

AN ANALYSIS OF PITCH ORGANIZATION IN VILLA-LOBOS'S *RUDEPOÊMA*

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Heitor Villa-Lobos (1887-1959) stands central to the music history of the Brazilian twentieth century. His music represents a synthesis of the European art influences he absorbed and his quest to find a true Brazilian identity, which was not rooted in the deliberate imitation of Brazilian folk elements, but rather in the natural assimilation of them in his compositional style. His early compositions embody strong post-romantic, impressionistic tendencies, especially in regard to their harmonies and use of tone color, whereas the works from the 1920's and onwards show Villa-Lobos increasingly asserting his unusual and strong voice.

Villa-Lobos's large-scale composition for piano, *Rudepoêma*, was composed between 1921 and 1926, and stands as one of the most significant contributions to the Latin-American piano literature. Despite of its importance in Villa-Lobos's oeuvre, it has largely eluded analytical attention. Discourse on Villa-Lobos is often marked by a somewhat one-dimensional approach that identifies the folk and rhythmic elements as the most important characteristics of his compositional style, and displays a certain reticence with regard to in-depth analysis of other parameters of his works. This study redresses the imbalance in the general approach to analytical assessment of Villa-Lobos's oeuvre by illustrating that pitch organization plays an indispensable role in establishing formal unity between the multiple sections of this complex work.

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES AND FIGURES.....	vi
1. INTRODUCTION	
1.1 Villa-Lobos: A Brief Background.....	1
1.2 Contextualization of <i>Rudepoêma</i>	4
1.3 Villa-Lobos as Nationalist Composer.....	5
1.4 State of Research.....	6
2. MICROSTRUCTURE.....	
2.1 An Introduction to <i>Rudepoêma</i>	12
2.2 <i>Rudepoêma</i> : Analytical Consideration.....	17
2.3 Set-Theoretical Principles.....	19
2.4 Motives.....	22
2.5 Chords and Sonorities.....	40
2.5.1 Parallel Non-Functional Chords.....	42
2.5.2 Split-Third Chords.....	43
2.5.3 Added-Note Chords.....	44
2.5.4 Extended Tertian Harmony.....	45
2.5.5 Quartal Sonorities.....	46
2.5.6 Chords based on Scales or Collections.....	47
2.5.7 Polychords.....	50
2.5.8 Completing the Aggregate.....	54
2.5.9 Other Relationships.....	55
2.6 Black-White Key Juxtapositions and Alternations.....	57

3. MACROSTRUCTURE.....	74
3.1 Pedal Points in Conjunction with Form.....	74
3.2 Pitch Continuity.....	78
3.3 Interaction of Pitch Environments and Collections.....	86
4. CONCLUSION.....	89
BIBLIOGRAPHY.....	94

LIST OF TABLES AND FIGURES

Table 2.1. Overview of <i>Rudepoêma</i>	14- 15
Figure 2.1. The three main motives.....	23
Figure 2.2. Motive 1 and its derivatives.....	26
Figure 2.3. Motive 2 and its derivatives.....	27-28
Figure 2.4. Motive 3 and its derivatives.....	29
Figure 2.5. Combination of first two main motives to form a new theme.....	35
Figure 2.6. <i>Terezinha de Jesus</i>	37
Figure 2.7. <i>Rudepoêma</i> (mm. 483-493).....	37
Figure 2.8. Elements of the first two main motives in <i>Terezinha</i> -melody.....	37
Figure 2.9. Parallel non-functional triads in mm. 451-452.....	42
Figure 2.10. Parallel diatonic quartal sonorities in mm. 179-183.....	42
Figure 2.11. Split-third chords.....	43
Figure 2.12. Added-note chords.....	44
Figure 2.13. Chords based on extended tertian harmony.....	45
Figure 2.14. Quartal sonorities.....	46
Figure 2.15. Chords informed by the whole-tone and octatonic collections.....	48
Figure 2.16. Predominantly black-note diatonic scale in mm. 13-16.....	49
Figure 2.17. White-note pentatonic scale in mm. 193-196.....	50
Figure 2.18. Polychords divided into black-note and white-note chords.....	51
Figure 2.19. Other polychords.....	53
Figure 2.20. Polychords of which the two sonorities share common tones.....	54
Figure 2.21. Completing the twelve-note scale.....	55
Figure 2.22. Mm. 23-24.....	60
Figure 2.23. Reduction of mm. 25-28.....	60

Figure 2.24. Reduction of mm. 47-48.....	61
Figure 2.25. Reduction of mm. 53-54.....	62
Figure 2.26. Reduction of mm. 116-117.....	63
Figure 2.27. Mm. 134-138.....	64
Figure 2.28. Mm. 164-170.....	65
Figure 2.29. Reduction of triads found in mm. 246-249.....	66
Figure 2.30. M. 324.....	66
Figure 2.31. Mm. 350-352.....	67
Figure 2.32. Mm. 354-357.....	68
Figure 2.33. Mm. 390-392.....	68
Figure 2.34. M. 464.....	69
Figure 2.35. Reduction of m. 518.....	70
Figure 2.36. Mm. 553-555.....	71
Figure 2.37. Reduction of mm. 580-581.....	72
Figure 2.38. Reduction of mm. 599-600.....	73
Figure 3.1. Basic reduction of pedal points.....	75

CHAPTER 1

INTRODUCTION

1.1 Villa-Lobos: A Brief Background

Heitor Villa-Lobos (1887-1959) stands as one of the most prolific and successful Latin American composers of the twentieth century. He is hailed by Grove Music Encyclopedia as the “single most significant creative example in 20th-century Brazilian art music.”¹ His output of more than a thousand works, coupled with his enigmatic personality, made him one of Brazil’s musical pioneers. His own deliberate obscuration of many facets of his life — from his birth date (which he claimed to be ignorant of),² to his experiences in the Amazon (where he allegedly was held by savages³ and encountered man-eating flowers),⁴ to his conflicting pronunciations on his own compositions⁵ — all contributed to the mysterious aura surrounding him as person and composer. He was essentially self-taught, receiving very little formal instruction, yet intuitively absorbing a multitude of different influences from European art music.⁶ His lack of training seemed to have made him even more forceful in asserting his own originality.⁷

¹ Gerard Béhague, “Villa-Lobos, Heitor,” *Grove Music Online, Oxford Music Online*, <http://www.oxfordmusiconline.com> (accessed February 24, 2012).

² Lisa M. Peppercorn, *Villa-Lobos. Illustrated Lives of the Great Composers*, ed. Audrey Sampson (London; New York: Omnibus Press, 1989), 10-12. Peppercorn discusses this controversy in detail, which was put to an end by Vasco Mariz’s discovery in 1947 of Villa-Lobos’s baptism certificate, establishing his birth date to be March 5, 1887.

³ *Ibid.*, 9.

⁴ Ralph Gustafson, “Villa-Lobos and the Man-Eating Flower: A Memoir,” *The Musical Quarterly* 75, no. 1 (Spring, 1991): 1-11.

⁵ Eero Tarasti, *Heitor Villa-Lobos: The Life and Works, 1887-1959* (Jefferson, N.C.: McFarland, 1995), 34.

⁶ See Gerard Béhague, *Heitor Villa-Lobos: The Search for Brazil’s Musical Soul* (Austin: Institute of Latin American Studies, University of Texas at Austin, 1994), 46; Peppercorn, *Villa-Lobos*, 31-33, and Tarasti, *Heitor Villa-Lobos*, 41.

⁷ Peppercorn, *Villa-Lobos*, 44.

The political and cultural situation in Brazil at the turn of the twentieth century provided the ideal environment for Villa-Lobos to come to the fore as a symbol of Brazilian musical identity.⁸ Although Brazil attained independence already in 1822 from Portugal, it was only after the downfall of the Empire of Prince Pedro in 1889 that European cultural values were slowly abandoned in favor of cultivating a truly Brazilian aesthetic. Villa-Lobos emerged as composer in the midst of this struggle,⁹ which found its culmination in the Week of Modern Art, celebrated in São Paulo in 1922 as the centenary of Brazilian independence. During this event, the performance of Villa-Lobos's works established him from some perspectives as the foremost modern Brazilian composer, as is seen in the poet Ronald de Carvalho's praise in 1922:

The music of Villa-Lobos is one of the most perfect expressions of our culture. In it quivers the flame of our race, what is most beautiful and original in the Brazilian race ... What it shows us is a new entity, the special character of a people that begins to define itself freely [...]¹⁰

Conversely, the unconventionality of his idiom caused others to view him as somewhat of an *enfant terrible* of Brazilian music,¹¹ a reputation that was probably intentionally fuelled by Villa-Lobos in his choice of works for this occasion. Indeed, throughout his life much of his output was met with controversy, but rarely ever with indifference.

Villa-Lobos's recognition at the Week of Modern Art gave impetus to his first trip to Europe, made possible for him by a study grant from the Brazilian government.¹² He departed to Paris in June of 1923, not with the intention to learn, but rather to promote his works, as is evidenced by his self-assured proclamation: "If you like [what I have done], I will stay, if not I

⁸ Béhague, *Villa-Lobos: Brazil's Musical Soul*, 145-157. Béhague offers a comprehensive overview of Villa-Lobos's identification with the Brazilian national aesthetic in his chapter "National Style versus Musical Nationalism: Villa-Lobos's eclecticism."

⁹ Simon Wright, "Villa-Lobos: The formation of his style," *Soundings: A Music Journal* 8 (1979): 57.

¹⁰ Béhague, *Villa-Lobos: Brazil's Musical Soul*, 13.

¹¹ Béhague, "Villa-Lobos, Heitor."

