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**DEBUSSY AND LATE-ROMANTIC PERFORMING PRACTICES:
AN INVESTIGATION OF DEBUSSY'S PIANO ROLLS OF 1913**

Jocelyn Ho

A thesis submitted in partial fulfilment
of requirements for the degree of
Master of Music (Performance)

Sydney Conservatorium of Music

University of Sydney

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Statement of originality

I declare that the research presented here is my own original work and has not been submitted to any other institution for the award of a degree.

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Abstract

Debussy and late-Romantic performing practices: An investigation of Debussy's piano rolls of 1913.

Jocelyn Ho

Master of Music (Performance); The University of Sydney, Sydney Conservatorium of Music; July 2009

Claude Debussy (1862–1918) is often regarded as a musician who reacted against Romantic ideals and idioms. Yet, the Romantic piano tradition of Franz Liszt and Frederic Chopin was very much part of Debussy's milieu. While Debussy's compositional style was certainly radical, was this true of his pianism?

Written texts about Debussy's performances and his supposed preferences are often contradictory or inadequate in providing a meaningfully detailed account of his playing. In this thesis, I will analyse the fourteen pieces in Debussy's piano rolls of 1913. The 1904 acoustic recordings of Mary Garden with Debussy as the accompanist will also be briefly examined. As well as audio excerpts, I will use the computer program, Sonic Visualiser, and statistical methods to aid the analysis. A detailed picture of Debussy's performing practices will be presented and compared with those of other late-Romantic pianists. The way in which Debussy's performing practices affect musical meaning will also be briefly addressed, using Robert Hatten's recent semiotic theory of marked oppositions, topics and tropes.

The context in which Debussy's performing practices are investigated through his piano rolls will be discussed in the Introduction (Chapter 1). Late-Romantic performing practices, textual evidences of Debussy's playing and the reliability of the piano rolls will be discussed in Chapters 2 and 3. The core of the investigation consists of the analysis of the pieces with respect to four categories: dislocation between the hands, unnotated arpeggiation of chords, metrical rubato and rhythmic alteration, and tempo modification (Chapters 4–7). The liberties taken by Debussy in interpreting the score with respect to rubato practices will be discussed in Chapter 8.

The investigation of the piano rolls reveals that Debussy firmly upheld late-Romantic performing traditions, in both his performance style and his freedom in score interpretation. His performing practices significantly impact on musical meaning, which is at times different to that implied by the score. These findings raise issues that challenge the current perception of Debussy's piano music and its interpretation.

Keywords: Debussy, piano, performance, “performance practices”, “performance practice”, Romantic, interpretation, semiotics.

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- Fig. 7.63** Tempo representation of “La cathédrale engloutie.”
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Chapter 8

Fig. 8.1 *D'un cahier d'esquisses*, bars 12–5.

Fig. 8.2 Duration of the quaver in the right hand in the first half of the “Rubato” bars of *D'un cahier d'esquisses*.

Fig. 8.3 Duration of the dotted quavers in the left hand in the “Rubato” bars of *D'un cahier d'esquisses*.

Fig. 8.4 “La danse de Puck,” bars 73–4.

Fig. 8.5 “Jimbo’s Lullaby,” bars 1–5.

Fig. 8.6 “Golliwogg’s Cake-Walk,” bars 124–8.

Fig. 8.7 “Minstrels,” bars 82–5.

Chapter 1

Introduction

1.1 Thesis context: Contextualising historical texts

Claude Debussy (1862–1918) is often regarded as a post-Romantic composer who moved away from Romantic ideals and idioms, with his emancipated use of harmonic language, innovative non-teleological forms and association with the “Impressionist” movement. A comparison between the works by Debussy and those by composers of the late-Romantic period reveals a stark difference in musical language and outlook. It is logical to question, then, whether Debussy’s performing practices were similarly revolutionary. *Did Debussy the pianist use a radically different performance style from his contemporaries to expound his revolutionary compositional ideas?*

Debussy’s pianism in context

This question prompts an investigation of Debussy’s performing practices. It is easy to overlook the fact that the Romantic performance tradition of Franz Liszt (1811-1886) and Frederic Chopin (1810-1849) was very much part of Debussy’s musical milieu, and that his pianism grew out of and was influenced by this tradition. Debussy studied with Madame Mauté de Fleurville—a pupil of Chopin, and Antoine François Marmontel—a renowned pianist and pedagogue at the Paris Conservatoire.¹ He was a great admirer of Chopin’s music² and

¹ Marguerite Long, *At the Piano with Debussy*, trans. Olive Senior-Ellis (London: Dent, 1972), 13.

² Long, *At the Piano with Debussy*, 12.

undoubtedly, many of the performances he witnessed utilised common Romantic performing practices. Also a great admirer of Liszt, Debussy attended in 1885 his performance in Rome and was greatly impressed.³

Late-Romantic performing practices generally went hand in hand with a certain level of freedom in the interpretation of the score that seems “uncontrolled,” “volatile” and “too casual” to today’s listener.⁴ Such freedom may be heard in the playing of pianists such as Carl Reinecke (1824–1910), Theodor Leschetizky (1830–1915), Camille Saint-Saëns (1835–1921), Raoul Pugno (1852–1914) and Ignacy Jan Paderewski (1860–1941), preserved on acoustic and electrical recordings, and piano rolls made during the first thirty years of the twentieth century. In *A Century of Recorded Music: Listening to Musical History*, Timothy Day describes some of these freedoms:

the use of substantial tempo changes to signal changes of mood or tension, and the adoption of fast maximum tempos; varieties of tempo rubato which include not only detailed flexibility of tempo, but also accentuation, lengthening and shortening individual notes, and the dislocation of melody and

³ Victor Segalen, Annie Joly-Segalen, and André Schaeffner, eds., *Segalen et Debussy* (Monaco, 1962), 70-1, 74-5, 77-8, 80-1, 83-5, 96-100, 107-8, 134-5, in Roger Nichols, *Debussy Remembered* (Portland: Amadeus Press, 1992), 142-49; Richard Hudson, *Stolen Time: The History of Tempo Rubato* (New York: Oxford University Press, 1994), 349.

⁴ In contrast, the modern day listener “insists on careful control, particularly of acceleration” and requires “that every detail should be considered and clearly placed.” Robert Philip, *Performing Music in the Age of Recording* (New Haven and London: Yale University Press, c2004), 35–6.

accompaniment; and a tendency, in patterns of long and short notes, to shorten the short notes, and to overdot dotted rhythms.⁵

Because of his close association with late-Romantic pianism, it would be unsurprising if Debussy's performing style revealed some of these characteristics.

Texts and early recordings

Written texts about Debussy's playing and his instructions to pianists are, unfortunately, not very helpful in providing a detailed picture of his performance style, because they often appear to be contradictory. In one account, for example, Debussy emphasises the importance of following his score instructions explicitly and discourages the breaking of chords; yet in another, he praises some pianists for their interpretations that differ from his original intention. The use of rubato is a particularly contentious issue. A few written sources point towards his preference for a moderate and subtle use of rubato, but other texts point to something quite different.⁶

Textual evidence complicates our understanding of Debussy's performing practices, giving the impression that he often contradicted himself. To evaluate such evidence, there is a need to understand the early-twentieth-century context within which Debussy asserted his opinions. The late-Romantic period upheld

⁵ Timothy Day, *A Century of Recorded Music: Listening to Musical History* (New Haven: Yale University Press, c2000), 150.

⁶ The specific textual sources will be discussed in Chapter 2.

the importance of individuality in the creative process. Within certain boundaries, the performer had licence to modify the score at whim.⁷ Debussy was no stranger to this milieu, and his criticisms might be intended to curb the pianistic liberties of this era. Thus, when he admonishes pianists to be faithful to the score, it does not necessarily imply the kind of literalness of interpretation that exists today.

The correspondence between early-twentieth-century recordings (and piano rolls) with written texts also brings to light other points for consideration. First, unquantifiable concepts such as good taste and moderation have certainly changed over the years. What was described as “moderate” or “subtle” in Debussy’s era may seem exaggerated to the modern listener.⁸ This is an important point to consider when reading written texts about Debussy’s playing—a use of rubato described as “subtle” may seem rather exaggerated in today’s context.

⁷ An account of Liszt’s performance in his later years is telling of the norms of concert performances in the Romantic period: “Liszt had given the first public performance of Beethoven’s ‘Hammerklavier’ sonata in 1836. According to Berlioz he played it exactly as written—unusual enough in those days to be remarked upon. Hans von Bülow’s Beethoven edition shows that he did, in fact, make some minor alterations to the last page, but there can be little doubt that Liszt pioneered the art of faithfully interpreting masterworks at the same time as he was giving demonstrations of the art of Romantic exaggeration.” Kenneth Hamilton, “The Virtuosic Tradition,” in *The Cambridge Companion to the Piano*, ed. David Rowland (Cambridge: Cambridge University Press, 1998), 73.

⁸ See Neal Peres Da Costa, “Performing Practices in Late-Nineteenth-Century Piano Playing: Implications of the Relationship between Written Texts and Early Recordings” (Ph.D. diss., The University of Leeds, 2001).

Secondly, there is often a vast difference between written texts and recordings—sometimes, what was promoted contradicted what was practised. Indeed, pianist Max Pauer acknowledged this contradiction:

‘Was I, after years of public playing, actually making mistakes that I would be the first to condemn in any one of my own pupils?’ Max Pauer exclaimed in anguish when he listened to a record in 1913. ‘I could hardly believe my ears, and yet the unrelenting machine showed that in some places I had failed to play both hands exactly together.’⁹

Thirdly, composers who recorded their own music often ignored or dismissed what they had written in their score.¹⁰ Thus, although written texts are valuable evidence, the schism between practice and theory questions their authority.

1.2 Hypothesis (research questions)

Taking into account Debussy’s familiarity with the pianists of his day, as well as the textual evidences considered in historical context, the trends preserved in early-twentieth-century recordings raise three corresponding questions regarding his performing practices: first, does Debussy’s playing reveal more late-Romantic tendencies than are suggested by the textual evidence taken at face-

⁹ Day, *A Century of Recorded Music*, 15.

¹⁰ Day, *A Century of Recorded Music*, 146.

value? Secondly, do Debussy's verbal instructions to pianists contradict with his own performing practices, as in the case of numerous late-Romantic pianists? Thirdly, did he follow his own indications as meticulously as he advised other pianists to do?

1.3 Research approach: The investigation of Debussy's piano rolls

Questions arising from the inadequacies of written evidence beg an investigation of Debussy's practices as evidenced in his piano rolls of 1913,¹¹ which are situated within the time frame of the recordings of other important late-Romantic pianists. Acoustic recordings of Debussy accompanying soprano Mary Garden in 1904 are also available; these will complement the investigation of the piano rolls which reveal Debussy as the soloist. The piano rolls preserve performances of fourteen pieces:

- From *Préludes Book I*:
 - “Danseuses de Delphes,”
 - “La cathédrale engloutie,”
 - “La danse de Puck,”
 - “Minstrels,”
 - “Le vent dans la plaine,”

¹¹ Whether the piano rolls were recorded in 1912 or 1913 is debatable but not significant in this investigation. See Charles Davis Smith and Richard James Howe, *The Welte-Mignon: Its Music and Musicians* (Vestal: Vestal Press for the Automatic Musical Instrument Collectors' Association, 1994), 356.

- From *Children's Corner*:
 - “Doctor Gradus ad Parnassum,”
 - “Jimbo’s Lullaby,”
 - “Serenade for the Doll,”
 - “The Snow is Dancing,”
 - “The Little Shepherd,”
 - “Golliwogg’s Cake-walk,”
- “La soirée dans Grenade” from *Estdampes*,
- *La plus que lente (Valse)*,
- *D'un cahier d'esquisses*.

Acoustic recordings of the following pieces with Mary Garden include:

- From *Ariettes Oubliées*:
 - “Green,”
 - “L’ombre des arbres,”
 - “Il pleure dans mon Coeur,”
- “Mes longs cheveux” from *Pelléas et Mélisande*.

Debusys piano rolls are of undeniable value: they constitute a more objective and independent type of evidence compared with written texts, in that they do not depend on verbal descriptions that may have all sorts of hidden meanings and therefore require careful contextualisation. In addition, much important information preserved on the rolls is deemed absolutely reliable by experts in the

field. The credibility of the rolls is also strengthened by Debussy's regard for them as being faithful reproductions of his playing.¹²

1.4 Aims of thesis

The credibility and value of the piano rolls compel me to investigate them in the light of the three previously posed research questions. The aims of this thesis are three-fold: first, to examine how Debussy is situated in terms of late-Romantic pianism and to examine the extent to which Debussy drew upon late-Romantic practices in the performances of his own works. Here, the investigation of performing practices includes not only the consideration of various expressive techniques,¹³ but also the correspondence between the performance and the score. Secondly, the thesis aims to reveal the individual stylistic trends of Debussy's performing practices by investigating all of the pieces on the piano rolls. Whether or not there are contradictions between Debussy's performance style and texts (both written accounts of his playing and the score) will become evident under this investigation.

The third question is a consequence of the first two and harks back to the opening idea that Debussy was a revolutionary composer, not only in inventing a new musical language but also, consequently in creating fresh musical meanings different to those found in Romantic compositions. If we accept that musical meaning and intention are conveyed by and are dependent on the performer's

¹² The evidential value and the reliability of the piano rolls will be discussed in detail in Chapter 3.

¹³ These include dislocation of hands, unnotated arpeggiation and rubato practices.

interpretation and performing practices, then in what way do Debussy's performing practices affect or convey the musical meaning that is implied in the score?

This question raises an interesting issue about how to reconcile differences in the intentions that are implied by the score and a (potentially) contradictory piece of audible evidence. To understand a composer's intentions is an ideal that is almost second nature to the twenty-first-century musician; today's performer is trained to investigate the composer's intention by observing every marking on the score and be an exponent of this intention by giving a "precise weighting of detail."¹⁴ If different intentions seem to be implied by the score than by the audible evidence, which is the more authoritative version? This question is not easily answered but will be addressed in this thesis.

1.5 Current state of research of Debussy's performing practices as preserved on his piano rolls

In general, research to date about Debussy's performance practices evident on his piano rolls can be separated into two camps: that which acknowledges his use of late-Romantic performing practices, and that which does not.

Roy Howat produced some of the most in-depth studies of Debussy's piano rolls, using them as a secondary source for his authoritative *Oeuvres Complètes De*

¹⁴ Philip, *Performing music in the age of recording*, 93.

*Claude Debussy (Series 1, Piano Works).*¹⁵ However, he does not acknowledge many of the performing practices heard in the rolls as authentic to Debussy's playing, attributing them to weaknesses or faults in the piano-roll mechanism.¹⁶ Yet, whether this is so remains debatable and it is important to address both the strengths and weaknesses of the mechanism prior to any analysis of piano rolls.

Literature that clearly acknowledges the credibility of the piano rolls, on the other hand, includes dissertations (Paul Carlson's *Early Interpretation of Debussy's Music*¹⁷, Robert Gregg Warren's *Textual Authenticity and Performance Tradition in Claude Debussy's Preludes, Book I*¹⁸ and Kyung-Ae Lee's *A Comparative Study of Claude Debussy's Piano Music Scores and His Own Piano Playing of Selections from His Welte-Mignon Piano Roll Recordings of 1912*)¹⁹ and various articles (Cecilia Dunoyer's "Early Debussystes at the piano,"²⁰ Charles Timbrell's "Debussy in Performance"²¹ and Richard Langham

¹⁵ Claude Debussy, *Oeuvres Complètes De Claude Debussy*, Série I (Œuvres pour piano), ed. Roy Howat (Paris: Durand-Costallat, 1985-2002).

¹⁶ Howat's stance will be discussed in Chapter 3.

¹⁷ Paul Carlson, "Early Interpretation of Debussy's Music" (D.M.A. diss., Boston University, 1998).

¹⁸ Robert Gregg Warren, "Textual Authenticity and Performance Tradition in Claude Debussy's Preludes, Book I" (D.M.A. diss., The University of Texas at Austin, 1999).

¹⁹ Kyung-Ae Lee. "A Comparative Study of Claude Debussy's Piano Music Scores and His Own Piano Playing of Selections from His Welte-Mignon Piano Roll Recordings of 1912" (D.M.A. diss., University of Texas- Austin, 2001).

²⁰ Cecilia Dunoyer, "Debussy and Early Debussystes at the Piano," in *Debussy in Performance*, ed. James R. Brisco (New Haven: Yale University Press, c1999).

²¹ Charles Timbrell, "Debussy in Performance," in *The Cambridge Companion to Debussy*, ed. Simon Trezise (Cambridge and New York: Cambridge University Press, 2003).

Smith's "Debussy on Performance: Sound and Unsound Ideals"²²). The investigation of Debussy's piano rolls generally takes place within the context of comparison with sound recordings of other pianists, or in the discussion of performing practices of Debussy's music in general (not only piano music). Because of their scope, they are not, therefore, comprehensive studies of all of the pieces preserved on Debussy's piano rolls.²³

The issue of rubato is discussed in detail in both Richard Hudson's *Stolen Time: The History of Tempo Rubato*²⁴ and Sarah Martin's "The Case of Compensating Rubato."²⁵ Hudson's discussion is almost entirely based on the study of generic trends of score indications that contain the word "rubato" across a range of compositions. Although he points out many interesting trends, he does not consider the more encompassing issue of performance practice that includes rubato that is unnotated. Briefly alluding only to two moments in the piano rolls of "La soirée dans Grenade" and *D'un cahier d'esquisses*, he concludes that:

His [Debussy's] rubato gives a special character to a musical passage rather than accentuating an instantaneous event...

Debussy's rubato was sensual and smooth and not jerky or capricious, and operated over a carefully specified length of time.

²² Richard Langham Smith, "Debussy on Performance: Sound and Unsound Ideals," in *Debussy in Performance*, ed. James R. Briscoe (New Haven: Yale University Press, c1999).

²³ A more detailed discussion of these sources is found in Appendix A.

²⁴ Richard Hudson, *Stolen Time: The History of Tempo Rubato* (New York: Oxford University Press, 1994).

²⁵ Sarah Martin, "The Case of Compensating Rubato," *Journal of the Royal Musical Association* 127 (2002): 92-129.

It simply acted, like dynamics, touch, pedalling, and other elements in the performance of music, to characterize one passage in contrast to another.²⁶

Additionally, Hudson implies that Debussy was not accustomed to the “earlier” type of rubato, where the left hand is kept constant while the right hand takes rhythmic liberties.²⁷ This speculation should, however, be taken with a grain of salt; Raoul Pugno and Camille Saint-Saëns, both active contemporary performers also from the Paris Conservatoire, made piano rolls and acoustic recordings in which both types of rubato can be heard.²⁸ Whether or not Hudson’s conclusion matches what is found in the piano rolls remains to be seen.

Martin’s “The Case of Compensating Rubato” deals specifically with the concept of compensation, where the specific amount of time that is “stolen” is “given back.” Considering it on a large-scale level, often in the context of the whole piece, she takes a measured and mathematical approach in demonstrating that compensation is not a myth in Debussy’s performances, but a real phenomenon. Her findings show that Debussy does indeed execute rubato with compensation, and that structural points are mostly played at the average tempo.²⁹

²⁶ Hudson, *Stolen Time*, 354.

²⁷ Hudson, *Stolen Time*, 352.

²⁸ See Peres Da Costa, “Performing Practices in Late-Nineteenth-Century Piano Playing,” 216–428.

²⁹ However, there are some weaknesses in her argument. See Appendix A for a full discussion.

It is clear, therefore, that a comprehensive and detailed investigation is needed in order to observe the stylistic trends of Debussy's performing practices. It is important to investigate all fourteen pieces in order to gain the best possible understanding of his playing.

1.6 Thesis outline

Before the investigation can begin, textual evidence of Debussy's playing, and the piano roll's evidential value and reliability will be discussed in Chapter 2 and 3. Current research shows that only information about the pitch, duration, placement of notes and relative tempo fluctuations within a roll are entirely dependable. Thus, only performing practices that are based on this information will be investigated.

The core of the thesis will be an analysis, with respect to performing practices, of the piano rolls of Debussy as recorded in *Claude Debussy, The Composer as Pianist: All His Known Recordings, The Caswell Collection, Vol. 1*.³⁰ Part I of the analysis will deal with dislocation between the hands and unnotated arpeggiation of chords (Chapters 4–5). Part II will deal with rubato practices separated into two categories: metrical rubato (Chapter 6) and tempo modification (Chapter 7). Metrical rubato is effected when the notes of the

³⁰ Claude Debussy, *Claude Debussy, The Composer as Pianist: All His Known Recordings, The Caswell Collection, Vol. 1*, Claude Debussy. (Austin: Pierian Recording Society, 2000). This was the most recent and most reliable recording available at the commencement of the thesis. References to other recordings that have been released since will be made from time to time. The different issues will be discussed in Chapter 3.

melody are rhythmically altered while those of the accompaniment remain unchanged. Tempo modification, on the other hand, is associated with a change in the sense of pulse, either quickening or slowing down in both hands simultaneously. The association between notation and rubato practices will also be considered in Part II (Chapter 8).

In these chapters, I will also make reference to Debussy as an accompanist as evidenced in his acoustic recordings of 1904. Stylistic trends in Debussy's performing practices will be discussed and compared with late-Romantic performing practices using a range of written texts and recordings of the era, as well as current research findings based on recordings of the late-Romantic pianists.³¹ Comparisons between the audible evidence, scores and written texts will also be made. In these chapters, I will also briefly investigate the relationship between Debussy's performing practices and musical meaning.³² The comprehensive study of Debussy's piano rolls will lead to an understanding of his performing tastes and intentions that is not possible from the study of written texts and scores alone.

³¹ In order to compare the performing practices of Debussy and other late-Romantic pianists, it is important to refer to the latter's recordings in order to gain the most accurate and effective view. To date, there is no known published material that extensively investigates the recordings of the early-twentieth century in detail. Therefore, I will refer to Neal Peres Da Costa's "Performing Practices in Late-Nineteenth-Century Piano Playing," as this is the most reliable and comprehensive study on the subject matter.

³² A detailed semiotic consideration of the performing practices of Debussy is not within the scope of this thesis.

1.7 Analytical methods: from verbal description to a more rigorous approach

1.7.1 Measurement tools

Musical examples and audio excerpts will constitute the main method of demonstration. However, the study of metrical alteration and tempo modification involves more complex considerations than that of dislocation and unnotated arpeggiation, because of the wide variety of ways that rhythm can be altered. At times, a more exact calculation or a visual representation of the music can strongly convey a point, and empirical and statistical tools have been employed to achieve this.

Measurement of note duration

For all calculations regarding duration of notes, I will use the program Sonic Visualiser to render the music as waveform, and subsequently the automatic “Note-onset detector” function to observe the onsets of notes.³³ However, this function frequently does not capture the note-onset at the exact points, especially in places where the music is quiet or subtle. Therefore, I will use visual cues of the waveform and a slowing down of the playback to an appropriate level to manually adjust the note-onsets. The exact timings of note-onsets can then be read, and the duration (seconds) of a note n, $n_{Duration}$, can be given by:

³³ Examples of the waveforms and the measurements can be seen in Appendix B. More information about Sonic Visualiser can be found on its official website, <http://www.sonicvisualiser.org/>. Full calculations will not be displayed in the body of the thesis, but will be included in the last three appendices, Appendices G, H and I.

$$n_{Duration} = (n+1)_{NoteOnset} - n_{NoteOnset},$$

where $(n+1)$ is the next note adjacent to n , and

$k_{NoteOnset}$ is the note-onset (seconds) of k .

Measurement of the duration of a segment of music

A segment of music may be a few beats, a bar or a section containing several bars. Such segments are measured from the note-onset of the first note of the segment (n), to the *end* of the last note of the segment (m). The *end* of the last note of the segment is exactly the point in time of the *start* of the first note that is not in the segment (that is, $m+1$). Like the measurement of note duration, I have used the automatic “Note-onset detector” function and manual adjustments to calculate the note-onset. The duration (seconds) of a segment (duration_of_segment), where the first note is n and the last note is m , is calculated as:

$$duration_of_segment = (m+1)_{Duration} - n_{Duration},$$

where $k_{Duration}$ is the note-onset (seconds) of k .

Measurement of tempo

Tempo often fluctuates from bar to bar, and it is only practical for analytical purposes to take the average tempo of a segment that is of more or less the same tempo. For practical purposes, the average tempo will simply be called the tempo. The concept of “more or less” is difficult to define as a generalised quantitative entity over all the pieces, as the listener’s tolerance for variation of tempo from bar to bar depends on the context of each piece. Variation is most appropriately measured by standard deviation; however, using a fixed standard deviation to quantify “more or less” poses problems. For instance, a tempo that lies outside a certain standard deviation of the established average tempo may be perceived as a marked change in tempo (for instance, a *rallentando*) in a piece which has a steady beat. The same standard deviation, however, may be perceived as a sense of “unsteadiness” and *not* as a marked change in tempo. This can be seen in, for instance, the contrasting cases of the “Danseuse de Delphes” and “Minstrels,” in which the former has a steady beat while the latter is characterised by unsteadiness. Thus, the concept of “more or less” is one of perception and not quantified in this study.

I will use Sonic Visualiser in observing the exact timing, say t seconds, of the duration of the segment in question. The average tempo, M , over this segment in beats per minute is calculated as:

$$M = 60 * ((n * b) / t),$$

where:

n = number of bars in the segment

b = number of beats in a bar (assuming that this is constant)

1.7.2 Statistical tools

Average

The average, av , of a data set, X , is defined as:

Let $X = \{x_1, x_2, x_3, \dots, x_n\}$. Then,

$$Av = (x_1 + x_2 + x_3 + \dots + x_n) / n.$$

Note: the data set could be, for instance, the durations of successive beats or the tempi of successive bars.

Standard deviation

The standard deviation, SD , of a data set, X , is defined as:

Let $X = \{x_1, x_2, x_3, \dots, x_n\}$ and the average of X be av . Then,

$$SD = \{\[(x_1 - av)^2 + (x_2 - av)^2 + \dots + (x_n - av)^2\] / n\}^{1/2}.$$

Normalised standard deviation

The standard deviation is a measurement of variation, useful for gauging how much quantities (e.g. duration of beats, duration of bars and tempo) vary.

Generally, the standard deviation is a property of the values of the data set. This means that the standard deviation of, say, the tempi of the bars in a section (where the tempo is measured for every bar) is dependent on the tempi themselves. The consequence of this is that a slower section compared to a faster section, with the same degree of “variation” qualitatively speaking, will have a larger standard deviation (the data sets are the tempi of bars). Thus, the standard deviation has to be “normalised” by dividing it by the average.

The normalised standard deviation of a data set is thus defined to be its standard deviation divided by its average.

1.7.3 Semiotic Theory by Robert Hatten

Musical meaning can be discussed in various ways; however, the use of a fixed system of analysis gives rise to a more rigorous approach and more fruitful discussions. The pieces preserved on the piano rolls lend themselves well to the systematic study of musical meaning as their descriptive titles already suggest a fixed point of departure. Musical meaning, in topic theory developed by Leonard

G. Ratner (1980)³⁴, can be described as follows:

Musical meaning is communicated by means of conventional musical signs, whose signification arises out of their association with particular musical and non-musical functions: horn calls for hunting, a whole variety of dance rhythms, self-consciously deliberate contrapuntal procedures to convey a ‘learned style’, rapid figuration for ‘virtuosity’ or ‘brilliance’, and so on.³⁵

From the above definition, it can be seen that performing practices and musical meaning can be readily discussed with respect to topic theory, as many of the examples such as “dance rhythms” and “rapid figuration” can be thought of in relations to performing practices. Also, the descriptive titles of the pieces on the piano rolls give a fixed reference point from which topics may emerge.

I will thus use the more recent system of theory of gestures, topics, and tropes proposed by Robert Hatten in *Interpreting Musical Gestures, Topics, and Tropes: Mozart, Beethoven, Schubert*,³⁶ to discuss the relationship between Debussy’s performing practices and musical meaning. In particular, I have

³⁴ Leonard G. Ratner, *Classic Music: Expression, Form, and Style* (New York: Schirmer Books, 1980).

³⁵ Eric F. Clarke, *Ways of Listening* (New York: Oxford University Press, 2005), 159.

³⁶ Robert Hatten, *Interpreting Musical Gestures, Topics, and Tropes: Mozart, Beethoven, Schubert* (Bloomington: Indiana University Press, 2004).

referred to the concepts of marked opposition, topics and troping (See the glossary for explanation of terms).

BACKGROUND

Chapter 2

Textual evidence of Debussy's preferences concerning piano performing practices

There are numerous written accounts describing Debussy's tastes in piano playing; often, these are contradictory. On one hand, pianist E. Robert Schmitz recollects Debussy's insistence on a strict adherence to the score and his intention:

I can well remember his insistence on the precision and exactitude of the indications marked on the scores in their minutest details.¹

I have heard his annoyance over the slightest deviation from his ideas. I have seen him lean forward and correct, and correct, the music, define the phrasing of almost every note, so that it might be imprinted in my understanding.²

On the other hand, Debussy praised Paderewski— a pianist well known for his liberties and flexibilities in timing and interpretation— after his performance of “Reflets dans l'eau”:

¹ E. Robert Schmitz, *The Piano Works of Claude Debussy* (Canada: Duell, Sloan & Pearce, 1950), 35.

² E. Robert Schmitz, "A Plea for the Real Debussy," *The Etude* December (1937): 781–2, in Nichols, *Debussy Remembered*, 171.

It was delightful. Not at all what I had in mind. But please do not change an iota in your interpretation!³

And, Debussy had the following enlightening conversation with George Copeland, about his respect for the performer's creativity while setting his own intentions aside:

'It's funny,' he said reflectively, 'that's not the way I feel them.'

But when I said, 'Then I will interpret them as you intended,' his reply was a definite 'No, no! Go on playing them just as you do'⁴

With respect to the alteration of rhythm, although Debussy insisted frequently on the "infallible precision of every note"⁵ as discussed by Marguerite Long in *At the Piano with Debussy*, pianist Maurice Dumesnil was "reprimanded for playing too much in time" in the execution of triplets.⁶

Generally, the style of rubato that Debussy approved seems to be subtle and almost imperceptible, as his publisher Jacques Durand writes, "an imperceptible rubato always framed within the beat."⁷ According to Schmitz, very subtle,

³ Maurice Dumesnil, "Coaching with Debussy," *The Piano Teacher* 5 (1962): 10–13, in Nichols, *Debussy Remembered*, 161.

⁴ George Copeland, "Debussy, the man I knew," *The Atlantic Monthly*, January 1955, 35–8, in Nichols, *Debussy Remembered*, 165.

⁵ Long, *At the Piano with Debussy*, 24.

⁶ Dumesnil, "Coaching with Debussy," in Nichols, *Debussy Remembered*, 159.

⁷ Jacques Durand, *Quelques Souvenirs D'un Éditeur De Musique* (Paris: A. Durand et fils, 1925), 21, quoted in Martin, "The Case of Compensating Rubato", 110.

small-scale flexibilities in timing such as lengthening of notes seemed to have been commended by Debussy:

A conception of rhythm which will not only accept durations as eminently precise, but will go even beyond the letter-perfect to the live and sensitive in its minute accentuations of stresses brought by harmony, pitch line, scoring, sensitive degrees.⁸

Also, subtle changes in tempo such as rallentandos and accelerandos were also acceptable in transitions between sections:

A knowledge of time and tempo which will be precise, for in Debussy's interpretation an overabundance of rubato, of arbitrary fluctuations in tempo, has long been current; yet performance metronomically even throughout, in his works, is just as unthinkable. It means that the basic of tempo must be exact for each succeeding section or break in texture, determined from Debussy's indications, and the overall timing of a piece is then the result of the thoughtfully arrived at tempi.⁹

However, these generalisations seem to be contradicted in certain cases, for instance, the performance of "Poissons d'or," where a variety—from an abundant

⁸ Schmitz, *The Piano Works of Claude Debussy*, 37.

⁹ Schmitz, *The Piano Works of Claude Debussy*, 37–8.

to a moderate use— of rubato seemed to have been intended, as recalled by

Maurice Dumesnil:

‘*Jouez plus librement*’, he would repeat. “I thought I did play with great freedom, but it was not enough”... “Toward the middle he spoke again: ‘*plus gracieux, plus élégant*’. But when I complied, he said “*Jouez plus simplement.*”¹⁰

Long’s recollection is telling of Debussy’s changing attitudes towards the use of rubato:

‘You know my opinions on metronome marks,’ he wrote. They are as proper in a bar as are the roses in the space of a morning.’ What causes me much amusement was to see how often the composer contradicted himself. How often he said, ‘To the metronome: to the metronome!'¹¹

With regards to unnotated arpeggiation, it seems that Debussy disapproved of the breaking of chords:

Debussy used to write great stretches for the hand, but the only chord that he rearranged for me (my hands are small) is in the

¹⁰ Nichols, *Debussy Remembered*, 160.

¹¹ Long, *At the Piano with Debussy*, 44–5.

fifth bar of this same theme: He showed me what to do about this as he would on no account tolerate one playing arpeggios, and thus breaking the chords.¹²

The lack of agreement of these textual sources warrants the study of the performing practices preserved in Debussy's piano rolls, which is a less subjective and less context-dependent source than written sources.

¹² Long, *At the Piano with Debussy*, 27.

Chapter 3

Evaluation of the piano rolls

Before an investigation of the piano rolls can take place, an assessment of both their arguable value and the reliability of the piano-roll mechanism is imperative.

3.1 The evidential value of Debussy's piano rolls

In 1913, Debussy wrote the following note to Edwin Welte, one of the engineers of the piano rolls:

It is impossible to attain a greater perfection of reproduction than
that of the Welte apparatus. I am happy to assure you in these
lines of my astonishment and admiration of what I heard.¹

Also, in 1904, almost a decade before making the piano rolls, Debussy commented that the gramophone would give music “a complete and meticulous immortality.”² His remark not only reveals his approval of the gramophone but the importance he accorded to the process of recording —as a means of preserving music and practice for ages to come.

Debussy’s endorsement of his piano rolls coupled with his high regard for recordings as a means of preserving performances implies that these are of a

¹ Kenneth K. Caswell, liner notes to Claude Debussy, *Claude Debussy, The Composer as Pianist*.

² Arbie Ornstein, *Ravel: Man and Musician* (New York: Dover Publications, 1991), 247.

primary importance in studying his performing practices. That he stressed the “immortality” of recordings also suggests that studying such evidence is imperative to a real understanding of how to play his music: for what other purpose would the concept of the immortality of the recording serve?

In addition, the piano rolls exert a certain authority over written texts: first, such written texts have to be considered in historical context, where some qualitative concepts are difficult to define. In contrast, the piano rolls are snapshots of Debussy’s performing style that is relatively unaffected by the passage of time.³ Secondly, there is often a lack of detail in written texts. Edwin H. Lemare, in *The Art of Organ Playing* (c. 1900), remarks that the practice of rubato “is so subtle and almost *mystic* that it is very difficult, and well-nigh impossible in writing, to give much help to the student.”⁴ For instance, consider Long’s elusive description of rubato in Debussy’s playing:

His prodigious love of nature plunged him into that life-giving element, water. Not a reflection nor a current in it, not a caress nor a treacherous movement escaped him. In his music this all adds up to a series of nuances that are not to be defined unless they are felt, and which are represented by rubato that is as much part of the interpretation of Debussy as of Chopin. (It is a homage

³ The faithful reproduction of the piano roll does, however, depend somewhat on certain factors such as the piano used in the recording. The most ideal reproduction conditions have been replicated in the commercial recording selected for analysis. This will be discussed below.

⁴ Edwin H. Lemare, “The Art of Organ Playing,” *The Musical Educator* 4 (1900): xiii-xiv.

due to these hypersensitive people, described by Proust as ‘the salt of the earth’, to understand and interpret them according to the best of one’s ability.)

This delicate rubato is difficult to obtain in both Chopin and Debussy. It is confined by a rigorous precision, in almost the same way as a stream is the captive of its banks. Rubato does not mean alteration of line or measure, but of nuance or élan.⁵

The above description is informative of some key aspects of Debussy’s rubato. Long discusses Debussy’s rubato as a manifestation of ‘nuances’, which seems to be closely related to the “felt” intensity of specific moments in the piece. Thus, rubato is closely associated with feeling and expression.⁶ Also interesting is her association of “rigorous precision” with the flow of water in a stream. According to Long, just as the seemingly free-flowing nature of the stream is governed by “its banks,” rubato in Debussy’s music must also be used with thoughtfulness and care. Rigorous precision here does not imply strictness in rhythm at all, and one wonders whether other texts that advocate precision and strict timing must also be seen in this light. Although Long’s description, when considered in historical context, is informative of the general impression of Debussy’s rubato, it does not tell us how to achieve it in a practical sense. The

⁵ Long, *At the Piano with Debussy*, 25.

⁶ This is a potentially important observation, as the score indication “expressif” which occurs frequently in the pieces may be closely associated with the use of rubato.

specifics of how Debussy executes rubato, however, can be heard on the piano rolls.

3.2 The technical reliability of the piano-roll mechanism and the Caswell recording

3.2.1 Controversy over the fidelity of Debussy's piano rolls

The reliability of the piano-roll mechanism is a controversial topic; in the specific instance of Debussy's rolls, Howat doubts their fidelity to Debussy's actual playing for various reasons. These reasons must all be addressed before proceeding to the analysis of the works on the rolls.⁷

When comparing the piano rolls to the acoustic recordings of Debussy with Mary Garden, the latter reveals a much more precise observation of rhythmic details—Howat remarks that Debussy keeps strict rhythm and “hurries Garden up” in places in order not to allow her to linger too much.⁸ The discrepancy between the two casts doubt over the piano rolls, since the fidelity of the acoustic recordings is less contentious. However, one ought to take into account the differing roles of the pianist as soloist or accompanist, which will undoubtedly dictate the types of liberties and the extent to which they are taken. In the acoustic recordings, Mary

⁷ In the literature on Debussy's piano rolls, Roy Howat, a well-respected Debussy scholar, presents the most elaborate case against the fidelity of the rolls. Therefore, his perspective on the rolls needs to be addressed.

⁸ Roy Howat, "Review: Claude Debussy, the Composer as Pianist: all his known recordings— The Caswell Collection, vol. 1, Pierian Recording Society, Pierian 0001," *The Pianola Journal—Journal of the Pianola Institute* 13 (2000): 37.

Garden takes much liberty in time while Debussy remains strict, using expressive techniques such as portamenti and lingering on important notes. The performance may well be an example of metrical rubato in which the accompaniment is kept steady while the melody is free to be expressive.⁹ This may well account for Debussy's strictness as an accompanist, a strictness that is only appropriate at certain times, however, in solo performance.

Another reason why Howat doubts the rolls' fidelity is that Debussy's stepdaughter, Mme de Tinan, insisted that (apart from "La soirée dans Grenade") the rolls were a poor representation of Debussy's playing. However, she listened to the 1960 Telefunken LP commercial issue of the piano rolls, and it is unclear with what aspects she found unsatisfactory.¹⁰ The most recent issues of the past ten years are regarded as being more faithful reproductions of the piano rolls.¹¹ Therefore, no specific and decisive conclusions about the recent recordings can be drawn from Mme de Tinan's dissatisfaction.

In addressing the rolls directly, Howat remarks, "the roll's problem is that in places they have always sounded rhythmically sloppy, with dislocations across hands and unevenly spread chords (not always just straight up or down)."¹² Thus Howat dismisses these audible Romantic performing practices as aberrations caused by the piano-roll mechanism. However, he does not go into the technical

⁹ This will be further discussed in Chapter 6.

¹⁰ Howat, "Debussy's Piano Music: Sources and Performance," in *Debussy Studies*, ed. Richard Langham Smith (Cambridge: Cambridge University Press, 1996), 102.

¹¹ The different issues of the piano rolls will be discussed below.

¹² Roy Howat, "Review: Claude Debussy, the Composer as Pianist," 38.

details of why the piano-roll mechanism fails to capture Debussy's playing.¹³ His doubts prompt an investigation of the strengths and limitations of the piano rolls.

3.2.2 The piano roll: Its strengths and limitations

The commercial issue by Caswell, *Claude Debussy, the Composer as Pianist*, has been approved as one of the most finely produced commercial issues of the rolls to date by various experts on Debussy's music and his piano rolls, including Roy Howat.¹⁴ Charles Timbrell states that it even "reflects proper adjustments for tempo, pedal and dynamics."¹⁵ However, in considering the preservation of Debussy's playing in the recording, one must take into account not only the quality of the reproducing piano which Caswell has carefully chosen and fine-tuned,¹⁶ but also the process of recording Debussy's playing onto the roll and the intermediate roll- production processes.

The reproducing-piano mechanism was first developed in 1904 by the firm of Michael Welte und Söhne in Freiberg-im-Breisgau; the Mignon mechanism, now known as the Welte-Mignon, was launched commercially in Germany in the

¹³ Howat comments that the problem may be attributed to Debussy's technique of playing "very much in the keys". However, this is only a "suspicion," as he himself admits, and is not sufficient to discredit the rolls. Roy Howat, "Review: Claude Debussy, the Composer as Pianist," 43.

¹⁴ Roy Howat, "Review: Claude Debussy, the Composer as Pianist."

¹⁵ Charles Timbrell, liner notes to Claude Debussy, *Claude Debussy, The Composer as Pianist*.

¹⁶ Kenneth K. Caswell, liner notes to Claude Debussy, *Claude Debussy, The Composer as Pianist*.

following year.¹⁷ Debussy recorded fourteen of his piano works on the Welte-Mignon system in 1913 in Paris. The three main reproducing piano roll companies, Ampico, Duo-Art, and Welte-Mignon, were well-known and admired. Yet, distinct strengths and weaknesses characterised each of their systems.

The Welte-Mignon was thought to be the most sophisticated system in that it recorded without editorial intervention, not only the pitch, rhythm and tempo, but also the dynamics and pedaling.¹⁸ The pitch and duration of the notes were recorded as follows: affixed to the undersurface of each key was a carbon rod that sank into a container of mercury below it when the key was struck. As this happened, an electrical current was triggered that caused an inking press to mark a roll of paper that moved along at a constant speed operated by a take-up spool. However, the exact method remained a closely guarded secret. The latest research shows that as the pianist played, information was recorded onto the piano roll as ink markings, using an electric-pneumatic valve system operating in close contact with the piano hammers and the underside of the piano keys as they were struck. These ink markings were then perforated accordingly by hand to create the original roll. Second master rolls, subsequently copied from the original roll, were used to make production copies.¹⁹ The piano roll was played

¹⁷ *The Reproducing Piano— Welte-Mignon*,
http://pianola.org/reproducing/reproducing_welte.cfm (accessed 10 September 2008).

¹⁸ Denis Hall, "The Reproducing Piano- What Can It Really Do?," *The Pianola Journal* 14 (2001): 7.

¹⁹ *The Reproducing Piano— Welte-Mignon*,
http://www.pianola.org/reproducing/reproducing_welte.cfm

on a reproducing piano, which used a pneumatic system to depress the keys and simulate the original performance. Although Welte claimed that the piano-roll mechanism could reproduce “a pianist’s performance with all its nuances of touch,”²⁰ the process described above posed problems for preserving dynamics, pedalling and absolute tempo.²¹

However, the consensus now amongst the piano-roll experts is that in general, the information on the pitch, duration and the placing of notes in the piano rolls is completely reliable. Also, on a playback mechanism that is well adjusted, especially that of Caswell, the relative tempo changes within a piece also should be reliable.²² Hall comments that:

it is safe to say that, allowing for the very occasional production error on the part of the roll manufacturer, provided the roll is played at the marked speed, the performance, as far as note positions and durations are concerned, will be the same as the original performance.²³

²⁰ Werner König, "The Welte-Mignon reproducing piano and its place in the history of music," *The Pianola Journal* 18 (2007): 51. (original reference not provided).

²¹ In Caswell’s liner notes, however, he advocates that these are captured correctly. For a detailed discussion on the reliability of dynamics, pedalling and absolute tempo in Caswell’s recordings, see Appendix C.

²² Neal Peres Da Costa, meeting, 26th June 2009. Neal Peres Da Costa has informed me that he has had personal communication with experts in the field, Denis Hall and Rex Lawson, who have provided him with this information.

²³ Hall, "The Reproducing Piano— What Can It Really Do?": 19.

This is due to the fact that both the recording and the reproducing processes for these elements were automatic.²⁴ In addition, the Welte company insisted on preserving the original information on the rolls; no editing of the “basic recorded data” was permitted, except for correcting wrong notes.²⁵ The problem of inaccuracies arising during the roll duplication process also does not apply to Debussy’s rolls, since the copying apparatus was improved by the year 1912, where information about rhythmic accuracy became more reliable.²⁶

One issue related to note placement that Hall points out is concerned with the division of the keyboard into two halves to create dynamics. The division makes differentiating between two levels (voicing, in other words) within one dynamic compartment of the keyboard difficult. Because of this, the reproducing system may distinguish between two levels in one compartment by extremely subtle dislocation between the two hands. If working correctly, this dislocation should be very subtle, so that “the ear is deceived into not realizing what has happened.”²⁷ However, in Debussy’s recordings, dislocation occurs between the hands even when they are in *different* compartments. This can be heard distinctly in *La plus que lente (Valse)*, where obvious dislocations can be heard not only at the opening melody where both hands are generally both in the lower compartment below F sharp¹, but also later from bar 25 onwards where the hands

²⁴ Hall, “The Reproducing Piano— What Can It Really Do?”: 6, 15.

²⁵ Caswell, liner notes to Claude Debussy, *Claude Debussy, The Composer as Pianist*, 6.

²⁶ Neal Peres Da Costa, meeting, 26th June, 2009.

²⁷ Hall, “The Reproducing Piano— What Can It Really Do?”: 14.

move apart into different compartments (for instance, in the second crotchet beat of bar 25 and the down beat of bar 26).

Therefore, it is safe to conclude that information about the pitch, note placements, duration of notes and relative tempos within any one roll is reliable, and that the Caswell recording of Debussy's piano rolls preserve this information faithfully.

3.3 Other recordings of Debussy's piano rolls

The most recent commercial recording of Debussy's piano rolls, released since the commencement of this thesis, is *The Welte-Mignon Mystery Vol. XII, Debussy and Ravel: today playing all their 1912 interpretations* released by Tacet in 2009.²⁸ The reproducing piano is a modern Steinway that is adjusted by one of the experts in the field, Hans-W. Schmitz.²⁹ Although no prominent reviews of the recording are known, the dynamics, articulation and pedalling can be heard to be clearer than those in the Caswell recording in a few instances. Because of this, some rhythmic alterations there are covered up by the resonance of the pedal in the Caswell recording, can be heard with more clarity in the Tacet issue, for instance, in bars 39-46 of "Jimbo's Lullaby." In the same piece, the

²⁸ Claude Debussy and Maurice Ravel, *The Welte-Mignon Mystery Vol. XII, Debussy and Ravel: today playing all their 1912 interpretations, Selected works by Debussy and Ravel*, Claude Debussy and Maurice Ravel (Stuttgart: Tacet, 2009).

²⁹ Ulrich Oesterle, liner notes to Debussy and Ravel, *The Welte-Mignon Mystery Vol. XII, Debussy and Ravel: today playing all their 1912 interpretations, Selected works by Debussy and Ravel*.

subtleties of dynamics are more faithfully reproduced in the Tacet issue, so that the rhythmic alterations appear less “clunky,” a short-coming in the Caswell recording that is mentioned by Howat. However, there are some missing notes, such as in bar 8 of “Serenade for the Doll.” Wrong notes are also heard, for instance in *La plus que lente*, where multiple errors are heard in the right-hand run of bar 43. These mistakes are absent in the Caswell recording. Setting aside these issues, what is crucial in the comparison between the recordings is that the relative tempo relationships and instances of dislocation, unnotated arpeggiation, rhythmic alteration and tempo modification that are heard in the Caswell recording are also heard in the Tacet recording. Because of the clarity of the pedal, some of these are even more emphasised on the Tacet recording.

A non-commercial recording by Hall³⁰ of seven of the fourteen pieces recorded on his Steinway-Welte in 2008 also reveal the prevalence of performing practices that are found in Caswell’s recording. The sound in this recording is again, less resonant, yielding a clearer impression of some of the rhythmic alterations, especially in the low register.³¹ Given Hall’s reputation as a leading expert in the field, I believe it would be safe to assume that the intricacies with regards to a faithful reproduction of the piano rolls are dealt with by him, and this is borne out by the comments of those who have had close contact with him.

³⁰ Denis Hall’s non-commercial recording has been provided by Neal Peres Da Costa. Gabriel Faure and Claude Debussy, *Gabriel Faure & Claude Debussy* (Provided by Denis Hall, 2008).

³¹ Because of this advantage, I have used the Hall recording for one or two of the audio examples.

Older commercial issues include Denis Condon's *Debussy: Early Recordings by the Composer* from *The Condon Collection: rare recordings* in 1993,³² and LP issues by Telefunken (1962)³³ and Columbia (1950)³⁴ among others. The latter two are generally considered to be less faithful reproductions of Debussy's piano rolls.³⁵

Therefore, as the most recent and critically-acclaimed commercial recording of the reproduction of the piano rolls, the Caswell recording naturally lends itself well as the main subject of the analysis.

³² Claude Debussy, *Debussy: Early Recordings by the Composer*, Claude Debussy, Yolanda Mero, Rudolph Ganz, Leff Pouishnoff, Carol Robinson, Walter Giesecking, Suzanne Godenne, Frederico Bufaletti, Richard Bullig. (Sydney: The Dolphin Music Group, 1993).

³³ Exact reference not known, referred to as "Telefunken LP record, GMA 65, issued in 1962" in Roy Howat, *Debussy in proportion: a musical analysis* (New York: Cambridge University Press, 1983), 159.

³⁴ Claude Debussy, Gabriel Fauré, and Maurice Ravel, *Great Masters of Keyboard: Famous Composers and Pianists in Their Own History-Making Recorded Performances, Vol. 1*, Claude Debussy, Gabriel Fauré, and Maurice Ravel (New York: Columbia ML 4291, 1950).

³⁵ Kyung-Ae Lee, "A Comparative Study of Claude Debussy's Piano Music Scores and His Own Piano Playing of Selections from His Welte-Mignon Piano Roll Recordings of 1912," 62.

ANALYSIS PART I:
Dislocation and Arpeggiation

Chapter 4

Dislocation

4.1 Historical context

Dislocation describes the momentary displacement between the melody and the accompaniment, where the two hands, aligned in the notation, are played slightly apart. While it is a localised phenomenon by which specific notes are emphasized, it differs from rubato, which could be defined as a more large-scale form of independence of the two hands¹. Dislocation is documented in some written treatises from the turn of the twentieth century², and heard frequently in the early twentieth century's piano rolls, early acoustic and electrical recordings. Some written documents discourage its use in the late nineteenth century and early twentieth century; however, dislocation was practised widely up until at least the 1920s.³

The early-twentieth-century recordings show a trend of dislocation use in compositions that were of a slower tempo and a more expressive character.⁴ Written and audible evidence reveal that dislocation was used variedly, including:

¹ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 102.

² For instance, see Malwine Brée, *Die Grundlage der Methode Leschetizky* (Mainz: Schott, 1902), trans. Dr. T.H. Baker as *The Groundwork of the Leschetizky Method* (New York: Haskell House, 1902), 72-3.

³ Robert Phillip. *Early Recordings and Musical Style: Changing Tastes in Instrumental Performance 1900-1950* (Cambridge: Cambridge University Press, 1992), 47.

⁴ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 33.

- at the beginnings of phrases and usually on “important notes and strong beats,” according to the eminent 19th century pianist and pedagogue Theodor Leschetizsky,⁵
- for a softer effect on dissonances,⁶
- in conjunction with “articulation signs such as the portato or slurred staccato,”⁷
- and for expression of “poignant sequential melodic figures.”⁸

4.2 Manner of Execution

The early-twentieth-century recordings also show that dislocation can be executed in various ways. This can be heard in Debussy’s recordings (Table 4.1).

⁵ Brée, *Die Grundlage der Methode Leschetizky*, iv, 72-3.

⁶ Frank Merrick, “Memories of Leschetizsky,” *Piano Journal* (London: 1980) 1, no. 2: 13.

⁷ Louis Adam, *Méthode du piano du conservatoire* (Paris: 1804/5), 156.

⁸ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 49.

Table 4.1 Types of dislocation heard in Debussy's recordings.

Left hand	Right hand	Instance of dislocation
Single accompaniment note	Single melody note	<i>La plus que lente.</i> Bar 2, 1 st beat
Chord (unarpeggiated)	Single melody note	"Golliwogg's Cake-Walk". Bar 13, 1 st beat
Chord (arpeggiated)	Single melody note	"La soiree dans Grenade." Bar 122, 1 st beat (arpeggiation is notated)
Single accompaniment note	Chord (unarpeggiated)	<i>D'un cahier d'esquisses.</i> Bar 45, 1 st beat
Single accompaniment note	Chord (arpeggiated)	"La soiree dans Grenade." Bar 69, 4 th semiquaver beat (arpeggiation is unnotated)
Chord (unarpeggiated)	Chord (unarpeggiated)	<i>La plus que lente.</i> Bar 25, 2 nd crotchet beat
Chord (unarpeggiated)	Chord (arpeggiated)	"La soiree dans Grenade." Bar 50, 1 st beat (arpeggiation is unnotated)

The above list illustrates that Debussy practised dislocation in the wide range of forms that can be heard in the early-twentieth-century recordings.⁹ The other pianists' recordings also reveal that either hand may precede the other, and that the degree of dislocation may vary. In Debussy's use of dislocation, the two

⁹ Categorisation by Peres Da Costa. Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 29.

hands also range from being far apart to subtly asynchronous. The left hand precedes the right hand in most instances; however, there are places where the contrary occurs, as will be seen later.

4.3 Frequency of dislocation

The frequency with which dislocation is used varies from piece to piece in Debussy's recordings, as can be seen in Table 4.2. Here, a "frequent" use of dislocation implies that it is heard throughout the piece; "some" use signifies that it only occurs in a few sections; and an "infrequent" use denotes that it only occurs a few times (less than two or three times) in the piece.

Table 4.2 Frequency of dislocations in the pieces on the piano rolls.

Compositions with frequent dislocations	Tempo marking
<i>La plus que lente</i>	Lent (Molto rubato. Con morbidezza) [Slow (A lot of rubato. With softness)]
Compositions with some dislocations	Tempo marking
“La cathédrale engloutie”	Profoundément calme (Dans une brume doucement sonore) [Profound, calm (In a mist with a gentle sound)]
“Minstrels”	Modéré (Nerveux et avec humour) [Moderate (Nervous and with humour)]
“La soirée dans Grenade”	Mouvement de Habanera (Commencer lentement dans un rythme nonchalamment gracieux) [Movement of Habanera (Start slowly in a nonchalant and gracious rhythm)]
“Jimbo’s Lullaby”	Assez modéré [Rather moderate]
“Golliwogg’s Cake-Walk”	Allegro giusto [Lively and fast (Allegro), just (giusto)]
<i>D’un cahier d’esquisses</i>	Très lent (sans rigueur) [Very slow (without rigour)]
Compositions with no or infrequent dislocations	Tempo marking
“Danseuses de Delphes”*	Lent et grave [Very slow and serious]
“La danse de Puck”*	Capricieux et léger [Capricious and light]
“Le vent dans la plaine”	Animé [Animated]

“Doctor Gradus ad Parnassum”	Modérément animé [Moderately animated]
“Serenade for the Doll”	Allegretto ma non troppo. Très léger et gracieux [Very light and gracious]
“The Snow is Dancing”*	Modérément animé
“The Little Shepherd”**	Très modéré [Very moderate]

*Indicates no dislocations

Table 4.2 reveals a correlation between the tempo marking and the use of dislocation: while the slower *La plus que lente* exemplifies an ample use of dislocation, the compositions with no or infrequent dislocations are all marked with a faster and livelier tempo indication, with the exception of “Danseuses de Delphes.” In this piece, the marking of “grave” suggests a restraint on sentimentality and overt expression, perhaps calling for a more literal rendition of the chordal writing. The trend in Debussy’s piano rolls accords with the Romantic practice of more frequent dislocation use in slower and more expressive pieces.

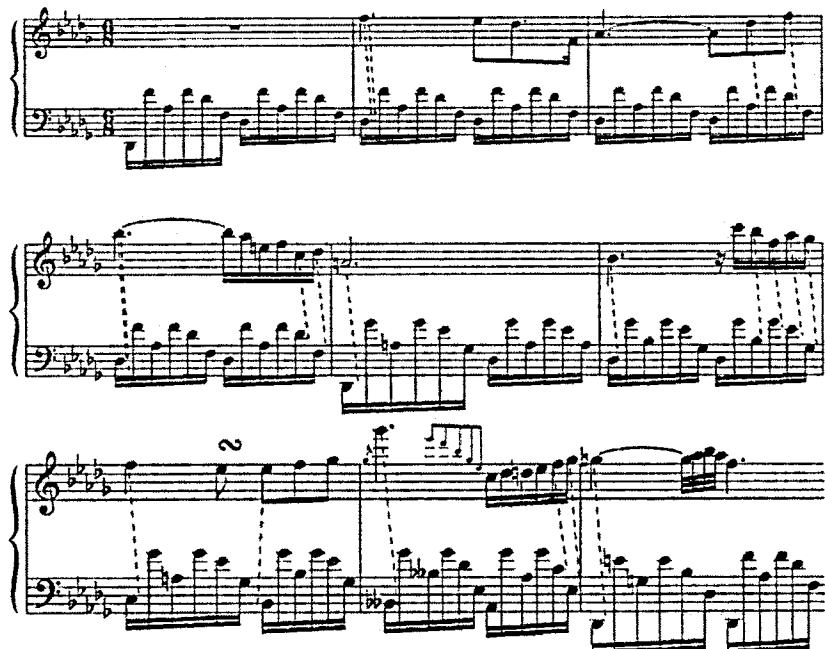
Thus, a brief overview of the recordings already points to a similar the use of dislocation between Debussy and the late-Romantic pianists. A more detailed analysis of individual pieces reveals particular similarities in the style of execution and function.

4.4 Function

In *La plus que lente*, the style of execution of dislocations is reminiscent of Leschetizsky's 1906 piano roll rendition of Chopin's *Nocturne* Op. 27 No. 2, bars 1 to 9 (Figs. 4.1 and 4.2):

Fig. 4.1 Chopin *Nocturne* Op. 27 No. 2, bars 1–9, Leschetizsky, piano roll, 1906.¹⁰ (CD 1/1)

*Double lines indicate a larger gap between the hands.



¹⁰ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 51.

