre (C-sharp major), a second theme's modulation to the dominant V (G-sharp major), a development of the previous thematic material, and a return to the tonic key via recapitulation of the two main themes. Yet, along with the many sonata-form works of Ravel, Ondine manages to cite such traditional formal structures while maintaining a rhetorical, ironic distance from them." Max Hylton Smith, "Touching Maurice: A body-based reading of Ravel's *Ondine*" (Master thesis, University of Pittsburgh, Kenneth P. Dietrich School of Arts and Sciences, 2012), 5.

its outlines by closely interlinking its themes in a long blended lines that motivically keep wrapping around itself."[87] The discernible matter of fact in the recapitulation is an appearance of both subjects in the keys that are different from the principals, as well as a modal interchange of the keys from the exposition.

Table 4-a: Form of "Ondine"

Section	Exposition (mm. 1-41)				
Unit	I subject (1-23)		Transition (23-29)	II subject (30-41)	
Sub-unit and syntax structure	8 + 2 + 4	2 + 2+ 4	3 + 2 + 1+ 3	4 + 2 + 1	2 + 2 + 1
periods					
Keys	C#: T.....D	C#:T….G#: T	G#:……D#:	G#:T……T	G#: T D#: T
Thematic units	**a, b, c, a_1, c_1, d, a_2**		**b_1**	**e, d_1, e, d_2**	

Section	Development (mm. 41-65)		
Unit	Introductory module (41-44)	Central module (45-61)	Closing module (62-65)
Sub-unit	2 + 1	2 + 2 + 1 + 2 + 3 + 2+ 3 + 2	4
Keys	D#:	Episode subject **f** C: A: d: D:	G#:
Thematic units	**a_3, b_2**	**f, a_4, b_3, f_1, e_1, d_3, e_2, f_2**	**f_3**

Section	Recapitulation (mm. 66-91)				
Unit	II subject (66-72)	Transition (72-79)	I subject (80-87)		Coda (88-91)
Sub-unit and syntax structure	2 + 4	2 + 1 + 6	2 +1 +1	2 + 1 + 1	
Keys	b: t……a: t	a:, C:, F#:	g#: t…..d: t	d: t…….D	E^{b}: ….C#: T
Thematic units	**e_3, d_4**	**b_4**	**a_5, b_5**	**c_2, d_5**	

87. Howat, *The Art of the French piano music*, 105.

4.2.1 Exposition

First subject, mm. 1- 23, has a periodic structure which consists of two 'sentences.'[88] They have the same beginings and therefore form a 'period.'[89] The first one – antecedent, mm. 1- 14, ends with a half/imperfect cadence at ^{b}VII ninth-chord in C-sharp major (see Example No. **4.1**), and the second one – consequent, mm. 15-23, that cadences on Tonic of G-sharp major.[90] The antecedent also consists of two-measure introduction figure, mm. 1-2, in C-sharp major. The figure of the accompaniment along with the tone "A" additionally "blurs" the tonality of C-sharp major and present a very important harmonic potential of the whole movement. This accompaniment figure, which is exposed in several variations, will be permeating the entire movement. The musical flow of the period consists of thematic units: **a**, **b**, **c** and **d** in their "basic" and "varied" form, as it is indicated in the Examples Nos. **4.1** and **4.2**.[91]

88. Berislav Popovic explains the term 'musical sentence:' "Every music flow consists of at least one musical sentence/phrase. This means that without the musical sentence/phrase no music flow can exist. In such way, the connection between the musical flow and the musical sentence/phrase essentially defines the musical sentence/phrase as the basic unit of musical syntax. It is, however, necessary to immediately point to the evident and significant *parallelism in the organization of the music flow*: the musical sentence/phrase relates to the music flow in the same way as the motif to the smallest metric-formal unit (generally two-bar unit), or the sub-motif to the motif. Accordingly, the smallest metric-formal unit can be said to contain at least one motif and the motif, at least one sub-motif. Also, the smallest metric-formal unit (thether it actually consists of one bar, two, three bars etc.) is related to the musical sentence/phrase in the same way: each sentence/phrase contains at least one smallest metric-formal unit." Berislav Popovic, *Music form or meaning in music* (Belgrade: Clio, 1998), 16-17.

89. Popovic writes about the term: "The form of this music flow possesses all the characteristics of the syntactical formation generally known as the musical period. The period consists of repeated musical sentences/phrases which establish particular interrelations, requiring the fulfilment of the universal formal principle of "a minimum of similarity" and "a minimum of difference." Popovic, *Music form or meaning in music*, 37.

90. It should be mentioned that the tonality in "Ondine" is considerably weakened by use of labile alterations (for example: ^{b}VII degree of the main key/mm. 3-4). If we also consider the presence of the non-harmonic/foreign tone "A" from the accompanying figure, then we can also consider the existence of melodic major. This will be elaborated later.

91. As indicated previously, the material often does not have its "basic" form in this composition, but it is constantly elaborating one motivic core, which will be discussed in the next chapter. For this reason, the word "basic" has been cited.

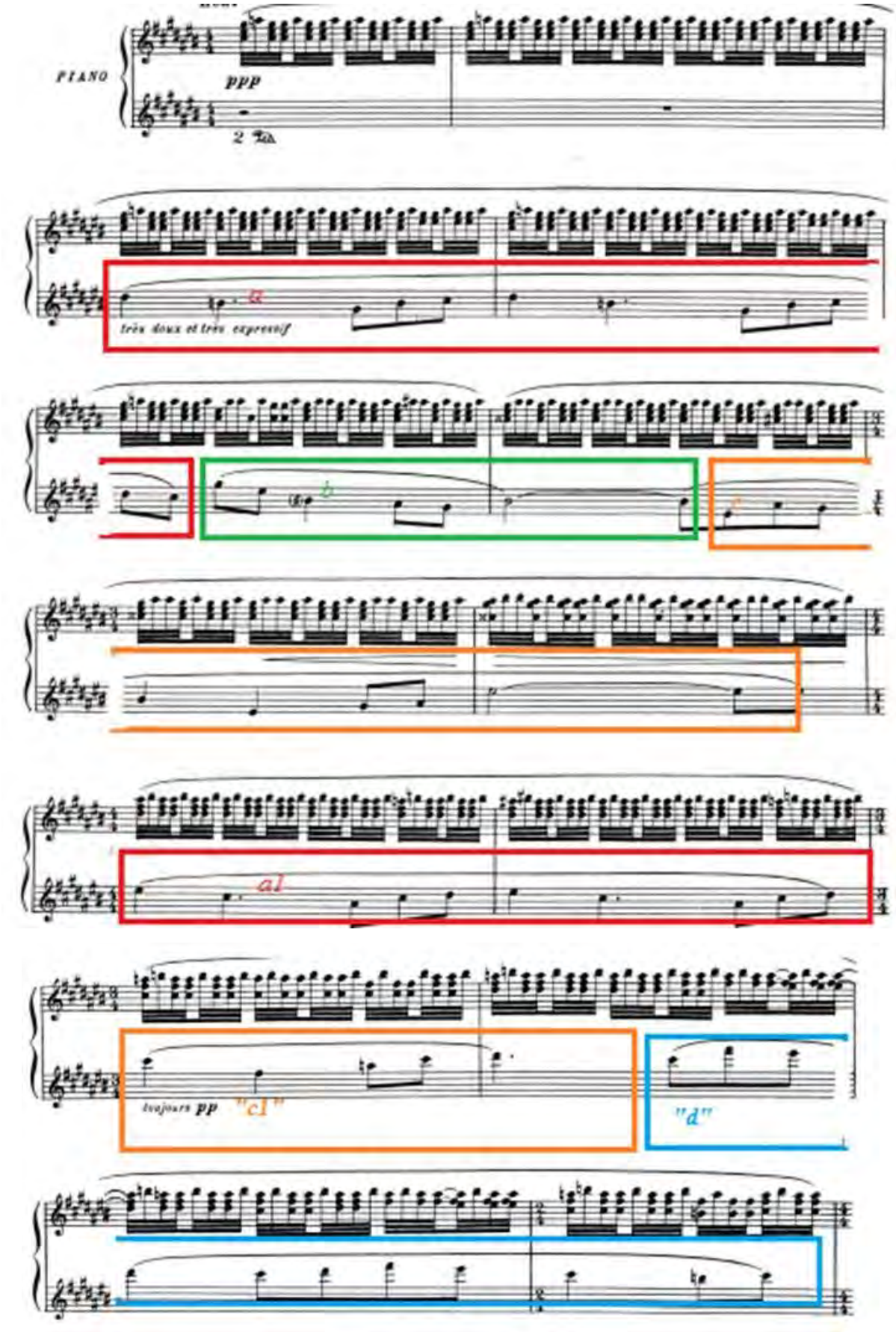
Bridge/transition, mm. 23-29, is organized as a 'fragmented structure' and chain-linked with the completion of the consequent of the first theme, mm. 23, in G-sharp major.[92] Music material is exposed onto an unstable harmonic basis, and the thematic material of the first subject acts as the integration factor to the previous unit. The harmonic flow at the early beginning is based on the Dominant of G-sharp major and it prepares the appearance of the second subject that will appear in the same key. The transition exposes the segments of the thematic unit $\mathbf{b_1}$ from the first subject in the altered form.

Second subject, mm. 30-41, is organized as a two-sentence period.[93] The first one, mm. 30-36, consists of a two-measure introduction figure (with the similar accompaniment figure from the first subject) and a weaken ending on the G-sharp major tonic six-four chord (Dominant key); and the second one, mm. 37-41, with the ending on the Tonic of D-sharp major. These two sentences bring thematic units **e** and $\mathbf{d_1}$ (see Example No. **4.3**). We could note that the register and the character of the second subject are very similar to the first subject, including the identical accompaniment figure.

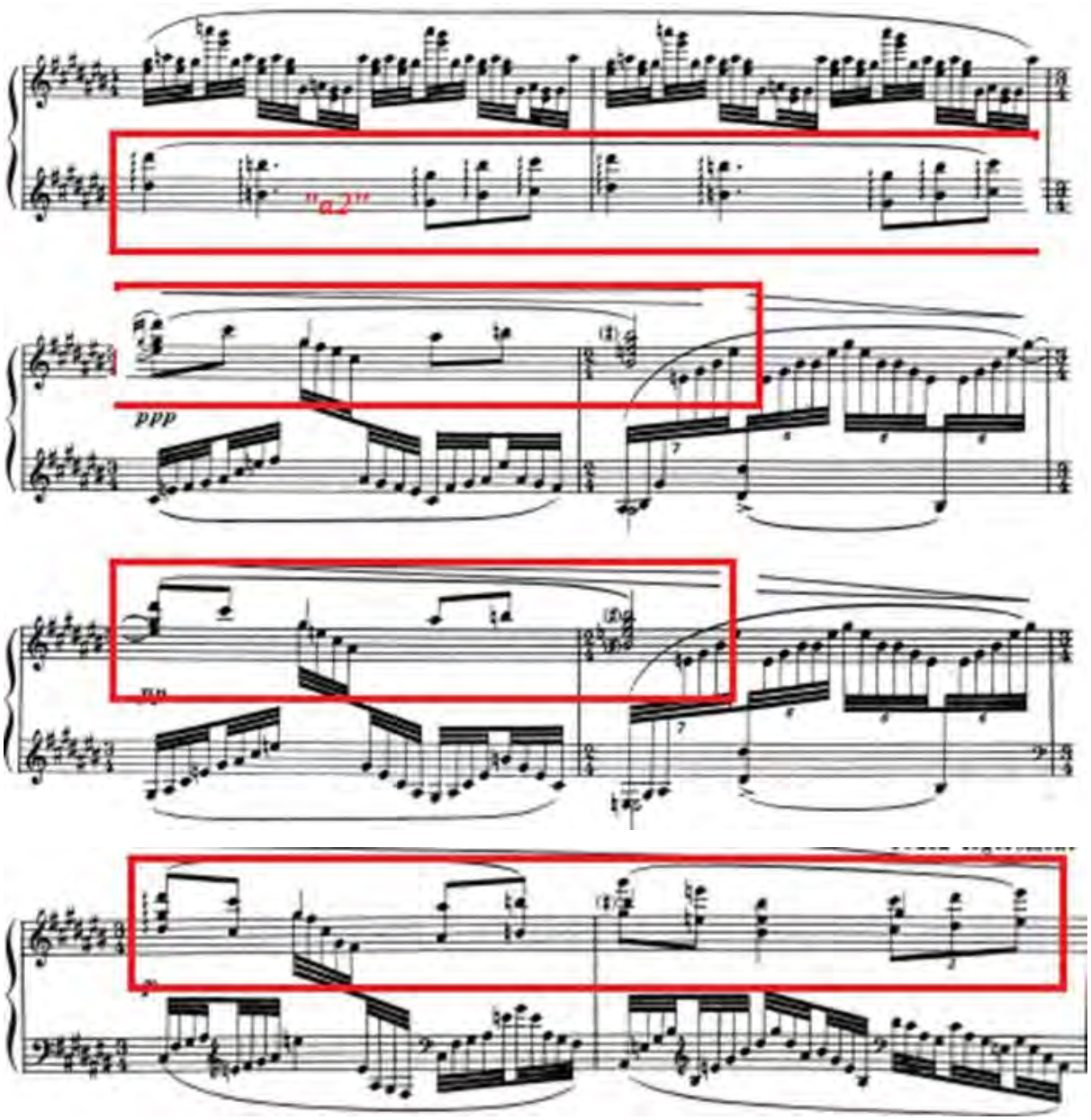
Closing unit is omitted in this movement. The second subject is followed by the development section.

92. The term 'fragmented structure' is used in: Andrew Davis, *Sonata Fragments: Romantic Narratives in Chopin, Schumann, and Brahms* (Bloomington, Indiana: Indiana University Press, 2017), 44. Further, Berislav Popovic writes about structures that are different from musical sentences or periods: "Instead of 'tightly' sentence or periodic entities, 'loose' structures are primarely important (two-measure phrases, sentence sequences etc., without more pronounced elements of symmetry), which is also conditioned by the shorter sections of thematic material." Pericic and Skovran, *The science of musical form*, 65.

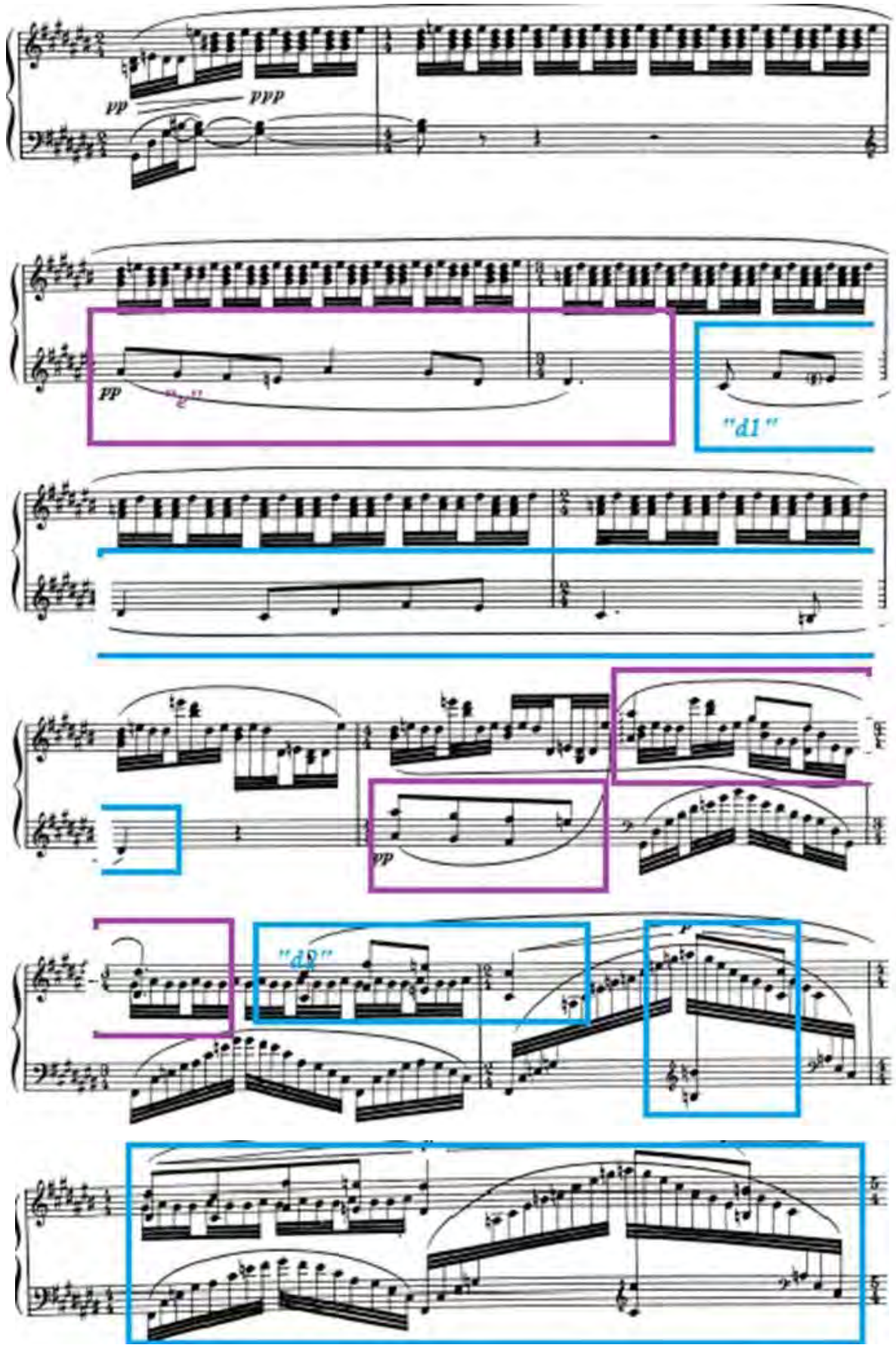
93. Analogous to the first subject, there is a melodic major as a harmonic basis.



Example 4.1: First subject within the exposition of "Ondine"



Example 4.2: The first subject within the exposition - continuation

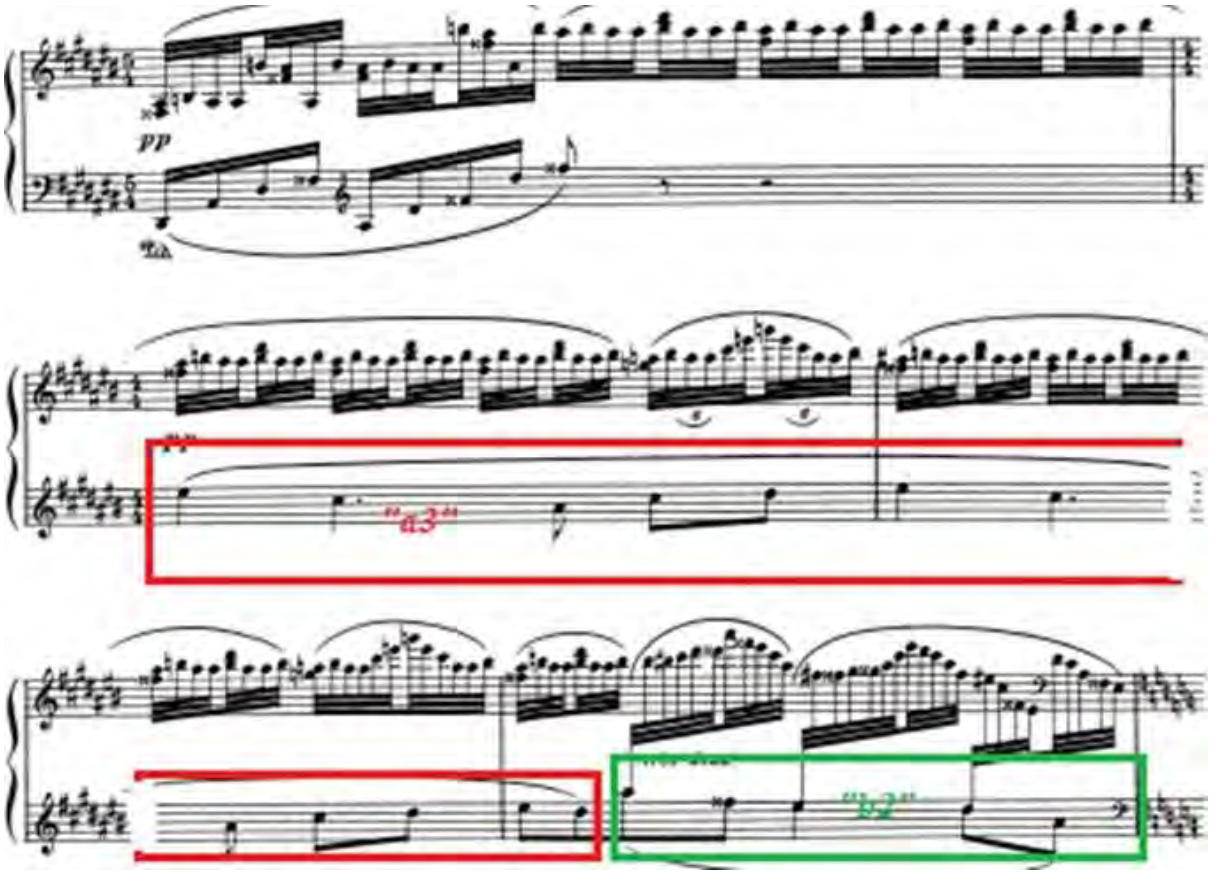


Example 4.3: The second subject within the exposition of "Ondine"

4.2.2 Development section

Development section, mm. 41-65, consists of three modules: introductory, central, and closing module.

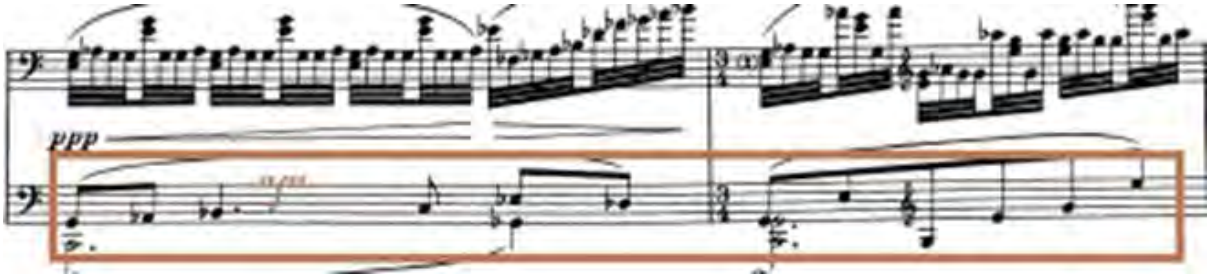
Introductory module, mm. 41-44, is composed of fragments and contains thematic units **a_3** and **b_2** from the first subject, including the accompaniment figure, mm. 41, as one-measure introduction figure, very similar to the one from the exposition.[94] The main key is D-sharp major, in which the consequent from the exposition also cadences. This process of "quoting" the first subject within introductory module of the development section is another example of Ravel's relationship to tradition (see Example No. **4.4**).[95]



Example 4.4: Introductory module within the development of "Ondine"

94. William Caplin, *Classical Form: A Theory of Formal Functions* (Oxford University Press, 1998), 10-11.
95. This conception of the introductory module within the development section can often be found in Classicism and in sonatas composed during that epoque.

Central module, mm. 45-61, is also composed of fragments. Here is a characteristic introduction of the episodic/interior subject **f** that will serve as a basis for motivic development in this section (see Example No. **4.5**). The thematic units **a**, **b**, **e** and **d** from the first and second subjects are also exposed here. The appearance of each of aforementioned thematic units is accompanied by a change of key. The keys in this section are: C major, A major, D major, D minor, C-sharp major, and B-flat major.



Example 4.5: New (episodic) subject in the development section of "Ondine"

Closing module of the development section, mm. 62-65, dramatically prepares a recapitulation that will appear as the climax of the whole movement. The thematic unit **f** is exposed again. A gradual increase within the modulation frequency and dynamics (from ***p*** to ***ff***) results in dynamization of musical flow. This also prepares the recapitulation that will appear in B minor. The keys are: G-sharp minor, F-sharp minor, E minor, and C-sharp major.

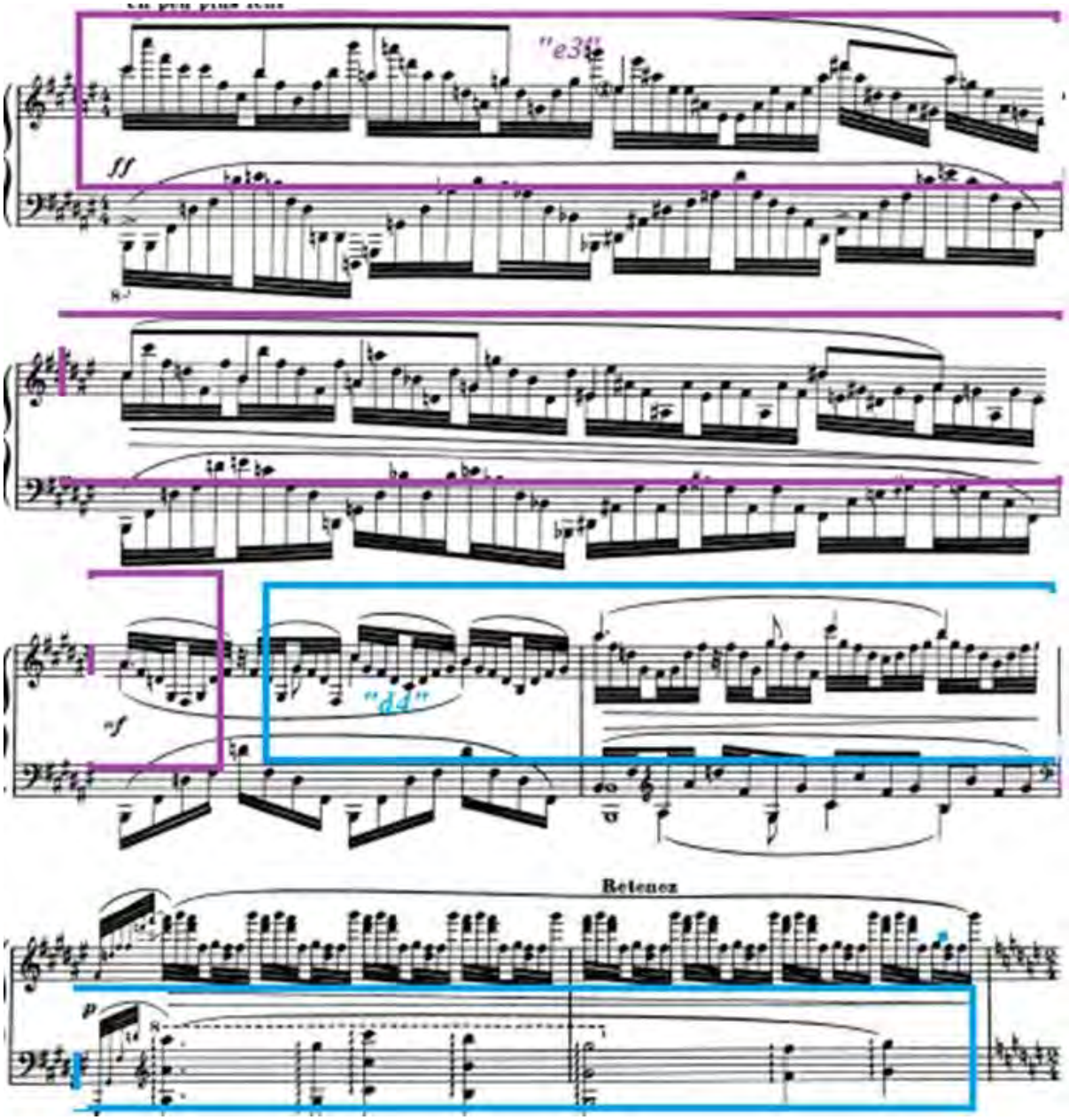
4.2.3 Recapitulation

The recapitulation, mm. 66-87, exposes the subjects in reverse order in regard to the exposition. It does not occur in the home-key of C-sharp major, but in the B minor.

Second subject, mm. 66-72, that starts the recapitulation is exposed within a different textural design compared to the exposition. The musical flow gives the impression of great instability due to the exposure of the thematic materials on a completely different and unstable harmonic basis. Here we find the appearance of a disproportional dense modulating frequency in comparison to the rest of the

movement - in mm. 66 and 67 the keys are: B minor; G minor; D-sharp minor. This phenomenon gives an elaborative character to the second subject. Due to the high activity of the harmonic component in the recapitulation and textural diversity in comparison to the exposition, the sentence structures are unstable and stand at the margin between the sentence and fragmented structures. The second subject has a sentence structure in which the thematic units **e** and **d** are exposed, as well as in the exposition (see Example No. **4.6**). There is a minor key, B minor, as opposed to the major key from the exposition, G-sharp major. Exposing the same thematic units from the exposition within the second subject in the recapitulation represents the only category of similarity between these two sections. This modulating sentence is cadencing on the Tonic of C Ionian mode, mm. 72, and it is chain-linked to the bridge/transition that follows.

Bridge/transition, mm. 72-79, is composed of fragments and harmoniously prepares the appearance of the first subject in G-sharp minor, ending at the Dominant of this key. Thematic unit **b** is presented here as it was exposed within the transition in the exposition.

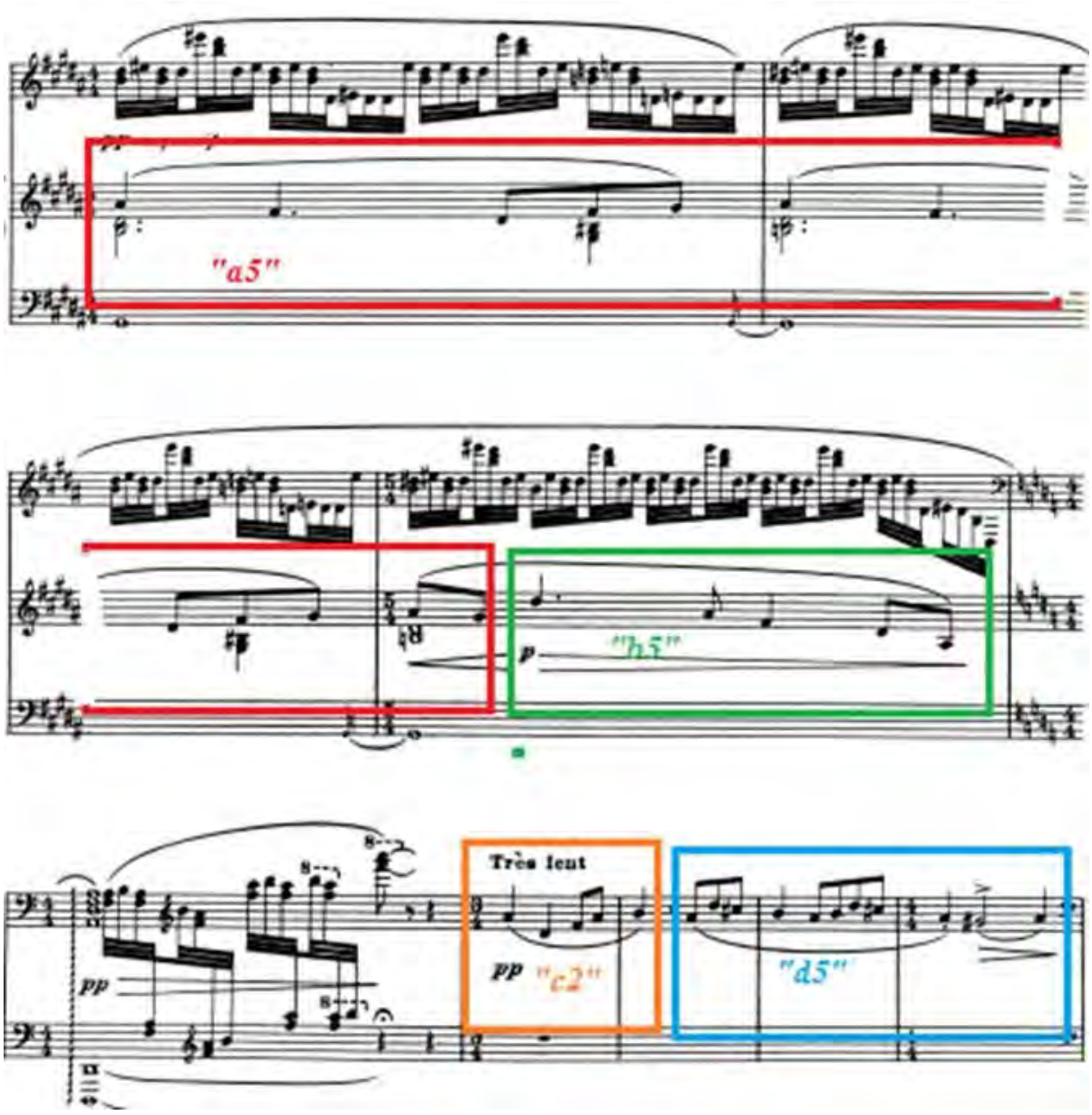


Example 4.6: Recapitulation; second subject in "Ondine"

First subject, mm. 80-87, consists of a sequence of two sentences. The first sentence, mm. 80-83, occurs in the minor key, G-sharp minor, opposed to the key from the exposition, C-sharp major. It brings the thematic units of the first subject, **a** and **b**, from the exposition and cadences on Tonic of D minor. The second sentence, mm. 83-87, exposes the fragments of thematic units **c** and **d** in D minor within a monophonic texture and a recitative character (see Example No. **4.7**).[96]

96. Regarding texture, this is very seldom in impressionistic piano music.

Coda, mm. 88-91, is constructed of fragments and it does not contain previously exposed thematic units, but only figures and passages. The Coda in this movement has the function to return to the basic key of C-sharp major. The other function could be a role of solo instrumental cadenza (*quasi cadenza*), typical for closing sections of many piano pieces.