¹² Peppercorn, *Villa-Lobos*, 235.

will return to my country.”¹³ There is some disagreement regarding how much his stay in Paris transformed his compositional idiom, but many scholars maintain that it played a pivotal role in the formation of his style, especially with regard to the inclusion of Brazilian folk elements.¹⁴ Perhaps due to Villa-Lobos’s desire to be successful abroad, he started to pay more attention to cultivating the “Brazilianness” of his music and used this exotic element to his advantage in attaining recognition for his work. Although this undoubtedly attracted attention to him in Paris, his portrayal of Brazil (which was perceived by Brazilians as veered towards the exotic Brazil imagined by Europe rather than to the actual Brazil) was met with violent opposition by some in Rio, as is seen in statements such as: “There we have our Villa-Lobos who makes us look ridiculous in Paris. He pretends that xylophones and rattles, as well as other instruments purely used for the carnival, are native instruments”¹⁵ and: “The propagandist degrades us in Paris by insinuating that we are a nation of black people, and that our art does not go beyond an African drunkenness.”¹⁶ Perhaps because of this, or possibly due to the progressiveness of Villa-Lobos’s music, that extended beyond the cultural climate of Brazil at the time, recognition for his work in his homeland came hesitantly at first.¹⁷

Villa-Lobos’s first stay in Paris lasted a year, and he subsequently returned in 1927 to live there for another three years. During these two visits, he was not only encouraged by the great success his works lured, but also by his encounters and friendships with many important

¹³ Béhague, *Villa-Lobos, Brazil’s Musical Soul*, 16.

¹⁴ Paulo Renato Guérios, “Heitor Villa-Lobos and the Parisian art scene: how to become a Brazilian musician,” trans. David Allan Rodgers, *Mana* vol. 9, no. 1 (April, 2003): 91-108. Guérios devotes his article to the discussion of Villa-Lobos’s Parisian stay, which he believes to be a defining period in the formation of the composer’s style. Other authors, such as Kiefer (in Béhague, *Villa-Lobos: Brazil’s Musical Soul*, 17) disagrees with this notion, arguing that Villa-Lobos had already composed works reflecting his nationalist style, such as *Nonetto*, before his departure to Paris.

¹⁵ Peppercorn, *Villa-Lobos*, 77.

¹⁶ *Ibid.*, 85.

¹⁷ Ironically, it was only towards the end of his life, when he was already established as the foremost Brazilian composer in the United States and in Europe, that he received the same acknowledgement in Brazil.

Examples of the European music scene, such as Rubinstein, Florent Schmitt, Ravel, d'Indy, de Falla, Stravinsky, Prokofiev and Varèse.¹⁸ By the time he went back to Brazil in 1930, he had attained international acclaim unrivalled by any other composer from Latin America.

Many scholars view the years roughly between 1920 and 1930 as not only the formation period of Villa-Lobos's style, but also the years that yielded his most original and experimental works.¹⁹ The European art influences he absorbed, in combination with his quest to find a true Brazilian identity, namely one that was not rooted in the deliberate imitation of Brazilian folk elements but rather in the natural assimilation of them in his compositional style, instilled in him a distinct and strong voice. Villa-Lobos's colossal work for solo piano, *Rudepoêma*, thus stands central to this critical phase in his oeuvre.

1.2 Contextualization of *Rudepoêma*

Villa-Lobos met the Polish-American pianist Arthur Rubinstein when the latter visited Rio in 1918. The pianist was immediately taken by Villa-Lobos's original compositional style, and later became one of the most important role players in promoting Villa-Lobos's works abroad.²⁰ *Rudepoêma* is intended as a personal portrait of Rubinstein, as is conveyed by Villa-Lobos's inscription at the beginning of the work:

My dear friend, I don't know if I have succeeded in assimilating your soul with this "*Rudepoêma*," but I swear, with all my heart, that I have the impression of having recorded your temperament in my mind and that I transcribed it to paper mechanically, as an intimate Kodak. Consequently, if I should succeed, you will be the true author of this work.²¹

The title presumably derived from a play of words on Villa-Lobos's nickname for Rubinstein "Rudi" and the Portuguese adjective "rude" that literally means "rude" or "savage."

¹⁸ Béhague, "Villa-Lobos, Heitor."

¹⁹ Béhague, *Heitor Villa-Lobos: Brazil's Musical Soul*, 104.

²⁰ *Ibid.*, 19.

²¹ *Ibid.*, 100.

Rudepoêma can thus be interpreted both as “Rubinstein’s poem” or “Rude poem.”²² Despite of the composer’s insistence that it is intended as an exact representation of Rubinstein’s personality, it encompasses much more than that. It is a work imbued with all the inspiration of his life at the time; in short, it is a forceful assertion of his highly original idiom that had one foot in the European avant-garde, and another in his assimilation of influences from his homeland. Wright accurately asserts that the multi-dimensionality of *Rudepoêma* makes it not only a portrait of Rubinstein, but also of Villa-Lobos, and Brazil.²³

A typical performance of the work lasts about 20 minutes. Although *Rudepoêma* is not heard on the concert stage regularly because of the high technical demands it poses to the player, it appears in several major modern-day pianists’ repertoire, and has been recorded by diverse artists such as Nelson Freyre, Marc-André Hamelin, Sonia Rubinsky, Roberta Rust, Débora Halász, Sergio Gallo, Joanna Brzezinska and Alfred Heller.

1.3 Villa-Lobos as Nationalist Composer

The nationalist or folkloristic facet has been a much-debated aspect of Villa-Lobos’s style. Given his place in history as one of the few internationally regarded composers to emerge from the Southern Hemisphere in the twentieth century, as well his frequent absorption of national styles, the focus on this specific dimension is far from surprising. Early reviews have elevated this as the defining aspect of his idiom, as can be seen in the following statement of the *Music Review*: “The works of Villa-Lobos which are connected with folk material are his most personal compositions. The others, though reflecting his individuality in other ways, lack much of his characteristic intensity.”²⁴ Later literature has revised this one-dimensional view of his

²² Sonia Rubinsky, “Villa-Lobos’ *Rudepoêma*: An Analysis” (D.M.A diss., The Juilliard School, 1986), 8.

²³ Wright, *Villa-Lobos. Oxford Studies of Composers* (Oxford; New York: Oxford University Press, 1992), 49.

²⁴ Lisa M. Peppercorn, *Villa-Lobos: Collected Studies* (Aldershot, Hants, England: Scholar Press, 1992), 18.

oeuvre, but the national aspect of his style continued to be under much discussion. Villa-Lobos himself seemed to have viewed this topic with some ambiguity. On the one hand, he took pride in being hailed as a symbol of Brazilian national identity, and strengthened it with assertions of his own spiritual identification with his home country. He referred to his compositions as “the fruit of an extensive, generous and warm land.”²⁵ In response to a question from the Cuban writer Alejo Carpentier in 1928, Villa-Lobos even asserted that “I am folklore.”²⁶ In contrast to this statement, he claimed in another instance: “I am not a folklorist. Folklore does not occupy my mind. My music is just as I feel it. I don’t hunt for themes with a view to using them. I write compositions with the spirit from which one makes one’s music. I abandon myself completely to my temperament.”²⁷

The complexity of the issue at hand and the multitude of contributions that have dealt make it irrelevant for this thesis to add more to the discussion. It is merely mentioned here to illustrate that the fixation on Villa-Lobos as cultivator of Brazilian nationalism could be a possible cause for a somewhat imbalanced discourse that often concerns itself with folk and rhythmic elements, whereas the pitch structure as a deeper organizational principle is largely neglected.

1.4 State of Research

Villa-Lobos’s important place in twentieth-century music is evidenced in the numerous books devoted to an accurate biography of his life, a task that could by no means have been easy, given that even Villa-Lobos himself did not seem to care much to separate fantasy from reality in his own tales.²⁸ Béhague,²⁹ Peppercorn,³⁰ Mariz,³¹ Wright,³² Appleby,³³ and Tarasti³⁴ all provide

²⁵ Béhague, *Villa-Lobos: Brazil’s Musical Soul*, 152.

²⁶ Carpentier, “Del folklorismo musical,” *Obras completas*, vol. 13, *Ensayos* (Mexico City: Siglo XXI, 1990), 48.

²⁷ Peppercorn, *Villa-Lobos*, 86.

²⁸ Béhague, *Villa-Lobos: Brazil’s Musical Soul*, xv.

accounts of his life, together with analyses of a selection of his works. However, given the enormity of the venture of writing about Villa-Lobos's entire oeuvre (encompassing more than a thousand compositions) as well as his life (that was as colorful as his compositional style), *Rudepoêma* is only ever briefly mentioned in these general assessments of his output. Tarasti devotes the most detailed attention to *Rudepoêma* (an eight-page section with musical examples is dedicated to the work³⁵). Despite of its length, the analysis merely consists of a description of various elements found in the different sections, and does not provide many in-depth insights. Béhague acknowledges the importance of the work in Villa-Lobos's piano literature, but does not go further to elucidate its significance by means of analysis.³⁶ Jamary Oliveira cites several passages from *Rudepoêma* for analytical reference in his article about Villa-Lobos's juxtaposition of white and black keys.³⁷ Due to the nature of the article, which deals only with this specific compositional device, Oliveira highlights one facet of *Rudepoêma*, but he does not contribute to a grasp of it in its entirety.

²⁹ Ibid.

³⁰ Peppercorn, *Villa-Lobos*.

³¹ Vasco Mariz, *Heitor Villa-Lobos: Life and Work of the Brazilian Composer*, 2 rev ed (Washington, D.C.: Brazilian American Cultural Institute, 1970).

³² Simon Wright, *Villa-Lobos. Oxford Studies of Composers* (Oxford; New York: Oxford University Press, 1992).

³³ David P. Appleby, *Heitor Villa-Lobos: A Bio-Bibliography* (New York: Greenwood Press, 1988).

³⁴ Tarasti, *Heitor Villa-Lobos*.

³⁵ Ibid., 259-267.