Fig. 4.2 *La plus que lente*, bars 1–16. (CD 1/2)

The musical score consists of three staves of piano music. The top staff is for the treble clef, the middle staff for the bass clef, and the bottom staff for the bass clef. The key signature is A-flat major (three flats). The time signature changes from common time to 6/8 in bar 6. The dynamics are indicated as 'pp' (pianissimo) in the first measure and 'mf' (mezzo-forte) in the eighth measure. The tempo is marked 'Lent (Molto rubato. Con morbidezza)' at the beginning and 'Retenu --' at the end. Measure lines are present between the first four measures and between the last two measures.

In the first four bars of *La plus que lente*, the melody and the accompaniment are asynchronous over half of the time that the two hands are supposed to coincide according to the notation. This enhances the sense of spontaneity and expressiveness that is also heard in Leschetizsky's recording, as well as softening the interval of a major 7th in the first beats of bars 4, 6 and 8. Moreover, Debussy uses a less common dislocation of displacing the right hand before the left in bar 15, as heard also in bar 7 of Leschetizsky's recording.

In other pieces where dislocations are heard with less frequency, Debussy's use of dislocation harks back to Leschetizky's guidelines laid out by his student, Malwine Brée:

Neither should bass tone and melody-note always be taken precisely together, but the melody-note may be struck an instant after the bass, which gives it more relief and a softer effect. However, this can be done only at the beginning of a phrase, and usually only on important notes and strong beats. (It is better for the hands to coincide precisely on weak beats.)¹¹

In the following phrase from “Jimbo’s Lullaby,” the “important notes” are actually the weak, syncopated beats. The melody is punctuated by rests on every first beat, and, except in bar 35, every second and fourth crotchet beat is dislocated to emphasise the syncopation and the tenuto of the fourth beat in the left hand. This enhances the “gauche” (clumsy) character of the piece (Fig. 4.3):

¹¹ Brée, *Die Grundlage der Methode Leschetizky*, iv, 72-3.

Fig. 4.3 “Jimbo’s Lullaby,” bars 32–37. (CD 1/3)

The musical score consists of two staves. The top staff is for the upper voice, and the bottom staff is for the lower voice. The key signature is one flat, and the time signature is common time. Measure 32 starts with a dynamic of *pp*. The upper voice has a melodic line with eighth-note patterns, while the lower voice provides harmonic support. Measure 33 continues with the same dynamics and patterns. Measure 34 begins with a dynamic of *pp*, followed by a melodic line in the upper voice. Measure 35 starts with a dynamic of *pp*, and the upper voice continues its melodic line. Measure 36 begins with a dynamic of *pp*, and the upper voice continues its melodic line. Measure 37 begins with a dynamic of *pp*, and the upper voice continues its melodic line. The score includes markings such as "marqué" and "R:".

A sudden change in texture enhanced by a dislocation at the “beginning of a phrase” (in Brée’s words) is heard in “La cathédrale engloutie” at bar 40. This highlights the moment as an important structural point, where the melody of the climactic section ends (Fig. 4.4):

Fig. 4.4 “La cathédrale engloutie,” bars 36–42. (CD 1/4)

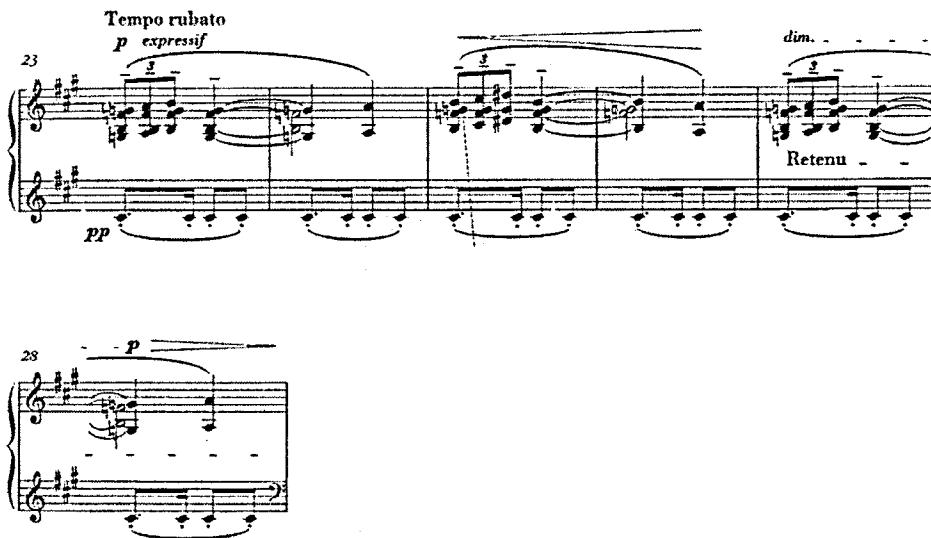
The musical score for "La cathédrale engloutie" features two staves. The top staff uses a treble clef and a bass clef, with a key signature of one flat. It contains four measures of chords, each consisting of three notes. Below each measure is the instruction "8th bass". The bottom staff uses a bass clef and a key signature of one flat. It contains four measures of bass notes, each with a different dynamic: first "p", then "più p", then "pp", and finally "più pp". The score is in common time.

In addition to using dislocation to soften harsh intervals, enhance melodic expressiveness and highlight important notes and start of phrases, varying synchronous playing with dislocation can be heard in melodic repetition and sequential phrases. In “Le vent dans la plaine,” the two-bar melody in bars 50 and 51 is repeated in the subsequent bars, with the first beat of the melody dislocated to create variety (Fig. 4.5):

Fig. 4.5 “Le vent dans la plaine,” bars 49–54. (CD 1/5)

In sequential writing, each phrase can also undergo a different treatment, as in bars 23 to 28 of “La soirée dans Grenade” (Fig. 4.6, CD 1/6). This particular use of dislocation is heard again in exactly the same manner when the segment recurs between bars 61 and 66 (CD 1/6, towards the end of the track), the similar execution having the effect of strengthening the identity of the segment and unifying the piece:

Fig. 4.6 “La soirée dans Grenade,” bars 23–8. (CD 1/6)



The contrast between dislocation and synchrony can also be found where a repeating melodic note is treated with different harmonies. An example of this is found in the closing bars of *La plus que lente* (Fig. 4.7):

Fig. 4.7 *La plus que lente*, bars 139 to end. (CD 1/7)

The three-note motif in the final bars, Gb–Ab–Bb, is taken from the opening bars, where the motif is Db–Eb–F. This three-note motif occurs throughout the piece, and is often played with some dislocation (for instance, in bars 1, 6 and 17). It is interesting to note that the very last two occurrences of this three-note motif are played *without* dislocation. The combination of the use of both dislocation and synchrony for iterations of this motif not only create variety in different sections of the piece, but also signify the motif's functions in different places of the piece.

In the beginning, the three-note motif (Db–Eb–F) has an *initiating* function: it begins on an upbeat as the start to the melody in bars 1 to 4, it is heard as the commencement of phrases throughout the pieces (for instance, in bars 17–8, 75–6 and 119–20) and its contour is that of a step-wise, upward climb. It also has a sense of being open-ended, like a potential point of departure for an improvisation, with its starting note being the dominant of the home key, Gb major, going up to the leading note, F. Thus, the initiating function is very much part of the identity of the motif. Dislocation not only intensifies the expressive quality of the motif, but its frequent use also means that it is strongly associated with the identity of the motif *as the initiating element* in the listener's mind (akin to what happens in the recurring musical segment in “La soirée dans Grenade”—Fig. 4.6, CD 1/6).

In the final bars of the piece, this three-note motif is treated by means that are *contrary* to its function as an initiating element: here, it starts on the tonic

instead of the dominant in taking the form of Gb–Ab–Bb, and it is played above a static, chordal bass, instead of the moving bass with the waltz-pattern in the beginning. Thus, the motif assumes the *opposite* function of what is established: now it is the *terminating* element of the piece. The *absence* of dislocation here signifies a sense of finality, because of the strong association of dislocation with the motif as an initiating element earlier on. The oppositional change of the motif's function, from initiation to termination, and the use of dislocation to signify this, can be conveniently explained in diagrammatic form using Robert Hatten's theory of marked oppositions (Figs. 4.8 and 4.9):

Fig. 4.8 Signification of the three-note motif in the beginning of *La plus que lente*.

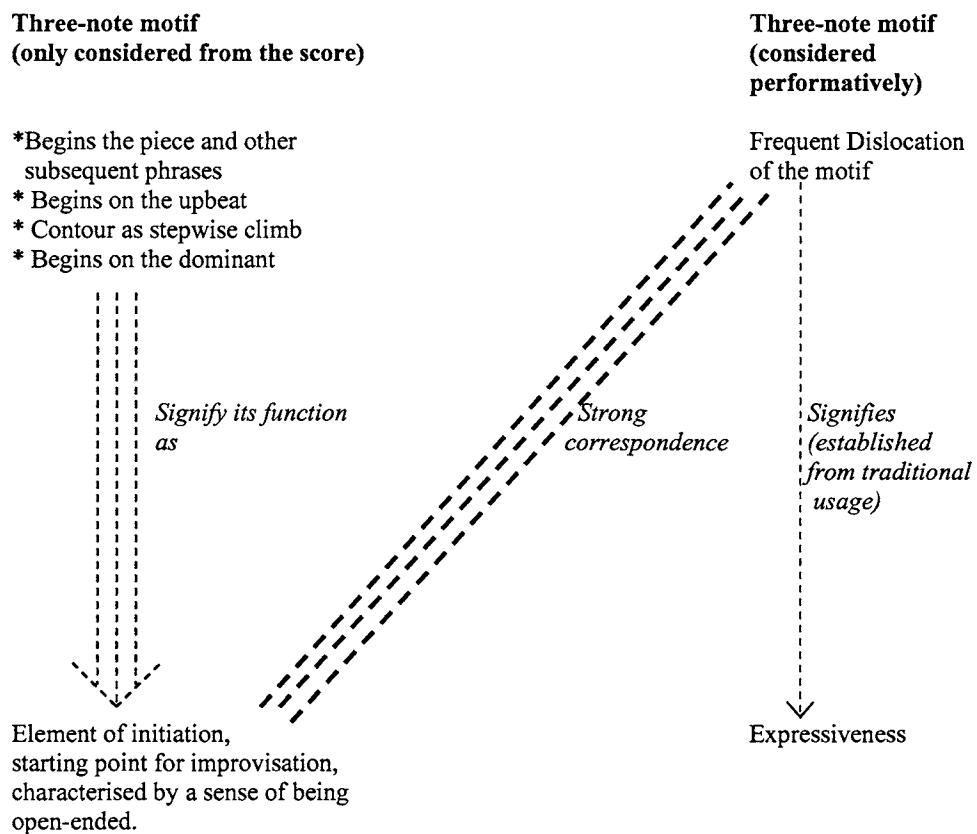
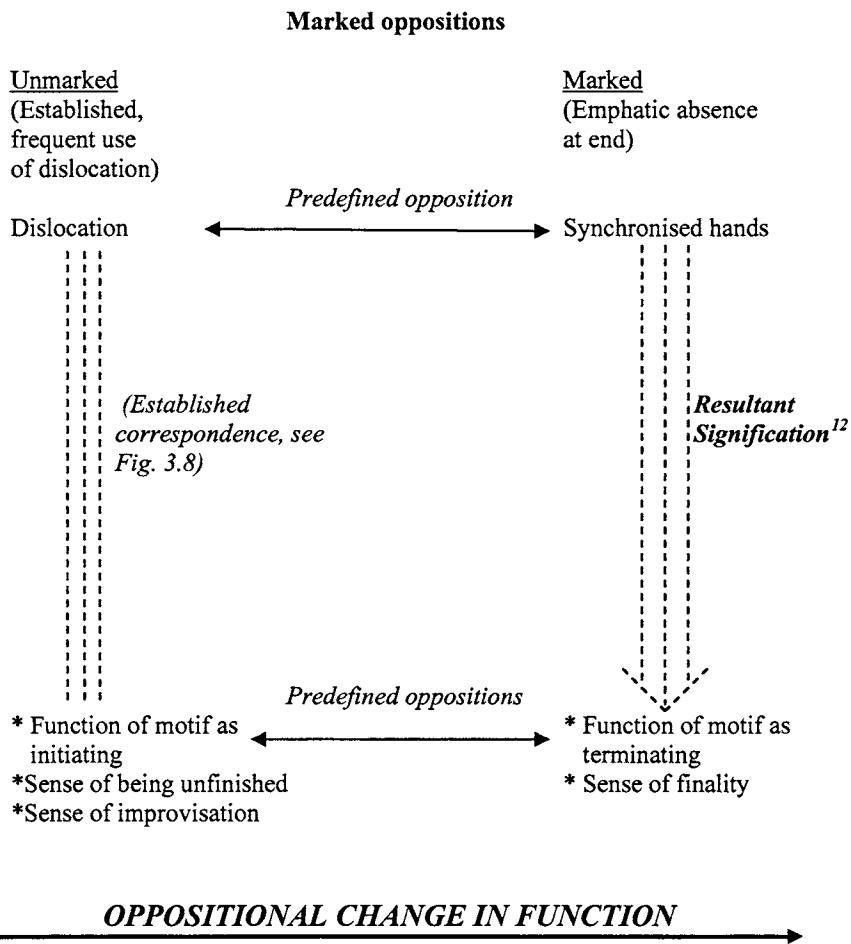


Fig. 4.9 The oppositional change in function of the three-note motif from initiation to termination considered as marked oppositions, and its relations to the use of dislocation in *La plus que lente*.



¹² This diagram shows that the practice of dislocation signifies the oppositional change in the function of the three-note motif. The synchrony of hands in the final bars of *La plus que lente* signifies a sense of finality, as do other signifiers, such as the return to the tonic and the static bass accompaniment. In other words, the synchrony of hands, the return to the tonic and the static bass accompaniment all signify a sense of finality in separate ways. This diagram is important, because it shows that synchrony of hands is not only *associated* with a sense of finality because it coincides with the other signifiers. Rather, it has a separate, independent signification process (i.e. what is on the diagram). Thus, the presence and absence of dislocation can be construed as signifiers, just like other signifiers that are score-based. This suggests that the score-based semiotic analysis of a work is incomplete. Rather, performative analysis that is merged with the more traditional score-based form of analysis can yield more fruitful studies in the semiotics of a work.

Interestingly, *La plus que lente* is the only piece in Debussy's piano rolls where frequent dislocations are heard throughout the piece; indeed, the abundant use of the device can be linked to the rather instructive tempo marking of "Molto rubato (con morbidezza)." "Molto rubato" suggests a sense of improvisation and spontaneity, while "con morbidezza" (with softness), may perhaps imply an application of dislocation to not only dissonances but to chords in general throughout the piece to soften their effects. Investigating the correlation between score markings and the use of dislocation leads to deeper conclusions about the hidden meaning of terminology relating to performing practices.

For Debussy, it appears that the most frequently occurring score indication linked with the use of dislocation is the term "expressif" (expressive). As will be seen in the following chapters, this term is also associated with other performance practices such as arpeggiation and rhythmic alteration. Synchronous playing in pieces such as "Minstrels" and "D'un cahier d'esquisses" suddenly gives way to dislocations in the vicinity of the indication "expressif" (Fig. 4.10 and 4.11, CD 1/8 and CD 1/9). Even in works that reveal an infrequent amount of dislocation, such as "Doctor Gradus ad Parnassum" and "Serenade for the Doll," dislocations seem to be used in response to this marking (Fig. 4.12 and 4.13). In comparison, the works that have no dislocations do not have this indication in their scores, except for "The Little Shepherd" (refer to Table 4.2), where the section marked "expressif" sees only the right hand playing.

Fig. 4.10 “Minstrels,” bars 63–74. (CD 1/8)

The musical score consists of three staves of piano music, labeled 63, 68, and 73.

- Staff 63:** Dynamics include *p* and *f*. The instruction *Expressif* is written above the staff. The music features a mix of eighth and sixteenth-note patterns.
- Staff 68:** Dynamics include *p* and *f*. The instruction *(en debors)* is written below the staff. The music includes a series of eighth-note chords.
- Staff 73:** Dynamics include *f*, *<f*, and *f*. The instruction *(en debors)* is written below the staff. The music includes a melodic line with eighth and sixteenth notes, and a bass line with sustained notes.

Fig. 4.11 “D’un cahier d’esquisses,” bars 45–7. (CD 1/9)

Musical score for "D'un cahier d'esquisses" showing bars 45–7. The score consists of three staves. The top staff has a treble clef, a key signature of four flats, and a tempo marking of 44. The middle staff has a bass clef, a key signature of four flats, and a tempo marking of *pp*. The bottom staff has a bass clef, a key signature of four flats, and a tempo marking of *PPP*. The music features eighth-note patterns and sustained notes.

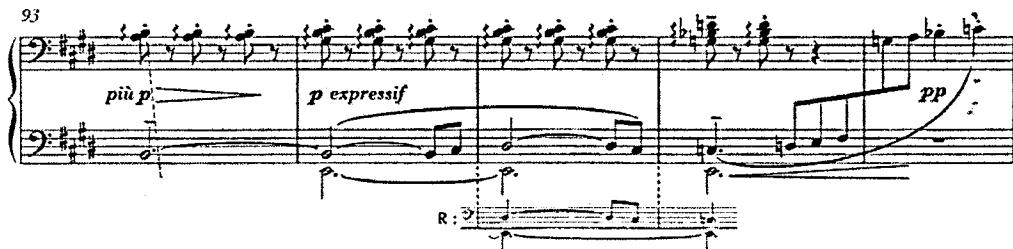
expressif (un peu en dehors)

46

Fig. 4.12 “Doctor Gradus ad Parnassum,” bars 37–44. (CD 1/10)

Musical score for "Doctor Gradus ad Parnassum" showing bars 37–44. The score consists of two staves. The top staff has a bass clef, a key signature of four flats, and a tempo marking of *pp*. The bottom staff has a bass clef, a key signature of four flats, and a tempo marking of *pp*. The music features eighth-note patterns and sustained notes. The first section (bars 37–40) includes dynamic markings *Animez un peu*, *PP*, *expressif*, and *expressif*. The second section (bars 41–44) includes a dynamic marking *Retenu*.

Fig. 4.13 “Serenade for the Doll,” bars 93–7. (CD 1/11)



The marking “avec une grande emotion” (with a great emotion) has a similar association, where Debussy alludes humorously to Wagnerian grandiose emotion¹³ (Fig. 4.14):

¹³ Harold Bauer, *Harold Bauer, His Book* (New York: W. W. Norton & Co, 1948), 82, 141-2, in Roger Nichols, *Debussy Remembered*, 157.

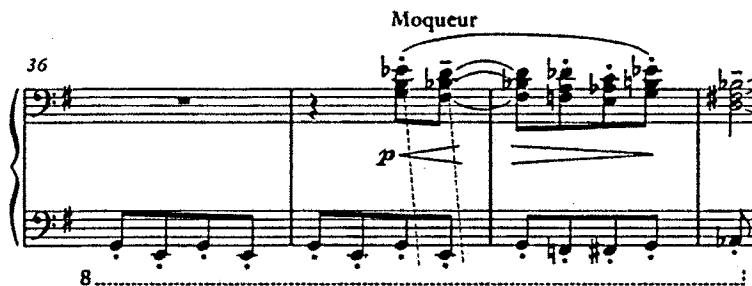
Fig. 4.14 “Golliwogg’s Cake-Walk,” bars 61–76. (CD 1/12)

The musical score consists of four staves of piano music, each with a dynamic marking and a performance instruction.

- Staff 1 (Top):** Measure 59. Dynamic: *p*. Performance instruction: *Cédez p avec une grande émotion*.
- Staff 2 (Second from Top):** Measure 63. Dynamic: *p*. Performance instruction: *a Tempo*.
- Staff 3 (Third from Top):** Measure 63. Dynamic: *pp*. Performance instruction: *Cédez - - - a Tempo*.
- Staff 4 (Bottom):** Measure 63. Dynamic: *p*. Performance instruction: *pp*.
- Staff 1 (Top):** Measure 68. Dynamic: *f*. Performance instruction: *Cédez - - - a Tempo*.
- Staff 2 (Second from Top):** Measure 73. Dynamic: *p*. Performance instruction: *Cédez - - - a Tempo*.
- Staff 3 (Third from Top):** Measure 73. Dynamic: *p*. Performance instruction: *pp*.
- Staff 4 (Bottom):** Measure 73. Dynamic: *p*. Performance instruction: *Cédez - - -*.

In contrast, more playful markings, such as “Moquer” (teasing) in “Minstrels”, are also linked to dislocations (Fig. 4.15):

Fig. 4.15 “Minstrels,” bars 36–8. (CD 1/13)



In “Jimbo’s Lullaby,” the first appearance of the right-hand melody in a homophonic texture reveals a generous use of dislocation to give a sense of unsteadiness, enhancing the “gauche” character of the piece that is indicated in the beginning (Fig. 4.16). Dislocation also differentiates the melody from the accompaniment, highlighting the melody that is indicated by “un peu en dehors” (a little brought out):

Fig. 4.16 “Jimbo’s Lullaby,” bars 21–4. (CD 1/14)

Musical score for "Jimbo's Lullaby" showing bars 21–4. The top staff has "un peu en dehors" above the melody line and "sempre pp" below it. The bottom staff shows harmonic changes indicated by vertical dashed lines.

4.5 Conclusion

Debussy's employment of dislocation is seen to be in concordance with late-nineteenth and early-twentieth-century performing practices. Its use being more prevalent in slower and more expressive compositions, dislocation is employed at the beginning of phrases, on main beats, and to emphasise important notes, produce unity of character, soften dissonances and enhance the expressiveness and spontaneity of a melody. Moreover, its contrast with synchronous playing highlights harmonic changes, creates variety in repetition, highlights structural points and contributes to functional signification. Underlying or hidden meanings of certain score indications such as "expressif" point towards a greater use of the device. Thus, Debussy as a pianist uses dislocation in accordance with *late-Romantic* performing practices to play his compositions, which have their own individual, *post-Romantic* style and character.

Chapter 5

Unnotated arpeggiation¹

5.1 Historical context

Another performing practice heard on many early recordings and piano rolls is the use of unnotated arpeggiation— where two or more notes that should, according to the notation, be sounded together, are played asynchronously. Early recordings and piano rolls show that unnotated arpeggiation was a widespread and common keyboard practice around the turn of the twentieth century,² and its use varied in type and frequency from pianist to pianist. Numerous written texts certainly support arpeggiation (both notated and unnotated) as being an important practice from the seventeenth to the early twentieth centuries. For the late-nineteenth century, Malwine Brée's *Die Grundlage Der Methode Leschetizky* is enlightening on the subject. According to Brée, unnotated arpeggiation is used for:

- playing chords that are too wide for the hand,
- a “tender or delicate effect” where the left-hand chord is played “flat” and the right-hand chord is arpeggiated,
- an “energetic” effect where the left-hand chord is arpeggiated swiftly and the right hand is played “flat”,
- bringing out polyphony in important moments, and

¹ This term has been borrowed from Peres Da Costa, "Performing practices in late-nineteenth-century piano playing."

² Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 105, 214.

- creating an “extremely slight retardation” where the left hand is arpeggiated and the right-hand “flat” chord is played together with the upper tone of the left-hand chord.³

According to Peres Da Costa, early recordings and piano rolls reveal that in addition to these effects, unnotated arpeggiation was used for other purposes. In particular, it was used:

- to emphasise melody notes by delaying them and setting them apart from the harmonic accompaniment
- to provide a gentle cushion of sound supporting the melody note
- to give poignant harmonies a softened or a strengthened effect
- to enliven the momentum and propel the music forward
- to enrich the sound or texture of the musical material,
- to mark the limits of phrases
- to delineate compound melodies played simultaneously in one hand⁴

It was also used to enhance:

³ Brée, *Die Grundlage der Methode Leschetizky*, 70-3.

⁴ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 105-6.

- the effect of longing or languishing
- the differentiation between chords of varying characters, thus effecting dramatic contrast
- a sense of ending
- a smooth transition between sections of differing character
- a particular emphasis lacking harshness for chords requiring accentuation
- the mysterious nature of an interrupted cadence or the increase of tension in the transition to a pregnant pause...
- ...a sense of tension and release at feminine cadence points
- the expression given to a progression of thematic fragments, where the slowest arpeggiation is saved for the most important moment⁵

During the early-twentieth century, there was a noticeable move away from the use of unnotated arpeggiation by prominent pianists such as Walter Geiseking (1895–1956), Josef Hofmann (1865–1957) and Leschetizky's student, Mark Hambourg (1879–1960), particularly as advocated in their writings. In their recordings, however, they can still be heard to make unnotated arpeggiations,

⁵ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 144-5.

albeit more sparingly than pianists of an earlier generation.⁶ Recordings of other pianists such as Adelina de Lara (1872–1961) show that unnotated arpeggiation was still frequently used until at least the middle the twentieth century.⁷ In general, unmarked arpeggiation was mostly applied to Classical and Romantic repertoire, and less so in late-nineteenth century and twentieth century compositions.⁸ Indeed, in Peres Da Costa's survey of early recordings by pianists, Debussy's compositions have all been played with no or infrequent unnotated arpeggiations. These pianists include Alfred Grünfeld (1852–1924), Ricardo Viñes (1875–1943) and Walter Gieseking.⁹ Whether or not Debussy's use of unnotated arpeggiation is in keeping with Romantic performing practices, as well as the individual characteristics of his practice in his own compositions, will be seen below.

⁶ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 212.

⁷ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 105.

⁸ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 104.

⁹ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 30-3.

5.2 Manner of Execution

The manner of execution depends on several variables, including:

- the speed of the arpeggiation and
- the alignment of:
 - the two hands in relation to each other and
 - the notes in relation to the notional beat.

Speed of arpeggiation¹⁰

In general, the speed of arpeggiation in the early-twentieth-century recordings directly corresponds to the tempo of the piece—a slower tempo will call for a slower speed, and a swifter arpeggio will be used in a faster passage¹¹; however, it also depends on the “function, mood and context.”¹²

Although Debussy’s arpeggiation is not as ubiquitous as that of the recordings of other nineteenth century pianists¹³, his piano playing does clearly reveal its use in some pieces. Also, the speed of arpeggiation is generally swifter; even notated arpeggiations are not executed as slowly as those found in the earlier recordings.¹⁴ The following table (Table 5.1) shows that Debussy arpeggiates

¹⁰ From here onwards, I will refer to unnotated arpeggiation as just “arpeggiation.”

¹¹ Peres Da Costa, “Performing practices in late-nineteenth-century piano playing,” 131.

¹² Peres Da Costa, “Performing practices in late-nineteenth-century piano playing,” 104.

¹³ See Peres Da Costa’s analysis of Leschetizky’s piano roll recording of W. A. Mozart’s “Fantasy in C minor, K475.” Peres Da Costa, “Performing practices in late-nineteenth-century piano playing,” 135–40, for a detailed analysis of the frequent use of arpeggiation by Leschetizky.

¹⁴ For instance, listen to Frederic Chopin, ‘Nocturne Op. 27 No. 2’, Welte-

with varying degrees of frequencies and swiftness (although his arpeggiations are generally fast).

Table 5.1 Frequency and speed of arpeggiation.

Location	Frequency of arpeggiation	Speed of arpeggiation
“La danse de Puck,” bars 32–7 (Fig. 5.1)	Infrequent*	Fast, to very fast and almost imperceptible (the chords can be heard to be not absolutely synchronised)
<i>La plus que lente</i> , bars 1–16 (Fig. 5.2)	Infrequent (mixed with dislocations)	Fast
“Danseuses de Delphes,” bars 11–4 (Fig. 5.3)	Frequent	Very fast
“La cathédrale engloutie,” bars 1–15 (Fig. 5.4)	Infrequent	Very fast and almost imperceptible
“La cathédrale engloutie,” bars 16–27 (Fig. 5.4)	Frequent	Very fast and almost imperceptible (but generally more perceptible than those of bars 1–15) ¹⁵

* The definition of “frequent” is that arpeggiation is heard in almost every bar, and in those bars that contain them, most of the chords are arpeggiated.

Mignon piano roll by T. Leschetizky (1906), *The Closest Approach to 19th Century Piano Interpretation*, Archiphon-106 (1992).

¹⁵ Richard Langham Smith also observes similar arpeggiations in this piece. See Smith, "Debussy on Performance: Sound and Unsound Ideals": 22–3.

Fig. 5.1 “La danse de Puck,” bars 32–7. (CD 2/1)

The musical score consists of three staves of piano music, each with a treble clef and a key signature of one flat. The first staff shows a continuous series of eighth-note chords. The second staff begins with a single eighth note followed by a sixteenth-note rest, then continues with eighth-note chords. The third staff begins with a single eighth note followed by a sixteenth-note rest, then continues with eighth-note chords. Measure numbers 32, 34, and 36 are indicated above the staves. Performance instructions are provided: 'p doucement soutenu' (measures 32-33), '(almost imperceptible)' (measure 33), 'pp' (measures 34-35), and '(less swift)' (measure 36).

Fig. 5.2 *La plus que lente*, bars 1–16. (CD 2/2)

Lent (Molto rubato, Con morbidezza)

pp

(less swift) (less swift) Retenu —

Fig. 5.3 “Danseuses de Delphes,” bars 10–8. (CD 2/3)

The musical score consists of three staves of music for piano, spanning six measures (bars 10 through 16). The score includes dynamic markings such as *doux mais en dehors*, *pp*, *mf*, *dim.*, and *pp*. The notation features various note heads, stems, and wavy lines indicating dislocation and arpeggiation. A bracket labeled “(mixture of dislocation and arpeggiation)” spans the end of bar 10 through the beginning of bar 13. Another bracket labeled “almost imperceptible” spans the end of bar 13 through the beginning of bar 16. Measure 10 starts with a forte dynamic. Measure 11 begins with a dynamic of *pp*. Measure 12 ends with a dynamic of *pp*. Measure 13 begins with a dynamic of *mf*. Measure 14 begins with a dynamic of *pp*. Measure 15 begins with a dynamic of *pp*. Measure 16 begins with a dynamic of *pp*.

Fig. 5.4 “La cathédrale engloutie” bars 1–27. (CD 2/4)

42

A = arpeggiation (very fast)
 - X. A* = arpeggiation (very fast and almost imperceptible)

Profondément calme (Dans une brume doucement sonore)

A* and dislocation heard
 [d...d] Doux et fluide from bars 7-13

R.

* Voir note sur Mouvement, p. 151
 See note on Tempo, p. 157

43

13 [♩ = ♩] A A* A* A*

pp (sans nuances)

(Peu à peu sortant de la brume) A A* A* A* A*

sempre pp p marqué pp

A A* A* A* A* A* A* A*

p marqué pp p marqué

A* Augmentez progressivement (Sans presser) A* A* A* A* A* A* A* A*

R. R. R. R.

44

[d=d] A A 8 A A

Sonore sans dureté

A A ff ff V 8^e bass

Alignment of the hands and alignment of the notes in relation to the notional beat

Debussy's arpeggiations are characterised by different alignments between the hands and beats. The following table shows different ways in which Debussy applied arpeggiations (Table 5.2):

Table 5.2 Differing styles of arpeggiation in Debussy's playing.

Left hand	Right hand	Instances of alignment	Location of example
Chord struck firmly	Chord arpeggiated	<ol style="list-style-type: none"> 1. Left hand chord with right hand top note 2. Left hand chord with right hand bottom note 	"Danseuses de Delphes," bar 18, 2 nd quaver beat: alignment is unclear due to swiftness of arpeggiation (Fig. 3, CD 2/3).
Chord arpeggiated	Chord struck firmly	<ol style="list-style-type: none"> 1. Left hand top note with right hand chord 2. Left hand bottom note with right hand chord 	"La danse de Puck," bar 37, 3 rd crotchet beat: alignment is of the 1 st type. (Fig. 5.1, CD 2/1)
Chord arpeggiated	Chord arpeggiated	<ol style="list-style-type: none"> 1. Bottom notes of the two hands together 2. The two chords arpeggiated as one combined chord— from the bottom note in the left hand to the top note in the right hand. 	<i>La plus que lente</i> , bar 14, downbeat: alignment is of the 2 nd type. (Fig. 5.2, CD 2/2)

The above table shows that Debussy varied the alignment and use of arpeggiation between the two hands. In the early-twentieth-century recordings by other pianists, either the bottom note or the top note of the arpeggiated chord is aligned with the notional beat; however, if tempo modification occurs in conjunction with arpeggiation or if the arpeggiation is fast, the alignment of arpeggiation with the beat can be difficult to analyse.¹⁶ This is the case with many instances of Debussy's playing, where the arpeggiation is very swift. In the cases where the arpeggios are more spread out, Debussy seems to generally align the melody note with the notional beat. This is true for the last two examples in the table above.

5.3. Function

Debussy's arpeggiations function in various but similar ways to those found in other early recordings.

Unnotated arpeggiation as a structural device throughout the whole piece

In "La cathédrale engloutie," different speeds of arpeggiation are used to create numerous effects that are mentioned in the list in Section 5.1 that is based on Peres Da Costa's findings. Here, arpeggiation is also used as a structural device, similar to when arpeggiation is used to enhance "the expression given to a progression of thematic fragments, where the slowest arpeggiation is saved for the most important

¹⁶ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 105.

moment.”¹⁷ However, it is used on a larger scale: sections lasting many bars in which almost every chord is arpeggiated are contrasted with those where chords are played synchronously. This is outlined in the following table (Table 5.3, see Appendix D for the score of “La cathédrale engloutie” with the arpeggiations marked in):

¹⁷ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 144-5.

Table 5.3 Arpeggiation in “La cathédrale engloutie” and its corresponding effects. (CD 2/5)

Bars	Indication markings	Speed of arpeggiation	Possible intended effect
1–6	Dans une brume doucement sonore [In a mist with a gentle sound]	Very fast and almost imperceptible.	For a gentle (as indicated by “doucement”) and delicate effect.
7–15	Doux et fluide [Soft/gentle and fluid]	Very fast and almost imperceptible. It is difficult to tell whether it is arpeggiation or dislocation in some instances.	For a gentle (as indicated by “doux”) and delicate effect, also lessens the rigidity of the regular chordal pattern (indicated by “fluide”).
16–9	Peu à peu sortant de la brume [Little by little leaving the mist]	Very fast and almost imperceptible (however, less swift than previous two sections).	Enhances the texture and sonority of the section, makes clear the melody, drives the music onwards.
20–7	Augmentez progressivement (Sans presser) [Increase gradually (without pressing)]	Very fast and almost imperceptible (similar to the last section).	Enhances the expressiveness of the melody. Also creates a broadening feeling (akin to Brée’s “slight retardation”) to counter the temptation to “press” on (sans presser) with the progression.
28–46	Sonore sans dureté [sound without hardness]	Very fast and almost imperceptible (swifter than previous section).	Decreases the hardness (sans dureté) of the chords.
47–54	Un peu moins lent (Dans une expression allant grandissant) [A little less slow (With an expression that is growing)] Expressif et concentré [Expressive and concentrated]	No arpeggiation (single notes predominantly heard).	
55–61		Fast to very fast.	Enhances the expressiveness of the melody and intensifies the music in climactic point.
62–71	Molto dim.	No arpeggiation (abruptly).	Adds to the dramatic contrast of the change of register and the “molto dim.”, also signals the start of the section’s retreat.
72–83	Au Mouvt. (Comme un écho de la phrase entendue précédemment) [In time (Like an echo of the phrase heard previously)]	No arpeggiation.	The synchrony adds to the effect of the soft echo, in contrast to the arpeggiated melody in the beginning. The refrain from arpeggiation is also hinted at by the indication, “Dans la sonorité du début,” in the following section. This marking suggests that a different sonority should be created in <i>this</i> section.
84–end	Dans la sonorité du début [In the beginning sonority]	Very fast and almost imperceptible.	Creates the impression of the beginning by using a similar execution of arpeggiation.

Thus, in “La cathédrale engloutie,” arpeggiation is used to highlight characters of the different sections, bringing out the structure of the piece.

Unnotated arpeggiation used in association with score indications

It is clear that the use of unnotated arpeggiation in “La cathédrale engloutie” is directly related to the descriptive indications of the sections provided by Debussy. Earlier in the nineteenth century, words such as “con espressione, con anime, dolce, etc” implied the use of arpeggiation, as advocated by Philip Corri’s “L’anima di musica.”¹⁸ Recordings by editor-pianists such as Pugno and Leschetizky also reveal that editorial markings such as “dolce,” “cantando” and “espressivo” directly correspond to the use of arpeggiation.¹⁹ This is also the case in Debussy’s recording. The markings “dans une brume doucement sonore,” “doux et fluide” and “sonore sans dureté” all apparently relate to using tight arpeggiations for a gentle effect.

The indication “expressif” found in bar 47 is another term that signals the use of arpeggiation, as well as that of dislocation. Perhaps the word “expressif” is more applicable to the melody than to the general musical texture as in the case of “doux” and “doucement”; in this section, the arpeggiations, including those of octaves, are more noticeable and emphasises the melody when it increases its momentum with the appearance of crotchets (Fig. 5.5):

¹⁸ Philip Antony Corri, *L'anima di musica* (London: 1810), 76-7.

¹⁹ Peres Da Costa, “Performing practices in late-nineteenth-century piano playing,” 141, 146, 161.

Fig. 5.5 “La cathédrale engloutie,” bars 56-69. (CD 2/6)

The musical score for Debussy's "La cathédrale engloutie" illustrates the complexity of his harmonic language through arpeggiations. The score is divided into three main sections: bars 56-59, bars 60-63, and bars 64-69. In the first section, arpeggiations are indicated by wavy lines above the notes. In the second section, a dashed line separates the arpeggiated chords from a section where arpeggiation is explicitly prohibited ("No arpeggiation"). The third section returns to arpeggiations. Specific markings like "molto dim." and "R." with fingerings (1, 2, 3, 4) provide precise performance instructions.

Other indications are more specific to the character of the work and can be understood with respect to the structure of the piece. In particular, Debussy unifies the piece by using a similar arpeggiation to that of the beginning, in the section marked “dans la sonorité du début” (in the beginning sonority). He also employs synchrony and various speeds of arpeggiation to create contrast between the sections. Thus, the markings in the score of “La cathédrale engloutie”

indicate specific effects and characters that create both unity and contrast, and different types of arpeggiation are used to achieve them.

Indeed, the correlation between descriptive markings and arpeggiations exist in many of the other recordings by Debussy. In *D'un cahier d'esquisses*, the melodic phrase marked “expressif (un peu en dehors)” is played with dislocations and arpeggiations (Fig. 5.6):

Fig. 5.6 *D'un cahier d'esquisses*, bars 45–47. (CD 2/7)

The musical score for Debussy's *D'un cahier d'esquisses* shows two staves for piano. The top staff is in treble clef and the bottom staff is in bass clef. Both staves are in common time and feature a key signature of four flats. The top staff begins with a dynamic of *pp*. The bottom staff begins with a dynamic of *ppp*. The music consists of eighth-note patterns. In bar 45, there is a melodic line with slurs and grace notes, followed by a series of eighth-note chords. In bar 47, there is another melodic line with slurs and grace notes, followed by a series of eighth-note chords. The score is annotated with the text "expressif (un peu en dehors)" above the staff.

Both instances of “doux et soutenu” (soft and supported), marked at the beginning of “Danseuses de Delphes” (Fig. 5.7) and in bars 32 to 36 of “La danse de Puck” (Fig. 5.1), correspond with arpeggiations:

Fig. 5.7 “Danseuses de Delphes,” bars 1–5. (CD 2/8)

- I.

Lent et grave ($\text{♩} = 44$) A* = arpeggiation (very fast and almost imperceptible)

doux et soutenu

A*

(1) (2) (3)

p

pp

p

10

A slight rallentando followed by an arpeggiation is also employed at the climaxes of the melody in the “Appassionato” section of *La plus que lente*, adding to the intensity of the music (Fig. 5.8):

Fig. 5.8 *La plus que lente*, bars 42–56. (CD 2/9)

Less generic indications occur in other pieces, such as “Golliwogg’s Cake-Walk.” In the section marked “avec une grande emotion” (with a great emotion), the dominant 9th chord and the added 6th chord are arpeggiated (very swiftly) to emphasise the added harmonies (Fig. 5.9):²⁰

²⁰ The implications of this to musical meaning will be discussed in a later chapter, where the use of arpeggiation coupled with other performing practices will be considered.

Fig. 5.9 “Golliwogg’s Cake-Walk,” bars 59–78. (CD 2/10)

59

Cédez
p avec une grande émotion

(very fast)

63 - - - a Tempo

p pp pp p pp

D^{b9}

Cédez - - - a Tempo

68 Cédez - - - a Tempo

f ff ff ff

73 Cédez - - - a Tempo Cédez - - -

p pp p p

77 - - - a Tempo Cédez - - - a Tempo

p pp f ff f f

G^b sus6

Also, in "La soirée dans Grenade," the section marked "avec plus d'abandon" (with more abandon) sees the use of dislocations and arpeggiations, the two

sometimes being difficult to distinguish. Different types and speeds of arpeggiation are used in this section. For instance, in bar 83, the two hands are arpeggiated as one sweep in a clearly spread-out manner; in bar 78, the right hand chord on the 3rd triplet quaver beat is swiftly arpeggiated; and in bar 73, the arpeggiation of the quaver chord is very fast and almost imperceptible (Fig. 5.10):

Fig. 5.10 “La soirée dans Grenade,” bars 67–86. (CD 2/11)

The musical score for "La soirée dans Grenade," bars 67–86, is presented in five staves of music for piano. The score includes dynamic markings such as *diss.*, *p*, *pp*, *Retenu*, *Tempo 1° (avec plus d'abandon)*, *cresc.*, *pp subito*, *poco cresc.*, and *(less fast)*. Articulation marks like *3* and *2* are also present. The piano keys are shown with black and white note heads, and the music is set against a background of vertical bar lines and measure numbers (65, 14, 69, 73, 78, 83).

Arpeggiation also adds a degree of casualness (associated with the indication “nonchalamment” in the beginning) to the rhythm in bar 69, where the bottom note of the right-hand chord is aligned with the beat, thus creating the effect of overdotting with the top note. The various ways in which arpeggiation is used throughout this section enhance the sense of freedom and abandon.

Arpeggiation is not only implied in the score by verbal descriptive indications, but also by previous notated arpeggiations. Earlier in “La soirée dans Grenade,” unnotated arpeggiations are made generously on the last quaver beat of each bar from bar 44 onwards, continuing the pattern of the notated arpeggiation in the preceding six bars. A similar case occurs in bars 51 to 52 (Fig. 5.11):

Fig. 5.11 “La soirée dans Grenade,” bars 36–52. (CD 2/12)

12

R:

136

*Très rythmé
en augmentant beaucoup*

mf

(notated) (notated) (notated)

41

(notated) (notated) (notated)

45

mf

(notated) (notated) (notated)

49

dim.

(less fast)

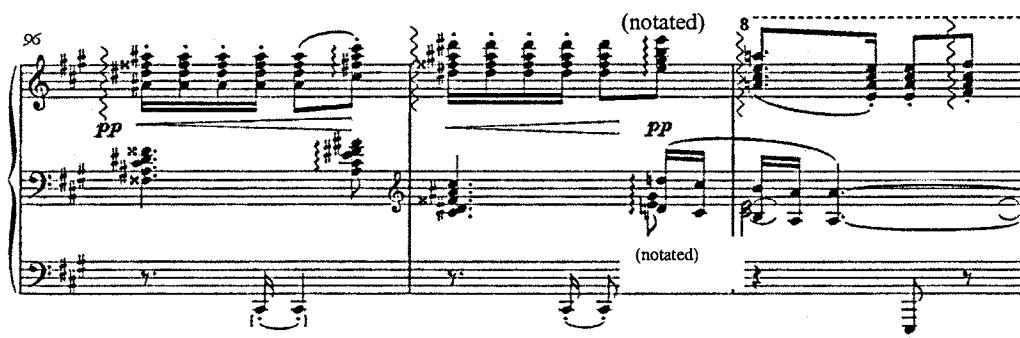
più dim.

(notated)

Unnotated arpeggiation used in association with harmonic, tempo-related and large-scale structural events

Elsewhere in “La soirée dans Grenade,” arpeggiation is used to highlight a new event such as a change of key. For instance, it marks the downbeats of bars 96 to 98 (Fig. 12):

Fig. 5.12 “La soirée dans Grenade,” bars 96–8. (CD 2/11, towards the end of the track)

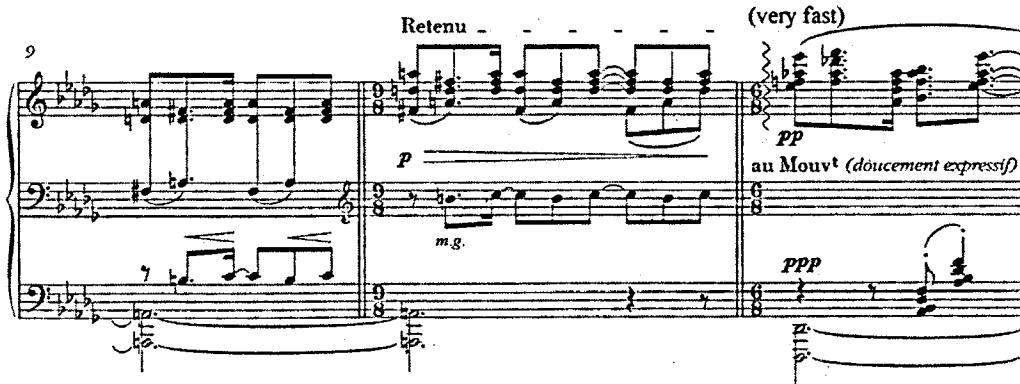


Arpeggiation is used in conjunction with a rallentando in bars 96 to 97, which signals the modulation to the new key of A major in bar 98. In the bars following this, arpeggiations continue in the style and character that has been established, thus unifying the section (CD 2/11). Here, Debussy takes liberties over which chords he arpeggiates; a sense of freedom and spontaneity is created where the fourth quaver beat is emphasised frequently, but not at every possible instance.

The use of arpeggiation to mark the arrival of a new key is also found in *D'un cahier d'esquisses*, where the arpeggiated right-hand chord in bar 11 signals the

start of the main melody marked “doucement expressif” (gently expressive), in the newly established home key of D flat (Fig. 5.13):

Fig. 5.13 *D'un cahier d'esquisses*, bars 9–11. (CD 2/13)



A change in tempo, “Cédez encore plus” (Yield even more), is highlighted with an arpeggiation in bar 84 of *La plus que lente* (Fig. 5.14). The arpeggiation also highlights a salient harmonic event: it coincides with the bar where the E pedal, heard in the preceding eight bars, is replaced by a stepwise climb (to an F#) in the bass. The harmony here is also special: while the same melody in bar 82 is harmonised by a chromatic embellishing chord²¹ that goes to an E⁹ in bar 83 (therefore still very much part of the dominant feeling), the F^{#7} +m2 in bar 84 is a

²¹More specifically, it is a common-tone diminished seventh chord to the E chord. For more information about the chromatic embellishing chord and the common-tone diminished seventh chords, See Chapter 30, “Other Chromatic Chords” under the headings of “Common-Tone Seventh Chords” and “Other Chromatic Embellishing Chords” in Edward Aldwell and Carl Schachter, *Harmony and Voice Leading*, 3rd ed. (Australia; United States: Thomson/Shirmer, 2003), 553–8. An example of the use of the common-tone diminished seventh chord in the same key is in Mendelssohn’s Rondo Capriccioso, Op. 14 given on page 553.

movement away from it, leading to a G[#]⁷ in bar 85. Thus, here, the arpeggiation is associated with a change in tempo and harmonic movement, and a halt of the pedal device (which are all related).

Moments later in bars 90 to 95²², a more complex instance of arpeggiation use is found in the transition to the recapitulation, in order to highlight the modulation to the home key (Fig. 5.14):

²² In Debussy's recording, bars 89 to 97 in the score are omitted. The musical example in Fig. 5.14 is taken from Appendix A, "La plus que lente, version from Welte-Mignon piano roll," in the new Durand *Oeuvres completes de Claude Debussy* edition. Claude Debussy, *Oeuvres completes de Claude Debussy*, Série I (Œuvres pour piano), Vol. 4, *Morceau de concours; The little nigar ; Hommage à Haydn ; La plus que lente ; Six épigraphes antiques ; Berceuse héroïque ; Pour l'œuvre du Vêtement du blessé ; Elégie ; Les soirs illuminés par l'ardeur du charbon ; Intermède*, ed. Christophe Grabowski (Paris: Durand, c2004). This edition, based on the piano roll, takes into account of Debussy's cut of bars 90-7. Note that the arpeggiation signs in bars 90 and 94 of Howat's edition did not exist in the original score.

Fig. 5.14 *La plus que lente*, bars 82–95. (CD 2/14)

Chord Quality = C.T.^⁹ — E^⁹ (V^⁹) F#^{⁹+m2} G#^⁹

Tempo animé En retenant

Bm^⁹ (V^⁹ of V) B^⁹ C^⁹

Très retenu

A C A^⁹ (D^{b⁹})

In the enharmonic transition back to the home key of D flat major (bars 90–5), arpeggiation is used to mark almost every instance of the appoggiatura,²³ highlighting the chromaticism and adding to the sense of unresolvedness. An outline of bars 90 to 96 are given below²⁴ (Fig. 5.15):

²³ The A in bar 93 is difficult to hear in the recording and thus it cannot be determined whether or not the chord is arpeggiated. Note that in bar 91, the C natural is a passing note.

²⁴ Note that in the recording, the E sharp and G sharp of the second crotchet beat in bar 91 are missing.

Fig. 5.15 *La plus que lente*, harmonic outline of bars 90–6.

Thus, arpeggiation is used to emphasise a change of key or tempo, and to highlight structural events.

Unnotated arpeggiation used in association with small-scale structural events

On a smaller scale, arpeggiation is used to “mark the limits of phrases” (in Peres Da Costa’s words) and of melodies. At the beginning of “Danseuses de Delphes” (see Fig. 5.7), the steady chordal crotchets forming the antecedent phrase in the low register are answered by the *pp* consequent phrase in the higher register in bar 4. The use of a swift arpeggio here delineates the start of this consequent phrase. In its second appearance in bars 9—this time marked *mf*—arpeggiation is used on almost each quaver beat, giving a softened effect to the more loudly executed chords.

In “La soirée dans Grenade,” the less swift arpeggiation of the downbeat in bar 50 marks not only the end of the melody, but also the breaking of the repeating one-bar rhythmic pattern in bars 45 to 49 (see Fig. 5.11). Another arpeggiation,

albeit more swift, of the downbeat is heard again in the next bar (bar 51),

highlighting the repetition of the melodic idea in bar 50.

Unnotated arpeggiation used to create variety

In addition to using arpeggiation for highlighting the start and end of melodies, the above two examples also show that variations in frequency (in “Danseuses de Delphes”) and speed (in “La soirée dans Grenade”) of arpeggiation are used to create contrast in repetition. This also occurs in other places; for instance, varying degrees of arpeggiation of the bell-like octave C-sharps in the right hand can be heard in the beginning of “La soirée dans Grenade” (Fig. 5.16). This gives different flavours to the repeating bells, and highlights a salient musical event: the last occasion in bar 14 is arpeggiated in a more spread-out manner, perhaps to signify the last instance of the octaves C-sharps in the highest register:

Fig. 5.16 “La soirée dans Grenade,” bars 1–18. (CD 2/15)

La soirée dans Grenade . . .

*Mouvement de Habanera
(Commencer lentement dans un rythme nonchalamment gracieux)*

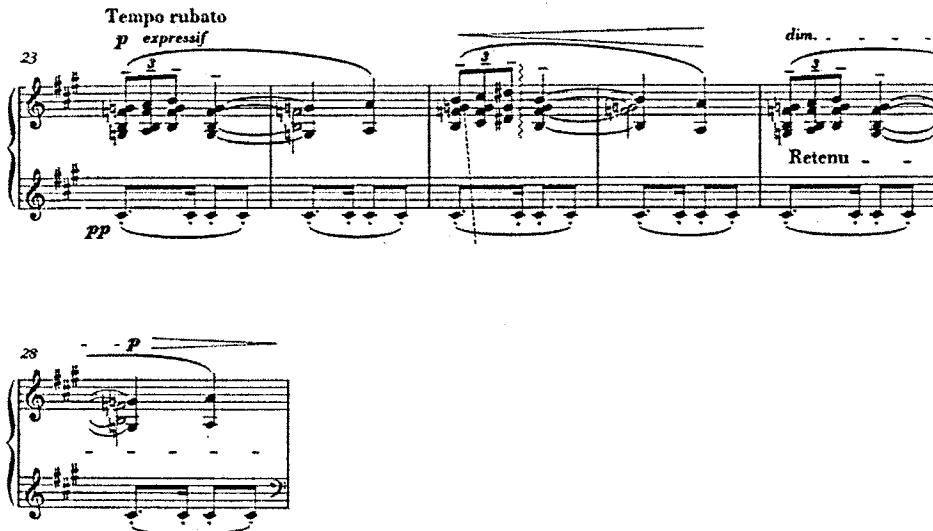
(slower)

15 Retenu - - - - Tempo giusto

Additionally, variety is created in sequential writing through the use of arpeggiation in “La soirée dans Grenade.” This can be seen between bars 23 and 28, where the second sequence, transposed up a major third from the first, sees an arpeggiation of the right-hand chord on the second crotchet beat. This also

highlights the clash of the minor 7th between the B in the right hand and the C# in the left hand (Fig. 5.17):

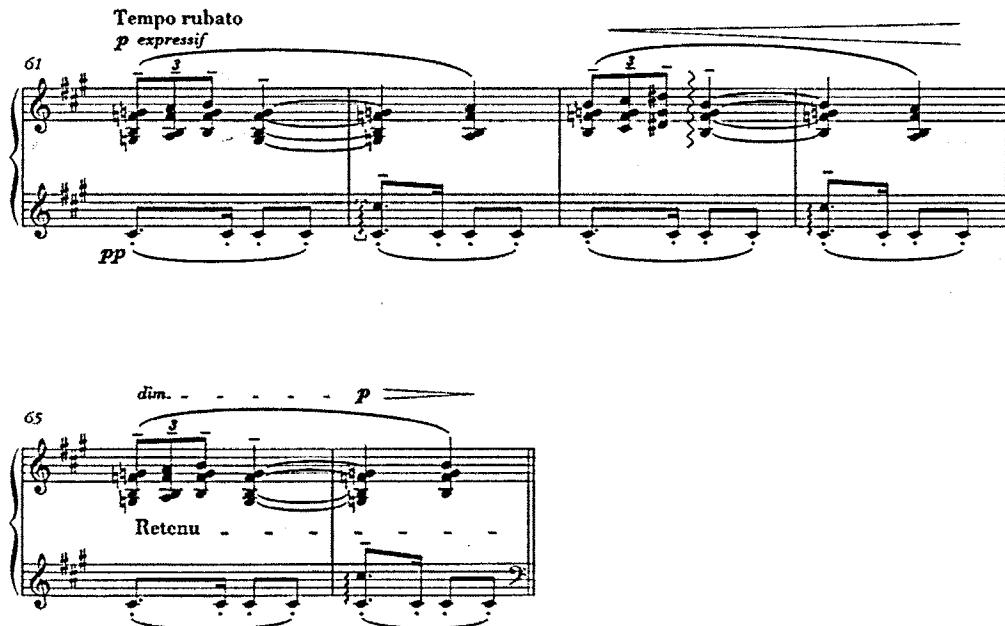
Fig. 5.17 “La soirée dans Grenade,” bars 23–8. (CD 2/12)



Unnotated arpeggiation used to create unity

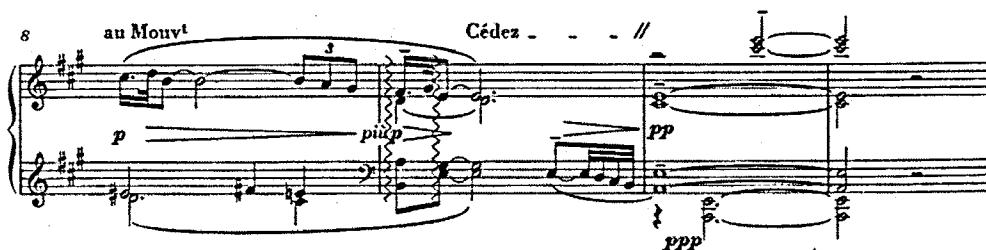
As in the case of dislocation, the above six-bar segment is repeated in exactly the same manner with respect to arpeggiation between bars 61 and 66, strengthening its identity and creates a sense of unity of character (Fig. 5.18):

Fig. 5.18 "La soirée dans Grenade," bars 61–6. (CD 2/11)



The identical execution of arpeggiation with a repeating phrase is heard in the opening and the coda of "The Little Shepherd." Here both chords in the feminine cadence of V of V going to V are swiftly arpeggiated, producing a softened effect (Fig. 5.19):

Fig. 5.19 "The Little Shepherd," bars 8–11. (CD 2/16)

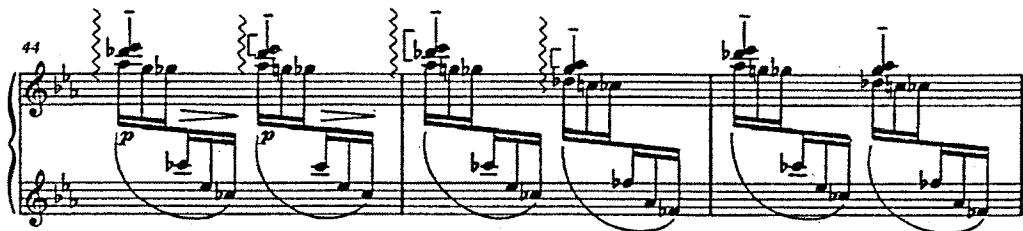


This practise is repeated exactly at the end of the work in bar 29, conjuring up exactly the same character. Thus, both variety and unity are achieved by Debussy through different uses of arpeggiation.

Unnotated arpeggiation used to distinguish layers in multi-layered texture

Among the pieces that contain arpeggiation, almost half of them include its use as a means of differentiating between voices in multi-layered textures. In “La danse de Puck” and “Golliwogg’s Cake-Walk,” arpeggiation separates two voices that occur in one hand (Figs. 5.20 and 5.21). In the latter case, the arpeggiation of the chord also appears to herald the grace notes that occur two bars later.

Fig. 5.20 “La danse de Puck,” bars 44–6. (CD 2/17)²⁵



²⁵ The excerpt here will be taken from Denis Hall’s recording as the treble notes can be heard more clearly in this instance. Gabriel Faure and Claude Debussy, *Gabriel Faure & Claude Debussy*.