Example 4.7: Recapitulation; first subject in "Ondine"

4.2.4 Summary

By comparing recapitulation and exposition sections, we can primarily notice the changes that have occurred on the structural level. Specifically, the first subject has a periodic structure in the exposition, whereas it appears as a sequence of two sentences in the recapitulation.[97] The second theme in the exposition has also the periodic structure, while in the recapitulation, it consists of only one sentence. In addition to the reverse order in which the subjects appear, an interesting focus change occurs in the recapitulation. The second subject, which was close to the first one in terms of textural design and character, becomes the culminating point of the whole movement during the recapitulation section. It has changed its character thanks to a combined effect of multiple musical components at the same time. At the thematic level, an integration was also achieved through the emergence of common thematic materials in both subjects. There will be more discussion of the thematic similarity on the micro- and macro level within the next chapter.

4.3 Formal and thematic structure of "Le Gibet"

"Le Gibet" has a compound ternary form with a scheme **A B A_1** (see Table **4-b**). There are also several different interpretations of the form of "Le Gibet." However, it is important to refer to different interpretations of the form design in this movement. For instance, Peter Kaminsky proposes an Arch form consisting of 6 stages which follow a textual and harmonic development of the form:

> The six stages, labeled S1–S6, unfold a series of five themes that lead from said initial state of tonal ambiguity (S1), to attempted tonal clarification (S2), to the climax of repression of truth (S3); the latter is signalled by the parodistic cadence in the distant key of C# and the ensuing emigration from tonal space into octatonic space beginning m. 26, marking the exact midpoint of the piece.[98]

97. Michael Tenzer, "Generalized Representations of Musical Time and Periodic Structures," *Ethnomusicology* Vol. 55, No. 3, (2011): 369–386.
JSTOR, www.jstor.org/stable/10.5406/ethnomusicology.55.3.0369.
98. Peter Kaminsky, "Ravel's Programmatic Impulse," *Zeitschrift der Gesellschaft für Musiktheorie* [Journal of the German-Speaking Society of Music Theory] ZGMTH 5/1 (2008): 31–50.

Table 4-b: Form of "Le Gibet"

section	**A** (mm. 1- 20)			
unit	**a** (1- 11)		**b** (12- 20)	
Sub-unit and syntax structure	5 + 2	2 + 2	3 + 2	3
keys	e_b: t…….……d	e_b: t…....……..d	e_b: D…….t	a_b: D.....t
Thematic units	*a, b*	*a, b*$_1$	*a*$_1$	*a*$_2$

section	**B** (mm. 20- 34)			
unit	**a** (20- 26)		**b** (26- 34)	
Sub-unit and syntax structure	2 + 1	2 + 1	2 + 1 + 1	2 + 2 + 1
periods				
keys	a_b: t……t	C#: T	d: D	g:
Thematic units	*a*$_3$	*a*$_4$	*b*$_2$, *c*	*b*$_2$, *c*$_1$

section	**A$_1$** (mm. 35- 52)			
unit	**a** (35- 39)	**b** (40- 47)	**a1** (48- 50)	**Codetta** (51- 52)
Sub-unit	2 + 2 + 1	2 + 2 + 4	3 + 2	
keys	e_b: t……t	e_b: D	e_b: t	e_b:
Thematic units	*a*$_5$	*a*$_6$, *a*$_7$, *b*$_3$, *b*$_4$	*a*, *b*$_4$	

Jamila Tekalli also writes on "Le Gibet's" form: "Ravel utilizes different themes with *Le Gibet* to create an arch form."[99] She uses the formal map consisting of four sections in following order: Exposition, Development, Recapitulation and Coda, but it basically reveals the construction of the ternary form that is offered in this thesis.

99. Jamila Tekalli, "A Study and Performance Guide for *Gaspard de la Nuit*—Emphasizing the Relationship of Piano and Orchestral Renderings" (Doctoral essay, University of Miami, 2014), 27.

Marion Pécher describes this form as "Arch structure and mirror effects." Further, she writes: "Taken to the extreme, the stylization in the Gibet is architectural. The musical piece is indeed in the shape of an arch - where the themes are exposed, twice, symmetrically."[100]

4.3.1 The first section of "Le Gibet"

The first section of **A** within the complex ternary form has a simple binary form with the units **a**, and **b**.

Unit a consists of two sentences, the first one, mm. 1-7, and second one, mm. 8-11, with identical beginnings and the ends.[101] These two sentences do not meet the requirements for creating bigger syntactic structures such as period. Specifically, both sentences cadence on the Dominant of E-flat minor and they are also marked by a temporary halt in the musical flow achieved by a rhythmic stop in the melody. The first sentence also includes two-measure introduction in a form of ostinato tone "B-flat," which will permeate the musical flow of the whole movement with minimal rhythmic modifications.[102] In addition to its programmatic function, this tone forms a harmonic and rhythmic background over which other textural layers are exposed (see Example No. **4.8**). Thematic units **a** and **b** are exposed in both sentences.[103] A completely different harmonic background when presenting a material of the same

100. Marion Pécher, "Le Gibet et le Crépusculaire," in *Miscellanées – Recueil de textes de l'Association pour la mémoire d'Aloysius Bertrand* (2009), 20. [Translated from French]

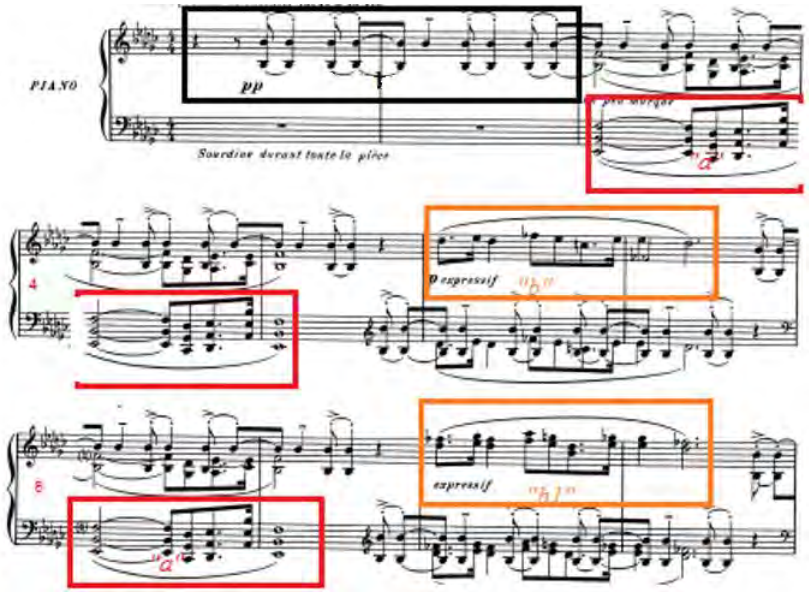
101. In this case, where both sentences end without a convincing cadence process (because they cadence with a imperfect/inconclusive cadence on the alterated minor Dominant of the E-flat minor), the delimitation is based on the beginning of the second sentence.

102. Igor Radeta describes the ostinato tone: "If we look more closely at the function of the ostinato tone 'B^{b},' we will discover Ravel's sense of creating profound tonal relations. By continuously sounding the tonal sphere with a pedal fixed at the pitch of 'B^{b},' (so that all the chords in the movement must contain that tone as part of their structure), the composer gives an extra contribution to the rhetorical questions of the poem. The inability to determine the source of the sound in the poem *Le Gibet* is analogous to always new relation established between the intonation of the pedal tone and the surrounding chords. This sense of anxiety that the reader is exposed, suits somehow to the possibility of a dual interpretation of the key center of the movement. In fact, *Le Gibet* can be situated both as a B-flat minor and E-flat minor." Radeta, *Semiotic analysis*, 40. In my thesis, I will plead to the second solution, primarily because I advocate the attitude that the tonal center in composition can be most successfully determined by the intuition of a listener who has an appropriate experience in a certain musical language. Also, the notation of key signatures and the sequence of harmonic functions indicate that it is E-flat minor.

103. The thematic material **a**, with all its modifications, will permeate the whole movement as a *motto*.

thematic unit, more or less modified, creates an element of difference between sections. This allows particular form subdivision at the level of the whole movement.

Unit b, mm. 12-20, consists of two repeated sentences, the first one, mm. 12-16, and the second one, mm. 17-20. Due to their instable structures, they cannot form more complex syntactic structures. Both have the same start, exposing the material of the thematic units $\mathbf{a_1}$ and $\mathbf{a_2}$, whereby the second sentence takes the complete material from the first one, literally transposed the forth upwards. The entire musical flow of the first sentence flows on E-flat minor Dominant pedal with an imperfect cadence on the Dominant, while the flow of the second modulating sentence is on the Tonic pedal and it cadences in A-flat minor in the measure 20. In this measure, it is chained to the following sentence from the unit **a** of the middle section **B** that follows it (see example No. **4.9**).



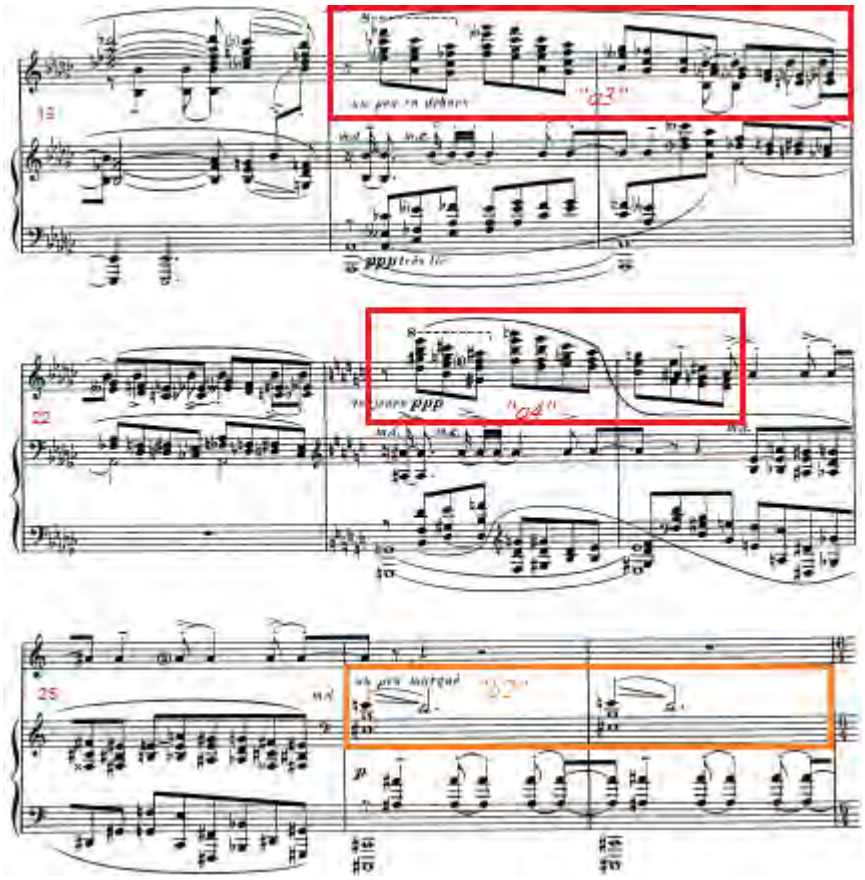
Example 4.8: Unit **a** within the binary form

Example 4.9: Segment of **b** unit within the binary form

4.3.2 The middle section of "Le Gibet"

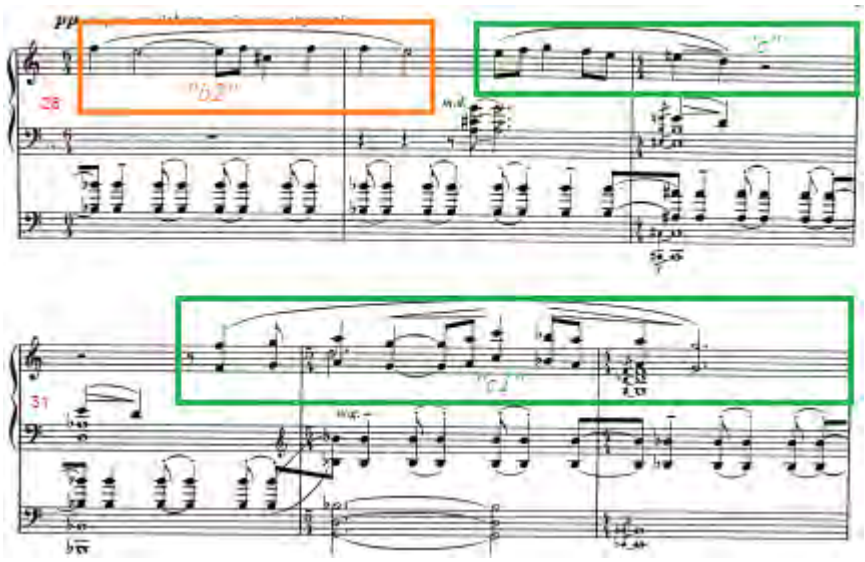
The middle section **B** of the complex ternary form has the structure of a simple binary form that consists of the units **a** and **b**.

Unit a, mm. 20-26, of the binary form has a periodic structure composed of two sentences, the first one, mm. 20-22, and the second one, mm. 23-26, having the same beginnings. The first sentence contains undecisive cadential arrival on the tonic of A-flat minor, whilst the second modulating sentence cadences on Tonic of enharmonically exchanged Subdominant key of C-sharp major. Both contain motifs from the original thematic unit **a**, but this time exposed in a retrograde inversion of originally exposed material (see Example No. **4.10**). They are marked as thematic units $\mathbf{a}_3$ and $\mathbf{a}_4$. We should bear in mind that two- and three-measure sentences such we find within this movement are rare, but a completely legitimate phenomenon in music syntax. Complex time signatures along with slow tempo assure that all criteria for considering them as sentences are fulfilled.



Example 4.10: Unit **a** within the simple binary form

Unit b, mm. 26-34, within the simple binary form also has a periodic structure. It consists of two sentences that have the same start, the first one, mm. 26-29, and the second one, mm. 30-34. The first ends with an imperfect cadence on the Dominant in D minor, mm. 29, and the second one with a two-measure post-cadential extension, after a weaker cadence with a suspension on Tonic of G minor, mm. 32. It should be mentioned that due to the high activity of the harmonic component, these sentences also stand on the edge between the sentence and fragmented structures. Both sentences expose the new thematic units **c** and $\mathbf{c_1}$, as well as $\mathbf{b_2}$ (see Examples Nos. **4.10** and **4.11**).



Example 4.11: A segment of unit **b** within the simple binary form

4.3.3 Recapitulation of "Le Gibet"

Recapitulation $\mathbf{A_1}$ of a complex ternary form is designed as a simple ternary form consisted of sections **a**, **b**, and $\mathbf{a_1}$.

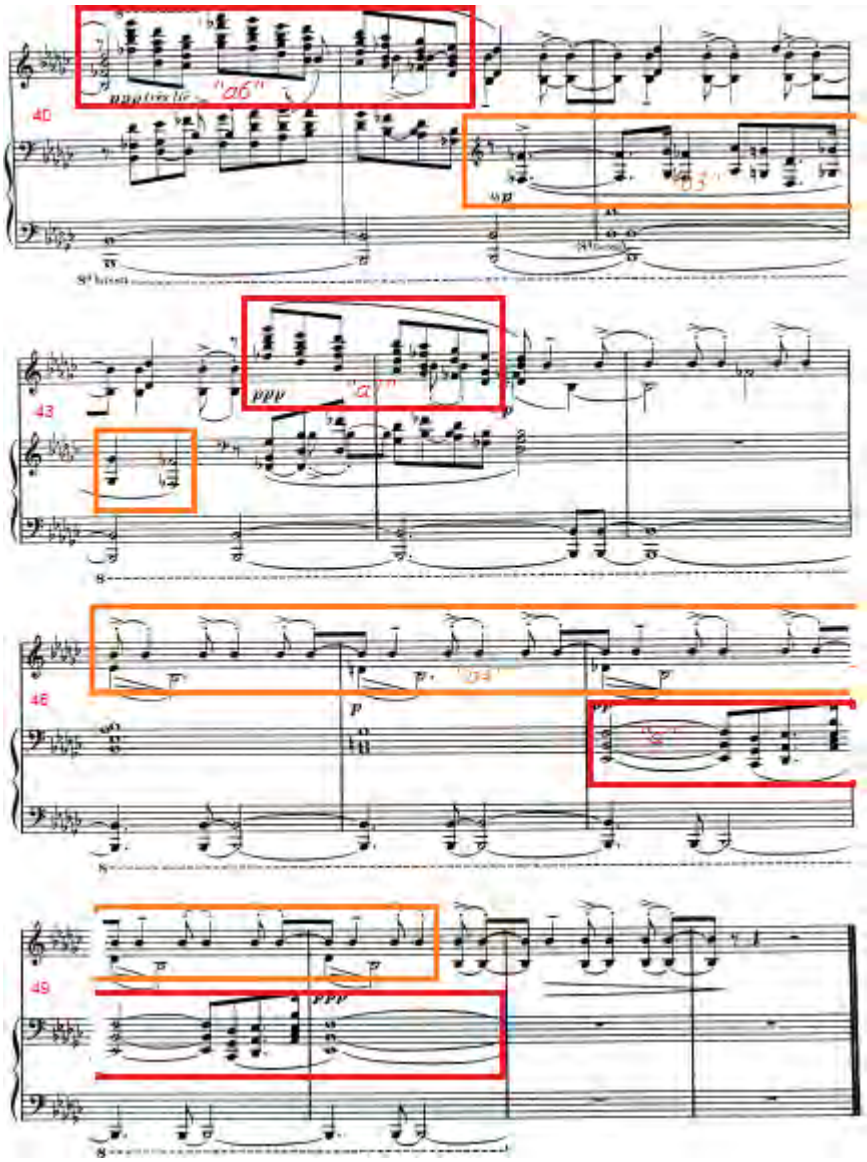
Unit a, mm. 35-39, exposes a thematic unit $\mathbf{a_5}$ in the main key over the pedal point "C" which plays already mentioned role of "blurring" tonality. The unit cadences on the Tonic in the measure 39 (see Example No. **4.12**).

Example 4.12: Unit **a** within a simple ternary form

The music flow of **unit b**, mm. 40-47, is composed of fragments and flows over the Dominant pedal point in the home-key. Here we also find thematic unit $\mathbf{b_3}$ from the section **A**, but also $\mathbf{a_6}$, $\mathbf{a_7}$ and $\mathbf{b_4}$ from the middle section **B** (see Example No. **4.13**).

Recapitulation unit $\mathbf{a_1}$, mm. 48-50, exposes the thematic units **a**, and $\mathbf{b_4}$ on the Dominant pedal tone of the main key (see Example No. **4.13**).

The Codetta, mm. 51-52, along with the recapitulation unit $\mathbf{a_1}$, has a role of gradual "refining" of texture and decreasing a pace of the musical flow. It is done by reducing activity of all musical components to give the impression that the movement ends in the same atmosphere in which it began.



Example 4.13: Thematic units **a** and **b** in formal units **b** and $\mathbf{a_1}$ in the recapitulation

4.4 Formal and thematic structure of "Scarbo"

The form of "Scarbo" is a sonata form, and its structure is characterized by a number of rare and specific phenomena, which primarily relate to the absence of certain parts of the form, as well as to an atypical tonal relation among them.[104] Regardless of such changes which may represent an exception of the conventional sonata form, they do not affect the basic contour. Despite all oddities, sharp outlines of the sections and their sub-units are clearly visible. Thanks to the obvious textural shifting in "Scarbo," it is relatively simple to determine and delimit independent formal units and allocate them from the context. However, a harmonic ambiguity makes it difficult to assign adequate formal roles to all these elements. With all of the above, it should be added that the activity of a harmonic component reaches its peak within this movement. Taking into consideration the harmonic language which exceeds the features of Impressionism at some moments, then peculiar tonal relationships and non-functional harmonies are, in that sense, an expected phenomenon. The qualifying of form sections/units for performing certain formal functions, as well as a determining their further subdivisions, must be made of analytically based activities of other musical components. This is mostly related to ignoring the tonal plan to a great extent. In the literature, we can find two basic interpretations of the "Scarbo" form: sonata form and sonata-rondo form. Moreover, both possible solutions consist of a number of deviations, both in terms of absence of formal units, and their outlandish relationships. This thesis will however comprehend the formal structure within the sonata context. The form of "Scarbo" is shown schematically in Table **4-c**.[105]

104. Oleksii Ivanchenko writes about the form of "Scarbo:" "The constant thematic diversity in combination with fragmentation of form disguises sonata form used in *Scarbo*." Ivanchenko, "Characteristics of Maurice Ravel's compositional language," 57.

105. There are also some different interpretations of the form of "Scarbo" and they mostly incline to the sonata-rondo form. Those opinions make this form even more complex for reader, with also large number of exceptions. McCarrey writes, for instance, that "Ravel has created a dramatic, binary-structure. Scarbo may also be heard as a sonata form, but the organization of the musical content detracts from this effect." James Scott McCarrey, "Performance and analysis in practice: A Study of Maurice Ravel's *Valses nobles et sentimentales*, *Miroirs*, and *Gaspard de la Nuit,*" (PhD diss., The University of York, 2006), 98. Roy Howay describes the form of "Scarbo" as an "expansive sonata form," but he also refers on the possibility of interpreting it as a sonata-rondo form. Howat, *The Art of the French piano music*, 2009.

Table 4-c: The form of "Scarbo"

section	**Exposition** (mm. 1- 213)					
unit	Introduction (1- 31)	I subject (32- 120)			II subject (121- 197)	Closing unit (198- 213)
sub-unit and syntax structure	7 + 7 + 17	Thematic group			22+13+12+11+1 1+8	2 + 2 + 12
		A (32- 50)	**B** (51- 109)	**A1** (110- 120)		
		5 + 8 + 6	7+7+8+7+14+16	5 + 6		
keys	g#:	D#: T…..C#: T	B: b: E: D#:	D#:T…...T	A#: B: Db: bb: eb: d#:	a: t…F#:T
thematic unit	*a*	*a1*	*b, c, d*	*a2*	*e*	*e1*

section	**Development section** (mm. 214- 394)					
unit	1st stage (214- 255)				2nd stage (256- 313)	3rd stage (314- 365)	4th stage (366-394)
sub-unit	4 + 2 + 1	3 + 4 + 7	3 + 3	3 + 5 + 7	8 + 4 + 9 + 12 + 16 + 9	6 + 5 + 6 + 6 + 8 + 21	16 + 13
periods							
keys	F#:		C#:		G#: F#: b: G: E: B: d#:	d#: F#: b: D: g: d:	C: bb(A#):
thematic unit	*b1*		*b2*		*d1, e b3*	*a3, e, d2*	*e2, a4*

section	**Recapitulation** (mm. 395- 627)					
unit	Introduction (395- 421)	I subject (422- 476)		II subject (477- 550)	Closing unit (551- 562)	Coda (563- 627)
sub-unit and syntax structure	7 + 7 + 13	thematic group		15+19+10+11+11+ 8	5 + 7	10 + 7 + 4 + 8 +10 + 13 + 13
		B1 (422- 447)	**B2** (448- 476)			
		9 + 6 + 4 / 4 + 3	2 + 4 + 14 + 9			
periods						
keys	g#:	D#:	Pedal tones: D, C#, B	F#: Ab: f: bb: a#:	a:	B: E: C#: G#: F#: B: b:
thematic unit	*a*	*b4*	*c1*	*e3*	*e4*	*e5, a5, b5, a6, e*

4.4.1 Exposition of "Scarbo"

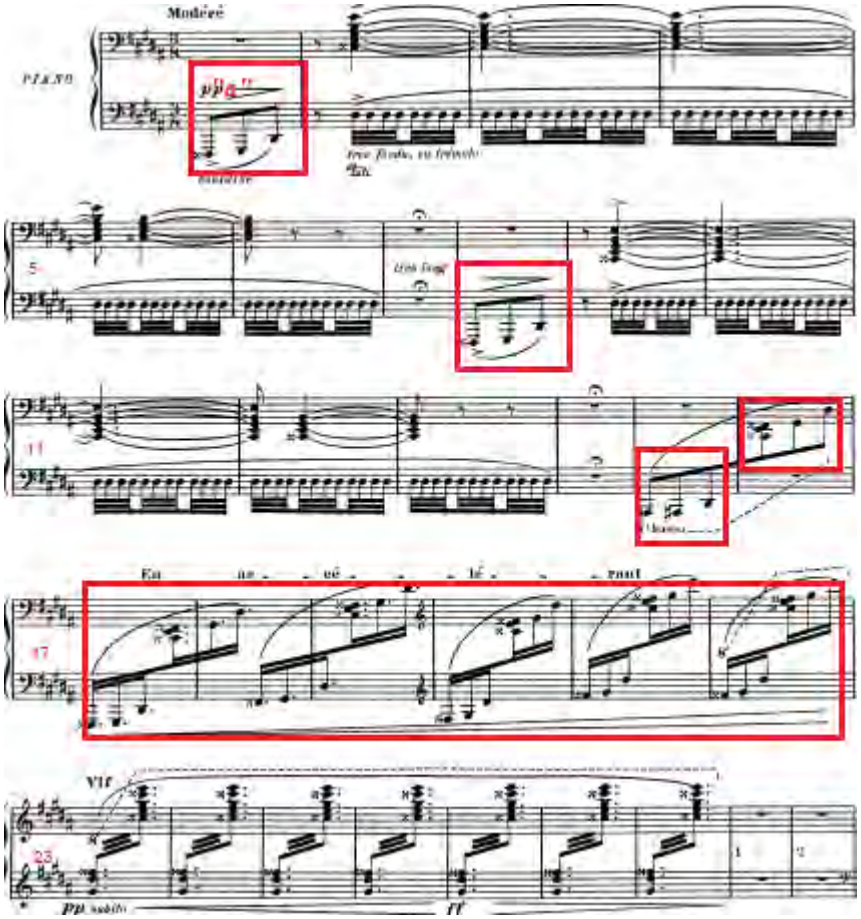
Introduction, mm. 1-31, in a moderate tempo (*Modéré*), compared to the tempo of this movement (*Vif*), exposes the thematic unit **a** in G-sharp minor in the low register of piano, measures: 1, 8, 15, 16 etc., and has a sentence structure.[106] In addition to its programmatic meaning and its expositional function, this introduction, mm. 17-23, leads the musical flow to the main tempo of the movement by gradual accelerating (see Example No. **4.14**).[107]

First subject, mm. 32-120, is constructed as a thematic group divided into three sub-units **A**, **B** and $\mathbf{A_1}$, in which the first **A**, mm. 32-50, and the third $\mathbf{A_1}$, mm. 110-120, have sentence structures and the second **B**, mm. 51- 109, is constructed as a series of six sentences, the first: mm. 51-57, the second: mm. 58-64, the third: mm. 65-72, the fourth: mm. 73-79, the fifth: mm. 80-94, and the sixth: mm. 94-109. Regarding grouping these sub-units into the thematic group, Andrew Aziz also writes: "In 'Scarbo,' Ravel lays out a series of thematic modules in the exposition."[108]

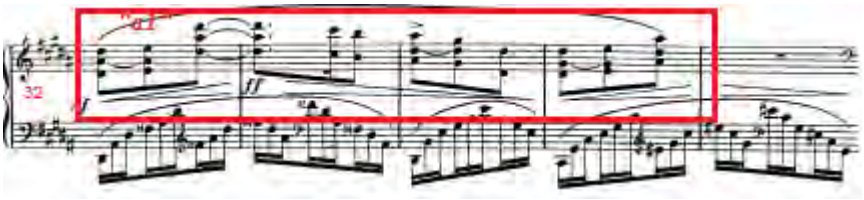
This thematic group has an unusual ternary structure, which is a combination of the simple form, **A** and $\mathbf{A_1}$, and the complex form **B**. Some of the above-mentioned sentences (first, second and fourth) contain materials of the same thematic units, and incorporate the same beginnings. Yet, they do not show a sufficient degree of diversity to be able to build some higher-level structures.[109] However, structural fragmentation of these sentences is at higher level, compared to the rest of the movement.[110] The middle sub-unit **B** has the developmental features and it is characterized by several key changes (B major, B minor, E major, D-sharp major), whilst the last sentence in the sequence returns the musical flow to the key of D-sharp major. It prepares the

106. An introduction in a slow tempo that precedes a sonata form, originates from a Church sonata and a French overture. Also, it appears frequently in Viennese classics. This shows Ravel's inclination to the tradition.
107. William E. Caplin, James Hepokoski, and James Webster, *Musical form, forms, formenlehre: three methodological reflections*, ed. Pieter Bergé (Leuven University Press, 2009), 27.
108. Andrew Aziz, "Temporal Disruptions in Debussy and Ravel's Programmatic Sonatas" (San Diego State University, 2020), 49.
109. Claus Weihs, Dietmar Jannach, Igor Vatolkin, and Guenter Rudolph, eds., *Music Data Analysis: Foundations and Applications* (New York: Taylor & Francis, 2016), 104.
110. Caplin, *Classical Form*, 41.

appearance of sub-unit **A_1** by use of harmony, by exposing thematic unit **a_1**, and unifies the entire group by cadencing in the main key. This thematic group exposes thematic units **a_1**, **b**, **c** and **d** (see Examples Nos. **4.15**, **4.16**, **4.17** and **4.18**).