³⁶ Béhague, *Villa-Lobos: Brazil's Musical Soul*, 100-102. In the same vein, mention could also be made of two more recent publications from Germany in which analyses of *Rudepoêma* are provided, the one longer and the other one shorter. The works are: Henriqueta Rebuá de Mattos, *Die Werke für Klavier solo von Heitor Villa-Lobos. Synkretismus europäischer und lateinamerikanischer Elemente und Kontrasteffekte* (München: Lutz Verlag, 2001), 231-241 and Manuel Negwer, *Villa-Lobos. Der Aufbruch der brasilianischen Musik* (Mainz: Schott, 2008), 161-163.

³⁷ Jamary Oliveira, "Black Key Versus White Key: A Villa-Lobos Device," *Latin American Music Review/Revista De Música Latinoamericana* 5, no. 1 (Spring - Summer, 1984): 33-47.

An extensive search for a comprehensive analysis of all aspects of *Rudepoêma* has only yielded one significant result: a DMA dissertation written by Sonia Rubinsky,³⁸ a Brazilian-born pianist who specializes in interpreting Villa-Lobos's compositions and also recorded the complete piano works. Although the dissertation aims to comment on all aspects of *Rudepoêma*, the same tendency that marks much of the analysis on Villa-Lobos is also seen in her contribution: motives and rhythm are connected to the nationalistic element of Villa-Lobos's style and highlighted in extensive analytical sections, while other parameters are underplayed. This one-sided perspective is displayed especially in the short section dealing with harmony in *Rudepoêma*, to which she concludes that: "Harmony in the *Rudepoêma*, although inconsistent and often more sonoristic than functional, has an organizational principle which relates to motives and dynamics."³⁹ Only two other contributions have been found that deal exclusively with *Rudepoêma*: a D.M dissertation by Mark Sudeith⁴⁰ and an M.M dissertation⁴¹ by Cataline Estela Caldi.⁴² Laurette Annette Elkins traced Villa-Lobos's compositional development through the discussion of a selection of his piano works, including *Rudepoêma* as a pivotal work of his Paris years.⁴³ Due to the scope of the project, it does not include a detailed analysis of *Rudepoêma* as a whole, although it does give valuable insights about its place in Villa-Lobos's piano oeuvre. Martha Cuba Marchena similarly compared three of Villa-Lobos's piano works (*Prole do Bêbê no.1*, *As Três Marias* and *Rudepoêma*), with specific focus on the evolution of

³⁸ Rubinsky, "Villa-Lobos' *Rudepoêma*."

³⁹ *Ibid.*, 53.

⁴⁰ Mark Sudeith, "Overcoming technical difficulties in Villa-Lobos's *Rudepoêma*" (D.M. diss, Indiana University, 1993).

⁴¹ Cataline Estela Caldi, "A execução da rítmica brasileira no *Rudepoêma* para piano de Heitor Villa-Lobos" [The performance of Brazilian rhythms in *Rudepoêma* for piano by Heitor Villa-Lobos] (M.M. diss, Universidade Federal do Rio de Janeiro, 1985).

⁴² The full texts to these two dissertations were unfortunately not accessible.

⁴³ Laurette Annette Elkins, "An examination of compositional technique in selected piano works of Heitor Villa-Lobos" (M.M. thesis, The University of Texas at Austin, 1971).

Villa-Lobos's keyboard style as well as the indigenous influences on his compositional idiom. The analysis of *Rudepoêma* follows a superficial and impressionistic discussion of elements found in the piece, with emphasis on the folkloristic aspect, which does not contribute a new angle to the analytical discourse.⁴⁴

Given Villa-Lobos's own pronouncement on his works: "First, rhythm. Second, sonority. Third, your own personality,"⁴⁵ it is not surprising that it is exactly the first two elements that attract so much attention in the analytical discourse on Villa-Lobos. Similarly, these are the main elements commented on in most discussions of *Rudepoêma*, in which these parameters are definitely on the foreground. However, an exhaustive analysis of pitch organization, which has so far been neglected, reveals internal relationships that serve the formal structure in ways that cannot be accomplished by these foreground attributes.

Many scholars have commented on the lack of analytical depth in the assessment of Villa-Lobos's style in general.⁴⁶ This contentious issue was complicated by an array of different factors, the foremost of these arguably being Villa-Lobos's designation as nationalist composer and promoter of Brazilian identity in music. Although his place in history as first truly Brazilian composer, as well as the international acclaim he attained in this regard, validates the choice of this analytical angle, the preoccupation with the national or folkloristic element in his style has perhaps led to researchers overlooking the significance of other parameters of his style. Earlier statements regarding the importance of the folkloristic influence in Villa-Lobos's compositions have been revised, and the common perception now is that Villa-Lobos's music cannot be simply reduced to the extent in which he includes the national element. Béhague states that although

⁴⁴ Martha Cuba Marchena, "An analytical study of three solo piano works by Heitor Villa-Lobos (1887-1959)" (D.M.A. dissertation, The University of Miami, 1985).

⁴⁵ Gustafson, "Villa-Lobos: A Memoir," 11.

⁴⁶ See Béhague, *Villa-Lobos: Brazil's Musical Soul*, xiv; Oliveira, "Black Key Versus White Key," 33; and Wright, "Villa-Lobos: The formation of his style," 55.

Villa-Lobos's affinity to the folk and popular music of Brazil can never be minimized, the constant search for the absence or presence of folk influences in his works has led to an oversimplification of his oeuvre.⁴⁷ The perspective of focusing on the folkloristic aspect also fuels the tendency to reduce Villa-Lobos's works to the opposition of "Brazilian" and "Western" elements, but it is important to bear in mind that Brazilian classical music contains many proportions of Western music, and that these two terms do not represent opposite ends of the spectrum. Yet, the remains of this historical perspective, that has been concerned with the folk element and the prevalence of rhythm that often stands closely associated to it, have arguably led to researchers' hesitance to solidify an understanding of the harmonic language of Villa-Lobos.

Apart from the nationalistic element, another aspect that contributed to this issue is Villa-Lobos's own contradictory pronouncements on his works. In some instances he claimed that his compositional method was largely intuitive (evidenced in statements such as "My music is just as I feel it")⁴⁸ while in other sources, he stated: "My processes of composition are determined by cool reasoning. Everything is calculated, constructed."⁴⁹ The fact that Villa-Lobos received so little formal harmonic training, also presumably contributed to the widely-held perspective of him as an instinctive composer. This possibly led to a misconception that serious analysis of his work would not only be difficult, but also not necessarily conducive to discovering deeper insights into his idiom. Furthermore, Villa-Lobos himself did not attempt to elucidate any of his techniques or processes of composition.⁵⁰ Other factors complicating analytical discourse include the uneven quality of Villa-Lobos's output, the perceived lack of stylistic uniformity of his works, as well as the diversity of influences that seemed to shape his compositional idiom.

⁴⁷ Béhague, *Villa-Lobos: Brazil's Musical Soul*, 44.

⁴⁸ Peppercorn, *Villa-Lobos*, 86.

⁴⁹ Oliveira, "Black Key Versus White Key," 34.

⁵⁰ *Ibid.*, 33

Furthermore, the perception seems to be that a composer of such productivity cannot possibly approach the compositional process in any manner except for intuitively, as is evidenced in an early statement of critic Oscar Gaunabarino, who asserted that Villa-Lobos's compositions are devoid of structure and preparation, and are therefore no more than inconsistent "cacophonies."⁵¹

Perhaps due to all these factors, coupled with the magnitude of a thorough analysis of the enormous number of notes found in *Rudepoêma*, the analytical attention that the work has attracted thus far is decidedly meager. The central place it occupies in Villa-Lobos's output for piano and in Latin American piano literature as a whole is enough evidence to validate its consideration in a serious analytical study. In order to avoid the general tendency that touches only superficially on a variety of compositional aspects, the project is focused exclusively on pitch content and organization. Although the prevalence of the rhythmic, "primitivist" element cannot be denied in *Rudepoêma*, the aim of the research is rather to propose a fresh theoretical framework that could yield a more encompassing understanding of other aspects of this composition. An in-depth analysis of pitch organization fills a void that exists not only in the analytical discourse of *Rudepoêma*, but also in studies of Villa-Lobos's works at large.

⁵¹ Peppercorn, Villa-Lobos, 44.

CHAPTER 2

MICROSTRUCTURE

2.1 An Introduction to *Rudepoêma*

*Rudepoêma*¹ is one of the most important piano solo works of the twentieth century. Although Villa-Lobos was not an accomplished pianist, he contributed numerous works to the piano literature, such as *Danças características Africanas* (1914), *A Prole do Bebê* (composed in two volumes in 1921), *Cirandas* (1926) and *As Três Marias* (1939). These works are all remarkable for their range of expression and variety of compositional techniques, but *Rudepoêma* arguably constitutes the pinnacle of his achievements for solo piano. The work has immediate appeal in its many instances of melodic beauty, rhythmic drive, imaginative sonorities, astounding virtuosity and novelty in the combination of contrasting elements. The manner in which Villa-Lobos exploits the dimensions, colors and possibilities of the piano truly elevates the work to a symphony for the instrument. Despite of its significance in Villa-Lobos's oeuvre, *Rudepoêma* has largely eluded analytical attention and is often shied away from by pianists, causing it to be heard only occasionally on the concert stage.

The hesitance of analysts as well as performers regarding *Rudepoêma* can probably be ascribed to similar reasons: the incredible number of notes found in the piece, its length (more than 40 pages and 20 minutes in duration), the multitude of sections it employs (that are distinct from one another in pitch organization and character), the endless small figurations drawing on all notes of the twelve-tone scale, the seeming disjointedness of the structure, the apparent inconsistency of many chords and sequences used, as well as the multiple lines (that are often notated on several staves). Additionally, it is difficult to understand Villa-Lobos's artistic conception of the piece. Although it was purposely intended as a portrait of the pianist

¹ The edition used for this analysis is that of *Éditions Max Eschig*, published in Paris in 1928.