Fig. 5.21 “Golliwogg’s Cake-Walk,” bars 47–58. (CD 2/18)

80

Un peu moins vite

(arpeggiation is of the same speed as grace note played against main chord)

47

51

55

The separation of accompaniment from the melody occurring in one hand through arpeggiation can be heard in *La plus que lente*, “Serenade for the Doll” and “Le vent dans la plaine.” In *La plus que lente*, not all notes are arpeggiated: only the single melody note is separate from the synchronously played accompanimental thirds (Figs. 5.22–4):

Fig. 5.22 *La plus que lente*, bars 1–5. (CD 2/2)

Lent (Molto rubato. Con morbidezza)

Fig. 5.23 “Serenade for the Doll,” bars 49–60. (CD 2/19)

The musical score consists of three staves of piano music. The top staff begins at bar 49 with a dynamic of *p*. The middle staff begins at bar 53 with the instruction "En animant un peu" above the first measure. The bottom staff begins at bar 57 with a dynamic of *p*. The score features sustained bass notes with grace notes and eighth-note patterns in the treble and bass staves. Measure 49 ends with a fermata over the bass note. Measure 53 starts with a fermata over the bass note. Measure 57 starts with a fermata over the bass note. The score concludes with a final fermata over the bass note in bar 60.

Fig. 5.24 “Le vent dans la plaine,” bars 35–41. (CD 2/20)

The musical score consists of four staves of piano music, each with a treble clef and a key signature of one sharp. The first staff (top) shows a melodic line with eighth-note patterns, dynamic markings 'dim.' and 'molto', and a crescendo line above the notes. The second staff (middle) shows a harmonic line with sustained notes and a dynamic 'p'. The third staff (bottom) shows a harmonic line with sustained notes and a dynamic 'p'. The fourth staff (bottom) shows a harmonic line with sustained notes and a dynamic 'p'. The measures are numbered 35, 37, 39, and 41 respectively.

Thus, in addition to creating colouristic, expressive and structural effects, arpeggiation also serves the more pianistic and practical purpose of differentiating between voices in the one hand.

5.4 Conclusion

Debussy's use of unnotated arpeggiation is similar in function to other pianists of the nineteenth century and early-twentieth centuries. Unnotated arpeggiation is used for the following effects:

- To create a gentle and delicate effect,
- To drive the music forward,
- To differentiate between different voices in multi-layered textures, and
- To create a feeling of broadening, often used in conjunction with a slowing down of tempo.

The above effects are similar to those that are noted by Brée in Section 5.1.

Arpeggiation is also used to:

- Clarify the melody,
- Intensify an expressive melody,
- Lessen the rigidity of regular chordal patterns,
- Enhance the texture and sonority,
- Decrease the hardness of the chords,
- Contrast synchronously played chords for variety, and to create a sense of casualness and abandon,
- Make an association to grace notes, and
- Create effects indicated by verbal and musical indications.

Arpeggiation is also associated with structural and harmonic events; it is used to:

- Intensify the climax,
- Mark:
 - the start or end of a section or phrase, and
 - the end of a repeated rhythmic pattern,
- Create:
 - contrast between different sections, and
 - variation in repeating phrases or sequential writing,
- Bring about unity and strengthen the identity of a phrase or section when the arpeggio is executed in a similar way upon its recurrence,
- And highlight:
 - feminine cadence points,
 - modulations or changes in tempo,
 - special harmonies, and
 - chromatic and unresolved harmonic progressions.

The comparison between the above lists and that by Peres Da Costa in Section 5.1 shows similarities in the effects and purposes of arpeggiation use. In execution, the frequency of Debussy's arpeggios varies vastly from piece to piece, they are generally swift and almost together (*presque plaqué*), which is in concordance with many treatises and texts instructing the use of unnotated arpeggiation.²⁶ In addition to the specific effects listed above, the swiftness of

²⁶ For instance, in *L'Art du chant*, Thalberg remarks that “The chords which carry a song or melody to the higher note should always be played in arpeggio fashion, but very tight and almost together...” Sigismund Thalberg, *L'Art du*

the arpeggios generally imparts a vibrancy and aliveness to the chords.

Therefore, in contrast to the current notion that only notated arpeggiations should be made in Debussy's compositions, his recordings show that unnotated arpeggiations are very much part of his performing practices, used in his own works.

chant appliqu  au piano, Op. 70, 1st series (Paris: 1853), quoted in Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 113.

ANALYSIS PART II:

Rubato practices: metrical rubato and tempo modification

Introduction to Analysis Part II

While tempo modification is both familiar to and utilised by pianists today, metrical rubato has generally lost popularity.¹ However, numerous nineteenth-century written texts reveal a higher regard for metrical rubato. For example, it was described as “the more beautiful of the two...the truly artistic *rubato*” in Adolphe Christiani’s *The Principles of Expression in Piano Playing* (1885).² Both types of rubato are documented as having been practised extensively around the turn of the twentieth century, and recordings of late Romantic pianists such as Saint-Saëns, Leschetizky and Pugno also reveal their widespread use.

In his book *Stolen Time*, Richard Hudson speculates that Debussy had a preference for tempo modification, and that his rubato was “sensual and smooth and not jerky or capricious.” Instantaneous lengthening of notes was also generally not used by Debussy, according to Hudson.³

Contrary to Hudson’s opinions, Debussy would have been familiar with both forms of rubato, since the pianist that he held in the highest regard, Franz Liszt, was a master of both types. Indeed, in the recordings, Debussy’s rubato is heard to “accentuate” “instantaneous events,” in both “sensual and smooth” and “jerky or capricious” forms, and does more than “simply” “characteriz[ing] one passage in contrast to another.”⁴ Part II of the Analysis will demonstrate that Debussy

¹ Hudson, *Stolen Time*, 1.

² Adolphe Christiani, *The Principles of Expression in Pianoforte Playing* (New York: Harper & Brothers, 1885), 299.

³ Hudson, *Stolen Time*, 354.

⁴ Hudson, *Stolen Time*, 354.

practises both types of rubato extensively in the style of late nineteenth century performing practices.

Chapter 6

Metrical rubato and rhythmic alteration⁵

6.1 Historical roots: metrical rubato in vocal music

Metrical rubato is often linked to the practice of singers – the type who “retards and accelerates, at almost every moment,” while the accompaniment moves on “steadily.”⁶ Treatises such as *Traité complet de l’art du chant*⁷ and its English version *New Treatise of the Art of Singing*⁸ by the prominent singing teacher Manuel García describe the use of rhythmic alterations in the melody—such as tripletising, dotting, accelerandos, rallentandos, and prolongations of prominent notes—in order to:

- i. vary passages containing even notes,
- ii. emphasise single notes such as those on long syllables and those of harmonic significance,
- iii. prevent monotony,
- iv. change the character of a melody,

⁵ In addition to metrical rubato that is applied to the traditional melody-and-accompaniment texture, I will also include in this chapter other types of rhythmic alteration that do not affect the sense of pulse. There are, of course, rhythmic alterations that *do* affect the sense of pulse; however, this will be dealt with in Chapter 7. Although the division between metrical rubato and tempo modification may seem artificial at times, I have chosen to do so because of the strong historical precedence in their separation and comparison with each other.

⁶ Adolph F. Christiani, *The Principles of Expression in Pianoforte Playing* (London: W. Reeves, 1886), 300.

⁷ Manuel García, *Traité Complet De L’art Du Chant* (Paris and London: Schott, 1847).

⁸ ———, *García’s New Treatise on the Art of Singing* (London: Hutchings and Romer, 1957).

- v. enhance the colour and variety of melodies,
- vi. intensify passionate melodies,
- vii. vary phrases,
- viii. energise final cadences, and
- ix. enhance brilliance in the instance of commencing a trill earlier than written.⁹

While the singer sings the melody with rhythmic freedom, the accompaniment should characteristically keep in strict time.

6.2 Debussy as accompanist: metrical rubato in his electrical recordings

Indeed, the electrical recordings of Debussy accompanying Mary Garden in “Green,” “L’Ombre des Arbres” and “Il pleure dans mon cœur” reveal such an application of metrical rubato. A study of the score of “Green” reveals an ongoing tension between the duplets of the voice and the straight quavers of the piano accompaniment. However, the tripletisation of the duplets decreases this tension, placing more significance on the emphasis of certain syllables, the “joyful” (as implied by the indication “Joyeusement animé”) character brought out by the rhythmic energisation of the melody and the fluidity of the singing (Fig. 6.1):

⁹ List taken and adapted from Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 237-8.

Fig. 6.1 “Green,” bars 1–14. (CD 3/1)

PAUL VERLAINE

Joyeusement animé

Voice

PIANO

pp leggierissimo

(s) *(p)*

Vol . ci des fruits des fleurs des feuil . les et — des bran . ches

pp *pp*

p *p* *rit.*

Et puis vol . ci mon cœur qui ne bat que pour vous — *rit.* *dim.*

a tempo

Ne le dé . chi.rez pas

a tempo

pp *pp*

The prolongation of certain syllables can also be seen in bars 32 and 34 of *Il pleure dans mon cœur*, where the dotting of crotchets in the same position of the bar highlights the motivic connection between the rise from C sharp to E and the rise from D sharp to E (Fig. 6.2):

Fig. 6.2 “Il pleure dans mon Coeur,” bars 31–6. (CD 3/2)

A musical score for voice and piano, showing four staves of music. The top staff is for the voice, with lyrics: "Pour un cœur qui sen - nui - e". The second staff is for the piano, marked "pp". The third staff is for the piano, marked "f". The bottom staff is for the piano, marked "pp". The score includes dynamic markings like *p* and *f*, and performance instructions like "dotting" of notes.

A higher frequency of tripletisation and dotting can be found in the slower “L’Ombre des Arbres,” giving a sense of freedom and expressiveness to the

otherwise rigid-sounding rhythms in the voice. In bar 3, the tripletising of the quavers causes asynchrony with the piano accompaniment (Fig. 6.3):

Fig. 6.3 "L'Ombre des Arbres," bars 1–8. (CD 3/3)

3. L'Ombre des Arbres

(Original key)

*Le rossignol qui du haut d'une
branche se regarde dedans, croit
être tombé dans la rivière. Il est
au sommet d'un chêne et toute fois
il a peur de se noyer.*
(CYRANO de BERGERAC)

PAUL VERLAINE

Lent et triste *pp*

Voice

L'ombre des arbres dans l'air - vière émbrumé - e

PIANO

Lent et triste *pp*

Meurt comme de la fu - mé - e, Tan dis qu'en l'air, par - mi les ramures réelles

This asynchrony can also be heard in the section marked ‘caressant’ in “Green,” where the consequence of lengthening of the high A flat is an extended asynchrony between the voice and piano. The two reunite in the following bar (Fig. 6.4):

Fig. 6.4 “Green,” bars 40–7. (CD 3/4)

The musical score for "Green" shows two staves. The top staff is for the voice, and the bottom staff is for the piano. The vocal line begins with an "Andantino" marking. Above the vocal line, the word "caressant" is written with a curved line above the notes. The piano accompaniment has "pp" (pianissimo) markings. In the vocal line, there is a dynamic marking "longened (p)" with a circled "p" and a curved line above the notes. The lyrics "Sur vo_tre jeu_ne sein, lais_sez rouler ma té_te Tou_te so_nore en_co_re" are written below the vocal line. The piano accompaniment continues with "pp" markings and includes some rhythmic patterns with eighth and sixteenth notes.

The example in “Green” corresponds to the description of rubato by pedagogue Franklin Taylor in *Technique And Expression in Pianoforte Playing* (1897). He states that it is “quite possible that no note of a *rubato* melody will fall exactly together with its corresponding note in the accompaniment, except perhaps, the

first note in each bar.”¹⁰ The asynchrony between the voice and piano gives the effect of melodic freedom and intensifies the “caressing” character and the tenderness of the moment.

In the three pieces above, Mary Garden’s use of rhythmic alteration against Debussy’s steady accompaniment creates a sense of freedom, increases expressiveness and brings out the character of the melody. It also highlights features of the melodic contour and increases the sense of fluidity by blending with the rhythm of the piano through tripletisation. Certainly, these three songs reveal instances of metrical rubato that accord with Garcia’s descriptions. Thus, in keeping with Garcia, metrical rubato is effected in Debussy and Garden’s performances — Debussy fulfils the role of the accompanist who “keeps strict time”¹¹ to maintain a “monotonous ground” while Garden “stands out in relief.”¹²

Whether Debussy is fulfilling the role of accompanist or soloist is a crucial consideration to the study of metrical rubato; in the latter, the contrast between the expressive melody and the steady accompaniment is produced by Debussy alone. As mentioned in Chapter 3, Roy Howat uses the difference in Debussy’s playing as evidence against the credibility of the piano rolls; however, the discrepancy could well be due to the differences in role and performing practices of the accompanist and the soloist. The above shows that Debussy and Garden do indeed perform in accordance to late-Romantic conventions. As will be shown

¹⁰ Franklin Taylor, *Technique and Expression in Pianoforte Playing* (London: Novello, 1897), 72-3.

¹¹ Hudson, *Stolen Time*, 42.

¹² García, *García’s New Treatise on the Art of Singing*, 50.

below, in instances of metrical rubato, the relationship between the accompaniment and the melody, whether they be the singer and the pianist, or the right hand and the left hand, is clearly an opposition between an unostentatious, strict background and an expressive, free foreground.

6.3 Historical context for metrical rubato used in solo piano repertoire

In surveying a selection of recordings made at the turn of the twentieth century, Peres Da Costa points out that:

Metrical rubato was used in Classical and Romantic repertoire in which the character and texture of the accompaniment is sufficiently different from the melody to allow rhythmic independence, less so in Baroque and some types of Contemporary repertoire for which a stricter style seems to have been preferred.¹³

In relation to Debussy's solo recordings, two questions arise from this statement. First, did Debussy use metrical rubato in a similar way to that which was employed in Classical and Romantic repertoire? Or did he prefer "a stricter style" for his own music? Second, what sort of character and texture of the accompaniment are associated with the rhythmic independence or alteration of the melody?

¹³ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 219.

Debussy's preoccupation with Frederic Chopin's method of playing, "particularly Chopin's phrasing"¹⁴ as elucidated by Long, perhaps provides a partial answer to the first question. Chopin was regarded by his contemporaries as a master of metrical rubato, as seen in the account by Carl Mikuli, Chopin's student and teaching assistant:

Even in his oft-decried *tempo rubato* one hand — that having the accompaniment — always played on in strict time, while the other, singing the melody, either hesitated as if undecided, or with increased animation, anticipating with a kind of impatient vehemence as if in passionate utterances, maintained the freedom of musical expression from the fetters of strict regularity.¹⁵

The following description of Debussy's rubato by Long suggests that Debussy used metrical rubato in a similar style to that of Chopin:

...This delicate *rubato* is difficult to obtain in both Chopin and Debussy. It is confined by a rigorous precision, in almost the same way as a stream is the captive of its banks. *Rubato* does not mean alteration of time or measure, but of nuance or *élan*.¹⁶

¹⁴ Long, *At the Piano with Debussy*, 19.

¹⁵ Carl Mikuli. 'Vorwort' to *F. Chopin's Pianoforte-Werke*, 17 Vols. (Leipzig, 1880), trans. as 'Introductory Notes' to *Frederic Chopin Complete Works for the Piano* (New York: G. Schirmer, 1895), unpaginated [1].

¹⁶ Long, *At the Piano with Debussy*, 19.

Her mention of Chopin and Debussy's rubato collectively, the description of rubato having "rigorous precision" and the differentiation from an "alteration of time and measure" (implying tempo modification), strongly suggest that Debussy favoured the use of metrical rubato.

Metrical rubato can be considered under three categories: small-scale alteration, inequality and large-scale alteration.¹⁷ Rhythmic alteration heard in the three songs affect the position of notes occurring within a bar; thus, they are instances of small-scale alteration. Techniques of small-scale alteration are listed in the following table, which draws upon the discussion of early-twentieth-century recordings by Peres Da Costa in his dissertation (Table 6.1):

¹⁷ This categorisation can be seen in various texts such as in García's *New Treatise*. Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 227.

Table 6.1 Types of small-scale alteration and possible intended effects.

Technique	Possible intended effect
The lengthening of a note and consequent displacement or shortening of other(s)	<ul style="list-style-type: none"> • emphasises the lengthened note¹⁸ • creates rhythmic tension such as hemiolas with accompaniment¹⁹ • emphasises harmonic dissonance with bass²⁰
The anticipation of a note	<ul style="list-style-type: none"> • creates syncopation and emphasises chromatic shifts in the melody²¹
The accelerando of running notes followed by a compensatory lengthening of a consequent note	<ul style="list-style-type: none"> • creates a dramatic rushing effect²²
The dotting of a pair of equal notes where: <ul style="list-style-type: none"> • the 1st note is dotted • the 2nd note is dotted 	<ul style="list-style-type: none"> • emphasises the following downbeat²³ • creates a “passionate fiery snap”²⁴
The tripletising of: <ul style="list-style-type: none"> • a pair of notes that are dotted • two equal notes 	<ul style="list-style-type: none"> • assimilates rhythm to the triplets in the accompaniment²⁵ • gives a lilt to the melody²⁶
The overdotting of dotted notes	<ul style="list-style-type: none"> • creates a dramatic effect²⁷
The start of a trill before the notated note position	<ul style="list-style-type: none"> • increases the shimmering effect of the trill²⁸

Large-scale alteration, on the other hand, is the extended use of the above techniques so that the positions of notes are affected continuously for more than a bar. Inequality is the practice of playing equal-valued notes slightly unequally,

¹⁸ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 244.

¹⁹ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 252.

²⁰ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 258.

²¹ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 245-6.

²² Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 253.

²³ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 263.

²⁴ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 253.

²⁵ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 272.

²⁶ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 249.

²⁷ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 267.

²⁸ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 251.

pairing the notes into a “long-short” pattern, a “short-long” pattern, or a mix of both. This practice is associated historically with the inflection of language in such a way that certain syllables are highlighted by a slight lengthening, whilst others are de-emphasised by shortening.²⁹

Both small-scale alteration and inequality are employed by Debussy in his piano rolls, where he is now the soloist instead of the accompanist who keeps strict time. Large-scale alteration is rarely heard, if at all. A possible explanation for this is that Debussy’s use of tempo modification ensures rhythmic alteration does not “spill” over the bar. Instead, the left hand follows the whims and freedom of the right hand at particular instances so that they are metrically synchronised at the start of the bar (dislocations are, however, noticeable³⁰). The piece with the most noticeable rhythmic alteration in the piano rolls is *La plus que lente*.

6.4 The waltz and “Molto Rubato” in *La plus que lente (Valse)*

Dotting and Tripletising

Large amounts of metrical alteration (and tempo modification, as will be discussed in the next chapter) can be heard in *La plus que lente*, in contradiction to Schmitz’s advice:

In the performance, *subtle* amounts of rubato, allargando, and contrasting animation must follow Debussy’s indications and the

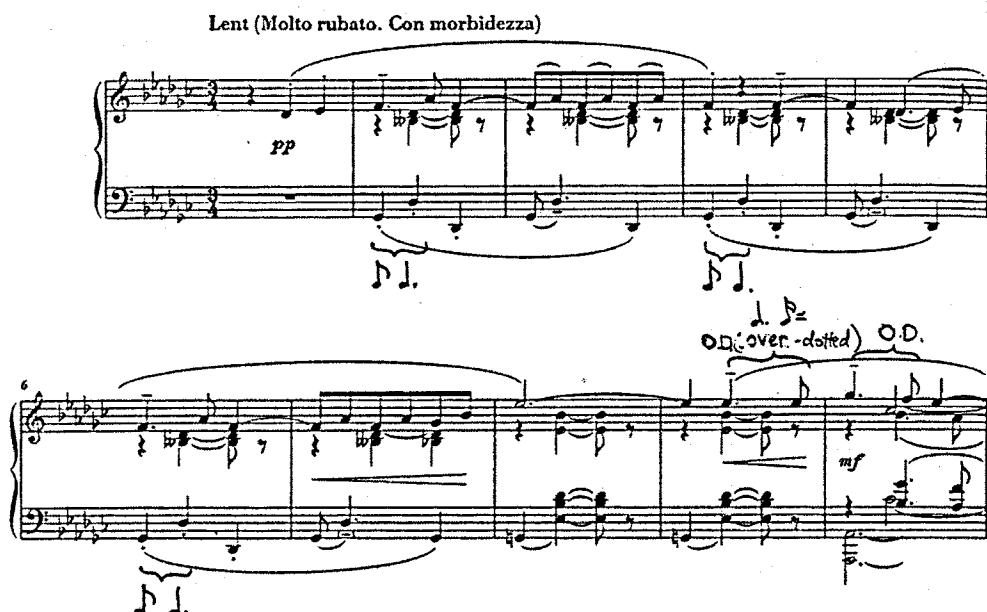
²⁹ Charles de Bériot, *Méthode De Violon* (Mainz: Schott, 1858).

³⁰ The issue of whether an instance is classified as dislocation or rhythmic alteration is dependent on the context, as will be apparent in the individual examples.

multiple curves and allusions of the melodies without losing the basic, and most danceable, waltz spirit.³¹

La plus que lente (Valse) contains two prominent features that would admit the generous use of metrical rubato and tempo modification: it being in the waltz genre and its tempo indication of “molto rubato.” The genre of waltz calls for the characteristic shortening of the first beat in the bass, and this can be seen in the unwritten adaptation of the dotted rhythm of bars 2 and 4 in all of the opening bars (Fig. 6.5):

Fig. 6.5 *La plus que lente*, bars 1–10. (CD 3/5).



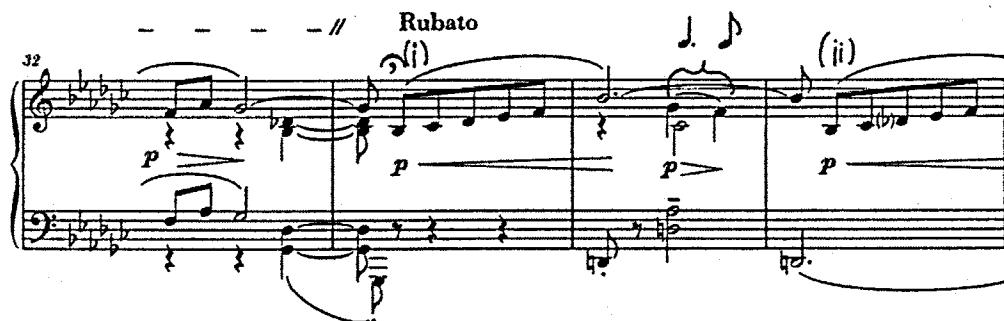
³¹ Schmitz, *The Piano Works of Claude Debussy*, 128. (Italics mine)

Indeed, this corresponds to Brée's advice that:

An abbreviation of the first beat *after* striking it is permitted in waltz rhythm, for instance, by accenting the bass tone in the accompaniment and rapidly carrying it over to the second beat; the resulting — however slight — abbreviation of the first beat may here be made good by throwing the wrist upward; then strike the third beat somewhat more lightly, *staccato*, and in exact time. By the wrist-movement one gives the accompaniment "swing"; but guard against overdoing it, otherwise the rhythmic effect becomes trivial.³²

Interestingly, however, Debussy at times treats the third beat "lightly" by dotting the second beat and shortening the third beat in the accompaniment (Fig. 6.6):

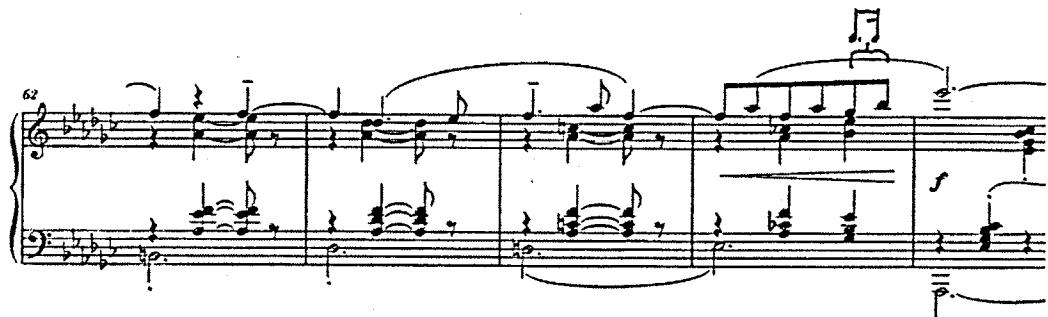
Fig. 6.6 *La plus que lente*, bars 32–5. (CD 3/5)



³² Brée, *Die Grundlage Der Methode Leschetizky*, 70-1.

Quavers are also dotted to create a lilting rhythm and give emphasis to the downbeat (Fig. 6.7):

Fig. 6.7 *La plus que lente*, bars 62–5. (CD 3/5)



A similar lilting effect is also created through tripletising (Figs. 6.8 and 6.9):

Fig. 6.8 *La plus que lente*, bars 14–6. (CD 3/5)

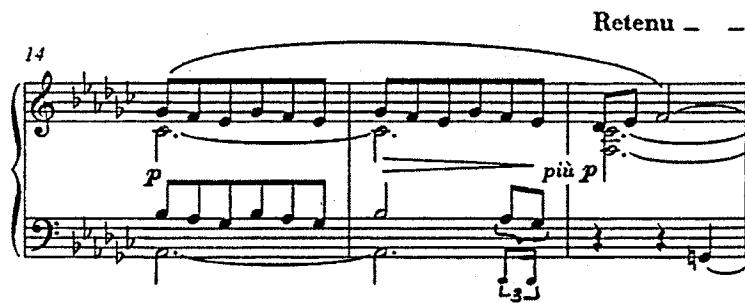
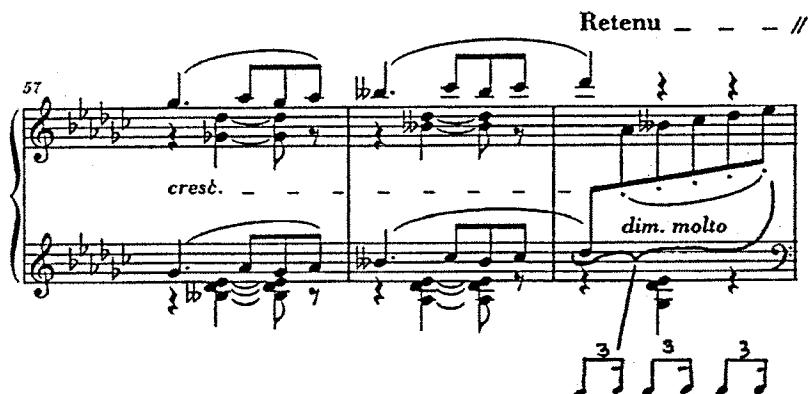


Fig. 6.9 *La plus que lente*, bars 57–9. (CD 3/5)



These effects are similar to those that are found in some early-twentieth century recordings (Figs. 6.10 and 6.11):

Fig. 6.10 Chopin *Nocturne* Op. 15 No. 2, bar 2, Pugno, acoustic recording, 1903, example of dotting.³³ (CD 3/6)

³³ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 266.

Fig. 6.11 Chopin *Nocturne* Op. 15 No.2, bars 1 to 5, Saint-Saëns, piano roll, 1905, example of tripletising.³⁴ (CD 3/7)

Varying combinations of rhythmic alteration

A more complex alteration of rhythm can be seen in the build-up to the “Appassionato” climax in bars 33 to 45 of *La plus que lente*, where the five-quaver gesture is altered in a different way each time it recurs. The rhythmic

alteration of the first phrase in bar 33 is akin to this rhythm: .

However, the expressiveness of this gesture gradually gives way to a gushing forth of energy produced by an accelerando, where the rhythmic alteration of the

³⁴ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 270.

phrase becomes less and less distinctive. This can be heard in CD 3/5 (Fig. 6.12)

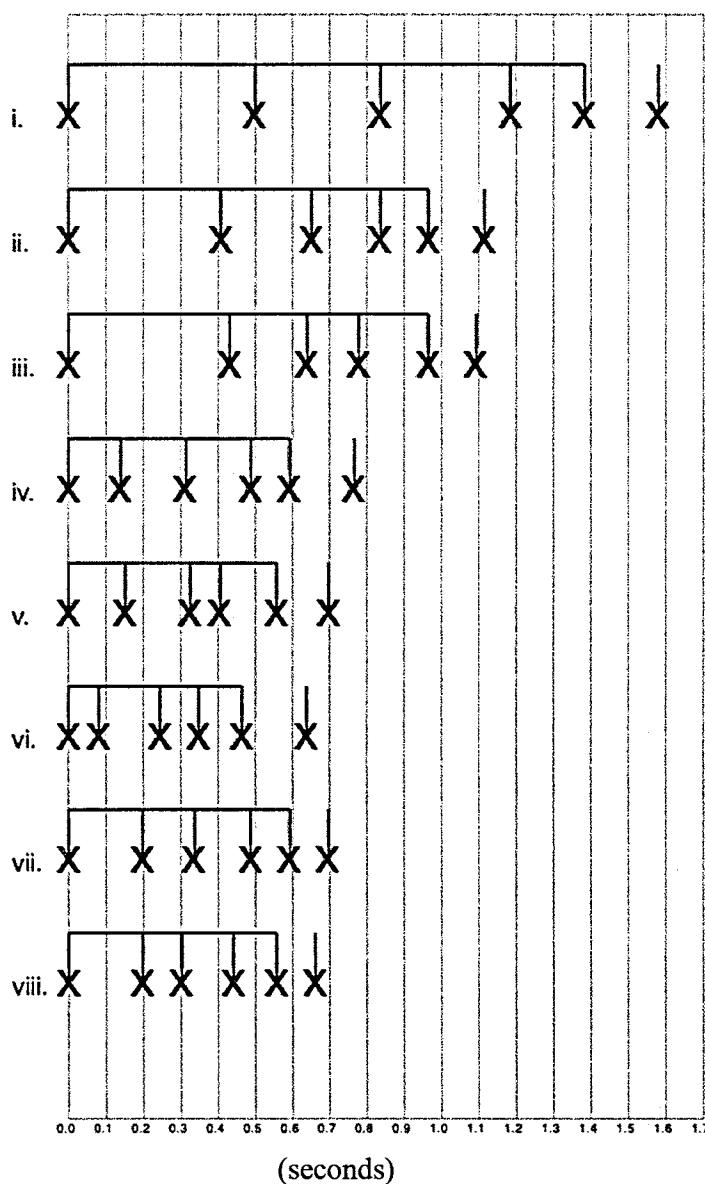
and visualised in Fig. 6.13:

Fig. 6.12 *La plus que lente*, bars 32–46. (CD 3/5)

The musical score consists of three staves of music for piano, spanning from bar 32 to bar 46. The key signature is A-flat major (three flats). The first staff begins with a dynamic of p . The second staff starts with a dynamic of p . The third staff starts with a dynamic of p . The music features various performance instructions and markings:

- Bar 32: "Rubato" above the first staff.
- Bar 32: Measures 1-2 show melodic lines with dynamics p .
- Bar 33: Measure 3 shows a melodic line with dynamics p .
- Bar 34: Measures 4-5 show melodic lines with dynamics p .
- Bar 35: Measure 6 shows a melodic line with dynamics p .
- Bar 36: Measures 7-8 show melodic lines with dynamics p .
- Bar 37: Measure 9 shows a melodic line with dynamics p .
- Bar 37: Measure 10: "En serrant" above the first staff.
- Bar 37: Measures 11-12: "cre scen do" below the first staff.
- Bar 37: Measures 13-14: "Rubato" above the first staff.
- Bar 38: Measures 15-16: "Appassionato" above the first staff.
- Bar 38: Measures 17-18: "Appassionato" above the first staff.

Fig. 6.13 Spatial representation of duration of notes for each of the eight phrases
in bars 33–45 of *La plus que lente*.



In the above graph, there is a general trend that the spaces between the notes become more and more equal. This may be difficult to perceive aurally because of the accelerando that is coupled with the rhythmic alteration; however, the trend is manifested clearly in the normalised standard deviations, which is a

measurement of the degree of rhythmic alteration relative to its phrase length (that is, the bigger the number, the more the rhythm is altered). The following normalised standard deviation calculations (Table 6.2) show that there is a marked decrease in alteration in bar 38 (phrase iv), with the indication “En serrant” (while tightening):

Table 6.2 Normalised standard deviation of notes in a phrase³⁵.

Phrase	Normalised standard deviation (Standard Deviation / Duration of phrase)
i	0.080
ii	0.100
iii	0.113
iv	0.041
v	0.050
vi	0.062
vii	0.055
viii	0.059

The normalised standard deviation in the “Rubato” segment from bars 3 to 7 (phrases i–iii) are significantly higher than those from “En serrant” onwards (phrases iv–viii). This shows a direct correlation between Debussy’s use of rhythmic alteration and his indication of tempo and character. While phrases i to iii are more rhythmically altered to bring out the meandering, expressive quality of the “Rubato” segment, a build-up of energy and momentum towards the “Apassionato” section in phrases iv to viii take over through a quickening of pace and a lesser use of rhythmic alteration. Moreover, the most rhythmically altered phrase is phrase iii, which begins slowly, but accelerates in the anticipation of the

³⁵ See Appendix I for full table of calculations.

“En serrant” indication. Thus, in these sixteen bars, the transition in character as indicated by the score notation is brought out by the change in rhythmic alteration, highlighting the correlation between the degree of rhythmic alteration and expressiveness.

The lengthening of a note and rhythmic groupings of equal notes

Another instance where a recurring idea is rhythmically altered in different ways is the six-bar phrase first heard in bars 27 to 32 of *La plus que lente*, which subsequently recurs two other times (Figs. 6.14–16):

Fig. 6.14 *La plus que lente*, bars 27–33. (CD 3/5)

Fig. 6.15 *La plus que lente*, bars 67–76. (CD 3/5)

Musical score for bars 67–76 of *La plus que lente*. The score consists of two staves: treble and bass. The key signature is B-flat major (two flats). The tempo instruction "En serrant" is at the top of the page.

Bar 67: Dynamics include *dim.* (diminuendo), *p* (pianissimo), *légé* (light), and *grouped* (grouped notes).

Bar 72: Dynamics include *p* (pianissimo), *pp* (pianississimo), and *p* (pianissimo).

Tempo markings: "Retenu" (held) and "En animant" (animating).

Fig. 6.16 *La plus que lente*, bars 128–36. (CD 3/8)

Musical score for bars 128–36 of *La plus que lente*. The score consists of two staves: treble and bass. The key signature changes to B-flat major (two flats).

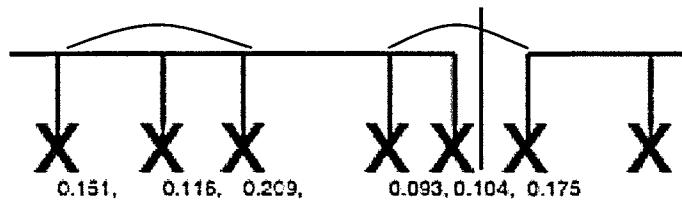
Bar 128: Dynamics include *p* (pianissimo) and *légé* (light).

Bar 132: Dynamics include *p* (pianissimo), *lengthened* (lengthened note), *Retenu* (held), *pp* (pianississimo), and *pp* (pianississimo).

Tempo markings: "En serrant" (tightening), "Plus lent" (more slowly).

The grouping of three quavers is achieved by the rushing of the first two notes and a lengthening of the third note, as seen in the visual representation of the duration of the notes in bars 27–8 (Fig. 6.17):

Fig. 6.17 *La plus que lente*, skeleton of the right hand in bars 27–8 with duration of quavers to scale.



The following table summarises the features of each rhythmic alteration and its effects (Table 6.3):

Table 6.3 Features of rhythmic alteration and its effects in *La plus que lente*.

Location	Feature of alteration	Possible explanation and intended effects
Bars 27–32	Three-groupings of quavers	<ul style="list-style-type: none"> To highlight the connection to the three-note motif of B flat, A flat and G flat in the previous bar (bar 26) To blur the sense of pulse
Bars 69–74	Decrease in three-groupings: only heard once in the second half of bar 70.	<ul style="list-style-type: none"> The decrease in rhythmic alteration can be attributed to the absence of motivic connection (the run is preceded by repeated E flats to G flat in the previous bars instead) Note that the sense of pulse is stronger because the grouping finishes at the end of the bar.
Bars 129–34	<ul style="list-style-type: none"> No three-groupings heard Lengthening of the downbeat in bar 132 	To emphasize the downbeat, therefore reinforcing the sense of meter.

The three instances of the same musical gesture see a movement from an obscuration to an emphasis of the pulse. These different renditions of the same gesture contribute to the character of their corresponding sections: while the first instance is part of the exposition that establishes the improvisatory, whimsical nature of the piece, the last instance follows from the more animated (“animé”) section, full of definiteness as signified by the faster tempo, the thickly-voiced and repeating chords on the downbeat that contrast with the meandering and varying bass in the beginning (see Figs. 6.5 and 6.18):

Fig. 6.18 *La plus que lente*, bars 118–27. (CD 3/8)

Thus, it is appropriate that Debussy reinforces this by a definitive emphasis on the downbeat as the running quavers come to a halt. In varying the use of rhythmic

alteration in these three repeated phrases, Debussy highlights the character of each of the sections to which they belong, therefore highlighting the structural development of the piece.

Varying uses of dotting and overdottting

The use of rhythmic alteration to highlight character can also be seen in the different treatments of the second and third crotchet beats of the right hand throughout *La plus que lente*. These treatments vacillate between:

- i. undotted quavers that are notated,
 - ii. dotted quavers that are notated,
 - iii. dotting of equal-valued quavers and
 - iv. overdotting.

Examples of each of these (Figs. 6.5 and 6.19) can be heard in bars 1–4 (points i and ii), bar 75 (point iii) and bars 9–10 (point iv).

Fig. 6.19 *La plus que lente*, bars 75–6, example of iii. (CD 3/5)

Musical score page 19, measures 75-76. The score consists of two staves. The top staff is in G major (one sharp) and the bottom staff is in C major (no sharps or flats). Measure 75 starts with a forte dynamic (f) in G major. Measure 76 begins with a piano dynamic (p) in C major. The music includes various note values such as eighth and sixteenth notes, and rests. Measure 76 concludes with a repeat sign at the bottom.

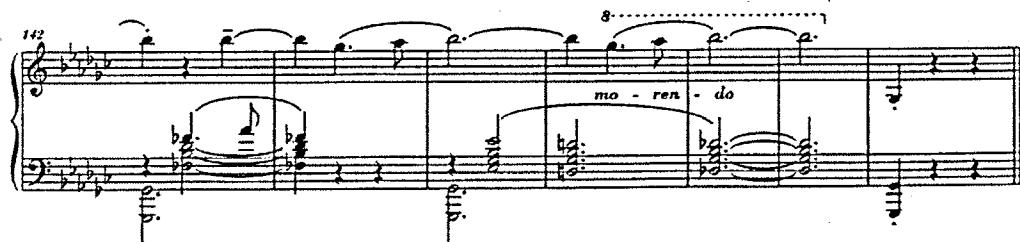
These different renditions of the second and third beats give the downbeat different levels of emphasis. These variations create a sense of arbitrariness and spontaneity throughout the piece.

The second and third beats often constitute the first two notes of, or the upbeats to, the three-note motif that is the “initiating element” of the piece (see Section 4.4),³⁶ from a semiotic perspective. Considered in this light, then, the somewhat arbitrary, whimsical rhythmic variation of the upbeat to the three-note motif has a corresponding signification: it increases the sense of instability of the initiating element, creating a feeling of unexpectedness even before the melody begins to develop. This leaves the listener asking continually: what is going to spin off from the unstable motif this time? The unpredictability of the rhythmic variation of the initiating element also creates a sense of uncertainty, contributing to the feeling of improvisation that is already inherent in the three-note motif (refer to Fig. 4.8).

However, the rhythmically literal rendition of the motif as notated at the end in bars 143 and 145 implies a sense of definiteness as the piece comes to halt. This adds to the signification of finality that is already implied by the synchrony of the hands on the first beats (see Figs. 4.9 and 6.20):

³⁶ The three-note motif (see Fig. 4.8), structurally speaking, functions as a starting point as it begins new phrases, melodies or section. Because of its structural function and other factors (see Fig. 4.8), it is regarded as an element of initiation.

Fig. 6.20 *La plus que lente*, bars 142–8. (CD 3/8)



Thus, the varied use of rhythmic alteration of the two notes in the three-note motif creates a sense of uncertainty and contributes to the feeling of improvisation; the absence thereof, on the other hand, signifies the opposite: a sense of certainty and finality.

Therefore, in *La plus que lente*, Debussy uses rhythmic alteration such as dotting and tripletisation to create a lilting character, emphasise the downbeat and instil a sense of freedom to the melody. A decrease in the degree of rhythmic alteration is used to highlight a transition between sections of different characters. A varied use of three-groupings and lengthening of notes is used to alter the sense of pulse and reinforce structural placement of a musical idea. Variations of dotting and overdotting of the three-note motif create a sense of improvisation and unexpectedness. An absence of such signifies definitiveness. Thus, the study of Debussy's use of rhythmic alteration from different perspectives reveals a sophisticated and generous use to highlight the waltz rhythm and enhance the character of the piece.

6.5 The allusion to the Habanera in “La soirée dans Grenade”

While “La soirée dans Grenade”, alluding to the Habanera, is similar to *La plus que lente* in that they both draw upon expressive genres of dance, their structural constructions are quite different. *La plus que lente*’s melodies, phrases and sections seem to initiate from one motif; in contrast, the structure of “La soirée dans Grenade” is built upon six musical ideas that recur independently of each other. In the latter, a pervasive rhythmic ostinato based on the Habanera rhythm



of: is heard throughout the piece. Both rhythmic alteration and tempo modification³⁷ are used to characterise the “Mouvement de Habanera” and is specific to each musical idea, reinforcing the individual characters and highlighting the structure of the piece.

The six musical ideas of “La soirée dans Grenade” are as follows (Fig. 6.21–6):

³⁷ Strictly speaking, the tempo modification of musical idea B should be considered in the next chapter; however, as it characterises theme B, it will be mentioned here as its omission will render this discussion incomplete.

Musical idea A (bars 7–16 and 122–7):

Fig. 6.21 “La soirée dans Grenade,” bars 5–16; first appearance of musical idea A. (CD 3/9)

The musical score consists of three staves of music for three voices. The top staff starts at bar 5 with a dynamic of *ppp*. It includes markings for *o.D.* (overdub) and *rushed*. The middle staff begins at bar 8 with *pp expressif et lointain*. It includes markings for *inexact*, *longer shorter*, and *inexact*. The bottom staff starts at bar 15 with *Retenu*. It includes a dynamic of *ppp*. The score uses eighth-note patterns and rests throughout, with various performance techniques indicated by markings like *o.D.*, *rushed*, *inexact*, *longer shorter*, and *Retenu*.

Musical idea B (bars 17–20, 29–32, 92–7, 128–9):

Fig. 6.22 “La soirée dans Grenade,” bars 17–20; first appearance of musical idea B. (CD 3/9)

17

Tempo giusto

pp

19

pp

R:

Musical idea C (bars 23–8, 61–6, 78–81, 82–90):

Fig. 6.23 “La soirée dans Grenade,” bars 23–8; first appearance of musical idea

C. (CD 3/9)

Tempo rubato
p expressif

23

lengthened(s) shortened(s)

overdotted

overdotted

dim.

Retenu

pp

24

25

26

27

28

Musical idea D (bars 33–6, 67–77, 82–90, 113–4, 119–21):

Fig. 6.24 “La soirée dans Grenade,” bars 33–6; first appearance of musical idea D. (CD 3/9)

33

mf (O.D.)

O.D.

first note becomes ♫

R:

34

35

36

p

dim.

Musical idea E (bars 41–59, 97–106)³⁸:

Fig. 6.25 “La soirée dans Grenade,” bars 41–4; first appearance of musical idea E. (CD 3/9)



³⁸ Musical idea E is actually developed from musical idea A in pitch contour and rhythm. However, because the two ideas have their own distinctive characters and harmonic languages and are altered in different ways, they are considered separately here.

Musical idea F (109–12, 115–8):

Fig. 6.26 “La soirée dans Grenade,” bars 109–14; first appearance of musical idea F. (CD 3/10)

Léger et lointain
(la ♩ = ♪ de la mesure précédente)

109

110

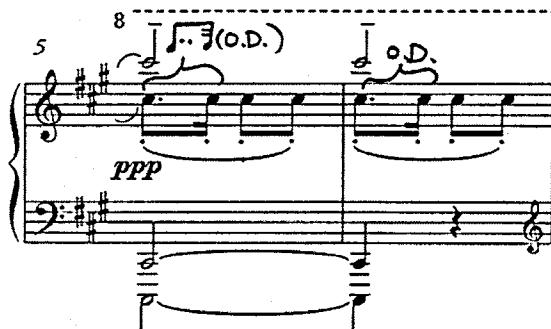
pp

più pp

The rhythmic ostinato is first heard at the beginning and takes different guises, the most frequent being in the form of repeated notes that first appears in bar 5 (Fig. 6.27):

Ostinato (Throughout the piece)

Fig. 6.27 “La soirée dans Grenade,” bars 5-6. (CD 3/9)



How each musical idea (or ostinato) and its recurrence are rhythmically altered throughout the piece can be observed separately. The recurrence of the musical ideas and the ostinato either see a similar use of rhythmic alteration, or a decrease in the degree and frequency of alteration. The shaded areas³⁹ in Table 6.4 show that musical ideas B, C, D and E undergo a decrease in the degree and frequency of rhythmic alteration, while the ostinato, ideas A and F do not. In the former cases, the decrease in alteration happen at different places: idea D sees a decrease near the end of the work, while for idea E, the decrease is very soon after its first appearance. While the consistent use of rhythmic alteration in the ostinato, musical ideas A and F strengthens the allusion to the Habanera character and creates unity, the decrease in the degree of rhythmic alteration in the other musical ideas sees a consequent decrease in intensity. The effects of the rhythmic alterations of each musical idea and ostinato will be discussed separately below.

³⁹ A shaded area indicates where a decrease in the degree and the frequency of rhythmic alteration has taken place.

Table 6.4 Analysis of rhythmic alteration with respect to the Habanera ostinato and the other musical ideas considered separately.

	1-	7-	17-	21-	23-	29-	33-	37	38-	41-	51-	60	61-	67-	78-	82-90	91	92-	97-	107-	109-	113-	115-	119-	122-	128-	130-	133-
Ostinato	6	16	20	22	28	32	36	40	50	59	66	77	81	81	81	81	97	106	108	112	114	118	121	121	127	129	132	136
A	o*	o	o**	o	o	o*	o*	o	o	o*	o	o	o	o*	o	o	o*	o	o	o	o	o	o	o	o	o	o*	
B		A		B		C		D		E		F		G		H		I		J		K		L		M		
C																												
D																												
E																												
F																												

Explanation of Table:

This table shows the chronological organisation of musical ideas and the rhythmic ostinato.

- Columns denote the location within the piece in terms of bars, while rows denote musical ideas and the ostinato.
- An apostrophe after a symbol denotes a significant development of the musical idea/ostinato prevalent in the score, for instance, a change in the rhythmic motif or the characteristic pitch contour.
- A minus sign after a letter denotes a decrease in the degree and frequency of rhythmic alteration for that musical idea. Note that in this piece, a decrease is permanent, that is, the original intensity of rhythmic alteration is not heard again.
- Round brackets around a letter (say “X”) and a minus sign denote that the decrease in alteration is attributed to musical idea X. Thus, D’(C-) indicates that musical ideas D and C are combined to form a new musical idea, and that there is a decrease in the rhythmic alteration attributed to musical idea C.
- A shaded area indicates where a decrease in the degree and frequency of rhythmic alteration has taken place. Because the decrease is permanent, the shaded area is always from a point in the piece to the end of the piece.
- “o**” denotes the places where the ostinato is heard on its own (in the absence of other musical ideas).

Ostinato Figure

The Habanera rhythmic ostinato figure that appears consistently throughout the piece is a strongly evocative unifying element. Debussy varies the degree of dotting to create the “suave and lilting” feel of the Habanera⁴⁰ and the “nonchalamment gracieux” (nonchalantly graceful) character as indicated in the score. The sense of casualness in how the dotting is varied is similar to that in *La plus que lente*’s three-note motif. The wide range of degrees of dotting can be heard in the first twelve bars, from a somewhat literal rendition (e.g. bar 4) to the other extreme of overdotting (e.g. bars 5–6, Fig. 6.28):

⁴⁰ Frances Barulich and Jan Fairley, “Habanera,” *Grove Music Online*, ed. Laura Macy (Accessed 24 May 2009), <http://www.grovemusic.com>.

Fig. 6.28 “La soirée dans Grenade,” bars 1–14.

(3/9)

Mouvement de Habanera
(Commencer lentement dans un rythme nonbalamment gracieux)

8 (O.D.)
rushed
rushed
O.D.
pp expressif et lointain

10 inexact
longer shorter
inexact
inexact
inexact

The variation is sustained throughout the whole piece, up until the last utterances at the end (Fig. 6.29):

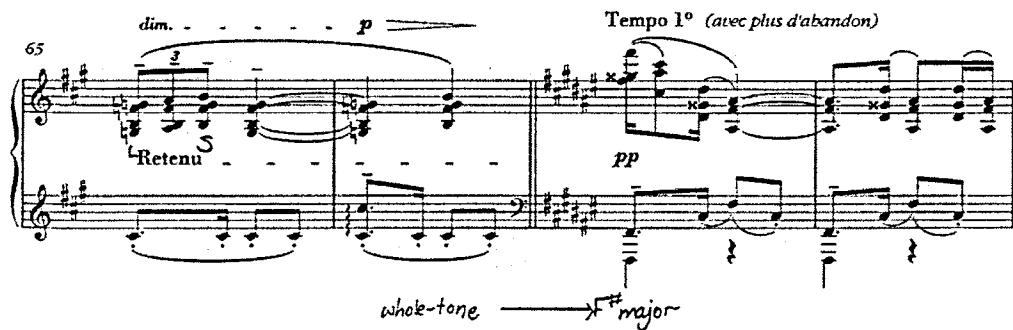
Fig. 6.29 “La soirée dans Grenade,” bars 130–6. (CD 3/10)

In addition to a seemingly casual way dotting is varied, two contrasting trends can be observed. Firstly, overdotting is always present where only the ostinato is heard, between the appearances of different musical ideas.⁴¹ The overdotting of the ostinato highlights its lone presence and brings to the foreground its associated allusion to the Habanera.

In contrast, there is a noticeable lack of overdotting at two instances where there is a marked change of character to that of warmth and tenderness. In bar 66, the whole-tone harmonic language gives way to the sonorous F-sharp major tonality, marked *pp*. The unexpected modulation to the subdominant major key is warm after the whole-tone harmony that is often associated with a sense of foreignness (Fig. 6.30):

⁴¹ These occurrences are marked with asterisks in Table 6.4.

Fig. 6.30 “La soirée dans Grenade,” bars 65–8. (CD 3/11)



Similarly, at bar 98 there is a change from the “Tempo giusto” section, characterised by a melody in the Phrygian mode supported by parallel dominant-seventh chords, to an A major section (Fig. 6.31):

Fig. 6.31 “La soirée dans Grenade,” bars 92–8. (CD 3/10)

The warmth of the A major chord and the soft dynamic level is further highlighted by an unnotated arpeggiation.

Thus, while overdotting intensifies the allusion to the Habanera, the softening of the dotted rhythm is associated with moments of transition characterised by gentleness and tenderness in specific instances. The overall variation in dotting throughout the piece creates a sense of nonchalance and spontaneity.

Musical idea A

In general, the style of rhythmic alteration applied to musical idea A (Fig. 6.21) is similar in both of its occurrences. Marked “expressif et lointain” (expressive and distant), musical idea A appears at the very beginning, and is played with the expressive freedom that so characterises many early-twentieth-century recordings. The expressiveness of musical idea A is reminiscent of the emotive Habanera song,⁴² or as E. Robert Schmitz remarks, a “languid melody of the Moorish heritage of Spain.”⁴³ The lengthening of the first note of the triplet in bar 9 achieved by “de-tripletisation” (triplets are made into quavers) and dotting is akin to their similar use by Powell to create a more “angular rhythm” in Chopin’s *Nocturne Op. 27 No. 2* (Fig. 6.32):

⁴² Barulich and Fairley, “Habanera.”

⁴³ Schmitz, *The Piano Works of Claude Debussy*, 86.

Fig. 6.32 Chopin *Nocturne* Op. 27 No. 2, bar 11, Powell, piano roll, 1929⁴⁴. (CD 3/12)



Musical idea A reappears at the very end in almost the same form as its opening utterance. Here, the melody is at exactly the same pitch while the supporting harmony is modified. Debussy's use of metrical rubato is similar to that of musical idea A's first appearance (Fig. 6.33):

⁴⁴ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 261.

Fig. 6.33 “La soirée dans Grenade,” bars 121–7. (CD 3/10)

The fact that musical idea A appears only at the very start and at the very end, with a similar usage of metrical rubato in both instances signifies that the Habanera character has retained its intensity from beginning to end.

Musical idea D

The rhythmic alteration (via a mixture of overdotting and normal dotting) of musical idea D — characterised by the descending thirds coupled with syncopated rhythms, remains consistent through all but its last utterance. Musical idea D appears first in bars 33 to 37, and is then fully developed in the section marked “avec plus d’abandon” (with more abandon) in bars 67 to 77. The sense of abandon is not only created through the mixed dotting, but also the inexact rendition of rhythms such as the anticipation and lengthening of the B–G#–B right-hand chord in bar 70 (Fig. 6.34):

Fig. 6.34 "La soirée dans Grenade," bars 65–72. (CD 3/11)

Up until its penultimate appearance in bars 113–4, overdotted can be heard (Fig. 6.35):

Fig. 6.35 "La soirée dans Grenade," bars 113–4. (CD 3/10)

However, its very last utterance is accompanied by an absence in overdotting, as the dynamic recedes to a *pp* (Fig. 6.36):

Fig. 6.36 “La soirée dans Grenade,” bars 117–24. (CD 3/10)

Musical idea B

The decrease in the intensity of the characteristic rhythm alteration of musical idea D occurs at the coda of the piece. For musical idea B, however, the decrease in the modification in tempo happens earlier, in bars 96 to 97. Musical idea B is heard at two earlier instances, and each of these is accompanied by a distinct rushing of the semiquavers (Figs. 6.37 and 6.38):

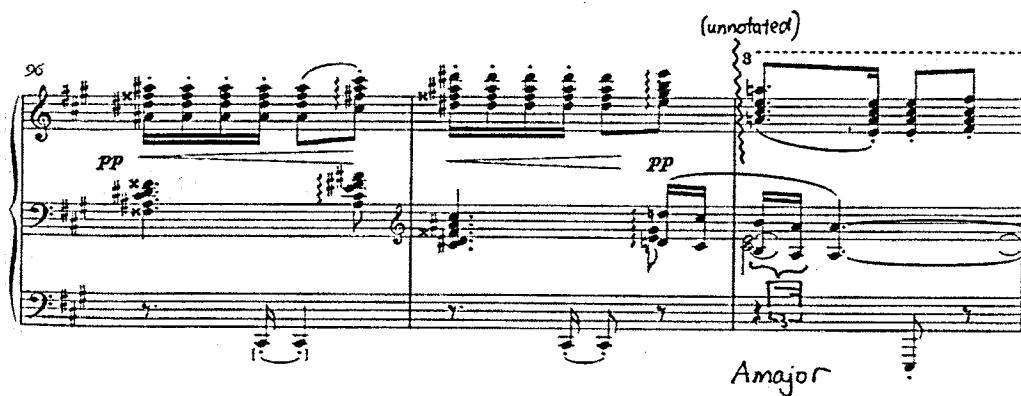
Fig. 6.37 “La soirée dans Grenade,” bars 29–32. (CD 3/9)

Fig. 6.38 “La soirée dans Grenade,” bars 92–5. (CD 3/10)

This highlights the “rasgueado (strumming) technique of the guitar”⁴⁵ to which the figure alludes. By contrast, in bars 96 to 97, which is an extension of the second instance, such a pull and push of tempo is absent during the shift from the modal/dominant seventh harmony to A (Fig. 6.39):

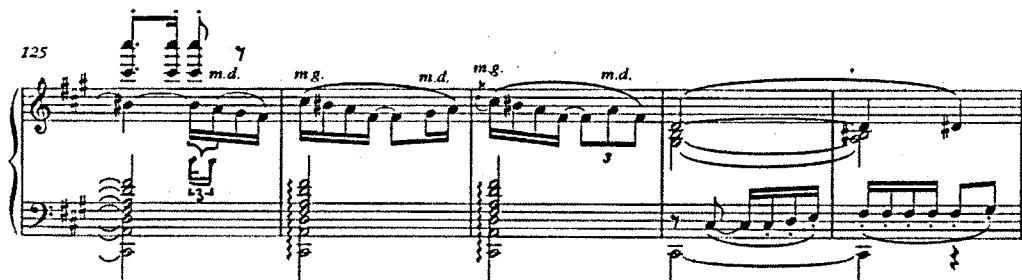
⁴⁵ Schmitz, *The Piano Works of Claude Debussy*, 87.

Fig. 6.39 “La soirée dans Grenade,” bars 96–8. (CD 3/10)



In its last utterance (bars 128–9), musical idea B is played in a slower tempo and does not undergo any form of rhythmic alteration or tempo modification (Fig. 6.40):

Fig. 6.40 “La soirée dans Grenade,” bars 125–9. (CD 3/10)



This literal rendition lessens the characterisation of the guitar strumming and consequently, decreases the allusion to the Habanera.