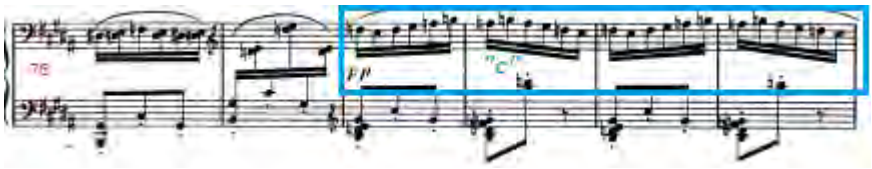


Example 4.14: Thematic unit **a** from the introduction of "Scarbo"

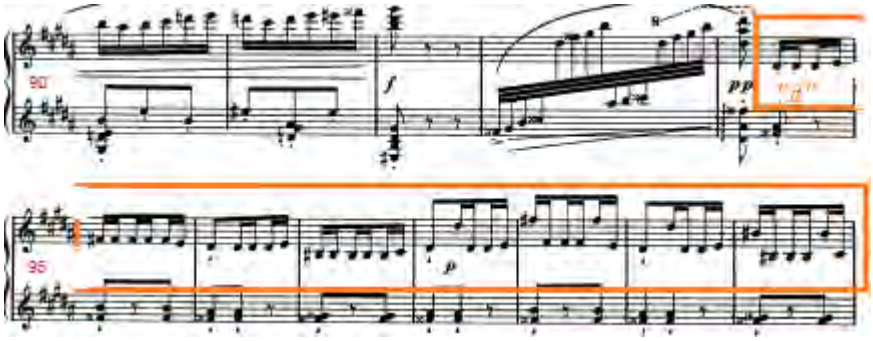


Example 4.15: Thematical unit **a_1** within the sub-unit **A**

Example 4.16: Thematical unit **b** within sub-unit **B**



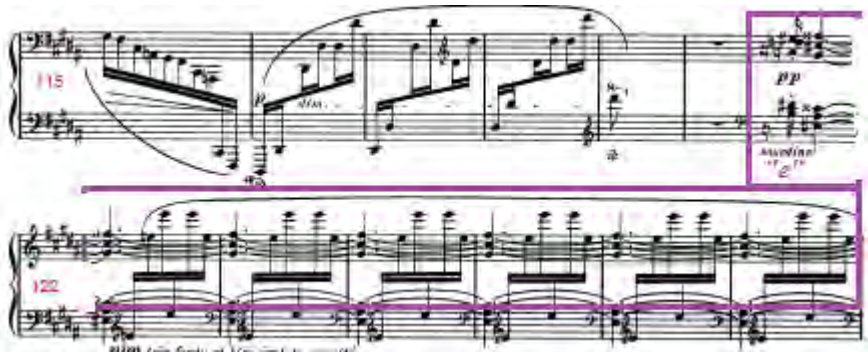
Example 4.17: Thematic unit **c** within sub-unit **B**



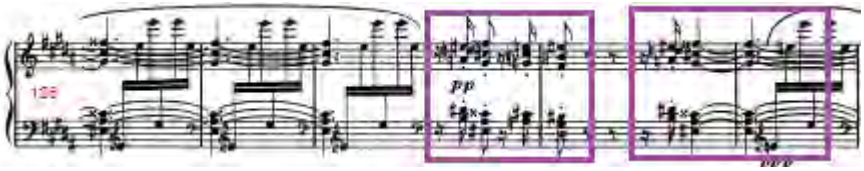
Example 4.18: Thematic unit **d** within sub-unit **B**

Bridge/transition is omitted in "Scarbo" and it is a very important feature of this movement because of an exception to a usual sonata form. An identical situation of a complete absence of transition can be found also in the recapitulation. Within that section, a sub-unit **B** (from a thematic group within the first subject) takes over the role of the bridge, because it possesses elements of material elaboration and also prepares the appearance of the second subject.

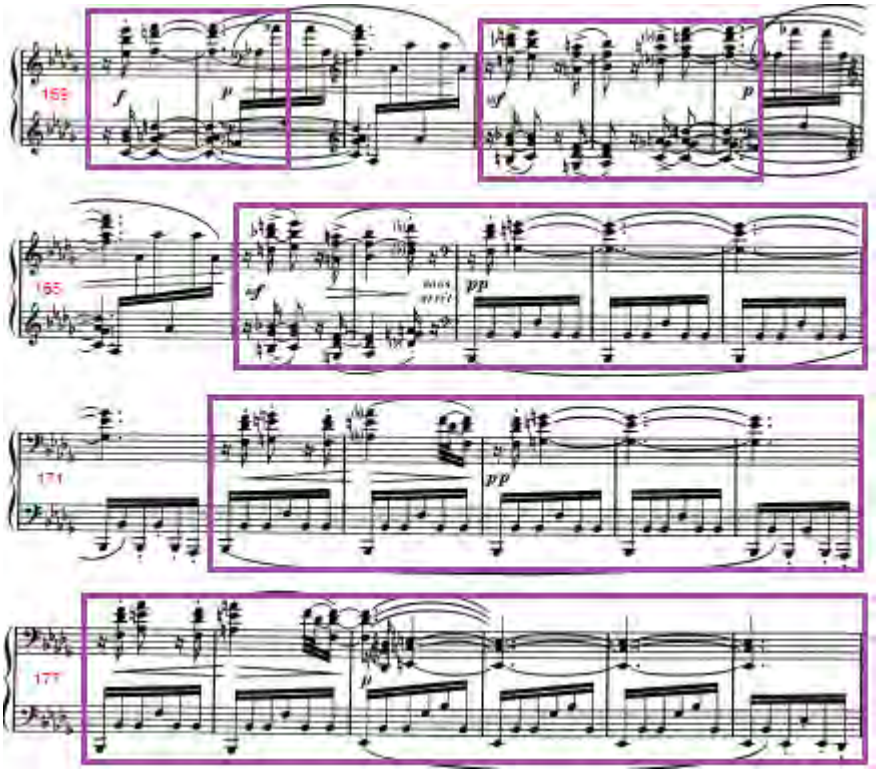
The musical flow of the **second subject**, mm. 121-197, is constructed of a series of sentences, the first: mm. 121-142, the second: mm. 142-155, the third: mm. 156-167, the fourth: mm. 168-178, the fifth: mm. 179-189, and the sixth: mm. 190-197. They do not meet the requirements for creating some bigger syntactic structures. The second subject possesses characteristics of elaboration—developmental function. A series of sentences expose the thematic unit **e** while the harmonic progression is very unstable. It flows through following keys: A-sharp major, B major, D-flat major, B-flat minor, E-flat minor, and D-sharp minor. The second subject is presented on an unstable harmonic basis, partly showing an analogy of key changes with its appearance in the recapitulation (see Examples Nos. **4.19**, **4.20** and **4.21**).



Example 4.19: Thematic unit **e** within the second subject



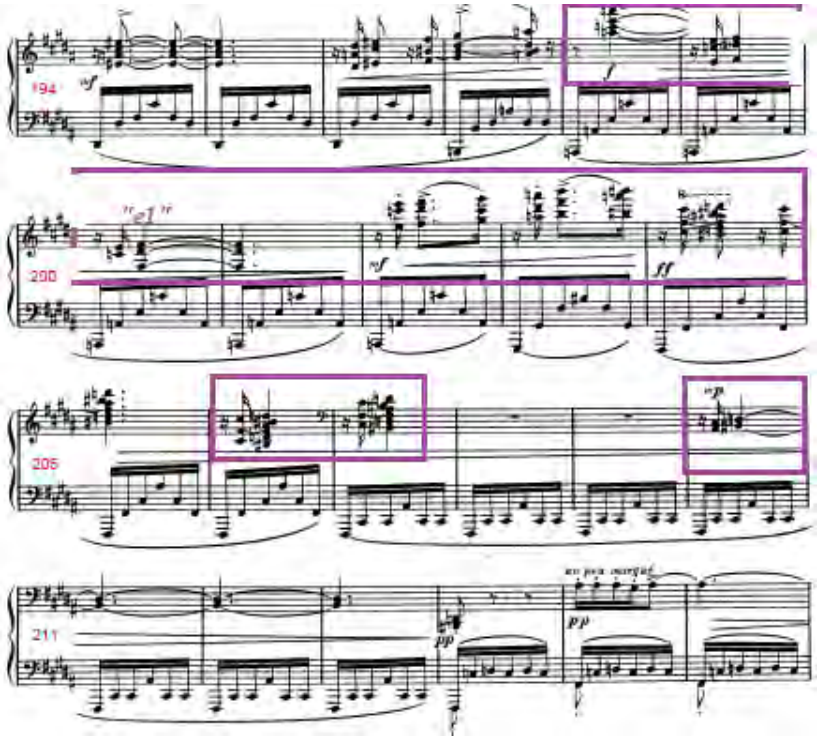
Example 4.20: Thematic unit **e** within the second subject (segment)



Example 4.21: Thematic unit **e** within the second subject (segment)

Closing unit, mm. 198–213, has a sentence structure and exposes the thematic unit $\mathbf{e_1}$ from the second subject in a modified form. This unit starts in a different key, A minor, compared to the main key and the one in which the second subject begins and ends. In this case, the closing unit plays the role of harmonic transition and binds the exposition to the development section by modulating to F-sharp major (the key in which the development section will begin; see Example No. **4.22**). It is important to mention that the closing unit shows a certain analogy with a corresponding segment in the recapitulation. We notice the analogy in tonal and thematic aspect, since in both cases the initial key is A minor. There is also the thematic unit $\mathbf{e_1}$ that occurs here.

If we look at the exposition as an entirety, we will notice the factors that contribute to manifesting of a higher developing level in comparison to the case where it is usual for exposition. The 'key scheme' is relatively more labile, because only sub-units **A** and $\mathbf{A_1}$ are in the same key.[111] Within the thematic presentation in sub-unit **B**, there is a development feature, which is indeed a feature of middle section, but within a simple ternary form. These procedures impair a functional stability of the exposition.



Example 4.22: Thematic unit $\mathbf{e_1}$ within the closing unit

111. The term has been used by Peter Kaminsky. Kaminsky, *Unmasking Ravel*, 143.

4.4.2 Development section of "Scarbo"

Development section, mm. 214-394, can be subdivided into four stages/parts. The presence of the materials of some main thematic units from the exposition, conditioned this kind of subdivision.[112] It can also be observed that these stages show a textural diversity, but also a homogeneity inside themselves. For this reason, textural changes can be used here as one powerful means of subdivision within the musical flow. We should bear in mind that such role of texture is particularly emphasized, since the importance of harmonic cadencing is sidelined.

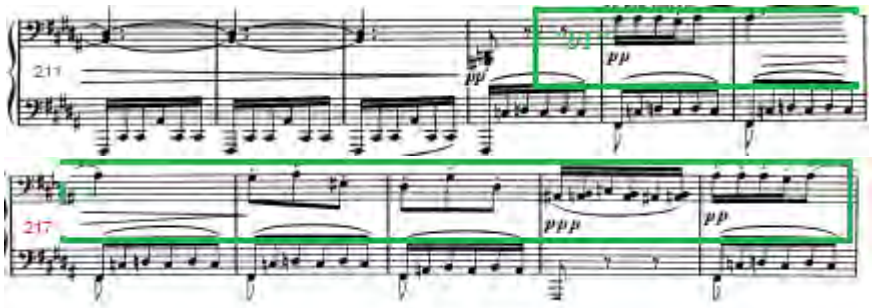
First stage, mm. 214-255, has a periodic structure and consists of two periods. The first one, mm. 214-234, consists of two sentences with the same beginning but different ends. The first sentence, mm. 214-220, and the second one, mm. 221-234, expose the thematic unit $\mathbf{b_1}$ from the thematic group within the first subject in F-sharp major. The second period, mm. 235-255, has a very similar motivic material as the first one and exposes it in C-sharp major, by bringing thematic unit $\mathbf{b_2}$ (see Example No. **4.23**).

Second stage, mm. 256-313, is composed of fragments. The basis for the thematic development in this stage is the material of the thematic unit $\mathbf{d_1}$ of sub-unit **B** from the exposition (see Example No. **4.24**). Here we can also find the thematic unit $\mathbf{b_3}$, as well as fragments of the thematic unit **e**.

Third stage, mm. 314-365, also fragmented, brings the material of the thematic unit $\mathbf{a_3}$, as the basis for elaboration. In addition to this material, we can also find fragments of thematic units **d** and **e** (see Example No. **4.25**).

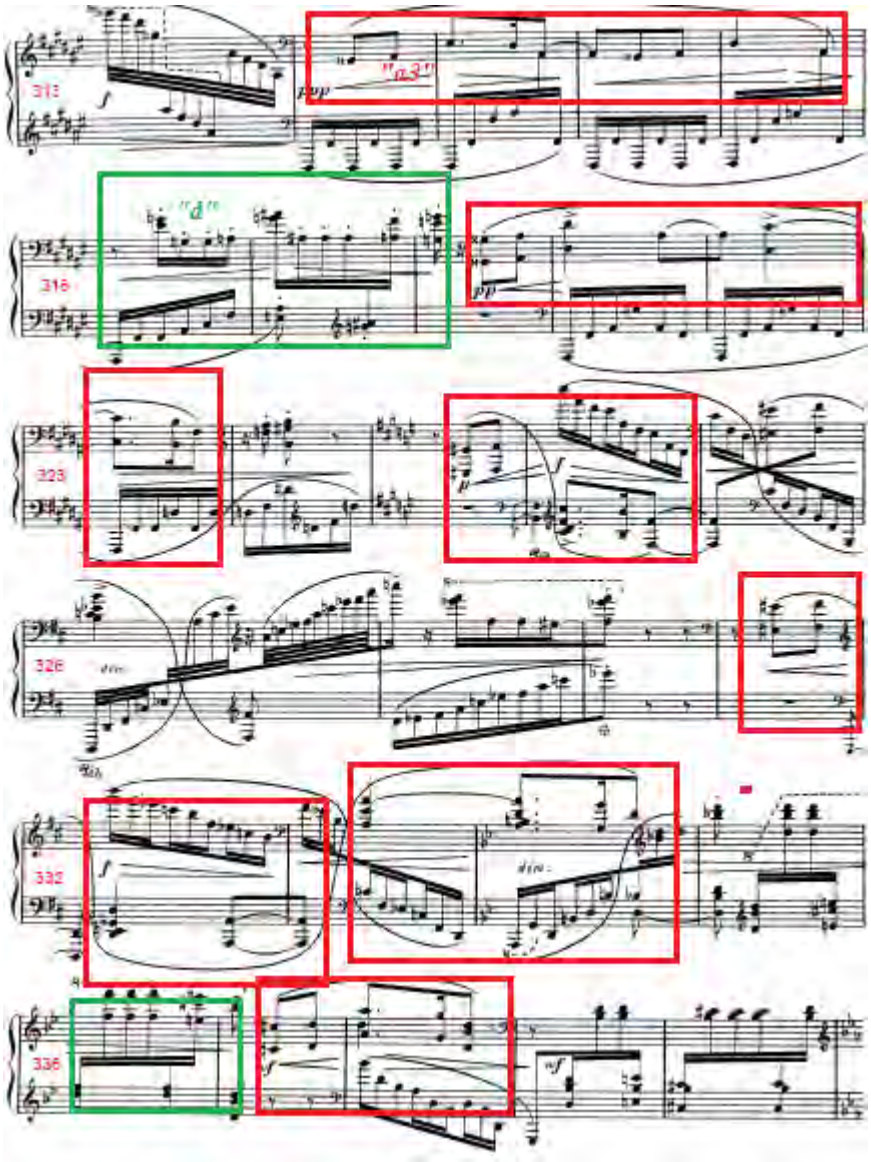
112. The first stage of the development section could be also perceived as an introductory section, in the case we would look at this development section differently, dividing it into an introductory, central and final unit/module. However, each of these stages shows a sufficient degree of textural and thematic "tightness" despite a fragmentary organization in the last three stages. It is therefore very illogical and difficult to group them into units/modules that are part of a usual structure of development part. For this reason, this kind of subdivision was made.

Fourth stage, mm. 366-394, represents the climax of the development section. It delivers the thematic unit **e₂** on the Tonic pedal tone in C major, in order to make a thematic preparation of the recapitulation in the measure 382. This is done by exposing the thematic unit **a₄** and by modulation to B-flat minor in the measure 389 (see Example No. **4.26**). B-flat minor ninth-chord should be comprehended as the enharmonic exchange of A-sharp minor chord, so that it is harmonically connected to the recapitulation via diatonic modulation to the home-key of G-sharp minor which follows.

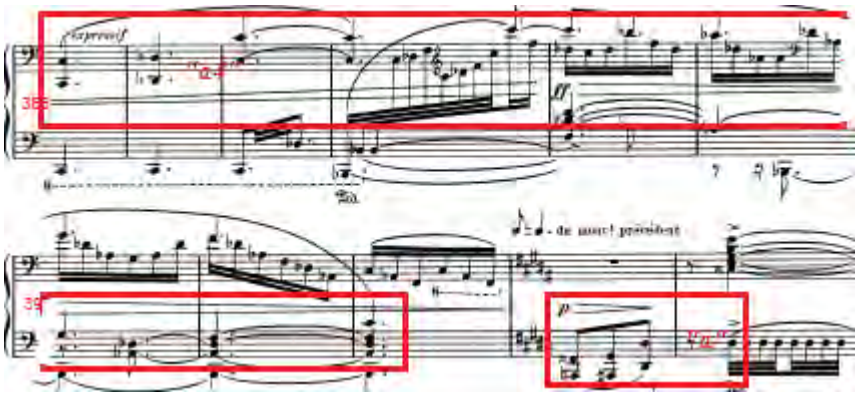


Example 4.23: Thematic unit **b₁** within the first stage of the development section

Example 4.24: Thematic unit **d₁** within the second stage of the development section



Example 4.25: Thematic unit **a**$_3$ within the third stage of the development section



Example 4.26: Thematic units **e**$_2$ and **a**$_4$ within the fourth stage of the development section

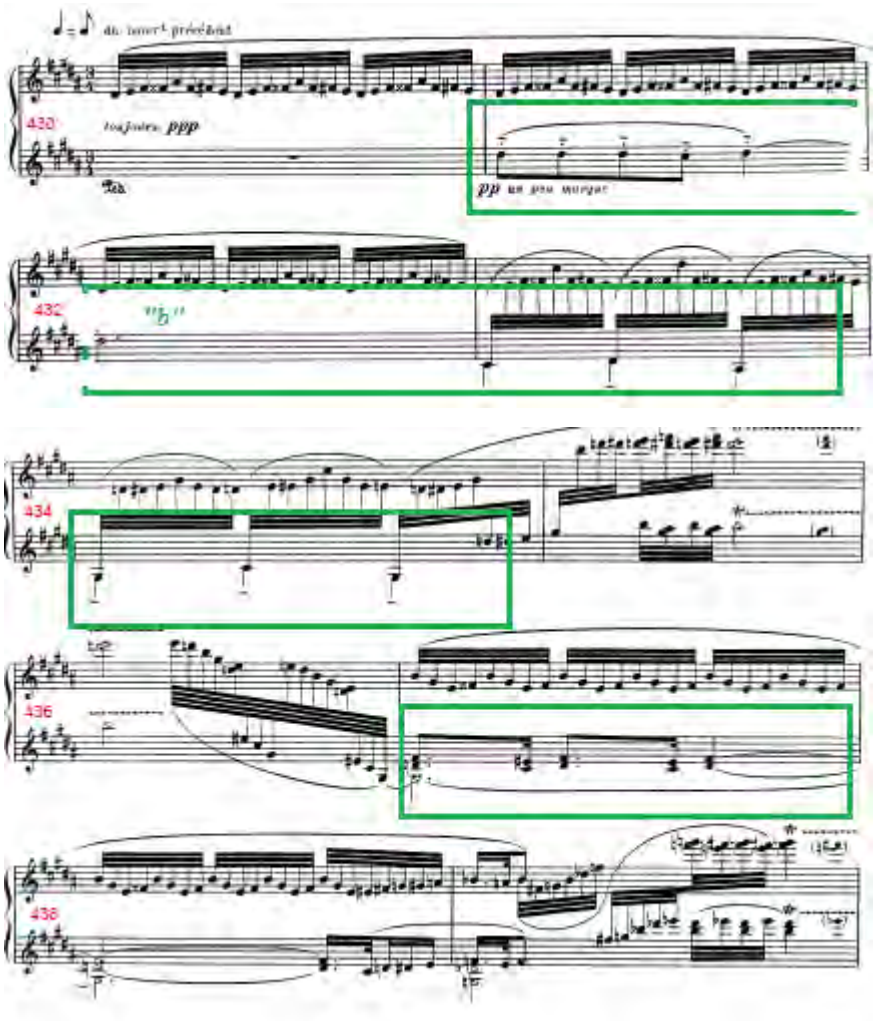
4.4.3 Recapitulation of "Scarbo"

Recapitulation, mm. 395-627, brings the new changes that represent further deviations from the usual conception of the exposition. This relates primarily to the absence of the certain parts of the form and a change in the formal function of some of its segments.

Recapitulation of the introduction, mm. 395-421, in the home-key and slower tempo brings the thematic unit **a** in the low register, in the same manner as it has been done in the exposition. Regarding the differences between the exposition and introduction, Peter Kaminsky writes that "the recapitulation articulates the introduction-exposition thematic cycle in condensed form."[113]

First subject, mm. 422-476, consists of a thematic group which is now re-designed and composed of two sub-units: $\mathbf{B_1}$, mm. 422-447, and $\mathbf{B_2}$, mm. 448-476. The common "remaining" thematic units from the original three-part group in the exposition are $\mathbf{b_4}$ and $\mathbf{c_1}$. The allocation of the thematic material does not meet the requirements for the ternary form design. For this reason, compression and reformulation of the original three-part structure into a two-part structure must occur. Specifically, it lacks the thematic unit **a**, or even more precise $\mathbf{a_1}$, which was originally exposed in the sub-unit **A** of the previous three-part thematic group **A B** $\mathbf{A_1}$. The mentioned thematic units are now exposed in a completely different harmonic and textural background. Sub-unit $\mathbf{B_1}$ begins in the key of D-sharp, having a periodic structure that consists of two sentences with the same starts but different ends, the first one, mm. 422- 440, and the second one, mm. 441- 447. The nine-measure introduction figure is also part of the first sentence. Thematic unit $\mathbf{b_4}$ is now exposed in augmentation (see Example No. **4.27**).

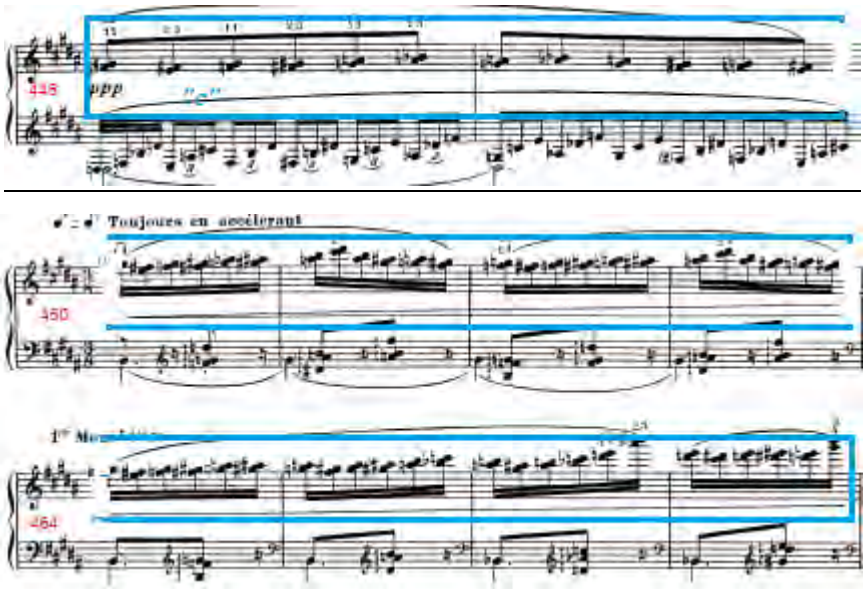
113. Kaminsky, *Unmasking Ravel*, 135.



Example 4.27: Thematic unit **b₄** within thematic group of the first subject in recapitulation

The sub-unit **B₂** within the thematic group of the first subject brings the augmented thematic unit **c₁** and has a sentence structure. The second subject is then chained to it. A 'functional reinterpretation' occurs in this sub-unit. It has elements of thematic development and thus gradually takes over the function of a bridge/transition (which was omitted in the exposition) preparing the appearance of the second subject.[114] In this sub-unit, the return to the main tempo is made by gradual acceleration. Thus, the musical flow is dynamized in conjunction with other musical components (primarily with harmony and rhythm). There is no clear tonality here either (see Example No. **4.28**). The musical flow develops on the pedal tones "D", "C-sharp" and "B."

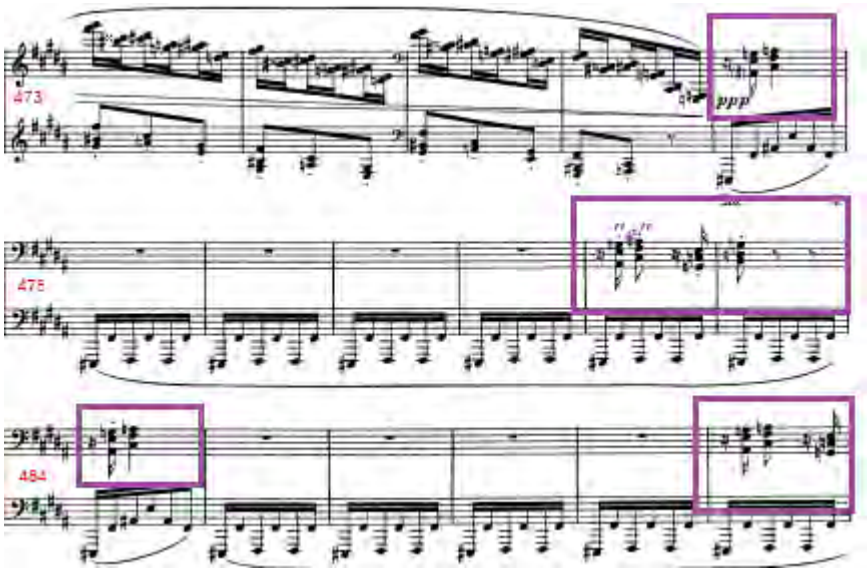
114. Caplin, Hepokoski, and Webster, *Musical form, forms, formenlehre,* 40.



Example 4.28: Segment of the thematic unit **c_1** within the first subject

Second subject, mm. 477- 550, is organized as a series of sentences: the first, mm. 477-501, the second, mm. 502-510, the third, mm. 511-520, the fourth, mm. 521- 531, the fifth, mm. 532- 542, and the sixth, mm. 543- 550, which together create the fragments similar to the exposition. It starts exposing in F-sharp major and continues to flow on an unstable harmonic basis until the closing unit. The tonalities are: F-sharp major, A-flat major, F minor, B-flat minor and A-sharp minor. The relationship of the key scheme in the second subject between the exposition and the recapitulation shows certain consistency. By neglecting the initial keys, we can observe that the relation between the keys in the second subject between the exposition and the recapitulation is: **S - T** (Subdominant - Tonic). In other words, there is a certain harmonic pattern.[115] The second theme brings the thematic unit **e_3** (see Example No. **4.29**).

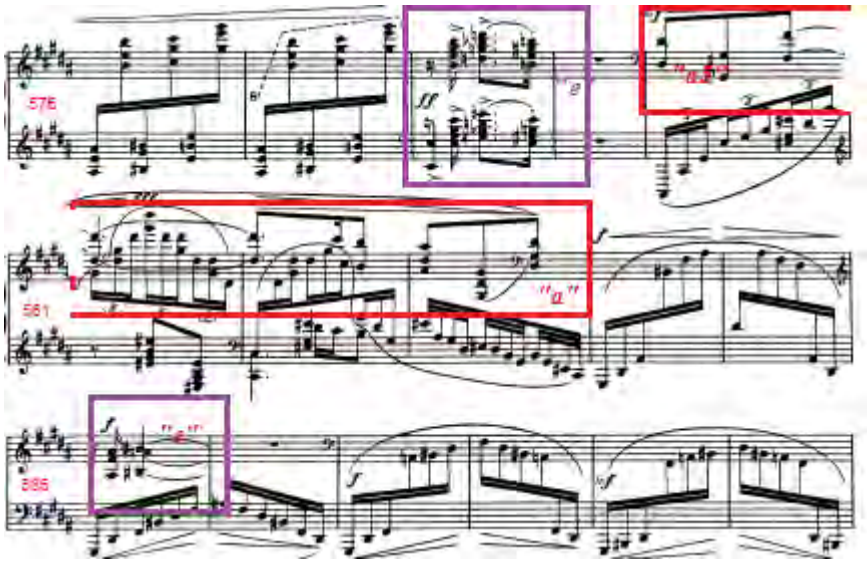
115. Peter Kaminsky also writes about harmonic-thematic relations in "Scarbo:" "The apparent thematic parallels between introduction-exposition and recapitulation are reinterpreted by the harmonic parallels between the two large areas - a masterful reinterpretation of thematic design by harmonic structure." Kaminsky, *Unmasking Ravel*, 137.



Example 4.29: Thematic unit $\mathbf{e_3}$ within the second subject

Closing unit, mm. 551- 562, starts in A minor and brings the thematic unit $\mathbf{e_4}$ from the second subject similar to the exposition. It has a role of a harmonic transition because it modulates to the key in which the Coda section will be exposed.

Coda, mm. 563-627, can be considered as the culmination of the whole movement and it gives a reminiscence about the most used thematic units exposed in the movement: the units **e**, **a**, and **b**. It begins in B major and continues through the keys: E major, C-sharp major, G-sharp major, F-sharp major, B major and ends in B minor (see Examples Nos. **4.30** and **4.31**).



Example 4.30: Thematic units $\mathbf{a_5}$ and $\mathbf{e_5}$ in Coda

Example 4.31: Thematic unit $\mathbf{b_5}$ in Coda

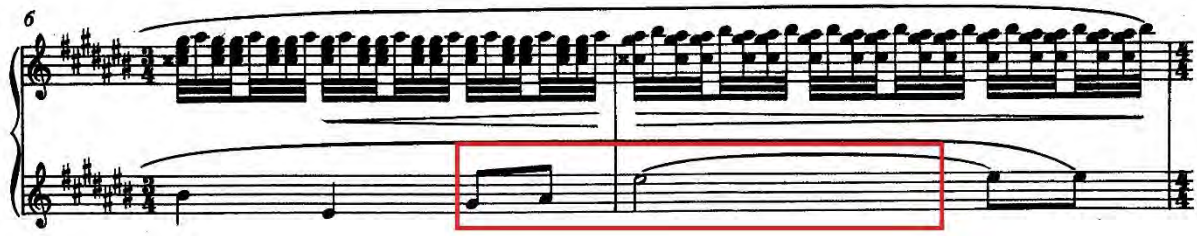
4.5 Elements of thematic unity of the cycle

Before we discuss the macro-form of the cycle, it is necessary to mention the formative principles that have a significant function in the musical unity of the cycle. In the first place, we indicate the different principles of motivic development, every time when important thematic materials appear. Through the thematic/formal analysis in the previous parts of this chapter, we could realize that the one of the basic principles of the thematic development is a gradual "shaping" of the motifs and the thematic materials. The listener could conclude that the certain thematic materials often do not have their strictly defined "basic" or "common" shape. On the contrary, their 'motivic/thematic cores' are constantly elaborated, but in the way that we can still recognize them in spite of a modification level.[116] Generally, by analyzing the thematic process on the global level, we observe that the motivic materials possess a high degree of similarity. Ravel uses these principles within all the movements of the cycle. Specifically, thanks to the existence of the fundamental 'cyclic motif,' the thematic coherence of the whole cycle is achieved.[117] The 'cyclic motif' is originally exposed in a latent way, and later elaborated through all the movements of *Gaspard de la Nuit*. By using the cyclic motif, Ravel achieves the centralization and the focus on the specific musical content, idea or meaning.