Rubinstein, *Rudepoêma* in fact resembles a savage, primitivist picture that seems to take its inspiration from the Brazilian jungle rather than from a prominent example of the civilized world. As Villa-Lobos asserted: “the *Rudepoêma* became rude, brutal and barbaric, although full of music of free sounds, like the exuberance of storms in the virgin forests of Brazil.”²

Rudepoêma represents a combination of a multitude of influences from contemporary practice together with a distinct “Brazilianness” that stems from Villa-Lobos’s unique cultural and symbolic positioning as Brazilian composer. Debussy’s impact on Villa-Lobos is most audible in the extended tertian harmonies, layered textures, timbre explorations, scales such as the pentatonic and whole-tone collections, and non-functional parallelisms. Stravinsky can be heard in the more primitivist and rhythmic sections, as well as in the frequently employed polychords. Added to these European influences is Villa-Lobos’s own investigation of “natural colors,”³ which includes experiments such as quietly-sustained notes releasing harmonics from the instrument and chord constructions that are written in order to generate the maximum resonance from the piano. Clusters and dense chords formed by the superimposition of semitones further enrich his harmonic language. Villa-Lobos’s last word in *Rudepoêma* is significantly uttered by four fist pounds that challenge the common perception of what is acceptable at the close of a work. *Rudepoêma*’s sophistication and imaginativeness should rightfully earn it a place in the standard twentieth-century piano repertoire and warrant its inclusion in serious analytical studies.

Rudepoêma is a multi-sectional work containing 47 tempo changes. Table 2.1 represents an overview of the work, indicating tempo markings, motives and pedal points. Although *Rudepoêma* is in one movement, it can roughly be grouped in three sections, which is also illustrated in table 2.1. The work opens with two motives (a motive in the left hand coupled by a

² Villa-Lobos in Rubinsky, “Villa-Lobos’ *Rudepoêma*,” 14.

³ *Ibid.*, 13.

lyrical theme in the right hand), designated by Villa-Lobos himself as ‘master motives’. The left hand theme (centering on F-sharp) keeps the pulse, while the right hand melody (revolving around C-sharp) contrasts it in rhythm and character. Despite of these apparent differences, the two themes are closely related in pitch content, and the right-hand theme is thus identified as a derivative of the germ motive in my analysis. Soon thereafter, a second motive emerges in m. 31. These two motives, together with a third motive that is only heard later (but is in fact based on the second part of the left hand motive) form the most important motivic material of the work. Throughout the complex pitch structure, these motives remain recognizable, despite of the diverse transformations that they undergo in the course of the work.

Table 2.1. Overview of *Rudepoêma*

Section	Measures	Tempo/Character marking	Motive(s)	Pedal pitch(es)
1	1-16	Modéré	Motive 1	F-sharp
	17-24	Un peu moins: Muito selvagem	Motive 1	F-sharp
	25-30	Animé		C-sharp
	31-38	Très peu modéré	Motive 2	C-sharp
	39-52	Plus mouvementé	Motive 2	D-sharp
	53-54	Modéré	Motive 2	D-sharp
	55-83	Mouvt calme de marche	Motive 2	D-sharp, A, E, C
	84-103	Animé	Motive 2	A
	104-138	Un peu plus	Motive 1	E
	139-177	Vif	Motive 2	B, A-sharp
	178-190	Un peu moins	Motive 2	B-flat
191-211	Un peu moins		B-flat, F-sharp, D-sharp	

Table 2.1 continued

2	212-234	Un peu calme	Motive 1	B-flat
	235-320	Vif	Motive 2, 3	B-flat, A-flat (G-sharp)
	321-323	Vif toujours	Motive 2	A-sharp
	324	Plus vif		A-sharp
	325-328	A tempo	Motive 1, 2	A-sharp
	329	Dans le même mouvt		B-flat
	330-336	A tempo	Motive 1	B-flat
	337-352	Un peu moins	Motive 2	E-flat
	353 - 357	Muito vivo		
	358-392	Animando	Motive 2, 3	B-flat, B
	393-397	Un peu moins		D-flat
	398-399	Furioso (un peu moins)		F
	400-402	A tempo		C
	403-416	Muito animando	Motive 3	D-flat (C-sharp)
3	417-424	Moins, mais très rythmé	Motive 1, 2	F-sharp
	425-430	Dans le même mouvt		B
	431-438	A tempo	Motive 1, 2	F-sharp
	438-445	Un peu modéré et grandeoso	Motive 1	F-sharp
	446-461	Très animé	Motive 1, <i>Terezinha</i>	E
	462 - 463	Moins animé		A-flat
	464-466	Animé		A-flat
	467 - 473	Moins	Motive 1, 3	C-sharp
	474	Lento	<i>Terezinha</i>	
	475-480	A tempo de marcha		
	481 - 504	Modéré presque lent	Motive 1, 2, <i>Terezinha</i>	A
	505-508	A tempo		
	509-511	Un peu plus	<i>Terezinha</i>	C
	512-516	Animando	<i>Terezinha</i>	C-sharp
	517-518	Dans le mouvt		F
	519-533	Moins	Motive 2	A
	534-552	Andante un poco tranquillo	Motive 2, 3, <i>Terezinha</i>	A
	553-560	Très animé		
	560-568	Large et violent	Motive 1	F-sharp
	569-579	Dans le mouvt	Motive 1, 3	F-sharp
580-636	Animé	Motive 2, <i>Terezinha</i>	C-sharp, B-flat, E, A	

Whereas the motives provide consistency throughout the structure, the chords and pitch environments that surround them serve to contrast the motivic material. It is rare that a motive draws on the same pitch collection as the other voices. Much of the complexity of Villa-Lobos's approach to pitch is apparent in his vertical constructions that are often rooted in traditional formations but are unconventionally reworked. Although the foundation of the chord can usually be traced back either to a triadic or quartal construction, the manner in which Villa-Lobos combines chords and adds tones creating additional intervals, propels these sonorities into new degrees of dissonance. Central to his vertical constructions is the idea of fusing contrasting chords together in polychords, enabling him to create vibrant new combinations. The juxtaposition of different elements can be traced back to Villa-Lobos's own pronouncement on *Rudepoêma* and the diverse sources he took his inspiration from:

Besides the specific uses of technique and sonority explored in the piece and in the orchestral version, this music encompasses an authentic research of daring harmonic processes taken from the natural color of conventional sounds of the intervals of the physical system, like a solar spectrum, also from the application of the quarter tone in the extremely open chords, in the dissonances of the many notes played together, and finally, in the regular employment of the elements of the twelve-tone scale. Thus, it is an eclectic work in its technical and scientific-musical structure.⁴

Apart from its eclecticism, *Rudepoêma* is also often marked by methods that are clearly recognizable and logical, yet not consistently applied throughout. This results in unexpected discrepancies in pitch content. Villa-Lobos's manner of breaking his own patterns constitutes an integral part of his compositional approach. Examples of these slight regularities will be presented throughout the discussion.

Rudepoêma starts in an F-sharp-Phrygian environment, but this sense of centrality dissolves soon thereafter. Every subsequent section is built on a pedal point that relates to or (more frequently) contrasts the harmonic field of the specific section. The pedal points are often

⁴ Villa-Lobos in Rubinsky, "Villa-Lobos' *Rudepoêma*", 13.

enriched by other centric or repeated notes within the structure. These referential centers serve to anchor the work in the absence of traditional tonality. Pitch serves as a manner to create continuity as well as to distinguish sections from one another. Pitch continuity can be seen in the manner in which different notes weave through the structure; for example, the pedal point of one section becomes the starting note of the main motive of the next section, or the concluding part of the motive from a preceding section transforms into the repeated pattern of the following section. Conversely, contrast is created by the diverse collections that distinct sections draw on. Often, one section is distinguished from another in the limited pitch collection that it is based on, a division that is more drastic at times than the tempo changes found between sections.

All these aspects are frequently informed by Villa-Lobos's perception of the physical black-white-layout of the piano. The juxtaposition of black against white keys informs his motivic structures, the collections used, his chord combinations, his concept of transposition, as well as many coloristic figurations that appear repeatedly in the work. In contrast to the apparent 'lack of stylistic uniformity'⁵ that is believed by some to mark Villa-Lobos's idiom, this specific device represents an important characteristic that permeates his style in an unusual yet constant manner.

2.2 *Rudepoêma*: Analytical Consideration

An understanding of a work on its own premises rather than solely from the point of view of Western mainstream formal processes is arguably a key factor in a greater appreciation thereof. As long as *Rudepoêma* is judged by its adherence to the Western standards of coherence and consistency, it will often fall short. A change of perspective is necessary, so that Villa-Lobos's complicated approach to pitch is seen as characteristic of his originality as Latin-American composer rather than deemed as incomprehensible (and therefore illogical) by

⁵ Oliveira, "Black versus White Key," 34.

Western measures. The issue is complicated by the fact that Villa-Lobos's approach to pitch is marked by ambivalence. On the one hand, he takes traditional formations as a point of departure, and on the other hand, he often rejects the inherent symmetry or consistency of the models he chooses. As a rule, he is inconsistent with the models that lend themselves best to symmetry (transpositions, inversions, patterns) and consistent with the models that are inherently asymmetrical (of which the most important example is his black-white alternation). *Rudepoêma* is approached from different angles in the analysis in order to highlight this diversity that constitutes Villa-Lobos's inventive approach to pitch organization. The aim of the analysis is to illuminate the manner in which Villa-Lobos stands his ground as modernist composer, because of (rather than despite of) his unconventionality with regard to existing Western idioms.