Musical idea C

The lessening of characterisation can also be heard in the rhythmic treatment of musical idea C. Marked “Tempo rubato espressif,” musical idea C is characterised by a triplet of rising step-wise whole-tone chords that finally

descends down a third. In the first three instances of musical idea C, the first beat of the triplets is lengthened while the last beat is subsequently shortened. This highlights the melodic pull of the rising chords back down to its original pitch (refer to Figs. 6.23, 6.41 and 6.42):

Fig. 6.41 “La soirée dans Grenade,” bars 61–6. (CD 3/11)

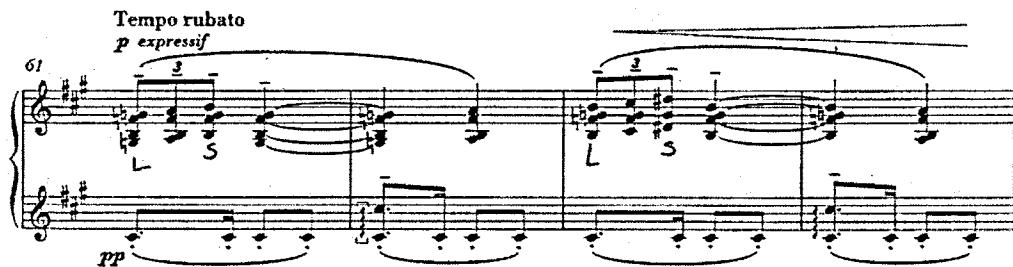
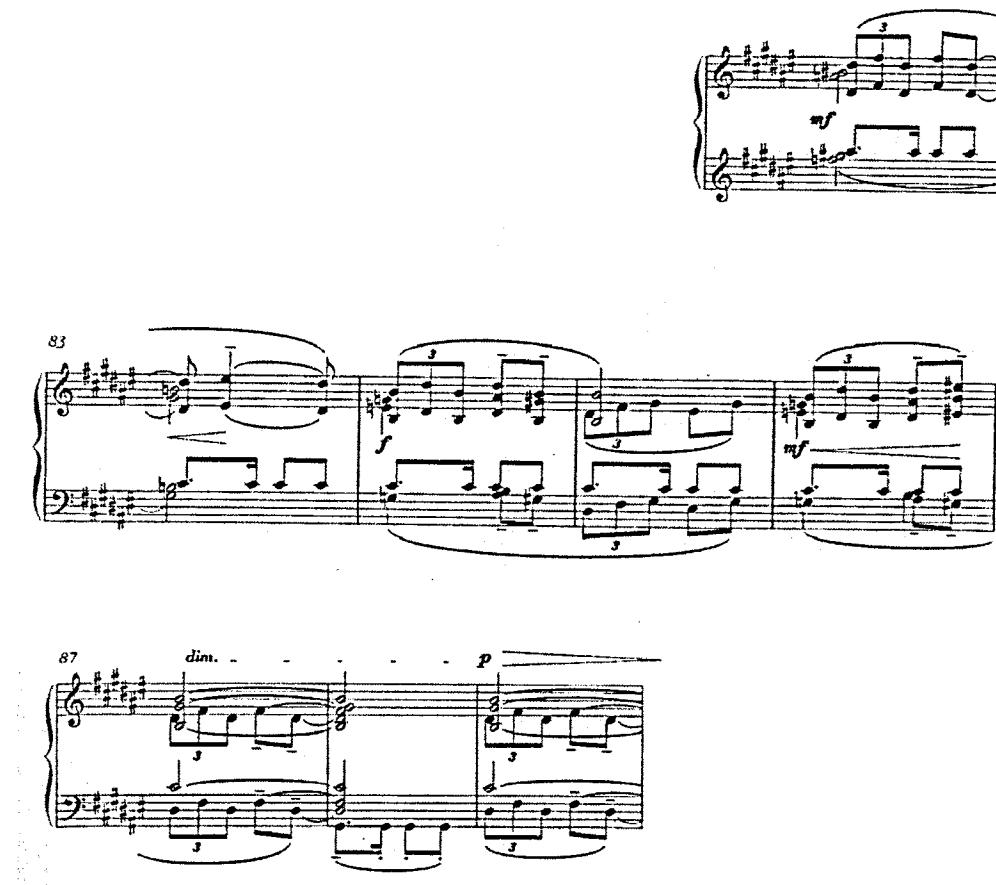


Fig. 6.42 “La soirée dans Grenade,” bars 78–81. (CD 3/11)



However, in the last instance where the rhythm of musical idea C and the pitch contour of musical idea D (alternating 3rds) are combined to form a new melodic idea of D'C' in bars 82 to 89, the rhythmic alteration is less striking⁴⁶ (Fig. 6.43):

Fig. 6.43 “La soirée dans Grenade,” bars 82–9. (CD 3/11)



Here, neither the characteristic rhythmic alteration of musical idea C nor that of D are as strong as previously heard, and the characterisation becomes more subdued.

⁴⁶ In the table, the decrease in rhythmic alteration is attributed to C', since the new melodic idea takes its *rhythm* from C.

In the cases of musical ideas B, C and D, the decrease in rhythmic alteration occurs only after they are heard at least twice (see Table 6.4). However, the rhythmic alteration of musical idea E takes place immediately after it is first heard. The first statement of musical idea E is accompanied by the rushing and dotting of semiquaver figures, for instance, in bars 41 to 44. However, as the drive of the music recedes with the decrescendo and the descent from the high register to the middle register, the rhythm is less dotted, becoming tripletised instead in bars 51 onwards. Finally, only a hint of inequality is heard in bars 56 and 57 (Fig. 6.44⁴⁷):

⁴⁷ The notated rhythms are not exact, but serve to give a visual representation of the impression that the alteration is decreasing.

Fig. 6.44 "La soirée dans Grenade," bars 41–60. (CD 3/9)

Trend A: The total length of two semiquavers that were shortened becoming longer.
 Trend B: Semiquavers that were dotted becoming less dotted.

The musical score consists of five staves of piano music. Handwritten annotations are present in several staves:

- Bar 41:** A bracket above the top staff is labeled "Length of semiquavers are very short (A)". A bracket above the bottom staff is labeled "transitionary i.e. less short semiquavers (A)".
- Bar 45:** A bracket above the top staff is labeled "Semicquavers in total resume full quaver beat more or less (A)".
- Bar 49:** Brackets above the top staff are labeled "Semicquavers less dotted by being tripletsed" and "3 (B)".
- Bar 53:** Brackets above the top staff are labeled "3 (tripletsed)" and "inequality (even less dotted) (B) 13".
- Bar 57:** Brackets below the bottom staff are labeled "p" and "più p".
- Bar 58:** Brackets below the bottom staff are labeled "pp" and "ts".

Schmitz describes this “Très rythmé” section as a “full habanera,”⁴⁸ the characterisation of the flamboyant Habanera becoming less distinct as the rhythmic alteration subsides. In the other appearances of musical idea E, the milder, more lilting rhythmic characterisation also takes place (Fig. 6.45):

Fig. 6.45 “La soirée dans Grenade,” bars 98–102. (CD 3/10)

Musical idea F and Coda

The decrease in the rhythmic zest of musical ideas B, C, D and E creates a sense of winding down of the Habanera. However, this is counteracted by a re-energising of the rhythm at the appearance of musical idea F (alluding to the

⁴⁸ Schmitz, *The Piano Works of Claude Debussy*, 88.

“rhythm of castanets”⁴⁹) in the coda at bar 109. The opposition between the intensification and the winding down of the Habanera that is established throughout the piece is summarised in the coda; the second statement of E is then followed by:

- i. a de-energised statement of musical idea D,
- ii. a statement of musical idea A that is similar to its original and
- iii. a de-energised statement of musical idea B.

The work concludes with the overdotted rhythmic ostinato in exactly the same pitch as the beginning.

Thus, the use of rhythmic alteration and its effects can be summarised in the following two tables (Tables 6.5 and 6.6):

Table 6.5 Musical ideas showing the consistent use of rhythmic alteration in “La soirée dans Grenade.”

Musical idea	Description of rhythmic alteration	Possible intended effect
Ostinato	Various degrees of dotting heard throughout the piece	<ul style="list-style-type: none"> • Creates <i>unity</i> • Alludes to the “nonchalant” feel of the <i>Habanera</i>.
A	Expressive techniques are used in both occurrences, and include the use of lengthening, dotting and de-tripletisation.	<ul style="list-style-type: none"> • Creates <i>unity</i> from beginning to end. • Evokes the “<i>languid melody of the Moorish heritage of Spain</i>.”
F	_____	<ul style="list-style-type: none"> • Alludes to the castanets of the <i>Habanera</i>.

⁴⁹ Schmitz, *The Piano Works of Claude Debussy*, 89.

Table 6.6 Musical ideas showing a decrease in frequency and degree of rhythmic alteration in “La soirée dans Grenade.”

Musical idea	Description of rhythmic alteration	Possible intended effect	Location of decrease in rhythmic alteration	Possible intended effect of decrease
B	Rushing of semiquavers followed by a compensatory rallentando.	Highlights the “rasgueado (strumming) technique of the guitar” associated with the <i>Habanera</i> .	Latter half of the piece (bars 96–7): second last utterance of B. Coda (bars 128–9): last utterance of B.	Highlights harmonic shift; <i>Lessens</i> the characterisation of the guitar strumming.
C	The first beat of the triplets is lengthened while the last beat is subsequently shortened.	Highlights the melodic pull of the rising chords back down to its original pitch.	Latter half of the piece (bars 82–9): as a new idea combined with D.	<i>Lessening</i> of characterisation.
D	A mixture of overdotting and normal dotting, and inexact rendition of rhythms.	Creates a sense of “abandon” that is associated with the “nonchalant” character of the <i>Habanera</i> .	Coda (bars 119–20): Last utterance of D.	<i>Decreases</i> the intensity of the piece.
E	The rushing and dotting of semiquavers.	Highlights the flamboyant character of the “full <i>Habanera</i> .”	Earlier half of the piece (bars 51 onwards)	<i>Decreases</i> the drive of the music; <i>Lessens</i> the allusion to the “full Habanera” as a more lilting rhythmic characterisation takes place.

Therefore, in “La soirée dans Grenade,” specific types of rhythmic alteration (such as dotting, lengthening of individual notes, tripletising, overdotting and the changing of equal-valued notes to shorter equal-valued notes) applied to individual musical ideas are used to highlight different aspects of the Habanera. While the consistent use of rhythmic alteration of one particular musical idea creates unity and intensifies the Habanera character, the decrease thereof lessens the characterisation. The opposition between the energising and the de-energising of the Habanera creates a sense of ebb and flow that is characteristic of this piece.⁵⁰

6.6 Irony in “Doctor Gradus ad Parnassum”

In *La plus que lente* and “La soirée dans Grenade,” rhythmic alteration is employed to portray the character and genre implied by the titles of the pieces. In contrast, the use of rhythmic alteration in “Doctor Gradus ad Parnassum” is the opposite of what is expected. All signs point to a perfect and even rendition of the running notes: the indication “égal et sans sécheresse” (equally and without dryness) is marked at the very beginning, its title is based on Muzio Clementi’s set of finger exercises *Gradus ad Parnassum*, and the writing is indeed similar to that of a study. However, the unexpected use of inequality by Debussy is heard from the very outset (Fig. 6.46):

⁵⁰ This ebb and flow will be discussed again in the next chapter with respect to tempo modification.

Fig. 6.46 “Doctor Gradus ad Parnassum,” bars 1–11. (CD 3/13)

Modérément animé

p égal et sans sécheresse

Inequality with respect to crochet beats:

Lombardic rhythm/backbeating

Lengthened

ACCEL. cresc.

In the opening two bars, which are made up of equal semiquavers, Debussy plays with inequality the pairs of stepwise falling crochets that characterise the hidden, inner melody. The degree of inequality is increased in bars 3 to 6, where the melodic notes are actually marked out. In the first six bars, in addition to the

unexpected unevenness, Debussy's use of inequality is in contradiction to the intention implied by the writing, which is an opposition between the mono-textured background set up by the first two bars and the multi-layered texture in the following bars. Rather, the inner melody, although unmarked, is subtly hinted at already in the beginning, preparing the listener for its outright entrance in bar 3 and thus lessening the function of the first two bars as merely "background."

The use of inequality is heard throughout the piece as this texture continues. However, an even more exaggerated instance of inequality is heard in the middle section marked "expressif," where the semiquavers of the opening two bars are augmented, and all the notes are played with inequality (Fig. 6.47):

Fig. 6.47 "Doctor Gradus ad Parnassum," bars 37–44. (CD 3/14)

Certain notes are emphasised with the use of inequality.

37 *Animez un peu*
pp

37 *expressif*

41 *Retenu -*

Other forms of rhythmic alteration are heard and these have the effect of adding colour to figurations. For instance, in bars 7 to 9, the lengthening of the tenuto in the bass followed by a subsequent acceleration through the running notes creates a sweeping effect (Fig. 6.46).

The abundant use of inequality and other forms of rhythmic alteration clearly show that the allusion to *Gradus ad Parnassum* is not as simple as a mere reference, and this can be studied with respect to semiotic theory. In playing the piece with an unexpected rhythmic expressiveness, Debussy sets up a marked opposition between the meanings signified by the title, implying the ideal of technical perfection, and the music, here signifying imperfections and expressiveness,⁵¹ thus creating musical irony. The degree of inequality, especially in the almost deliberate and exaggerated execution in the “expressif” section, which is coupled with dislocation of the hands, may belie a hidden agenda—that which seeks, rather ironically, to subvert the ideal purported by the finger exercises, as if supporting a case for expression, freedom and colour against the ideals of technical perfection.

A diagram of inferences and correspondences with respect to the concept of marked opposition is given below (Fig. 6.48). Here, the unmarked expectation is

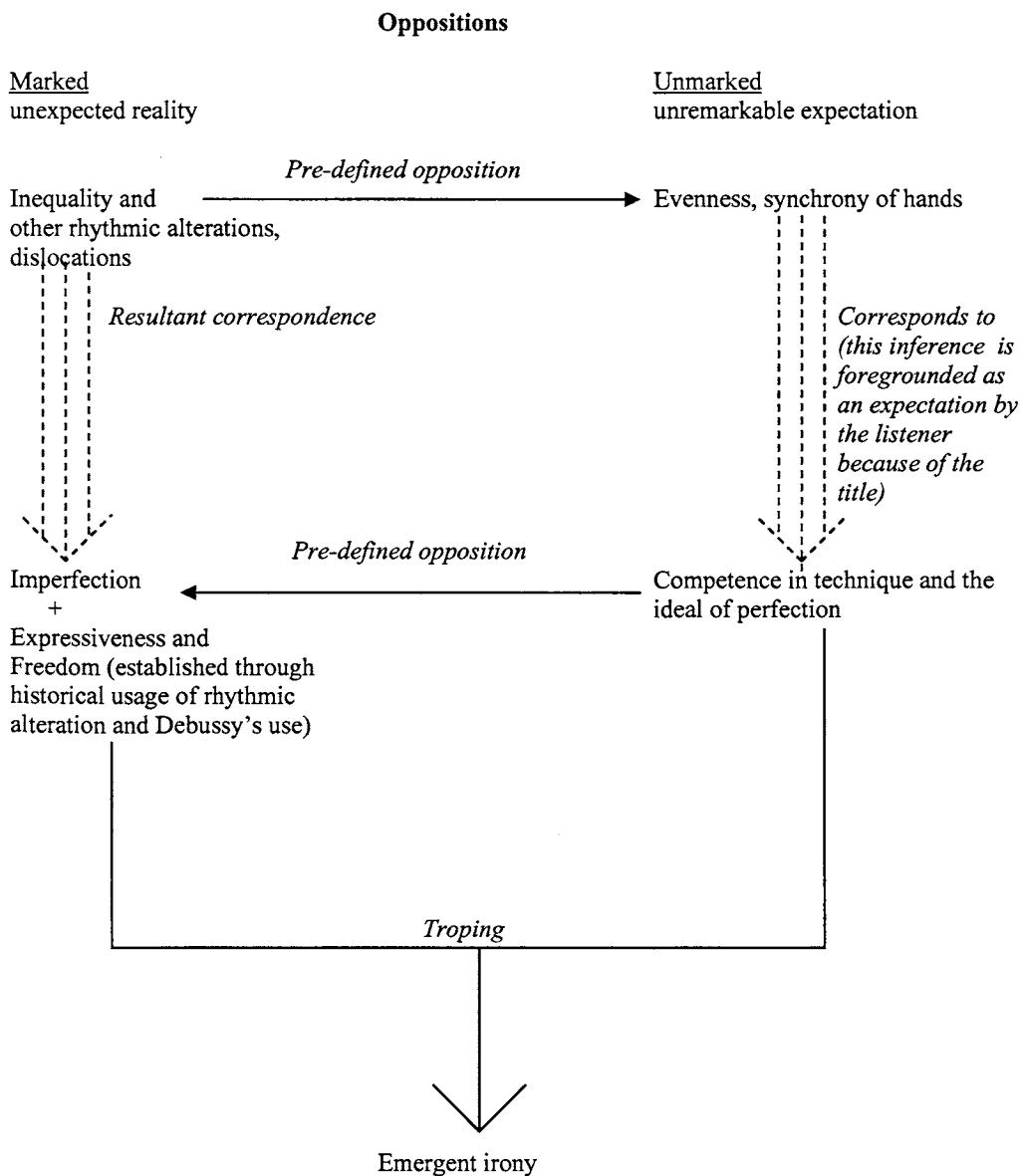
⁵¹ Note that rhythmic alteration does not generally signify imperfection. However, this correspondence is set up by the title, as seen in the diagram of inferences and signification.

in opposition to the marked unexpected reality.⁵² The signification of imperfection troped with the oppositional topic of technical exercises creates an emergent irony.⁵³

⁵² The unexpectedness and the more expressive quality of the rhythmically altered notes of the latter are more remarkable, thus the assignment of it as marked.

⁵³ See Glossary for an explanation of terms. For more information about the concept of irony as a “higher-order” trope, see Robert Hatten, *Musical Meaning in Beethoven: Markedness, Correlations and Interpretation* (Bloomington and Indianapolis: Indiana University Press, 1994), 172-88.

Fig. 6.48 Diagram of inferences and correspondences in “Doctor Gradus ad Parnassum.”



From the diagram, the agenda of Debussy the pianist seems clear. Is there, however, any hint of this agenda in Debussy's score? The answer is no, and if anything, the text points to everything but rhythmic freedom. Indeed, Maurice Dumesnil recalls Debussy intending it to have "a little humour aimed at good old Clementi."⁵⁴ However, this does not imply the blatant irony that the metrical alteration brings out.

With his performance, Debussy tips the whole perspective of the piece upside-down; instead of it being inspired by Clementi's *Gradus ad Parnassum*, with a little jest, as one may assume, it is now a reaction against it. As a pianist, then, Debussy changes the implied meaning of the piece (as implied by the score anyway), and begs the question of interpretative freedom: to what extent can a performer contribute to the meaning of the work? The two previously discussed works—*La plus que lente* and "La soirée dans Grenade," reveal that rhythmic alteration can contribute significantly to the character and structure of the piece. Here, in "Doctor Gradus ad Parnassum," rhythmic alteration serves a purpose at a whole new level: it is not merely a contributing factor but plays the *main* role in altering the inherent meaning of the piece.

In response to Debussy's remark that "a faithful interpreter is sufficient,"⁵⁵ then, what kind of example is Debussy setting as an interpreter of his own work? An

⁵⁴ Dumesnil, "Coaching with Debussy," in Roger Nichols, *Debussy Remembered*, 162.

⁵⁵ Long, *At the Piano with Debussy*, 13.

answer to this question may be that Debussy permitted himself more license than other performers of his own works. However, if this irony is intended as an integral part of the piece (and this would not be surprising given Debussy's usually witty and sarcastic humour), how is it possible for other pianists to interpret his works faithfully when his intentions may not even be on the score? A performance that follows the score to the letter, playing all the notes "evenly," may actually miss the point of the piece. These two questions seem unanswerable for pianists trying to play his music. However, both point to the fact that written evidence (accounts of Debussy's remarks and the score) is not sufficient, and that the investigation of his performing practices as a pianist is crucial for understanding the intentions of his works.

6.7 Humour and Capriciousness in "Minstrels," "Golliwogg's Cake-walk" and "La danse de Puck"

Other than in the case where expressiveness characterises the melody, rhythmic alteration is also used in pieces that are quirky and humorous, "Minstrels" and "Golliwogg's Cake-Walk" being two such works. While "Minstrels" is marked "Nerveux et avec humour" (nervous and with humour), "Golliwogg's Cake-Walk"—marked "Allegro giusto"⁵⁶—is played in a somewhat contradictory fashion to its indication, with the extensive use of rhythmic alteration and tempo

⁵⁶ "Giusto" denotes "just or strict" in Italian. "Giusto" in *The Oxford Dictionary of Music*, ed. Michael Kennedy, associate ed. Joyce Bourne (Accessed 29 June 2009), www.oxfordmusiconline.com

modification. This is similar to “La soirée dans Grenade,” where musical idea B, marked “Tempo giusto,” undergoes a significant amount of tempo modification. A variety of dotting, inequality and equally rendered notes as well as the dotting of the accompaniment are used to portray the humorous, unpredictable and lively character of “Minstrels” (Figs. 6.49–52):

Fig. 6.49 “Minstrels,” bar 36, example of dotting. (CD 3/15)



Fig. 6.50 “Minstrels,” bars 8–12, example of inequality. (CD 3/15)

Fig. 6.51 “Minstrels,” bar 21, example of dotting. (CD 3/15)



Fig. 6.52 “Minstrels,” bars 86–9, same melodic figure as bar 21 but played more equally. (CD 3/16)



In “Golliwogg’s Cake-Walk,” overdotting and unexpected anticipation of notes not only create a similar character; they also conjure up the exaggerated “asymmetrical posture and vigorous gesture”⁵⁷ characterising the cakewalk (Figs. 6.53 and 6.54):

Fig. 6.53 “Golliwogg’s Cake-Walk,” bars 1–2. (CD 3/17)



⁵⁷ Davinia Caddy, "Parisian Cake Walks," *19th-Century Music* 30/3 (2007): 289.

Fig. 6.54 “Golliwogg’s Cake-Walk,” bars 47–62. (CD 3/18)

47 Un peu moins vite

51 anticipated

55

59 Cédez
p avec une grande émotion

NOT anticipated

One Parisian review of cakewalk dancers in 1902 recounts:

their “eccentric” (“fantaisiste”) gestures: how they thrust their chests forward, stretched out their arms, and lifted their knees as high as possible.⁵⁸

⁵⁸ "Le Dernier 'Cri', la nouvelle danse des salons parisiens: le 'cake-walk,'" *Le Petit Bleu de Paris*, 18 December, 1902, quoted in Caddy, "Parisian Cake

The exaggerated rhythmic alteration and tempo modification, discussed in the next chapter, seem to be suggestive of these physical movements.

In contrast to the angularity of the overdotted rhythms and syncopation, the middle section, marked “avec une grande emotion,” sees no such rhythmic alteration; instead, a de-energising of the dotted rhythm through tripletisation can be heard in bars 82⁵⁹ and 87 (Fig. 6.55):

Fig. 6.55 “Golliwogg’s Cake-Walk,” bars 82–9. (CD 3/19)



Walks," 288-9. (Author not specified.)

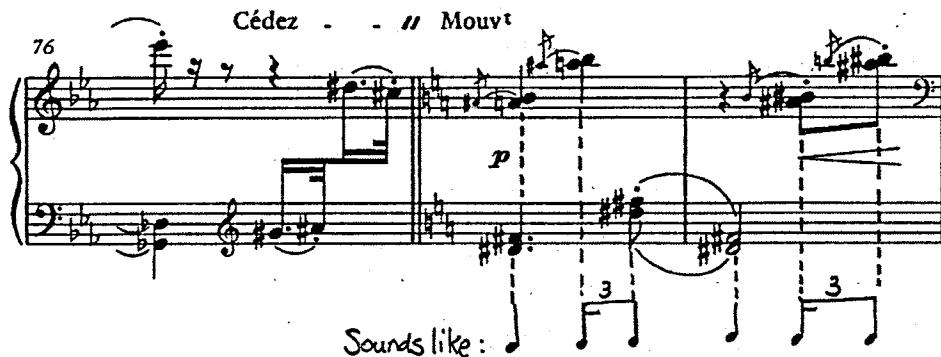
⁵⁹ Because of the difficulty in discerning this figure, I have calculated the ratio of the duration of F to G to be 1:1.73, which is closer to a triplet than to what is written. Also, the left hand is rushed to preserve the feel of the cross rhythm.

This then immediately gives way to the reappearance of overdotting in bar 91 marked “toujours retenu,” signifying a return to the original characterisation of the cakewalk. Thus, in both “Minstrels” and “Golliwogg’s Cake-Walk,” rhythmic alteration is used to create lively and jaunty characterisations.

A somewhat different characterisation, although still lively, is heard in “La danse de Puck,” marked “Capricieux et léger” (Capricious and light). Here, overdotting and tripletising are used to create a capricious and whimsical effect, as seen in

bars 77 to 78 where equal notes are tripletised as  (Fig. 6.56).

Fig. 6.56 “La danse de Puck,” bars 76–8. (CD 3/20)



Before this point, the predominant motif in the piece is the rhythmic inversion of

this: . The tripletised quavers in bars 77 to 78 follow on from the slower and metrically free section in bars 73 to 76, the *reverse* in rhythmic proportion (from long-short to short-long) signifying *return* — both to the former tempo as well as

to the main theme. This association of the tripletised quavers to the concept of return is deepened by the remarkable similarity to the corresponding place in an earlier composition, “La flûte de Pan” (Fig. 6.57) from *Trois Chansons de Bilitis* (1897):

Fig. 6.57 "La flute de Pan" from *Trois Chansons de Bilitis*, bars 17–25. (CD

3/21)

flû - te. Il est

pp *sempre pp*

tard; voici le chant des grenouilles vertes qui com.

Plus lent

- mence avec la nuit **Plus lent**

pppp *pp léger mais sans sécheresse*

pressez un peu
3 pp presque sans voix 3

Ma mère ne croira ja...

pp

In this work, Bilitis has an affair with her pan-pipe teacher, and the words that precede bar 22 remind her of her need to return home to her mother:

“Il est tard; voici le chant des grenouilles vertes qui commence avec la nuit.”

[It is late: here comes the chant of the green frogs, which begins at dusk.]

In both works, the naturalisation of all sharps and flats and the sudden change in texture and register from low to mid-high characterise the transitory section that leads to the final statement of the main theme. The harmony in both changes from that of a major chord (G in “La flûte de Pan” and G_b+6 in “La danse de Puck”) to harmony that contains the tritone (B_b—E and C#—G in “La flûte de Pan”, and D#—A and F#—B# in “La danse de Puck”). Also, both contain staccato quavers with embellishments of grace notes. However, in “La flûte de Pan,” this depicts the chants of the green frogs that remind Bilitis that it is late. Thus, in “La flûte de Pan,” the staccato quavers signify both a return in the structural sense, and also the return of Bilitis to her mother.

There is no such textual association in “La danse de Puck”; however, the tripletisation suggests a resemblance to the uneven croaks of the frog. This, together with the similarities between the transitory sections in the two pieces, triggers an association of the tripletised quavers with the concept of return in “La

flûte de Pan.” Thus, the tripletised quavers in “La danse de Puck” can be seen to be associated with the concept of return by its reversal of the predominant dotted semiquaver motif *and* its allusion to the association already prevalent in “La flûte de Pan.”

Thus, the tripletisation of the quavers in “La danse de Puck” not only enlivens the moment, but also signifies return through its structural placement, its inversive relation to the predominant dotted motif and its close association with “La flûte de Pan.”

6.8 Metrical rubato and other types of rhythmic alteration in different textures

As seen above, rhythmic alteration is used to enhance different textures. These types of rhythmic alteration in different textures can be categorised as following:

- i. Homophonic texture (melody vs accompaniment), where:
 - a. Melody is altered, while the accompaniment is constant (the traditional case where the melody has expressive freedom while the accompaniment keeps strict time)
 - b. Accompaniment is altered, while the melody is constant
- ii. Monophonic texture (e.g. an unaccompanied line or where both hands play the same melody but in different registers), where the single line is altered.

ia. Strict accompaniment against a rhythmically altered melody

This can be seen in musical examples that are in both slow and fast tempos

(Tables 6.7 and 6.8):

Table 6.7 Examples of slow pieces with metrical rubato.

Work	Example of location and use	Possible intended effect	Score association
“Danseuses de Delphes” (Fig. 6.58)	Bars 1–2: Lengthening of semiquavers	<ul style="list-style-type: none"> To highlight the chromatic stepwise melodic movement To foreground the melody that is possibly registrally difficult to hear 	Doux et soutenu [soft and sustained] (at the beginning)
<i>D'un cahier d'esquisses</i> (Fig 6.59)	a. Bars 20–1: lengthening of first beat b. Bar 20: addition of a note and tripletising c. Bar 22: shortening of semiquavers	a. To create a cross rhythm with the accompaniment b. Same as above c. To increase the sense of urgency	a, b: Sans rigueur [without rigour] (at the beginning) c: En animant peu à peu [a little by little more animated] (bar 20)
“La soirée dans Grenade” (Fig 6.21)	Bars 7–16	Reference to the emotive Habanera song or the expressive melody of Moorish origin	Expressif et lointain [expressive and distant] (bar 7)

Fig. 6.58 “Danseuses de Delphes,” bars 1–3. (CD 3/22)

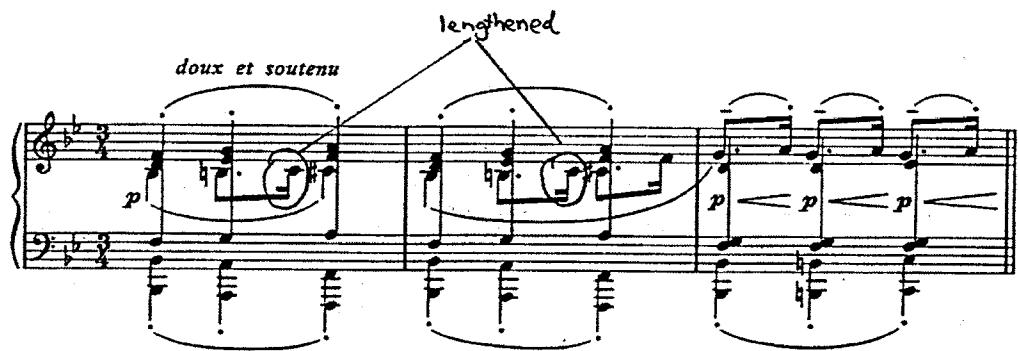


Fig. 6.59. *D'un cahier d'esquisses*, bars 20–3. (CD 3/23)

(Bar misses a semiquaver beat at the end)

En animant peu à peu

20

poco a poco cresc.

cross rhythms created

*Second last triplet quaver in bar 20 is an added note (Eb).

Table 6.8 Examples of moderate to fast pieces with metrical rubato.

Work	Example of location and use	Possible intended effect	Possible score association
“La danse de Puck” (Fig. 6.60)	Bar 35: lengthening of left hand melodic chords and making them of equal value	To emphasise the C, which is the addition to the motif that is in the preceding bar	Doucement soutenu [gently sustained] (bar 32)
“The Snow is Dancing” (Fig. 6.61)	Bar 35: lengthening of first note of triplet	To emphasise the lengthened note	Cédez un peu, un peu en dehors [yield a little, a little brought out](bar 34)
“Serenade for the Doll” (Fig. 6.62 and 6.63)	a. Bars 38–41: dotting of left hand melody b. Bars 62–5: inequality of the slurred pairs c. Bars 69–70: different executions of inequality	a. To imitate the written dotted rhythm preceding in the right hand b. To distinguish between the slurred pair and the staccato chord in a moderately fast tempo c. To give a rhetorical quality to the three notes through varying how the gesture is executed	Très léger et gracieux [very light and graceful] (at the beginning)

Fig. 6.60 "La danse de Puck," bars 32–5. (CD 3/24)

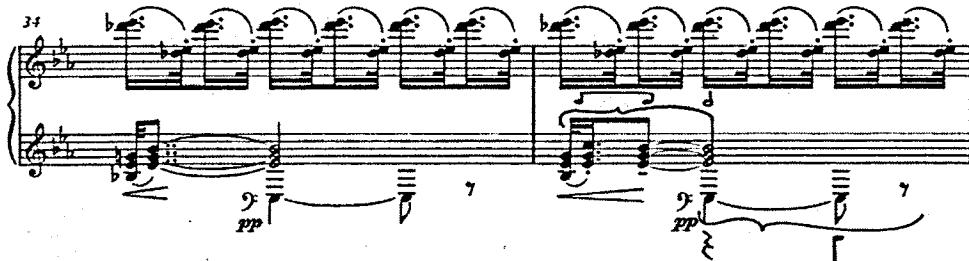
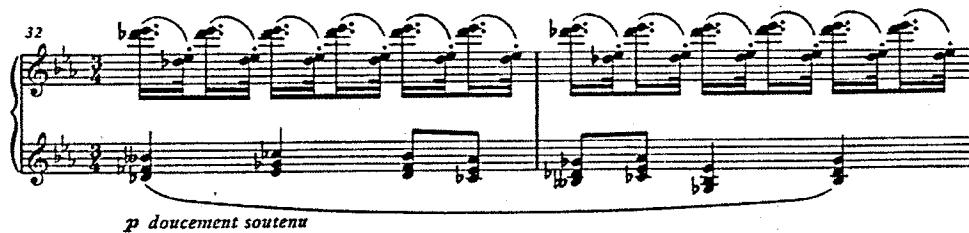


Fig. 6.61 "The Snow is Dancing," bars 34–6. (CD 3/25)

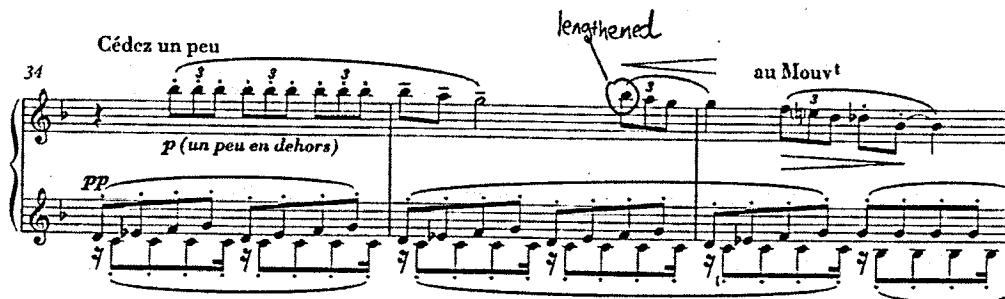


Fig. 6.62 “Serenade for the Doll,” bars 37–42. (CD 3/26)

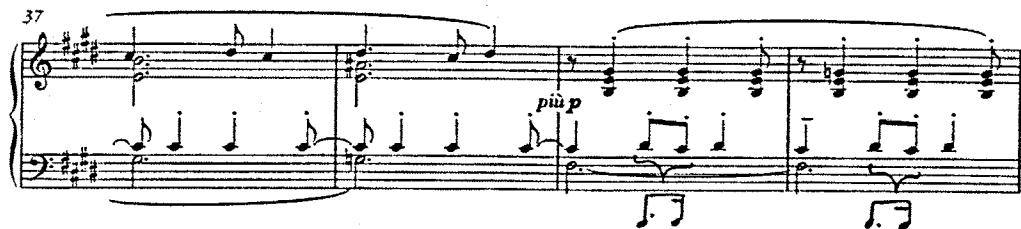


Fig. 6.63 “Serenade for the Doll,” bars 61–70. (CD 3/26)

The similarity between the textures of the three moderate-to-fast works is that they all contain a consistently busy accompaniment characterised by a forward propelling motoric energy. In each of the three cases, the rhythmic alteration

creates a marked opposition between the foregrounded melody and the backgrounded yet driving accompaniment, thus establishing the archetypal opposition of the lyrical versus the energetic and driven. These archetypal oppositions are substantiated in “Serenade for the Doll” as the serenade, where the accompaniment is the strumming of the guitar while the melody is the voice, as well as in “The Snow is Dancing,” conjuring up an image of a human voice rising above the inanimate dancing snow.

ib. Strict melody against a rhythmically altered accompaniment

The distinction between the accompaniment and melody is also brought forth in the inversive relationship of a literally played melody and an altered accompaniment. This can be heard in the cases below:

Table 6.9. Examples of works with strict melody against a rhythmically-altered accompaniment.

Work	Example and location of use	Possible intended effect	Possible score association
“La cathédrale engloutie” (Fig. 6.64)	Bars 16–21: the use of inequality, dotting and tripletising in the bass	<ul style="list-style-type: none"> • To enliven the section while maintaining the previously established strictly-played crotchet chordal melody. • At a metaphorical level, the statuesque cathedral is portrayed by the steady and chordal melody that alludes to church chorale style. In contrast, an image of turbulent water is conjured up by the unsteady left hand in the low register. The opposition of the two elements signifies the emergence of the cathedral from the embodying agitated water.⁶⁰ 	Peu à peu sortant de la brume [leaving the haze little by little] (bar 16)
<i>D'un cahier d'esquisses</i> (Fig. 6.65)	Bars 45–7: the use of inequality, dotting and tripletising in the bass	To enliven the section while maintaining a strictly-played crotchet chordal melody.	Expressif (un peu en dehors) (bar 46)

⁶⁰ This elaborates on Martin’s idea that metrical rubato “contributes to the image of a cathedral stirring beneath the surface of the water.” Martin, “The Case of Compensating Rubato”: 127.

Fig. 6.64 "La cathédrale engloutie," bars 16–21. (CD 3/27)

(Peu à peu sortant de la brume)

16

sempre *pp*
LSS

p marqué
pp

SL

17

p marqué
pp

p

SL

SL

SL

SL

18

p marqué
pp

p

SL

SL

SL

SL

19

p

SL

SL

SL

SL

20

Augmentez progressivement (Sans presser)

R.

Fig. 6.65 *D'un cahier esquisses*, bars 44–7. (CD 3/28)

The musical score consists of two staves. The top staff begins with a dynamic of *pp*, followed by a measure of *pp* with a melodic line consisting of eighth-note pairs. The dynamic changes to *ppp* for the next measure. The bottom staff starts with a dynamic of *pp*, followed by a measure of *p* with a melodic line consisting of eighth-note pairs. The dynamic changes to *p* for the next measure. The score is written in common time with various key signatures.

The pianistic writing in the above two pieces is similar, that is, a static melody primarily made up of crotchets is heard above a dynamic accompaniment of undulating triplets. Thus, the ratio of metrical subdivisions in the melody (mainly crotchets) to that in the accompaniment (triplets) is approximately 3. Moreover, the tempo in both pieces is slow ("Profondément calme" in "La cathédrale engloutie" and "Tres lent" in *D'un cahier esquisses*).

It is interesting to compare the trends of usage of metrical rubato to the case of the examples discussed in ia. above where the pieces are slow. In the slow pieces of ia., the rhythm in the melody is of smaller subdivisions than that of the

accompaniment. For instance, in bars 20 to 22 of *D'un cahier esquisses*, the right hand contains subdivisions of semiquavers, while the left hand contains quavers. The ratio of metrical subdivisions in the melody to that in the accompaniment is therefore, at many times, greater than one. There is also more variety of rhythms than in examples of ib. The corresponding differences in characteristics and the use of rhythmic alteration could perhaps be due to the fact that, in the case of ia., the rhythms in the melody lends itself naturally to metrical rubato. On the other hand, the melody in ib. is written with a more static rhythm; to achieve the effect of agitation or an “expressif” quality, the left hand is modified. The following table summarises the characteristics of the two cases (Table 6.10):

Table 6.10 Trends in slow pieces containing metrical rubato.

	Metrical division ratio of melody: accompaniment	Rhythmic character of melody
Melody is rhythmically altered	>1	Varying
Accompaniment is rhythmically altered	<1	Constant

The rhythmic alteration of the accompaniment in Powell’s rendition of Chopin’s *Nocturne* Op. 27 No.2 bears a similarity to this practice. Note that the metrical division ratios of melody:accompaniment are 2 and 6 in bar 58 and bar 59 respectively, and the quavers followed by the dotted crotchets are generally constant and steady (Fig. 6.66):

Fig. 6.66 Chopin *Nocturne* Op. 27 No. 2, bars 58–9, Powell, piano roll, 1929⁶¹.

(CD 3/29)

The image shows two staves of musical notation side-by-side. The top staff is labeled "Powell's version" and the bottom staff is labeled "Chopin's original". Both staves are in G minor (two sharps) and common time (indicated by a 'C'). The notation consists of two voices: treble and bass. In both versions, there are two measures of music. The first measure in both versions starts with a quarter note in the treble clef followed by eighth-note pairs in the bass clef. The second measure starts with a quarter note in the treble clef followed by eighth-note pairs in the bass clef. There are rectangular brackets above the notes in both measures, likely indicating performance techniques like grace notes or slurs.

ii. Rhythmically altered line in a monophonic texture

An unaccompanied melody is often highlighted through rhythmic alteration; however, a seemingly inconspicuous line can also be altered so that it is treated as melody (in “The Snow is Dancing,” Table 6.11):

⁶¹ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 260.

Table 6.11. Examples of rhythmic alteration in a monophonic texture.

Work	Example and location of use	Possible intended effect	Possible score association
“Jimbo’s Lullaby” (Fig. 6.67)	Bars 1–8: the use of inequality	To create a sense of clumsiness	“doux et un peu gauche” [soft and a little bit clumsy] (bar 1)
“La danse de Puck” (Fig. 6.68)	a. Bars 1–6: mixture of overdotting, tripletising and straight playing of dotted semiquaver pairs b. Bar 3: starting of hemidemisemiquaver run before the beat ⁶²	a. To create a sense of capriciousness b. To create a faster run, as in the case of trills in the early 20 th century recordings (see Fig. 6.70)	“Capricieux et léger” [capricious and light] (beginning)
“The Snow is Dancing” (Fig. 6.69)	Bar 1: lengthening of the beginning of each group of ascending quavers	<ul style="list-style-type: none"> • To emphasise the four-note motif and the subdivision of the phrase • To foreground the phrase as the melody, as opposed to its function as background starting from bar 3. The lengthening emphasises the role of the phrase as the melody before it is backgrounded. 	“doux et estompé” [soft and blurred] (bar 1)
“Golliwogg’s Cake-Walk”	Throughout the piece: Mixture of overdotting and straight playing	To conjure up the angular and unpredictable gestures of the cakewalk	“Cake-Walk” (in the title)

⁶² See Appendix E for a mathematical calculation that shows that the hemidemisemiquaver run indeed starts before the beat.

Fig. 6.67 "Jimbo's Lullaby," bars 1–8. (CD 3/30)

Assez modéré

p doux et un peu gauche

R:

pp> *LS* *LS*

Fig. 6.68 "La danse de Puck," bars 1–6. (CD 3/31)

Capricieux et léger (♩: 138)

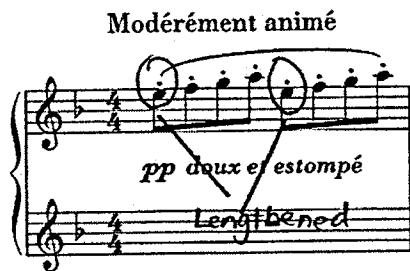
p *O.D.*

Start before the beat

tripletised

Retenu *mf*

Fig. 6.69 “The Snow is Dancing,” bar 1. (CD 3/32)



The start of the hemidemisemiquaver run before the beat in “La danse de Puck” is akin to the practice of commencing trills before the beat for a “full and brilliant” effect,⁶³ as seen in comparing Leschetizky’s playing and his edition of Chopin’s *Nocturne* Op. 27 No.2 (Fig. 6.70):

Fig. 6.70 Chopin *Nocturne* Op. 27 No. 2, bar 31, Leschetizky, piano roll, 1906,⁶⁴ (CD 3/33)

Leschetizky's version

Chopin's original

⁶³ Louis Spohr, *Violinschule* (Vienna: Haslinger, 1832), trans. C. Rudolphus as *Louis Spohr's Grand Violin School* (London: 1833), 183.

⁶⁴ Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 251.

6.9 Conclusion

Thus, Debussy's recordings point to a similarity between the use of metrical rubato by early-twentieth-century pianists in Classical and Romantic works and that of Debussy in his works, in both technique and function. The following table, compared to Table 6.12, demonstrates this similarity:

Table 6.12 Techniques of rhythmic alteration and possible intended effects in Debussy's recordings.

Specific technique	Possible intended effect
Dotting, tripletising and inequality of pairs of equal notes (both instances—where the first is longer and where the second is longer)	<ul style="list-style-type: none"> Emphasise the following downbeat Create a lilting rhythm Differentiate between evenly played accompaniment Characterise the melody Emphasise motif association to other written dotted rhythms Highlight slurred pairs In the accompaniment—enliven the music Create irony through its unexpected use
Combinations of rhythmic alteration of running notes	<ul style="list-style-type: none"> Make the melody more expressive.
Grouping running notes into threes	<ul style="list-style-type: none"> Blurs the sense of pulse Highlights motivic association
Lengthening of a note	<ul style="list-style-type: none"> Emphasises the note Emphasises the downbeat (when the note is on the downbeat) Highlights harmonic tension Creates cross rhythms with the accompaniment Emphasises the development of motif, where the lengthened note is the new addition. Emphasises the start of a motif or phrase
Anticipation of a note	<ul style="list-style-type: none"> Varies a repeated motif
Overdotting	<ul style="list-style-type: none"> Creates dramatic effect Characterises the melody
Changing equal-valued notes to equal-valued notes of shorter value	<ul style="list-style-type: none"> Increases sense of urgency
Commencement of fast run before the beat	<ul style="list-style-type: none"> Creates an impression of a faster run
Variations of different techniques throughout the piece and repetition of phrases	<ul style="list-style-type: none"> Creates variety Changes the character of the phrase Creates a sense of improvisation or nonchalance The decreased use creates a de-energising effect Highlights the structural development of the music Highlights the different characterisations of contrasting sections Creates ebbs and flows in the piece

Although some texts written about his intentions for specific pieces imply a use of metrical rubato and rhythmic alteration, they do not indicate the extent of his use. In addition, they are heard in the traditional melody-accompaniment as well as other types of textures. The context in which he uses and the structural significance he places upon certain altered rhythms bring forth meanings that are both in agreement and in contradiction to those which are implied by the score. Thus, Debussy's playing reveals that rhythmic alteration can not only contribute to, but also change the meanings of the piece. Performance practice therefore is not only the expressive "additional topping" of a composition, but an active participant in forging musical meaning of a piece.

Chapter 7

Tempo modification

7.1 Historical context

In the seminal text, *Musical expression*, written in 1874, Mathis Lussy propounds that there are, in general, two schools of playing with respect to tempo modification in the late nineteenth century:

One [school] demands a uniform rate of time, without accelerando or ritardando; the other, on the contrary, is accustomed to quicken and slacken with every rhythm, every change. The first regards regular and mechanical precision as the height of perfection; the second will alter the time at every phrase, and not feel anything objectionable in the consequent irregularity.¹

The written evidence about Debussy's playing in this regard is conflicting: on one hand, the eminent conductor, Pierre Monteux, recounted that Debussy "wanted everything exactly in time."² Yet on the other, Long reminisced about

¹ Mathis Lussy, *Traité de l'expression musicale: Accents, nuances et mouvements dans la musique vocale et instrumentale* (Paris: 1864), 6th edition (Paris, 1892), trans. M. E. von Glehn, *Musical Expression* (London, c1885), 163.

² Pierre Monteux, interview with John Ami, BBC, (28 June 1961), in Nichols, *Debussy Remembered*, 186.

Debussy's remark, "you know my opinion on the metronome marks...They are as proper in a bar as are the roses in the space of a morning."³

Perhaps Debussy fits into the league of pianists for whom accounts of their playing do not match their actual performances; for instance, Pugno, Grieg, Paderewski and Reinecke all advocated subtle degrees of tempo modifications while their recordings reveal ample flexibility in timing.⁴ In written evidence and in the recordings of the pianists above, different forms of tempo modification are revealed to be used for various effects. The following table (Table 7.1) lists some of these:⁵

³ Long, *At the piano with Debussy*, 44.

⁴ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 357–403.

⁵ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 331–429.

Table 7.1 Forms of tempo modification and their effects.

Form of tempo modification	Effect
<ul style="list-style-type: none"> • Rushing of figures • Unmarked acceleration of phrases • Accelerando 	<ul style="list-style-type: none"> • Creates a surging, unexpected effect • Adds excitement • Eases the transition between sections of different tempi • Transition from a calm subject to a more agitated subject
<ul style="list-style-type: none"> • Broadening 	<ul style="list-style-type: none"> • Delineates between sections or the end of the piece • Marks the end of a phrase or section
<ul style="list-style-type: none"> • Broadening followed by a hastening • Compensatory rallentando and acceleration 	<ul style="list-style-type: none"> • Enhances dramatic effect of approaching to and receding from a high point, often associated with dynamics • Gives the impression of “stolen” time being returned
<ul style="list-style-type: none"> • Lengthening of single notes • Prolonging of rests 	<ul style="list-style-type: none"> • Increases poignancy, highlight phrase contours and structure • Marks the repetition of a musical idea • Adds emphasis to the silence
<ul style="list-style-type: none"> • Combination of local tempo modifications 	<ul style="list-style-type: none"> • Gives a capricious effect • References various dance rhythms such as the waltz or the mazurka
<ul style="list-style-type: none"> • Slower tempo 	<ul style="list-style-type: none"> • Adds expressiveness to lyrical passages • Gives clarity to the music when an inner voice is to be brought out

Tempo modification is also closely associated with score markings, as remarked by Paderewski:

In fact, every composer, when using such words as *expressivo*, *con molto sentimento*, *con passione*, *teneramente*, etc., demands from the exponent, according to the term indicated, a certain amount of emotion, and emotion excludes regularity. Tempo Rubato then becomes an indispensable assistant...⁶

The above forms of executions and their effects, and score-associated tempo modifications can indeed be heard in Debussy's recordings. Also, the degree of modification is more akin to early-twentieth-century recordings than that of modern recordings.

Tempo modification in Debussy's recordings will be examined below under the headings of:

- Localised forms of tempo modification,
- Global application of localised tempo modification associated with dance and its parody, and
- Tempo modification considered as a large-scale structural device.

⁶ Ignacy Jan Paderewski, "Paderewski on Tempo Rubato," in Henry T. Finck, *Success in Music and How it is Won* (New York: C. Scribner's sons, 1913), 461.

7.2 Localised forms of tempo modification

The following localised forms of tempo modification are heard in Debussy's recordings:

- i. Unnotated rallentando
- ii. Unnotated accelerando
- iii. Unnotated compensatory accelerando and rallentando
- iv. Unnotated localized rushing of notes
- v. The lengthening of a single note
- vi. The shortening of a single note or beat
- vii. The anticipation of a single note or beat⁷
- viii. The delay of a single note or beat.

These techniques are used in similar ways to that of other late-Romantic pianists. Specifically, they are employed in close association to structural events and score notations, and highlight the character of the music.

⁷ The anticipation of a note, technically speaking, is also the shortening of the previous beat; however, the distinction relies upon the context of the music, whether the note or its preceding note is more significantly perceived. The same can be said about the delay of a note and the lengthening of the previous note.

i. Unnotated rallentando

Unnotated rallentando is used in conjunction with a decrease in intensity (notated with dynamic and expressive markings) and to highlight structural and harmonic events (Table 7.2):

Table 7.2 Examples of Debussy's unnotated rallentandos.

Location	Possible score association	Possible association with structural event	Possible intended effect
“Danseuses de Delphes” bars 5 and 10 (Fig. 7.1)		End of phrase	Delineates small-scale structural point
“Danseuses de Delphes” bar 24 (Fig. 7.2)		End of section, before the return of the beginning theme	Delineates large-scale structural point
“La cathédrale engloutie” bar 27 (Fig. 7.3)		Before climactic point	
“Doctor Gradus ad Parnassum” bars 35–6 (Fig. 7.4)		End of phrase and section, change of key	Delineates structural and harmonic event
“La cathédrale engloutie” bars 39–40 (Fig. 7.5)	Decrescendo	End of section	Delineates large-scale structural point and decreases musical intensity
“Jimbo’s lullaby” bars 76–8 (Fig. 7.6)	Morendo	End of piece	Emphasises the sense of finality. This rallentando is executed in contradiction to Schmitz’s advice for this section, that a “retard … should not be added to by a change of tempo in which the musical material (motif of the third theme) would be lost.” ⁸

⁸ Schmitz, *The Piano Works of Claude Debussy*, 121.

Fig. 7.1 “Danseuses de Delphes,” bars 1–10. (CD 4/1)

- I.

Lent et grave ($\text{♩} = 44$) A* = ARPEGGIATION
 (VERY FAST AND ALMOST IMPERCEPTIBLE)

$\text{♩} = 30$ *doux et soutenu*

$\text{♩} = 35$ RALL.

(1) (2) (3) (4)

A* A* A*

RALL.

10

(Tempo markings added in)

Fig. 7.2 “Danseuses de Delphes,” bars 23–6. (CD 4/2)

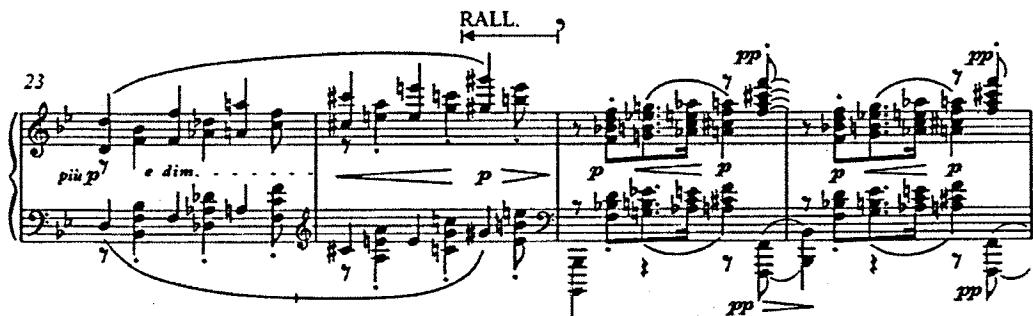


Fig. 7.3 “La cathédrale engloutie,” bars 26–30. (CD 4/3)

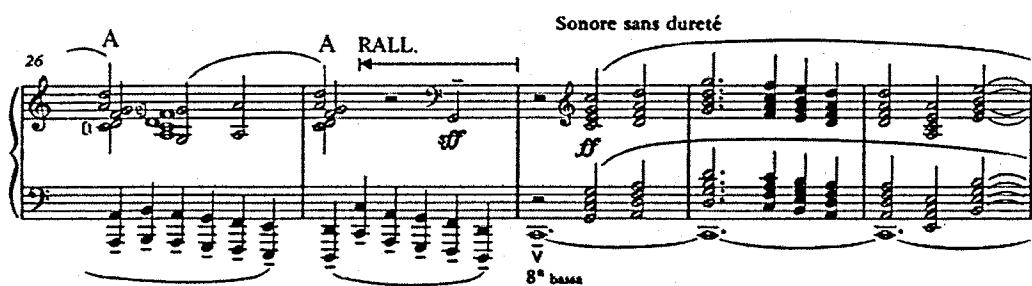


Fig. 7.4 “Doctor Gradus ad Parnassum,” bars 33–8. (CD 4/4)

Fig. 7.5 “La cathédrale engloutie,” bars 36–40. (CD 4/5)

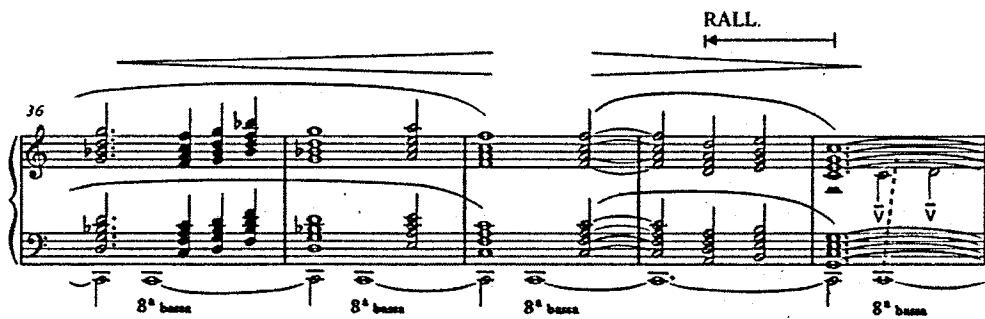
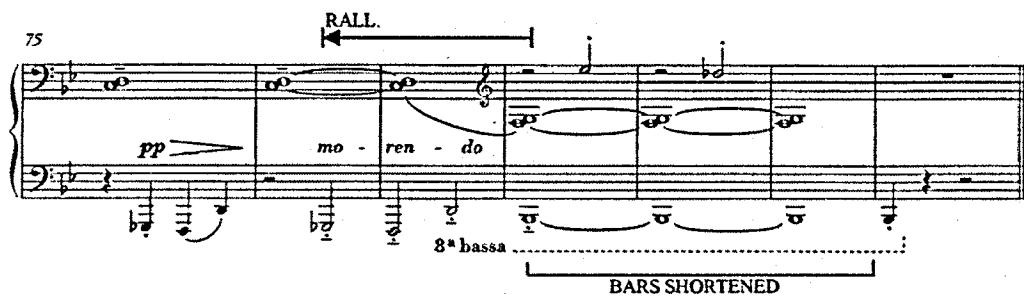


Fig. 7.6 “Jimbo’s lullaby,” bars 75–8. (CD 4/6)



ii. Unnotated accelerando

Similarly, unnotated accelerando is associated with dynamic markings and structural points (Table 7.3):

Table 7.3 Examples of Debussy's unnotated accelerandos.

Location	Possible score association	Possible association with structural event	Possible intended effect
“Doctor Gradus ad Parnassum,” bar 11 and bars 55–6 (Figs. 7.7 and 7.8)	Crescendo	The two instances are the only passages characterised by the ascending broken chordal figures marked with a crescendo. The first instance marks the end of the beginning idea, leading onto its development, while the second instance is at a corresponding place, leading to the coda.	Highlights the structural event. The accelerando contrasts an otherwise steady execution of the passages.
“La danse de Puck,” bars 66–8 (Fig. 7.9)	Crescendos (bar 67 and 68)	Lead up to the climactic point in bar 69.	Intensifies the lead up to the climactic point, at which the tempo suddenly decreases (See the graph in Fig. 7.10, labelled b). This sudden drop emphasises the arrival at the climax. In bar 66, the accelerando suddenly begins, where the second crotchet beat is 31% shorter than the first crotchet (see Fig. 7.10, labelled a), drawing attention to the dramatic accelerando.

Fig. 7.7 “Doctor Gradus ad Parnassum,” bars 9–12. (CD 4/7)

Musical score for "Doctor Gradus ad Parnassum," bars 9–12. The score consists of two staves. The top staff is in common time and has a dynamic of *pp*. The bottom staff is in common time and has a dynamic of *p*. A crescendo bracket labeled "cresc." is shown above the top staff. An acceleration bracket labeled "ACCEL." is positioned above both staves. The music features eighth-note patterns and sixteenth-note patterns.