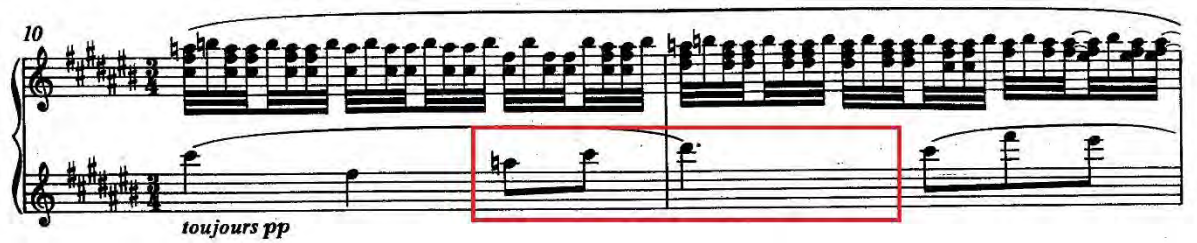
Here, we will isolate mentioned motifs by implementing a comparative analysis and then consider the degree of their similarity. Thereby, only the "original" occurrences of the motifs from all three movements will be exhibited, since in this

116. Radeta, *Semiotic Analysis,* 11.
117. For more thorough explanation of the relationship between motifs and text of the poems, see: Radeta, "The piano music of Maurice Ravel," 282.

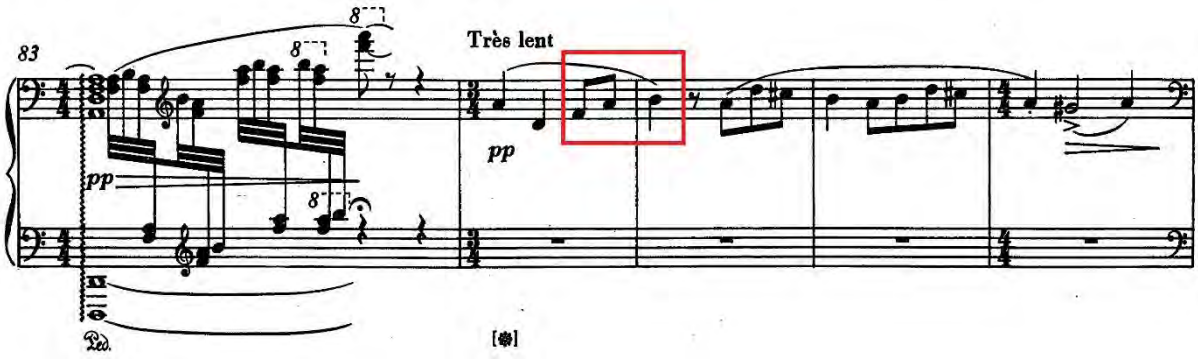
way, their similarity will be the most obvious. Following examples in this chapter illustrate some of the transformations of the cyclic motif through all three movements of *Gaspard de la Nuit* (see Examples Nos. **4.32**, **4.33**, **4.34**, **4.35**, **4.36**, **4.37**, **4.38**, **4.39**, **4.40** and **4.41**). The most characteristic modifications of the cyclic motif are displayed in order to show the essence of the global motivic development.



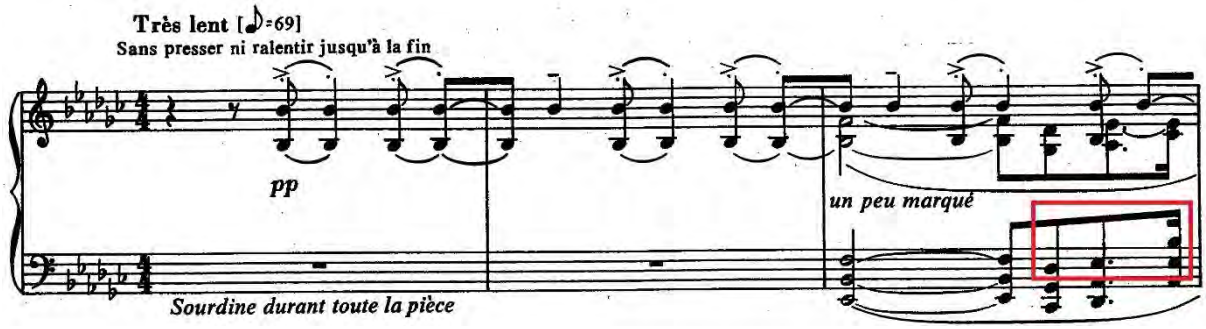
Example 4.32: Cyclic motif within the exposition of "Ondine," mm. 6-7



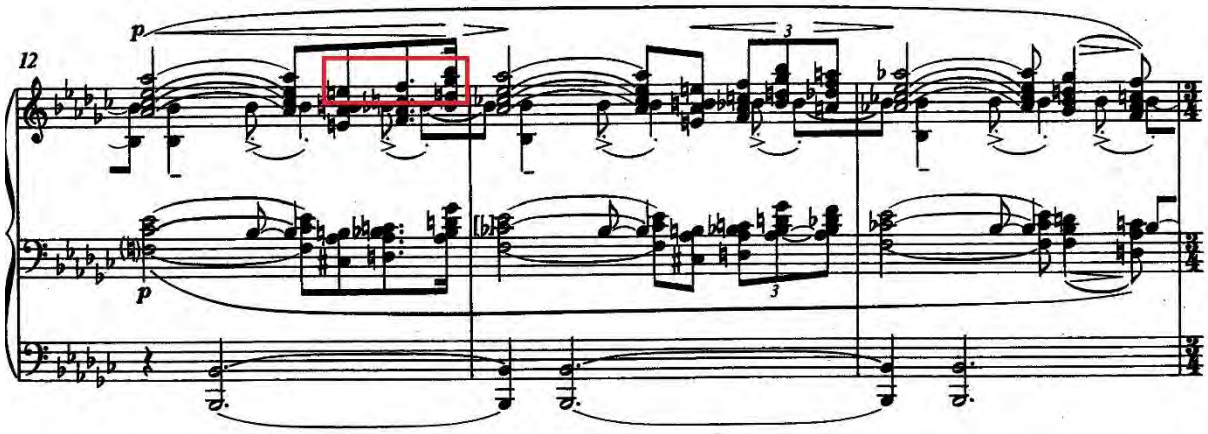
Example 4.33: Cyclic motif within the exposition of "Ondine," mm. 10-11



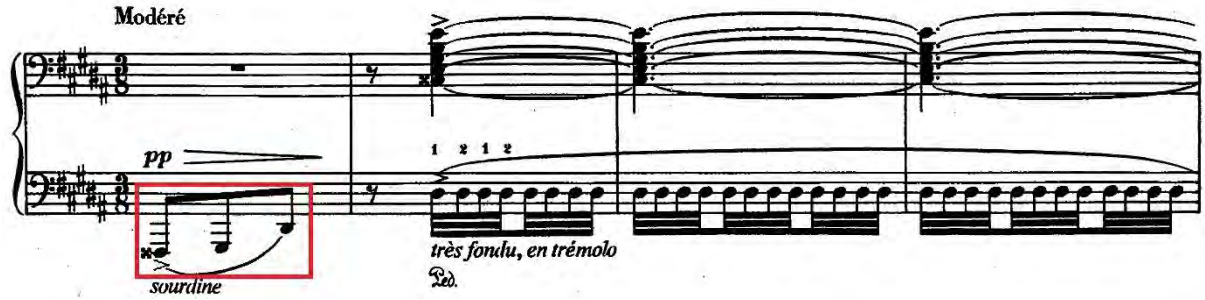
Example 4.34: Cyclic motif within the recapitulation of "Ondine," mm. 84-85



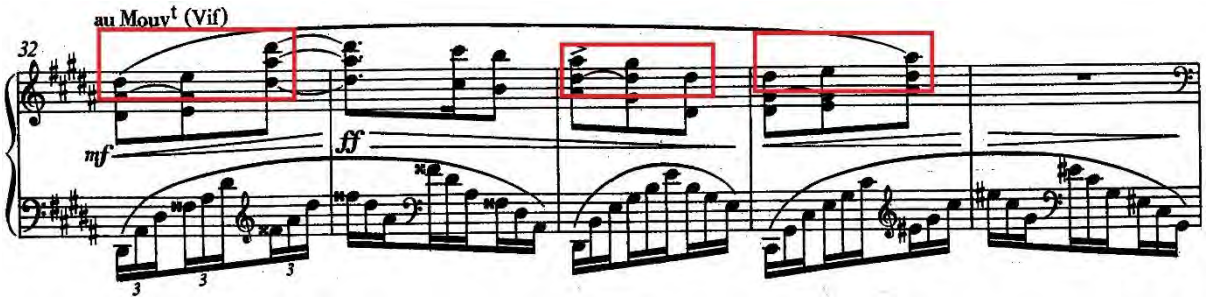
Example 4.35: Cyclic motif in "Le Gibet," mm. 3



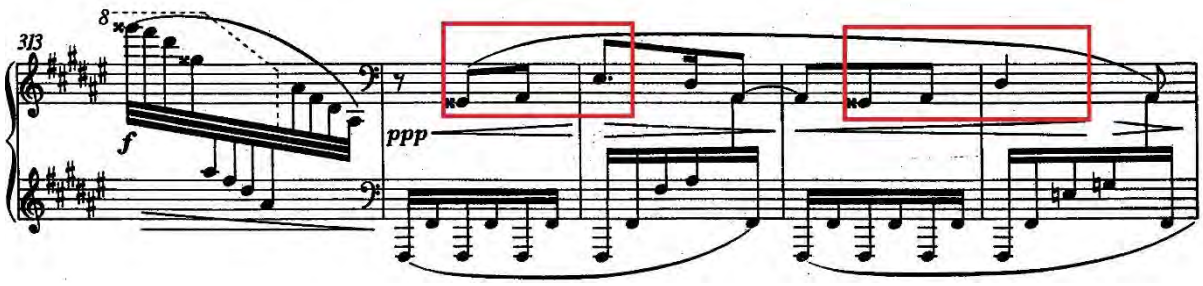
Example 4.36: Cyclic motif in "Le Gibet," mm. 12



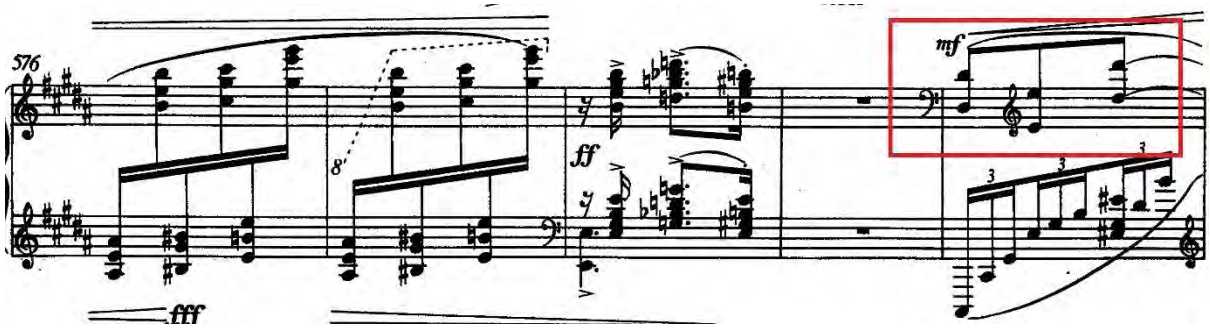
Example 4.37: Cyclic motif within the exposition-introduction of "Scarbo," mm. 1



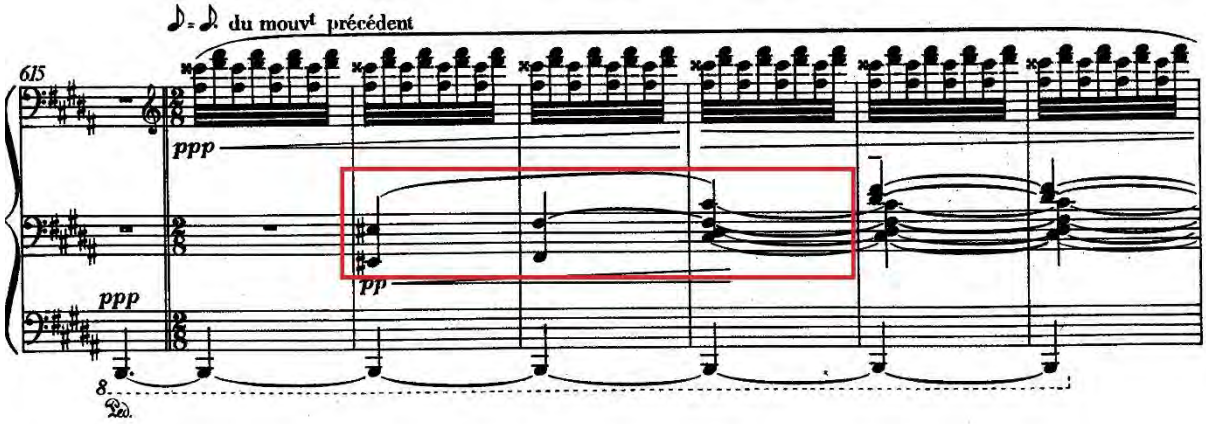
Example 4.38: Cyclic motif within the exposition of "Scarbo," mm. 32-35



Example 4.39: Cyclic motif within the development section of "Scarbo," mm. 314-317



Example 4.40: Cyclic motif within the Coda of "Scarbo," mm. 580



Example 4.41: Cyclic motif within the Coda of "Scarbo," mm. 617-619

If we compare previously exhibited motifs, we observe that all of them show a high level of similarity. The melodic contour, as well as the used intervals, prove this hypothesis. However, the motif is composed of an ascending semi/whole-tone motion, followed by the ascending motion of the fifth. This thematic core is less exploited within "Ondine," but much more within "Le Gibet" and "Scarbo." Nevertheless, it serves as the basis for accomplishing thematic cohesion of the cycle.

The ways how the cohesion is achieved are various. In "Ondine," it is accomplished by exposing the cyclic motif within the first and the second subject, both in the exposition and in the recapitulation. However, in "Le Gibet," Ravel exploits this motif through all the sections of the complex ternary form. Yet, in "Scarbo," the cyclic motif is exploited as the most dominant thematic resource, being mostly transformed during various principles of thematic development. Interestingly, Ravel concludes "Scarbo" "by roughly mirroring the elements of the introduction"—the piece opens and ends with the cyclic motif.[118]

All thematic materials in which the cyclic motif can be found are created by the direct influence of its 'thematic core.'[119] The conception of the cycle consists of three movements, where the first movement is the starting point, the second anticlimax, and the third the climax. It is underlined by the thematicization of the motifs emanated from 'the nucleus' which is exposed in the first movement.[120] Specifically, all thematic materials generated from the core play the role of the key subjects/themes within the movements. Since we do not find other thematic relationships at the global level, the cyclic motif is the tie for achieving cohesion of the cycle. Although exposed to the various transformations during the thematic process, the cyclic motif still shows a high degree of recognition during the whole piece.

The presence of the cyclic motif shows a certain direction, from the beginning to the end of the cycle. Furthermore, it is the least presented in "Ondine," but much more in "Le Gibet" and "Scarbo," where the dramatic focus of the cycle is present. The dramaturgy of the whole work is directed towards the third movement, and it is perceived both from the musical and the programmatic point of view. Ultimately, the focus of the cycle is emphasized by the fact that "Scarbo" has the most complex formal structure in the piece.

118. Kaminsky, *Unmasking Ravel*, 136.
119. See more about the function of 'thematic core' in: Darla Crispin and Bob Gilmore, eds., *Artistic Experimentation in Music: An Anthology* (Leuven University Press, 2014), 278. https://www.jstor.org/stable/j.ctt14jxsmx
120. Michael Spitzer, "Jean-Jacques Nattiez, The Battle of Chronos and Orpheus: Essays in Applied Musical Semiology," trans. Jonathan Dunsby, *Twentieth Century Music* Vol. 3, No. 2 (2006): 89.

4.6 Macro-form of the cycle *Gaspard de la Nuit*

In the previous sections of this chapter, we discussed the formal plan of each movement, identifying thematic units presented in all of them. If we summarize all previously presented analytical results, we could look at the formal structure of the whole piece and conclude that it exhibits significant features of a sonata cycle. However, it is obvious that the possibilities for interpreting this cycle as a suite, or a cycle of pieces are far less adequate. Yet, the formal structure of the movements fully corresponds to the sonata cycle design. A three-movement cycle, in which the first and the third movement are based on sonata form, can only be interpreted as a sonata. The conclusions of the other authors show mostly the same results.[121] One of the researchers who was exploring almost entire Ravel's oeuvre, Roy Howat, concluded that "most of Ravel's larger instrumental movements exploit an underlying thematic sonata scheme."[122] For instance, Oleksii Ivanchenko also wrote:

> The Neoclassical facet is used here as a fundamental tool for creating the musical structure. The sonata form is applied within each piece as well as within the entire cycle. Although the traditional structure of a sonata is modified here in a much freer way than the purely Classical model, clear structural contours and logical organization of harmonic and melodic lines convey a sense of strict form.[123]

The fact that the key scheme of the cycle cannot be considered as quite consistent, can be partly justified by invoking the stylistic features of Impressionism and Ravel's harmonic language. It is often stated in the literature that Ravel was very respectful towards traditional forms. Peter Kaminsky explained Ravel's relationship to tradition regarding sonata form:

> From a form standpoint, one could interpret this as (Charles) Rosen does: that Ravel relies on conventional tonal baroque and classical form in order to provide the

121. For instance, Ivanchenko writes: "Structurally, the cycle can be treated as a Classical sonata that consists of three movements: the two faster movements *Ondine* and *Scarbo* (first and last movements in a sonata), arching the slow *Le Gibet* (second movement of a Classical sonata)." Ivanchenko, "Characteristics of Maurice Ravel's compositional language," 58.
122. Roy Howat, "Ravel and the Piano" in *The Cambridge Companion to Ravel*, ed. Deborah Mawer, (Cambridge: Cambridge University Press, 2000), 80.
123. Ivanchenko, "Characteristics of Maurice Ravel's compositional language,"57.

> necessary chains for his unique contributions in harmony, orchestration, and so forth.[124]

Therefore, it is not a coincidence that *Gaspard de la Nuit* can be regarded as a sonata form at the macro level. However, the formal analysis given in this chapter points to a less conventional treatment of form regarding its inner elements.[125]

124. Kaminsky, "Ravel's Approach to Formal Process: Comparisons and Contexts," in *Unmasking Ravel,* ed. P. Kaminsky, 96.

125. Norma Pohl writes: "There is no sense of sectionalism; once the themes are stated, they do not return in any fixed order, nor are they always varied and developed in their entirety." Norma Pohl, "*Gaspard de la Nuit:* A Theoretical and Performance Analysis" (Ph.D. diss., Washington University, 1978), 17–18.

Chapter 5

Role of harmony in *Gaspard de la Nuit*

At the beginning of the 20th century, the disintegration of tonality became a compositional problem. The ambivalence in use of keys, the plurality and multitude of tonalities overlapping each other, as well as the use of non-functional harmony did problematize the question of form and the role of harmony. If we should simplify the history of harmony, then we may describe the role of harmony in Classicism as constructive, and in Romanticism as expressive.[126] Comparing to the previous periods, the traditional role of harmony displaces its focus in Impressionism from constructive and expressive to coloristic.[127] The possibilities of the coloristic role of harmony were explored and exploited. In fact, the coloristic capacities of the impressionistic harmony were used in two basic ways: by choice of chords/sonorities and by their interrelations. As previously mentioned, sonorities can manifest vertically and/or horizontally.[128] Yet, when discussing the features of tonality in Impressionism, we must raise a question of relations inside of harmonic progressions. 'The emancipation of dissonances' and their practical equality with consonances make the reason that they are used consecutively, independently, and without any limitations.[129] In contrast to the Romantic harmony, where the harmonic potential and tension of chords are primary, the impressionistic harmony enforces their coloristic capacity.

126. This classification is also used in: Despić, [*Harmony with harmonic analysis*], 41.
127. Morgan, *Hearing and Knowing Music*, 165. Regarding impressionistic harmony and style, I refer to the following literature: Maurice Hinson, *Anthology of Impressionistic piano music: Intermediate to early advanced* (Alfred Music, 2011); Christopher Palmer, *Impressionism in music* (New York: C. Scribner's Sons, 1973).
128. Despić, *Harmony*, 401-402.
129. See more about the term 'emancipation of dissonance' in: Stephen Hinton, "The Emancipation of Dissonance: Schoenberg's Two Practices of Composition," *Music & Letters* Vol. 91, No. 4 (2010): 568-79. www.jstor.org/stable/40983272.

Ravel's harmony is both using conventional and innovative means.[130] To some extent, his harmonic language is deeply grounded in the tradition. In spite of complying to many innovations, Ravel's harmonic language is sometimes based on elements of the expanded tonality from previous époques. Regarding this, Arbie Orenstein writes:

> Although it is clear that Ravel's harmonic language was considered novel, indeed revolutionary during his lifetime, it now appears to be a logical outgrowth of the far-reaching expansion of chromatic harmony which followed the decisive opening measures of Wagner's *Tristan und Isolde*. Together with his contemporaries, Ravel exploited unresolved chords of the seventh, ninth, eleventh and thirteenth, complex harmonies over pedal points, and *sonorities* based upon the intervals of the second and the fourth.[131]

Overall, Ravel's originality and novelty make him different from any other composer. Orenstein also writes about the characteristic of Ravel's pre-war music:

> His adventurous harmonic language is solidly rooted in tonality with many modal inflections, some exploitation of bitonality, and even rare atonal passages. In the pre-war compositions, one generally observes a richer texture and harmonic palette, coupled with homophonic writing which bespeaks a close interrelationship between melody and harmony...[132]

As mentioned earlier, the harmonic structure in *Gaspard de la Nuit* is partly characterized by vague and absent cadencing. Clear articulation of form and the use of tonal center—the two basic roles of a traditional cadence—are to a great extent absent from the music. 'Temporal functions' in the musical flow are implemented either by avoiding cadence process, or by modifying the role of harmony in

130. Regarding Ravel's innovations in harmony, Dejan Despić writes: "The Impressionistic harmonic language has introduced some "new techniques" such as: further layering of the triad chord structure, supplementing chord structures by specific dissonances/tensions in form of 'independent non-harmonic tones,' a change of the basic building interval in the harmony—the interval of third was replaced by fourth, second, fifth etc., chords building based on a chosen interval model, symmetric construction of sonorities in regard to a middle line, two or multi-layered texture of music flow, chord building produced by certain linear basis—tone row, specific scale, mode or series." Despić, *Harmony,* 403. [translated from Serbian language]
131. Arbie Orenstein, "Reflections on Maurice Ravel's Creativity," *National Central University Journal of Humanities* Vol. 61 (June 2016): 238.
132. Ibid., 238.

cadences.[133] Andrew Aziz writes about the difficulties that one can cope with when analyzing early 20th century French music. He points to the formal and harmonic exceptions in terms of traditional expectations. When it comes to analyzing both form and harmonic progressions in French music, the analytical vocabulary of music theory is often not sufficient because it is mainly based on Austro-German tradition.[134] This is simply because of divergent ways of thinking harmony and cadencing, as well as in the construction of form.

The organization of tonality in Ravel's music complicates the process of distinguishing syntactic units since they are traditionally determined from the cadence. Roy Howat specifies that one characteristic of Ravel's music, lies in his "use of cadence (often modal) as a dramatic focus for the main culmination…" rather than a simple confirmation of tonality.[135] Undoubtedly, these particularities of Ravel's music are a challenge to the analysis. Furthermore, Berislav Popović refers to the terminological and practical issue of the term 'cadence' and its relation to the musical syntax in 20th century music.[136] He proposes introducing the new term 'limit' instead of using the term 'cadence.'[137] This would simplify the analytic procedure regarding delineating syntactic units. Ultimately, Philip Russom even believes that the exploration of Ravel's harmony requires a particular theoretic approach:

133. Caplin, *Classical Form,* 24.
134. Andrew Aziz writes: "One must also acknowledge that contemporaneous sonata theories investigate primarily Austro-Germanic forms not explicitly designed for early twentieth-century French repertoire, especially since such models rely on thematic and harmonic expectations – most explicit, perhaps, in the determination of specific cadential arrivals, which are often blurred or absent within these French works." Andrew Aziz, "Temporal Disruptions in Debussy and Ravel's Programmatic Sonatas." (University paper, San Diego State University, 2020), 3. https://www.academia.edu/38011722/Temporal_Disruptions_in_Debussy_and_Ravels_Programmatic_Sonatas?auto=download
135. Howat, *The Art of French piano music*, 33.
136. "Emphasizing the evident need to re-examine the definition according to which musical sentence is brought to an end by a cadence, and which has for more than half a century been the point of reference for the analysts examining it. The problems concerning the re-examination of the definition of musical sentence were first addressed by Berislav Popović, who pointed to some of its weaknesses. Aiming to achieve universality of the definition itself, he particularly explained the need for substituting the term *cadence* with the term *limit*, which would, by implication, come to include all that which is entailed in the notion of limit, in other words, it would include all the ways in which they can appear in different compositional procedures." Anica Sabo, "Problems concerning the terminological defining elements of the structural plan of the music flow: Musical sentence," *New Sound* Vol. 12 (2005): 1.
137. Ibid., 1.

> Ravel's early music is organized around functional tone centers, but is not tonal in the traditional sense. Indeed, Ravel's harmony shares many attributes with traditional tonality, yet it is organized in a distinctly different manner, and so it must be confronted on its own terms, with an autonomous theory that seeks to point out the individual characteristics of Ravel's harmony.[138]

In *Gaspard de la Nuit*, boundaries of syntactic units (sentences and periods) are largely determined by their formal functions, as well as by their capacity to act independently within a certain ambience. The "Theory of Formal Functions," introduced by William E. Caplin, is very applicable to Ravel's music since it still possesses some common features of the music from previous periods.[139] Within the formal analysis, limits of the syntactic units were conditioned by the formal function they perform, even though the role of harmony is not always clearly constructive. In addition to the formal functions created by the syntactic units, the texture plays the key role regarding the delimiting of certain sections in *Gaspard de la Nuit*. Beside many indisputable impressionistic elements, Ravel's musical language is sometimes featured by explicit formal design, emphasized, and organized rhythmical flow, as well as tonal and harmonic clarity at overall level.

Moreover, it is important to point out the linear-based way of thinking which significantly affects a large number of sonorities in this composition.[140] We will now look closer at the harmony in "Ondine," but first we have to examine how the term 'sonority' can be useful to this analysis. As we have already seen, the term 'sonority' is frequently used in the literature, and for good reasons. Louis Laloy explains the

138. Philip Wade Russom, "A Theory of Pitch Organization for the Early Works of Maurice Ravel" (PhD diss., Yale University, 1985), 62.

139. Introduced by William E. Caplin, in reference to classical instrumental music, the theory of formal functions can still be applied in *Gaspard de la Nuit*. Janet Schmalfeldt writes: "In 2009, Caplin returned to the foundational concept of his 1998 treatise – formal functionality – toward the goal of clarifying that classical formal functions, by their very nature, themselves project *temporal functions*, or time-spans, on multiple hierarchical levels: formal functions convey beginnings, middles, or endings, as signalled especially by prolongational, sequential, or cadential harmonic progressions, but also by means of parameters such as tonality, grouping, cadence, and, I would add, rhythm as well as meter." Janet Schmalfeldt, "Phrase," in *The Oxford Handbook of Critical Concepts in Music Theory,* ed., Steven Rings and Alexander Rehding (Oxford University Press, 2019), 305.

140. According to Dejan Despic, "harmony is primarily a vertical phenomenon," but in this context, its "horizontal aspect" is also important due to counterpoint. Despic, *Harmony*, 352.

term 'sonority' in the context of non-functional harmony. Since the term 'chord' is always considered and used as a part of an ordered totality, Laloy writes:

> A chord no longer has to furnish any proof of its legitimacy; it is a sonority which, when used well, will fully satisfy our ear, and therefore be justified. From the combination of sounds, a different total sound results, as a different color from the juxtaposition of colors.[141]

In other words, the term 'sonority' is related to a certain vertical order, but not necessarily related to tonal harmony, or tertian structures. Laloy also mentions the term 'color' which is very important for this analysis because it alludes to the connection between coloristic properties of harmony and timbre.

In Orenstein, the use of the term was more, or less a variant of the chord, yet he pointed to the non-tertian harmonies which cannot be classified into already known categories.[142] Norman Cazden explained the term 'sonority' in the context of 20th century music. Cazden also mentions the term 'sound' which we will discuss during harmonic analysis of "Ondine:"

> But what concerns us is the observable fact that in all the numerous twentieth century techniques of composition, it is not the *tonal function* of harmony that is primary, or even in evidence. It is the wholly different quality that we proposed to call *absolute sonority*, or more simply *sonority*.
>
> In brief, absolute sonority encompasses all those properties of a harmony that do not relate to its tonal function. As we employ the term, absolute sonority refers to the totality of sound as it is presented to us in immediate perception of a tone or of a combination of tones. Its distinctive features are, first, that it refers to an auditory configuration that is apt to be exceedingly complex, embracing all the palpable, material qualities of the experience called sound; and second, that it refers to our response to this whole in complete isolation from any previous or later experience of sound. Thus, all those aspects of a chord which we have seen are irrelevant to its tonal function are precisely the things that matter to its absolute sonority.[143]

Theodor W. Adorno describes the sonority as a two-dimensional element, as well as its relation to color: "This element, with its two dimensions of harmony and

141. Deborah Priest, *Louis Laloy (1874-1944) on Debussy, Ravel and Stravinsky* (Ashgate, 1999), 321.
142. Orenstein, "Reflections on Maurice Ravel's Creativity," 238.
143. Cazden, "Tonal Function and Sonority," 21-34.

color, is sonority. Through sonority, time seems transfixed in space, and while as harmony it 'fills' space, the notion of color, for which musical theory has no better name, is directly borrowed from the realm of visual space."[144] Therefore, the term 'sonority' fits best to the analytical context of *Gaspard de la Nuit* where the term 'chord' does not fully cover the features of Ravel's harmony. The advantage of the term, which will be further developed in the next chapter, is its connection or relevance for the 'timbre,' but also a coloristic connotation of the term 'sonority.'

5.1 Harmony in "Ondine"

Looking at the opening measures of "Ondine," mm. 1-15, we can notice a specific way of building sonorities. Here, we can comprehend the harmony as a product of the linear basis. In other words, the construction of sonorities arises from a mode/scale which serves as the basis for a "tonal" structure in the certain sections of musical flow. Since the modes used in "Ondine" differ from the "classical" major and minor scales, new or "upgraded" variants of old modes appear.[145] Yet, all the newly obtained modes in this movement possess some of the characteristics of either minor or major (i.e. they contain minor or major third, respectively). Further, the sonorities built on these horizontal structures do consist of tones that are derived from these modes. Consequently, the comprehension of these sonorities must be related to the analysis of the scales/modes from which they originated. Philip Russom also writes about Ravel's musical language of pre-war period. He uses the term 'Referential Scale Collection' in relation to Ravel's "diatonic" use of various modes:

> Ravel's prewar compositions make a unified repertoire in terms of our theory of pitch organization. That is, the Referential Scale Collections are more clearly (and more pervasively) composed out in this period of his compositional career than in

144. Theodor W. Adorno, *In search of Wagner* (Verso, 2005), 52.
145. Dejan Despić writes about combining two different scales/modes: "Mixing two tetrachords (which originate from two different modes/scales) in order to obtain a new compound mode, was quite usual in Ravel's music. It is very questionable what Ravel was attracted to when he was using different modes. Most probably, it was the result of his own compositional needs and inclinations. Organization of modes enables that tetra-chordal structure makes possible combining upper and lower tone groups. By this way, composer is able to manipulate, among others, tonal direction of work." Despić, *Harmony*, 299.