My analysis illustrates that, in the absence of functional harmony and traditional voice leading, specific pitches, sets and chord constructions become important tools for musical organization. I elaborate on both horizontal and vertical pitch organization. After explaining the analytical principles used, I examine the microstructure by analyzing motives and vertical constructions. A section is dedicated to Villa-Lobos black-white-key device and how it influences his harmonic approach, taking Oliveira's "Black Key versus White Key: A Villa-Lobos Device" as point of departure.⁶

In a subsequent chapter, I investigate the macrostructure and give an overview of important pitches within each section, highlighting pitch motion from one section to the next, with specific reference to main centers of the work. Examination of pitch centricities, achieved either by repeated notes or by pedal points, reveal that there is definite logical movement from one harmonic field in the work to another, similar to the manner in which one section in a tonal piece would modulate to another.

⁶ Oliveira, "Black Key versus White Key," 33-47.

Straus's "Introduction to Post-Tonal Theory" is used as a point of departure for the set-theoretical principles and concepts of pitch centrality. The latter is set out clearly in Chapter 4: "Centricity, Referential Collections, and Triadic Post-Tonality".⁷

2.3 Set-Theoretical Principles

Pitch similarities in Villa-Lobos's *Rudepoêma* could arguably be highlighted in a multitude of different ways. I chose set theory as my main method of pitch analysis, as the system often clarifies pitch-organizational principles. It emphasizes obvious resemblances stemming out of transposition. It also directs the attention to deeper structural correspondence between pitch sets that are neither immediately noticeable nor easily audible, such as relations originating from inversion. Although set theory allows for many complex applications (extending to set-complexes and set-genera), a basic approach suffices in this analysis.⁸

Due to Villa-Lobos's ambivalent approach to pitch, I could only employ set theory with varying degrees of success. Set theory is modeled entirely on the Western idea of coherence, and does not allow for any deviations in terms of intervallic or pitch consistency. The uniqueness of Villa-Lobos's approach lies exactly in the manner in which he does not concern himself consciously with Western mainstream techniques. Their influence is audible in his works, and inevitably present throughout, but their principles are never rigorously applied, not in form, not in chords, and not in motivic constructions. If this is intentional on the composer's part, in order to allow for greater possibilities in pitch organization or to establish his unconventional "Brazilianness", is neither clear nor important. It is, however, a relevant consideration in the

⁷ Joseph Nathan Straus, *Introduction to Post-Tonal Theory*, 3rd ed. (Upper Saddle River, N.J.: Prentice Hall, 2005), 130-181.

⁸ Set-complexes and set-genera are most useful when it can incorporate the set-theoretical results of a complete work, and they were thus rendered unnecessary by my decision to apply set theory only to selected sections of *Rudepoêma*. Conversely, basic applications of set theory were highly useful in comparing small segments.

analysis of *Rudepoêma*, as it simply means that set theory can't be indiscriminately applied to all pitch parameters of the work.

In order for set theory to shed light on pitch organization, the composer has to be relatively consistent in his pitch approach, as well as apply some degree of limitation in terms of the collection of pitch sets upon which he draws. Both these aspects are only partially applicable in the case of Villa-Lobos's *Rudepoêma*. Overall consistency definitely holds true with regard to the construction of motives and smaller sets but is rarely present in his vertical constructions. In fact, extensive analysis of larger sets yields only a few sets that overlap.

A distinction in the analysis of the microstructure is made between horizontal methods of pitch organization (which is limited to motives in this analysis) and vertical pitch organization that includes all sonorities that are heard simultaneously (which mostly refers to chords, but also includes figurations such as arpeggios). Motives usually yielded sets of cardinal 4⁹ with some instances of cardinal 5 (rarely exceeding this number), while vertical constructions start at cardinal 5 and often contain up to nine distinct pitch members. The difference in the size of the sets could also account to some extent for the greater degree of resemblance between the motives when compared to the chord formations.

Another main factor that complicates the use of set theory in larger constructions is the fact that Villa-Lobos's pitch approach is often informed by the combination of black and white keys. For example, although some chords appear to be transpositions of one another, they are rather mechanically built on a specific series of alternating black and white keys, resulting in small intervallic changes between "transpositions". This corresponds to the processes used in Bartók's music, where chromatic themes are obtained from diatonic ones, and vice versa. Antokoletz clarifies this procedure of diatonic "extension" of chromatic themes and chromatic

⁹ The cardinal number refers to the number of notes contained in the set.

“compression” of diatonic themes.¹⁰ Villa-Lobos’s procedures are not limited to this one application, and it is more accurate to refer to a “translation” across systems, where the elements retain their placement within the system, but the frame of reference (and intervallic context) changes. Naturally, even the smallest change in pitch organization would cause two (albeit similar-sounding) sets not to be (significantly) related to one another by the principles of set theory. A similar approach of translation is also seen in the transposition and construction of motives, but here contour segments can be used to highlight similarities between sets that are audibly related but not exact intervallic transpositions of one another.¹¹

Considering the complications arising from the application of set theory in *Rudepoêma*, I used the technique only selectively and complemented it with other methods where it fell short. It was highly successful in the first section concerning motivic resemblances, especially with the addition of contour segments. In the second section concerning vertical sonorities, the clear underlying principles in Villa-Lobos’s vertical approach were easier to highlight by more traditional methods of chord analysis. As his harmonic language often takes common early-twentieth century harmonic practices such as extended tertian harmony or quartal sonorities as departure (albeit often altered or inconsistently-applied), this proved to be a much more illuminating approach, as well as musically more intuitive.

In the application of set theory, integer notation is used,¹² and pitch-class sets are written in normal form (the most compressed manner) which means that the set is given in the consecutive order that encompasses the smallest range, with the smallest intervals grouped

¹⁰ Elliott Antokoletz, “Organic Expansion and Classical Structure in Bartók’s Sonata for Two Pianos and Percussion,” *Bartók Perspectives: Man, Composer and Ethnomusicologist*, ed. by Elliott Antokoletz, Victoria Fisher and Benjamin Suchoff (Oxford and New York: Oxford University Press, 2000), 77-94.

¹¹ The procedure of relating themes by contour or rhythm rather than intervallic content corresponds to traditional thematic handling in a tonal-functional context.

¹² Joseph Nathan Straus, *Introduction to Post-Tonal Theory*, 3rd ed. (Upper Saddle River, N.J.: Prentice Hall, 2005) and Allen Forte, *The Structure of Atonal Music* (New Haven: Yale University Press, 1973). Straus’s method of integer notation is used where 10 (B-flat) is designated as T and 11 (B) as E, rather than Forte’s, which retains the number notation for these last two integers.

closest to the left. Any set of notes that is transpositionally or inversionally equivalent to another set, is categorized under the same set class, which greatly reduces the number of possible pitch collections and allows for easy comparison between different motives or chords. Set class names are designated according to those listed in Allen Forte's *The Structure of Atonal Music*. In this analysis, comparisons between sets are made mainly by transpositional or inversional resemblances. In some cases, sub- and superset relations were also useful in comparing sets of different cardinals. If set X is included in set Y, then X is a subset of Y and Y is a superset of X.¹³ Sub- and supersets are further divided into literal and abstract relations. Set X is a literal subset of Set Y if all of the notes of X are contained in Y. Set X is the abstract subset of Set Y if any transposed or inverted form of X is contained in Y.¹⁴

Contour relations were found to be especially helpful in comparing motives that do not relate by inversion or transposition, but clearly follow similar shapes. In a contour segment, or CSEG, the notes are assigned a number based on their relative position in the set – 0 to the lowest note, 1 to the second-lowest, and so forth.¹⁵ A contour segment is written in angle-brackets. Contour segments can be related by retrograde, inversion or retrograde inversion, but application in this analysis is limited to contour segments that are directly related to one another.

2.4 Motives

Similarity between the main motives of *Rudepoêma* is undoubtedly Villa-Lobos's most apparent manner of creating structure in pitch organization, and also aurally the most recognizable. Motives are often set against a contrasting pitch background, which aids in separating them from the layered structure. Villa-Lobos uses pitch economically, seldom

¹³ Definition taken from Straus, *Post-Tonal Theory*, 96.

¹⁴ *Ibid.*, 97.

¹⁵ *Ibid.*, 99.

employing more than four pitches per motive, while longer sections are frequently based on a melody that is spun from its first four-note segment.

The first motive, presented in the left hand in mm. 1-2 (F-sharp – A – G – E or [4679], member of set class 4-10 (0235)), can be described as a germ motive of the entire piece, as all other motives are closely related to or derived from these four notes. In order to clarify Villa-Lobos's manner of developing and transforming motives, I have identified two additional motives, which show clear resemblance to the opening motive but are contrasting enough to deserve separate identification. The resemblances can be seen clearly when these motives are reduced to their basic pitch content (disregarding repetition, order and rhythm). The three main motives constitute the driving force of the piece, and provide a thread of consistency within the complex, frequently-changing harmonic background. They are stated in figure 2.1:

Figure 2.1. The three main motives.

mm. 1-8

Motive 1

mm. 31-33

Motive 2

mm. 251-253

Motive 3

Rubinsky¹⁶ opts to distinguish four different motives, including the theme stated in the right hand from mm. 3-6.¹⁷ However, as the motive in the right hand does not differ markedly in pitch content from the left hand theme stated, I view the right hand motive as a derivative and not as a separate motive. When looking at the pitch content, one can observe that the right-hand motive ([9E124], member of set class 5-23 (02357)) is an abstract superset of 4-10, the set class of the first motive. In other words, the pitch-class set comprising the first four notes of the right hand theme [E124] is transpositionally equivalent (at T=7) to the left hand motive's pitch-class set.

The second main motive of *Rudepoêma* can be seen in mm. 31-33. A closer look at its pitch content ([9E12], member of set class 4-11 (0135)) reveals that it is a literal subset of the right hand theme of the beginning (mm. 3-5). Furthermore, when the motive is intervallically altered in a subsequent appearance in the left hand (m. 36), its pitch content [9E02] forms the same set class as the germ motive, at a transposition of T=5. Despite of this motive's close resemblance to both themes of the beginning, its specific contour segment <321021> gives rise to many resulting motives, even more so than the germ motive, warranting its classification as the second main motive of the piece.