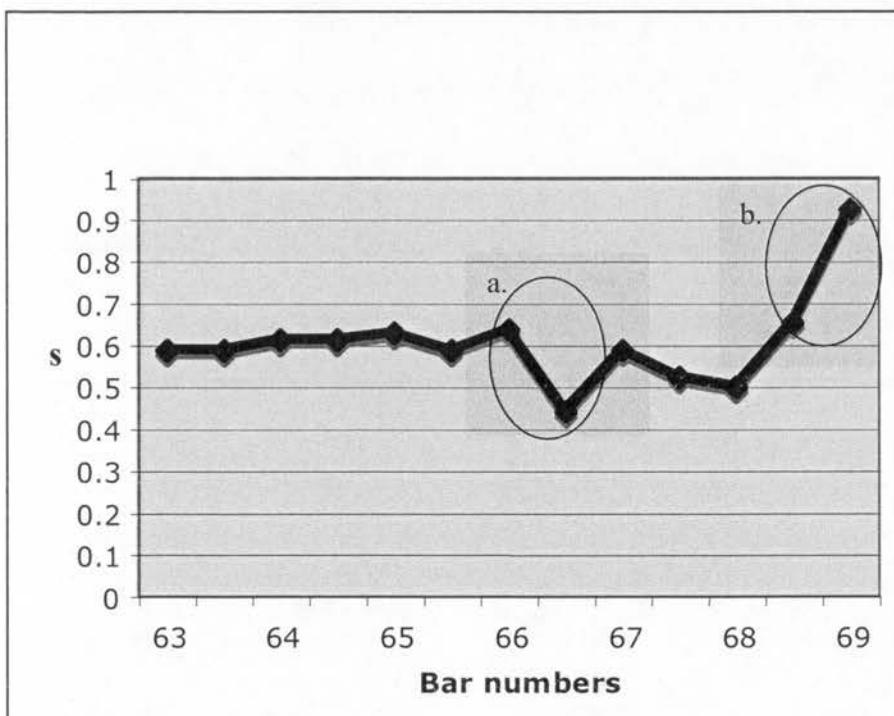
Fig. 7.8 “Doctor Gradus ad Parnassum,” bars 54–7. (CD 4/8)

Musical score for "Doctor Gradus ad Parnassum," bars 54–7. The score consists of two staves. The top staff is in common time and has a dynamic of *pp*. The bottom staff is in common time and has a dynamic of *p*. A crescendo bracket labeled "cresc." is shown above the top staff. An acceleration bracket labeled "ACCEL." is positioned above both staves. The music features eighth-note patterns and sixteenth-note patterns. The lyrics "cre - scen - do - - -" are written above the top staff. The instruction "En animant peu à peu" is written above the bottom staff.

Fig. 7.9 “La danse de Puck,” bars 66–70. (CD 4/9)

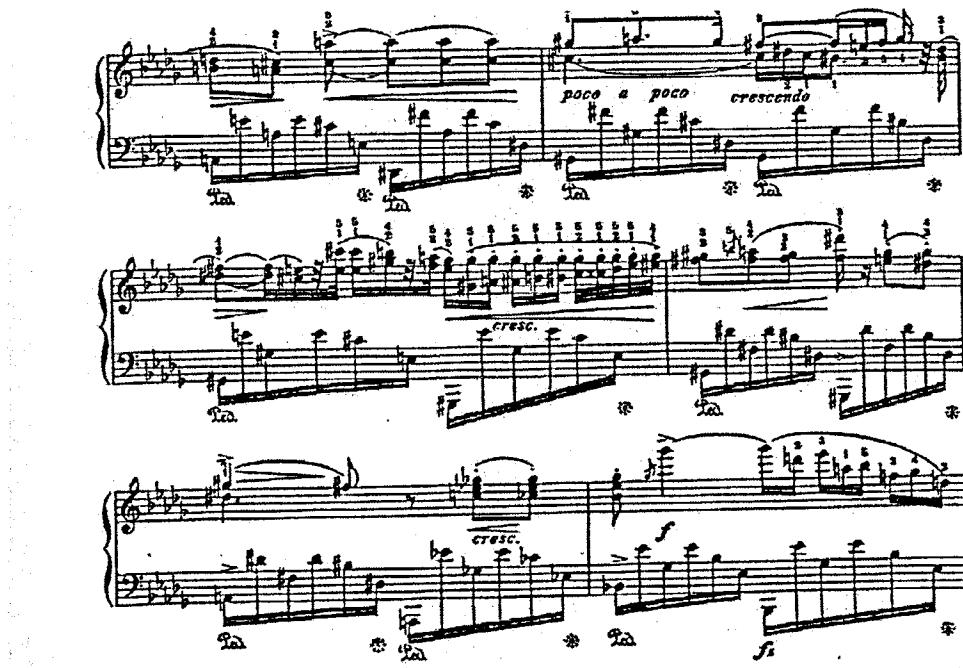


Fig. 7.10 Duration of crotchet beats in “La danse de Puck,” bars 63–9 (sudden accelerando and sudden decrease in tempo circled).



The association of accelerando with the indication "crescendo" and the intensification of the music can be seen in the comparison of Leschetizky's rendition of Chopin's *Nocturne* Op. 27 No. 2 and his edition of the piece (Fig. 7.11):

Fig.7.11 Chopin *Nocturne* Op. 27 No. 2, bars 37–42, ed. by Leschetizky.⁹ (CD 4/10)



⁹Frederic Chopin, "Nocturne Op. 27 No. 2," in *Repertoire Leschetizky—14 ausgewählte Stücke für Pianoforte*, ed. Theodor Leschetizky (Leipzig: D. Rahter, 1880).

iii. *Unnotated Compensatory accelerando and rallentando*

At the turn of the twentieth century, there was a common view that tempo modification should be executed with the principle of compensation. According to pianist Josef Hofmann:

The artistic principles ruling rubato playing are good taste and keeping within artistic bounds. The physical principle is balance. What you shorten of the time in one phrase or part of a phrase you must add at the first opportunity to another in order that time “stolen” (rubato) in one place may be restituted in another. The aesthetic law demands that the total time-value of a music piece shall not be affected by any rubato, hence, the rubato can only have sway within the limits of such time as would be consumed if the piece were played in the strictest time.¹⁰

Whether or not this was practised by pianists is a contentious issue. Paderewski stated that such compensation was not possible—“what is lost is lost.”¹¹ In “The Case of Compensating Rubato”, Martin attempts to explain (see introduction) the use of compensation as a large-scale device that governs the rubato of the whole piece.

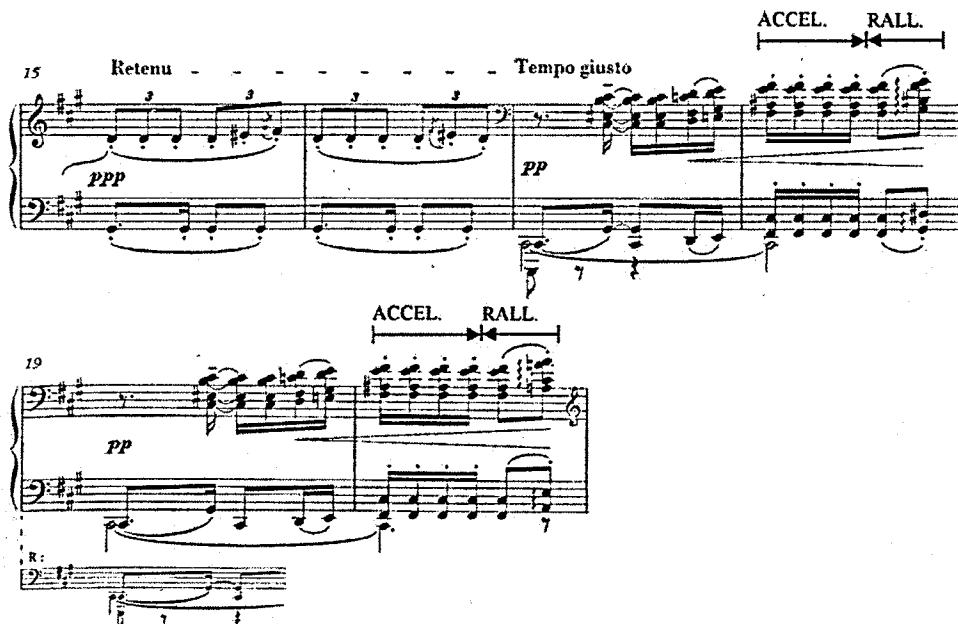
In “La soirée dans Grenade,” Debussy does indeed use compensation on a small-scale level, where compensation occurs during one bar. One example is in the

¹⁰ Josef Hofmann, *Piano Questions Answered* (New York: 1909), this edn. (1920; renewed 1947 by Josef Hofmann; repub. New York: 1976), 100.

¹¹ Paderewski, “Paderewski on Tempo Rubato,” 27.

unlikely place of the “Tempo giusto” section between bars 17 and 20, which should be played in a “live and precise” way according to Schmitz.¹² Debussy’s roll reveals an acceleration followed by a rallentando in bars 18 and 20 (Fig. 7.12):

Fig. 7.12 “La soirée dans Grenade,” bars 17–20. (CD 4/11)



However, the durations from bar to bar do not vary greatly compared to, say, the opening bars. This can be seen in the comparison of the normalised standard deviations of bars 1–3 and bars 17–20 (Tables 7.4 and 7.5):

¹² Schmitz, *The Piano Works of Claude Debussy*, 87.

Table 7.4 Bar-by-bar duration and the normalised standard deviation of bars 1–3 in “La soirée dans Grenade.”

Bar	Duration of bar (seconds)
1	3.456
2	3.093
3	2.944
Average:	3.164
Standard deviation:	0.263
Normalised standard deviation	0.083

Table 7.5 Bar-by-bar duration and the normalised standard deviation of bars 17–20 in “La soirée dans Grenade.”

Bar	Duration of bar (seconds)
17	1.92
18	1.835
19	1.771
20	1.749
Average:	1.819
Standard deviation:	0.077
Normalised standard deviation:	0.042

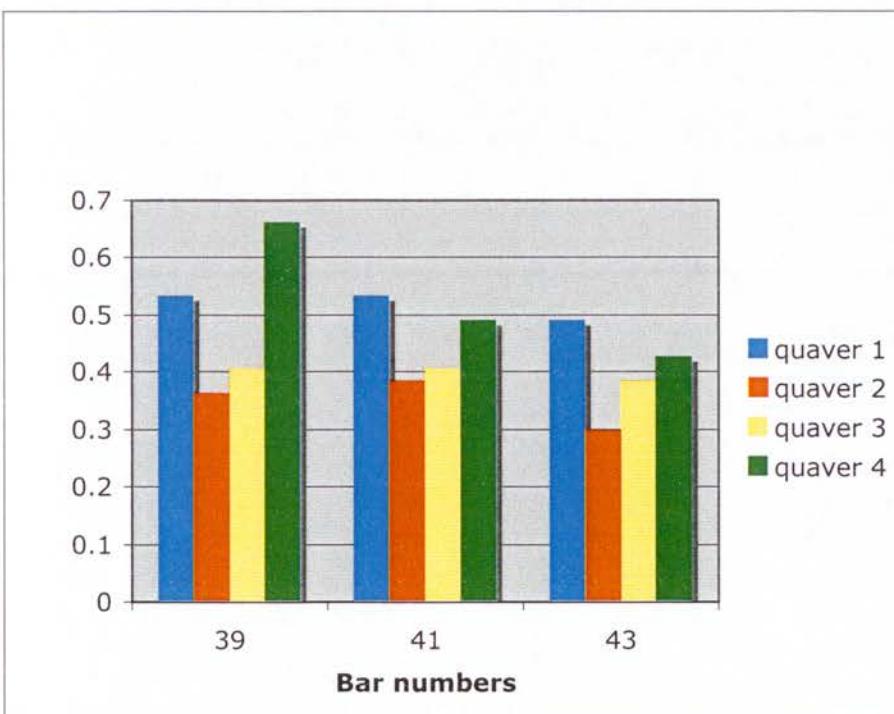
This shows that the duration of the bars in the “Tempo giusto” section vary less than those at the beginning. Thus, the accelerando is more or less compensated for by the rallentando in bars 18 and 20.

Similarly, a rushing of semiquavers results in a shortening of the second and third quaver beats in bars 39, 41 and 43 of the “Très rythmé” section (Fig. 7.13). This is then compensated for by a longer fourth beat. This can be accurately depicted by a graph showing the duration of all four quaver beats in these bars (Fig. 7.14):

Fig. 7.13 “La soirée dans Grenade,” bars 36–43 (CD 4/11).

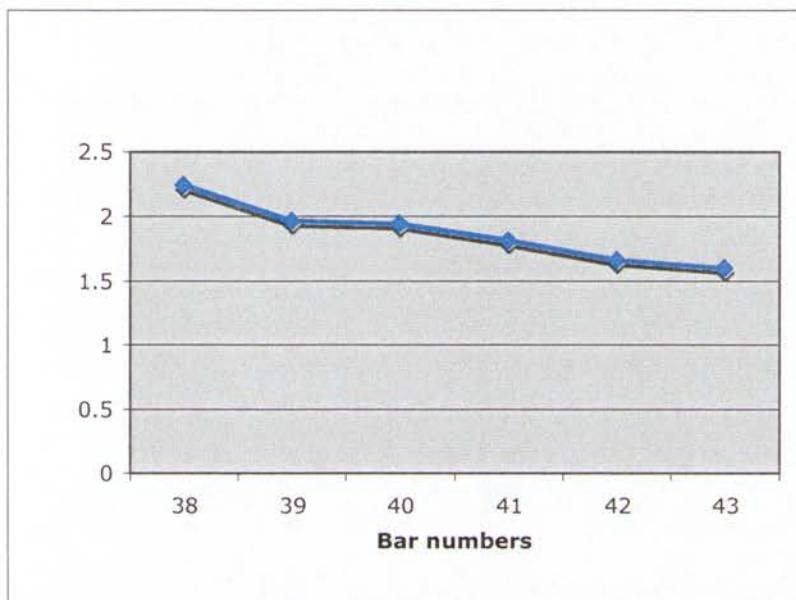


Fig. 7.14 Duration of the four quaver beats in bars 39, 41 and 43 in “La soirée dans Grenade.”



This does not, however, interfere with the general accelerando from bars 38–43; that is, there is a homogenous increase in the duration of each bar. This trend can be seen in the following graph, where there are no peaks or troughs (Fig. 7.15):

Fig. 7.15 Duration of “La soirée dans Grenade,” bars 38–43.



Two contrasting pieces that reveal Debussy’s use of compensatory rubato are *La plus que lente*, marked “molto rubato”, and “Minstrels”, marked “nerveux et avec humour.” The impression of compensation is noticeable in bars 14 and 15 of *La plus que lente* (Fig. 7.16) and between bars 58 and 62 of “Minstrels” (Fig. 7.17):¹³

¹³ Measurements cannot be made because steady tempi were not established previous to the passages being discussed.

Fig. 7.16 *La plus que lente*, bars 11–6. (CD 4/12)

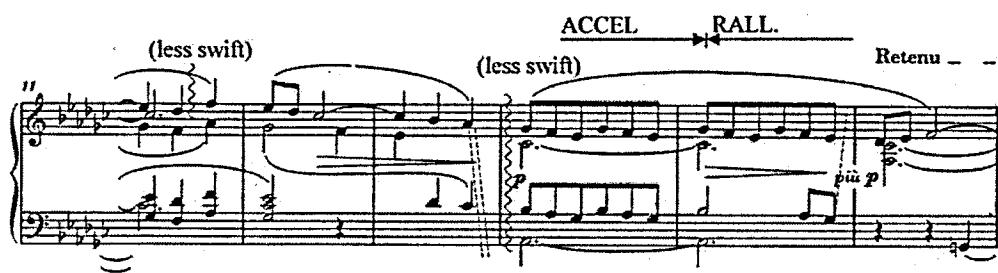


Fig. 7.17 "Minstrels", bars 45–63 (CD 4/13).

The musical score consists of five staves of piano music, numbered 45 through 63. The score includes dynamic markings such as *p*, *f*, *pp*, *ppp*, *pppp*, *acc.*, *RALL.*, *dim.*, and *Expressif*. Performance instructions include *Mouvt*, *(Quasi Tamburo)*, and *p*.

Staff 1 (Top): Measures 45–56. Dynamics: *p*, *f*, *p*, *f*. Articulation: *Mouvt*. Measure 56 ends with a fermata over the right hand.

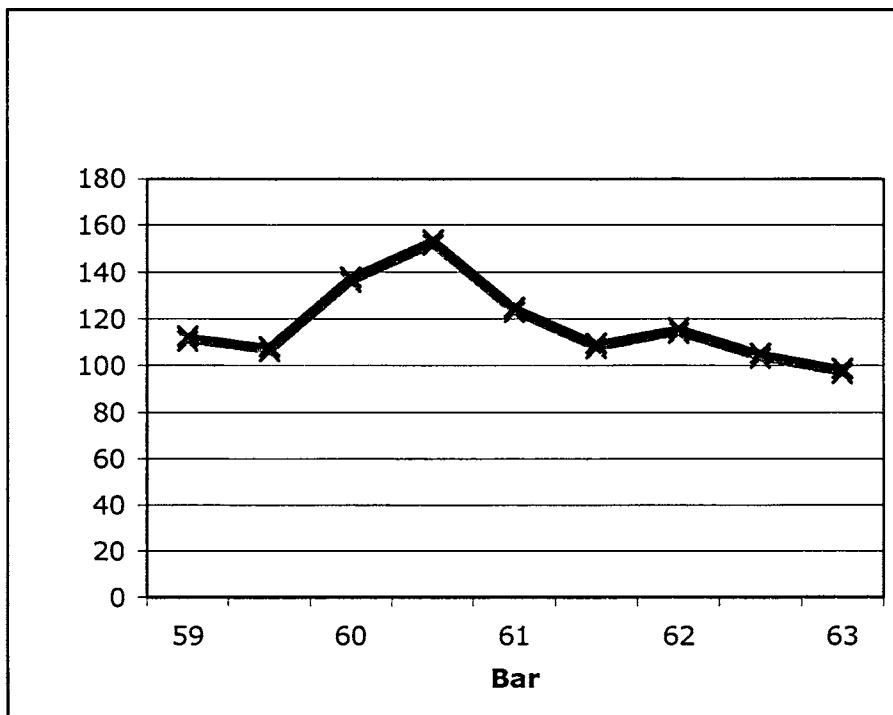
Staff 2: Measures 49–54. Dynamics: *p*, *pp*, *ppp*, *pppp*. Articulation: *[p]*.

Staff 3: Measures 54–59. Dynamics: *ppp*, *pppp*. Articulation: *f* (*Quasi Tamburo*). Measure 59 starts with *ACCEL.* followed by a dynamic line leading to *RALL.*

Staff 4: Measures 59–63. Dynamics: *dim.*, *p*. Articulation: *Expressif*.

The compensatory nature in the “Minstrels” example can be visualised in the following graph showing the tempo fluctuations between bars 58 and 63 (Fig. 7.18):

Fig. 7.18 Tempo fluctuation in “Minstrels”, bars 58–63.



Interestingly, the marking “quasi tamburo” (like a drum) may suggest to the performer that the passage should be executed in strict time, contrary to Debussy’s playing. While the compensatory rubato in *La plus que lente* creates an impression of a natural ebb and flow, that in “Minstrels” sounds exaggerated, adding to the “nervous” and “humorous” character of the piece.

iv. Unnotated localised rushing of notes

The unnotated localised rushing of notes is closely associated with notated figures that are consistently modified within one piece as well as across a few pieces. The rushing of notes in “Golliwogg’s Cake-Walk” and “Minstrels” will be discussed in detail section 7.3 dealing with dance and its parody. Other examples of localised rushing of notes can be seen in Table 7.6:

Table 7.6 Examples of Debussy's unnotated localised rushing of notes.

Location	Possible score association	Possible association with structural event	Possible intended effect
"Serenade for the Doll," bars 96–7, 100–1 (Fig. 7.19)	Crescendo (dynamic association)		The quaver runs are associated with crescendos, creating a capricious effect.
"The Little Shepherd," bars 1, bars 13–15, bars 19–20 (Figs. 7.20 and 7.22)	All semiquaver triplets in the piece (rhythmic association)		This consistent rushing of semiquaver triplets imitates the shepherd's solo melody on the flute.
"The Little Shepherd," bars 9, 16 and 29 (Figs. 7.21–7.23); "Golliwogg's Cake-Walk," bar 126 (Fig. 7.24)	All demisemiquaver runs of descending adjacent notes found in the recordings (rhythmic and pitch association)		The rushing of the demisemiquavers energises the figure. The consistency of the practice associated with the figure suggests that they should not be played literally in other works. Rather, they should be interpreted as a gesture of a quick sweep.
"Le vent dans la plaine," bars 51 and 53 (quavers tripletized) (Fig. 7.25)	Quavers that precede triplets in bar 54 and 55 (motivic association)	End of section, preceding the coda	The tripletisation of the quavers creates a rhythmic, motivic association with the triplets to come. Because of the written triplets' appearance only at the end of the piece, they can be interpreted as a trait of the coda, the new motif signifying the end. ¹⁴ However, in creating this motivic association, the start of the coda is not as significant, and the line between the recapitulation and the coda is blurred. Thus, Debussy unifies the coda and the thematic material in his use of tempo modification.

¹⁴ The appearance of triplets only in the coda of a piece is a Classical device. Examples include the finales of Haydn's String Quartets Op. 74, No. 2 in F major and Op. 76 No. 2 in D minor.

Fig. 7.19 “Serenade for the Doll,” bars 96–101. (CD 4/14)

Fig. 7.20 “The Little Shepherd,” bars 1–4. (CD 4/15)

Fig. 7.21 "The Little Shepherd," bars 12–20. (CD 4/15)

Musical score for "The Little Shepherd," bars 12–20. The score includes three staves of music with various dynamics and performance instructions:

- Bar 12:** Dynamics include *p*. Performance instructions: *au Mouv'*, RUSHED, RUSHED, RUSHED.
- Bar 15:** Dynamics include *p*, *più p*, *pp*. Performance instructions: RUSHED, RUSHED, Cédez, *più p*, *pp*, RUSHED *PPP*.
- Bar 19:** Dynamics include *p*. Performance instructions: RUSHED, LENGTHENED ACCEL, *au Mouv'*, *un poco più forte*, *Plus mouvementé*.

Fig. 7.22 "The Little Shepherd," bars 5–11. (CD 4/15)

Musical score for "The Little Shepherd," bars 5–11. The score includes two staves of music with various dynamics and performance instructions:

- Bar 5:** Dynamics include *p*. Performance instructions: Plus mouvementé, RUSHED, RUSHED, DELAYED.
- Bar 8:** Dynamics include *p*, *più p*, *pp*. Performance instructions: *au Mouv'*, Cédez, DELAYED, RUSHED *PPP*.

Fig. 7.23 "The Little Shepherd," bars 28–31. (CD 4/15)

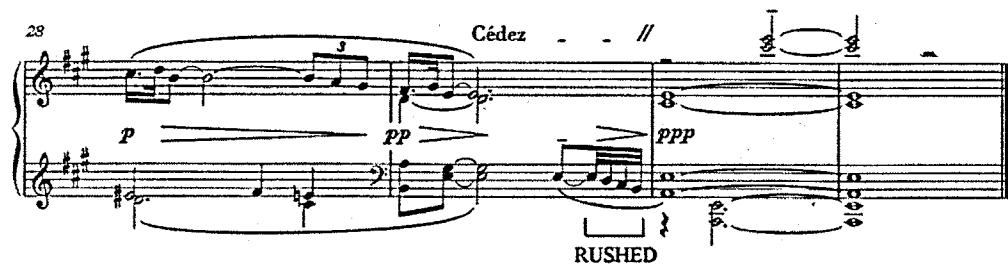


Fig. 7.24 "Golliwogg's Cake-Walk," bars 120–6. (CD 4/16)

Musical score for "Golliwogg's Cake-Walk," bars 120–6. The score consists of two staves. The top staff is in common time with a key signature of one sharp. The bottom staff is in common time with a key signature of one sharp. Measure 120 begins with a dynamic *f*, followed by *ff* and *p*. The bottom staff ends with a dynamic *p*. A bracket labeled "RUSHED" is placed under the first measure of each staff. Measure 121 begins with a dynamic *f*, followed by *ff* and *p*. The bottom staff ends with a dynamic *p*. A bracket labeled "RUSHED" is placed under the first measure of each staff. Measure 122 begins with a dynamic *p*, followed by *f*. The bottom staff ends with a dynamic *p*. A bracket labeled "RUSHED" is placed under the first measure of each staff. Measure 123 begins with a dynamic *p*, followed by *f*.

Fig. 7.25 “Le vent de plaine,” bars 51–3. (CD 4/17)

From the above examples, it can be seen that the rushing of notes emphasises rhythmic, pitch, motivic and dynamic associations with the score, helping to characterise the pieces as well as creating motivic unity.

v. *The lengthening of a note*

The lengthening of a note is closely associated with an increased expressiveness and certain gestures appropriate to the character and genre of the piece (Table 7.7):

Table 7.7 Examples of Debussy's lengthening of a single note.

Location	Possible score association	Possible association with structural event	Possible intended effect
“La cathédrale engloutie,” bar 56, 5 th crotchet beat (Fig. 7.26)	Dans une expression allant grandissant, Expressif et concentré [With an expression that is growing, Expressive and concentrated] (bar 47), crescendo	Start of a new section	The use of rubato emphasises the expressiveness (“expressif”) of the section. It also distinguishes this section from the more profound (“profondément”) and less emotive character of the preceding sections.
“La cathédrale engloutie,” bar 73, 4 th crotchet beat (Fig. 7.27)		Recapitulation; return of the first theme	Signifies a change in the interpretation of the returning theme, which was played with no rubato in the exposition.
<i>La plus que lente</i> , bar 45, 2 nd crotchet beat (Fig. 7.28)	crescendo	The bar preceding the climactic start of the “Appassionato” section	Creates suspense before the fast-paced section. This is also related to the dancing gesture of the waltz, of being ready on the “tip-toes” before the down beat.
“Golliwogg’s Cake-Walk,” bars 41, 121, first quaver rest (Fig. 7.24)	<i>ff</i> at the end of bar 40 and 120, then <i>p</i> in the beginning of 41 and 121		The lengthening of the rest dramatises the contrast between the extreme dynamics, and fits appropriately in the context of the exaggerated gestures found throughout this piece (discussed later).

Fig. 7.26 "La cathédrale engloutie," bars 56–8. (CD 4/5)

Fig. 7.27 "La cathédrale engloutie," bars 72–5. (CD 4/5)

Fig. 7.28 *La plus que lente*, bars 42–6. (CD 4/18)

A common practice in the late-nineteenth century, the lingering on a particular note can also be heard on the downbeat of bar 5 in Paderewski's rendition of Schumann's *Fantasiestücke*, *Des Abends* Op. 12 No.1 (Fig. 7.29 and CD 4/19):

Fig. 7.29 Schumann *Des Abends* Op. 12 No. 1, bars 1–20.¹⁵



¹⁵ Robert Schumann, *Phantasie-Stücke für das Pianoforte von Robert Schumann, Carefully Revised, Fingered and Supplemented With Instructive Annotations by Moritz Moskowski* (London: Augener & Co., 1882), in Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 394; Robert Schumann, 'Fantasiestücke Op. 12 Nos. 1–3', acoustic recording by I.J. Paderewski (1912), Ignacy Jan Paderewski (PL 182, 1995).

vi. The shortening of a note or beat

A sense of unsteadiness is created by the shortening of a note or beat, adding to the characterisation of “Jimbo’s Lullaby” and “La danse de Puck” (see Table 7.8).

Table 7.8 Examples of Debussy’s shortening of a single note or beat.

Location	Possible score association	Possible association with structural event	Possible intended effect
“Jimbo’s Lullaby” bars 48, 49, 51, 58 (shortening of the third or fourth crotchet beats) (Fig. 7.30)	Doux et un peu gauche [gentle and a little clumsy] (in the beginning)		Creates a sense of unsteadiness, thus highlighting the “gauche” (clumsy) character of the piece.
“La danse de Puck” bars 11, 21, 23, 49, 50 (shortening of second crotchet beat) (Fig. 7.31–3)	Capricieux et léger [Capricious and light] (Tempo marking)		Creates a sense of unsteadiness, thus giving a capricious effect.

Fig. 7.30 “Jimbo’s Lullaby,” bars 47–58. (CD 4/20)

* TE : En animant

Fig. 7.31 “La danse de Puck,” bars 10–2. (CD 4/21)

Fig. 7.32 “La danse de Puck,” bars 21–5 (note that the Bb and Eb in the bass are omitted in the recording). (CD 4/21)

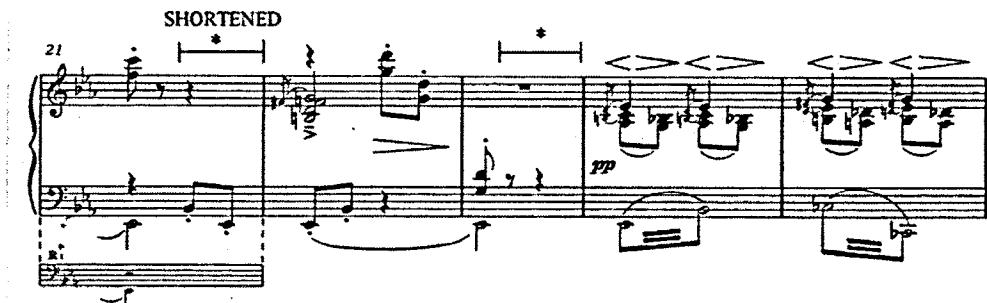
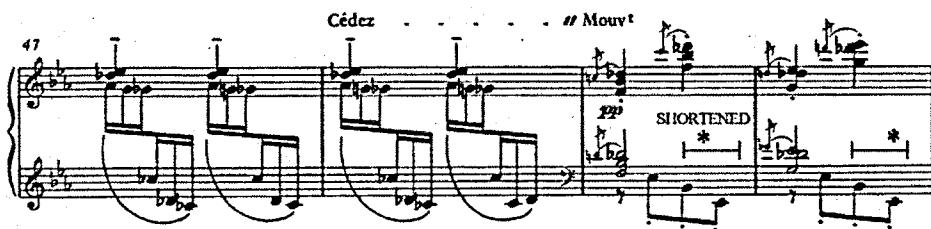


Fig. 7.33 “La danse de Puck,” bars 47–50. (CD 4/22)



A sense of regular shortening of the last beat can also be heard in Reinecke’s rendition of Mozart’s *Larghetto* arranged by Reinecke in his 1905 piano rolls (CD 4/33), bringing out the imitation between the left and right hands and creating an “aural effect of lurching and erratic surging”¹⁶ (CD 4/32).

¹⁶ Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," 355.

vii. *The anticipation of a note or beat*

In addition to associations with score markings and structural events, the anticipation of a note or beat also differentiates between multi-layered textures (Table 7.9):

Table 7.9 Examples of Debussy's anticipation of a single note or beat.

Location	Possible score association	Possible association with structural event	Possible intended effect
“Danseuses de Delphes,” bar 16, fifth quaver beat (Fig. 7.34)	<i>f</i>	Climax of the piece	Decreases the rigidity of the rhythm and moves the music forward.
“La cathédrale engloutie,” bar 58, fifth crotchet beat (Fig. 7.26)	Crescendo		Increases the momentum of the music.
“Le vent dans la plaine” bar 13, second crotchet beat (Fig. 7.35)	<i>sfz</i>		Adds to the surprise element of the sforzando.
“The Snow is Dancing” bars 1–6, bars 29–33, shortening of the second minim beat in the bar (Fig. 7.36)			Differentiates the melodic notes from the accompaniment by breaking the regularity of the latter. This can be visualised in the graph in Fig. 7.37, where the shorter duration of the second minim indicates the anticipation of the melodic notes on the first minim.

Fig. 7.34 "Danseuses de Delphes," bars 16–8. (CD 4/2)

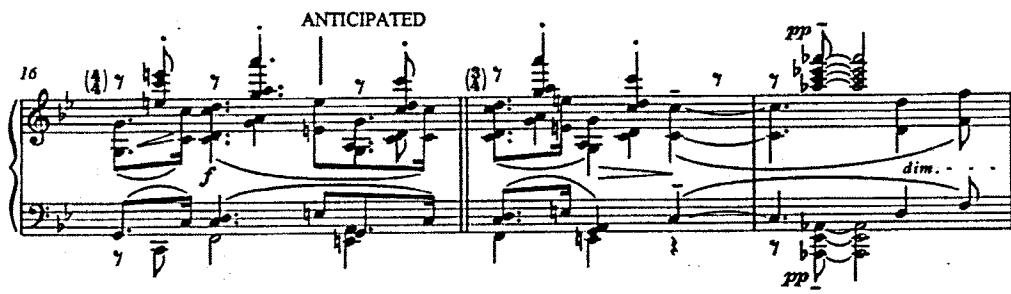
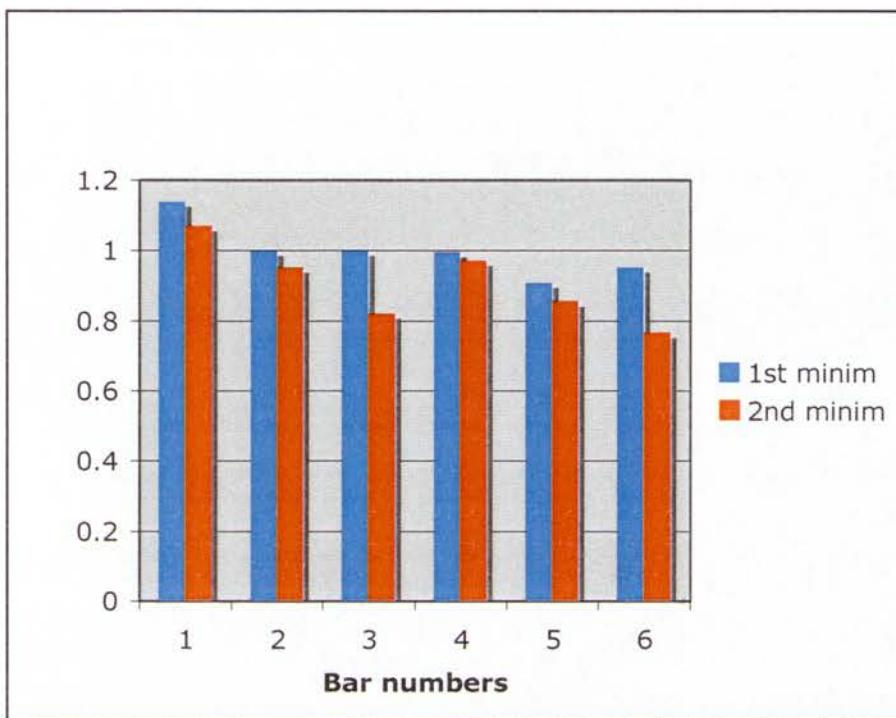


Fig. 7.35 "Le vent dans la plaine," bar 13. (CD 4/24)

Fig. 7.36 "The Snow is Dancing," bars 1–6. (CD 4/25)

Fig. 7.37 Duration of first and second minims in “The Snow is Dancing,” bars 1–6.



viii. *The delay of a note or beat*

The delay of a note or beat creates a sense of spaciousness, emphasises notes with tenutos and is used to contrast the rushing of notes (Table 7.10):

Table 7.10 Examples of Debussy's delay of a single note or beat.

Location	Possible score association	Possible association with structural event	Possible intended effect
"Jimbo's Lullaby" bars 19–20 (Fig. 7.38)	Tenuto of second beats		Dumesnil recalls Debussy commenting that that "the 'wrong' accents' should be "emphasized" ¹⁷ here. The delay of the tenutos (the wrong accents) is thus used for emphasis.
"Danseuses de Delphes" bar 18 (Fig. 7.34)	pp, tenuto		Creates a sense of spaciousness
"The Little Shepherd" bar 6, 8 (Fig. 7.22)	Decrescendo		Creates a sense of spaciousness and exaggerates the difference between the rushed semiquaver and demisemiquaver notes and the delayed minim.

Fig. 7.38 "Jimbo's Lullaby," bars 19–20. (CD 4/26)



¹⁷ Dumesnil, "Coaching with Debussy," in Nichols, *Debussy Remembered*, 162.

It can be seen that local applications of tempo modification in Debussy's playing are closely associated with structural events and score notations. In particular, the localised rushing of notes has strong rhythmic, pitch, motivic and dynamic associations. In some cases, such as the anticipation and the delay of a note or beat, the application of one type of tempo modification across different pieces creates similar effects. However, some types of tempo modification can have many possible effects, for instance, the lengthening and shortening of notes. Debussy's localised use of tempo modification is similar to that of other late-Romantic pianists, and serves to highlight the character and structure of the music.

7.3 Global application of localised tempo modification associated with dance and its parody

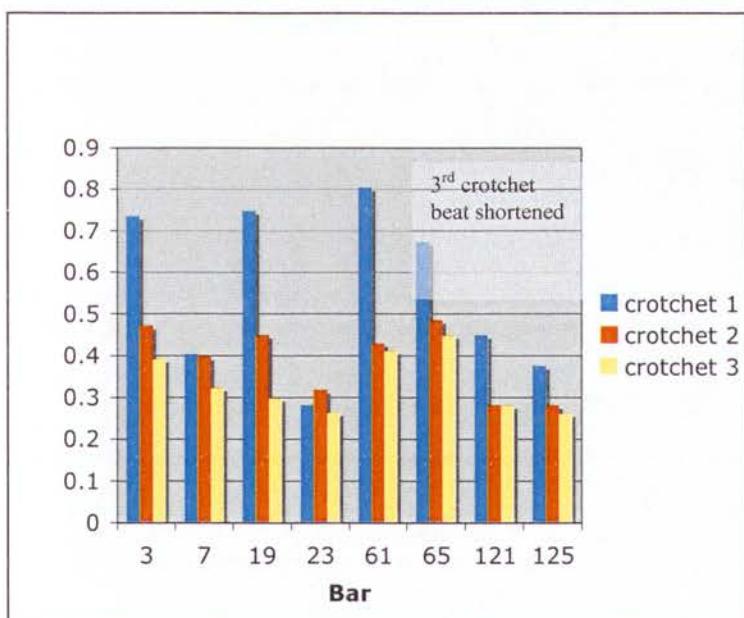
Localised forms of tempo modification are applied globally to strengthen the genre association of the pieces in the late-Romantic recordings.¹⁸ Two contrasting genres of dance can be heard in *La plus que Lente*, and "Golliwogg's Cake-Walk" and "Minstrels." These pieces are rhythmic altered in different ways to highlight the associations to their respective genres of dance. The waltz characterises the first piece, which is traditionally executed in a particular manner as discussed in the previous chapter.¹⁹

¹⁸ Brée, in *Die Grundlage der Methode Leschetizky*, describes not only the waltz rhythm but also the rhythmic peculiarities of the Mazurka and the Polonaise. Brée, *Die Grundlage der Methode Leschetizky*, 70–1.

¹⁹ Brée's instruction for the waltz is, again, as follows: "An abbreviation of the first beat *after* striking it is permitted in waltz rhythm, for instance, by accenting

The impression of the shortened first beat is achieved by the rhythmic alteration of the left hand between bars 1 and 7 of *La plus que lente*. However, the third beat, contrary to Bree's instruction that it should be "in exact time," is also often shortened. This occurs, for instance, in the third and seventh bars of all of the recurring instances of the theme, with only one exception. These instances occur in bars 3 and 7, bars 19 and 23, bars 61 and 65 and bars 121 (the exception) and 125 (Fig. 7.39 and 7.40):

Fig. 7.39 Durations of the three crotchet beats in the third and seventh bars of the theme in *La plus que Lente*.



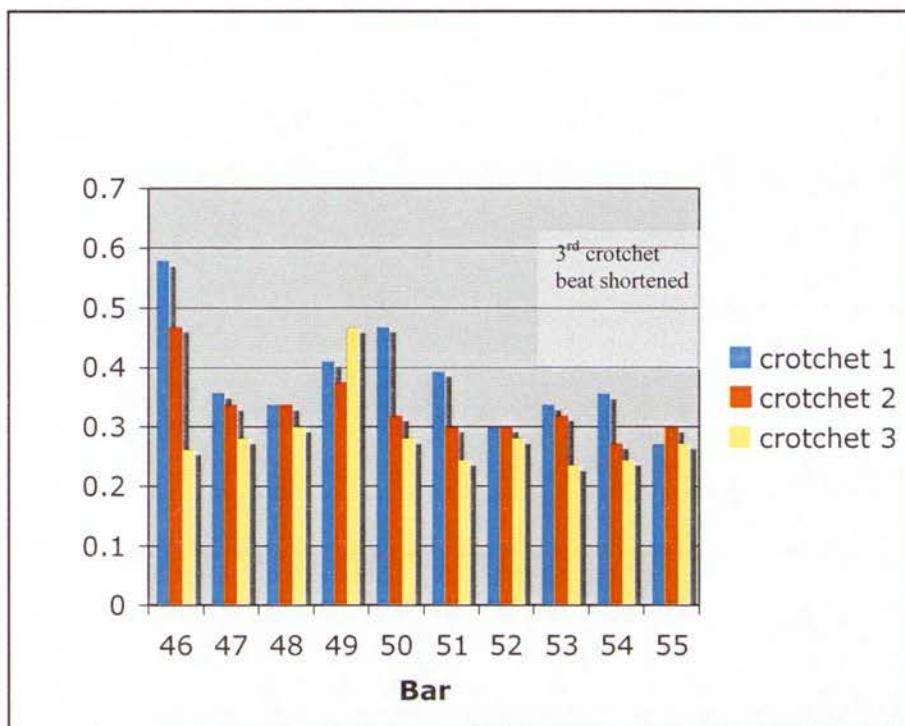
the bass tone in the accompaniment and rapidly carrying it over to the second beat; the resulting—however slight—abbreviation of the first beat may here be made good by throwing the wrist upward; then striking the third beat somewhat more lightly, *staccato*, and in exact time. By the wrist-movement one gives the accompaniment "swing"; but guard against overdoing it, otherwise the rhythmic effect becomes trivial". Brée, *Die Grundlage der Methode Leschetizky*, 70–1.

Fig. 7.40 *La plus que lente*, bars 1–8. (CD 4/12)

The consistent shortening of the third beat can also be heard in bars 47–55, with the exception of bar 49 which marks the end of the first phrase (Fig. 7.41 and 7.42):

Fig. 7.41 *La plus que lente*, bars 47–56.

Fig. 7.42 Durations of the three crotchet beats in *La plus que lente*, bars 46–55.



Thus, Debussy's waltz consists of a shortening of the first and third beats through the metrical alteration technique of dotting (see Section 6.4) and the occasional shortening of the third beat. As seen in the graphs above, the first beat is often lengthened; however, the dotting of the bass gives the impression of the shortened first beat that is referred to by Brée. Debussy's rhythmic allusion to the waltz is therefore mostly in concordance with Brée's instruction; however, verbal description does not capture the nuances and details of Debussy's playing.

In general, an impression of a flowing type of tempo modification related to the waltz and phrase structure is characteristic of *La plus que lente*.

Contrastingly, in “Golliwogg’s Cake-Walk” and “Minstrels,” the latter marked “nerveux et avec humour,” a more jagged and unpredictable sense of the beat is heard to characterise their temperaments as well as their genre of dance.²⁰ Interestingly, in “Golliwogg’s Cake-Walk,” Debussy calls for “a strong, sharp, rhythm”²¹, not indicating any type of tempo shifts. Moreover, the jagged sense of beat is in contradiction to Schmitz’s advice that in the recapitulation (and presumably also the exposition that contains similar material), “strictness must be maintained.”²² There is a frequent lengthening of the first quaver beat and a shortening of the second quaver beat (with respect to the previous quaver beat), as heard between bars 6 and 13 (Fig. 7.43). However, there is also an impression of erratic shortening of beats, as seen in the graph in Fig. 7.44 where different beats of the bar are shortened.

²⁰ The two pieces are closely connected in their titles’ origins: Golliwog is a blackface minstrel doll and the cake walk was, in actual fact, popularised by the blackface minstrel show at the turn of the 20th century. See H. Wiley Hitchcock and Pauline Norton, "Cakewalk," *Grove Music Online* ed. Laura Macy (Accessed 24 June, 2009), <http://www.grovemusic.com>.

²¹ Dumesnil, “Coaching with Debussy,” in Nichols, *Debussy Remembered*, 162.

²² Schmitz, *The Piano Works of Claude Debussy*, 162.

Fig. 7.43 "Golliwogg's Cake-Walk," bars 1–15. (CD 4/27)

Allegro giusto

RUSHED *

*

Très net et très sec

5

p

p

pp

p

LENGTHENED LENGTHENED LENGTHENED

11

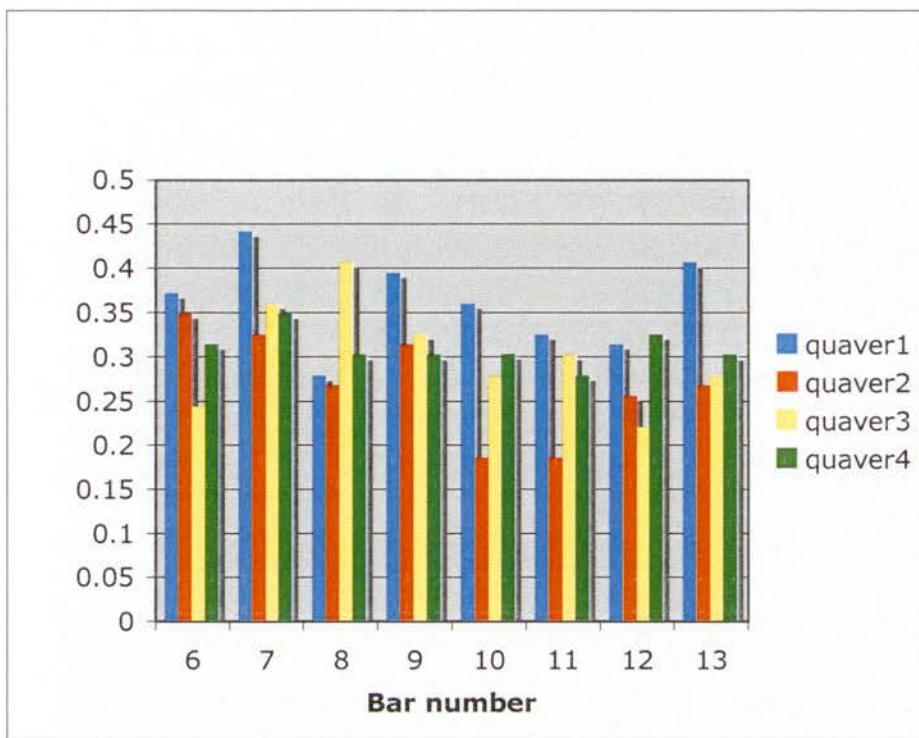
*

*

*

LENGTHENED LENGTHENED LENGTHENED

Fig. 7.44 Duration of quaver beats in “Golliwogg’s Cake-Walk,” bars 6–13.



Likewise, an impression of the rushing of the beats that contain semiquavers can be heard in bars 1–8 of “Minstrels” (Fig. 7.45):

Fig. 7.45 "Minstrels," bars 1–63. (CD 4/28)

54

- XII.

Modéré (Nerveux et avec humour)

RUSHED

Cédez . . Mouv

Cédez . . Mouv (un peu plus allant)

(très détaché)

RUSHED RUSHED

BREAK

22

27

31

(PAUSE)

En cédant

8^a basso

36

Moqueur

41

LENGTHENED

56
 45 Mouv't

49

54

ACCEL → RALL.

59

Expressif

63

Certain rhythmic figures are also strongly associated with the rushing of notes to create humour and a sense of capriciousness. It is remarkable that these relatively

generic figures are always associated with the same type of tempo modification (that is, rushing) in the two pieces of similar character and genre (Table 7.11):

Table 7.11 Tempo modification in “Golliwogg’s Cake-Walk” and “Minstrels.”

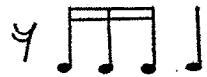
Location	Score association	Possible intended effect
<p>“Golliwogg’s Cake-Walk,” bars 3–4, 32, 40, 113, 120 (examples in Figs. 7.43 and 7.46)</p> <p>“Minstrels” bar 14, 24 (Fig. 7.45)</p>	<p>All syncopated semiquaver run of three notes followed by a longer note: e.g.</p> 	<p>Rushing is heard whenever this figure appears, and seems to be inherently tied to the figure to enhance the surging effect.</p>
<p>“Golliwogg’s Cake-Walk,” bars 6, 8 (Fig. 7.43);</p> <p>“Minstrels,” bars 16, 26, 45–55 (examples in Fig. 7.45)</p>	<p>All “stand-alone” pairs of semiquavers (that is, not with a larger group of semiquavers): e.g.</p> 	<p>The rushing of the semiquavers is often coupled with the shortening of the preceding quaver beat and a significant lengthening of the next quaver. (see Fig. 7.47) This creates a sense of unsteadiness and unpredictability, as the figures fall on different parts of the bar.</p>

Fig. 7.46 “Golliwogg’s Cake-Walk,” bars 110–23. (CD 4/16)

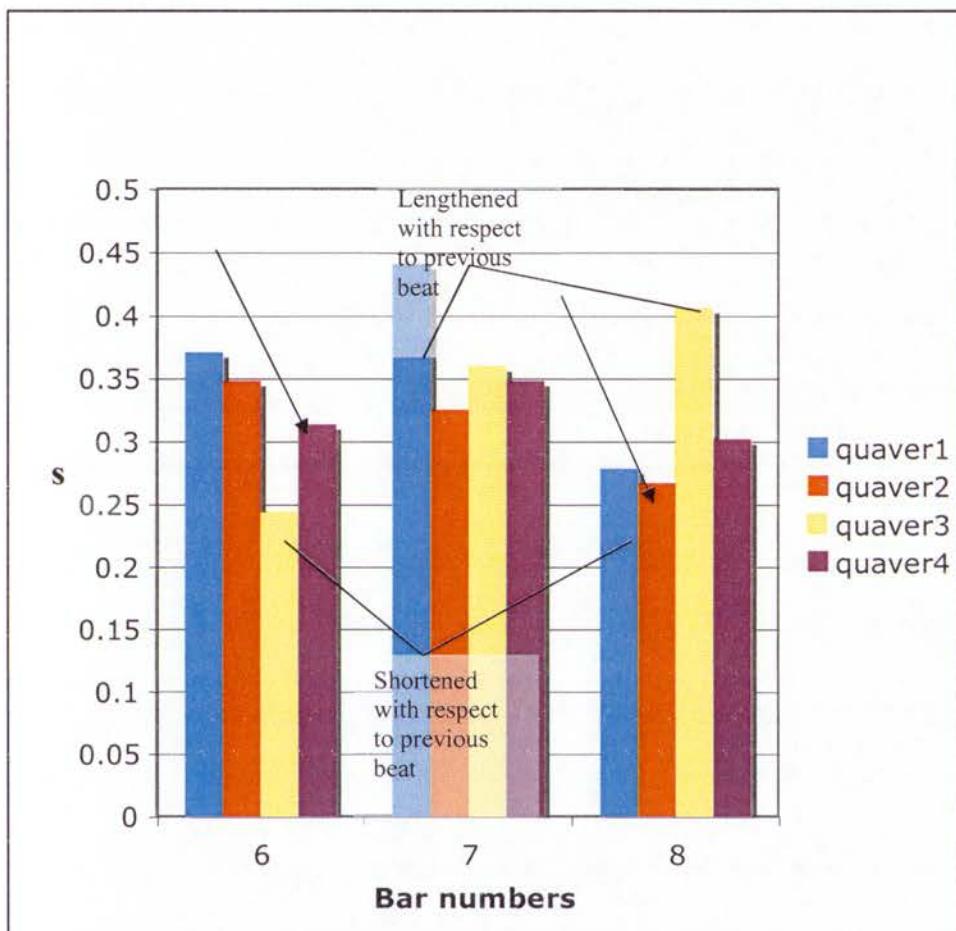
The musical score consists of three staves of music for piano, spanning three system brackets. The first bracket covers bars 110–112, the second bracket covers bars 114–116, and the third bracket covers bars 119–121. The score includes dynamic markings such as *p*, *f*, and *ff*, and performance instructions like *RUSHED* and *LENGTHENED*. The piano keys are shown with black and white dots, and the music is set against a background of wavy lines.

Bar 110: Dynamics *p*, *p*, *f*, *ff*. Performance instruction: **RUSHED**.

Bar 114: Dynamics *p*, *p*, *f*.

Bar 119: Dynamics *f*, *ff*, *p*, *p*. Performance instruction: **LENGTHENED**, **RUSHED**.

Fig. 7.47 Duration of quavers in “Golliwogg’s Cake-Walk,” bars 6–8 (arrows point to the quaver beats with the pair of semiquavers).

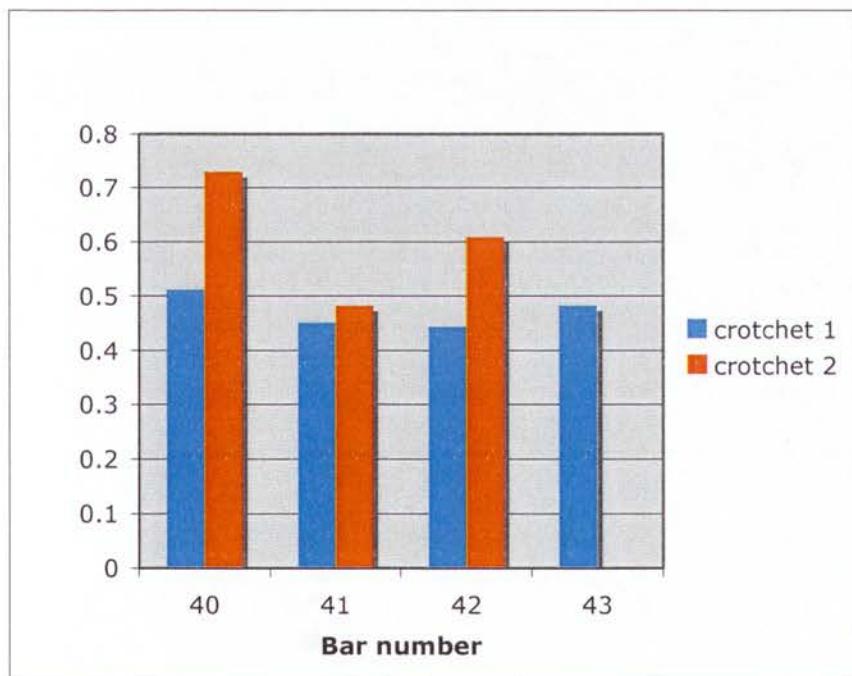


Other types of tempo modification are also used (Table 7.12):

Table 7.12 Types of modifications in “Minstrels.”

Location	Type of tempo modification	Possible score association	Possible intended effect
“Minstrels” bars 27, 31 (Fig. 7.45)	Rushing of the second beat	Crescendo	Creates a sense of lunging forward.
“Minstrels” bar 19 (Fig. 7.45)	Break in the semiquaver pattern		Increases the sense of unpredictability
“Minstrels” bars 33–4 (Fig. 7.45)	Pause	Between the <i>sf</i> and <i>p</i>	Highlights the sudden change of dynamics
“Minstrels” bars 39–43 (Figs. 7.45 and 7.58)	Lengthening of notes (see Fig. 7.48)	↖ ↗ , crescendo and tenuto markings	Increases the sense of instability and emphasises tenuto and dynamic markings

Fig. 7.48 Duration of crotchet beats in “Minstrels,” bars 40–3.



Thus, in “Golliwogg’s Cake-Walk” and “Minstrels,” Debussy uses tempo modification in similar ways to characterise the two pieces. His performance of these two pieces exemplifies the effect of tempo modification described by Paderewski, that is, to “convert[s]...steadiness into capriciousness” and “give[s] music, already possessed of the metric and rhythmic accents, a third accent, emotional, individual.”²³

The use of more flowing types of tempo modification such as the compensatory rubato (point iii of 7.2), and the somewhat consistent shortening of the first beat in the waltz contrasts the more jagged style of tempo modification in the minstrel’s cakewalk.²⁴ While the shortening of the first and third beats in the simple triple time of the waltz is regular and predictable because it is steeped in a long-existing tradition (as detailed by Brée), the shortening of the second and third beats, and other seemingly random beats in “Golliwogg’s Cake-Walk” and “Minstrels” is irregular and unpredictable. The difference in tempo modification in the waltz and the minstrel’s cakewalk reflect oppositions on a few levels. Gesture-wise, it provides contrast between the graceful movements of the waltz and the awkward, comical and exaggerated gestures of the cakewalk. On an extra-musical level, while the Viennese waltz is associated with the Western dance tradition, gracefulness and overtones of aristocracy, the cakewalk is a parody thereof: the cake walk originates from the black slaves parodying the

²³ Paderewski, "Paderewski on Tempo Rubato," 30.

²⁴ “Minstrels” and “Golliwogg’s Cake-Walk” are indeed related: Golliwogg is a blackface *minstrel* doll. See “Jim Crow Museum of Racist Memorabilia”, *Ferris State University* <http://www.ferris.edu/news/jimcrow/golliwog/>

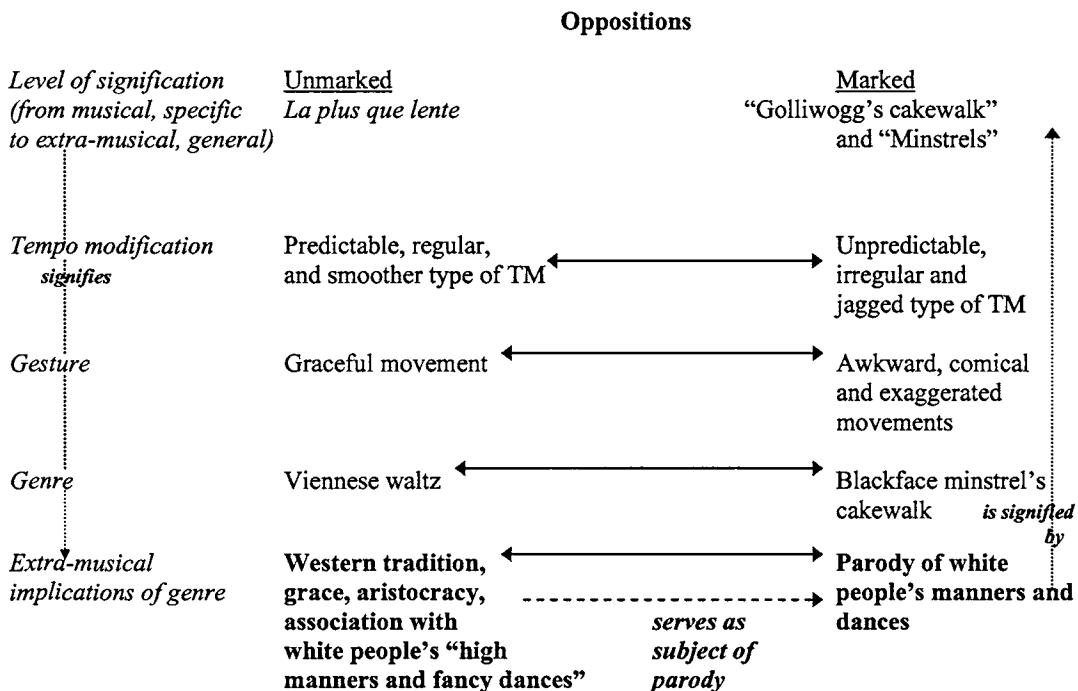
white people's "high manners and fancy dances."²⁵ Using Hatten's theory of semiotics, the different levels of signification of marked oppositions can be seen in Fig. 7.49. Here, "Minstrels" and "Golliwogg's Cake-Walk" are "marked" since traditionally, they are associated with the concepts of racial "otherness";²⁶ contrastingly, "La plus que lente" is strongly associated with the Western waltz.²⁷

²⁵ Hitchcock and Norton, "Cakewalk."