> any other. When Ravel employs a Referential Scale Collection, he is faithful to its pitch-class content without introducing — chromatic pitch classes that are not contained in it. His Referential Scale Collection usage in the prewar period is characterized by an avoidance of such chromaticism, plus an emphasis on the non-diatonic Referential Scale Collections.[146]

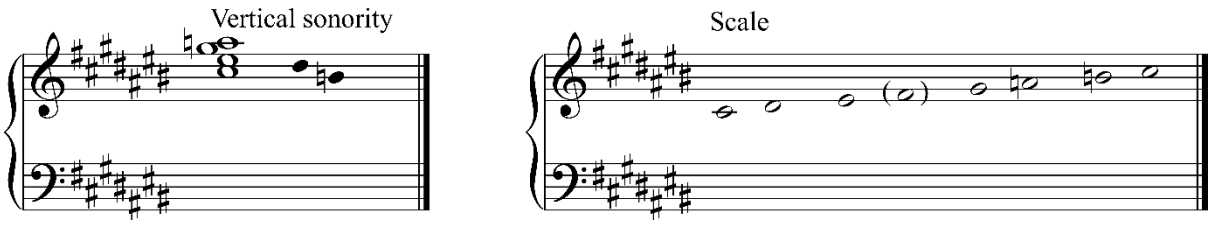
If we further take the use of a sustain pedal into consideration, we must conclude that it also affects the harmonic texture.[147] Indeed, the textural multi-layering created by the use of the pedal is an active factor of harmony and texture design in this composition. Thanks to the continuous use of the sustain pedal, the actual aural perception of sonorities is notably expanded in a horizontal manner.

If we aurally analyze the opening four measures of "Ondine," we can notice that we hear a linear application of almost the entire scale/mode. To summarize, we hear the ninth-chord of the **I** degree with added tone "A" (see Example No. **5.1**). It is added to the Tonic harmony to additionally "blur" the sonority of the **I** degree ninth-chord. Nevertheless, it does not create a harmonic tension within the whole. On the contrary, it represents a proper example of a fully emancipated dissonance. The added tone has multiple roles—textural, rhythmical, harmonic, and coloristic. The overall sound, which is precisely what is covered by the term 'sonority,' could be considered as "the signature sound" that is also expanded horizontally.[148] We call it "the signature sound" since it represents the prevailing harmonic, textural, rhythmical, and coloristic model in "Ondine." In this regard, it functions nearly as a "tonal identity," manifesting itself both vertically and horizontally.

146. Russom, "A Theory of Pitch Organization," 7-8. A similar idea is proposed by Edward Pearsall: "Scales treated as the accumulated assortment of notes from which melodies and harmonies are drawn in a composition are referred to as *referential collection*." Edward Pearsall, *Twentieth-Century Music Theory and Practice* (Routledge Edition, 2012), 21.

147. The sustain pedal on piano should be treated as an integral part of the composition, written by Ravel himself.

148. See about the term 'signature harmony' in: Ballard and Bengtson, *The Alexander Scriabin companion,* 258.



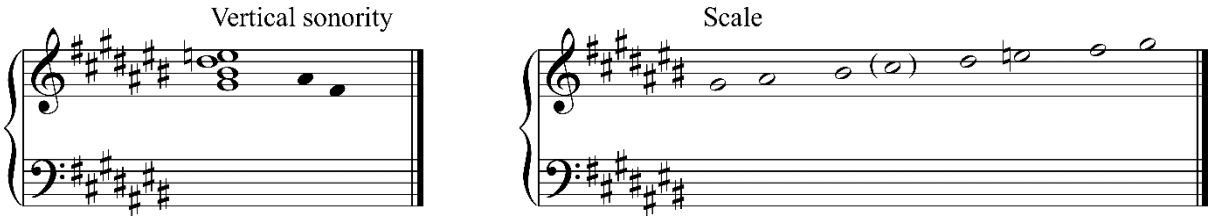
Example 5.1: Sonority in "Ondine" and its original scale, mm. 1-4

Ravel uses C-sharp major (melodic major scale) with diminished VI and VII degree to open the piece. The piece continues in a manner of "the signature sound" through the entire first subject of the exposition section, mm. 1-23. During this section, we can hear several sonorities oscillating between the melodic and natural C-sharp major scale. Similar sonorities that are derived from melodic major scale can also be found within the central module in the development section – C melodic major, mm. 46, 47, 48, and A melodic major, mm. 51-52. Further, in the first subject and in the transition, we can hear a 'whole-tone' chord built on the E whole-tone scale, mm. 17, 21 and 28, as a typical impressionistic manner with the coloristic role of harmony.[149] The same interval range among adjacent degrees of whole-tone scale contributes to general "atonal" feature of the majority of sonorities derived from it. In "Ondine," this structure is primarily used in a coloristic context, without idea to abandon the tonal basis of the music.

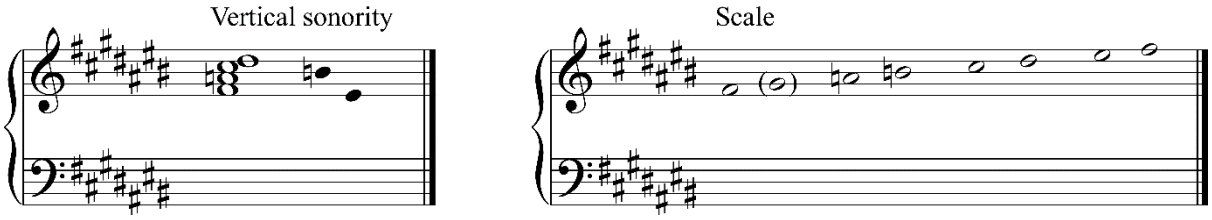
The second subject, mm. 31-42, follows the textural model of the first subject, also with added tone "E" to the ninth-chord of **I** degree in G-sharp major. The harmonies within the antecedent of the second subject oscillate between two sonorities. The first one is Tonic ninth-chord in G-sharp melodic major (see Example No. **5.2**), analogous to the sonority from the first subject (but transposed a fourth below). The second one can be perceived as an altered dominant seventh-chord with added tones from the F-sharp minor melodic scale (see Example No. **5.3**).

149. Dejan Despić explains the use of the whole-tone scale: "The whole-tone scale/harmony is most often used as a contrast to the tonality in general. The use of this scale/chord is typical for formal sections characterized by functional ambiguity. Return of music flow to a stable tonal basis, after indeterminate and fluid movements, is a strong agent of tonal dynamics due to direct conflict between lability and "resolution." In other words, the whole-tone harmonies are used as a sort of substitution for the traditional modulation process. As a zone of vagueness, this scale opens the ways to all tonal directions, whereby it is simple to change a tonality and introduce any other afterwards." Despić, *Harmony,* 369. [My translation from Serbian language]

Consequently, the second sonority gives the overall color of Phrygian mode to the tonality of G-sharp major on the macro level. If we generate a "hybrid" mode by overlapping these two scales, then the new mode would possess the diminished II degree which evokes the Phrygian color.



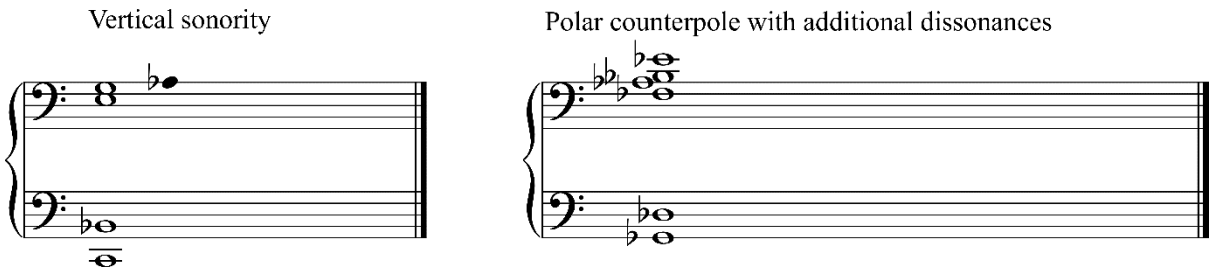
Example 5.2: Sonority within the antecedent of the second subject



Example 5.3: Sonority within the antecedent of the second subject

It is important to mention that Ravel uses what we call today the 'Tritone tonal substitution' (by using polar harmonies) in the entire movement, measures: 46, 48, 51 and 61. The way that Ravel employs this technique is consistent to Ernő Lendvai's *Axis system* which has been developed in analysis of music by Bela Bartok.[150] The principle of Axis substitution is that any chord/sonority belonging to Tonic, Subdominant or Dominant group is to be replaced by its corresponding "counterpole" without any change in its harmonic function within tonality. Therefore, those sonorities have the role to enrich existing tonal system by adding new colors to the horizontal progressions of sonorities. In this movement, we encounter the seventh- and ninth-chords with their counterpoles (see example No. **5.4**).

150. Erno Lendvai, *Bela Bartok: An Analysis of His Music* (Kahn & Averill Publishers, 1971); Elliott Antokoletz, *The Music of Bela Bartok: A Study of Tonality and Progression in Twentieth-Century Music* (University of California Press, 1990).

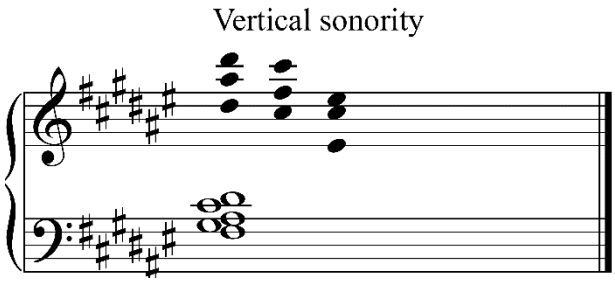


Example 5.4: Employing the Axis system in "Ondine," mm. 46

The occurrence of written multi-layering in the measures 58-62 enables independence of superimposed layers to a greater extent.[151] Looking at the obtained vertical harmonic intersection of the three layers, we can notice a diatonic and chromatic Mediant relationship between major/minor triads and seventh chords.[152] Chromatic arabesques on the top layer give a coloristic and "blurring" effect to this episode/interior subject. It is characteristic that such structurally complex segments are usually built of simple elements or layers, mostly diatonically based counterpoint.[153] In this manner, the structure of each layer can be sufficiently prominent within the overall polyphony.

Being labelled as the one of "the purest form of Ravel's Impressionism," "Ondine" is characteristically also using pentatonic scales, a typical feature of impressionistic music.[154] In the measures 75 and 76, we find a very emblematic use of the pentatonic scale in the piano literature. Since black keys on a piano are organized in a pentatonic order, then the simultaneous use of all of them produces a pentatonic sonority, again with coloristic effect.[155] In this part of the transition sequence within the recapitulation, the F-sharp pentatonic scale is used as a harmonic basis for the diatonic melody in F-sharp major or Ionian mode. The obtained sonority has the design of F-sharp major seventh-chord with added diatonic dissonances (see the Example No. **5.5**).

151. This segment is written by use of 3 staff in the piano score in order to have a better visual overview of the layers.
152. There are three independent lines in the texture: the bass in the low register, the chords that bring the episode subject in the middle, and the chromatic arabesques on the top.
153. In this case, there are major and minor triads and seventh-chords.
154. Radeta, *Semiotic analysis,* 11.
155. The use of pentatonic scale is combined with the *glissando* effect over the black keys on a piano.



Example 5.5: Pentatonic sonority in "Ondine" combined with diatonic melody

Another common feature of impressionistic style, which we find in "Ondine," is the use of modal scales. For instance, measures 73 and 74 show the use of Ionian mode in a combination with *glissando* effect over white keys on a piano. By use of sustain pedal with the *glissando,* we can hear a simultaneous sonority of all notes of the Ionian mode. Over this sonority layer, there is the melody built of diatonic triads and pentatonic passages. Subsequently, Ravel uses again the polar distance between two sonorities: C Ionian – F-sharp Ionian, both with the similar textural model, mm. 73-76.[156]

In spite of all harmonic and tonal ambiguities during this movement, it concludes with a 'home-key' cadence in a conventional way by plagal relationship in measures 89-92.[157] This cadential closure contributes to the harmonic symmetry of the movement in terms of home-key establishing—"Ondine" both begins and ends in C-sharp major.

156. This segment brings the elements of 'Pandiatonicism' and could be also considered within that context. See more about the term in: Richard Kostelanetz, *A Dictionary of the Avant-Gardes* (London: Routledge, 2019), 465-66.

157. There are *arpeggios* over II degree's seventh-chord (with diminished fifth) resolving into Tonic triad of the C-sharp major with supplementary dissonance (note A). The Tonic triad, along with its supplemented dissonance, is similar to the one from the early beginning of the piece.

5.1.1 Summary

Diverse harmonizations of the thematic materials manipulate the formal and harmonic outlook of the first movement of *Gaspard de la Nuit*. Formal boundaries of "Ondine" are clearly marked by exposing corresponding thematic materials on the new harmonic backgrounds. Primarily introduced in the melody of the first subject, and later exploited as a textural/harmonic model, the linear-based harmony spreads through multiple structural levels as a model of creating harmonic activity. Observing the general horizontal design of "Ondine," we can notice Ravel's focus on melody.[158] However, Ravel's concentration on the melody is not only based on the connections between a melodic focus and a corresponding harmonic structure, but also on the independent melodic lines showing horizontal identity. Within the linear-based segments, the melody is generally based on the modes in which it is situated.[159]

Finally, a surprising 'formal dynamics' appears whereby the exposition brings the subjects in the traditional harmonic manner.[160] On the other hand, the recapitulation modifies the subjects by reharmonizing conventionally expected keys. Among others, it breaks with traditional expectations of sonata-form. Furthermore, delaying the appearance of the home-key during the exposition, as well as prolonging the tonal instability in the recapitulation, blur the overall key scheme. Nevertheless, compared to the rest of the cycle, "Ondine" could be understood as the movement which best represents the role of harmony in sonata form, still keeping the crucial elements of their interrelation.

158. Ravel's teacher, André Gédalge (1856-1926), always emphasized the importance of melody: "Whatever sauce you put around the melody is a matter of taste. What is important is the melodic line." Nancy Bricard, *Le Tombeau de Couperin: Advanced Piano Collection* (Alfred Music Publishing, 2005), 3.
159. See: Adrian Allen, *Modal diatonicism* (CreateSpace Independent Publishing Platform, 2014).
160. See more about the term 'formal dynamics' in: Lee A. Rothfarb, "Beethoven's Formal Dynamics: August Halm's Phenomenological Perspective," eds., Christopher Reynolds and James Webster, *Academic Journal - University of Nebraska Press* Vol. 5, no. 1 (1996): 65-84.

5.2 Harmony in "Le Gibet"

The harmonic language used in "Le Gibet" is characterized by unclear harmonic progressions and tonal ambiguity. Compared to the harmony of "Ondine," Ravel goes further in terms of tonal instability and idiomatic use of sonorities. The harmony in the movement employs non-tertian sonorities built of fifths, but also tertian sonorities such as seventh- and ninth-chords.[161] As a substitute of "pure" major and minor scales, Ravel uses various modes, most often Phrygian and Aeolian. In "Le Gibet," Ravel combines traditional modes with different alterations. Very often, in the impressionistic music written on a modal basis, the type of the mode used over the same "Tonic" can be changed.[162] The other way of modal mixing was implemented through joining features of two different modes within one scale. In this way, the sound of modes is blended with tonality, which is presented through periodical use of functional chord progressions and other features of tonal harmony. Many phrases in "Le Gibet" show a tonal ambiguity that oscillates between E-flat minor and B-flat minor.[163] Interestingly, Peter Kaminsky writes about the tonal ambiguity of the piece, making parallels to Bertrand's poem:

> I propose that Ravel's "Le Gibet" enacts the repression at the heart of Bertrand's poem by mapping two of its central structural elements into musical terms: the conditional as an initial state of tonal ambiguity which is resolved in the final section of the piece; and the corresponding loop of closing verse back to beginning as the culmination of the music's formal strategy and the means of structural closure.[164]

The most characteristic feature of the harmony in this movement is the octave ostinato tone "B-flat" that occasionally "blurs" the 'tonal tangibility' and is present through the entire piece.[165] The ostinato tone changes its rhythmical design according

161. Similar chord structures were used later in jazz.
162. Despic, *Harmony,* 415.
163. By looking at the opening left hand-chords made by layering the intervals of fifths, we can notice that Ravel was deliberately avoiding the Tonic third of the E-flat minor in all parts of the texture. However, the plagal cadence with the full minor triad of the IV degree (the end of the measure 3 and the beginning of the measure 4) establishes the key of E-flat minor in the measure 4. In this thesis, we will try to analyze the movement in the context of E-flat minor. This is because of my personal aural perception of this key in "Le Gibet," as well as the key signatures of the E-flat minor written in the score.
164. Kaminsky, "Ravel's Programmatic Impulse," 45.
165. Yuri Kholopov and Valeria Tsenova, *Edison Denisov* (Harwood Academic Publishers, 1995), 55.

to different textural and harmonic environment. Nevertheless, it affects all vertical sonorities and imitates "the atmosphere of the bell."[166] Igor Radeta writes more about its meaning:

> The octave tone "B-flat" has a function very similar to semiotic meaning of the lake from *Ondine*, but here, in addition to the explicit usable dramatic value of the scene/stage/décor, it can have a more narrative and symbolic complex expression. We treat both examples as a whole, analogous to the content and atmosphere of the first stanza. The ostinato treatment of the sub-motif can be interpreted in two ways in relation to the principle of repetition that has obviously been applied: either it is a very significant one, or a practically insignificant sub-motif. In a metaphorical sense, the octave tone "B-flat" can represent: the indefinite sound whose origin we follow through the poem and the movement, the sighs/exhales of the hangman, the sound of the bell, or the simple background over which other layers are exposed.[167]

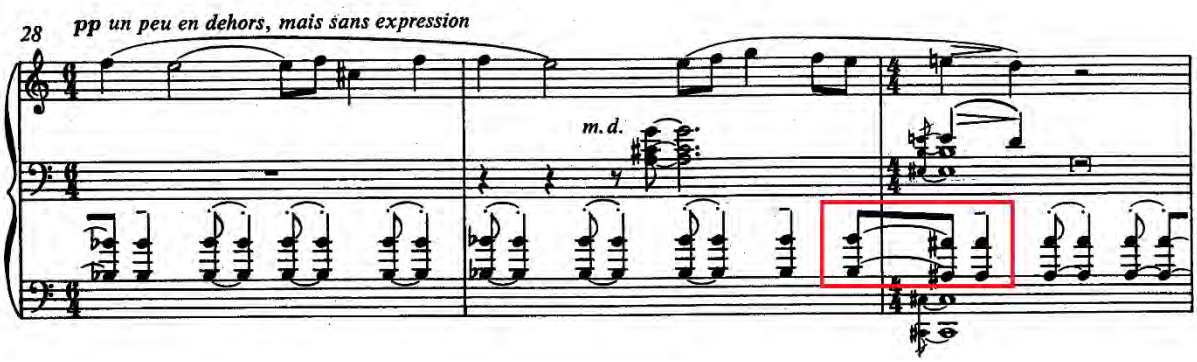
If we take a look at the vertical sonorities, we notice that the texture design makes this ostinato an indispensable harmonic part of each sonority during the whole movement. Beside its programmatic suggestion, the ostinato gives the rhythmic movement to the piece, normally placed in the middle of the piano texture (but also used as bass note).[168] Thus, the ostinato tone B-flat in the bass has mostly harmonic connotation, playing the role of Tonic or Dominant. Kaminsky also describes this in his article:

> For "Le Gibet," Ravel employs even more elemental means: the tonal association of the pedal point with the tonic or dominant of a key, the resulting tonal ambiguity the basis for his portrait of repression.[169]

The mentioned pedal tone is also situated on other scale degrees during the piece, depending on temporary changes of key centers. For instance, the measures 23-27 show that Ravel proposes the harmonic role of the ostinato tone. Nevertheless, the role of the pedal tone is related neither to Tonic nor Dominant in this case. Specifically, in these measures, Ravel notated the ostinato as **A-sharp** instead of B-flat.[170] This

166. John Gillespie, *Five Centuries of Keyboard Music* (Dover Publications, 1972), 341.
167. Radeta, "The Piano Music of Maurice Ravel," 78.
168. Gillespie, *Keyboard Music,* 341.
169. Kaminsky, "Ravel's programmatic impulse," 49.
170. Rene Lenormand also writes about this segment: "The whole piece might be quoted, as that note, sometimes A-sharp, sometimes B-flat, is not abandoned for a single instant, in the midst of the most

enharmonic change may reveal the harmonic importance of the ostinato and its harmonic role in the vertical sonority. Yet, the whole phrase reveals the elements of bitonality, which will be discussed later in this chapter (see Example No. **5.6**).



Example 5.6: Enharmonic change at ostinato tone

Within some phrases, the harmonic role of the tone B-flat is reduced, and the tone exists only at the level of rhythmic ostinato figure, without harmonic clear connotations. Yet, in other sections/units, it also connects the thematic material to the rest of the music, partly by being a prevailing element of thematic correspondence. Therefore, it can be considered as an element of form with a formal connotation in this context.[171] On the other hand, the whole movement is composed of many motifs which meet the requirements for building formal units.[172] Consequently, the ostinato is not always the mandatory element of form building. Ida Vujović writes about different roles of the ostinato during the piece: "Although it is always the same pitch, sometimes we are aware of its tonal function and sometimes not. Its 'meaning' is changing from tonal to formal, from formal to sonorous, and back."[173] From the listener's perspective, one can undoubtedly conclude that this tone is the element that contributes to the cohesion and integrity of the musical flow in the piece.

The role of the quintal sonorities, measures 3 and 4, is double. In the first place, it is coloristic, and secondly, it obscures the tonal and functional relationships.

disturbing harmonies, complicated by unresolved appoggiaturas." Rene Lenormand, *A Study of Modern Harmony* (J. Williams, 1915), 79.

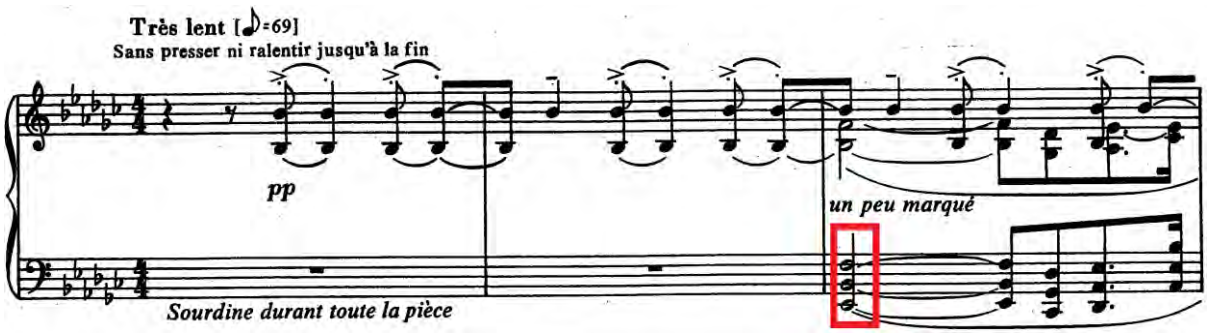
171. Ida Vujović, "The Power of Long Notes," in 1 KC Research Portal (2017). https://www.researchcatalogue.net/view/231816/357704.

172. See the formal/thematic analysis of "Le Gibet."

173. Vujović, "The Power of Long Notes."

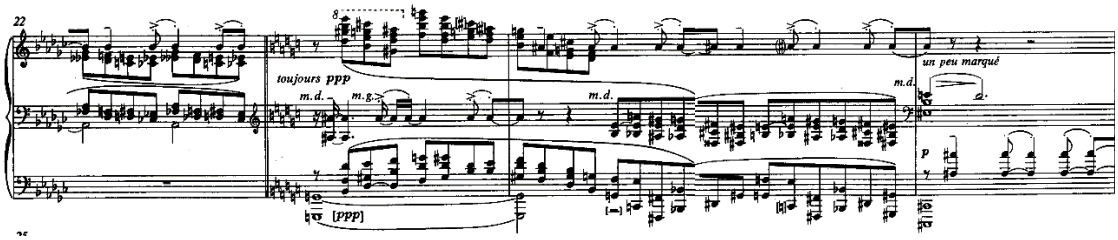
Harmonic interpretation of this segment presents two choices.[174] The first quintal sonority, consisting of superimposed pure fifths E-flat—B-flat—F (see Example No. **5.7**), encompasses the full range of two possible Tonic triads, both E-flat minor: E-flat—B-flat, and B-flat minor: B-flat—F.[175] Similar types of sonorities, in the low register of piano, were also used by Debussy. Probably not by accident, Debussy used these superimposed fifths in his *Prelude* No. 10 from the Book II, called *Canope*.[176]

Looking at the measures 24 and 25, we recognize a chained sequence of various types of sonorities, similar to those frequently used in jazz.[177] By the harmonic rhythm organized as successive semi-crotches, the harmonic flow is accelerated by rapid changes of key centers.[178] The sequence consisting of 'non-diatonic sonorities' brings a high level of instability to the previous key center.[179] Furthermore, it serves as a modulating agent leading the musical flow to the new key center (see example No. **5.8**).



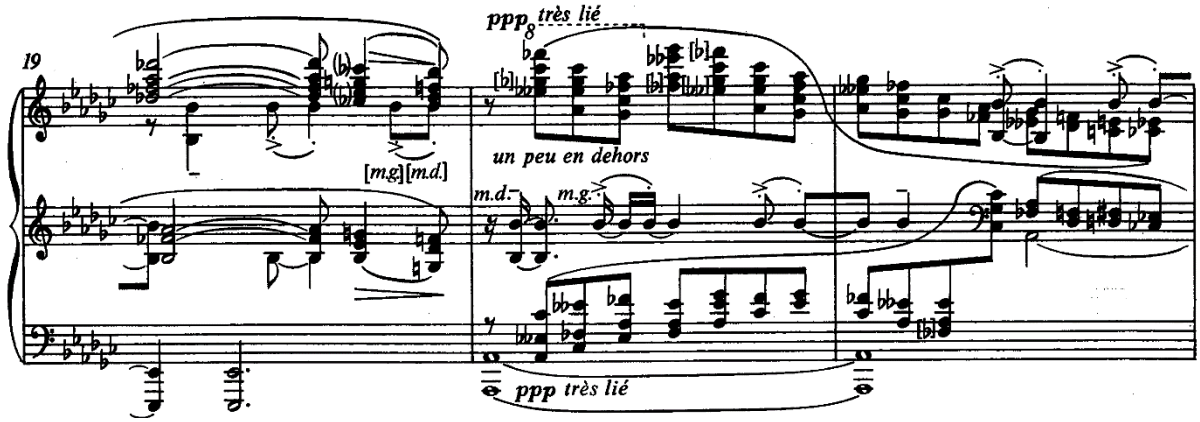
Example 5.7: The left-hand sonority in "Le Gibet"

174. Ida Vujović also writes about the possibility of dual interpretation. She writes that "…melodic and harmonic layers are often in a conflicting or even competitive relation. In the opening of *Le Gibet*, there are (at least) three salient threads: the ostinato, the chord progression, and the melody (F - D♭ - E♭ - C♭ - F). Interestingly, the melodic layer is cooperative with both ostinato layer (suggesting the B♭-center), and chordal layer (suggesting E♭-center). The listeners less used to extended harmonies would probably (perceptively) choose the simpler relation - the one resulting in B♭ Phrygian interpretation." Ibid.
175. Kaminsky, *Unmasking Ravel,* 100.
176. *Canope* represents a type of urn for posthumous keeping the remains at the old Egyptians tombs. It is the matter that brings association to death persons, similar to "Le Gibet."
177. Ravel "believed that jazz was legitimate material for composition, and was surprised that so few American composers had availed themselves of this rich and vital music…jazz, to Ravel, was the most important contribution of modern times to the art of music." Madeleine Goss, *Bolero: The Life of Maurice Ravel* (New York: Tudor Company, 1945), 225.
178. "Harmonic rhythm," *Encyclopædia Britannica* https://www.britannica.com/art/harmonic-rhythm Accessed on 15/04/2020.
179. The term 'non-diatonic sonority' is used by Jonathan Kregor in: Lorna Fitzsimmons and Charles McKnight, eds., *The Oxford handbook of Faust in music* (New York, NY: Oxford University Press, 2019), 161.



Example 5.8: Non-diatonic modulating sequence

In the measures 20-21, as well as in the measures 23-24 (see Example No. **5.9**), we discover the orchestral way of thinking textures.[180] In these segments, we detect that all the layers are built of diverse elements. Additionally, their harmonic relationships are independent, so that it can be interpreted as a "polyphony of the layers." Here, we have two independent sequences moving to the opposite directions (ascending and descending lines), pedal in the bass and the ostinato in the middle.



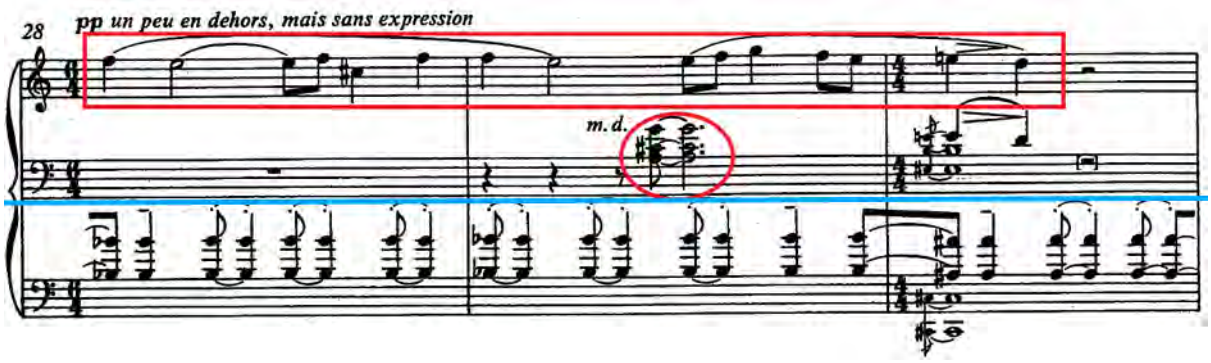
Example 5.9: Orchestral textures in "Le Gibet"

The occurrence of bitonal segments, measures 28-30, is also the characteristic of the harmony in "Le Gibet." In the first two upper staffs within this phrase, we find a melodic line in D minor (with a leading note: C-sharp) which is established by the Dominant seventh-chord in the measure 29. In the lower layers, we find the ostinato

180. In the cases of such structural complexity and multi-layering, it is a very usual to employ three staffs for piano, which helps to visually split the texture. In the scores of the previous époques, such piano notation is rarely used, whereas Impressionistic composers use this commonly. For example, the most of *Preludes* by C. Debussy are written by using this notation model.

tone "B-flat" interfering with repeating C-sharp altered ninth-chord.[181] Due to very conflicting sonorities between the layers in the dual pitch organization, we observe this phrase as the two independent harmonic flows which take place simultaneously.[182] However, the measure 30 does not bring the awaited resolution of the Dominant to the Tonic of D minor. The listener is surprised by embedding of the new pedal tone C-sharp to the point of expected resolution (see Example No. **5.10**). Barbara J. Kelly writes about Ravel's use of bitonality:

> Although Ravel was not at the forefront of Modernism, his advocacy of certain principles, notably those of economy and objectivity, and his openness to jazz and bitonality, lent these preoccupations a certain respectability on account of his own secure status. [183]



Example 5.10: Two independent harmonic flows

Ultimately, "underpinning" of the texture by different pedal tones is an important harmonic element which Ravel utilizes through the whole movement. By placing these notes into the bottom of the vertical structure, the tonal impression is additionally "dimmed." Furthermore, if we examine the points where the pedal tones are infiltrated, we detect that they are congruent with the formal boundaries (see the Table **4-b**). Therefore, the pedal points play very important role in the formal design of "Le Gibet," both as textural and harmonic factors.

181. This chords also brings a thematic idea in the upper voices (notes "E" and "D").
182. See: Kaminsky, Peter Kaminsky, "Ravel's Late Music and the Problem of *Polytonality*," *Music Theory Spectrum*, Vol. 26, No. 2, (2004): 237–264. *JSTOR*, www.jstor.org/stable/10.1525/mts.2004.26.2.237
183. Barbara L. Kelly, "Ravel, (Joseph) Maurice," in *The New Grove Dictionary of Music and Musicians*, Second Edition, Volume 20, ed. Stanley Sadie and John Tyrrell (Oxford University Press, 2001), 875.