The third main motive, presented in mm. 251-253, is closely related to the second part of the theme in the left hand, as seen in mm. 5-6. As all other derivatives of the first motive are based on its first four notes, this motive is categorized separately due to its relation to the second part. The motive, comprising pitch-class set [E247] is an ordered transposition of [69E2] of the left hand theme, both members of set class 4-26 (0358).

Figures 2.2, 2.3 and 2.4 respectively show each of the three motives with their derivatives. Every motive is written in its original form first, followed by a reduction of the pitch

¹⁶ Rubinsky, "Villa-Lobos' *Rudepoêma*," 18.

¹⁷ This decision is based on Villa-Lobos's own assertion that the two motives heard at the beginning are "master motives".

content (in order) as well as its normal form (designating both the pitch-class set as well as set class that it belongs to). For clarification purposes, the three main motives will henceforth be referred to as Motive 1, Motive 2, and Motive 3. Whereas these motives are clearly distinguished from one another at the beginning, their development throughout the piece often causes one motive to start resembling another, making an exact classification difficult at times. Furthermore, new motives are formed from the combination of the derivatives. Both these types of transformations will be pointed out as the analysis proceeds.

Figure 2.2. Motive 1 and its derivatives.

mm. 1-2



mm. 1-2



mm. 3-6



mm. 104-111



mm. 212-215



mm. 327-328



m. 439



mm. 448-449



mm. 570-573



Figure 2.3. Motive 2 and its derivatives.

mm. 31-32

Musical notation for measures 31-32, featuring a treble clef, 4/4 time signature, and a key signature of one sharp (F#). The melody consists of eighth and quarter notes. A guitar chord diagram is provided below the staff: [9 E 1 2] / 4 - 11 (0 1 3 5).

mm. 36-37

Musical notation for measures 36-37, featuring a bass clef, 7/8 time signature, and a key signature of one sharp (F#). The melody consists of eighth and quarter notes. A guitar chord diagram is provided below the staff: [9 E 0 2] / 4 - 10 (0 2 3 5).

mm. 39-41

Musical notation for measures 39-41, featuring a treble clef, 3/2 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes. A guitar chord diagram is provided below the staff: [T E 1 3] / 4 - 11 (0 1 3 5).

mm. 42-49

Musical notation for measures 42-49, featuring a treble clef, 3/2 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes, including a triplet in measure 49. A guitar chord diagram is provided below the staff: [3 4 6 8] / 4 - 11 (0 1 3 5).

Musical notation for measures 58-59, featuring a treble clef, 3/2 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes, including triplets in measures 58 and 59. A guitar chord diagram is provided below the staff: [7 8 T E 1 2] / 6 - Z13 (0 1 3 4 6 7).

mm. 58-59

Musical notation for measures 85-86, featuring a treble clef, 4/4 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes, including a triplet in measure 85. A guitar chord diagram is provided below the staff: [1 2 3 4 6 8] / 6 - 9 (0 1 2 3 5 7).

mm. 85-86

Musical notation for measures 143-144, featuring a treble clef, 2/4 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes. A guitar chord diagram is provided below the staff: [5 7 9 E] / 4 - 21 (0 2 4 6).

mm. 143-144

Musical notation for measures 182-185, featuring a treble clef, 2/4 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes. A guitar chord diagram is provided below the staff: [0 2 4 5] / 4 - 11 (0 1 3 5).

mm. 182-185

Musical notation for measures 286-288, featuring a bass clef, 2/4 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes. A guitar chord diagram is provided below the staff: [9 E 2 4] / 4 - 23 (0 2 5 7).

mm. 286-288

Musical notation for measures 286-288, featuring a bass clef, 2/4 time signature, and a key signature of one sharp (F#). The melody consists of quarter and eighth notes. A guitar chord diagram is provided below the staff: [9 E 2 4] / 4 - 23 (0 2 5 7).

Figure 2.3 continued

mm. 321-323

Musical notation for measures 321-323, featuring a treble clef and a 6/8 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [0 2 4 5] over the strings 4-11 (0 1 3 5).

mm. 337-338

Musical notation for measures 337-338, featuring a bass clef and a 2/4 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [3 4 6 7 9 T] over the strings 6-213 (0 1 3 4 6 7).

m. 359

Musical notation for measure 359, featuring a treble clef and a 2/4 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [E 0 2 4] over the strings 4-11 (0 1 3 5).

mm. 365-386

Musical notation for measures 365-386, featuring a bass clef and a 2/4 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [5 7 9 E] over the strings 4-21 (0 2 4 6).

mm. 520-521

Musical notation for measures 520-521, featuring a treble clef and a 2/4 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [3 4 6 7] over the strings 4-3 (0 1 3 4).

mm. 584-585

Musical notation for measures 584-585, featuring a treble clef and a 5/8 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [0 2 4] over the strings 3-6 (0 2 4).

mm. 591-592

Musical notation for measures 591-592, featuring a bass clef and a 5/8 time signature. The notation includes a melodic line with eighth and sixteenth notes, followed by a whole note chord. The chord is represented by the fretting diagram [1 3 6 8] over the strings 4-23 (0 2 5 7).

Figure 2.4. Motive 3 and its derivatives.

mm. 251-253

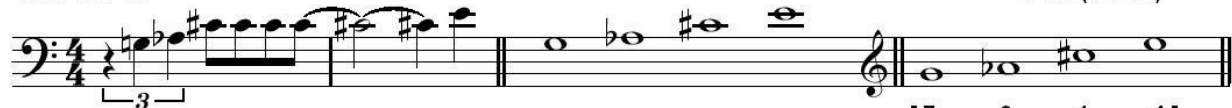


mm. 385-391



[E 2 4 7]
4 - 26 (0 3 5 8)

mm. 403-407



[T 1 3 6]
4 - 26 (0 3 5 8)

mm. 569-571



[7 8 1 4]
4 - 18 (0 1 4 7)

[E 2 4 7]
4 - 26 (0 3 5 8)

The first section, marked *Modéré*, contains two lines derived from Motive 1. The relationship between the left-hand motive and right-hand theme has already been discussed. The middle line, comprising pitch-class set [5679], member of set class 4-2, shares literal subset [679] with Motive 1 [4679]. Furthermore, a closer look at its contour segment shows that it resembles the right-hand main theme, when taking in account only its first 4 notes. Both form the contour <1032>, a connection that is clearly audible. Furthermore, the one most prominent vertical sonority (formed in m. 7 by the chord and its preceding appoggiatura) is a synthesis of the pitch content of all three motives. Comprising [679E12], member of set-class 6-Z26 (013578), it shares literal subset [679] with the left-hand motive and middle line, and literal subset [9E12] with the right-hand's motive. This integration between sonority and melody, however, stands in stark contrast with most succeeding sections, where motive and background often draw on completely diverse pitch collections.

After another statement of Motive 1 in the following *Un peu moins* section, coupled with repeated chords in the right hand, a transitional passage leads to *Très peu modéré*, which introduces Motive 2 in the top voice (mm. 31-33), [9E12], member of set class 4-11 (0135). It is then repeated in a slightly rhythmically altered form a perfect fifth lower. As was mentioned previously, the pitch content is then changed in mm. 36-37 by replacing the C-sharp with C, which strengthens this motive's connection to Motive 1, as the pitch-class set formed is [9E02], member of set class 4-10 (0235), which is both a transposition of Motive 1, as well as an abstract subset of the right-hand theme, 5-23 (02357).

The motive of the following *Plus mouvementé* (mm. 39-52) poses a problem in terms of categorization. Rubinsky believes it to be derived from Motive 1,¹⁸ whereas I classified it with Motive 2's derivatives, due to its pitch content. Although it audibly resembles neither motive, a closer look at its pitch content reveals that it can be broken down into two pitch-class segments that are transpositionally equivalent, respectively comprising [TE13] (mm. 39-41) and [3468] (mm. 42-49), which are both members of set class 4-11 (0135) and thus correspond to Motive 2. These two sets hold only one common tone under transposition (3, or D-sharp), which is echoed in the left hand pedal point in mm. 39-46, emphasizing its importance.

The motive presented in the right hand in octaves in m. 58 again does not show a clear resemblance to either main motive, but due to its first three-note-segment [E12] corresponding exactly to the first three notes of the Motive 2, I chose to group it as a derivative thereof. The next section's motive in mm. 85-86 (clearly related to the motive of m. 58 due to both instances' six-note descending patterns) substantiates this decision, as its rhythm of an eighth followed by two sixteenth notes also links it to Motive 2 rather than Motive 1.

The motive heard in the top line of *Un peu plus* in mm. 104-111 is closely related to Motive 1, or more accurately, to one of its first derivatives, the right-hand theme presented in

¹⁸ Ibid., 18.

mm. 3-5. This manifests most noticeably in the motive's characteristic upwards leap of a fourth that is also present in the right hand theme. At the same time, the pitch content (comprising [9E04], member of set class 4-14 (0237)) does not correspond to either Motive 1 or the derivative mentioned, which adds to the contrast also established through other parameters in this section.

The *Vif*-section's motive (seen in mm. 143-144) is audibly derived from Motive 2, but intervallically altered so that the resulting pitch-set ([579E], member of set class 4-21(0246)) forms part of the whole-tone and diatonic collections. The motive is then repeated several times at different transpositional levels, always forming part of the diatonic collection, but only in the middle voice of *Un peu moins* (mm. 182-185) it returns to an exact transposition of the pitch-class set it was originally derived from ([0245], member of set class 4-11(0135)). This observation points forward to another important characteristic of Villa-Lobos's style that was alluded to in the introduction: instead of being concerned with exact transpositions, his transpositions are often rather "translations" informed by the physical black-and-white layout of the keyboard. In this case, he thus decided to use only white-note or diatonic transpositions of the theme, although these are rarely transpositionally equivalent to one another or to the main motive it was derived from.