²⁶ Caddy, "Parisian Cake Walks": 289.

²⁷ Although the three pieces are not from the same suite or set of works, the comparison between *La plus que lente* and "Golliwogg's Cake-walk" and "Minstrels" is done in order to make sense of the tempo modification that is being employed in the recordings.

Fig. 7.49 Marked oppositions between “Golliwogg’s Cake-Walk” and “Minstrels,” and *La plus que lente*.



From this perspective, the marked side of the opposition on all levels can be seen as a parody of the unmarked side (as shown by the “is signified by” arrow on the right). Seen in this context, the waltz rhythm has innocuously become the subject of parody through tempo modification (see the “Tempo modification” level in Fig. 7.49): the waltz’s regular shortening of the first beats are made fun of by the unpredictable, irregular shortening of seemingly random beats; the “quasi tamburo” section of bars 58–62 of “Minstrels” can be seen as an exaggeration of the gentle push and pull of the compensatory rubato in bars 14–15 of *La plus que lente*; and the graceful ebbs and flows of the waltz are parodied by the quixotic, sudden changes of tempo.

Debussy’s contrasting use of tempo modification in the two genres of dance sheds light on the semiotic interpretation of “Golliwogg’s Cake-Walk”. In “Parisian Cakewalks,” Davine Caddy makes a case for the reference to the cakewalk in the piece as more than an example of primitivism and otherness that existed in the early-twentieth-century Paris.²⁸ She asserts that the Other, instead of being interpreted as inferior and “primitive,” now has the upper hand, where the black clown (Golliwogg) makes fun of the white people’s traditions. In referring to an illustration in *Le Rire*, where “a black minstrel [is] laughing at a line of cakewalking white policemen,”²⁹ Caddy identifies Debussy as the clown

²⁸ Concepts of primitivism and otherness refer to the fascination with cultures that are seen to be “exotic” and less civilised. This fascination existed at the turn of the twentieth century and is now considered to have racist overtones. Caddy, “Parisian Cake Walks”: 288–91.

²⁹ *Le Rire*, 14, March 1903 in Caddy, “Parisian Cake Walks”: 297.

who pokes fun at white society.³⁰ Caddy's argument resonates with the comparison between the two types of tempo modification heard in the recordings, where Debussy's playing of "Minstrels" and "Golliwogg's Cake-Walk" is parodying Debussy's playing of the graceful waltz, *La plus que lente*.

Thus, the two contrasting types of tempo modification can be seen to signify not only different genres of dance, but also the parody of white society. In other words, tempo modification in *La plus que lente*, "Minstrels" and "Golliwogg's Cake-Walk" is used to serve musical means of alluding to the genre, as well to signify extra-musical intentions.

7.4 Tempo modification considered as a large-scale structural device

7.4.1 Tempo as a salient feature of thematic material, its development and recurrences

Tempo modification and tempo changes are also used as large-scale structural devices. In the first section of "Danseuses de Delphes," different tempi can be heard to differentiate between contrasting antecedent and consequent phrases that constitute the five-bar theme (Fig. 1, CD 4/1). The opening tempo is $\text{♩}=30$, and just as a steady pulse is established, the entrance of the quaver chords in bar 4 is accompanied by a tempo change to $\text{♩}=35$. This tempo change is also heard in

³⁰ Caddy, "Parisian Cake Walks": 311.

bar 9 at the corresponding place where the theme is repeated (bars 5–10).

Combined with the arpeggiation of the quaver chords, the tempo change highlights the swiftness of the consequent phrase compared to the sturdy and static initial three bars.

Tempo modification is also used to highlight the structure of an entire piece, as heard in “La soirée dans Grenade” and *La plus que lente*. In “La soirée dans Grenade,” tempo modification is used to bring out thematic material in its mosaic form constituting six different musical ideas and an ostinato. The musical ideas in “La soirée dans Grenade” can be split into two camps with respect to tempo modification: those that always recur at a similar tempo, and those whose recurrences vary significantly in tempo. Using the labelling in Section 6.5 and Table 6.4, musical ideas B, D and E belong to the latter kind, while musical idea A and the ostinato when played by itself, o*, belong to the former kind. This can be seen in the ranges of tempos of the two different kinds and the comparison of their bar-by-bar tempo graphs (Tables 7.13 and 7.14 and Figs. 7.51 and 7.52) below:

Table 7.13 Ranges in tempi for o* and musical idea A in “La soirée dans Grenade.”

Ostinato/Musical idea	Range in tempo (crotchet beats per minute)	Difference between maximum and minimum tempo (crotchet beats per minute)
o*	34–50	16
A	36–50 (excluding bars 15–16, transition to musical idea B marked “Retenu”)	14

Table 7.14 Ranges in tempi for musical ideas B, D and E in “La soirée dans Grenade.”

Musical idea	Range in tempo (crotchet beats per minute)	Difference between maximum and minimum tempo (crotchet beats per minute)
B	33–95	62
D	41–76	35
E	43–78	35

Fig. 7.50 Bar-by-bar tempo graph of “La soirée dans Grenade.”

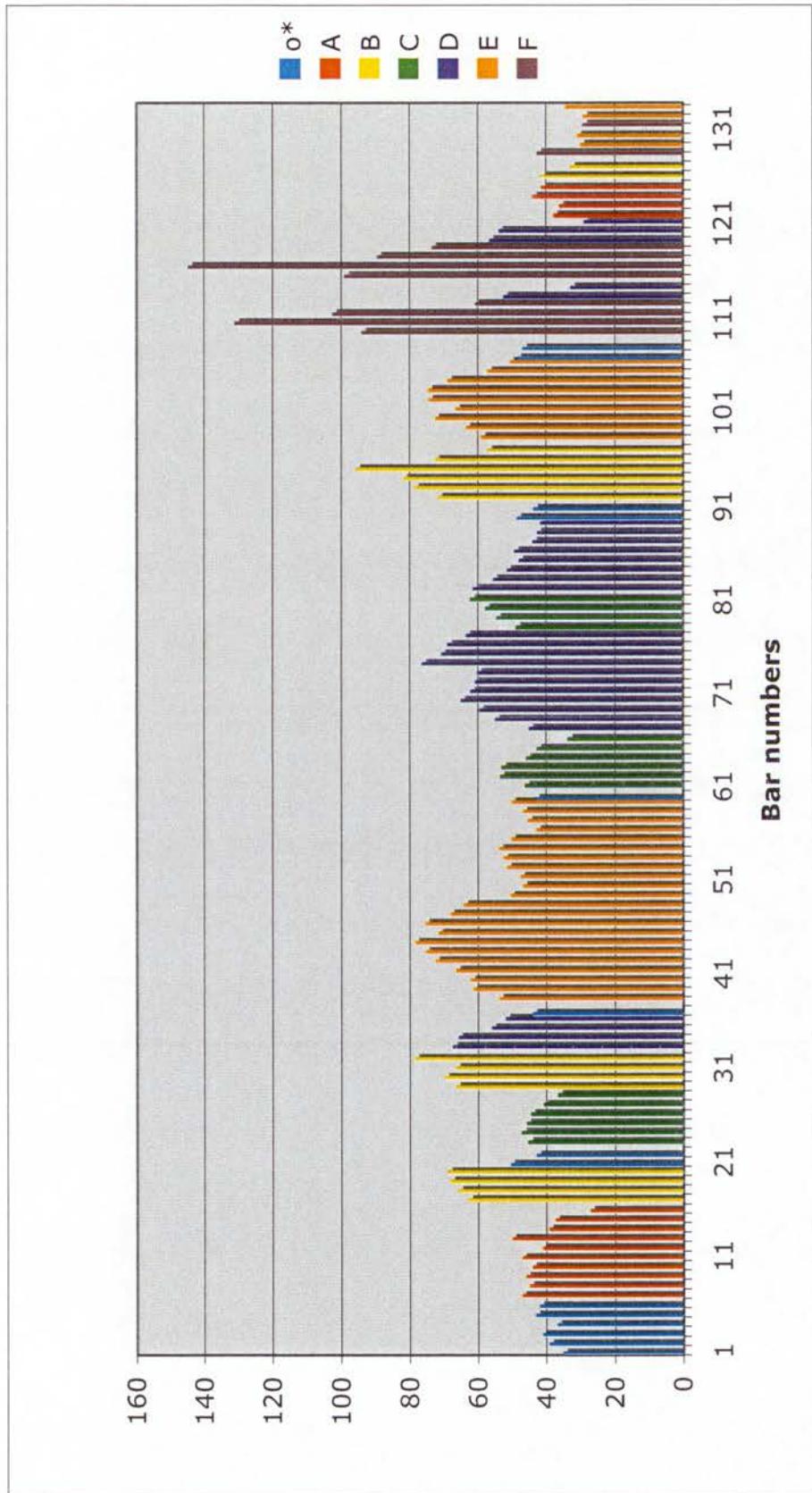


Fig. 7.51 Bar-by-bar tempo graph of “La soirée dans Grenade,” o^* and A extracted.

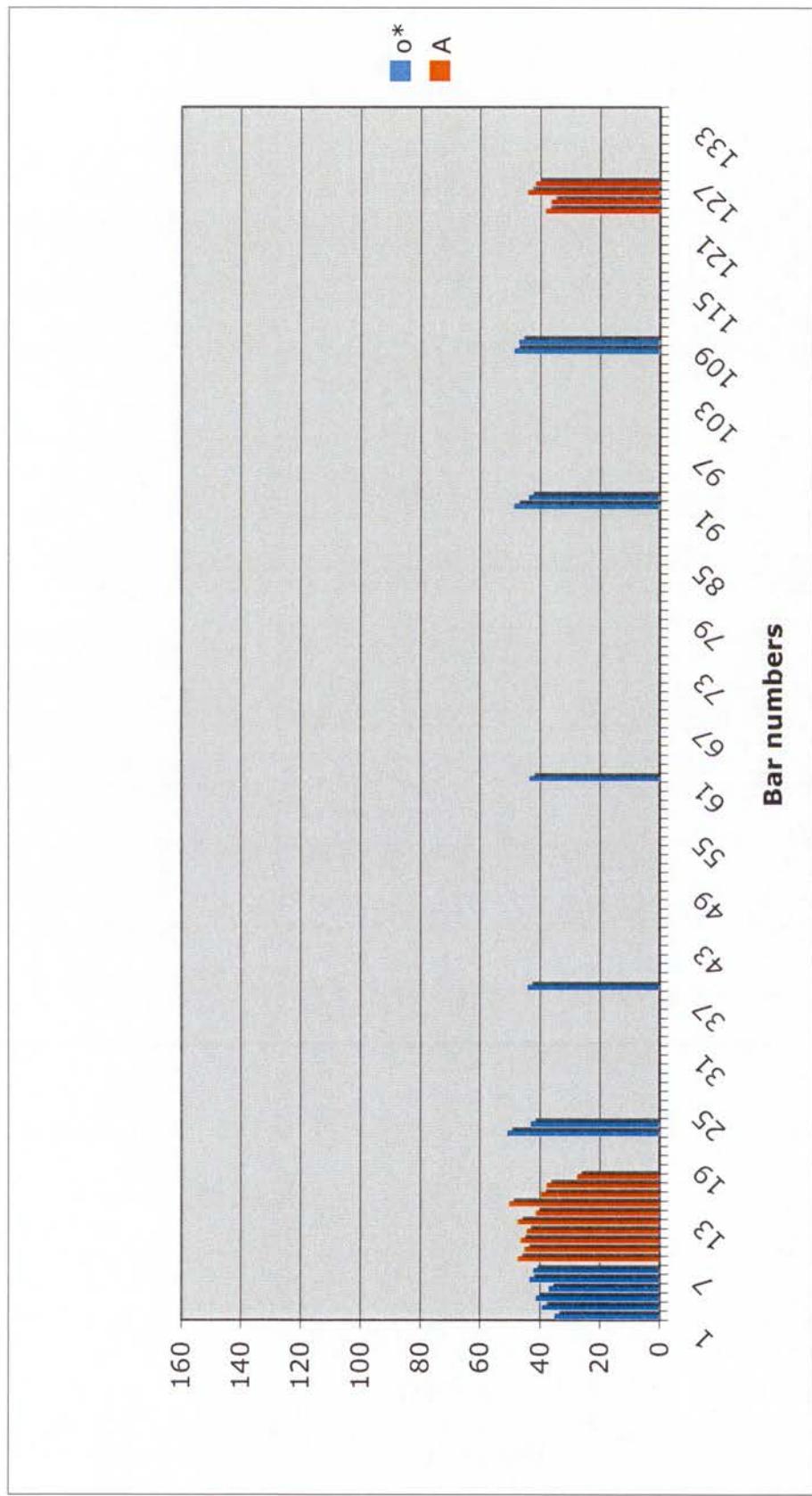
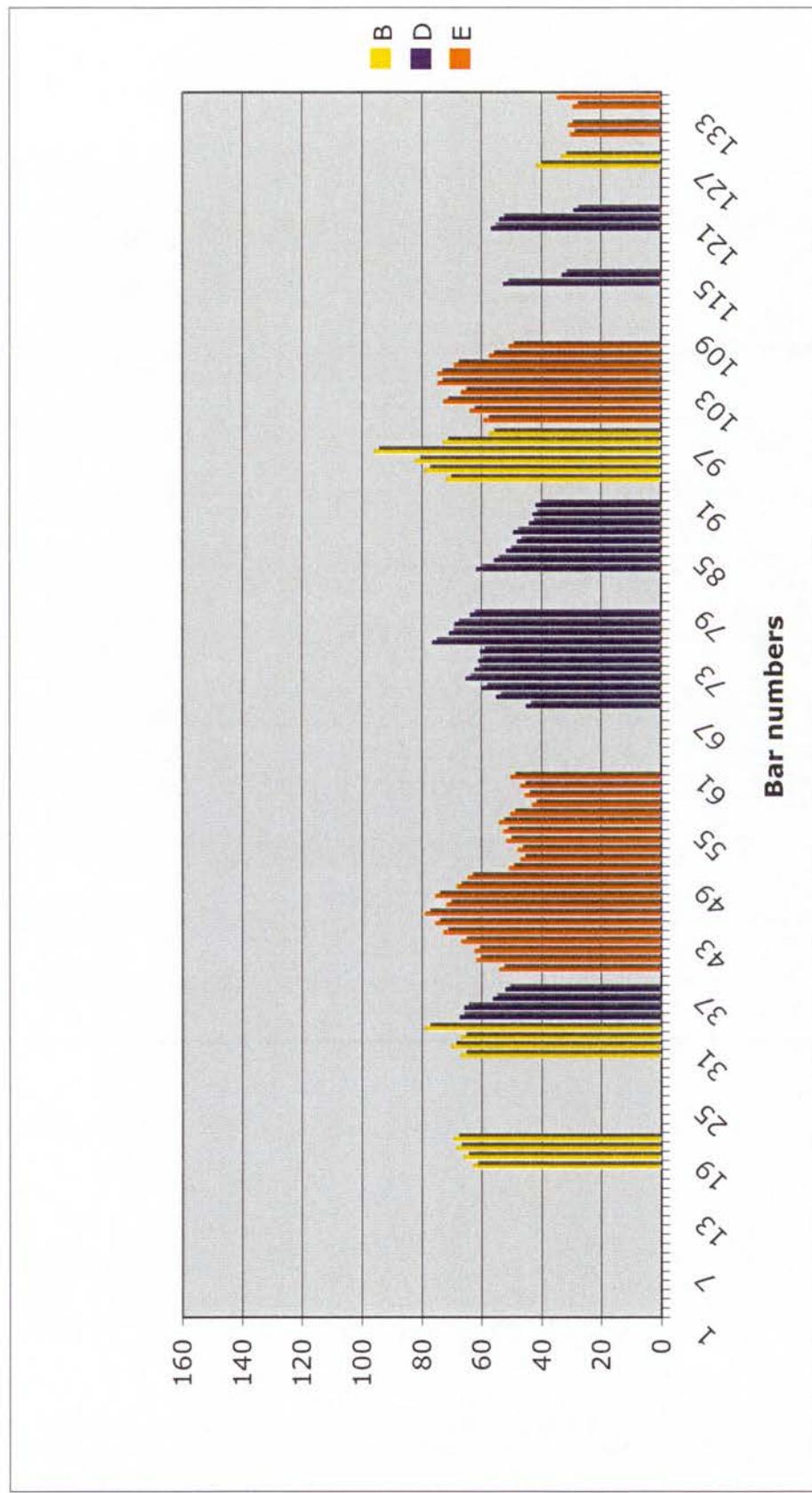


Fig. 7.52 Bar-by-bar tempo graph of “La soirée dans Grenade,” B, D and E extracted.



Note the bigger variation in tempo in the Fig. 7.52 compared to Fig. 7.51.

As seen in the previous chapter, musical ideas o* and A unify the piece with respect to rhythmic alteration, in that they are always altered in a similar way. They also unify the piece with respect to tempo, appearing always at a similar speed. For instance, the tempo resumes to that which characterises o* whenever it appears, as can be seen in Fig. 7.50 at bars 21, 37, 60, 90, 107, where the tempo changes back to o*'s tempo range, at times quite abruptly.

Musical idea C, marked “Tempo Rubato” originally, is also a unifying element with respect to tempo. In bars 78, a sudden decrease in tempo is heard as idea C suddenly appears after musical idea D, even though the marking “Tempo Rubato” is omitted in this instance (Fig. 7.53):

Fig. 7.53 “La soirée dans Grenade,” bars 73–83. (CD 4/29)

This drop in tempo takes the music back within C’s tempo range. The tempi of the recurrences of C are as follows (Table 7.15):

Table 7.15 Tempi of Musical idea C in “La soirée dans Grenade.”

Bars	Tempo (crotchet beats per minute)	Score marking
23–6 (excluding transition bars marked with “Retenu”)	45	Tempo Rubato
61–4	49	Tempo Rubato
78–81	Starting tempo of 49, followed by an accelerando to 61	pp subito

Thus, the tempo range of $\text{♩} = 45\text{--}49$ is tied intrinsically to musical idea C. However, as C is combined with musical idea D from bars 82 onwards to become D'C', the tempo becomes faster and assimilates into that of D (see Fig. 7.53 at bar 82 onwards).

This increase in tempo for C's last appearance is contrary to the fate of musical ideas B, C and E, which each are accompanied by a separate generic trend of a rise in tempo to the highest peak, followed by a subsequent decrease in tempo throughout their appearances in the piece. This can be seen in the following graphs where the tempi of musical ideas B, C and E are visually represented (Figs. 7.54–7.56):

Fig. 7.54 Bar-by-bar tempo graph of “La soirée dans Grenade,” B extracted, peak pointed out.

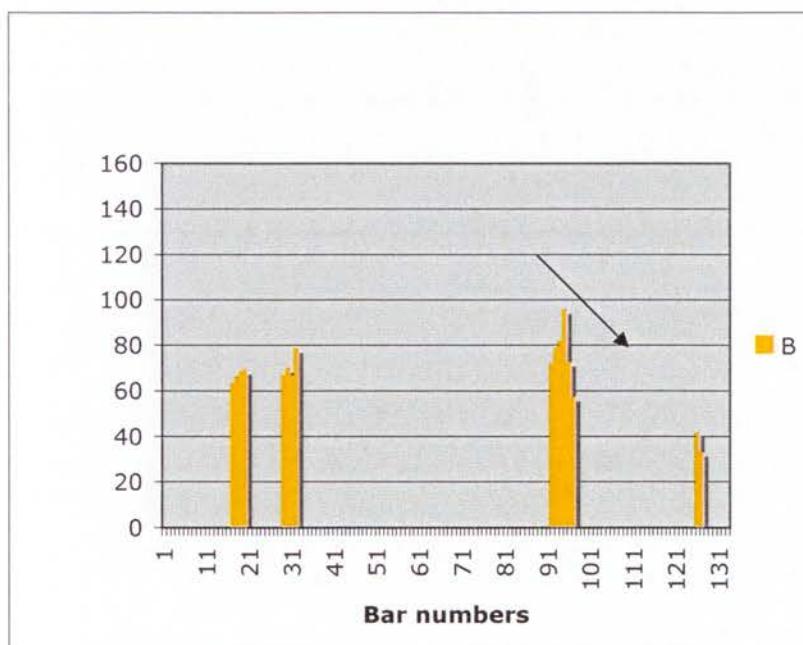


Fig. 7.55 Bar-by-bar tempo graph of “La soirée dans Grenade,” D extracted, peak pointed out.

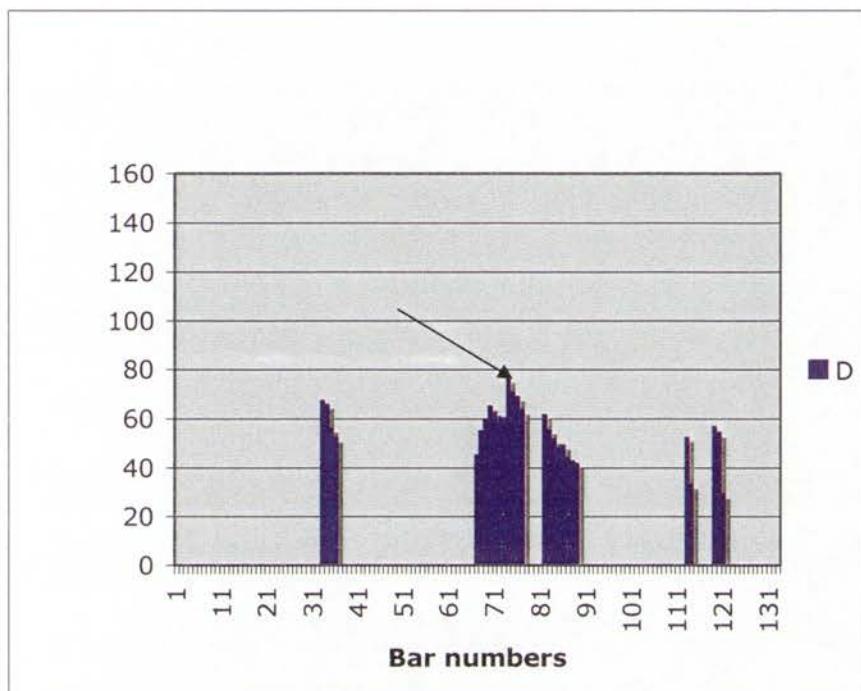
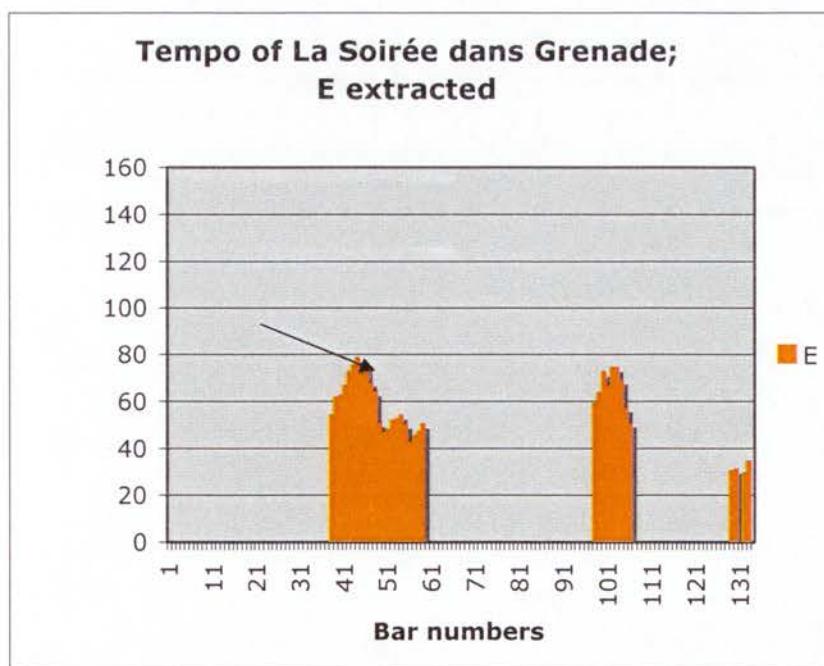


Fig. 7.56 Bar-by-bar tempo graph of “La soirée dans Grenade,” E extracted, peak pointed out.



The rise and fall correspond to the intensification of the allusion to the Habanera and its subsequent de-energising that are also found in the metrical alteration of these musical ideas. In particular, B is accompanied by a dramatic decrease (less than half of its fastest tempo) in its last recurrence (bars 128–9). The simplification of the chord to its bare melodic skeleton in the bass coupled with such a dramatic decrease in tempo highlights the disintegration of the theme after its climax (see Fig. 6.40).

The peaks in tempo are significant structural points, and correspond with the points where metrical alteration can be heard in its most varied forms (see Table 7.16):

Table 7.16 Peaks of tempi in B, D and E in “La soirée dans Grenade.”.

Musical idea	Location of peak (bar number)	Location of peak (descriptively, 136 bars altogether in the piece)	Structural feature	Metrical alteration feature
B	95	Second half of the piece, i.e. “late de-energising”	The peak coincides with the most salient developmental feature of B: One bar before the extension of musical idea B (the only substantial development that it undergoes) and a change in harmonic language.	
D	74	Around the middle of the piece, i.e. “mid de-energising”	The peak coincides with the climax of D: Marked <i>f</i> , this is the loudest dynamic in the sections containing D. Also, this point sees a sudden large increase in tempo from the previous bar.	Overdotting
E	44	First half of the piece, i.e. “early de-energising”	Marked <i>ff</i> , this corresponds to three bars after the climax of E and is the loudest point in the piece.	Shortening of the semiquavers pair to half their value (demisemiquavers).

The above reveals that tempo modification and metrical alteration work in tandem to highlight important structural points: the tempo peaks coincide with

the most intense use of metrical alteration. The peaks of the musical ideas, located at different places in the piece (earlier half, later half, and middle) contribute to the impression of multiple rises and falls of intensity in the piece.

Considering tempo as a whole throughout the piece, a more detailed look at the graph in Fig. 7.56 reveals that there are eight salient peaks in tempo (Table 7.17):

Table 7.17 Peaks in tempo considering “La soirée dans Grenade” as a whole (in order of fastest to slowest tempo).

Location (bar number)	Event
116	Occurrence of F
110	Occurrence of F
95	Occurrence of B
32	Occurrence of B
44	Climax of D
74	3 bars after climax of E and the loudest point of the piece
102	Occurrence of E
20	Occurrence of B

The above table shows that musical ideas B and F are energising musical ideas with respect to tempo, as all their occurrences, except for B’s last occurrence, contain peaks. Notably, the peaks in tempo of the occurrences of B are comparable to those of the climaxes (bars 44 and 74), suggesting that one of the functions of B, recurring throughout the piece (unlike F which only appears in the coda), is to punctuate the music with momentum and drive.³¹

³¹ The ebb and flow of the piece and its relationship with different musical ideas can be discussed in terms of Richard Parks’ kinetic and morphological forms. Table 6.4 in Chapter 4 is, in actual fact, closely related to the morphological form of the piece on a high architectonic level. The ostinato that is heard alone (o^*) is not so much an independent unit but a partitioning agent highlighting the morphological form. At these points, o^* signals a boundary.

Therefore, while musical ideas A and o* (and also C before its last occurrence), with a slower, narrower tempo range, provide a sense of steadiness and unity to the piece, those that have a larger tempo range (B, D and E) create variety. The musical ideas with faster tempi (B and F) give momentum and drive to the music. The differences in placement of peaks in tempo create a sense of ebb and flow; these peaks coincide with the points where metrical alteration is used most intensely to highlight salient structural points.

In contrast to “La soirée dans Grenade,” *La plus que lente* is based on one theme, which both recurs in its original state as well as develops throughout the piece. Tempo modification is used in a different way to bring out the structure of *La plus que lente*. Each time the theme recurs in the original pitch, it is played at a different tempo, creating variation and a sense of spontaneity. Tempo changes are not always marked in the score, and they correspond to the characters and harmonic events of their appearances (Table 7.18):

According to Parks, “kinetic form addresses the sense of vitality that we perceive in music, and it treats the disposition of musical events as metaphors for *motion*: acceleration versus deceleration, ebb versus flow, building towards versus receding from.” The formal structure of the piece is such that the kinetics of each musical idea can be heard separately, but their interaction through their placement in the morphological form creates a global sense of ebb and flow. Kinetically, the peaks and the troughs in tempo (see Fig. 7.50) define the “loci” of changes. These peaks and troughs have morphological significance: the peaks coincide with structural points as seen in Tables 7.16 and 7.17, and most of the troughs occur where the transition agent o* appears. Thus, in “La soirée dans Grenade,” kinetic and morphological forms are intertwined through the coincidences of their salient points, and the independent and interdependent kinetics of each musical idea. The connection between durational performing practices, and the morphological and kinetic forms of the piece merit further exploration that is not within the scope of this thesis. See Richard S. Parks, *The Music of Claude Debussy* (New Haven and London: Yale University Press, 1989), 203–255.

Table 7.18 Tempi of recurrences of the theme in *La plus que lente*.

Location (bar)	Tempo (dotted minim beats per minute)	Harmony	Possible intended effect
1–8, 18–24	42	Firmly in G flat major	
60–6	35	Meandering chromatic progression before reaching a dominant minor 9th chord (bar 66) instead of the more definite dominant 7th chord with more harmonic pull (bar 8)	Highlights the more hesitant, wandering quality of the section
104–10	52	Left hand harmony of Db ⁷ —dominant preparation for the arrival of the tonic in bar 120	Highlights the expectancy of the transition to the recapitulation and is a response to “En animent peu à peu” (stirring a little bit).
120–26	70	Firmly established in G flat major	Highlights the return to the home key and is a response to “Tempo animé.”

As seen above, the use of different tempi highlights the various ways in which the theme is treated, adding to the sense that the piece is a variation or an improvisation on the theme. Thus, while in “La soirée dans Grenade,” the balance between the unifying and the de-energising elements creates the impression of steadiness versus dynamism, the *variation* of the unifying element — the original recurring theme — provides a sense of improvisation in *La plus que lente*.

The theme's variation in tempo is somewhat expected by the marking of "Molto Rubato" in *La plus que lente*; however, several of the pieces in *Children's Corner* are accompanied by a variation of tempo that contradicts the score indications. Tempo changes are used to create a sense of lift in the suite. All of the pieces, except for "The Little Shepherd," have a loose ternary structure, where the main theme from the opening returns in the recapitulation. The main theme in the recapitulation is always played at a faster tempo, even though it is sometimes marked "1° Tempo" (Table 7.19):

Table 7.19 Comparison of tempo of the main themes in the opening and the recapitulation of *Children's Corner*.³²

Piece	Instance of theme in opening (bar)	Instance of theme in recapitulation (bar)	Tempo of theme in opening	Tempo of theme in recapitulation
"Doctor Gradus ad Parnassum"	1–10	45–54 (marked "1° Tempo")	♩ = 164	♩ = 178
"Jimbo's Lullaby"	1–8	63–70 (marked "1° Tempo")	♩ = 85	♩ = 118
"Serenade for the Doll"	1–13	107–114 (melody altered)	♩ = 66	♩ = 82
"The Snow is Dancing"	1–13	57–63	♩ = 133	♩ = 153
"Golliwogg's Cake-Walk"	6–17, 18–25	92–97, 98–106 (stated twice in exactly the same form)	♩ = 100, ♩ = 111	♩ = 110, ♩ = 132

³² The tempo differences are not attributed to the speeding up of the rolls, as discussed in Chapter 1. For comparison's sake, however, I have included the analysis of tempi of the pieces from the Tacet recording in Appendix H. The pieces in the Tacet recording are at a slower tempo generally, but more importantly, they reveal the same relative tempo relationships.

This trend of a faster tempo in the recapitulation is not always seen in other pieces. For instance, in “La Soiree dans Grenade,” theme A, marked “Mouvt du début,” is repeated in the recapitulation in the same tempo (with imperceptible difference) as the introduction. A similar case can be heard also in “Danseuses de Delphes” (Tables 7.20 and 7.21).

Table 7.20 Tempi of A in “La Soiree dans Grenade.”

Section/Musical event	Tempo (crotchet beats per minute)
Introduction (bars 1–6)	39
Main theme in opening (bars 7–14, excluding transition marked “Retenu”)	44
Main theme in recapitulation (bars 122–126, excluding transition)	40

Table 7.21 Tempi in “Danseuses de Delphes.”

Section/Musical event	Tempo (crotchet beats per minute)
Theme-antecedent (bars 1–3)	30
Theme-consequent (bars 4–5)	35
Theme (bars 6–8)	30
Theme-consequent (bars 9–10)	35
Development (bars 11–24)	32
Recapitulation-antecedent (bars 25 onwards)	28

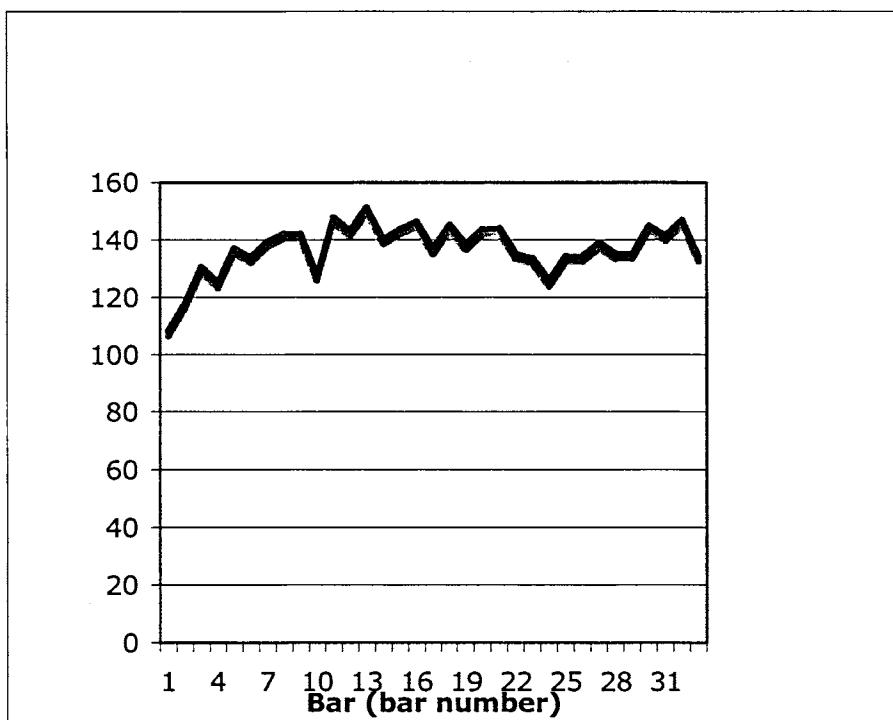
It is remarkable that the trend is found across all the pieces in *Children’s Corner*, even in the face of contrary score indications, with the exception of “The Little Shepherd” (which is not of the same structure). A possible intended effect is a general sense of lift in the suite. This sense of increase in energy is conveyed in the opening sections of the pieces themselves. In “Jimbo’s Lullaby,” the tempo picks up from $\text{♩}=82$ at the opening bars to $\text{♩}=108$, even though the score gives no indications of such a change in tempo (Table 7.22):

Table 7.22 Tempi in the opening sections in “Jimbo’s Lullaby” (CD 4/30).

Location (bar numbers)	Significant event	Tempo (crotchet beats per minute)
1–3	Main theme	82
4–5		Inexact counting (discussed later)
6–8	Main theme continued	84
9–14	Quote of French lullaby	91
17–18	End of section	Rallentando
19–38	Main theme restated in second section	108

Also, at the beginning of “The Snow is Dancing” characterised by a perpetual motion of semiquavers, a gradual increase in tempo can be heard (Fig. 7.57):

Fig. 7.57 Bar-by-bar tempo graph of “The Snow is Dancing,” bars 1–34 (CD 4/25).



In both “Serenade for the Doll” and “Golliwogg’s Cake-Walk,” the second statement of the theme is at a faster tempo than the first (Table 7.23):

Table 7.23 Tempi of the first and second statements of the theme in “Serenade for the Doll” and “Golliwogg’s Cake-Walk.”

Piece	Instance of first statement (bar)	Instance of second statement (bar)	Tempo of first statement	Tempo of second statement
“Serenade for the Doll”	1–13	28–29	$\text{♩} = 66$	$\text{♩} = 75$
“Golliwogg’s Cake-Walk”	6–17	18–25	$\text{♩} = 100$	$\text{♩} = 111$

In “The Little Shepherd,” the sense of growth can be heard in the three recurring episodes of the shepherd’s unaccompanied melody (bars 1–4, bars 12–13 and bars 19–20). The semiquaver triplets in this piece are always rushed, possibly a reference to the way a shepherd would play his flute. The increase in intensity is created through the occurrence of more and more triplets in the three instances of the melody, thus rendering the melody more and more rushed. Additionally, the contour of the triplets affects how the triplets are rushed, either homogenously (with constant velocity) or with an acceleration. While the first case accords with the pastoral nature of the melody, the latter case also creates a gushing effect (Table 7.24):

Table 7.24 Triplets found in the three instances of the shepherd's unaccompanied melody.

Instance of shepherd's unaccompanied melody	Triplets	Possible intended effect
1 st : bars 1–4 (Fig. 7.20, CD 4/15)	1 group of triplets, pitch descending	Homogenous rushing of the three notes.
2 nd : bars 12–13 (Fig. 7.21, CD 4/15)	2 groups of triplets, pitch descending	Homogenous rushing of the three notes in both groups.
3 rd : bars 19–20 (Fig. 7.21, CD 4/15)	3 groups of triplets, with the latter two forming six triplet-semiquavers. The pitch of the first is ascending, while the 2-triplet group sees a leap and a subsequent fall.	1 st triplet: a slight lengthening of the first note, followed by rushing. 2-triplet group: no rushing of the leap, followed by an acceleration through the next five notes. This highlights the run as a gushing flourish, unlike the other triplet groups.

The above evidence from “The Little Shepherd” and the openings of “Jimbo’s Lullaby,” “The Snow is Dancing,” “Serenade for the Doll” and “Golliwogg’s Cake-Walk” strongly suggests that Debussy intended a sense of lift and growth, implying that the marking “1° Tempo” should not necessarily be taken literally. The use of a faster tempo in the recapitulation theme is interesting when considered in the context of Debussy’s harmonic and structural language. Debussy’s language reveals a movement away from a teleological structural design with the emancipation of harmonic tension and the abandonment of the Classical Beethovenian sense of development.³³ In teleological musical

³³ In a statement that Debussy wrote in 1893, he remarks, “Previous research into pure music had led me to hate classical development, whose beauty is merely technical and of interest only to the highbrows of our class. I desired for music

structures, the concept of the tonic theme's return is linked with harmonic struggle that is somehow overcome. In this light, a sense of inevitability of return is intrinsic to the Classical form. Also, the signification of the main theme in the recapitulation is *different* to that of the main theme in the opening (before this harmonic struggle).

In contrast, the sense of inevitability of return is absent in Debussy's music because of its use of non-teleological harmony. How would one regard the concept of return in Debussy's music, devoid of such harmonic drama? In other words, what would the return of the theme signify without a "development" (in the Classical sense of the word)? There are two possibilities. First, the return of the theme could correspond to a *repeated* signification of its first appearance. A consequence of this is that the form is akin to a collage of recurring themes and their (also recurring) corresponding significations. The second possibility is that the returning theme signifies something *different*: there is still an impression of growth and an evolvement of the theme.

Practically speaking, this becomes a question of how to execute the returning theme (especially in pieces where the recapitulation is exactly the same in the score as in the instance of "Golliwogg's Cake-Walk"). Debussy's use of a faster

that freedom of which she is capable perhaps to a greater degree than any other art, as she is not confined to an exact reproduction of nature, but only to the mysterious affinity between Nature and the Imagination." Leon Vallas, *Claude Debussy: his life and works* (London: Oxford University Press, 1933), 85. See also Bauer, *Harold Bauer, His Book*, 82, 141–2, in Nichols, *Debussy Remembered*, 157 for Debussy's "hateful" tone when describing "the moment when 'the old deaf one' ('le vieux sourd') started to 'develop a theme'.

tempo in the *Children's Corner* pieces, disregarding score indications, suggests that Debussy was not satisfied with a literal repetition but intended a *difference* in the perception and interpretation of the returning theme, therefore signifying a sense of growth in the process.

The analysis of “Danseuses of Delphes,” “La soirée dans Grenade,” and *Children's Corner* reveals that tempo modification is used as a large-scale structural device for different purposes. Different tempi are used to demarcate antecedent and consequent phrases and different musical ideas in “Danseuses de Delphes” and “La soirée dans Grenade.” In the latter, tempo modification is also closely associated with the mosaic form and the ebb and flow of the piece.³⁴ The same tempo is used to define certain themes so that their reappearances leave a stronger impression, thus creating unity. Contrastingly, the main theme is varied in *La plus que lente* to create a sense of improvisation. The way in which tempo modification is used in *Children's Corner* creates a sense of lift and growth, and sheds light on the interpretation of the ternary structure, more specifically, the signification of the returning theme.³⁵

³⁴ In Park's terms, the morphological and kinetic forms of the piece.

³⁵ The relationship between form and structure, and the use of tempo modification and metrical alteration is evident in Debussy. As discussed above, Debussy's conception of formal structure is intrinsically different to that of the late-nineteenth century models. An interesting study will be how performing practices affect the formal structure in the late nineteenth-century recordings of Romantic and pre-Romantic pieces. A consequent question will be how this compares with how Debussy uses performing practices to bring out the formal structure.

7.4.2 Tempo modification used to highlight structural oppositions

Tempo modification is used to highlight structural oppositions in “The Little Shepherd”, “Golliwogg’s Cake-Walk” and “Doctor Gradus ad Parnassum.” The structure of “The Little Shepherd” is based on an opposition between three unaccompanied shepherd’s melodies and three episodes that allude to a more rhythmic rustic dance. According to Dumesnil, Debussy gives the following performative instruction for this piece:

Differentiate clearly between the improvisation of the shepherd
on his flute and the dance motive.³⁶

On Debussy’s roll, while the shepherd’s improvisation is rhythmically free, the dance is performed with a steadier beat and some delaying of notes that creates a sense of spaciousness. Because of the faster tempo of the dance, the rushing of the triplets does not significantly disturb the sense of beat (see bars 14–8 in Fig. 7.21, CD 4/15). Thus, the use of tempo modification in “The Little Shepherd” highlights the structural opposition set up between the two contrasting topics of unaccompanied melody and dance.

Structural opposition is also found in “Golliwogg’s Cake-Walk,” where the cakewalk and the middle section containing the quote from Wagner’s Prelude to *Tristan and Isolde* make up an A-B-A structure (CD 4/31). Here two parallel marked oppositions are brought to light: between “popular art” and “high art”,

³⁶ Dumesnil, “Coaching with Debussy,” in Nichols, *Debussy Remembered*, 162.

and between the comical, parodying nature of the cakewalk and the reference to the tragedy of *Tristan and Isolde*.³⁷ The latter opposition polarizes the former to create an even more extreme opposition: between popular art which is *also* comical and parodying, and serious, high art that is *also* tragic.

The opposition between the comical and the tragic is signified by the use of tempo modification. Debussy's instruction for this piece is as follows, according to Dumesnil:

The first and third sections '*très rythmé*', with a strong, sharp, [sic] rhythm. As a contrast, the middle part must be very free.

There is a suggestion of the trombone in the part marked 'avec *une grande émotion*'. Don't be afraid to overdo it here.³⁸

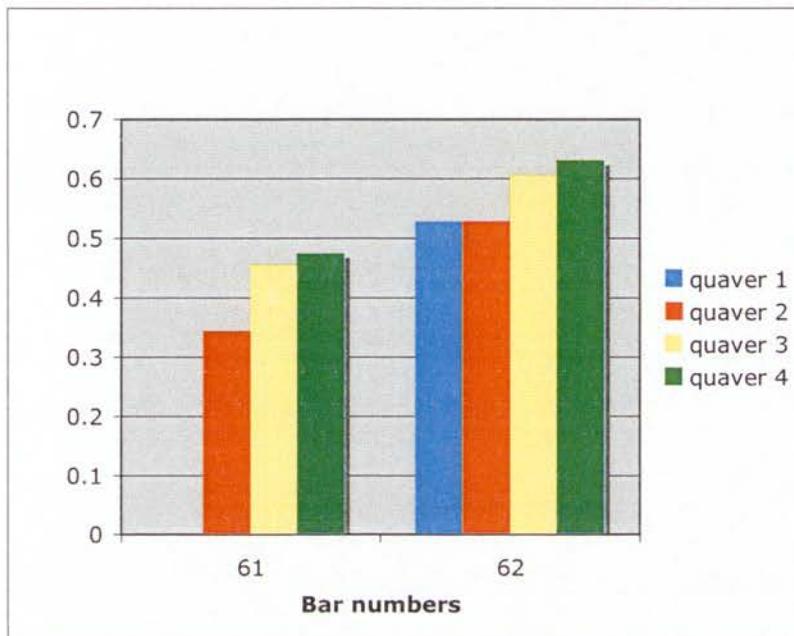
Debussy's remark suggests that the outer sections should be played strictly, while the middle section with a much greater degree of freedom of tempo. Although this is not the case, the contrast is highlighted in another way. While unpredictable, jagged forms of tempo modification characterise the cakewalk section, an increased stability of the beat and a smoother type of tempo modification can be heard in the B section containing the allusion to *Tristan* (bars 60–89), where even the humorous interjections of staccato quavers are not as unstable as in the A section. An analysis of the quavers in bars 60 and 61

³⁷ The cakewalk is originally a “19th-century African-American dance” which “originated among plantation slaves (c. 1850), reputedly to parody the promenades that opened the plantation owners' formal balls.” Peter Gammond, “Cakewalk” in *The Oxford Companion to Music*, ed. Alison Latham (Accessed 29 June, 2009), www.oxfordmusiconline.com.

³⁸ Dumesnil, “Coaching with Debussy,” in Nichols, *Debussy Remembered*, 162.

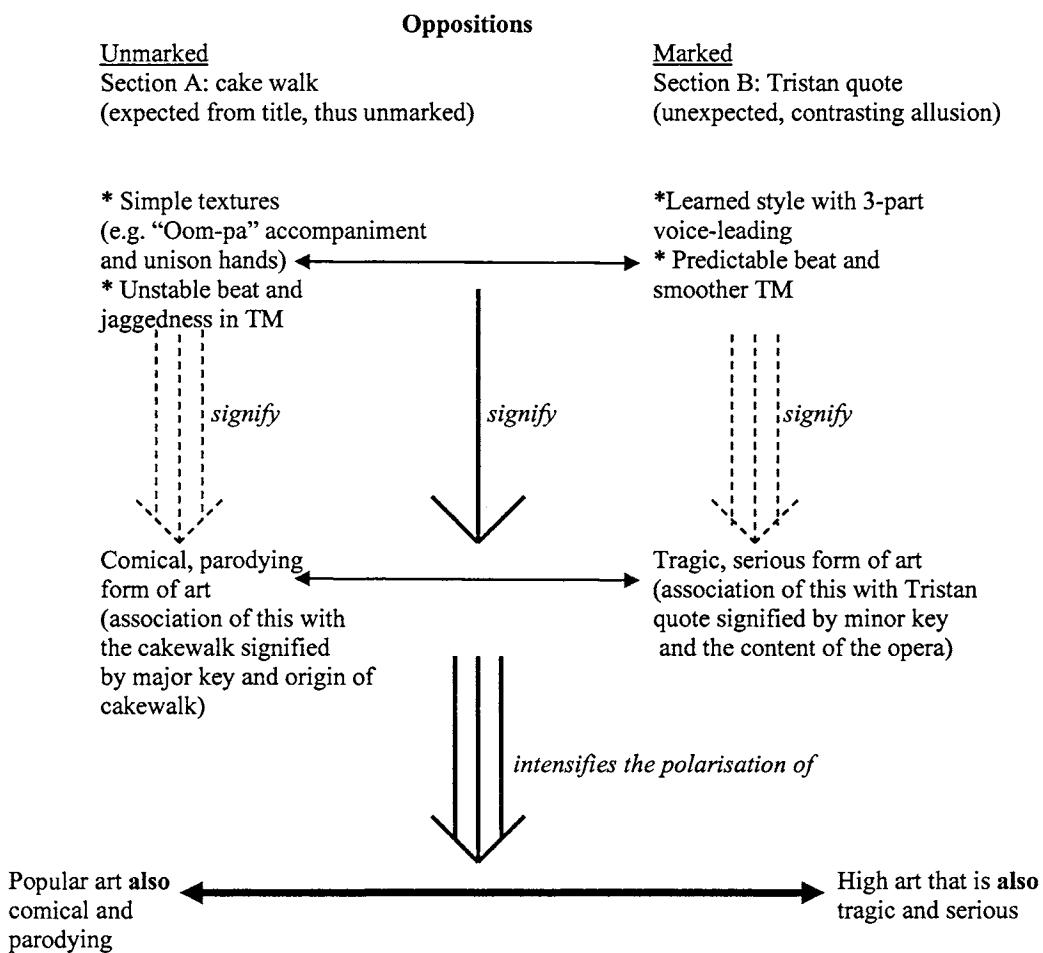
show a homogenous trend, an increase in length of each quaver (Fig. 7.58), instead of a jagged shape found in the A section (Fig. 7.44):

Fig. 7.58 Duration of quaver beats in “Golliwogg’s Cake-Walk,” bars 61–2.



Thus, coupled with the contrast between the textures of the sections, tempo modification signifies the opposition between the parody and the comical, and the serious and the tragic, polarizing the opposition between “popular art” and “high art” (Fig. 7.59):

Fig. 7.59 Marked oppositions between sections of “Golliwogg’s Cake-Walk.”



The element of parody is not only present in the genre of the cakewalk, but also in the treatment of the *Tristan* quote. The embedding of Wagner's theme in surrounding sections of the cakewalk — the minstrel's parody dance of white people's "high manners and fancy dances"— is the ideal set up for such subversive humour. In the early-twentieth century, blackface minstrel shows often included, among other skits and musical items such as the cakewalk, burlesques of serious opera.³⁹ Here, "Golliwogg's Cake-Walk" can be seen as such a minstrel show where the cakewalk is followed by the next item on the show, a burlesque, of which its subject of ridicule is Wagner's *Tristan und Isolde*.

The mocking of Wagner occurs in the form of subversive humour created through the trivialisation of the tragic element. When the time comes for the Tristan chord to be heard in bars 63, 70, 75 and 78, it is subversively replaced by the Db ninth chord and a Gb suspended sixth chord, both of which have a major, jazz quality. Some of these chords are also arpeggiated (unnotated),⁴⁰ highlighting this subversion. Also, the expected tension of a sustained Tristan chord is replaced by jesting staccato chords (Fig. 7.60):

³⁹ Jill Van Nostrand, Abstract for "Minstrelsy in post-Civil War New York, 1865–1870" (Ph.D. diss., City University of New York, 2005).

⁴⁰ See Chapter 5, 5.3.

Fig. 7.60 “Golliwogg’s Cake-Walk,” bars 59–67 (CD 4/32).

59

Cédez
p avec une grande émotion

(very fast)

a Tempo

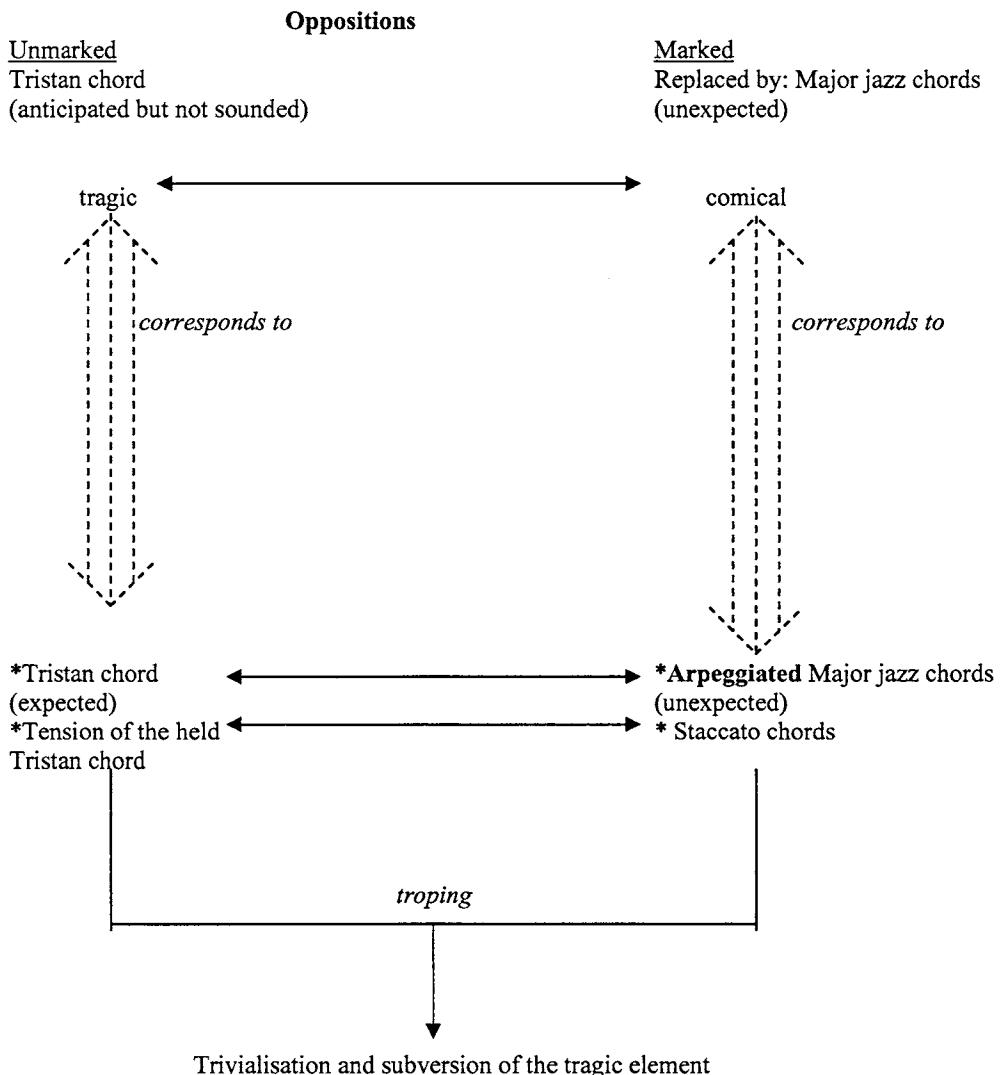
Cédez - - - a Tempo

D^{b9}

G^{b9 sus6}

A marked opposition between the expected tragedy of the Tristan chord and the comic element of its replacement can be seen below (Fig. 7.61):

Fig. 7.61 Marked oppositions within the B section of “Golliwogg’s Cake-Walk.”



This trivialisation of the tragic element is also heard in section A, where the Tristan chord makes its appearance in the rushed semiquaver runs of Ab–F–Eb–Cb of bars 3 and 4, and in the rushed second quaver beat of bars 10 and 11 (Fig. 7.43, CD 4/27). The placement of the Tristan chord within the context of the simplistic harmony of section A, and the rushing of its semiquaver arpeggio de-emphasise the harmonic tension of the chord and subvert its weight. The subversion of the Tristan chord is thus doubly mocking: in the beginning, its swift, *rushed* presence may pass by unnoticed, while where the ideal harmonic is set up, its absence is clearly felt by the replacement of the *arpeggiated jazz* chord. Tempo modification and arpeggiation are both used to highlight this mockery.

A softening of the opposition between the cakewalk and *Tristan* is heard, however, from bars 82 onwards. This is conveyed in the troping of the learned voice-leading style of *Tristan* with the rhythm of the cakewalk in bars 81 and 82 (Fig. 7.62):

Fig. 7.62 "Golliwogg's Cake-Walk," bars 77–89 (CD 4/32).

77 - - - a Tempo Cédez - - - a Tempo

82 TRIPLETISED dim.

RUSHED

86 Retenu - - - pp pp

* See Variant Readings

TRIPLETISED AND INSTANCE OF INEQUALITY:

3

s t s

This softening is highlighted by the tripletisation, a “mollification”⁴¹ of the dotted rhythm in bar 83 and 87, as discussed in Chapter 6.

⁴¹ I have coined this term from Hatten's gestural analysis of the first movement in Schubert's Sonata in A minor, D. 784. In the coda, the "implacable, fateful character" of the existing tragic theme "is somewhat absorbed or mollified" by the appearance of the modified theme with triplets (bar 218). Hatten describes the effect of the triplets: "the triplet quarter notes...subdivide the initial half note of each measure" and "deflect the power of the underlying tragic gesture by fractioning the direct force of its initial accents." In "Golliwogg's Cake-Walk," the triplet quavers have a corresponding function of softening the "force" of the syncopated "accents" that make up the angularity and jaggedness of the cakewalk. Robert Hatten, *Interpreting Musical Gestures, Topics and Tropes: Mozart, Beethoven, Schubert* (Bloomington and Indianapolis: Indiana University Press, 2004), 193-4.

Thus, in “Golliwogg’s Cake-Walk,” the structural opposition of the A-B-A form gives rise to the topical opposition between comical, popular art and tragic, high art. The troping of the two elements in the topical opposition trivialises the Tristan quote, creating subversive humour. The structural and topical oppositions, and the humorous troping are brought out by different types of tempo modification and metrical alteration, and the use of unnotated arpeggiation.

The use of tempo modification to highlight the A-B-A structure is instructed in the score tempo indications in “The Little Shepherd” and “Golliwogg’s Cake-Walk”; this is not the case in “Doctor Gradus ad Parnassum.” Here, the appearance of a new musical idea in the form of an augmented theme in bar 33 provides a contrasting “B” section; however, the markings “1° Tempo” (bar 33) and “Animez un peu” (bar 37) indicate that the augmentation should not be highlighted by a slower tempo. In contradiction to the score, Debussy does exactly this (Table 7.25 and CD 4/33):

Table 7.25 Tempi in “Doctor Gradus ad Parnassum.”

Section	Bars	Tempo (crotchets beats per minute)	Score association
<i>A</i> (C major utterance) (Phrygian utterance) (C major utterance, modulatory)	1–10	164	
	11–12	Accel.	Crescendo
	13–20	181	
	21	Rall.	Un peu retenu [a little retained]
	22–31	162	Retenu [retained]
	32	Rall.	
<i>B</i>	33–34	150	1° Tempo
	35–36	Rall.	Decrescendo
	37–40	143	Animez un peu [animated a little]
	41–42	167	Retenu
	43–44	Rall.	
<i>A</i>	45–54	178	1° Tempo
	55–56	Accel.	Crescendo
<i>Coda</i>	57–72	234	En animant peu à peu, Très animé [animate little by little, very animated]
	73–74	164	

The slower tempo in the B section foregrounds the structure of A-B-A, which may not have been as apparent if the score indications were obeyed. Coupled with the accelerandos in bars 11 to 12 and bars 55 to 56 that highlight transitions, Debussy thus delineates the structure of “Gradus ad Parnassum,” while blatantly contradicting the score indications.