5.2.1 Summary

The harmonic language of "Le Gibet" is characterized by 'ambiguous' tonal connotations.[184] Obscure harmonic relationships enable the possibility of a dual interpretation of the home-key. By inserting the ostinato tone and the bass pedal points, Ravel further obscures a clear tonal perception. Consequently, the effects produced by merging different harmonic agents break conventional expectations regarding the ternary form design. On the other hand, the shifts of the pedal points determine the formal boundaries of the movement to a great extent. Each occurrence of new pedal point brings the novel sonorous quality in the musical flow. Along with the pedals, there are also thematic similarity and the textural component that control the formal structure of "Le Gibet."

184. "The question of *ambiguity* in particular element-qualities required distinct, special consideration. In ambiguous conditions, by definition, the cognition of structure must be considered uncertain, and functional-expressive significance would depend on that cognition. Where *apparently* ambiguous conditions are *understood* as ambiguous, in a context in which ambiguity is not a "normal" state, the effect is presumably intensifying." Berry, *Structural functions*, 10.

5.3 Harmony in "Scarbo"

The harmony in this movement is characterized by a number of exceptions to what we could call the impressionistic harmony. In relation to the overall musical language of *Gaspard de la Nuit*, this movement differs notably from the previous two. As a discernible characteristic, there is ample use of Spanish musical folklore.[185] However, folkloristic elements are used in an original and creative manner, without having the role of citations. In fact, Spanish folklore influences Ravel's music in two ways. Firstly, the influence can be traced in the use of different modal elements. These elements primarily affect the melody design, but also, they are conditioning the choice of sonorities. Secondly, the use of Spanish musical folklore implies emphasizing of the rhythmical component.

On the other hand, one of the features related to the use of the Spanish musical folklore is the frequent use of Phrygian modality.[186] As mentioned above, Ravel inclines to mix two different modes and thus, that is making "hybrid" scales.[187] Regarding that, the most of phrases in "Scarbo" that recall Spanish music are based on different variants of Phrygian mode in their foundation.[188] The measures 94-108 employ the mode described above. The interchangeable use of major and minor third in the sonorities is the characteristic of this part of the first subject. The most prominent harmonic feature is "highlighting" the interval of major seventh, between the leading voice and the bass, as a penetrative element (see measure 95). Simultaneously, it serves as an effective dissonance which gives a "modern" sound to the folklore melody, regardless of a simple design. The other dissonances are used as appoggiaturas. Mark Devoto describes Ravel's harmonic language from this period:

185. "Born in the Basque region of France near the Spanish border, Ravel was raised in Paris. His mother sang Spanish folk songs to him, nurturing a fascination for Spanish music, rhythms, and folklore. These influences are present in many of his works." Nancy Bachus and Daniel Glover, *The modern piano: The influence of society, style and musical trends on the great piano composers* (Alfred Publishing, 2006), 91.
186. See: Mawer, *The Cambridge Companion to Ravel*.
187. Mixing two tetrachords and creating "new" modes/scales was explained in the harmonic analysis of "Ondine."
188. In his book, Roland Manuel writes about Phrygian mode, as the one which Ravel uses frequently. Roland Manuel, *Maurice Ravel* (Dover Publications, 1947), 112. Messiaen, for instance, calls this variant of Phrygian mode as "The Spanish mode - of Arab origin" (see Example No. **5.11**). Messiaen, Loriod-Messiaen, *Ravel-Analyses*, 68.

> Beginning in about 1907-08, which marked the start of his most productive period, Ravel's vocabulary included chords with unresolved chromatic appoggiaturas, as well as a variety of polychords…[189]

Looking at the second stage of the development section, we notice the use of the aforementioned mode, during 'model-copy-fragment process' (see the measures: 256-267, 277-284, 291-298, 305-308).[190]

Example 5.11: The "Spanish mode" used in "Scarbo"

Beginning in the measure 121, the second subject within the exposition sounds 'atonal.'[191] Howat Roy describes it as following: "At first it sounds virtually atonal, each chord following different octatonic collections."[192] Regarding 'atonal' moments in Ravel's music, Laurence Davies explains that Ravel did not write any serial or atonal music since he "believed…in the inevitable return to tonality."[193] By analyzing the sonority design, it is obvious that the 'lower structures' have major triad shape—

189. Mark Devoto, *Debussy And The Veil Of Tonality: Essays On His Music* (Pendragon Press, 2004), 195.
190. The term 'model-copy-fragment process' is introduced by Peter Kaminsky, where he points to the constant variation of thematic material by using a certain model. The model consists of four parts: model, copy, shortened copy, and extension. See: Kaminsky, *Unmasking Ravel*, 132.
191. Today, the use of the terms 'atonality' or 'atonal' primarily relates to the absence of a tonal center or a functional harmony in music. Some of the great composers whose music is today considered as the 'atonal,' such as Schoenberg, Webern and Stravinsky, opposed the use of this term. Arnold Schoenberg writes about the misuse of the term: "Since the presence of complicated dissonances does not necessarily endanger tonality, and since on the other hand their absence does not guarantee it, we can ask now, what the characteristics of that music are which is today called 'atonal'? Permit me to point out that I regard the expression atonal as meaningless, and shall quote from what I have already expounded in detail in my *Harmonielehre*. 'Atonal can only signify something that does not correspond to the nature of tone.' And further: 'a piece of music will necessarily always be tonal in so far as a relation exists from tone to tone, whereby tones, placed next to or above one another, result in a perceptible succession. The tonality might then be neither felt nor possible of proof, these relations might be obscure and difficult to comprehend, yes, even incomprehensible. But to call any relation of tones atonal is a little justified as to designate a relation of colors aspectral or acomplementary. Such an antithesis does not exist.'" Leonard Stein, ed., *Style and Idea: Selected Writings of Arnold Schoenberg*, trans. Leo Black (University of California Press, 1984), 283.
192. Howat, *The Art of French piano music,* 31.
193. Laurence Davies, *The Gallic Muse* (New York: A. S. Barnes and Company, 1969), 121.

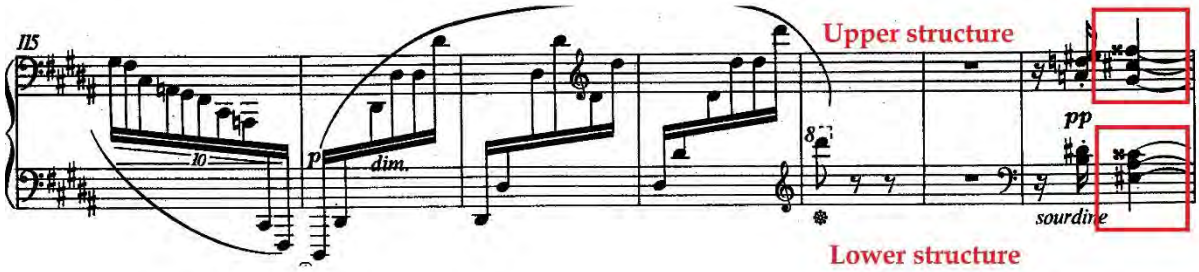
the second inversion or six-four chord position.[194] They are supplemented by the 'upper structures' which have the quartal shape.[195] Therefore, the obtained sonority could be described as an altered Dominant ninth-chord with added thirteenth: F-double sharp (see Example No. **5.12**). In addition to the two existing layers, the ostinato pedal figure with tone "E" is added to these sonorities.[196] It blurs the tonal perception of this segment of the second subject (see Example No. **5.13**).[197] The role of the constant pedal figure organized as "broken octaves" is, among others, to keep the continuous musical flow over "static" sonorities. The second appearance of this sonority, measure 143, transposed to a major third below and blended with the pedal tone "E," shows much more tonal integration to the key of B-major. This key center is later established by authentic cadence in measures 149-150, but also in measures 154-155. Similarly, the last appearance of this textural model, mm. 159-167, also shows tonal preferences to the key of D-flat major. It is very intriguing that the majority of sonorities from the second subject of the exposition has the structure of major seventh-chord in their basis. The addition of minor thirds to the sonorities' upper structures and their appoggiaturas dominates among other supplemented dissonances. Both the exposition and the recapitulation follow this pattern.

194. I found that the terms 'lower-' and 'upper structures' are relevant in order to describe the way Ravel organizes the sonorities in this phrase. The lower structure determines the quality/basic chord shape of the sonority, while the upper structure enriches it by adding harmonic color. The supplementary notes of the upper structures are called 'tensions.' Joseph Mulholland and Tom Hojnacki, *The Berklee Book of Jazz Harmony* (Boston: Berklee Press, 2013), 216.

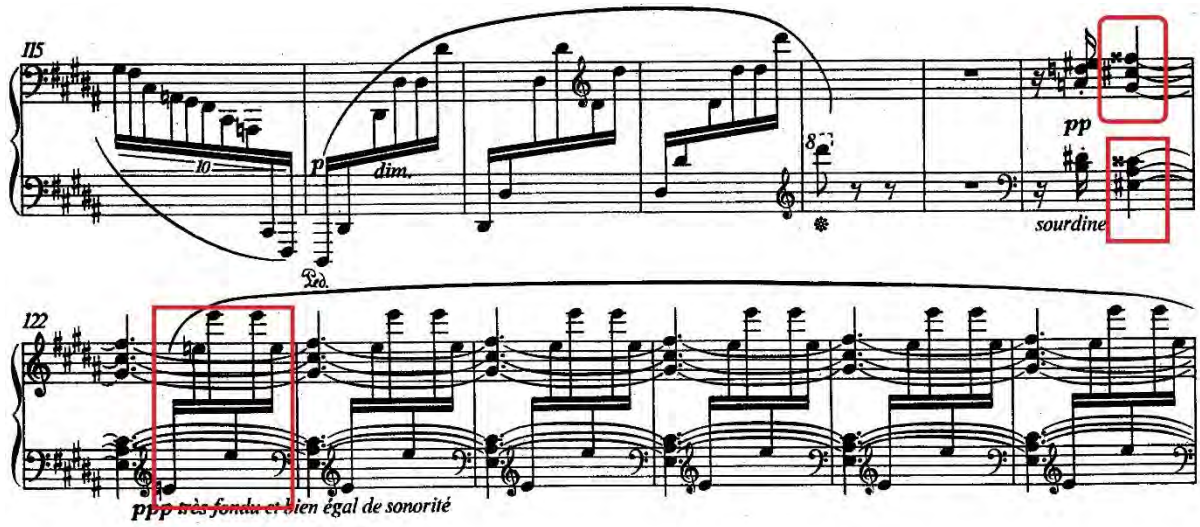
195. The upper structure of this sonority consists of two superimposed intervals of fourth: G-sharp, C-sharp and F-double sharp.

196. The term "pedal" has an idiomatic meaning within this phrase. Since the pedal tone register is settled higher than the lowest note of the chord, it does not affect the chord structure to a great extent. Besides its role to obscure the overall structure of the chord, its coloristic function is unquestionable. Alternatively, its role could be interpreted as a 'descant note' or 'inverted pedal' within the first three chord structures. Nevertheless, according to its function in the rest of the whole unit, as well as in the analogous unit in recapitulation, it must be considered as a pedal.

197. Messiaen, for instance, classifies this sonority as a part of his [Messiaen's] original 'Second mode of Limited transpositions,' but still does not consider it as atonal. The term sonority is here equivalent to the term mode, considering the vertical, respectively horizontal/linear manifesting of harmony. This was explained within the previous part of this chapter. Messiaen, Loriod-Messiaen, *Ravel-Analyses*, 59.



Example 5.12: Sonority comprised of Upper and Lower structures



Example 5.13: Dominant ninth-chord with "E" pedal

Despite quite unstable harmonic flow of the second subject of the exposition, the recapitulation gives the thematic material a more stable harmonic background by using the F-sharp pedal.[198]

One of the main features of harmonic language in "Scarbo" is the use of ostinato patterns, as well as a single-pitch ostinato. It provides the musical flow with an element of motion and continuity in spite of the passivity of the other musical components.[199] Additionally, the role of the ostinato is also to divide the musical texture into layers since the ostinato always "pays attention to itself" as an

198. The second subject is exposed on F-sharp pedal which has the dominant relation to the main key of Coda (B-major).
199. Wallace Berry writes that "...in the fixed repetitions of an ostinato pattern at the same pitch level there is 'motion' at only the lowest level of structure-that of profiled configuration within the pattern itself." Berry, *Structural functions*, 4.

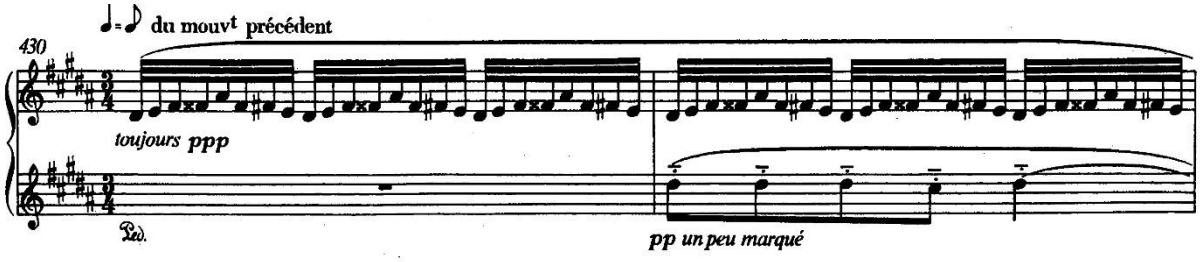
independent layer.[200] For instance, a long-lasting ostinato within the second subject of the recapitulation, beginning from the measure 477 and leading to the final climax in Coda, starts with a fixed pattern and gradually develops through different variations of the basic figure. Or, as the second subject has a structure composed of short melodic fragments, the ostinato figure, beginning on the F-sharp pedal, interconnects these fragments. Moreover, the rest of the movement is featured by abundant use of single-pitch ostinati in the low register.[201] Consequently, the listener hears various 'diatonic' and 'non-diatonic sonorities' originated from juxtaposing of conventional triads, seventh- and ninth-chords and ostinato pedals.[202]

After the recapitulation-introduction in measures 395-421, which develops in a similar manner as in the exposition: there is a gradual textural transition to the recapitulation of the second subject. The first subject is exposed in the same key of D-sharp major, both in the recapitulation and in the exposition. As the Table **4-c** shows, the thematic similarities between these two sections are apparent. In spite of the different thematic allocation, the harmonic factor—key center has conditioned the location of this formal unit within the recapitulation.

In this unit, we recognize some of the most typical features of impressionistic harmony and texture, such as pedal points, ostinato patterns, and 'chromatic planing.'[203] Within the first part of the sub-unit $\mathbf{B_1}$, there is the ostinato figure over D-sharp pedal that encompasses both III and ^{b}III degree of D-sharp Mixolydian mode (see Example No. **5.14**). It is exposed in a slower tempo in comparison to the

200. Ibid., 4.
201. Encyclopædia Britannica even suggests "Scarbo" as an example of use of ostinato: "A single-pitch ostinato governs the "Scarbo" movement in Maurice Ravel's piano work *Gaspard de la Nuit* (1908)." https://www.britannica.com/art/ostinato.
202. Read about the terms 'diatonic-' and 'non-diatonic sonority' in: Miloš Zatkalik, Milena Medić, and Denis Collins, eds., *Histories and Narratives of Music Analysis* (Cambridge Scholars Publishing, 2013), 431.
203. "*Planing* is a technique involving parallelism of lines or chords. There are two types: *chromatic* (exact, real) planing, in which the chord structure or harmonic interval is preserved exactly from sound to sound; and *diatonic* (tonal) planing, where because of the presence of the particular scale, slightly different chords or intervals in successive sonorities may result. Diatonic planing usually supports a feeling of key and scale, whereas chromatic planing does not." Thomas Benjamin, Michael Horvit, Robert Nelson, and Timothy Koozin, *Techniques and Materials of Music: From the Common Practice Period through the Twentieth Century, Enhanced Edition* (Cengage Learning, 2014), 191.

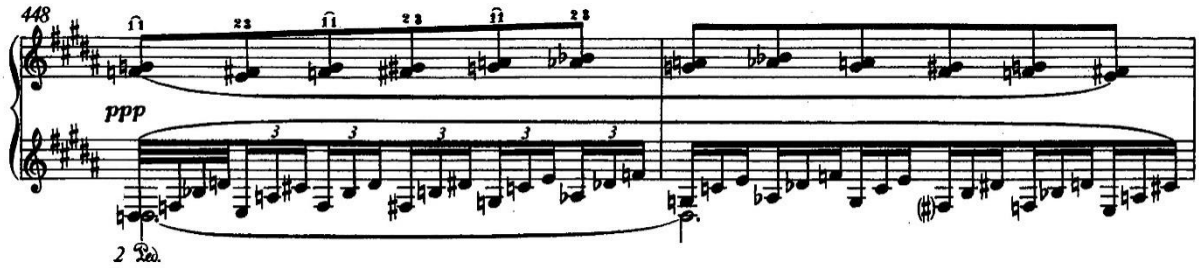
exposition, but we can also observe that the whole unit is "augmented both visually and durationally."[204]



Example 5.14: Ostinato pattern comprising both major and minor third of D-sharp Mixolydian

One of the aforementioned features of Impressionism employed in the texture design of "Scarbo" is the chromatic planing. The sub-unit $\mathbf{B_2}$ within the first subject of the recapitulation employs ascending and descending chromatic planing by harmonizing each melodic note.[205] The thematic material is exposed in augmentation in comparison to the exposition—both note values and time signature are augmented. Moreover, the melody is doubled by using the interval of major second whereby each note is harmonized by major triad following the chromatic melodic motion (see Example No. **5.15**). The consecutive sonorities which we obtain by this treatment of the melody are parallel major triads, each with added major sixth. Additionally, the whole structure is underpinned by sustained pedal points leading us to the second subject. The bass-line, mm. 448-477, forms a descending line starting from tone D over C-sharp, B, B-flat (enharmonic **A**-sharp), G-sharp, ending on F-sharp pedal in the second subject. This particular bass-line makes transition in the musical flow preparing the appearance of the second subject.

204. Kaminsky, *Unmasking Ravel*, 135.
205. Ascending and descending chromatic melodic directions have a form of passing and neighboring tones.



Example 5.15: Chromatic planing – the collection of parallel sonorities

Similar to "Ondine," we also obtain in the later example the harmony as a product of linear basis.[206] Examining the measure 436, as well as the measures 445-447, we discover the use of octatonic scale.[207] In this context, one can conclude that these scales have a coloristic or 'decorative' role, since they are exploited within the sub-unit **B**$_1$.[208] Moreover, thanks to the structure of octatonic scales, their function could be interpreted as providing a more organic harmonic transition between two distant/non-familiar harmonies—for example, the harmonic transition between sub-units **B**$_1$ and **B**$_2$ within the first subject of the recapitulation.[209]

On the other hand, looking at the sub-unit **B** of the first subject in the exposition, we discover the octatonic scale as the melodic basis, measures 80-91. In addition to the evident octatonic melodic contours, we also encounter the elements of the 'Axis System' in the harmonization of this segment. The pedal tone "B" contributes

206. Ravel uses the octatonic scale in many of his works. "Additional works from this period featuring octatonic passages include *Miroirs* (1904-5) and *Gaspard de la Nuit* (1908) for solo piano, 'Le Cygne' from the song cycle *Histoires naturelles* (1906), and *L'Heure espagnole* (1907-9), Ravel's first opera." Steven Baur, "Ravel's 'Russian' Period: Octatonicism in His Early Works, 1893-1908," *Journal of the American Musicological Society,* Vol. 52, No. 3 (University of California Press Autumn, 1999): 583. http://www.jstor.org/stable/831792

207. "The octatonic scale is a symmetrical scale based on a repeated pattern of alternating half and whole steps, resulting in an eightfold division of the octave." Charles Wilson, "Octatonic," *Grove Music Online* (Oxford University Press, 2001). https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000050590. In jazz, it is usually called 'diminish scale,' because of its relation to diminish seventh-chord.

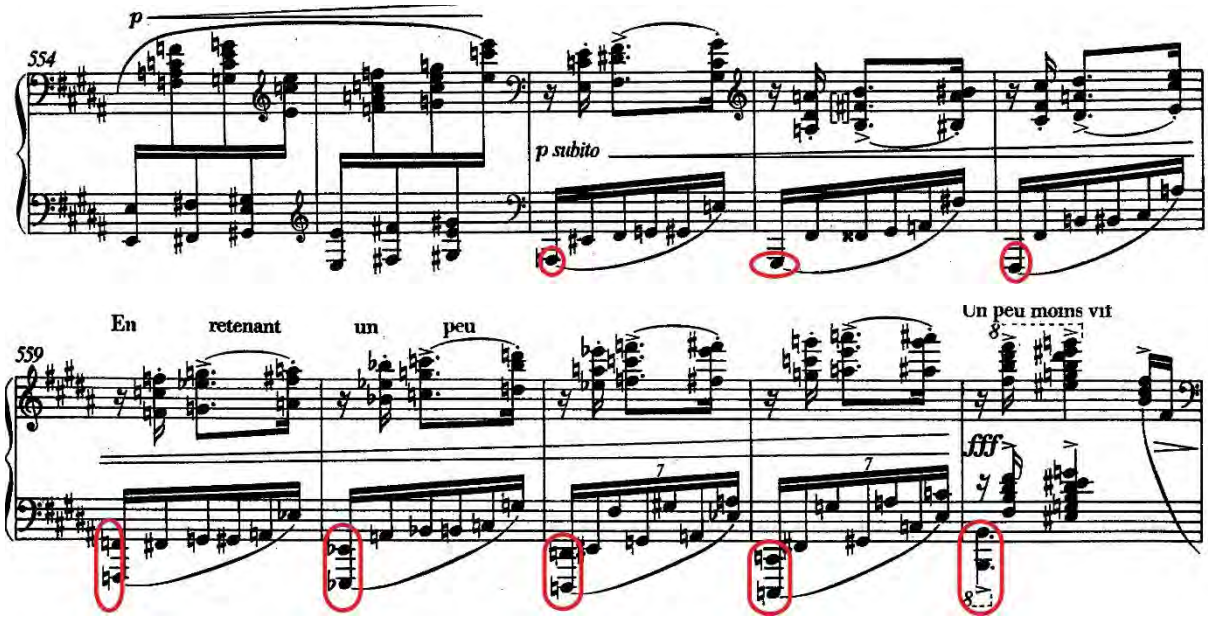
208. Jean-Michel Boulay classifies the octatonic scale into categories: "It is possible to divide tonal octatonic practices into two general categories. The first will be called *decorative* and the second *structural*." Jean-Michel Boulay, "Octatonicism and Chromatic Harmony," *Canadian University Music Review/Revue de musique des universités canadiennes,* Vol. 17, No. 1 (1996): 41.

209. The structure of this scale is also related to the already mentioned "Axis system." See: Antokoletz, *The Music of Béla* Bartók; Lendvai, *Béla Bartók*.

to a "tonal" sense of B harmony besides three chords belonging to its 'Tonic Axis' (G major seventh-chord, E major seventh-chord and A-sharp major seventh-chord).

Another discreet manner of engaging octatonic scale in "Scarbo" can be discovered at the end of the closing unit in the recapitulation. Ravel manipulates a descending bass-line following the octatonic scale shape whilst reaching the culmination of the movement.[210] The line starts in the measure 556 and ends at the beginning of Coda in measure 563. The climax of the whole movement at this point is achieved both by the activity of harmonic and acoustic dynamics. The line shape begins with tone A, over G-sharp, F-sharp, F, E-flat, D, C, and ends with tone B (see Example No. **5.16**).[211] Regarding achieving the final climax in "Scarbo," Roy Howat detected a certain harmonic pattern between all three culminations:

> Each of the piece's three broad sections (exposition, development and coda) culminates in explosive fashion, the first two a tritone apart on F-sharp and C, bars 204 and 366. Only at the final B-major culmination (bar 563) is the tonal function of the previous two defined retrospectively, as dominant and Neapolitan.[212]

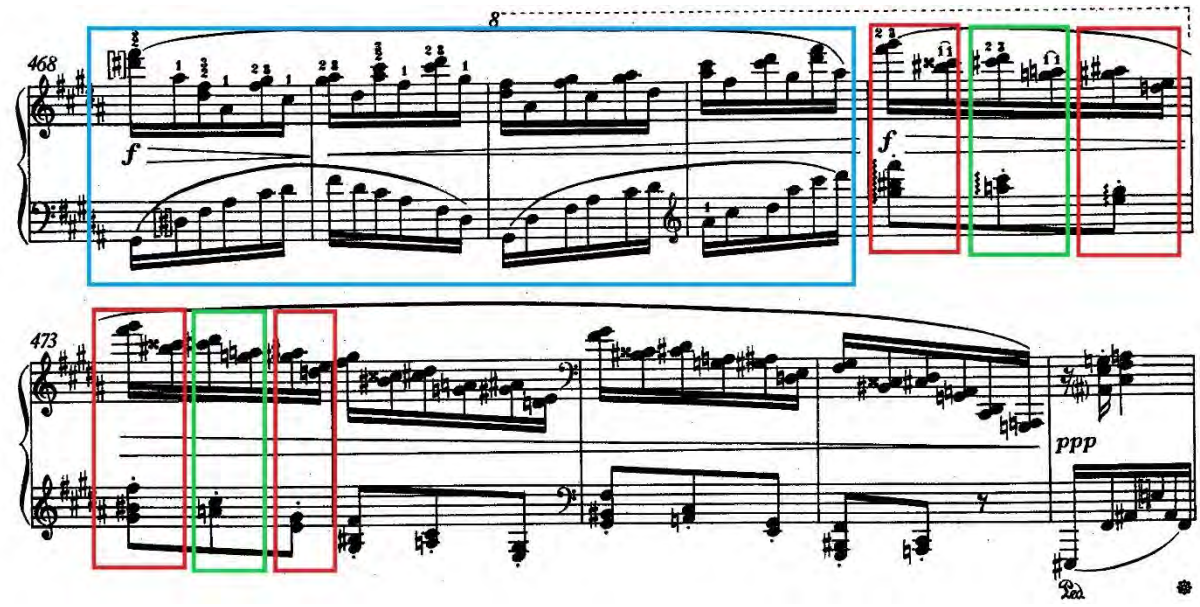


Example 5.16: Descending octatonic bass-line in "Scarbo"

210. Howat, *The art of French piano music,* 89.
211. Some tones of the scale are enharmonically changed.
212. Howat, *The art of French piano music*, 33.

Analyzing the end of the first subject in the recapitulation, as well as its tie to the second one, we encounter the utilization of pentatonic- and whole-tone scale again. Similar to "Ondine," here we detect the 'self-imposed constraints' as a compositional concept. In this case, the constraints may be directed by pianism and/or piano instrumental design where the black keys are set in a pentatonic order.[213] The linear-based pentatonic sonority in measures 468-471, which comprises only black keys on piano, has a basic shape of G-sharp ninth-chord with suspended fourth. Showing obvious coloristic fashion, this sonority still retains the capacity of the Dominant function. On the other hand, the whole-tone scale treatment which follows it in the measures 472-476 temporarily stimulates a dissolving of tonal perception. Specifically, the two possible variants of the whole-tone scale are exploited here intermittently, taking no more than one beat per sonority (see Example No. **5.17**). The temporary "atonal sense" produced by such application of the scale offers key center the opportunity to maneuver towards any harmonic direction.[214] Finally, by evaluating the manner in which the whole-tone scale is employed by Ravel within the piece so far, we can summarize that it always acts as a harmonic transition between two divergent thematic/formal units or segments.

213. Siglind Bruhn writes about this concept in the music of Impressionism. Siglind Bruhn, *Images and Ideas in Modern French Piano Music: The Extra-Musical Subtext in Piano Works by Ravel, Debussy, and Messiaen* (Pendragon Press,1997), 377.
214. Similar harmonic procedure by using of whole-tone scale has been employed in "Ondine."



Example 5.17: The intermittent use of both whole-tone scales

Comparing the key schemes between the exposition and the recapitulation, some parallels may be identified. In fact, despite many ambiguities between key schemes and thematic design, their general interrelations still keep the basic contours of sonata form. If we look at the keys in which the first subject is exposed, we notice that Ravel keeps the key of D-sharp major both in the exposition and in the recapitulation. Finally, the key of D-sharp could be examined as the home-key of "Scarbo" according to the key of the first subject, even though both introductions incline to the key of G-sharp minor.[215] Accordingly, Stephen Zank describes the tonal ambivalence in "Scarbo:"

> "Scarbo" is the most tonally ambiguous of the triptych comprising Gaspard, its "key" mercurial at best, manifesting neither the illusions of function, as in "Ondine," nor the required inflexibility and ironic irrelevance found in "Le Gibet." Beginning ostensibly in G-sharp minor, "Scarbo" twitches through several tonal areas, very nearly concluding in the key of the relative major, before—hardly Lisztian—Ravel sacks all unceremoniously (and programmatically) with a quick, nearly atonal arabesque.[216]

215. The prevailing key signature in "Scarbo" is G-sharp minor or B major.
216. Stephen Zank, *Irony and Sound: The Music of Maurice Ravel* (Woodbridge: Boydell & Brewer, 2009), 251.

Furthermore, both introductions in "Scarbo" puzzle the listener's tonal perception of G-sharp minor by using Dominant ostinato tone in the bass, juxtaposed with the secondary Dominant substitute seventh-chord on the ♯IV degree. On the other hand, "Scarbo" ends on the key of B (the parallel of G-sharp minor) after cadencing and establishing this key during the Coda section. Observing both appearances of the second subject, we find intentional key parallels that evoke explicit tonal relations between exposition and recapitulation. Regarding this relationship, Peter Kaminsky writes that "...Ravel has fooled us with a formal sleight-of-hand: the two large sections follow essentially parallel harmonic plans…"[217] Comparing the key scheme of the second part of the second subject in the exposition to the analogue segment from the recapitulation, we can conclude that these keys are within the Subdominant - Tonic relation.[218] Interestingly, the closing units remain in the key of A minor during the whole movement.

5.3.1 Summary

Thanks to the melodic and textural changes, sections' framework of "Scarbo" is clearly pronounced. An important role of the harmony in the movement is to give formal indications. Particularly, all culminations in the movement are gradually achieved by the activity of harmony and dynamics. On the other hand, in order to make specified formal anticipations, Ravel often refers to the traditional conception of form. This incorporates an emphasized activity of harmonic component in preparing the onsets of new sections. In addition to the presence of the sonata form margins, the harmony provides a musical connection among the elements within the movement. By controlling harmonic actions within the form, Ravel modifies and develops the conventional sonata design.

217. Kaminsky, *Unmasking Ravel*, 136.
218. Exposition: B-flat minor, E-flat minor, and D-sharp minor (see measures 168-197). Recapitulation: F-minor, B-minor, and A-sharp minor (see measures 521-550).

Chapter 6

Role of timbre in *Gaspard de la Nuit*

6.1 Timbre as a form-constituting element in music

6.1.1 General definition of timbre

How could we define the term 'timbre'? Out of musical context, the term 'timbre' is a component of tone/sound which could be described as a quality of the sound. The first definition of the term timbre in musical context goes back to the past. For instance, we could mention the description given by Jean-Jacques Rousseau in the tenth volume of Diderot's *Encyclopedié,* or Wilhelm Wackenroder who introduced the term in 1790.[219] Furthermore, Hermann von Helmholtz writes that the color of a certain tone can be determined by the single pitch that represents the sound with the lowest frequency and a certain extent of overtones with various strength in the spectrum.[220] Von Helmholtz was the first scientist who offered a scientific definition of timbre, along with the description of sound properties and musical tones.[221] His discoveries are still accepted and used today as the basis for further exploration, not only in science, but also in music. Yet, the treatment and the importance of timbre have been changing through music history.