Un peu calme, the first section in which the relentless rhythmic drive ceases, shows Motive 1 transformed into a tranquil theme (mm. 212-215). It corresponds in contour (although not in set class) to the original motive, forming contour segment <1320>. It is centric around the remote tone of E-flat (and later A-flat in mm. 219-224) heard against a B-flat pedal point, creating definite pitch contrast to the original. The motive comprises [1356], member of set class 4-11 (0135), linking it to Motive 2 in pitch content. The resemblance to Motive 1, however, is immediately audible.

The next section, *Vif*, resumes the rhythmic drive. It marks the appearance of Motive 3 of *Rudepoéma*, as heard in measures 251-253. As was noted before, this is a direct transposition of mm. 5-6 of the original left hand theme and also corresponds to it in terms of contour, although it does contain some additional repeated pitches, adding to its percussive, rhythmic character. It contains pitch classes [E247], making it a member of set class 4-26 (0358). In this section, the theme appears only briefly, but later appearances warrant its inclusion as one of the main themes. This entire section draws on a very limited pitch collection with frequently repeated G-sharps. Against this background, another theme emerges in such a transformed guise that its origins are not immediately recognizable: the halting, syncopated double-note motive heard in mm. 286-289. Closer investigation reveals, however, that its contour segment corresponds exactly to that of Motive 2 <321021>, although the intervallic content is altered. Villa-Lobos's ability to mold radically contrasting motives from the same basic material constitutes much of the interest of the motivic development throughout the work.

Vif toujours takes the double note idea from the previous section and transforms Motive 2 into an energetic theme heard repeatedly against a held A-sharp in the left hand (mm. 321-324). Taking in account only the line formed by the top voice of the right hand, the pitch content is [0245], member of pitch class 4-11 (0135) and thus a transposition of the original. Likewise, the contour segments correspond, making the connection both structural and audible. Villa-Lobos uses the basic pitch content of the motive (forming part of the diatonic collection) to generate an ascending flourish that alternates the diatonic scale with its black-note pentatonic counterpart in the following measures (mm. 324-325). As mentioned before, much of the tension and interest in Villa-Lobos's harmonic and motivic approach lies in the clever play between black and white notes (and by implication, often the diatonic and pentatonic collections) informing his compositional language in a unique manner.

A tempo introduces a theme in the left hand alongside the right hand double-note motive (mm. 327-328) that could be interpreted as an inversion of Motive 1, while at the same time foreshadowing the next theme with its semitone constitution. The following *Un peu moins* states a chromatic theme (mm. 337) that serves to generate movement in both this section and the next. Although its contour segment <541032> shows resemblance to Motive 2's segment <321021>, its pitch constitution does not correspond to any set heard up until this point, as it consists of [34679T], forming part of set class 6-Z13 (013467). Its subset-connection to the octatonic scale 8-28 (0134679T) however, is significant, as this collection also informs some of the chords that will be heard later, which will be under discussion in the section that deals with vertical sonority. The statement of the motive in m. 337 is answered by an inverted form of the original in the right hand in the following measure. The pitch content of m. 337 is used to generate the motive (now in triplets) heard in mm. 339-340 ([234679T], member of set class 7-Z38 (0124578) and literal superset of the previous motive's 6-Z13) and likewise, an inverted answer follows in the two succeeding measures in the right hand. Again, in the *Muito vivo* transitional section, Villa-Lobos uses the idea of black-white note juxtapositions in a unique manner. Taking the semi- and whole-tone note-pairs that formed the core of the intervallic constitution of the previous section, he effects a series of figurations, that at a first glance seem to be transpositions of one-another, but is revealed by closer investigation to be simply what I designate as black-white-transpositions (mm. 353-357). In other words, instead of transposing intervallic content, he translates a series of black-and-white alternations. This will be discussed in greater detail in the section that deals with this unique aspect of Villa-Lobos's style.

In *Animando*, Villa-Lobos again utilizes Motive 2, forming part of the diatonic collection as was also seen in the previous section, and repeats it incessantly to form a motoric background (mm. 359-380). He adds interest by interspersing the six-note motive ([E024], member of set class 4-11(0135)) with held B-flats, while accenting every appearance of B in the motive, which

results in a cross-rhythmic effect. Against this background, the theme emerges in augmented form in the left hand in mm. 365-368, comprising pitch-class set [579E] (member of set class 4-21 (0246) and also drawing on the diatonic collection). The repeated motive then transforms into the chromatic pattern of the previous section, also repeated to form an ostinato (m. 381-391). In the right hand, Motive 3 is heard in an augmented form while the ostinato continues (mm. 385-391). Whereas the first appearance of the third motive drew on the diatonic collection, it is now transposed a semitone lower to comprise the pentatonic collection (pitch-class set [T136], member of set class 4-26 (0358)). This specific pitch-class constitution lends it for many variations later on in the work, as numerous black-note pentatonic motives are generated from it. These motives do not necessarily correspond exactly to the first set class like this specific example, but can easily be traced back to their origin due to their pentatonic structure.

In *Muito animando*, this same pentatonic theme is heard in a repeated-note format over a chromatic figuration and D-flat pedal point in the left hand (mm. 403-408), spilling over into a series of chords (mm. 409-416) that take their structure from the second section of the piece (compare mm. 17-24). This foreshadows a return to the beginning material, and in fact, Rubinsky designates the following section (*Moins, mais très rythmé*, mm. 417-424) as the recapitulation in her form chart,¹⁹ although I disagree with this notion, as there is neither enough audible nor structural resemblance to the beginning motives. However, this section does mark the first return to a centricity on F-sharp, which had not been present since the beginning of the piece. The theme, introduced in the middle of the layered structure, does not bear much resemblance to either of the beginning themes, but closer investigation reveals that it could be viewed as a hybrid of Motive 1 and Motive 2, as is explained more clearly in figure 2.5:

¹⁹ Ibid., 64.

Figure 2.5. Combination of first two main motives to form a new theme.

mm. 417-420

Motive 1

Motive 2

[6 8 9 E] < 3 2 1 0 2 1 >

4 - 10 (0 2 3 5)

The first part of the theme corresponds in set class to Motive 1 ([689E], member of set class 4-10 (0235)), whereas the contour segment of the second part of the theme corresponds to Motive 2, even though its pitch content ([5689], member of set class 4-3 (0134)) does not bear resemblance to it. This similarity to Motive 2 (that is not present in the first section) and the absence of Motive 1 in its original transposition substantiate my argument that this section should not be viewed as a recapitulation, regardless of the pitch environment's return to an F-sharp centricity.

Un peu modéré et grandiose marks the return of Motive 1, heard in accented octaves and coupled by an altered appearance of the right-hand melody from the beginning, consisting of pitch-class set [79E02], member of set-class 5-23 (02357) and thus a transposition at $T=11$ from the original. Measure 439 thus clearly introduces the restatement of the two beginning themes. Whereas the exposition of materials showed both motives in a F-sharp Phrygian pitch environment, the new harmonic field is decidedly more complex, with some bitonal tension between the diatonic collection of the right hand and Motive 1 that retains its original transposition, centered on F-sharp. This slight deviation, together with the more chromatic middle voice in the left hand, the tremolos interspersed between the octaves in the right hand, as

well as the changed character indication of “Un peu modéré et grandeoso” (in contrast with the first section’s mere “Modéré”) makes the return to the original material less recognizable than one would expect.

The following section, *Très animé* (mm. 446-461), consists of three different textural elements: a pedal point on E in the left hand,²⁰ staccato parallel diatonic triads in the right hand mirrored by contrary-moving chords in the left hand, and lastly, a theme in *forte* accents that emerges from this background. The theme, at this time merely consisting of [4679], and thus member of set-class 4-10 (0235), serves as preparation for the theme that is to appear in the next section, designated by Rubinsky as derived from the Brazilian children’s song, *Terezinha de Jesus*.²¹ At the same time, [4679] is also the exact same pitch content that constitutes Motive 1. By foreshadowing the melody of the “Terezinha”-section by isolating this part of the motive (and in this specific transposition, which is not the key in which the melody is to appear), Villa-Lobos alludes to the connection between the *Terezinha*-melody and Motive 1 of the work.

The *Lento* measure (m. 474), followed by *A Tempo de marcha* (mm. 475-480), states the first three notes of the *Terezinha*-melody in augmented form. *Modéré presque lent* follows, in which the melody is heard as a whole. Figure 2.6 states the original *Terezinha*-melody, while figure 2.7 shows mm. 483-493 of *Rudepoêma*. It illustrates that the likeness between the original folk melody and Villa-Lobos’s reworking of it in *Rudepoêma* is mostly on the level of contour similarity, rather than either pitch or interval resemblance. More interesting for this study, however, is the manner in which this melody does not only contain Motive 1 of *Rudepoêma*, but also Motive 2, as is demonstrated in figure 2.8. This melody is thus arguably

²⁰ The texture would presumably work best if the left hand E is sustained within the middle pedal of the piano, so that the articulation of the other voices would not be overshadowed by the right pedal. This is made possible by Villa-Lobos’s decision to place the E by itself (m. 445) before the other voices are added, allowing the performer enough time to catch it in the middle pedal.

²¹ Rubinsky, “Villa-Lobos’ *Rudepoêma*,” 19.

just as much an adaptation of a Brazilian folk melody as it is an extension of the main motivic material of *Rudepoêma*.

Figure 2.6. *Terezinha de Jesus*.