Thus, contrasting types of tempo modification serve to highlight structural oppositions in “The Little Shepherd,” “Golliwogg’s Cake-Walk” and “Doctor Gradus ad Parnassum,” sometimes in contradiction to score indications. In “The Little Shepherd,” the opposing sections are from the same pastoral genre, while in “Golliwogg’s Cake-Walk,” they are associated with genres that are also in opposition to each other. Tempo modification is used to highlight the topical

oppositions in “Golliwogg’s Cake-Walk” and accentuate the resulting subversive humour in the piece.

7.4.3 Tempo modification as a metaphorical and structural device in “La cathédrale engloutie”

Tempo modification is used as both a structural and a metaphorical device in “La cathédrale engloutie.” In contrast to the extensive use of gradual tempo changes in many pieces, this work is played with a steady pulse throughout the piece, and with judicious use of accelerandos and rallentandos to mark the transitions between sections. Schimtz describes the chronological process of “La cathédrale engloutie” as follows:

from the misty calm of the opening, through the gradual emergence of the Cathedral, to the sonorous apex of its victory over the sea, and the receding, engulfing process of the last sections.⁴²

A remarkable feature of the tempo modification in this piece is that before the *ff* climax in bar 28, the tempo in the transitions between sections are gradual (with unmarked rallentandos and accelerandos), while after the climactic section dies down in bar 46 (marking the start of the “receding, engulfing process”), the transitions are abrupt (Table 7.26, Fig.7.63, CD 4/34):

⁴² Schmitz, *The Piano Works of Claude Debussy*, 158.

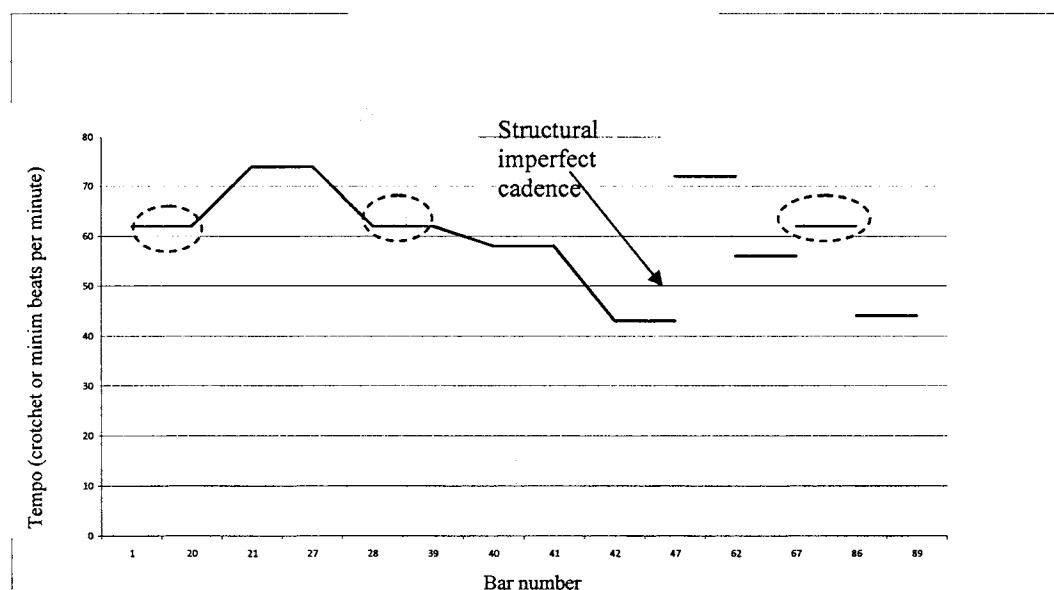
Table 7.26 Tempi in “La cathédrale engloutie.”

Section/Musical event	Bar	Tempo	Score association
	1–15	$\text{♩}=62$	
	16–19	$\text{♩}=62$	peu à peu sortant de la brume [little by little leaving the mist]
	20–21	Accelerando	Augmentez progressivement (sans presser) [expanding progressively (without pressing)]
	22–26	$\text{♩}=74$	<i>f</i>
Transition to climax	27	Rallentando	
Climax	28–38	$\text{♩}=62$	Sonore sans dureté [sound without hardness]
Transition	39	Rallentando	Decrescendo
“	40	$\text{♩}=58$	
“	41	Rallentando	Decrescendo
“	42–46	$\text{♩}=43$	<i>p</i>
“Structural imperfect cadence” ⁴³ (marked with arrow in the graph in Fig. 7.63)	47–61	$\text{♩}=72$	Un peu moins lent (Dans une expression allant grandissant) [A little less slow (In a growing expression)]

⁴³ A half-way point in the piece where the cathedral has just emerged in full view (signified by the score indication and the *ff* dynamic) and will inevitably make its descent (signified by the softer dynamic). This is also highlighted by a key signature change.

	62–66	$\text{♩}=56$	Molto dim.
	67–83	$\text{♩}=62$	Au mouvt, Comme un echo de la phrase entendue précédemment [With movement, like an echo of the phrase heard previously]
	86–end	$\text{♩}=44$	Dans la sonorité du début [In the beginning sonority]

Fig. 7.63 Tempo representation of “La cathédrale engloutie.”



Metaphorically, then, the emergence of the cathedral is “gradual” in Schmitz’s words, while the recession is terraced, as if the cathedral sinks down abruptly again and again until what is left in sight is the calm sea. This terraced descent is summarized pitch-wise in the last four bars: the chord in the highest register descends downwards twice to reach the chord in the lowest register.

A difference in small-scale tempo modification and metrical alteration can also be heard before and after the structural imperfect cadence. While the melody in the first half is not altered, both tempo modification and metrical alteration is heard in the latter half, for instance, in bars 56 (see Fig. 7.27) and 73 (see Fig. 7.28). Also, the return of the opening theme is heard with a rallentando at the end of the phrase in bar 84 (Fig. 7.64):

Fig. 7.64 “La cathédrale engloutie,” bars 82–4.



This is in contrast to the strict keeping of time in the beginning, marked “sans nuances.” Indeed, this flexibility in time is associated with the section after the appearance of the marking “expressif et concentré” at bar 47. The use of tempo modification and metrical alteration therefore signifies a change in emotiveness in the emergence and submergence of the Cathedral. While the opening is “profound” and “calm,” the recapitulation, although having the same sonority as the opening (“Dans la sonorité du début”), is more expressive, slower in tempo and hints at a wistful sense of absence of the cathedral after it is engulfed again.⁴⁴

⁴⁴ This is similar to the difference in tempo of the returning theme in the pieces in *Children’s Corner*.

In addition to the metaphorical use of tempo modification, Debussy uses the same tempo of 62 beats per minute to mark structurally salient points (marked with dashed ovals in Fig. 7.81). These points are the opening of the piece, the climax, and the return of the theme in the climax (see Fig. 7.80). Thus, in “*La cathédrale engloutie*,” Debussy uses tempo modification as a structural and metaphorical device.

7.5 Conclusion

Debussy’s use of tempo modification is in concordance with early-twentieth-century practices. This can be seen in the comparison between Debussy’s use of tempo modification and that of other early-twentieth-century pianists (Tables 7.1 and 7.27).

Table 7.27 Forms of tempo modification and their effects in Debussy's playing.

Form of tempo modification	Effect
Rallentando	<ul style="list-style-type: none"> • Delineates structural points • Highlights harmonic events • Decreases musical intensity • Emphasises the sense of finality • Eases the transition between sections of different tempi and character
Accelerando	<ul style="list-style-type: none"> • Delineates structural points • Intensifies the lead up to the climax • Emphasises a crescendo
Compensatory accelerando and rallentando	<ul style="list-style-type: none"> • Creates an impression of ebb and flow
The localised rushing of a few notes	<ul style="list-style-type: none"> • Emphasises a crescendo • Creates a capricious effect • Imitates the shepherd's melody • Creates a rhythmic, motivic association with other notated figures • Increases the sense of unsteadiness • Adds a surging effect • Creates a sense of lunging forward • Trivialises the rushed figure
The lengthening of a note	<ul style="list-style-type: none"> • Increases expressiveness • Creates suspense before a fast-paced section • Creates a dramatic effect, increases the sense of unpredictability and highlights the sudden change of dynamics with the lengthening of a rest
The shortening of a note or beat	<ul style="list-style-type: none"> • Creates a sense of unsteadiness • Gives a capricious effect
The anticipation of a note or beat	<ul style="list-style-type: none"> • Decreases the rigidity of the rhythm and moves the music forward • Increases the momentum of the music • Adds to the surprise element of a sforzando

	<ul style="list-style-type: none"> Differentiates the melodic notes from the accompaniment
The delay of a note or beat	<ul style="list-style-type: none"> Emphasises tenuto markings Creates a sense of spaciousness Contrasts rushed notes
Slower tempo	<ul style="list-style-type: none"> Emphasises the arrival at the climax with a sudden drop in tempo De-energises the music
Faster tempo	<ul style="list-style-type: none"> Energises the music Creates a sense of uplift and growth
Same tempo for recurrences of a theme	<ul style="list-style-type: none"> Creates unity and strengthens the identity of the theme
Different tempo for recurrences of a theme	<ul style="list-style-type: none"> Creates variety Creates a sense of ebb and flow Creates a sense of improvisation
Combination of local tempo modification	<ul style="list-style-type: none"> Alludes to the waltz rhythm
Exaggeration of different types of tempo modification (e.g. unpredictable, irregular tempo modification)	<ul style="list-style-type: none"> Gives an impression of parody
Different tempo or types of tempo modification in different sections	<ul style="list-style-type: none"> Highlights the contrast between sections
Different types of tempo modification in the recapitulation	<ul style="list-style-type: none"> Gives a sense of development

Written texts are imperfect (inadequate and contradictory) in conveying

Debussy's attitude and practices as far as tempo modification is concerned. Yet his piano rolls reveal that he used it often to enhance structure and meaning in his music. Localised forms of tempo modification is associated with structural points and specific score markings, and creates different effects that characterise the music.

In particular, different genres are highlighted, such as the pastoral genre and the genre of dance. On a large-scale level, unnotated tempo modification helps

differentiate themes from each other, adds variety and creates the impression of ebbs and flows in the music. When applied to the theme in the recapitulation, it sheds light to the interpretation of the A-B-A form in Debussy's music. Tempo modification is used as a structural as well as a metaphorical device, and in certain cases, powerfully signifies extra-musical agendas such as the parody and subversion of Wagner and Western traditions.

Chapter 8

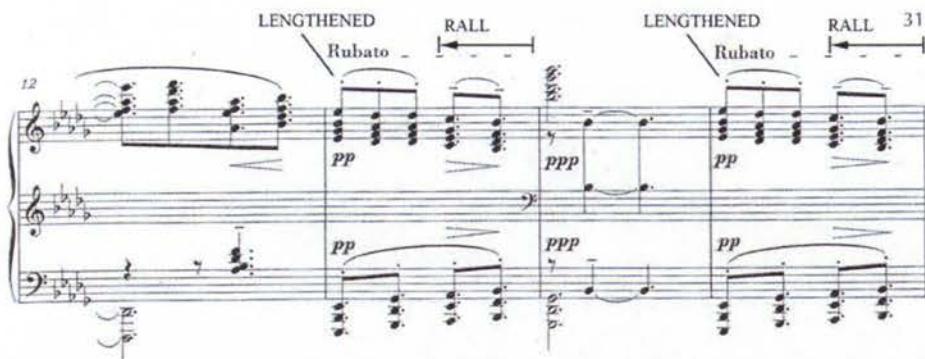
Associations and dissociations: The consideration of rubato as specified in the score and other markings related to tempo

8.1 Rubato as specified in the score

There appears to be a general consensus today that Debussy's score markings should be interpreted meticulously, and the previous chapters have shown that there is certainly some association between the score notations and performing practices. But what did Debussy mean in specifying rubato in the score? There are three pieces on the piano rolls, namely, *D'un cahier d'esquisses*, "La soirée dans Grenade" and *La plus que lente*, in which rubato is specified.

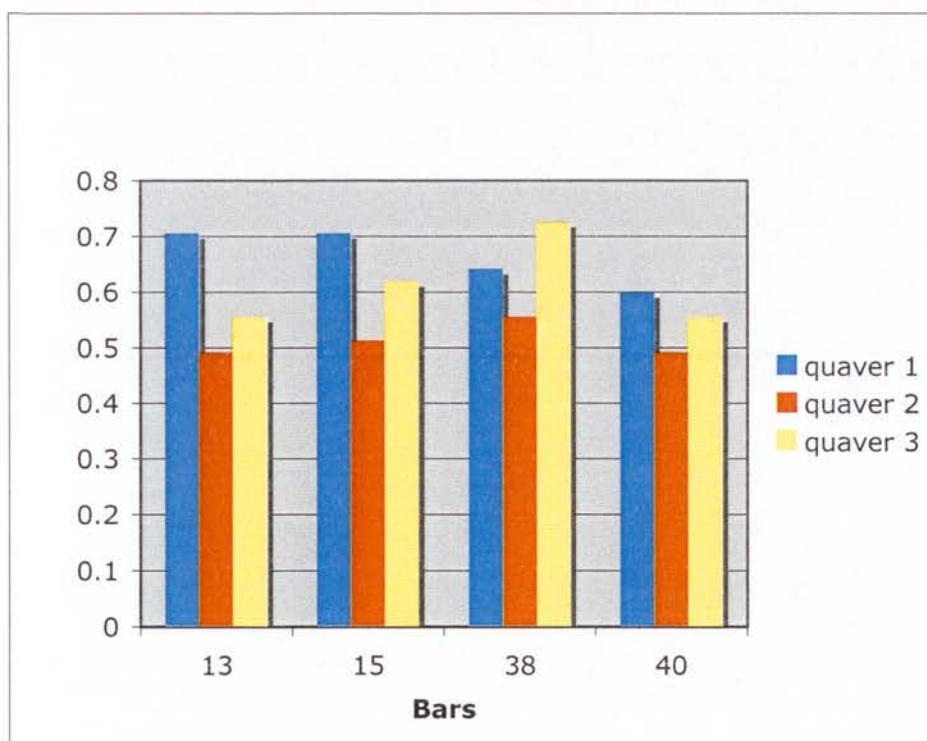
In *D'un cahier d'esquisses*, bars 13, 15 and 38 are marked "Rubato" for the duration of the bar, while at bar 41 with the same figure, "Rubato" is omitted. Both types of rubato practices (metrical rubato/rhythmic alteration and tempo modification) are used in these instances. Debussy plays these bars with a lengthening of the first quaver (in the right hand) and slight rallentando for last two dotted quavers (in both hands) that are marked with tenuto signs (Fig. 8.1):

Fig. 8.1 *D'un cahier d'esquisses*, bars 12–5. (CD 4/35)



The graph below (Fig. 8.2) shows that the first beat is always longer than the second beat, that is, the lengthening of the first beat does indeed take place:

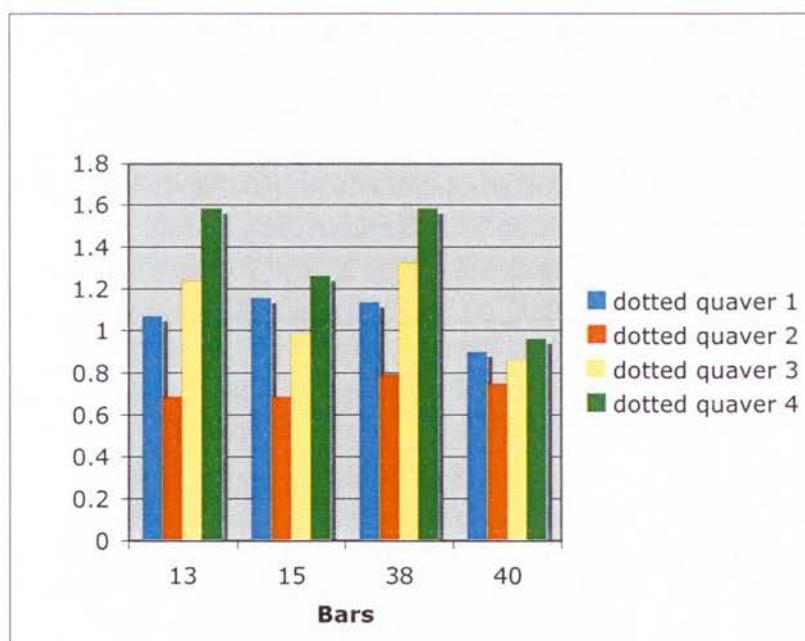
Fig. 8.2 Duration of the quaver in the right hand in the first half of the “Rubato” bars of *D'un cahier d'esquisses*.



The rhythmic alteration associated with the tenuto sign is in line with Long's explanation that rubato is related to touch. She recalls in a lesson with Debussy that the "fingers of the master press[ed] on my shoulder"¹ in the rubato section of "L'Isle Joyeuse." Interestingly, Long talked about the tenuto signifying "attack," "weight" or "change of sonority"; here it is clear that these descriptions of touch also imply the lengthening of the note.

In addition, the left hand is altered in the same way in all four instances where rubato is indicated (Fig. 8.3). The combined effect of the rhythmic alteration of the two hands is an emphasis of the cross rhythms.

Fig. 8.3 Duration of the dotted quavers in the left hand in the "Rubato" bars of *D'un cahier d'esquisses*.



¹Long, *At the Piano with Debussy*, 39.

The graph above shows that the relative durational relationships of the notes to each other are the same in all the bars. In the bar without the rubato indication (bar 40), however, the notes in both hands are significantly less altered, as shown visually in the graph and also in the comparison of the normalised standard deviations (Tables 8.1 and 8.2):

Table 8.1 Normalised standard deviations of the right-hand quavers in the “Rubato” bars of *D'un cahier d'esquisses*.

Bar	Normalised standard deviation
13	0.188
15	0.157
38	0.133
40	0.098

Table 8.2 Normalised standard deviations of the left-hand dotted quavers in the “Rubato” bars of *D'un cahier d'esquisses*.

Bar	Normalised standard deviation
13	0.326
15	0.247
38	0.276
41	0.104

Also, in general, the second dotted crotchet beat in the left hand is slightly longer than the first; however, the difference between the two is significantly less in bar 41 (Table 8.3):

Table 8.3 Duration of first and second dotted crotchet beats and their difference in selected bars of *D'un cahier d'esquisses*.

Bar	First beat (seconds)	Second beat (seconds)	Difference between the first and second beats (seconds)
13	1.749	2.816	1.067
15	1.835	2.24	0.405
38	1.92	2.901	0.981
41	1.645	1.813	0.1716

Thus, the consideration of a musical idea that recurs with and without an indicated rubato reveals a close association between the indication and the degree of alteration. While the alteration of the right hand triplets is a form of rhythmic alteration, the lengthening of the dotted crotchet beats in the left hand is more associated with tempo modification as the sense of pulse is maintained. The above suggests that in *D'un cahier d'esquisses*, “Rubato” is associated with both tempo modification and metrical alteration.

Similarly, both types of rubato practices can be seen in “La soirée dans Grenade.” Bars 23–8 and 61–6, where musical idea C is heard, are marked “Tempo Rubato” (See Fig. 6.23, CD4/11) and are generally altered in the same way. The right hand is marked with tenuto signs, and in his playing, Debussy lengthens the first beat in the right hand. This creates dislocations since his left hand is relatively steady. While the tempo is constant between bars 23 and 28, subtle changes in tempo take place between bars 61 and 66, even before the last two bars marked “Retenu”:

Table 8.4 Tempi in the “Tempo Rubato” section (bars 23–8) in “La soirée dans Grenade.”

Bars	Tempo (crotchet beats per minute)
23	45
24	47
25	45
26	44
27	40
28	36

Table 8.5 Tempi in the “Tempo Rubato” section (bars 61–6) in “La soirée dans Grenade.”

Bars	Tempo (crotchet beats per minute)
61	46
62	53
63	53
64	45
65	42
66	33

Surprisingly, compared with the “Tempo giusto” section, the meter is much more regular in these two instances. The above examples in *D’un cahier esquisses* and “La soirée dans Grenade” suggest that Debussy’s intention when he specifies rubato in sections within a piece is not simply a freeing up of the tempo globally, but a combination of the two types of durational modification for agogic emphasis and a subtle sense of push and pull.

In contrast, “Molto rubato” is marked as an indication for the whole piece in *La plus que lente*, and the effect of tempo modification and metrical alteration, as

discussed in the last two chapters, is vastly different to the above two works. The flexibility in timing in *La plus que lente*, its tempo fluctuating from bar to bar, seems to contradict what has been written about Debussy's insistence on the adherence to rhythmic precision and Long's admonition of the "fatality" of "arbitrary rallentando or accelerando"². The indication of "Molto rubato" in the score is associated with creating a sense of freedom and spontaneity that strongly characterises Debussy's performance.

Thus, it can be concluded that Debussy uses both tempo modification and metrical alteration where rubato appears as a score indication. In sections within a piece, rubato is used to emphasise the feel of the cross rhythms. Also, specific sections or figures always recur with the rubato indication, suggesting that rubato constitutes the character of a specific figure or section and is part of the *identity of the musical idea*. From this point of view, "Molto rubato" is an essential element in the characterisation of *La que plus lente*, and the liberty that Debussy takes in his performance may very well be intended as a performance practice that is part of the *identity of the piece*, not just the result of an "off-the-cuff" improvisation.³

² Long, *At the Piano with Debussy*, 20.

³ This is an important point that is contrary to other opinions of the piece. For instance, Howat, in his critical notes, writes, "Should the recording therefore be thought of as an off-the-cuff improvisation, with no lasting significance? In the absence of a printed source corrected by Debussy that confirms the variants of the piano roll, this would seem to be the answer to an [sic] delicate question." Roy Howat, Critical notes to Claude Debussy, *Oeuvres complètes de Claude Debussy*. Série I (Œuvres pour piano), Vol. 4, *Morceau de concours; The little nigar ; Hommage à Haydn ; La plus que lente ; Six épigraphes antiques ; Berceuse héroïque ; Pour l'œuvre du Vêtement du blessé ; Elégie ; Les soirs illuminés par l'ardeur du charbon ; Intermède*, 83. For a discussion of an

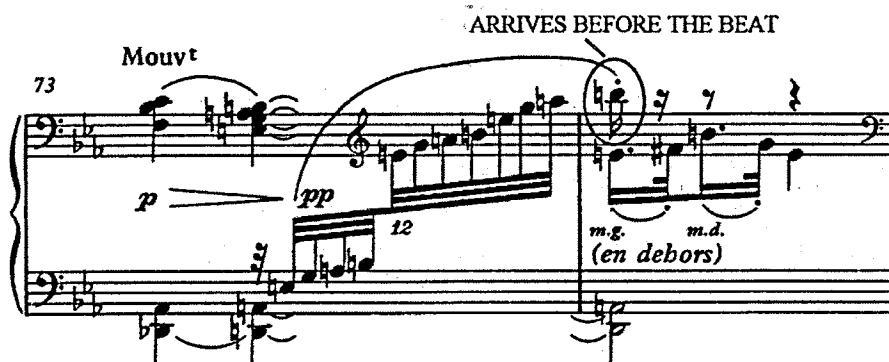
8.2 Debussy's dissociation from the score

From a comparison between Debussy's performance of *La plus que lente* with the score, it appears that he exercised a certain flexibility in score interpretation. Other pieces also appear to be accompanied by quite a degree of liberty in interpreting the score (Table 8.6):

Table 8.6 Instances of freedom in score interpretation and rhythmic inexactness.

Location	Effect
"La danse de Puck" bars 73–4 (Fig. 8.4)	The run in bar 73 arrives before the downbeat. The inexact performance achieves the whimsical effect that is originally intended in the score.
"Jimbo's Lullaby" bars 4–5 (Fig. 8.5)	Rests are not held for the full duration
"Golliwogg's Cake-Walk" bar 127 (penultimate bar) (Fig. 8.6)	Rests are not held for the full duration
"Minstrels" bar 84 ⁴ (Fig. 8.7)	The first beat is truncated

Fig. 8.4 "La danse de Puck," bars 73–74. (CD 4/9)



alternate point of view, see Appendix F.

⁴ This example could be speculatively dismissed as a technical error on Debussy's part. However, there is also the consideration of why Debussy did not do another take of the performance if he realized this prominent error. Also, if it were an error, his endorsement of these rolls also question the severity of such a truncation and the need to be faithful to all the notes in the score. These are interesting questions that do not have final solutions.

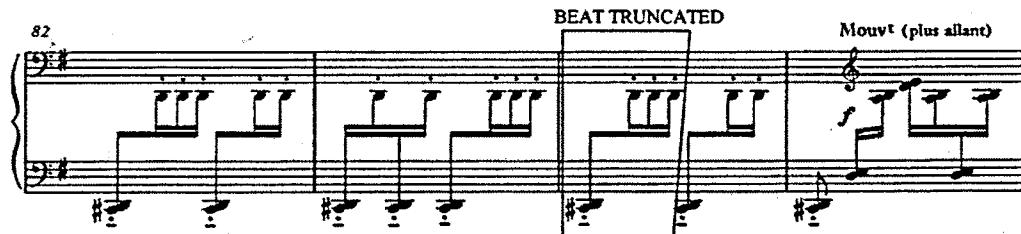
Fig. 8.5 “Jimbo’s Lullaby,” bars 1–5. (CD 4/30)

Musical score for "Jimbo's Lullaby" showing bars 1–5. The score consists of two staves. The top staff is in treble clef, 2/4 time, and has dynamics *p* and *doux et un peu gauche*. The bottom staff is in bass clef, 2/4 time, and has dynamics *pp*. A bracket labeled "BARS SHORTENED" spans both staves.

Fig. 8.6 “Golliwogg’s Cake-Walk,” bars 124–8. (CD 4/16)

Musical score for "Golliwogg’s Cake-Walk" showing bars 124–8. The score consists of two staves. The top staff has dynamics *p*, *f*, *ff*, and *ff*. The bottom staff has dynamics *p*, *f*, *ff*, and *ff*. A bracket labeled "RUSHED BARS SHORTENED" spans both staves.

Fig. 8.7 “Minstrels,” bars 82–5. (CD 4/36)



At other instances, as seen in numerous instances in Chapters 4–7, Debussy literally dissociated his performance from the score, playing contrary to the score indications. These are in stark contrast to the many places where Debussy does indeed adhere to the score indications, can can be summarised in Table 8.7:

Table 8.7 Instances where Debussy plays contrary to score indications.

Location	Marking	What is heard
“Doctor Gradus ad Parnassum,” bars 33–4	1° Tempo	Significantly slower tempo
<ul style="list-style-type: none"> “Doctor Gradus ad Parnassum,” bars 45–54 “Jimbo’s Lullaby,” bars 63–73 “Golliwogg’s Cake-Walk,” bars 91–97 ‘Minstrels,’ bars 78–81 “La soirée dans Grenade,” bar 119 	1° Tempo	Significantly faster tempo
<ul style="list-style-type: none"> “Jimbo’s Lullaby,” bars 74–5 “Serenade for the Doll,” bars 80–3 	Sans retarder [without retard]	Rallentando
“Doctor Gradus ad Parnassum,” bars 37–40	Animez un peu [a little animated]	Rallentando
“Le vent dans la plaine,” (bars 51 and 53)	Cédez [yield]	Faster (tripletization of quavers)
“Golliwogg’s Cake-Walk,” bars 83–6	Retenu [retained]	Rallentando started four bars earlier
<i>D’un cahier d’esquisses</i>	Retenu [retained]	Rallentando started one bar earlier
“The Little Shepherd,” bars 22–3	Poco animato [a little animated]	No perceptible change
“Serenade for the Doll,” bars 53–7	En animant un peu [a little by little getting animated]	No perceptible change
<ul style="list-style-type: none"> “Golliwogg’s Cake-Walk” “La soirée dans Grenade,” Musical idea B 	Tempo giusto	Neither strict nor exact
“Doctor Gradus ad Parnassum,” beginning indication	Égal [even]	Not even, played with inequality

How does one reconcile this blatant dissociation from the score by Debussy, the performer who insisted that his works be faithfully interpreted? Table 8.7 raises the complex issue that today’s listeners face in trying to make sense of the

conflict between audio and textual evidences. The consideration of the written text in historical context may reduce our perception of the schism between the two. Debussy's milieu consisted of pianists who would, for instance, add extra notes and trills to melodies, displace melodies up an octave, add a lower octave note in the bass and play the coda an octave higher than it is written.⁵ Debussy's performing practices, especially in *La plus que lente*, then, can be construed as part of this trend, where performative licence is much freer than that of today. The contradiction between the score and the recording reminds us of how far removed today's performing practices are from those at the turn of the twentieth century, where the score is not viewed as sacrosanct and pianists seem to deviate from the score at whim. In investigating how Debussy played, then, textual evidence alone cannot provide an accurate picture; audible evidence of his playing is crucial in making valid observations and conclusions about his performing practices. Often, these practices contradict the score.

⁵ Long, *At the Piano with Debussy*, 32. Also, Leschetizky's piano roll recording of Chopin's *Nocturne* No. 8 in D flat Major, Op. 27 No. 2 reveals added left-hand octaves (bars 25, 46 and 54), added right-hand melodic notes and trills (bars 12, 30, 31), and octave displacement of notes (bar 28). Frederic Chopin, 'Nocturne Op. 27 No. 2', Welte-Mignon Piano Roll by Theodor Leschetizky (1906), *the Closest Approach to 19th Century Piano Interpretation*, Theodor Leschetizky, Archiphon-106 (1992).

Chapter 9

Conclusion

Debussy's piano rolls of 1913 reveal that his playing was characterised by many late-nineteenth-century performing practices. He employed dislocation and arpeggiations with varying degrees of frequency and speed. He also used metrical rubato, various types of rhythmic alteration and tempo modification in a style that accords with general trends elucidated by early-twentieth-century recordings and contemporaneous written texts. Like the late-Romantic pianists, Debussy's rubato practices are rich, diverse and multi-faceted: from smooth and subtle with gentle ebbs and flows to abrupt and unpredictable, from sparse to abundant, and from globally applied to instantaneous and localised.

Debussy's use of Romantic performing practices creates a wide range of musical effects, from those that are content-related (to highlight the character of the melodies, harmonies and colour) to structure-related ones, as well as those that are gestural or metaphorical. Additionally, Debussy's performing practices not only serve a musical function, but are also used to signify extra-musical agendas and intentions. These agendas and intentions are specific to Debussy's post-Romantic musical ideals, for instance, the parody and the humorous subversion of prevalent establishments and traditions. Thus, Debussy, a revolutionary composer who reacts against late-Romantic harmonic and formal idioms, achieves new colours and a fresh musical outlook through the use of late-nineteenth-century performing practices.

Without a study of Debussy's piano rolls and acoustic recordings, it is impossible to appreciate his performing practices in any meaningful way. The written texts describing Debussy's piano playing do not clearly convey many important aspects of his style and taste. And such texts are inconclusive or worse still - contradictory. Assumptions about Debussy's performing practices based on the score and/or written texts alone can, therefore, be inaccurate.

The investigation of Debussy's piano rolls reveals many aspects of his performing practices that are missing from the notation. These aspects are important, given the frequency of their appearances. Some of these can even be seen to impact upon and alter the main signification of the piece. Although some of his unnotated practices can be attributed to implications in the score notation that are no longer current, others contradict score indications altogether.

That such contradictions may well have been perfectly acceptable to Debussy is supported by this recollection of an orchestral rehearsal under Debussy's direction, by the oboist François Gillet:

... '*un peu plus vite ici*' ... So Chevillard said: *Mon cher ami*, yesterday you gave me the tempo we have just played.' Debussy looked at him with intense reflection in his eyes and said: 'But I *don't feel music the same way every day.*'¹

¹ François Gillet to Marie Rolf, 17 March 1974, in Nichols, *Debussy Remembered*, 183. (Italics are in the original quote.)

The implications here are far reaching. The flexibility in score interpretation suggests that in addition to some lost associations between the score and performing practices, Debussy practiced a certain *dissociation* from the score. This implies firstly, that there was much more license for performers to modify the score at the turn of the twentieth century than there is at present; and secondly, that the composer's musical decisions can *change*. The current trend is to search for the composer's authoritative intention by a close adherence to the letter of the score. The score and the composer's intention are upheld as sacrosanct. However, Debussy's piano rolls and the quote above reveal that his intention can *change*. For the contemporary pianist, this may pose a challenge when it comes to interpretation, because now, the composer does not have only *one* authoritative intention, but the possibility of a myriad of intentions. For instance in bars 51 and 53 of "Le vent dans la plaine," the dilemma is in deciding which of the following should take precedence: to play the quavers slower as marked in the *score* by "Cédez," or to play them faster (tripletised) as in the *recording*. While the former is more faithful to the score, the latter creates a motivic association with the coda's triplets that would have been absent.² Both of them function as intensifying the particular structural point of the piece (the transition to the coda), and both are certainly intended by Debussy.

The dethronement of the composer's authoritative intention to many possible intentions annuls its search; the authoritative pedestal of the score is thus shaken. In fact, Debussy's praise of Copland and Paderewski's alternative interpretations

² See Chapter 7, Table 7.6.

that were quite different to what he intended (and that he conveyed in the score) strongly suggests that the attempt to find exactly the composer's authoritative intention was not as important as it has now become. A new understanding of the relationship between the score and performance is needed and is steadily developing, and Nicholas Cook proposes the movement away from the traditional model, where there is "a kind of family tree in which successive interpretations move vertically away from the composer's original vision," this vision being "embodied" by the "text," or the score. Instead of this conception where the score has a hierarchical hold on performance, Cook proposes that "there is no ontological distinction among the different modes of a work's existence." Here, the notion of the "work" is "something existing in the relation between its notation and the field of its performances," and "the different modes of a work's existence" include both the score and different performances.³ Simply stated, Cook proposes that the score and performances should be considered with equal importance.

This flattening of the hierarchical relationship between the score and performance resounds with the performing practices at the turn of the twentieth century: many performers felt free to change what was written in the score. Debussy lived in such a milieu, and the comparison between his scores and his performances support this notion. An understanding of the degree of performer's licence in Debussy's era and the horizontal, instead of vertical, conception

³ Nicholas Cook, "Music as Performance," in *The Cultural Study of Music: A Critical Introduction*, ed. Martin Clayton, Trevor Herbert, and Richard Middleton (New York, London: Routledge, 2003), 206–7.

between the score and performance provide a fresh and perhaps liberating perspective for today's pianists, in performing Debussy's music and in seeking a multiplicity of interpretations.

George Copland provides a rather whimsical description of how Debussy may have viewed the score:

He had an almost fanatical conviction that a musical score does not begin with the composer, but that it emerges out of space, through centuries of time, passes before him, and goes on, fading into the distance (as it came) with no sense of finality.⁴

In considering the musical score as a representation of the music, its attached performing practices and its implied meanings indeed "fade into the distance" with the passage of time. The study of Debussy's piano rolls puts into perspective that the score is a product of a specific point in time, to which are attached many unnotated but assumed performing practices, ways of interpretation and performance ideals.

⁴ Copland, "Debussy, the man I knew," in Roger Nichols, *Debussy Remembered*, 163–7.

Appendix A

Literature review in detail

The accuracy of the piano roll mechanism in reflecting the actual performance is a controversial topic; in fact, Roy Howat remarks that the piano rolls cannot capture the subtle pedalling and the half-tinted touch that is often associated with Debussy's playing.¹ Research on Debussy's performing practices in the piano rolls has taken different stances on this issue, and the detail with which Debussy's performing practices was studied also varied.

i. Comparative studies of Debussy and other pianists

Three comparative studies of Debussy and other contemporary pianists' performances of the same compositions have been conducted as dissertations. These dissertations primarily focused on the analysis of absolute tempi, dynamics and pedalling. Although unnotated arpeggiation and rhythmic alteration are sometimes mentioned in passing, the analysis of these techniques is not their primary aims. Also, the analyses tend to be brief, and serve the purpose of comparing Debussy with other pianists' performance of the same pieces.

None of the dissertations, or in fact other written sources, comprehensively studied all the pieces on the rolls: Paul Carlson, in his dissertation *Early Interpretation of Debussy's music*², uses eight of the fourteen pieces, Robert Gregg Warren, in *Textual Authenticity and Performance Tradition in Claude*

¹ Howat, "Debussy's Piano Music: Sources and Performance," 102.

² Carlson, "Early Interpretation of Debussy's Music."

Debussy's Preludes, Book I, focuses on five, while Kyung-Ae Lee, in *A Comparative Study of Claude Debussy's Piano Music Scores and His Own Piano Playing of Selections from His Welte-Mignon Piano Roll Recordings of 1912*, analyses seven pieces. The sum of their analyses does not cover all the pieces: *La plus que lente* and *D'un cahier d'esquisses* are not studied in any of them.

Sometimes brevity is coupled with unobservance, for instance, Lee quotes the Habanera rhythm in “La soirée dans Grenade” but fails to observe that it is overdotted. This lack of observation is highlighted by her comment that Debussy does not follow Schnabel’s instruction to accent the quaver immediately following the dotted notes. However, the overdotting heard in the recording has a similar effect of emphasis.³

ii. Brief studies of Debussy's performing practices

Cecilia Dunoyer’s “Early Debussystes at the piano”⁴ also relies upon the controversial data on the absolute tempo, touch and pedalling in the piano rolls. She acknowledges the evident rhythmic and tempo flexibility in passing but does not dwell upon it; her paper focuses on other pianistic issues such as pedalling and fingering, and a comparison with other “Debussystes” such as Alfred Cortot and Marguerite Long. Although she does not define extensively the traits of Romantic piano playing, she draws the conclusion from her analysis that “Debussy did not follow in the footsteps of romanticism as did Ravel, whose

³ Lee, "A Comparative Study of Claude Debussy's Piano Music Scores and His Own Piano Playing of Selections from His Welte-Mignon Piano Roll Recordings of 1912," 78.

⁴ Dunoyer, "Debussy and Early Debussystes at the Piano."

techniques was indebted to Liszt, Saint-Saëns, and Mendelssohn.”⁵ Further investigation is needed to qualify this statement.

Similarly, Charles Timbrell’s “Debussy in performance”⁶ includes few salient observations of Debussy’s performing practices in the piano rolls such as rhythmic flexibility in “La soirée dans Grenade,” himself stating that “a detailed consideration of these rolls is not possible here.”⁷ His discussion of the piano rolls contributes to a much larger investigation of performances of Debussy’s music, not only piano music.

In contrast to the above, Richard Lang Smith’s “Debussy on Performance: Sound and Unsound Ideals”⁸ concentrates on the expressive devices of rubato, arpeggiations and dislocations, mostly eluding the controversial topic of the accuracy of pedalling and dynamics in the piano rolls. He makes a case for Romantic performing practices in Debussy’s piano rolls and recordings, for instance, the use of unnotated arpeggiation in Debussy’s performance of “La cathédrale engloutie,” which are comparable to the unnotated arpeggiations found in George Copeland’s rendition of “Clair de lune”⁹. The speed of arpeggiation is also observed to vary in different sections. The use of metrical rubato is also noted in the acoustic recordings with Mary Garden, where Garden takes liberties in time. The use of tempo modification, where both hands

⁵ Dunoyer, “Debussy and the Early Debussystes at the Piano,” 116.

⁶ Timbrell, “Debussy in Performance.”

⁷ Timbrell, “Debussy in Performance,” 261.

⁸ Smith, “Debussy on Performance: Sound and Unsound Ideals.”

⁹ Smith, “Debussy in Performance,” 22-24.

accelerate or slows down together, is also noted in the piano part of the “L’ombre des arbres,”¹⁰ where sudden accelerations and agogic lengthening of notes are heard. However, because of the scope of the article, only selected pieces are discussed, and his argument can be strengthened by a more comprehensive study of all the rolls and recordings.

iii. Detailed investigation of the concept of compensation

In “The Case of Compensating Rubato,” Sarah Martin attempts to demonstrate the use of compensation on a large-scale level. However, the mathematical premise of Martin’s argument is based on assumptions: she did not specify the method of obtaining the average tempo that is crucial to her argument.¹¹ Also, she makes a mathematically false statement:

In Debussy’s performance, then, not only is the average tempo maintained for considerable stretches, but he returns to the average pulse at points of structural significance. *In other words*, at these structural points, Debussy’s return to the average tempo of 46 means that the elapsed duration at the average tempo is the same as the duration of Debussy’s actual rubato with all its variations and subtleties.¹²

¹⁰ Smith, "Debussy in Performance," 11.

¹¹ Two ways come naturally to mind in taking the average tempo. The correct way is to take the number of beats in the whole piece and divide it by the total duration of the piece (in minutes). The erroneous way is to take the average of all the tempos (in each bar). One *could* say that it is obvious; however, unless she specified in her methodology, the omission will always question the argument’s assumed premise.

¹² Martin, "The Case of Compensating Rubato," 115. (Italics mine, “*In other words*” imply the equivalence of the two statements.)

This is untrue, for instance, if Debussy plays bars 1–3 at the average tempo, then plays bar 4 at a faster tempo, his return to the average tempo in bar 5 does not mean that the duration of Debussy's performance up to bar 5 equal the duration of bars 1–5 if they were played at the average tempo. In order to demonstrate that “the elapsed duration at the average tempo is the same as the duration of Debussy's actual rubato with all its variations and subtleties,” she can, for *each* segment of music between two consecutive structural points (call segk in $\{\text{seg1}, \text{seg2}, \text{seg3}\dots\}$), do either procedure A or procedure B:

Procedure A:

- i. measure the time elapsed of segk (in seconds);
- ii. see that:

$$(\text{number of beats in segk}) * 46/60 = \text{segk}.$$
¹³

Procedure B:

- i. measure the average tempo over segk (call av_{segk} in beats per minute);
- ii. see that $\text{av}_{\text{segk}} = 46$.

In her paper, Martin has left the statement in question unproven.

¹³ $46/60$ is the number of beats per second. $46/60 * (\text{number of beats in segk})$ is therefore “the elapsed duration at the average tempo” in seconds. The time elapsed in segk is “the duration of Debussy's actual rubato with all its variations and subtleties.”

Appendix B

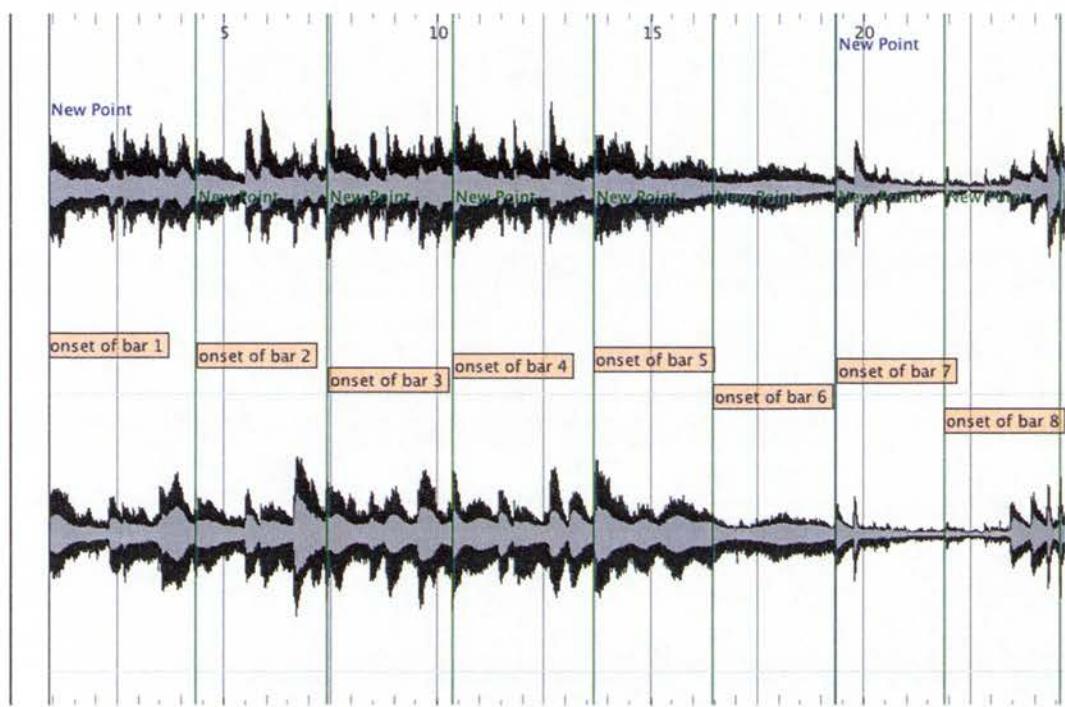
Analysis using Sonic Visualiser

Below are five selected examples of analysis using the program Sonic Visualiser. The x-axis represents time. I have used the waveform in the “separate channels” mode, that is, the two channels (the two waveforms that are on top of one another) together represent the music. This mode gives the best visual cues, as it is more differentiated than, for instance, the “mean” mode (where there is only one wave presenting the music). The vertical lines with the text labels attached are the note-onsets that are plotted either by the automatic note-onset detector or manually. The other thinner lines are just calibrations for easy reading.

Calculation of bar-by-bar tempo

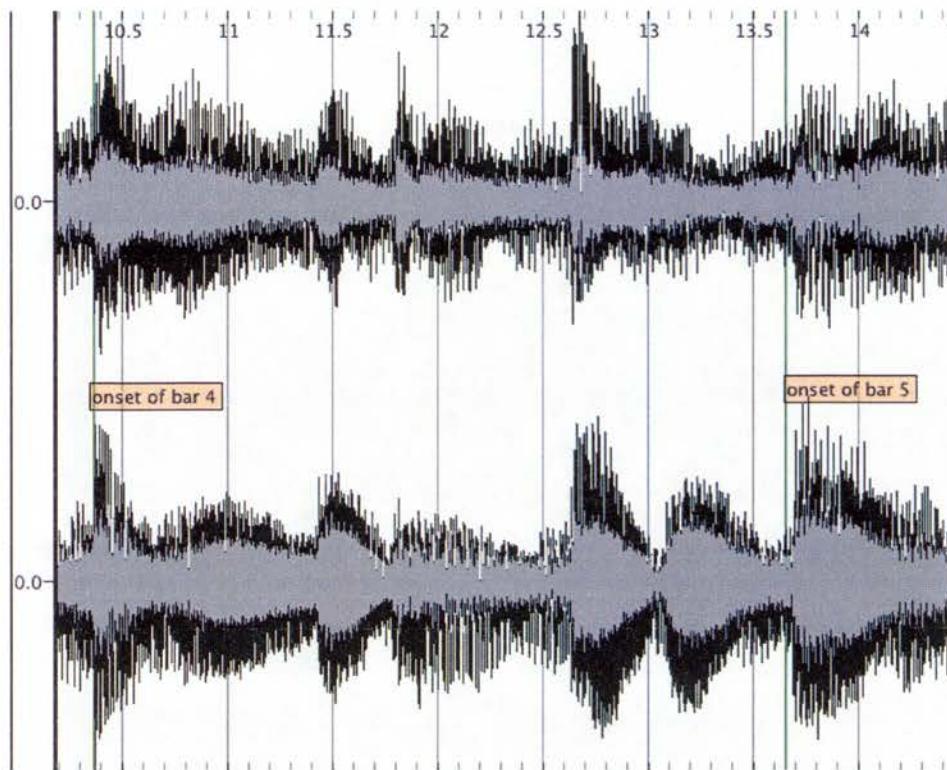
Sonic visualiser is used to calculate the onset of each bar. The duration of bar k is measured by the difference of the onset of bar $k+1$ and the onset of bar k. For instance, the duration of bar 3 is equal to the onset of bar 4 minus the onset of bar 3.

Fig. 1 Bar-by-bar tempo calculations of “La soirée dans Grenade,” bars 1–8.



The waveform can be zoomed in to allow for a more precise plotting:

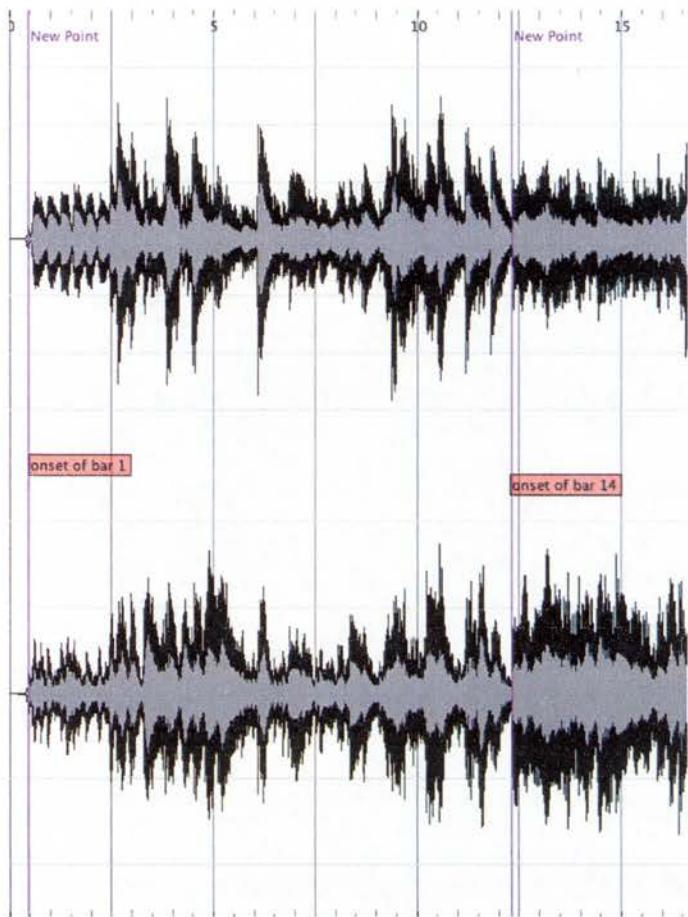
Fig. 2 Zoomed-in plotting for “La soirée dans Grenade,” bars 4–5.



Calculation of tempo over many bars

When calculating the tempo of a section consisting of more than one bar (say bars j – k), the onset of bar j and the *end* of the bar k (that is, the *beginning* of bar $k+1$) is plotted.

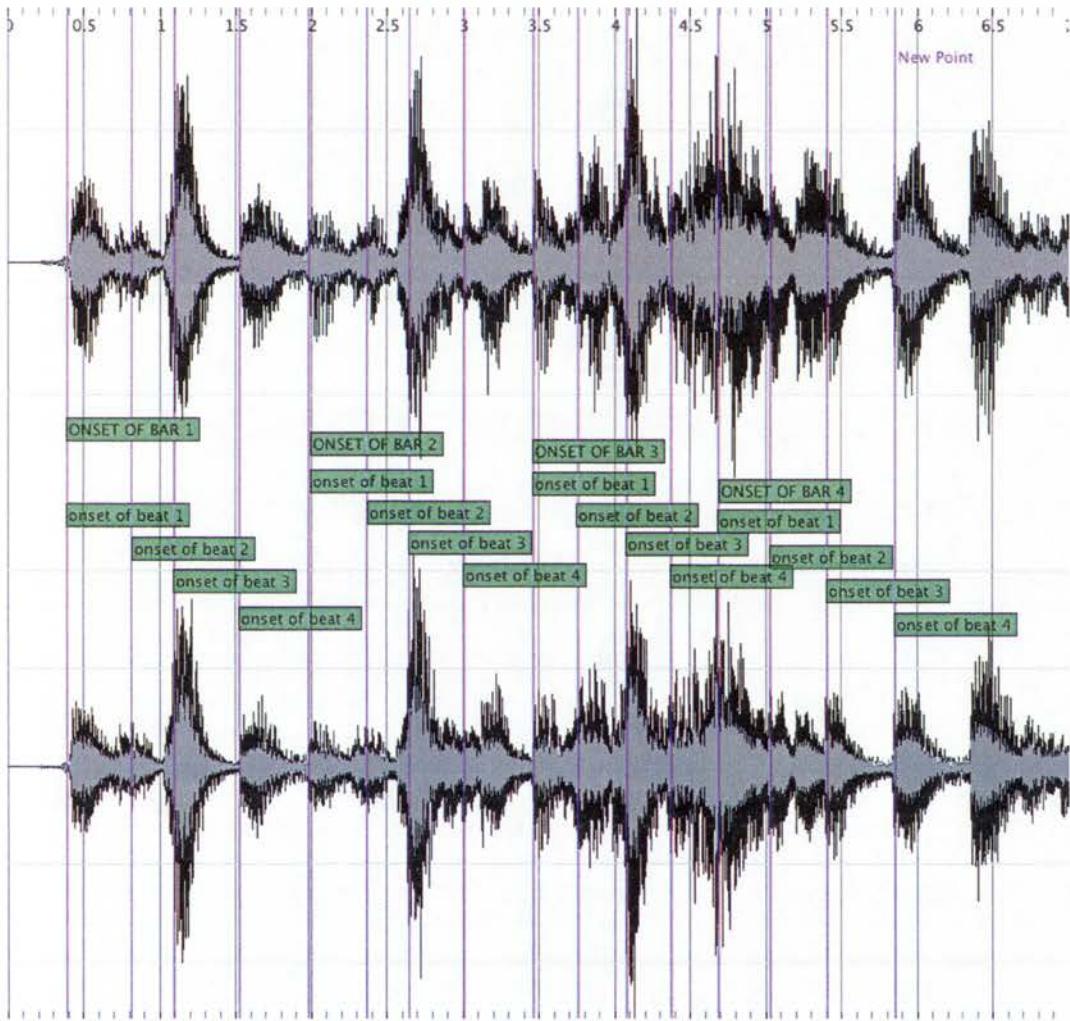
Fig. 3 Calculation of tempo of “Serenade for the Doll,” bars 1–13.



Calculation of length of notes

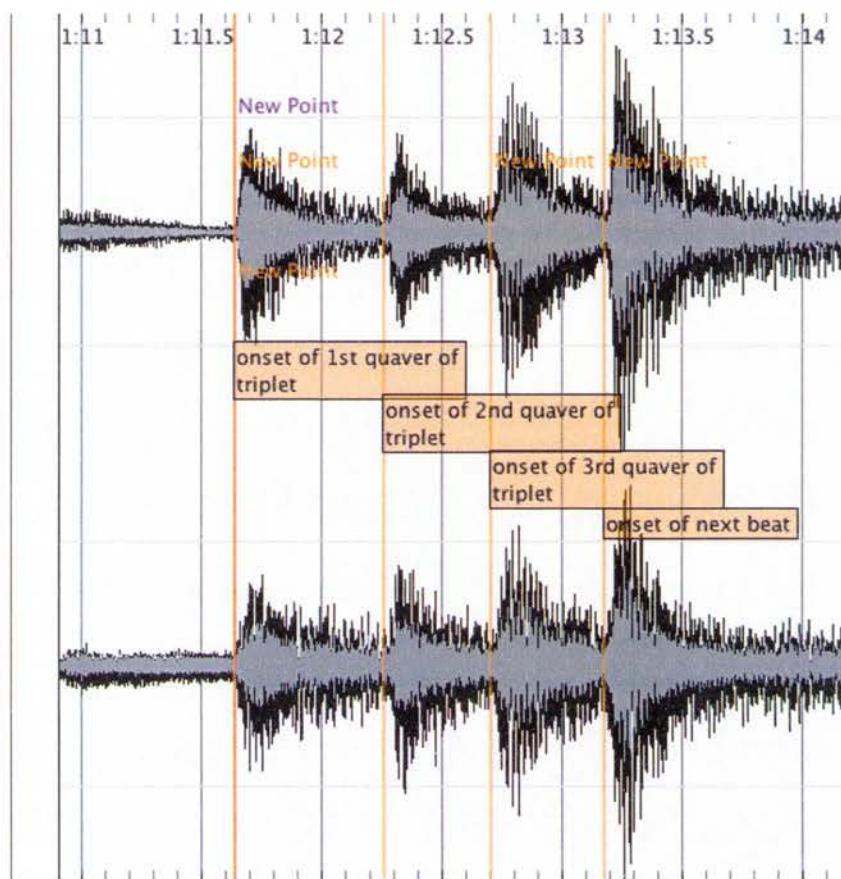
Every note may be measured to analyse how “steady” the sense of pulse is.

Fig. 4 “Minstrels,” note-onsets of every note in bars 1–4.



Specific types of rhythmic alteration are also analysed through calculating the duration of notes, for instance, in the modification of triplets.

Fig. 5 Analysis of the durations of the triplet beats in “La soirée dans Grenade,” bar 27.



Appendix C

The reliability of dynamics, pedalling and tempo in the piano rolls

Dynamics

The secrecy associated with the process for recording dynamics has led to much controversy and polarised opinions among piano roll experts¹⁴. On one hand, researchers from the Pianola Institute conjecture that the Welte-Mignon mechanism operated so that wavy lines were drawn to indicate “the suction needed to recreate the dynamics of the music being played” in the reproducing process. These wavy lines were then probably interpreted on “further equipment to mark the dynamic coding automatically”¹⁵, so that the dynamics recording process was, practically speaking, without editorial intervention. Denis Hall’s theory is that the speed at which the carbon rods dipped into the container of mercury was measured in order to capture information about the dynamics¹⁶. On the other hand, Mark Reinhardt believes that since the electrical technology was somewhat limited in the early 1900s, the mechanism would have been “primitive at best” and “not as reliable as they would have liked”¹⁷. Werner König takes this even further by suggesting that the automated dynamics recording process was

¹⁴ Mark Reinhart, "The Welte-Mignon Recording Process in Germany: Mark Reinhart," *The Pianola Journal* 16 (2005): 18.

¹⁵ *The Reproducing Piano- Welte-Mignon*,
http://www.pianola.org/reproducing/reproducing_welte.cfm

¹⁶ Reinhart, "The Welte-Mignon Recording Process in Germany: Mark Reinhart": 16.

¹⁷ Rienhart, "The Welte-Mignon Recording Process in Germany: Mark Reinhart": 19.

but a pretence, stating that “the secret was that there was no secret.”¹⁸ Because of the secrecy surrounding the recording of dynamics, Reinhardt concludes that it is impossible to know how much roll editing was involved in interpreting the information about dynamics¹⁹.

Regardless of whether or not the recording process was automatic, once the dynamics were recorded, the recording data was given to the roll editor to interpret and transfer into perforations at the side of the roll. Although the recording process could have been automatic, this stage inevitably was subjective where the tastes of the editor would influence his musical decisions, according to Hall, as “some of the more subtle effects would only have been obtained by trial and error, experimenting with one combination of dynamic perforations or another until just the desired result was achieved.”²⁰ Further editing could occur if the finished roll was judged to be unsatisfactory.²¹ In this way, the process of creating the roll from recording to editing already posed a problem of fidelity to the initial performance.

Two factors associated with the playback of the roll also render Welte’s claim dubious. In the reproducing action, the piano keyboard is divided into two halves, between F sharp¹ and G¹. A separate mechanism for dynamics controls

¹⁸ König, "The Welte-Mignon reproducing piano and its place in the history of music": 62.