Some explorations showed that timbres of various musical instruments are mostly defined by the medium/instrument that produces that sound.[222] In other words, sound color/timbre is a characteristic by which tones differ from others of the

219. See the description by Jean-Jacques Rousseau in: Emily Dolan, *The Orchestral Revolution: Haydn and the Technologies of Timbre* (Cambridge University Press, 2013), 56. See also: Wilhelm Wackenroder, Confessions and Fantasies, ed. Mary Hurst Schubert (University Park: Pennsylvania State University Press, 1971), 187.
220. Hermann von Helmholtz, *On the Sensations of Tone: As a Physiological Basis for the Theory of Music* 4th ed. (1877), transl. & ed. A. J. Ellis (Cambridge University Press, 2009), 19.
221. The definitions by von Helmholtz date from 1850-80. Robert Cogan, "Toward a Theory of Timbre: Verbal Timbre and Musical Line in Purcell, Sessions, and Stravinsky," *Perspectives of New Music* Vol. 8, no. 1 (1969): 75-81.
222. Wayne A. Slawson, *Sound Color* (University of California Press, 1985), 18-20.

same pitch, but with a different origin. Jeffery Hass says about timbre that "it is what allows us to distinguish between two different instruments playing the same note at the same amplitude."[223] However, the term 'timbre' can also be found among its other synonyms in the literature, such as 'sound color,' 'tone quality,' and 'tone color.'[224] It is also important to mention the term 'Klangfarbe,' which is a German word for timbre, commonly used in the literature in English without translation.[225]

There are numerous explorations of timbre within many research areas over the last decades. Yet, the majority of them are constrained to computational research which mostly investigate timbre as an acoustic phenomenon, with little or no relation to musical analysis.[226] In the music theory literature, the exploration of timbre is marginalized to a great extent, when compared to the number of studies which deal with other musical components. Moreover, the neglect of timbre in the existing literature becomes the analytical problem when we analyze music in which an essential component is 'tone color.' In the context of this discussion, we will explain role of timbre in the way it is used by Ravel as a part of his musical language in *Gaspard de la Nuit*.

223. Jeffery Hass, "Introducing to computer music," Chapter One: An Acoustics Primer, *What is a timbre?* (Indiana University, Jacobs School of Music, 2013). Accessed on 08/03/2020. https://cecm.indiana.edu/etext/acoustics/chapter1_timbre.shtml

224. Robert Erickson, *Sound Structure in Music* (Berkeley and Los Angeles: University of California Press, 1975), 67.

225. Although originally used by Von Helmholtz, the term of 'Klangfarbe' in Music Theory is mostly associaced with Arnold Schönberg and his concept of *Klangfarbenmelodie*. The term is presented in his book *Harmonielehre.* Arnold Schönberg, *Theory of Harmony,* trans. Roy E. Carter (Berkeley and Los Angeles: University of California Press, 1983), 421.

226. See: Stephen McAdams, S. P. Depalle, and E. Clarke, "Analyzing Musical Sound," *Empirical Musicology: Aims, Methods, Prospects*, ed. E. F. Clarke and N. Cook (Oxford University Press, 2004): 157-196.

6.1.2 Timbre perception

To be able to explain timbre in a musical context, we should start with the properties of timbre which affect its perception. In general, timbre is conditioned by various possible sound combinations on certain instruments. Firstly, it depends on the number and the presence/intensity of overtones, that are different on each instrument.[227] According to Stephen McAdams, two different timbres are only distinguishable when the two sounds are equal in "pitch, duration and loudness."[228] However, his research is more directed towards quantitative results and measuring of physical features of timbre.

When discussing the timbre perception, it is significant to remember that piano is characterized by almost the widest frequency range among all musical instruments.[229] Regarding the perception of piano timbre, some authors agree with the assertion that timbre on piano distinguishes it from other instruments due to its characteristics. According to Megan L. Lavengood, "…a single instrument can produce multiple timbres, depending on the way in which that instrument is played."[230] Many authors agree on that.[231] In the chapter two, we pointed to the importance of interpretation for the purpose of analysis of *Gaspard de la Nuit*.

Among others, there is dynamics which affects our perception of timbre. Concerning this, Nicholas Giordano writes: "Although timbre has been researched just as well as frequency and amplitude, trying to quantify timbre or simply exploring it becomes a more laborious task because of its complexity and multidimensional nature. Variations in loudness, pitch and waveform can change timbre perception."[232] A number of scientific explorations have concluded that we hear the certain pitch

227. "Basically, a timbre is conditioned by dimensions of an instrument, its shape, structure and the way tones are produced." Ristić, *Prolegomena,* 30. [Translated from Serbian]
228. McAdams, Depalle, and Clarke, *Analyzing Musical Sound*, 157-196.
229. Heinrich Kuttruff, *Room Acoustics, Sixths edition* (CRC Press/Taylor & Francis Group, 2016), 83.
230. Lavengood, "A new approach," 59.
231. See, for instance: Li Shen and Renee Timmers, "Exploring Pianists' Embodied Concepts of Piano Timbre: An Interview Study" (University of Sheffield, Music Department, 2017), 1.
232. Nicholas J. Giordano, *Physics of the Piano* (Oxford: Oxford University Press, 2010), 27.

differently, among others, depending on its dynamics.[233] Regarding the influence of dynamics on the timbre perception, Tatjana Ristić writes:

> We should emphasize that the primary features of sound: the pitch, duration, dynamics, and color/timbre most often manifest in their interrelation. This results in modification of their values. Also, we can indicate that the feature of sound possesses both objective and subjective values. Thanks to the interrelation of aforementioned basic feature of the pitch, a human being, for instance, feels a subjective pitch. The dynamics affects the subjective pitch perception. For example, the pitch with a frequency of 100 Hz in *ff* is perceived as a bit lower than the same pitch performed in *pp*. On the contrary, higher pitches (for example 500 Hz) cause the perception of pitch raising by increasing the dynamics. However, among the pitches in the scope from 1000 to 5000 Hz, there is no practical difference between an objective pitch and a subjective pitch perception. To some extent, the duration subjectively works on perceiving of the pitch. Lower pitches, played in very short impulses, make an impression of being slightly higher. On the other hand, higher pitches under this condition are registered by our ears as slightly lower than their actual pitch. Consequently, we can conclude that organization of mentioned (primary pitched) pitch tensions, duration and intensity/dynamics is accomplished by a mediator—timbre and textural component. In the mentioned hierarchy of basic features of sound, timbre manifests as a secondary value.[234]

The influence of the dynamics on our perception of timbre is even more important if we know that Ravel uses a broad range of dynamic markings in *Gaspard de la Nuit*. To be more accurate, it scopes the span from ***ppp*** to ***ff*** within the piece. Furthermore, the analysis in the following sections of this chapter will show the significance of dynamics in timbre differentiation.

In the musical context, there are "other/external" factors that influence how we experience timbre. Jennifer P. Beavers writes about timbre as "…a complex musical parameter and multidimensional characteristic of sound" which "distinguishes one sound from that of another."[235] Here, the term 'multidimensional' refers to the other components which affect timbre perception. Stephen Lakatos also describes timbre as "...a complex and multidimensional perceptual attribute most

233. See, for example: Marco Fabiani and Anders Friberg, "Influence of pitch, loudness, and timbre on the perception of instrument dynamics," *The Journal of the Acoustical Society of America* Vol. 130 (2011): 193-9.
234. Ristić, *Prolegomena*, 30. [translated from Serbian]
235. Beavers, "Timbre as Primary structural marker," 1.

closely associated with a sound's *quality* or *texture.*"[236] Finally, the timbre perception depends on other "non-timbral" elements which usually surround individual tones and so affect the timbre perception. Megan Lavengood explains how various parameters may affect our perception of timbre:

> Timbre - when not simply defined in the negative (*not* pitch, *not* rhythm, *not* dynamics) - is usually defined as the overtones and partials included in a sound, and the relative loudness of those overtones/partials. In other words, timbre is defined through the aggregate of its *spectral elements*, and how these spectral elements also change in time. But this definition of timbre is overly narrow. Timbre is affected both by "non-timbral" elements of music such as pitch, as well as by the perceiving mind. As Cornelia Fales has discussed, the human mind does not process timbre in the same way as a computer does; that is, timbre is not purely acoustic. Timbre is affected by neural processes that make any number of extramusical or non-acoustic associations, and timbre becomes interwoven with culture, identity, and other sociological and non-acoustic components. Fales terms this phenomenon "perceptualization." Timbre perception can further be affected by elements of sound usually categorized as part of another domain, such as dynamics and pitch. For example, an instrument sounding with vibrato is distinct from the same instrument sounding without vibrato; though vibrato is created through pitch and dynamic changes, one can also consider vibrato an important component of the timbre of an instrument. In light of all this, I define timbre as an analytical domain that is shaped by spectral, temporal, and spectrotemporal elements of a sound signal (i.e., frequency, amplitude, and how those change over time) and also by culture and history. [237]

Therefore, the perception of timbre is subordinated to a certain musical context, as well as listener's personal experience and cultural background. In other words, it is not possible to comprehend the timbre perception in music theory by analyzing it as a single element. It can be rather determined by considering several aspects.

From the perspective of this study, timbre might be defined as a multidimensional feature of sound that comprises a complex system of elements which are variable and interrelated. Even though the focus of this chapter is not to deal with the theory of timbre, here we should contextualize timbre as a notable element of Ravel's musical language in *Gaspard de la Nuit*. Finally, we can conclude

236. Stephen Lakatos, "A common perceptual space for harmonic and percussive timbres," *Perception and Psychophysics,* Vol. 62, No. 7 (2000): 1426-1439.
237. Lavengood, "A New approach," 4-5.

that there are several musical parameters which affect the perception of timbre in the musical context. Additionally, timbre on piano may be significantly affected by the quality of performance. Specifically, timbre transformations/timbral contrasts which occur in the music due to changes in some of the parameters are the most important for the purpose of this discussion.

6.1.3 Timbre as a musical parameter

In the context of music analysis, it is very difficult to discuss timbre as an exact category, comparing it to other musical parameters such as rhythm, harmony, melody etc. Furthermore, some authors point to the lack of literature when it comes to the role of timbre in musical structure.[238] David K. Blake considers the timbre as "especially frustrating for analytic description, at once the most apparent and least systematizable musical parameter."[239] If we exclude electroacoustic analysis and different scientific explorations of timbre, we can conclude that the investigations of timbre in music are mostly limited to a descriptive context. Due to its feature, it is difficult to determine the methods for timbre analysis in the context of music theory. Complexity and vagueness of timbre as an inexplicit musical parameter are also described by Emily Dolan who writes: "If timbre thwarts systematic analysis, if it refuses to be disciplined, it is precisely because timbre stands at the inauguration of modern musical discourse."[240]

As previously mentioned, the compositional treatment and significance of timbre as a musical component were different in various periods of music history. Regarding this, Carl Dahlhaus describes the process of "emancipation of timbre" at the beginning of the 20th century becoming as "the one of crucial features of *fin de siècle* musical modernism."[241] Further, he writes: "This 'emancipation of timbre,' initiated

238. Richard Ashley and Renee Timmers, ed., *The Routledge Companion to Music Cognition* (New York: Routledge 2017), 134.
239. David K. Blake, "Timbre as Differentiation in Indie Music," *MTO, A journal of Society for Music Theory,* Volume 18, No. 2 (June 2012): 2.
240. Dolan, *The Orchestral Revolution*, 89.
241. Robert Crowley, "Carl Dahlhaus (trans. J. Bradford Robinson), Nineteenth-century Music," *International Journal of Comparative Sociology* Vol. 34, No. 3-4 (Berkeley and Los Angeles: University of California Press, 1993), 243.

by Berlioz, freed tone color from its subservient function of merely clarifying the melody, rhythm, harmony, and counterpoint of a piece, and gave it an aesthetic *raison d'être* and significance of its own."[242] In other words, the timbre as a parameter evolved through different periods and styles of music history—from the subordinate till the fully emancipated component.

Before we start exploring the role of timbre in the formal design of *Gaspard de la Nuit*, it is necessary to define which musical agents act simultaneously making the timbre a contributive musical parameter. David K. Blake states that the timbre analysis "…does not exclude the contribution of other parameters such as pitch, rhythm, envelope, texture, and register to motility."[243] On the other hand, timbre as parameter never manifests itself alone. Moreover, timbre always relates to other musical components which affect or create it.

Since a good part of this study discusses the form of *Gaspard de la Nuit*, it is essential to position the timbre according to its role in the musical syntax. Regarding treating timbre as a musical parameter, Leonard B. Meyer suggests making the difference between 'primary' and 'secondary ' parameters.[244] According to Meyer, "the primary parameters are the ones that contribute to the functioning of a musical syntax," where he refers to the traditional expectations in terms of musical syntax and establishing of syntactic units by cadencing.[245] He also writes: "When the relationships within such a parameter are governed by syntactic constraints, the parameter will be called primary."[246] Jennifer P. Beavers writes about importance of timbre and the division into 'primary' and 'secondary' parameters:

> The avoidance of treating timbre as a serious musical parameter with formal consequences and interpretive implications leaves one feeling that it is either (a) a superficial novelty that we relish but do not understand, or (b) an essentially coloristic device that, perhaps akin to dynamics, can at best enhance the effective

242. Ibid., 243.
243. Blake, "Timbre as Differentiation," 4.
244. Leonard B. Meyer, *Style and Music: Theory, History, and Ideology* (University of Chicago Press, 1996), 3-37.
245. Ibid., 14.
246. Ibid., 14.

> transmission and perception of music—structural factors contingent on conventional "primary" parameters.[247]

Furthermore, Lasse Thoresen discusses Meyer's division of musical parameters as the following:

> This leaves three primary parameters: melody, rhythm, and harmony. The other ones, dynamics, tempo, sonority/timbre, are considered secondary because they cannot produce discrete entities through closure, which he considers a prerequisite for the creation of a syntax. He [Meyer] goes on to say that there has been 'an attempt to employ secondary parameters such as timbre and dynamics syntactically for the articulation of form and the shaping of process.'
>
> While secondary parameters may reinforce syntactic articulations, they cannot contribute to closure; they may 'cease, but they cannot close.'[248]

Therefore, the timbre may be defined as the 'secondary' parameter with the capacity of articulating formal/syntactic boundaries. Regarding this, Lasse Thoresen writes that "it is possible to create segmentation—divisions into sections, etc.—through timbre."[249] Further, it is important to point to the term 'segmentation' which refers to the form articulation created by 'sonorous differentiation.'[250] Consequently, timbre differences/contrasts will play the most important role in the following analysis in this chapter. Additionally, Thoresen emphasizes the synergy between 'primary' and 'secondary' parameters in creating syntactic units.[251]

Despite many ambiguities in the definition of timbre, it appears in the literature as the musical parameter which can affect the others. The role of timbre has traditionally been related to its contribution to harmony in Western music, according to Lerdahl and Jackendoff.[252] In addition to its connection to harmony, there are several studies coming from the area of cognitive music theory.[253] Those researches

247. Beavers, "Timbre as primary structural marker," 4.
248. Thoresen, *Emergent musical forms*, 78.
249. Ibid., 78.
250. Ibid., 78.
251. Ibid., 78.
252. Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge: The MIT Press, 1996).
253. The cognitive music theory incorporates psychological principles and empirical research.

confirm the role of timbre in relation to formal structure.[254] In his article, Stephen McAdams summarizes the contribution of timbre to musical structure:

> Timbre can also play a role in larger scale-movements of tension and relaxation, and thus contribute to the expression inherent in musical form. Under conditions of high blend among instruments composing a vertical sonority, timbral roughness is a major component of musical tension. However, it strongly depends, as do all auditory attributes, on the way auditory grouping processes have parsed the incoming acoustic information into events and streams. And finally, orchestration can play a major role in addition to pitch and rhythmic structure in the structuring of musical tension and relaxation schemas that are an important component of the aesthetic response to musical form.[255]

Regarding timbre's contribution to musical structure, Edgard Varèse goes even further. He suggests that timbre "would become an agent of delineation...and an integral part of form."[256] This is in the case where the activity of other components is less- or non-applicable for 'form delineation.'[257] Even though Varèse points to the music composed after the period of Impressionism, his statement still applies to the context of this discussion in general. The evolution of Ravel's musical language by using timbre as an important compositional device is described by Stephen Zank: "The more he matured, the more he became convinced of the supremacy of form, and of the need to bind it up with the effects of musical sonority."[258]

In the previous chapter about harmony, the term 'sonority' was presented referring to "the totality of sound as it is presented to us in immediate perception of a tone or of a combination of tones."[259] For the purpose of this chapter and timbre analysis, we will extend this definition by telling that the combination of texture, articulation, dynamics, and timbre might be united in the term 'sonority.' Therefore, the term sonority is introduced as a collection of the secondary parameters which can

254. See for instance: Beavers, "Timbre as primary structural marker."; McAdams, "Contribution of Timbre to Musical Structure," etc.
255. McAdams, "Contribution of Timbre to Musical Structure," 100.
256. Edgard Varèse and Chou Wen-Chung, "The Liberation of Sound," *Perspectives of New Music* Vol. 5, No.1 (1966): 11-19.
257. The term 'form delineation' is introduced by Wallace Berry. Berry, *Structural functions*, 186.
258. Zank, *Irony and Sound,* 235.
259. Cazden, *Tonal Function and Sonority*, 21-34.

also be combined with the primary parameters. The totality is creating sonority—the sonority that is not only a secondary parameter but can become a primary element.

6.1.4 Relationship between timbre and texture

By knowing the possibilities of piano as a polyphonic instrument, as well as the feature of texture in Ravel's piano works, we could raise a question:

- What does affect timbre within multi-layered texture?

The term 'sonority,' which was elaborated in the previous chapter, is also determined by the texture, along with its coloristic features. Wallace Berry defines the term 'sonority' as "the overall sonorous character determined by texture (including doublings) and coloration (including articulation and intensity of dynamics)."[260] Furthermore, Camilla Cai describes the term 'texture' as "the 'thickness' of sonority."[261] Since there is so much textural variety in *Gaspard de la Nuit*, timbre transformations/contrasts usually manifest in a cooperation with a textural component. Specifically, the different changes in textural layers will be the most important for the analysis which follows.

In the first place, we can examine how dynamics may influence texture and timbre. For instance, the tones within a sonority on piano can be played by different dynamic intensity. Therefore, the timbre of the sonority may vary due to different micro-dynamic relationship of its tones. Regarding this, Baron and Hollo write that "the timbre of a piano chord depends on the timing and relative loudness of the tones."[262] Furthermore, we can examine the way how quality of a chord/sonority can affect the chord/sonority timbre. Ravel employs a lot of arpeggiated chords in *Gaspard de la Nuit*, so performing these chords in different ways will produce a variety of sonic

260. Berry, *Structural functions*, 192.
261. Camila Cai, "Texture and Gender: New Prisms for Understanding Hensel's and Mendelssohn's Piano Pieces," in *Nineteenth-Century Piano Music: Essays in Performance and Analysis*, ed. David Witten (New York and London: Garland Publishing, Inc., 1997), 53.
262. J. Baron and J. Hollo, "Kann die Klangfarbe des Klaviers durch die Art des Anschlages beeinflusst werden?," *Zeitschrift für Sinnesphysiologie* Vol. 66, (1935): 23–32.

results. Richard Parncutt and Malcolm Troup describe the arpeggiated chords as an "extreme case" stating that the timbre of an arpeggiated chord "depends on the speed and direction of the arpeggiation," describing it as "an expressive strategy employed by both performers and composers."[263]

The role of texture may be explained through organization of elements in musical flow. In the first place, we could mention the points where music form is delineated due to the activity of the textural component. In the conclusion of his PhD thesis, Shlomo Dubnov summarizes that the texture "can serve as a major factor in organization and can be realized in various manners."[264] Further, the role of texture could be also manifested within an organization of segments in musical flow.[265] By this way, the texture within a musical flow is given an exceptional importance. Such conclusion is based on its role to accomplish division/subdivision, but also because of unifying role within the musical form. Therefore, the texture could be considered as a "*superparameter* that has three types of relationships with the parameters..."[266] In other words, "it [texture] can support the scheme-based organization, it can blur it, and it has border areas."[267] In this statement, the term 'scheme-based organization' refers to form, while the term 'border area' refers to formal boundaries.

Texture may influence the timbre in several ways. In the first place, timbre alteration can be done by change of texture. By superimposing and accumulating several textural layers, overall dynamics increases, so that it consequently affects timbre. In general, polyphonic, or 'multilinear' texture offers an indefinite number of possibilities that also influence timbre. Wallace Berry explains the term 'multilinear' in this connotation:

> The term *multilinear* (also bilinear, trilinear, etc.) can thus be used to denote texture of more than one simultaneous or concurrent component. As a rule, *multi-voiced* (two-voiced, three-voiced, many-voiced) has qualitative implications. (Polyphonic, as noted earlier, strictly means the same thing and has conventional implications of

263. Richard Parncutt and Malcolm Troup, "Piano," in *The Science & Psychology of Music Performance: Creative Strategies for Teaching and Learning* (New York: Oxford University Press, 2002), 285-300.
264. Shlomo Dubnov, "Polyspectral analysis of musical timbre" (PhD diss., Hebrew University, 1996), 81.
265. Ibid., 81.
266. Ibid., 81.
267. Ibid., 81.

> qualitative diversification.) Within these distinctions, which seem necessary and unavoidable in discussion of musical texture, monophonic (single-voiced) texture can of course be multilinear; *line* is the more generic concept.[268]

Roger E. Bissell writes about timbral aspects of texture by categorizing it into several types.[269] For the purpose of this study, it is important to mention the term 'timbral textures' which are "constructed by combining individual instrument tone colors in groups of like and/or unlike tone colors."[270] In the same way, various tone colors may be simultaneously produced on piano by using different dynamics, articulation, piano pedals, etc.

Evoking orchestral sonorities in piano interpretation, as well as the orchestral way of thinking in composing solo piano music, have been developing since the epoque of Classicism. After number of Franz Liszt's original piano pieces and solo piano arrangements called 'transcriptions,' the 'orchestral approach' in composition and piano performance became an ordinary praxis.[271] Ravel adopted these principles from his predecessors, evoking orchestral sonorities in many of his works. However, Mira Kruja describes Ravel's concept of piano writing in *Gaspard de la Nuit*:

> With *Gaspard de la Nuit*, Ravel extended the concept of piano "timbres" into "orchestral" sounds. He extended the piano technique to the limits of its execution in the traditional manner, i.e. playing with fingers on the keyboard. His unusual rhythmic note-group combinations, black-key ascending and descending glissandi, and alternating chord and single-note passages (such as the opening passage of *Ondine* with the alternating C-sharp major triad and A natural note on the right-hand part described earlier) expanded the concept of piano technique and its expressive means to the limit of the traditional on-the-keyboard use of the

268. Berry, *Structural functions,* 193.
269. See more at Roger E. Bissell's personal website: http://www.rogerbissell.com/id11e.html Accessed on 12/04/2020
270. Ibid. Accessed on 12/04/2020.
271. Ravel orchestrated many of his solo piano works, but also the works of other composers. By comparing those works, we can perceive and analyze similarities and differences between them. There are two obvious influences in Ravel's piano music which originate from Liszt: the way of composing in the context of evoking orchestral sonorities and the instrumental virtuosity. Weiss-Aigner writes that "Ravel may have absorbed Liszt more closely here than is often acknowledged." Weiss-Aigner, "Eine Sonderform der Skalenbildung in der Musik Ravels," in Stephen Zank, *Irony and Sound*, 321. See also: Megan Yen-Wei Chang, "Interpreting Liszt's Piano Compositions Through Orchestral Colours" (DMA thesis, University of Toronto, 2014); Mira Kruja, "Piano inside out: The expansion of the expressive, technical and sonorous spectrum in selected twentieth-century art-music repertoire for the modern acoustic piano" (PhD diss., University of Kentucky, 2004).

> instrument. This expansion pushed the boundaries for future composers like Cowell, Cage, and Crumb toward expansion of the use of the piano to include producing sound by means beyond the mere use of fingers striking the keys...[272]

Organization of polyphonic piano texture in the way that it recalls the orchestral sound is very important for the methodology in this chapter. The study by Stephen McAdams and Meghan Goodchild, called "Musical Structure – Sound and timbre," concludes by explaining the relationship between timbre and polyphonic texture:

> Timbre can distinguish voices in polyphonic textures and among orchestral layers. It can underscore contrastive structures and define sectional structure. It also contributes to the building of large-scale orchestral gestures. Future possibilities for timbre research in music theory, orchestration theory, and music psychology include: determining how to predict blend from the underlying perceptual representation, the resulting timbral qualia of blended sounds, and which timbres will remain identifiable in a blend; the way timbre affects the interaction of concurrent and sequential grouping processes in the perception of dissonance and harmonic tension; and the contributions of timbre to the perception and cognition of formal processes and harmonic schemas.[273]

Since the orchestral way of thinking is apparently present in *Gaspard de la Nuit*, then the proven structural role of timbre in orchestral music may be also applicable in the analysis of solo piano pieces. Indeed, Ravel intentionally exceeded the expressive horizons of solo piano piece by writing *Gaspard de la Nuit*. Finally, the methodology in the next section is conducted by the fact that the timbral expression in *Gaspard de la Nuit* goes beyond expressive range of solo piano.

The definition of piano texture in *Gaspard de la Nuit* is the description of something that is not affected only by one element, e.g. harmony. Moreover, the definition deals with how texture is executed and how all rhythmical and melodic/intervallic quality create this texture. Nearly, as it is the imitation of an orchestral texture, then it is more or less, musical "web weaving" evoking the orchestral sound on piano.

272. Kruja, "Piano inside out," 26.
273. Stephen McAdams and Goodchild, Meghan, "Musical Structure – Sound and timbre," in *The Routledge Companion to Music Cognition*, ed. R. Ashley & R. Timmers (New York: Routledge, 2017), 137.

6.2 Timbre's effect on form articulation in *Gaspard de la Nuit*

6.2.1 Methodology of timbre analysis

To show how changes of timbre articulate the form of *Gaspard de la Nuit*, it is necessary to provide the reader with the overview of analytical methodology. A part of the methodology will address the fields of music cognition and perception, trying to adapt their terms to the context of this discussion. This section will explain the main analytical devices which will be used in the analysis of timbre in the piece.

In the first place, we have to explain the term 'sound object(s)' as an important device.[274] Pierre Schaeffer describes it as a "sound itself, considered as sound, and not the material object."[275] Furthermore, Michel Chion comprehends the term in this way:

> 1) Sound objects are called *suitable* when they seem to be more appropriate than others for use as a musical object. For this they must fulfill certain criteria:
> - be simple, original and at the same time easily 'memorable,' with a medium duration; therefore, be *balanced* typologically;
> - lend themselves easily to *reduced listening*, therefore not be too anecdotal or too loaded with meaning or emotion;
> - finally, combined with other sound objects of the same genre, be capable of producing a predominant and easily identifiable musical value…
> 2) We can also speak of a *suitable collection* of objects, which are only suitable *in combination* (relative suitability) for producing a musical value.
> 3) *Suitable, balanced, musical objects*: it would seem likely that suitable objects would be the 9 types of *balanced* objects of typology. But the notion of suitable object is an abstract and general notion whose concrete definition must remain open, whereas the balanced object is defined by precise typological criteria…
> The *suitability* of the object cannot therefore be defined by criteria which are, a priori, too precise.[276]

274. The term *objets sonores* [sound objects] was originally introduced by Pierre Schaeffer in his *Traitè des objets musicaux* (1966) [Treatise on Musical Objects] as a part of his theory of "acousmatic" listening.
275. Pierre Schaeffer, *Treatise on Musical Objects: An Essay Across Disciplines,* trans. C. North and J. Oakland Dack (CA: University of California Press, 2017), 8.
276. Michel Chion, *Guide des objets sonores: Pierre Schaeffer et la recherche musicale* (Paris: Buchet/Chastel. Institut national de la communication audiovisuelle, 1999). [*Michel Chion's guide to Sound Objects: Pierre Schaeffer and Musical Research*], translated to English by J. Dack and C. North., 97.

Due to multidimensional/interdisciplinary feature of the term, it is difficult to explain it in short. Anyway, for the purpose of this discussion, we will quote a simplified definition of sound objects interpreted by Giorgio Bianchi. He explains the term:

> He [Schaeffer] defines sound object as every phenomenon and sound event perceived as a whole, as a coherent whole and heard through a reduced listening, that he is concerned for himself, regardless of its origin or its meaning.
>
> Called "reduced listening related," as there is no "per se," but only through a specific intention, the sound object is a sound unit perceived in his subject, in its structure, in its quality.
>
> The reduced listening is a global perception, similar to a "Gestalt" (form), in the sense of the psychology of form.[277]

Furthermore, Lasse Thoresen classifies sound objects as the "Articulation Level One: *The sound-object*, approached through the intentionality reductive listening."[278] According to Thoresen, the study of sounds-objects is the main field of spectromorphology, and the part of his concept called 'Timbre-as-Heard.'[279] Finally, we can conclude that the sound object is the "object for human perception and not a mathematical or electroacoustical object for synthesis."[280]

Secondly, to delineate different textural levels and perceive them as 'timbral groupings,' the terminology has to refer to the cognitive and perceptive research in sound.[281] For the purpose of this thesis, it is necessary to adapt the terms from these fields to be applicable and understandable from the music theory perspective. In his article, McAdams summarizes the use of 'Auditory Stream Segregation Theory' in the context of timbre analysis:

> All of these results are important for auditory stream segregation theory on the one hand, because they show that several of a source's acoustic properties are taken into

277. "Introduction to Sound Objects," Giorgio Bianchi, Accessed on 29/04/2020. http://www.giorgiobianchi.org/en/blog/
278. Thoresen, *Emergent Musical Forms*, 10.
279. Ibid., 10.
280. Schaeffer, *Treatise on Musical Objects*, 11.
281. The term 'timbral grouping' is used in: Diana Deutsch, ed., *Psychology of Music* (Academic Press, Third Edition, 2013), 200. Regarding cognitive and perceptive research, see for instance: McAdams, "Contribution of Timbre to Musical Structure."

> account when forming auditory streams. On the other hand, they are important for music making (whether it be with computer or acoustic instruments), since they show that many aspects of timbre can be used to organize the musical surface into streams. Timbre thus strongly affects the basic organization of the musical surface into "voices" that will then affect how one perceives the relations among those voices. Different "orchestrations" of a given pitch sequence can completely change what is heard as "melody"...[282]

Furthermore, Jennifer P. Beavers confirms that Auditory Stream Segregation was used as the methodological approach in many studies which encompass various styles.[283] In her article, she explains that sound object (voices or instruments) which come from homogenous origin "...that have similar note onsets, dynamic level, or pitch—will be perceived within a singular integrated stream. As follows, dissimilar sounds—asynchronous beginnings or endings, dynamics, or pitch—will sound as if coming from different voices, or segregated streams."[284] Therefore, the terms 'segregation' and 'integration' will be used in the context of 'textural stratification' or 'layering, defining the relationship between the streams.'[285]

Finally, the most significant principle which makes timbre a relevant form-constituting element in this discussion is its ability of producing "distinctive transitions or contrasts at the musical surface."[286] This is the most important point which governs the methodology of this chapter. In order to gradually acquaint the reader with the analysis, timbre was not discussed from the perspective of formal/harmonic implications in the two previous chapters. In the sections which follow, we will unite the analysis of form with an emphasis on 'timbral-markedness' in *Gaspard de la Nuit*.[287] This will reveal how form outline in the piece is 'timbrally-marked.'[288] Jennifer P. Beavers writes about role of 'timbral markers:'

> Timbral markers produce special meaning that allow us to experience and understand changes within these dimensions and how we recognize parallel,

282. McAdams, "Contribution of Timbre to Musical Structure," 96.
283. Beavers, "Timbre as primary structural marker," 21.
284. Ibid., 5.
285. See more in: Ashley and Timmers, *The Routledge Companion to Music Cognition*, 134.
286. McAdams, "Contribution of Timbre to Musical Structure," 183.
287. The term 'timbral-markedness' is introduced by Jennifer P. Beavers. See: Beavers, "Timbre as primary structural marker," 9.
288. Ibid., 9.

> relative, and contrasting materials across temporal structures. Moreover, contrasting and unexpected sound qualities can function as a timbral accent, a moment that is "set off from other stimuli because of differences in duration, intensity, pitch, timbre, etc."[289]

Therefore, the 'timbral accents' or 'timbrally-marked moments' will serve as the one of the basic criteria of the form articulation in *Gaspard de la Nuit*.[290]

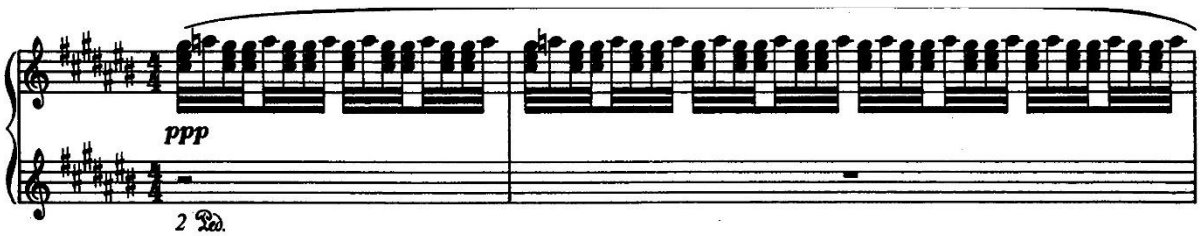
6.2.2 Timbre in "Ondine"

In the analysis of "Ondine," we will use sound objects as a primary device in demonstrating of form articulation.[291] There are many objects of 'reduced listening' which could be perceived as sound objects, but there is the only one sound object relevant for form articulation in "Ondine." By analyzing the presence and the alterations of this specific sound object in "Ondine," we will explain how the form is articulated by timbre transformations/contrasts at pivotal points in the piece. On the other hand, various changes within each appearance of this sound object contribute to the timbral heterogeneity of the piece.

The opening sonority of the accompanying figure in "Ondine," which we called 'the signature sound' in the previous chapter, can be perceived as a sound object (see Example No. **6.1**). Primarily, the rhythmic and melodic shape of the figure make it aurally discernible. Here, Ravel indicates a frequent use of ***ppp*** and the use of the left pedal on piano (*Con sordino*). Along with the specific dynamics, the use of the left pedal makes that there is no clarity in the sound. Under such circumstances, the listener is not able to clearly hear rhythmic or harmonic properties of the music, but rather the sound fluctuating as texture. We should also consider the passages that cannot be really played ***ppp***. Within this repressive use of dynamics, there are so many indications that Ravel intended to put timbre in the focus.

289. Ibid., 6.
290. The terms are used by Jennifer P. Beavers. Ibid., 6-9.
291. Pierre Boulez explains the relationship between timbre and sound object. Boulez, "Timbre and Composition," 161–72.

Hence, this is the sound object that I find worthy of my reduced listening. Specifically, it is the object which is musically meaningful and recognizable because of its features. Consequently, any change of harmony, texture, dynamics, or rhythm, affects our sonic perception of the selected sound object. From the listener's perspective, every onset of this sound object is perceived as a "highly novel timbral moment."[292] In other words, the listener comprehends its onset as a certain contrast or change of a sonic picture. Also, its appearances bring a distinguishable timbral quality which occur at the pivotal points in "Ondine." Despite changes of different musical parameters within the sound object, it still remains aurally recognizable.



Example 6.1: Sound object from "Ondine," measure 1

The Table **6-a** shows all important onsets of the described sound object in "Ondine." Along with the overview of the pivotal points in the form, the table illustrates the transformations of the other musical components. If we compare the appearances of the sound objects from the Table **6-a** with the form outline, we recognize that the onsets of the sound objects are congruent with the beginnings of corresponding formal sections/units. In this way, almost all prominent points of the sonata form in "Ondine" are articulated by timbrally-marked moments.

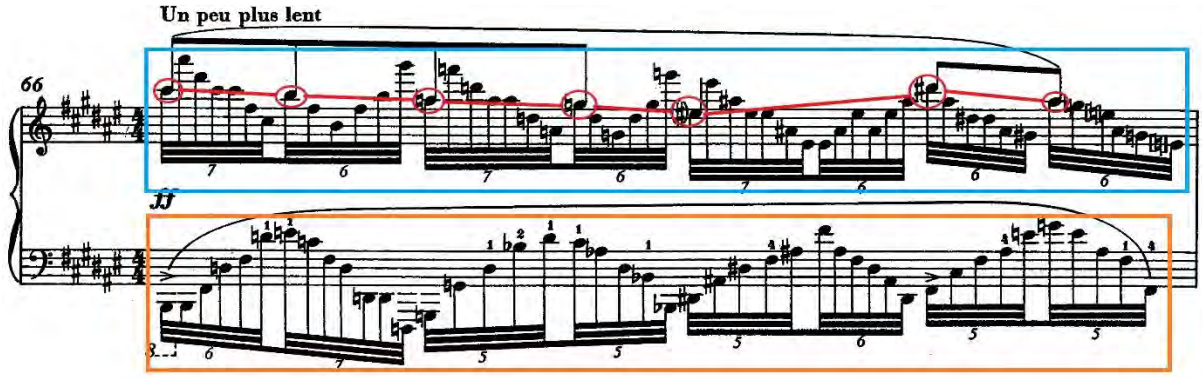
292. The term is introduced by Jennifer P. Beavers. Beavers, "Timbre as primary structural marker," 5.

Table 6-a: Appearances/changes of the sound object in "Ondine"

Section/Unit	mm.	Appearances of the sound object—transformations in auditory stream groupings and/or activities of different musical components
Exposition – First subject	1	Introduction of the sound object
Exposition - Transition	23	Sudden harmonic shift; change of textural density
Exposition - Second subject	30	Return to the originally exposed sound object; Dominant harmony
Development - Introductory module	41	Sudden harmonic shift; change of textural density
Development – Central module	45	Sudden harmonic shift; change of textural density
Recapitulation – First subject	80	Change of textural density—adding a new stream; Minor key as a harmonic background

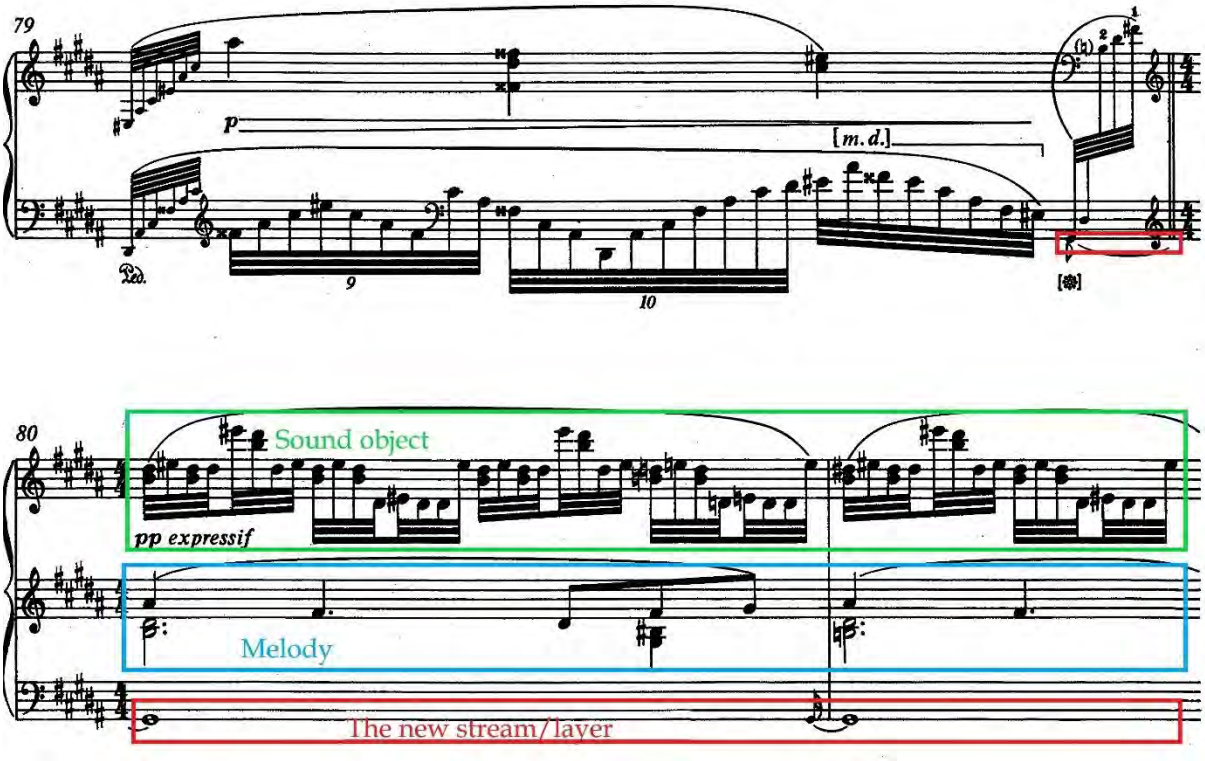
Another manifestation of timbre as a form-constituting element in "Ondine" can be explained by analyzing the different "auditory stream groupings." The Example No. **6.2** illustrates simultaneous segregation in the second subject within the recapitulation of "Ondine," where two voices create three independent streams. The right hand plays an arpeggiated figure, while the melody of the second subject is segregated by playing accented quavers and crotchets. Ravel intentionally organized the arpeggiated figures in both hands as polyrhythms, having always conflicting odd groupings between the hands.[293] There could be three possible reasons for this. Firstly, to potentiate aural segregation between the right and the left hand, by creating two aurally divisible layers. Secondly, to achieve the maximum level of dynamics at the climax by avoiding simultaneous sounding. Thirdly, to create the most obvious textural and timbral discontinuity/heterogeneity in comparison to the previous unit. Consequently, the culmination in "Ondine" brings multiple levels of changes/contrasts for the listener, both harmonic, rhythmic, textural, and timbral. Due to the simultaneous activities of several musical components, we percept the onset of the recapitulation as a timbrally marked section.

293. Both hands play polyrhythms such as: 7 against 6, 5 against 6, and similar.



Example 6.2: Simultaneous segregation in the recapitulation of "Ondine"

Another example of the simultaneous segregation in "Ondine" is at the early beginning of the first subject in the recapitulation (see Example No. **6.3**). Along with the onset of the sound object, the timbre transformation is supported by adding a pedal point as a new auditory stream/layer. By using two different agents, both the sound object and the new auditory stream, the onset of the first subject is additionally articulated.



Example 6.3: Simultaneous segregation in the recapitulation of "Ondine"

Finally, the beginning of Coda is also marked by sudden shift in dynamics, harmony, rhythm, and texture. Specifically, the textural density turns from a homophonic texture to rapidly arpeggiated figures played by both hands and supported by using sustain pedal in measure 88. The use of the sustain pedal on piano makes that the lowest tone of the figures is perceived as an independent layer.

We should look how the melody is developed through the movement and interestingly, it brings the different variants towards the end. Voices are coming together by playing a figuration and extension of the first sonority. There is a change of texture and dynamics in the opening sonority which is developing during the entire piece. Finally, "Ondine" is not ending the way it begins in terms of previously used textural model. Nevertheless, Ravel's intention to return to the opening sonority is obvious.

6.2.3 Timbre in "Le Gibet"

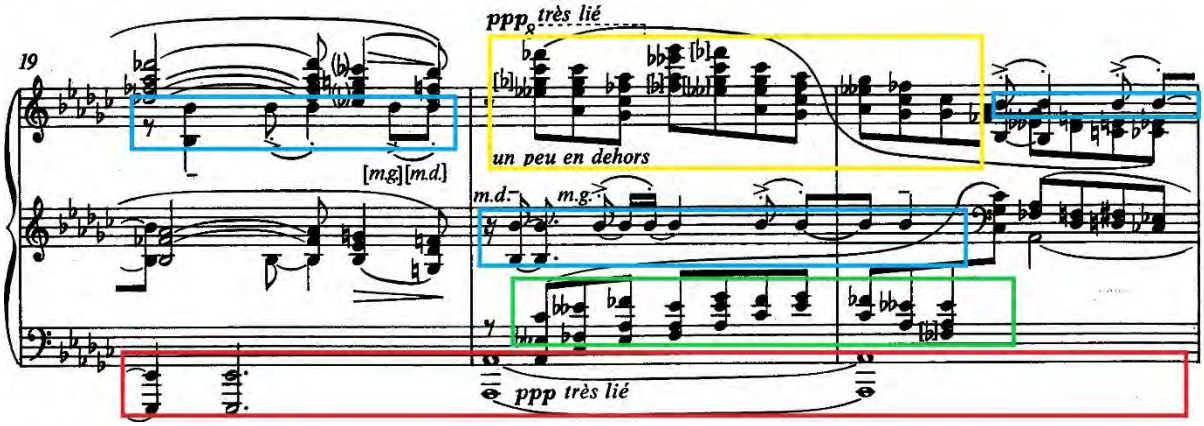
As mentioned in the previous chapter, "Le Gibet" is characterized by the appearance of the pedal points as an independent textural layer which mostly governs the form articulation. However, textural clarity of the other layers in the movement helps the listener to parse auditory streams and to follow their transformations. Further, organization of the score by using three piano staffs also helps a visual segregation of the auditory streams in the analysis. On the other hand, we can perceive a constant presence of the ostinato tone "B-flat" as a segregated layer/stream. By identifying auditory streams in "Le Gibet," we will examine if points of timbre transformation are congruent with the form outline.

The octave ostinato "B-flat" creates an 'acoustic space' in the background layer by putting everything else in the foreground.[294] In this way, these layers orchestrate "the room." The opening melody is harmonized by fixed intervals which obviously serve to bring out a color to this theme, measure 3.[295] The maintaining of the interval

294. Read more about the term 'acoustic space' in: Jonathan Sterne, "The Stereophonic Spaces of Soundscape," in *Living Stereo: Histories and Cultures of Multichannel Sound,* eds., Paul Théberge, Kyle Devine and Tom Everrett (New York: Bloomsbury Publishing Inc., 2015), 69.
295. The sonorities are built only of perfect fifths.

of the fifth gives the particular sound to this melody. Therefore, this use of fixed intervals in parallel motion can be only interpreted as the orchestration of the theme. The same principle is used within the melody in the measure 6, which is exposed as a unison melody first, and then, it is repeated and "doubled" by interval of third, mm. 10. Consequently, we could conclude that Ravel intended to maintain the same intervals in the parallel motion to obtain the particular timbres. By combining and juxtaposing the intervals, we could think that this is about harmony, at first glance. On the contrary, it is not only about harmony, but rather the manner of orchestrating melodies.

Example **6.3** shows three segregated streams which produce layered effect. Both aurally and visually, we can isolate the octave ostinato B-flat as a background layer (blue frame) which underlines the entire movement. The listener can also separate the pedal point (red frame), as well as two rows of sonorities in a contrary motion which are in the foreground layer (yellow and green frames). These two rows are perceived as a singular integrated stream due to rhythmic similarity and simultaneous onset. The appearance of these lines, along with the sudden dynamic contrast from ***mf*** to ***ppp***, creates a timbral transformation at the beginning of the middle section **B**, measure 20. Hereby, the transition from the section **A** to the section **B** of the compound ternary form is articulated by change of timbre.



Example 6.4: Simultaneous segregation in the middle section **B** in "Le Gibet"

Similar to the previous example, the Table **6-b** illustrates the alterations of timbre within the whole movement by showing how change of timbre marks the form of "Le Gibet." If we look at the transformations in auditory stream groupings, we

recognize that the form outline is followed by the variation/transformation of timbre. Also, we observe how shift of 'sonority density' can articulate the formal boundaries of the piece.[296]

Table 6-b: Alterations of timbre within the form of "Le Gibet"

Section	Unit	mm.	Transformations in auditory stream groupings and/or activities of different musical components
A	**a**	1	Beginning with the octave ostinato B-flat
	b	12	Introduction of pedal point—the new stream; increased harmonic/textural density
B	**a**	20	Introduction of rows of sonorities; adding a new stream; sudden dynamic turn
	b	26	The end of the rows; bitonality; the new pedal point
A_1	**a**	35	Modulation to E-flat minor; the new pedal point; increased harmonic/textural density
	b	40	Return to the rows of sonorities; sudden dynamic turn; adding a new stream
	a_1	48	Dynamic turn; onset of the thematic unit **a** from the opening; decreasing of the textural density

The middle piece of *Gaspard de la Nuit* is ending the way it begins and it is also the only movement that begins and ends in the same way. The piece is starting with the octave ostinato figure in the background layer. Subsequently, the movement is developing, and finally, it ends with the octave ostinato figure at the end. The listener is being brought back to the opening acoustic space by timbre.

6.2.4 Timbre in "Scarbo"

During the analysis of form in the chapter four, it was mentioned that textural and thematic shifts in "Scarbo" give the listener general hints of form outline. In other words, every appearance of a certain thematic material is usually exposed on a different textural and harmonic background. Additionally, a number of rests between certain sections/units also contribute to the aural separation. We will now discuss

296. Jack Forrest Boss, Heather Holmquest, Russell Christopher Knight, et al., *Form and process in music, 1300-2014: An analytic sampler* (Cambridge Scholar Publishing, 2016), 297.

these phenomena from the point of timbral transformation and its relation to the formal design of "Scarbo." Furthermore, frequent timbral turns/contrasts transfer the thematic material to various sonic environments and help listener to aurally identify distinct sections/units of form.

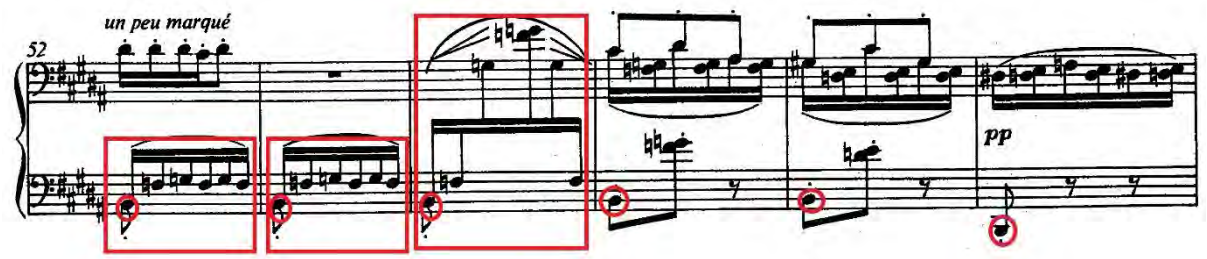
In "Scarbo," Ravel employs a pedal-ostinato as a significant compositional device. According to Pierre Schaeffer, ostinato could be called '*cyclic* sound object,' where the term 'cyclic' refers to a "cyclic repetition of a fragment," while the 'fragment' refers to the repeated figure of ostinato.[297] In this thesis, we will simply use the term 'sound object,' as we did in the previous sections of this chapter. Because of its characteristics in this movement, the pedal-ostinato will be treated as a sound object. Lasse Thoresen describes pedal-ostinato as "a repeated sequence of sonic objects, ostinato-like."[298] He classifies the pedal-ostinato as "a special case of composite sound objects."[299]

As in the analysis of "Ondine," sound objects will be used as an important tool in the analysis of "Scarbo." Also, sound objects bring certain timbral characteristics which are aurally recognizable. From the listener's perspective, pedal-ostinato is always perceived as a segregated stream in a multi-layered texture. Not accidentally, these sound objects appear at the beginning of the sections/units in "Scarbo." Furthermore, their presence is constant within the sections/units, despite different variations of the ostinato figures. Also, they usually follow the sections'/units' boundaries so that a certain part of the form can be always identified by the presence of a certain sound object (see Examples Nos. **6.5** and **6.6**).

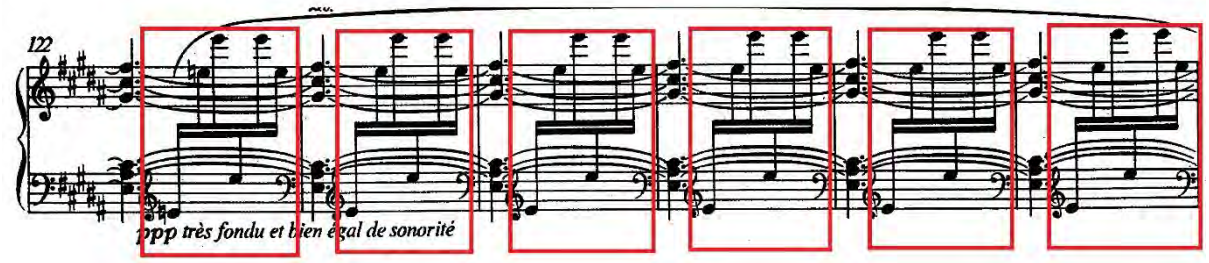
Beside the appearances of the sound objects, the timbre alterations can also be perceived by changes in activities of the other musical components. In the previous sections of this chapter, it was discussed how activities of different musical parameters affect timbre and its perception. The Table **6-c** demonstrates all significant timbral turns linked to the formal boundaries in "Scarbo." Along with timbre transformations produced by ostinato-pedals, we can conclude that the textural and harmonic changes

297. Schaeffer, North, and Dack. *Treatise on Musical Objects.*
298. Lasse Thoresen and Andreas Hedmanm, "Spectromorphological Analysis of Sound Objects: An Adaptation of Pierre Schaeffer's Typomorphology," *Organised Sound* Vol. 12, No. 2 (2007): 129–41.
299. Ibid., 129–41.

are two most important elements which influence timbre alterations in the movement. Ultimately, thanks to the activity of various musical components, all timbral transformations in "Scarbo" are aurally discernible.



Example 6.5: Pedal-ostinato as the sound object in "Scarbo"



Example 6.6: Another pedal ostinato in "Scarbo"

Table 6-c: Alterations of timbre within the form of "Scarbo"

Section	Unit	Sub-unit	mm.	Transformations in auditory stream groupings and/or activities of different musical components
Exposition	**Introduction**		1	Introducing of the cyclic motif
	I subject	**A**	32	Sudden dynamic, harmonic, and textural shift
		B	51	Introducing of pedal-ostinato as the sound object; sudden harmonic and dynamic shift
		A_1	110	Return to the textural model from sub-unit **A**
	II subject		121	Sudden dynamic, textural, and harmonic shift; introducing of the new pedal-ostinato as the new sound object
	Closing unit		198	Harmonic shift; transformation of the sound object
Development	**I stage**		214	Return to the altered sound object/pedal-ostinato from sub-unit **B**; sudden harmonic and textural shift
	II stage		256	Sudden rhythmic, dynamic, textural, and harmonic turn; use of the sonorities from "The Spanish mode"
	III stage		314	Sudden textural and dynamic shift; introducing of the new sound object/pedal-ostinato
	IV stage		366	Quick textural turn; new harmony; increased dynamics level; onset of the new pedal point as a new stream
Recapitulation	**Introduction**		395	Sudden textural and dynamic shift; new harmony
	I subject	**B_1**	422	Sudden textural and rhythmic shift; introducing of the new sound object/pedal-ostinato
		B_2	448	Sudden textural and harmonic shift; introducing of the new sound object—two-measure phrase from the melody becomes the new sound object; introducing of the pedal point in the bass as a new stream
	II subject		477	Sudden textural and harmonic shift; return to the altered sound object from the 3rd stage of the development section
	Closing unit		551	Harmonic and dynamic shift; transformation of the sound object/pedal ostinato
Coda			563	Quick textural turn; new harmony; increased dynamics level; onset of the new pedal point as a new stream

The movement is characterized by specific use of registers—both extreme bass and descant. It is interesting to examine how Ravel uses the lowest notes on piano. Regarding that, the low register/bass in "Scarbo" is muffled. Here, Ravel again indicates dynamics ***ppp***, which makes distinctions very ambiguous. As an example, see from mm. 403 and further, from mm. 418, and from mm. 477. Arguably, the listener is not able to clearly hear the notes which are being played here—they are more, or less amorphous. Like in "Ondine," both sustain and sordino pedals are used simultaneously in "Scarbo." The listener cannot perceive the exact pitches or rhythms. On the contrary, they can be only identified as "a pure timbre."

By analysing sonic transformations in "Scarbo," we can reveal that Ravel seeks the extreme sonorities in the high- and low register. In both those extreme registers, the lowest and the highest, together with small rhythmical figures, we lose a clear perception of what a melody/harmony really is. We start from a one level sonority, from the bottom, up to the highest. In both registers, harmony is not any longer in command so much. Here, we have rather what we could call sonority, or "pure timbre." It is important since Ravel is really seeking the most extreme registers in "Scarbo." For example, when it comes to the single note repetition, then we are not capable to hear the notes clearly, mm. 2. Further, in the exposition, mm. 80, the melody is exposed within a very clear texture, but in the recapitulation, mm. 460, we have a pure amorphous music. The intervals of major seconds, which double the melody could not be clearly heard here.

Finally, we can summarize the meaning of the term 'sonority' since Ravel abundantly used them in "Scarbo." In the context of timbre analysis, the term sonority cannot refer only to harmony, nor melody... and it is obviously not only timbre, or texture—it is the combination of these elements.

In *Gaspard de la Nuit,* Ravel brings all the elements together. In short, this is a piece written in sonorities. Here we could refer to Peter Kaminsky who describes the term sonority as "the matrix of the musical structure."[300] Additionally, the use of the term in the present context must consider several musical parameters. By tracking

300. Kaminsky, *Unmasking Ravel,* 247.

appearances of different sonorities, we could conclude that Ravel uses them as an important toolkit of his musical language. Through the analysis, we can comprehend how sonorities are orchestrated, as well as how they are creating and enforcing the form beside harmony and melody.

6.3 Summary

The analysis of *Gaspard de la Nuit* shows that Ravel employs timbre as a fundamental component of his compositional language. Furthermore, timbre serves as a highly constructive musical parameter in the piece which "unmasks" or clarifies formal ambiguities. The role of timbre as a form-constituting element is primarily manifested through the sonic changes at the pivotal points in the piece. In this way, timbral markings deliver "gestures" to the listener by creating color transformations at the important moments in the form. Secondly, the changes in textural density and harmony "underscore contrastive structures and define sectional structure."[301] Therefore, the form of the piece is additionally articulated by the timbral markings which onsets are congruent with the formal boundaries.

301. McAdams and Goodchild, "Sound and Timbre" in *The Routledge companion to music cognition*, 99.

Chapter 7

Conclusion

7.1 Summary and reflection

The project investigated the formal design of Ravel's *Gaspard de la Nuit* and the way harmony and timbre contribute to form-constituting. The thesis encompassed different types of analyses with the goal to explain the correlation between harmony, timbre, and form in the piece. Along with various analyses, the study provided the reader with other aspects of *Gaspard de la Nuit* which are important for overall comprehension of the piece.

In the introduction, I gave the overall information about the piece, context, and relevance of the project. Additionally, this chapter exposed the research questions, background for the research, as well as the relevant thesis methodology.

Chapter two introduced different aspects of the piece including the musicological reflection on analysis. This section pointed to the necessity of different analytical perspectives in the thesis. Further, the two following sections of this chapter discussed the piano interpretation of *Gaspard de la Nuit* and the relationship between the piece and Bertrand's poems. The knowledge about various aspects of the piece prepared the reader for the analytical chapters.

Chapter three discussed interrelation of different structural elements regarding *Gaspard de la Nuit* and Ravel's musical language. This chapter acquainted the reader with the relation among various musical components in the piece.

The formal/thematic analysis of *Gaspard de la Nuit* in chapter four presented the form design of every movement, based on similarity of the thematic materials and their role in musical syntax. Additionally, this chapter presented the macro-form of the cycle. The role of harmony was further considered in the chapter. The analysis provided within this chapter left some unanswered questions regarding the form design, but those "gaps" were explained in the chapters which followed.

The chapter five discussed the harmony in the piece along with the general presentation of Ravel's harmonic language which preceded the analysis. The analysis indicated both constructive and coloristic implications of harmony in *Gaspard de la Nuit.* The functional role of harmony was related to the formal scheme of the piece. However, the presentation of coloristic role of harmony opened the space for further discussion about timbre in the chapter which followed.

The chapter six provided an extensive presentation of different aspects of timbre as a form-constituting element. The sections which preceded the analysis included general definition of timbre, timbre perception, presentation of timbre as a musical parameter, as well as the relationship between timbre and the other components. The timbre analysis demonstrated how transformations of timbre marked the form outline in *Gaspard de la Nuit*.

7.2 Answering research questions

The study tried to answer research questions presented in the introduction chapter:

- To what extent is harmony a form-constituting element in *Gaspard de la Nuit*?

Regarding the role of harmony in the piece, we can conclude that it manifests in two ways. As previously mentioned, within the parts of the piece where harmony shows more tonal integration, its role is related to the creation of syntactic units. Here, it does play the role of form-bearing element in the more, or less conventional manner. On the other hand, the coloristic role of harmony implies its relation to timbre and thus, help form-constitution in other ways.

- How could we define and explain the relation between harmony and timbre in the piece?

As previously mentioned, timbre as an element arises due to the simultaneous activity of different musical parameters. However, the coloristic properties of harmony in form-constituting is different than the conventional and it significantly participates in

timbre creation. The introducing of the term 'sonority' was important for explaining the relationship between harmony and timbre. In other words, the use of the term 'sonority' refers to the sonic/harmonic totality with the coloristic characteristics which does not necessarily relate to tonal harmony and/or tertian organization of tones. Methodologically, the term 'sonority' unified the coloristic features of harmony with timbre and therefore, facilitated the analyses of harmony and timbre in the piece.

- What is the role of timbre in *Gaspard de la Nuit*?

In *Gaspard de la Nuit*, Ravel employs timbre as an important compositional device. The role of timbre is to articulate the form by creating different timbral transformations at pivotal points in the piece. Also, the term 'sonority' plays important role in the definition of timbre in *Gaspard de la Nuit*. In the context of timbre analysis, the term 'sonority' covers even wider spectrum of elements with coloristic connotations. By tracking appearances of different sonorities, the listener can identify their congruence with the form outline. In other words, sonic changes in the piece created by timbral contrasts mark the form outline. In this way, timbre plays an integral role in form-constituting.

7.3 Contribution

The scientific relevance of the project includes exploration of timbre as a form-constituting element which is quite neglected in music theory. As mentioned in the introduction chapter, there is no study which deals with the correlation between harmony and timbre, as well as with their implications to the form of *Gaspard de la Nuit*. The thesis contributes by clarifying how Ravel employed timbre as the integral element of his musical language in the piece.

7.4 Proposal for further research

Since the thesis deals with the exploration of harmony and timbre in the context of piano music, the possible continuation of the research could address the "orchestration" of the piece. The further study could examine the role of timbre in the "piano orchestration" of *Gaspard de la Nuit* by using extended analytical toolkit. The possible analytical techniques could include the Aural analysis combined with some conventional methods.

Chapter 8

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Appendix

List of used audio recordings of Ravel's *Gaspard de la Nuit*:

- Ivo Pogorelich - piano, *Deutsche Grammophon*, Audio CD, 7th August 1998
  https://www.deutschegrammophon.com/en/catalogue/products/ivo-pogorelich-chopin-ravel-prokofiev-5887

- Martha Argerich – piano, *Deutsche Grammophon*, Audio CD, 3rd August 1987
  https://www.deutschegrammophon.com/en/catalogue/products/ravel-piano-concerto-g-major-argerich-abbado-3387

The score used in the analyses:

- Maurice Ravel: *Gaspard de la Nuit*, for piano solo, edited by Roger Nichols, Edition Peters: Leipzig, London, New York
  https://www.editionpeters.com/product/gaspard-de-la-nuit/ep7378