¹⁹ Reinhart, "The Welte-Mignon Recording Process in Germany: Mark Reinhart": 29.

²⁰ Hall, "The Reproducing Piano- What Can It Really Do?": 13.

²¹ Reinhart, "The Welte-Mignon Recording Process in Germany: Mark Reinhart": 20.

each of these halves, where all the notes within one department would have the same dynamics. Consequently, if the two hands were playing in the same department, the capability of distinguishing dynamically between them would be greatly reduced²². This is a particularly crucial issue in Debussy's music, as there are often multiple layers that each call for different dynamics and touch in execution. In addition, the expressive mechanism for each department is thought to be somewhat crude, König stating that there were "three main stages of loudness in the Welte-Mignon (with vague transitions by means of an imperfectly controllable crescendo)"²³. Hall points out that the nature of the reproducing action's construct means that "it cannot completely reproduce every slight variation in touch of the original performance"²⁴. This point is pivotal as subtle nuances are important factors in considering Debussy's playing in terms of dynamics, as he was praised by many for his sensitive touch and shades of colour.

Another issue that affects the fidelity of dynamic reproduction is the differences between the recording and the reproducing piano. Every piano requires a slightly different treatment by the performer to achieve the desired sound, and the manner in which a performer approached the recording piano on a roll would not necessarily be effective on the reproducing piano. In his biography, Harold Bauer has pointed out the limitation of playing a roll on different pianos, stating that it

²² König, "The Welte-Mignon reproducing piano and its place in the history of music": 53.

²³ König, "The Welte-Mignon reproducing piano and its place in the history of music": 62.

²⁴ Harold Bauer, *Harold Bauer, His Book*, 175-6, quoted in Hall, "The Reproducing Piano- What Can It Really Do?": 14.

was impossible to overcome the “minute differences in quality of tone and in resistance with the action”²⁵ of different pianos.

The disparity between the original recording instrument and the reproducing piano becomes more of an issue when considering that it is impossible to know the exact sound quality and conditions of the recording instrument. Certainly, Caswell has set up his Feurich Welte reproducing piano to be as similar as possible to the original recording piano, following closely the specifications given to him by Richard Simonton, who has had first hand studio recording experience with the inventors of the Welte-Mignon system, Edwin Welte and Carl Bockisch:

Edwin Welte told Dick Simonton that the most accurate reproduction of his rolls would occur using a Welte mechanism built into the piano, with hammer rail lift rather than *una corda* pedal (though Welte mechanisms were installed using whichever type of “soft pedal” device that best suited each make of piano). Welte also preferred pianos with bass strings lengths somewhere between those of a Steinway A and a Steinway B (6’ to 7’ overall piano length). He believed that this would achieve a tonal balance approximating that of the two recording pianos in the Freiburg Welte studio—a Steinway B and the equivalent Feurich grand. The

²⁵ Hall, "The Reproducing Piano- What Can It Really Do?": 18.

recordings on this CD were made following Edwin Welte's preferences listed above.²⁶

Although Caswell has used an appropriate historical instrument, a restored and meticulously adjusted 1923 Fleurich Welte piano, it is an inescapable fact that even two pianos of the same make could have different tone quality and resistance in action. Moreover, Hall highlights the subjectivity of restoring reproducing pianos, stating that “‘soft’ piano hammers to one person will be ‘warm and full toned’, and to another ‘like cotton wool and lifeless’!”²⁷ One aspect that could influence a rebuilder’s tastes is how accustomed he is to the sound quality of today’s pianos, which are voiced to be brighter, louder and more resonant than those that existed a century ago. Hall notes that old pianos, when restored, are not necessarily fitted with the “lighter and softer hammers”²⁸ that characterize those in the early twentieth century, causing the sound to be have more of an edge and less warmth than the original instrument.

These various issues result in a general consensus among experts that “everything to do with dynamics must be regarded as an approximation only,” in König’s words²⁹. Leikin, in discussion of Scriabin’s Welte-Mignon piano rolls, states that only a “general sense” of the artist’s dynamics could be reproduced, as

²⁶ Caswell, liner notes to Claude Debussy, *Claude Debussy, The Composer as Pianist*.

²⁷ Hall, "The Reproducing Piano- What Can It Really Do?": 19.

²⁸ Denis Hall, "A Window in Time— a Response," *The Pianola Journal* 12 (1999): 10.

²⁹ König, "The Welte-Mignon reproducing piano and its place in the history of music": 53.

“it misses the minute, barely perceptible nuances that are crucial for expressive delivery, especially in the shaping of phrases.”³⁰

Pedalling

According to Hall, the sustained and the soft pedals were recorded as the pianist played, using the same methodology as note recording.³¹ Furthermore, Caswell specifies that half-pedalling was also recorded:

Half-pedaling data was also captured on the Friburg recording machine by a separate graph on the first master roll, which recorded three specific positions of the sustaining pedal—

- a) The dampers fully damping the strings
- b) The “half-pedal” position of the dampers (which was carefully reset before each recording session).
- c) Dampers fully raised off the strings.

However, the subtlety with which Debussy was known to play might not have all been captured, for instance, the use of quarter-pedaling³² and flutter

³⁰ Anatole Leikin, "The Performance of Scriabin's Piano Music: Evidence from the Piano Rolls," *Performance Practice Review* 9, no. 1 (1996): 101.

³¹ Hall, "The Reproducing Piano- What Can It Really Do?": 7.

³² Leikin, "The Performance of Scriabin's Piano Music: Evidence from the Piano Rolls": 103.

pedaling.³³ In general, the soft pedal was also “used more frequently than in the original performance”³⁴ to aid the reproduction of softer dynamics.

Even if the recording process were faithful to the pianist’s pedaling, the playback poses some setbacks. Hall states that “the speed at which the automatic pedal operated on the editing pianos must have varied, as one does meet pedaling from time to time on published rolls which one might charitably describe as somewhat eccentric, if not distinctly suspect.”³⁵ With regards to the Welte mechanism described by Caswell, it would also be difficult to duplicate the exact position of the half-pedaling that produced the resulting resonances in the original performance on the recording piano. Thus, the piano rolls’ reproduction of Debussy’s pedaling might not do justice to a pianist who is renowned for his fine and sensitive tone production and coloristic shades.

Tempo

The absolute tempo on the piano rolls is also not completely dependable. In his review of the Caswell recording, Howat points out that the indicated mechanism speed may not be the intended one in *Children’s Corner*. The set was recorded on a single roll, posing some suspicions:

³³ Timbrell, liner notes to Claude Debussy, *Claude Debussy, the Composer as Pianist*.

³⁴ Hall, “The Reproducing Piano- What Can It Really Do?”: 16.

³⁵ Hall, “The Reproducing Piano- What Can It Really Do?”: 16.

Six pieces (the content of *Children's corner*) are an unusually high content for a single roll, and when that single roll, played back at the indicated mechanical speed, reveals abnormally fast tempi relative to the composer's tempo headings, it must raise suspicion...My strong suspicions were long ago increased by the very audible way that several nuances and pedal applications on this roll often didn't engage properly, because the roll wasn't allowed time for the pneumatics to take effect at the right moment. Although the roll itself says nothing of this, if the Welte mechanism is set to play it back more slowly, the musical and pneumatic problems solve themselves.³⁶

More generally, the durations of some of the same pieces in different reliable CD issues are different. Denis Hall³⁷ produced a high quality non-commercial CD recording of several of the Debussy piano rolls on a Steinway-Welte. The durations of the pieces on Hall's CD recording are compared to that of Caswell below:

³⁶ Howat, "Review: Claude Debussy, The Composer as Pianist": 39-40.

³⁷ Denis Hall, a frequent contributor of the Pianola Journal, is regarded as one of the leading experts in the area of piano rolls research and historic performance recordings. He has had experience also with restoring and preparing reproducing pianos. See Biography in *The Pianola Journal- Journal of the Pianola Institute* 15 (2005): 63.

Piece	Caswell's CD duration (minutes)	Hall's CD duration (minutes)
“La soirée dans Grenade”	5'27"	5'11"
“Danseuses de Delphes”	3'01"	2'46"
“La cathédrale engloutie”	5'00"	5'00"
“La danse de Puck”	2'06"	2'19"
“Le vent dans la plaine”	1'56"	1'56"
“Minstrels”	1'39"	1'39"
<i>La plus que lente</i>	3'21"	3'05"

A possible explanation for these discrepancies would be that Hall and Caswell owned rolls that were produced and copied at different stages. The Welte rolls were issued in a number of formats, and the master rolls of Debussy would have been that of the original German Red T-100 format. These were then reissued later in the American “Licensee” format, and some also in the German Green T-98 format³⁸. The reissuing process could have caused some discrepancies in the playback tempi, since the formats have different playback speeds and sizes of the take-up spool. Upon the re-cutting of the rolls for the different formats, the rolls

³⁸ Smith and Howe, *The Welte-Mignon: Its Music and Musicians*, 356.

need to be re-edited for the tempo to be correct, but this did not always occur.³⁹

Also, the indicated tempo marking in the later formats were sometimes not precise but gave a range, for instance, “60–70.”⁴⁰ These various factors would contribute to the dissimilarities in the duration of the pieces.

Certainly, these differences also call into question the consistency of the rate at which the take-up spool winds the piano roll, and consequently whether tempo changes within one roll can be due to the fault of the playback mechanism.

According to Neal Peres Da Costa, on a playback mechanism that is well adjusted, especially that of Caswell, the relative tempo changes within a piece should be reliable.⁴¹

³⁹ Hall, "The Reproducing Piano- What Can It Really Do?": 21.

⁴⁰ Peres Da Costa, meeting, 26th June, 2009. Neal Peres Da Costa has informed me that he has had personal communication with experts in the field, Denis Hall and Rex Lawson, who have provided him with this information.

⁴¹ Peres Da Costa, meeting, 26th June 2009.

Appendix D

“La cathédrale engloutie” with unnotated arpeggiations marked into the score

42

A = arpeggiation (very fast)
A* = arpeggiation (very fast and almost imperceptible)

Profondément calme (Dans une brume doucement sonore)

A* and dislocation heard
[d=] Doux et fluide from bars 7-13

R.

* Voir note sur Mouvement, p. 151.
See note on Tempo, p. 167.

43

13 [♩=d] *pp* (sans nuances)

16 (Peu à peu sortant de la brume) *sempr. pp*

18 *p marqué* *pp* *p* *marqué*

20 *A* Augmentez progressivement (Sans presser)*

44

22

26 RALL. Sonore sans dureté

31

36 RALL.

A*, A*, A*, A*, A*, A*

8° basso

A*, A*, A*, A*, A*, A*

8° basso

RALL.

A*, A*, A*, A*, A*, A*

8° basso

V

8° basso

41

A*

45

46

Un peu moins lent (dans une expression allant grandissant)

51

56

A LENGTHENED A (LESS FAST) ANTICIPATED

46

molto dim.

NO ARPEGGIATION

64

70

NO ARPEGGIATION
au Mouv'

p

pp (Comme un écho de la phrase entendue précédemment)

(Flottant et sourd)

g bassa

LENGTHENED

8^e basso

76

8^e bassa

79

8^e bassa

RALL.

Dans la sonorité du début A*

[d-d]

82

pianissimo

8^e bassa

85

A

A*

A***

(... La Cathédrale engloutie)

Appendix E

A mathematical proof that the downbeat in bar 3 of “La danse de Puck” is anticipated

Because of the swift tempo of “La danse de Puck,” it may be difficult to recognise that the semiquaver run in bar 3 starts before the beat from the recording alone. Below uses statistical methods and Chebyshev’s inequality to show that this is the case.

Table 1 shows the duration of each minim beat:

Table 1 Duration of each minim beat.

Bar, minim	Note placement (seconds)	Duration (seconds)
1, 1 st minim	0.714	0.723
1, 2 nd minim	1.437	0.718
2, 1 st minim	2.155	0.679
2, 2 nd minim	2.834	0.655
3, 1 st minim	3.489	d=0.560

Average = 0.666993197s.

Standard deviation (SD)=0.066064431.

The above shows that the 1st minim in the 3rd bar is shorter than the preceding bars. We can quantify that it is, indeed, ‘significantly’ shorter using Chebychev’s inequality:

From the above, the duration of the 1st minim of the 3rd bar, d, is

$$k=d/SD=8.479319318 \text{ away from the SD.}$$

The one-sided Chebyshev's inequality states that the probability of a random variable X that is more than k standard deviations away below from its mean m is less than or equal to $1/(1+k^2)$, where its variance is finite and $k>0$.⁴²

Applying the one-sided Chebyshev's inequality, this means that the probability that the minim in question's duration is as it is (0.560181406s) is less than $1/(1+8.479319318^2)=0.013717636$.

That is, the probability of the minim in question being as short as it is, is less than or equal to 1.37%.

□

⁴² Charles W. Therrien and Murali Tummala, *Probability for Electrical and Computer Engineers* (Boca Raton: CRC Press, 2004), 174.

Appendix F

Discussion of different interpretations of Debussy's performance of

La plus que lente

In comparing Debussy's performance of *La plus que lente* with the score, Debussy seems to use flexibility in score interpretation. Interestingly, in his edition of the piece based on the piano rolls, Howat acknowledges the alteration of the left hand of the beginning bars as an editorial change. He also marks in the dotting of the last crotchet beat in bars 33, 34 42 and 44. However, he does not acknowledge the similarly conceived rushing of the three quaver beats in bars 46–48 and many other instances of rhythmic alteration such as the combinations of rhythms of the right hand quavers in bars 27–32, the tripletised quavers in bar 59 and other uneven rhythms in bars 33 and 35 in his edition.

The reason for the inconsistencies in the changes in the piano roll edition is unclear. Does Howat acknowledge the ones that he changed as accurate depictions of Debussy's playing, while interpreting the other ones as artefacts of the rolls? If not, then perhaps the changes that are made are regarded to be substantial enough to appear in the score, while the others are classified as unnotated forms of rubato. These are both mere speculations to an unaddressed issue. Howat, however, questions the nature of this performance of *La plus que lente*, asking whether or not this performance was more of an improvisation on the piece itself. Howat's conjecture implies that Debussy uses much more licence than he intended for other performers of his piece. However, the present analysis

of Debussy's playing in the piano rolls shows that Debussy's playing has a certain freedom in score interpretation. This supports the view that the liberties taken in *La plus que lente* are part of the performing practices of Debussy. Also, as mentioned in Chapter 8, "Molto rubato" is an indispensable indication that implies the use of flexibility in time, this flexibility being part of the *identity of the piece*. Thus, the liberties he takes are very much part of the characterisation of the piece, not just an "off-the-cuff" feature.

Appendix G

Measurements and calculations for pieces in *Préludes Book I*

1. “Danseuses de Delphes”

Tempo changes in the piece show that the theme is clearly divided into antecedent and consequent phrases with a tempo change. Also, unity is created through harking back to the original tempo in the recapitulation. Below are the tempo calculations of the piece:

Table 1 Tempo changes in “Danseuses de Delphes.”

Section/Musical event	Tempo (crotchet beats per minute)
Theme-antecedent (bars 1–3)	30
Theme-consequent (bars 4–5)	35
Theme (bars 6–8)	30
Theme-consequent (bars 9–10)	35
Development (bars 11–24)	32
Recapitulation-antecedent (bars 25 onwards)	28

2. “La cathédrale engloutie”

Tempo modification signifies the structure of “La cathédrale engloutie,” as well as metaphorically alludes to the subject of the title. Below are the calculations of the piece:

Table 2 Tempo changes in “La cathédrale engloutie.”

Section/Musical event	Bar	Tempo	Score association
A	1–15	$\text{♩}=62$	
B	16–9	$\text{♩}=62$	peu à peu sortant de la brume [little by little leaving the mist]
“	20–1	Accelerando	Augmentez progressivement (sans presser) [expanding progressively (without pressing)]
“	22–6	$\text{♩}=74$	<i>f</i>
Transition to climax	27	Rallentando	
Climax	28–38	$\text{♩}=62$	Sonore sans dureté [Sound without hardness]
Transition	39	Rallentando	Decrescendo
“	40	$\text{♩}=58$	
“	41	Rallentando	Decrescendo
“	42–6	$\text{♩}=43$	<i>p</i>
C, structural imperfect cadence (marked with arrow in Graph 81)	47–61	$\text{♩}=72$	Un peu moins lent (Dans une expression allant grandissant) [A little less slow (In an expression that is growing)]
“	62–6	$\text{♩}=56$	Molto dim.
B'	67–83	$\text{♩}=62$	Au mouvt, Comme un echo de la phrase entendue précédemment [With movement, like an echo of the phrase heard previously]
A	86–end	$\text{♩}=44$	Dans la sonorité du début [In the beginning sonority]

3. La danse de Puck

In “La danse de Puck,” accelerando is used in conjunction with crescendo signs in the lead up to the climactic moment in bar 69:

Table 3 Duration and tempo of “La danse de Puck,” bars 63–69.

Crotchet beat	Bar	Placement (seconds)	Duration (seconds)	Tempo (crotchet beats per minute)	% decrease of duration with respect to previous crotchet beat
1	63	74.678	0.588	102.083	
2		75.265	0.588	102.083	0.000
1	64	75.853	0.612	98.000	-4.167
2		76.465	0.612	98.000	0.000
1	65	77.078	0.629	95.455	-2.667
2		77.706	0.588	102.083	6.494
1	66	78.294	0.637	94.231	-8.333
2		78.931	0.441	136.111	30.769
1	67	79.371	0.588	102.083	-33.333
2		79.959	0.522	114.844	11.111
1	68	80.482	0.498	120.492	4.688
2		80.980	0.653	91.875	-31.148
1	69	81.6336	0.922	65.044	-41.250
		82.555			

4. Minstrels

Different types of tempo modification are heard in “Minstrels,” as seen in the calculations below.

An unsteady beat is heard in “Minstrels,” in particular, in bars 1–4:

Table 4 Duration of quavers in bars 1–4 of “Minstrels.”

Quaver	Bar	Placement (seconds)	Duration (seconds)	Duration of each bar (seconds)
1	1	0.384	0.426	1.596
2		0.810	0.282	
3		1.092	0.432	
4		1.524	0.456	
1	2	1.980	0.384	1.476
2		2.364	0.276	
3		2.640	0.36	
4		3.000	0.456	
1	3	3.456	0.300	1.224
2		3.756	0.318	
3		4.074	0.294	
4		4.368	0.312	
1	4	4.680	0.348	
2		5.028	0.372	
		5.400		
Mean		0.358		
SD		0.064		
Normalised SD		0.180		

The lengthening of beats is associated with dynamic markings:

Table 5 Duration of crotchet beats in bars 40–43 of “Minstrels.”

Bar	1st crotchet duration (s)	2nd crotchet duration (s)
40	0.510	0.728
41	0.450	0.480
42	0.443	0.608
43	0.480	

In the “quasi tamburo” section of bars 58–63, the tempo dramatically changes:

Table 6 Duration and tempo of quaver beats in bars 58–63.

Quaver	Bar	Note placement (s)	Duration (s)	Tempo (bpm)
2	58	65.340	0.593	101
1	59	65.933	0.533	113
2		66.465	0.556	108
1	60	67.020	0.435	138
2		67.455	0.390	154
1	61	67.845	0.480	125
2		68.325	0.548	110
1	62	68.873	0.518	116
2		69.390	0.570	105
1	63	69.960	0.608	99
		70.568		

Appendix H

Measurements and calculations for pieces in *Children's Corner*

In all of the pieces in this suite except for “The Little Shepherd,” the tempo of the theme in the exposition is slower than that of the recapitulation’s theme. This can be seen in the calculations below (A). Other calculations relating to tempo modification and rhythmic alteration will also be included under the separate headings of the individual pieces (B–F).

1. Comparison of the tempo of the theme in the exposition and that in the recapitulation

The two tables below show the tempo of the theme in the exposition and that in the recapitulation, in all but one of the pieces in *Children's Corner*. The calculations from the first table are taken from the 2009 Tacet recording, while that from the second table are taken from the Caswell recording.

Although the reliability of relative tempo in the rolls have been discussed in Chapter 2, this comparison of the tempos obtained from two different recent issues of the piano rolls further strengthens the case. In both cases, the technicians involved in making the recordings (Kenneth Caswell and Hans-W. Schmitz) are experts in the field and would, presumably, adjust the mechanism so that there is no fault with the relative tempos within the roll (Tables 1 and 2).

Table 1 Tempi in *Children's Corner* calculated from the Tacet recording

Piece	Instance of theme in opening (bar)	Instance of theme in recapitulation (bar)	Tempo of theme in opening	Tempo of theme in recapitulation
Doctor Gradus ad Parnassum	1–10	45–54 (marked “1° Tempo”)	♩ = 145	♩ = 151
Jumbo's Lullaby	1–8	63–70 (marked “1° Tempo”)	♩ = 77	♩ = 101
Serenade for the Doll	1–13	<ul style="list-style-type: none"> • 84–95 • 107–114 (melody altered, coda) 	♩. = 57	♩. = 66 ♩. = 68
The Snow is Dancing	1–13	57–63	♩ = 117	♩ = 129
Golliwogg's cake walk	6–17, 18–25	92–97, 98–106 (stated twice in exactly the same form)	♩ = 88, ♩ = 96	♩ = 93, ♩ = 99

Table 2 Tempi in *Children's Corner* calculated from the Caswell recording:

Piece	Instance of theme in opening (bar)	Instance of theme in recapitulation (bar)	Tempo of theme in opening	Tempo of theme in recapitulation
Doctor Gradus ad Parnassum	1–10	45–54 (marked “1° Tempo”)	♩ = 164	♩ = 178
Jimbo's Lullaby	1–8	63–70 (marked “1° Tempo”)	♩ = 85	♩ = 118
Serenade for the Doll	1–13	• 84–95 • 107–114 (melody altered, coda)	♩. = 66	♩. = 75 ♩. = 82
The Snow is Dancing	1–13	57–63	♩ = 133	♩ = 153
Golliwogg's cake walk	6–17, 18–25	92–97, 98–106 (stated twice in exactly the same form)	♩ = 100, ♩ = 111	♩ = 110, ♩ = 132

Note that in both cases, the tempi of the theme in the opening are always slower than that of the theme in the recapitulation.

2. “Doctor Gradus ad Parnassum”

In addition to the recapitulation theme being faster, accelerandos also herald significant structural event in two instances of “Doctor Gradus ad Parnassum” (bars 11–2 and bars 55–6). Also, note the tempi which contradict the score associations (, Table 3, marked with asterisks).

Table 3 Tempo changes in “Doctor Gradus ad Parnassum.”

Bar (from)	Bar (to)	Start duration (s)	End duration (s)	Tempo (bpm)	Structural event	Score association
1	10	1.056	15.685	164	Exposition, 1st theme	
11	12		accelerando			crescendo
13	20	18.274	28.850	181	Development of 1st theme in different hamony	
21	21		rall			un peu retenu [a little retained]
22	31	30.679	45.522	162	Extension of 1st theme	espressif in bar 27
32	32		rall			retenu
33	34	47.833	51.037	150	Augmentation of 1st theme	1° Tempo*
35	40	51.037	62.164	144		Animez un peu [animate a little]*
41	42	62.164	65.038	167		crescendo
43	44		rall			retenu
45	54	69.146	82.616	178	Recapitulation, 1st theme	1° Tempo*
55	56		accelerando			crescendo
						En animant peu à peu, Très animé [Animate little by little. Very animated]
57	72	84.799	101.192	234	Coda	

Below (Table 4) shows the tempo of each bar in the “Animez un peu” section.

Note that the most noticeable increase is in bar 41, where there is a crescendo.

Table 4 Tempo calculation (bar-by-bar) of the “Animez un peu” section in “Doctor Gradus ad Parnassum.”

Bar	Placement of start of bar (s)	Tempo (bpm)	Percentage of increase of tempo (bpm) with respect to the previous bar
37	55.484		
38	57.248	136	
39	58.932	143	4.751
40	60.569	147	2.871
41	62.164	150	2.633
42	63.587	169	12.087
43	65.038	165	-1.930
44	66.605	153	-7.403
45	69.146	94	-38.331

3. “Jimbo’s Lullaby”

In “Jimbo’s Lullaby,” the first theme gains in tempo whenever it appears. Also, note that some tempi are in contradiction to score indications (Table 5, marked with asterisks).

Table 5 Tempo changes in “Jimbo’s Lullaby”

Bar (from)	Bar (to)	Start duration (s)	End duration (s)	Tempo (bpm)	Structural event	Score association
1	3	0.618	9.429	82	Exposition 1 st theme	
6	8	14.656	23.189	84		
9	14	23.189	39.061	91		
17	18			rall.	End of section	
19	38	50.688	95.253	108	Development of 1 st theme, Change in accompanimental texture	
39	46	95.253	110.464	126	Change in harmony (from mostly pentatonic to whole-tone)	Un peu plus mouvt
47	58			same, but unsteady		
59	62			rall.		Retenu (bar 61)
63	73	142.101	164.437	118	Recapitulation 1 st theme	I Tempo*
74	75	164.437	169.002	105	Ending gesture	sans retarder*
76	77	169.002	174.741	84		Morendo

4. “Serenade for the Doll”

Similar to “Jimbo’s Lullaby,” the first theme also gains in tempo whenever it appears (Exposition, Recapitulation and Coda). Also, the tempi contradicting the score are marked with asterisks (Table 6).

Table 6 Tempo changes in “Serenade for the Doll”

Bar (from)	Bar (to)	Start duration (s)	End duration (s)	Tempo (bpm)	Structural event	Score association
1	13	0.426	12.309	66	Exposition 1st theme	
14	27	12.309	23.573	75	2nd theme	
28	29	23.573	25.77	rall.		Un peu retenu
30	41	25.771	36.053	70	1st theme and 2nd theme combined	
42	42	36.053	37.269	rall.		Cedez
43	52	37.270	45.226	75	2nd theme developed	
53	56	45.226	48.458	74		En animant un peu*
57	60	48.458	51.552	78		crescendo
61	66	51.552	56.021	81		a Tempo
67	72	56.021	61.184	70	new theme	
73	79	61.184	66.432	80		
80	83	66.432	69.717	73		sans retarder*
84	95	69.718	79.296	75	Recapitulation 1st theme	
96	97	79.296	80.725	accel.		crescendo
98	99	80.725	82.325	75		
100	104	82.325	85.984	accel.		crescendo
105	106			Indeterminate because of rests		
107	121	87.808	98.816	82	Coda 1st theme modified	

5. The Snow is Dancing

The beginning of “The Snow is Dancing” sees a gradual increase in tempo, which fits into the sense of uplift in the whole of the suite (Table 7):

Table 7 Tempo of bars 1–34 (bar-by-bar) of “The Snow is Dancing”

Bar	Placement of Beginning of bar (s)	Duration (s)	Tempo (bpm)
1	0.975	2.217	108
2	3.192	2.038	118
3	5.230	1.840	130
4	7.070	1.921	125
5	8.991	1.753	137
6	10.744	1.794	134
7	12.538	1.724	139
8	14.262	1.690	142
9	15.952	1.689	142
10	17.641	1.881	128
11	19.522	1.625	148
12	21.147	1.678	143
13	22.825	1.590	151
14	24.415	1.713	140
15	26.128	1.672	144
16	27.800	1.642	146
17	29.442	1.754	137
18	31.196	1.654	145
19	32.850	1.736	138
20	34.586	1.671	144
21	36.257	1.666	144
22	37.923	1.777	135
23	39.700	1.798	133
24	41.498	1.910	126
25	43.408	1.788	134
26	45.196	1.788	134
27	46.984	1.727	139
28	48.711	1.777	135
29	50.488	1.778	135
30	52.266	1.656	145
31	53.922	1.697	141
32	55.619	1.635	147
33	57.254	1.788	134
34	59.042		

Also, the second minim is shortened with the constant anticipation of the first minim to differentiate the melody from the accompanying texture (Table 8):

Table 8 Duration of minim beats in bars 1–6 of “The Snow is Dancing.”

Minim	Bar	Duration of the minim (seconds)
1st	1	1.138
2nd		1.068
1st	2	0.999
2nd		0.952
1st	3	0.998
2nd		0.821
1st	4	0.996
2nd		0.970
1st	5	0.908
2nd		0.856
1st	6	0.952
2nd		0.767

6. Golliwogg’s Cake-Walk

In “Golliwogg’s Cake-Walk,” the theme occurs twice in the exposition and in the recapitulation. In both sections, the second appearance is faster than the first. Also, there is the general trend of the recapitulation’s theme being faster than that of the corresponding theme in the exposition. This can be seen in the following table (Table 9).

Table 9 Tempo changes in “Golliwogg’s Cake-Walk.”

Start bar	End bar	Start duration (s)	End duration (s)	Tempo (bpm)	Structural Event	Score association
1	5	0.382	6.359	100	Intro	
6	17	6.359	20.701	100	Exposition 1st theme (1st)	
18	25	20.701	29.312	111	1st theme restated (2nd)	
26	37	29.312	42.436	110	change harmony and texture	
38	40	42.436	45.36	123	1st theme restated briefly (3rd)	
Slight pause				0.361 seconds		
41	46	45.721	53.321	95	end of section, transition into next section	
47	59	53.321	68.928	100	new Development section	"un peu moins vite"
60						
61	81	alternating				alt between cedez and a tempo
82		rall				
83	89	41.919	59.174	49		retenue in bar 87
90	91	59.174	62.737	accel.		toujours retenu
92	97	2.737	9.293	110	Recap 1st theme (1st)	Tempo 1
98	106	9.293	17.486	132	1st theme restated (2nd)	
107	117	17.486	30.053	105	change harmony and texture	
118	120	30.053	32.965	124	1st theme restated briefly (3rd)	
Slight pause				0.359 seconds		
121	125	33.324	39.0105	106	end of piece	
161 (1/2 bar)		39.534	40.102	106		

The degree of variation of the quaver beats differs from section to section in “Golliwogg’s Cake-Walk.” The beginning (bars 6–13) is more varied than the middle section labelled “un peu moins vite” (a little less quickly) (bars 47–51). This can be seen in their normalised standard deviations (Tables 10 and 11, the former is larger than the latter). Also, there is a more gradual use of tempo

modification in the lead up to the Tristan chord in bars 61–62 marked “Cedez,” where each quaver is longer than the one that precedes it (Table 12).

Table 10 Duration of quaver beats in bars 6–13 of “Golliwogg’s Cake-Walk.”

Quaver	Bar	Note placement (s)	Duration (s)
1	6	6.360	0.371
2		6.730	0.348
3		7.079	0.244
4		7.322	0.313
1	7	7.636	0.441
2		8.077	0.325
3		8.401	0.360
4		8.761	0.348
1	8	9.109	0.279
2		9.388	0.267
3		9.655	0.406
4		10.061	0.302
1	9	10.363	0.395
2		10.757	0.313
3		11.070	0.325
4		11.395	0.302
1	10	11.697	0.360
2		12.058	0.186
3		12.242	0.278
4		12.520	0.303
1	11	12.823	0.325
2		13.148	0.186
3		13.333	0.302
4		13.635	0.279
1	12	13.913	0.313
2		14.227	0.255
3		14.482	0.220
4		14.702	0.325
1	13	15.027	0.406
2		15.434	0.267
3		15.700	0.279
4		15.979	0.302
1	14	16.281	
		average	0.310
		standard deviation	0.060
		SD/AV %	19.188

Table 11 Duration of quaver beats in bars 47–51 in “Golliwogg’s Cake-Walk.”

Quaver	Bar	Note placement	Duration of note (seconds)
1	47	53.321	0.313
2		53.634	0.337
3		53.971	0.395
4		54.366	0.348
1	48	54.714	0.337
2		55.050	0.244
3		55.294	0.313
4		55.608	0.325
1	49	55.932	0.325
2		56.257	0.302
3		56.559	0.313
4		56.872	0.279
1	50	57.151	0.325
2		57.475	0.302
3		57.778	0.267
4		58.044	0.220
1	51	58.265	0.383
2		58.647	0.290
3		58.938	0.325
4		59.262	0.325
1	52	59.587	
		mean	0.313
		standard dev	0.041
		SD/AV %	13.108

Table 12 Duration of quavers in bars 61–62 in “Golliwogg’s Cake-Walk.”

Quaver	Bar	Placement (s)	Duration (s)
2	61	70.092	0.342
3		70.434	0.456
4		70.89	0.474
1	62	71.364	0.528
2		71.892	0.528
3		72.42	0.606
4		73.026	0.63
		73.656	

Appendix I

Measurements and calculations for *La que plus lente*, “La soirée dans Grenade” and *D’un cahier esquisses*

1. *La que plus lente*

The tempo of *La que plus lente* fluctuates from bar to bar. This can be seen in Table 1. Note that in bar 3, there is as much as a 45% of the duration of the bar from bar 2.

Table 1 Tempo (bar-by-bar) and percentage increases in *La que plus lente*

Bar	Time instance of start of bar (seconds)	Duration of bar (seconds)	Tempo (beats per minute)	Percentage increase in duration of bar with respect to previous bar (%)
2	1.811	1.741	34	-22.631
3	3.552	1.347	45	44.766
4	4.899	1.950	31	-16.615
5	6.849	1.626	37	-11.501
6	8.475	1.439	42	-20.917
7	9.914	1.138	53	2.0211
8	11.052	1.161	52	34.022
9	12.213	1.556	39	-3.021
10	13.769	1.509	40	-1.524
11	15.278	1.486	40	-15.612
12	16.764	1.254	48	-1.834
13	18.018	1.231	49	13.160
14	19.249	1.393	43	31.658
15	20.642	1.834	33	
16	22.476			

A frequent form of tempo modification is the lengthening of the first beat and the shortening of the second beat, as seen in the 3rd and 7th bar of the recurring theme. These are bars 3 and 7, 19 and 23, 61 and 65, 121 and 125 (Table 2).

Table 2 Duration of crotchet beats in bars 2–7, 19 and 23, 61 and 65, 121 and 125 in *La plus que lente*

Bar	Crotchet Beat	Note placement (s)	Duration of beat (s)
2	1	1.692	0.672
	2	2.364	0.552
	3	2.916	0.564
3	1	3.48	0.734
	2	4.214	0.471
	3	4.685	0.391
4	1	5.076	0.570
	2	5.646	0.658
	3	6.304	0.650
5	1	6.954	0.438
	2	7.392	0.564
	3	7.956	0.426
6	1	8.382	0.618
	2	9.000	0.408
	3	9.408	0.516
7	1	3.480	0.734
	2	4.214	0.471
	3	4.685	0.391
19	1	9.924	0.403
	2	10.327	0.397
	3	10.724	0.322
23		11.046	
	1	28.560	0.746
	2	29.306	0.448
61	3	29.754	0.299
		30.053	
	1	34.477	0.280
65	2	34.757	0.317
	3	35.074	0.262
		35.336	
121	1	23.141	0.803
	2	23.944	0.429
	3	24.373	0.411
125		24.784	
	1	29.376	0.672
	2	30.048	0.485
121	3	30.533	0.448
		30.981	
	1	34.522	0.448
125	2	34.970	0.280
	3	35.250	0.280
		35.530	

125	1	38.554	0.374
	2	38.928	0.280
	3	39.208	0.261
		39.469	

This tempo modification associated with the waltz is also seen in bars 46–55, with two anomalies that are associated with localised events (Table 3).

Table 3 Duration of beats in bars 46–55 in *La plus que lente*.

Bar	Note placement	Duration of beat	Anomaly
46	6.192	0.578	
	6.77	0.467	
	7.237	0.261	
47	7.498	0.355	
	7.853	0.336	
	8.189	0.28	
48	8.469	0.336	
	8.805	0.336	
	9.141	0.299	
49	9.44	0.41	
	9.85	0.374	
	10.224	0.466	Lengthening
50	10.69	0.467	
	11.157	0.317	
	11.474	0.28	
51	11.754	0.392	
	12.146	0.299	
	12.445	0.243	
52	12.688	0.298	
	12.986	0.299	
	13.285	0.28	
53	13.565	0.336	
	13.901	0.317	
	14.218	0.234	
54	14.452	0.354	
	14.806	0.271	
	15.077	0.243	
55	15.32	0.27	first shorter
	15.59	0.299	
	15.889	0.271	
56	16.16		

Other forms of rhythmic alteration can be heard, for instance, in the eight phrases from bars 33–44 (Table 4):

Table 4 Durations and normalised standard deviations in bars 33–44 in *La plus que lente*.

	Actual placement in time (seconds)	Duration of individual note (s)	Standard deviation of the 5 notes in each phrase	Duration of whole phrase (s)	Normalized Standard Deviation (SD / Duration of phrase)
Phrase i (bars 33–4)			0.126	1.579	0.080
Bb	49.481	0.499			
Cb	49.980	0.337			
Db	50.317	0.348			
Eb	50.665	0.198			
F	50.863	0.197			
Bb	51.060				
Phrase ii (bars 35–6)			0.112	1.115	0.100
Bb	53.730	0.407			
Cb	54.137	0.244			
Db	54.381	0.185			
Eb	54.566	0.128			
F	54.694	0.151			
Bb	54.845				
Phrase iii (bars 37–8)			0.123	1.092	0.113
Bb	56.830	0.430			
Cb	57.260	0.209			
Db	57.469	0.139			
Eb	57.608	0.186			
F	57.794	0.128			
Bb	57.922				
Phrase iv (38–9)			0.032	0.766	0.041
Cb	58.061	0.139			
Db	58.200	0.174			
Eb	58.374	0.175			
F	58.549	0.104			
Gb	58.653	0.174			
Cb	58.827				

Phrase v (39–40)			0.035	0.697	0.050
Db	58.955	0.151			
Eb	59.106	0.174			
F	59.280	0.081			
G _b	59.361	0.151			
A _b	59.512	0.140			
Db	59.652				
Phrase vi (bars 40–1)			0.040	0.638	0.062
Eb	59.849	0.081			
F	59.930	0.163			
G _b	60.093	0.104			
A _b	60.197	0.116			
B _b	60.313	0.174			
Eb	60.487				
Phrase vii (bars 41–2)			0.038	0.696	0.056
B _b	60.662	0.197			
C _b	60.859	0.139			
D _b	60.998	0.151			
Eb	61.149	0.105			
F	61.254	0.104			
B _b	61.358				
Phrase viii (bars 43–4)			0.039	0.661	0.059
B _b	62.833	0.197			
C _b	63.030	0.105			
D _b	63.135	0.139			
Eb	63.274	0.116			
F	63.390	0.104			
B _b	63.494				

2. “La soirée dans Grenade”

Tempo modification is closely associated with the formal structure of “La soirée dans Grenade.” This can be studied in the following tables (Tables 5 and 6).

Table 5 Tempo of “La soirée dans Grenade” and associated musical idea and score indications.

Bar (from)	Bar (to)	Tempo calculated	Musical idea	Score associations
1	6	39	O*	
7	14	44	O, A	
15	16	slower tempo, then rall		retenu
17	20	66	B	Tempo giusto
21	22	46	O*	
23	26	45	O, C	Tempo rubato
27	28	rall		retenu
29	32	70	B	Tempo giusto
33	34	66	O, D	
35	36	Rall		dim.
37	37	44	O*	
38	40	59	O'	Très rythmé, en augmentant beaucoup
41	59	Varying tempo from 42 – 78, with average of 58 and sd of 12.104	O', O, E	
60	60	43, with rall in last beat	O	
61	64	49	O, C	Tempo rubato
65	66	rall		retenu
67	77	Varying tempo from 45 to 73 with average of 64 and sd of 6.068	O', O, D	Tempo 1 (avec plus a'abandon)
78	81	48 accel to 62	O, C	pp subito
82	89	61 rall to 41	O, D'(C')	
90	91	46	O*	
92	96	80	B	Tempo giusto
97	97	57, rall	B	
98	103	Varying tempi from 59– 72, average of 70 and sd of 6.526	O, E	
104	106	rall to 50		
107	108	47	O*	
109	112	163	F	Léger et lointain
113	114	52	O, D	Tempo 1
115	118	166	F	
119	120	55	O, D	Tempo 1
121	121	29, rall		
122	126	40	O, A	Mouvt du début
127	127	33, rall		
128	128	42	B	
129	129	rall		
130	132	29		en allant se perdant
133	133	34	O*	
134				

Table 6 Tempo (bar-by-bar, beats per minute) in “La soirée dans Grenade”

Bar	o^*	A	B	C	D	E	F
1	34.722						
2	38.793						
3	40.761						
4	36.526						
5	42.939						
6	41.667						
7		46.875					
8		44.643					
9		45.731					
10		43.945					
11		46.875					
12		40.761					
13		49.779					
14		39.063					
15		37.252					
16		27.043					
17			62.500				
18			65.407				
19			67.771				
20			68.598				
21	50.223						
22	42.614						
23			45.000				
24			46.875				
25			45.363				
26			44.291				
27			40.468				
28			36.290				
29		66.176					
30		69.444					
31		66.176					
32		78.125					
33					66.964		
34					65.407		
35					55.693		
36					51.606		
37	43.605						
38						53.571	
39						61.141	
40						61.813	
41						66.176	
42						72.115	
43						75.000	
44						78.125	
45						71.203	
46						75.000	
47						67.771	

48					63.920	
49					50.223	
50					46.488	
51					47.269	
52					51.136	
53					52.083	
54					53.571	
55					49.779	
56					42.614	
57					45.000	
58					46.488	
59					49.779	
60	42.939					
61			45.732			
62			53.066			
63			52.570			
64			45.363			
65			42.293			
66			33.284			
67				44.643		
68				54.612		
69				59.210		
70				64.655		
71				61.813		
72				60.484		
73				59.840		
74				76.046		
75				70.285		
76				68.598		
77				63.202		
78			48.491			
79			54.087			
80			57.398			
81			61.813			
82				61.141		
83				55.147		
84				51.136		
85				47.670		
86				48.913		
87				43.605		
88				42.293		
89				41.360		
90	48.077					
91	43.270					
92			71.203			
93			78.125			
94			81.522			
95			95.339			
96			72.115			
97			56.818			
98					58.594	

99					63.202	
100					72.115	
101					66.176	
102					74.013	
103					74.013	
104					68.598	
105					56.818	
106					50.223	
107	48.077					
108	46.488					
109						93.750
110						130.814
111						102.273
112						60.484
113				52.083		
114				32.514		
115	.					98.684
116						144.231
117						89.286
118						73.052
119				56.250		
120				53.571		
121				28.699		
122		37.500				
123		35.828				
124		43.605				
125		41.058				
126			41.058			
127			32.514			
128						42.293
129					29.762	
130					30.571	
131						28.995
132					28.847	
133					34.091	
134						

In the “Tempo Rubato” section, of bars 23–28, the triplets are metrically altered so that the first note is lengthened. Below are the exact durations of the triplets (Table 7):

Table 7 Duration of triplet quavers in bars 23–27 of “La soirée dans Grenade”

Quaver	Bar	Note placement	Duration
1	23	61.056	0.597
2		61.653	0.405
3		62.057	0.405
		62.464	
1	25	66.283	0.469
2		66.752	0.384
3		67.136	0.405
		67.541	
1	27	71.637	0.619
2		72.256	0.448
3		72.704	0.470
		73.173	

The rhythmically altered triplets, however, do not interfere with the general trend of the section (Table 8):

Table 8 Duration of bars in bars 23–28 of “La soirée dans Grenade.”

Bar	Duration (s)
23	2.666
24	2.561
25	2.645
26	2.709
27	2.965
28	3.307

Similarly, the quavers in the “Très rythme” section are altered, but this does not affect the general bar-to-bar tempo trend (Tables 9 and 10).

Table 9 Duration of quavers in bars 39–41 of “La soirée dans Grenade.”

Quaver	Bar	Note placement (s)	Duration (s)
1	39	97.899	0.533
2		98.432	0.363
3		98.795	0.405
4		99.200	0.661
		99.861	
1	41	101.803	0.533
2		102.336	0.384
3		102.720	0.405
4		103.125	0.491
		103.616	
1	43	105.280	0.491
2		105.771	0.299
3		106.069	0.384
4		106.453	0.427
		106.880	

Table 10 Duration of bars in bars 38–43 of “La soirée dans Grenade.”

Bar	Duration (s)
38	2.24
39	1.963
40	1.941
41	1.813
42	1.664
43	1.600

3. D'un cahier esquisses

Three bars are labelled “Rubato,” namely, bars 13, 15 and 38. Bar 40 sees the same musical figure, although the “Rubato” indication is omitted. How Debussy executed these bars have been investigated, and below shows the durations for the left hand dotted quavers, the right hand dotted quavers, and the raw data showing the calculations from the note placements (Tables 11–20).

Table 11 Duration of the dotted quavers in the left hand in the “Rubato” bars in *D'un cahier esquisses*.

Bar	Dotted quaver 1 (s)	Dotted quaver 2 (s)	Dotted quaver 3 (s)	Dotted quaver 4 (s)
13	1.067	0.683	1.237	1.579
15	1.152	0.683	0.981	1.259
38	1.131	0.789	1.323	1.579
40	0.896	0.747	0.853	0.96

Table 12 Duration of the quavers in the right hand in the first half of the “Rubato” bars in *D'un cahier esquisses*.

Bar	Quaver 1 (s)	Quaver 2 (s)	Quaver 3 (s)
13	0.704	0.491	0.555
15	0.704	0.512	0.619
38	0.640	0.555	0.725
40	0.597	0.491	0.555

Calculations for the left hand (Tables 13–6):

Table 13 Duration of left-hand dotted quavers in bar 13 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of dotted quavers (s)
13	58.432	1.067
	59.499	0.683
	60.181	1.237
	61.419	1.579
14	62.997	

Table 14 Duration of left-hand dotted quavers in bar 15 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of dotted quavers (s)
15	68.053	1.152
	69.205	0.683
	69.888	0.981
	70.869	1.259
16	72.128	

Table 15 Duration of left-hand dotted quavers in bar 38 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of dotted quavers (s)
38	156.309	1.131
	157.440	0.789
	158.229	1.323
	159.552	1.579
39	161.131	

Table 16 Duration of left-hand dotted quavers in bar 40 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of dotted quavers(s)
40	166.037	0.896
	166.933	0.747
	167.68	0.853
	168.533	0.96
41	169.493	

Calculations for the right hand (Tables 17–20):

Table 17 Duration of right-hand quavers in bar 13 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of quavers (s)
13	58.432	0.704
	59.136	0.491
	59.627	0.555
	60.181	

Table 18 Duration of right-hand quavers in bar 15 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of quavers (s)
15	68.053	0.704
	68.757	0.512
	69.269	0.619
	69.888	

Table 19 Duration of right-hand quavers in bar 38 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of quavers (s)
38	156.309	0.64
	156.949	0.555
	157.504	0.725
	158.229	

Table 20 Duration of right-hand quavers in bar 40 of *D'un cahier esquisses*.

Bar	Placement (s)	Duration of quavers (s)
40	166.037	0.597
	166.635	0.491
	167.125	0.555
	167.68	

Glossary¹

i. Opposition

In considering how to ascribe meaning to a musical entity (e.g. figures that are overdotted, a minor chord, polyphonic writing), one can think of its *opposition* (the same figures that are not double-dotted, a major chord, non-polyphonic writing) and its corresponding meaning. Considering meaning in the context of oppositions yield rich insights, especially with a valuation of the opposition.

ii. Marked opposition

This is the “asymmetrical valuation” of an opposition, where one entity is “marked” and the other is “unmarked.” The marked entity has a “narrower range of meaning with respect to the unmarked one,” “tends to appear less frequently than the unmarked one” and “has a narrower distribution than its unmarked counterpart.”²

iii. Topic

Hatten gives this definition regarding topics in Beethoven’s music: “a complex musical correlation originating in a kind of music (fanfare, march, various dances, learned style, etc.,; Ratner, 1980), used as part of a larger work. Topics may acquire expressive correlations in the Classical style, and they may be further interpreted expressively.”³ In Debussy’s pieces, two examples are the unaccompanied melody, or the accompanied dance in the pastoral genre of “The little Shepherd.”

¹ There is still work to be done in terms of Debussy’s performing practices considered as “stylistic competency” (performing practices and their established, associated meanings). How does it grow from the existing stylistic competency of the late nineteenth-century pianists? These questions warrant a more in-depth study of the semiotics of Debussy’s performance practice that is beyond the scope of this thesis.

² Robert Hatten, *Musical Meaning in Beethoven: Markedness, Correlation, and Interpretation* (Bloomington: Indiana University Press, 1994), 63.

³ Hatten, *Musical Meaning in Beethoven*, 294–5.

iv. Troping

When two different topics that are formally unrelated come together to give a new meaning that is beyond the meanings correlating to the original two topics. This meaning is called the “emergent” meaning.⁴

⁴ Hatten, *Musical Meaning in Beethoven*, 295.

Chapter 4, CD 1.

1. Chopin, *Nocturne* Op. 27 No. 2, bars 1–9, Leschetizsky, piano roll, 1906²
2. Debussy, *La plus que lente*, bars 1–16
3. Debussy, “Jimbo’s Lullaby,” bars 32–7
4. Debussy, “La cathédrale engloutie,” bars 36–42
5. Debussy, “Le vent dans la plaine,” bars 49–54
6. Debussy, “La soirée dans Grenade,” bars 23–66
7. Debussy, *La plus que lente*, bars 139–48
8. Debussy, “Minstrels,” bars 63–74
9. Debussy, “D’un cahier d’esquisses,” bars 45–7
10. Debussy, “Doctor Gradus ad Parnassum,” bars 37–44
11. Debussy, “The Serenade of the Dolls,” bars 93–7
12. Debussy “Golliwogg’s Cake-walk,” bars 61–76
13. Debussy, “Minstrels,” bars 36–8
14. Debussy, “Jimbo’s Lullaby,” bars 21–4

¹ If unspecified, the performer is Debussy himself, and the excerpt is taken from the Caswell recording.

² Frederic Chopin, ‘Nocturne Op. 27 No. 2’, Welte-Mignon piano roll by Theodor Leschetizky (1906). *The Closest Approach to 19th Century Piano Interpretation*, Camille Saint-Saëns, Carl Reinecke and Theodore Leschetizky, Archiphon-106 (1992), in Peres Da Costa, "Performing practices in late-nineteenth-century piano playing," CD 1/2.

Chapter 5, CD 2

1. Debussy, “La danse de Puck,” bars 32–52
2. Debussy, *La plus que lente*, bars 1–16
3. Debussy, “Danseuses de Delphes,” bars 11–20
4. Debussy, “La cathédrale engloutie,” bars 1–27
5. Debussy, “La cathédrale engloutie”
6. Debussy, “La cathédrale engloutie,” bars 56–62
7. Debussy, *D'un cahier esquisses*, bars 45–7
8. Debussy, “Danseuses de Delphes,” bars 1–10
9. Debussy, *La plus que lente*, bars 43–57
10. Debussy, “Golliwogg’s Cake-Walk,” bars 59–81
11. Debussy, “La soirée dans Grenade,” bars 61–108
12. Debussy, “La soirée dans Grenade,” bars 23–52
13. Debussy, *D'un cahier esquisses*, bars 9–11
14. Debussy, *La plus que lente*, bar 76–96
15. Debussy, “La soirée dans Grenade,” bars 1–18
16. Debussy, “The Little Shepherd,” bars 5–11
17. Debussy, “La danse de Puck,” bars 40–8³
18. Debussy, “Golliwogg’s Cake-Walk,” bars 47–58
19. Debussy, “Serenade for the Doll,” bars 49–60
20. Debussy, “Le vent dans la plaine,” bars 35–42

³ This track is taken from Denis Hall’s recording as the treble notes can be heard more clearly in this instance. Debussy and Faure, *Gabriel Faure & Claude Debussy, Debussy and Faure*. (Provided by Denis Hall, 2008).

Chapter 6, CD 3

1. Debussy, "Green," bars 1–17, Debussy and Garden
2. Debussy, "Il pleure dans mon coeur," bars 30–7, Debussy and Garden
3. Debussy, "L'ombre des arbres," bars 1–10, Debussy and Garden
4. Debussy, "Green," bars 40–7, Debussy and Garden
5. Debussy, *La plus que lente*, bars 1–76
6. Chopin *Nocturne* Op. 15 No. 2, bar 2, Pugno, acoustic recording, 1903⁴
7. Chopin *Nocturne* Op. 15 No. 2, bars 1 to 5, Saint-Saëns, 1905, piano roll recording⁵
8. Debussy, *La plus que lente*, bars 118–48
9. Debussy, "La soirée dans Grenade," bars 1–58
10. Debussy, "La soirée dans Grenade," bars 92–136
11. Debussy, "La soirée dans Grenade," bars 57–92
12. Chopin *Nocturne* Op. 27 No. 2, bar 11, Powell, piano roll recording, 1929⁶
13. Debussy, "Doctor Gradus ad Parnassum," bars 1–21

⁴ Chopin, Frederic. 'Nocturne Op. 15 No. 2', acoustic recording by Raoul Pugno (1903), *Raoul Pugno: His complete published piano solos*, Raoul Pugno, OPAL 9836 (1989), in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 3/31.

⁵ 'Nocturne Op. 15 No. 2', Welte-Mignon piano roll by Saint-Saëns (1905), *The Closest Approach to 19th-Century Piano Interpretation*, Camille Saint-Saëns, Carl Reinecke and Theodore Leschetizky, Archiphon-106 (1992), in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 3/10.

⁶ Frederic Chopin, 'Nocturne Op. 27 No. 2', Duo-Art piano roll by J. Powell (1929), *A Selection Of Historic Piano Recordings* (Provided by Denis Hall, 2000), in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," 3/24.

14. Debussy, "Doctor Gradus ad Parnassum," bars 37–44
15. Debussy, "Minstrels," bars 6–37
16. Debussy, "Minstrels," bars 85–9
17. Debussy, "Golliwogg's Cake-Walk," bars 1–3
18. Debussy, "Golliwogg's Cake-Walk," bars 43–60
19. Debussy, "Golliwogg's Cake-Walk," bars 80–9
20. Debussy, "La danse de Puck," bars 75–80
21. Debussy, "La flute de Pan" from *Trois Chansons de Bilitis*, bars 17–25,
Jane Bathori (accompaniment by Jane Bathori)⁷
22. Debussy, "Danseuses de Delphes," bars 1–3
23. Debussy, *D'un cahier esquisses*, bars 19–33
24. Debussy, "La danse de Puck," bars 30–6
25. Debussy, "The Snow is Dancing," bars 32–36
26. Debussy, "Serenade for the Doll," bars 38–72
27. Debussy, "La cathédrale engloutie," bars 6–21⁸
28. Debussy, *D'un cahier esquisses*, bars 45–8
29. Chopin *Nocturne* Op. 27 No. 2, bars 58–9, Powell, piano roll recording,
1929⁹
30. Debussy, "Jimbo's Lullaby," bars 1–8
31. Debussy, "La danse de Puck," bars 1–7

⁷ *Chanson de Bilitis*, recording by Jane Bathori (Paris: Columbia, 1928–30). Reissued in *Jane Bathori: the complete solo recordings* (Swarthmore: Marston, p1999).

⁸ For clarity in pedalling, this track has been taken from Debussy and Faure, *Gabriel Faure & Claude Debussy*, Debussy and Faure.

⁹ Frederic Chopin, 'Nocturne Op. 27 No. 2', Duo-Art piano roll by J. Powell, in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 3/22.

32. Debussy, "The Snow is Dancing," bars 1–6
33. Chopin *Nocturne* Op. 27 No. 2, bar 31, Leschetizky, piano roll recording,
1906¹⁰

¹⁰ Frederic Chopin, 'Nocturne Op. 27 No. 2', Welte-Mignon piano roll by Theodor Leschetizky, in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 3/12.

Chapter 7 and 8, CD 4

1. Debussy, "Danseuses de Delphes," bars 1–10
2. Debussy, "Danseuses de Delphes," bars 16–25
3. Debussy, "La cathédrale engloutie," bars 23–8
4. Debussy, "Doctor Gradus ad Parnassum," bars 32–6
5. Debussy, "La cathédrale engloutie," barse 36–end
6. Debussy, "Jimbo's Lullaby," bars 72–end
7. Debussy, "Doctor Gradus ad Parnassum," bars 1–12
8. Debussy, "Doctor Gradus ad Parnassum," bars 51–7
9. Debussy, "La danse de Puck," bars 62–74
10. Chopin *Nocturne* Op. 27 No. 2, bars 1–46, Leschetizky, piano roll
recording 1906¹¹
11. Debussy, "La soirée dans Grenade," bars 15–44
12. Debussy, *La plus que lente*, bars 1–16
13. Debussy, "Minstrels," bars 45–62
14. Debussy, "Serenade for the Doll," bars 93–104
15. Debussy, "The Little Shepherd"
16. Debussy, "Golliwogg's Cake-Walk," bars 110–28
17. Debussy, "Le vent dans la plaine," bars 50–9
18. Debussy, *La plus que lente*, bars 33–46

¹¹ Frederic Chopin, 'Nocturne Op. 27 No. 2', Welte-Mignon piano roll by Theodor Leschetizky, in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 4/34.

19. Schumann *Des Abends* Op. 12 No. 1, bars 1 to 16 with repeat,
 Paderewski, acoustic recording, 1912.¹²
20. Debussy, “Jimbo’s Lullaby,” bars 39–59
21. Debussy, “La danse de Puck,” bars 10–23
22. Debussy, “La danse de Puck,” bars 47–50
23. Mozart *Larghetto* arr. By Reinecke, bars 1–64, Reinecke, piano roll
 recording, 1905¹³
24. Debussy, “Le vent dans la plaine,” bars 9–14
25. Debussy, “The Snow is Dancing,” bars 1–34
26. Debussy, “Jimbo’s Lullaby,” bars 19–23
27. Debussy, “Golliwogg’s Cake-Walk,” bars 1–15
28. Debussy, “Minstrels,” bars 1–63
29. Debussy, “La soirée dans Grenade,” bars 74–83
30. Debussy, “Jimbo’s Lullaby,” bars 1–38
31. Debussy, “Golliwogg’s Cake-Walk”
32. Debussy, “Golliwogg’s Cake-Walk,” bars 59–89
33. Debussy, “Doctor Gradus ad Parnassum”
34. Debussy, “La cathédrale engloutie”
35. Debussy, *D’un cahier esquisses*, bars 13–5

¹² Robert Schumann, ‘Fantasiestücke Op. 12 Nos. 1–3’, acoustic recording by Ignacy Jan Paderewski (1912), *The Piano Library*, PL 182 (1995), in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 4/42.

¹³ Wolfgang Amadeus Mozart, ‘Piano Concerto K 537: 2nd movement (Larghetto)’, arr. C. Reinecke, Welte-Mignon roll by C. Reinecke (1905), *The Closest Approach to 19th-Century Piano Interpretation*, Archiphon-106 (1992), in Peres Da Costa, "Performing Practices in Late-Nineteenth-Century Piano Playing," CD 4/32.

36. Debussy, “Minstrels,” bars 82–6

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