Figure 2.7. *Rudepoêma* (mm. 483-493)

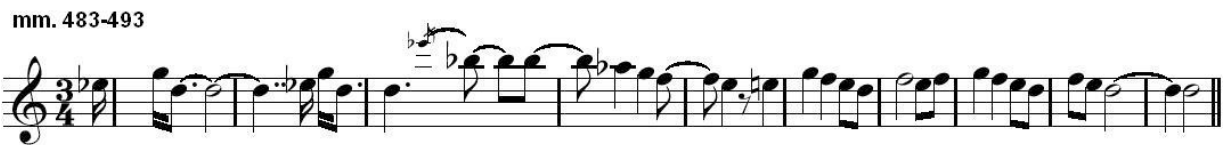
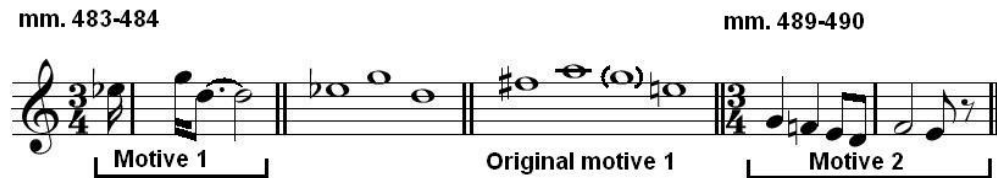


Figure 2.8. Elements of the first two main motives in *Terezinha*-melody.



The following sections (*a Tempo*, *un peu plus* and *Animando*) employ fragments of this above-mentioned melody, respectively derived from the beginning (m. 506, m. 508) and end of the *Terezinha*-theme (mm. 509-516) to create momentum before leading into the *fff Moins*-section. *Moins* is reminiscent of the *Un peu moins*-section (mm. 191-211) that formed part of the first section, both in organization of layers, as well as the pitch content of left-hand chords. The theme that emerges (notated in the middle voice, but played above the right hand with crossing-over of the left hand) draws on the pitch content of the left hand chords as well as the right hand figuration, creating the pitch set [3467], member of set class 4-3 (0134) and is probably in

contour most similar to Motive 2. This motive is almost unrecognizably transformed in the next *Andante, un poco tranquillo* section (mm. 534-552), forming part of the background of yet another iteration of the *Terezinha*-motive. In the left hand, a theme emerges (mm. 541-542) that can be recognized by its contour segment as Motive 3 despite of its altered pitch content.

The final culmination, *Large et violent*, draws on all three main motives to bring *Rudepoêma* to a fitting close. The first eight measures (mm. 561-568) are not exactly clear as to where their two main lines are derived from. The bass line is perhaps too remote from Motive 1 to be designated as a derivative thereof, but nevertheless the return to a centrality on F-sharp and the four notes that the motive consists of, reminds of the beginning. In *Dans le mouvt* (mm. 569-579), the connection to the main motives becomes much more direct, with the left hand presenting a modified iteration of Motive 1 (with the G changed to G-sharp, comprising the pitch-class set [4689], member of set class 4-11 (0135)) while the top melody traces the same pitches as Motive 3 (taking in account only the first top note of every measure, the pitch-class set [E247] is formed, which corresponds exactly to the pitch content of Motive 3). Motive 2 makes its appearance in mm. 584-585, and is instantly recognizable despite of its altered pitch content and complex chromatic and rhythmic background. As many times previously, Villa-Lobos makes use of the contrast between white and black notes. After presenting the motive in a complete diatonic collection, it appears in mm. 591-592 only on black-notes, retaining its original contour segment <321021> despite of its changed intervallic content. At the same time, the last three notes of the motive (D-flat-G-flat-E-flat or (1,6,3)) represent a transposed inversion of the short *Terezinha*-segment that the theme was introduced with (F-sharp-A-E or (6,9,4)). By echoing the last part of the motive (G-flat to E-flat, as seen in measure 593), Villa-Lobos stresses this connection. The whole motive is repeated in mm. 595-596, but in a “black-note”-translation; thus the pattern is transposed to start on E-flat rather than A-flat, but instead of intervallic transposition, Villa-Lobos simply retains the contour and uses only black notes. The same

process is repeated, with the last two notes being echoed, and the connection to the *Terezinha*-motive becomes even clearer when the rhythm of two eighths is changed to two-sixteenths and an eighth in m. 598, similarly to how the *Terezinha*-segment changed when it was first heard (compare mm. 448-449).

Up until the end of the piece, it is this pentatonic motive that is used (albeit inconsistently) to generate momentum. Small changes are made to the motive, for example in m. 604, where A-natural instead of A-sharp is used, breaking the pentatonic collection. It is not clear what the structural significance of these changes is. They can perhaps best be attributed to the general lack of exact consistency that marks much of Villa-Lobos's approach to pitch organization. More examples of these slight irregularities will be given in following sections.

In the final measures (m. 618 and onwards) the motives return to a centricity on F-sharp, creating the expectation that the work might arrive to its beginning key but instead, there is a diversion right before the end and the work ends with four fist pounds (designated *a coups de poing*) at the lowest range of the piano, and it is A, being the very bottom note of the instrument, that rings as the final most important pitch in *Rudepoêma*.

Motivic resemblances represent the surface level of the pitch organization of *Rudepoêma*, and for this reason, it is arguably the most frequently (and in some cases, the only) discussed aspect of *Rudepoêma* in analyses. An understanding of the horizontal dimension in the microstructure is essential to grasping other, deeper aspects of the work, as the motivic construction gives important insights into organizational principles that are used throughout. The most apparent example is the first, germ motive, whose significance lies in the number subsequent motives it generates. The first motive's influence on the structure is also extended to other parameters: the four notes that it consists of (F-sharp, A, G and E), become important pillars throughout the work and are amongst the often-used pedal points. Furthermore, the

motive's range of a fourth is not only significant in its influence on other motives, but also translates vertically into the frequent use of fourths in chords and sonorities.

Another general principle in Villa-Lobos's approach to pitch that becomes clear from looking at the motives is his fascination with the contrast of black against white notes, which informs his concept of transposition in a unique manner. The idea of translating a motive according to its black-white-note constitution rather than its intervallic content pervades much of the work. Additionally, his manner of separating the black-note (pentatonic) collection from the white-note (diatonic) collection (or combining the two in the octatonic collection) results in a wide range of pitch-organizational possibilities.

2.5 Chords and Sonorities

The analysis of vertical constructions in *Rudepoêma* poses many difficulties: firstly, because of the complexity of the work, and secondly, because his chord constructions can be placed in various points along the continuum between tonality and atonality. These factors make a consistent approach impossible, and I decided to use both set theory and more traditional methods of chord analysis to shed light on his harmonic language. Set theory is especially useful in identifying collections such as the whole-tone and octatonic scales, or clarifying pitch constitutions that were too complex to elucidate by traditional methods. As in the preceding section concerning motives, the use of set theory is complicated both by Villa-Lobos's "black-white-key"-approach, as well as by some inconsistencies on the part of the composer. Whereas these small changes are imperceptible to the listener, one small inconsistency is enough to lessen set theory's effectiveness to a great extent.

As the scope of this project does not allow for comparison between all chords that are found in *Rudepoêma*, I identified the central chords within every section (based on their placement, length or the number of times they appear) and analyzed only their pitch content. The analysis was not only limited to chords, but also included any figurations that are heard as a

simultaneous sonority. Based on the findings of this analysis, I recognized several chord constructions that I believe to be characteristic of Villa-Lobos's harmonic approach.

Villa-Lobos's constructions of chords draw on a variety of different influences, as he also explicitly stated in his own pronouncements on *Rudepoêma*.²² His inclusion of parallel non-functional chords reminds of Stravinsky's use of static, non-functional diatonicism as heard for example in Petrushka's *Russian Dance*, and it is in these passages in *Rudepoêma* that Stravinsky's influence is most audible. Villa-Lobos also favors split-third chords, often with the addition of a major seventh in the triad and with the minor third commonly heard in the top voice. His insertion of foreign, non-chord tones results in added-tone chords, most frequently with the addition of a minor or major sixth. Chords based on extended tertian harmony offer moments of reduced dissonance amongst the more dissonant quartal sonorities, that are also an integral part of the collection of chords commonly used by Villa-Lobos. Apart from the much-discussed attraction the composer exhibits towards the white diatonic and black pentatonic collections, he also at times employs two other significant collections: the whole-tone and the octatonic scales. Another of his favored approaches constitutes fusing chords together in polychords, allowing for a maximum degree of dissonance between the contrasting sonorities. The compilation of diverse collections similarly results in his inclusion of all elements of the twelve-tone scale, often completing the pitch aggregate within a section. Lastly, additional relationships also emerge from the set-theoretical comparison of all of the above-mentioned structures, illustrating the chords and sets that Villa-Lobos has a special affinity to. Each of these categories of construction of chords will be discussed under a separate heading, with examples given from the score.

²² Villa-Lobos in Rubinsky, "Villa-Lobos' *Rudepoêma*," 13.

2.5.1 Parallel Non-Functional Chords

Villa-Lobos often uses a series of parallel chords that have their roots in traditional harmony, but are divorced from any functional tonality. The most notable section of this kind is mm. 446-465, in which the right hand moves in parallel diatonic triads in contrary motion to the left hand's changing chord constructions (see fig. 2.9).

Figure 2.9. Parallel non-functional triads in mm. 451-452.

The musical score for Figure 2.9 is in 4/4 time. The right hand (treble clef) plays a series of parallel diatonic triads moving in a descending line. The left hand (bass clef) plays a series of chords that change in a way that is contrary to the right hand's motion. The score includes dynamic markings: *p* (piano) at the beginning of the right hand's first triad, and *rf>p* (rhythmic flourish followed by piano) under the first four chords of the left hand. There are also some handwritten annotations above the right hand's notes.

A similar parallel diatonic passage (that is quartal- rather than triad-based) is seen in the right hand in mm. 179-184, indicated in figure 2.10.

Figure 2.10. Parallel diatonic quartal sonorities in mm. 179-183.

The musical score for Figure 2.10 is in 4/4 time. The right hand (treble clef) plays a series of parallel diatonic quartal sonorities (quartal chords) moving in a descending line. The left hand (bass clef) plays a series of chords that change in a way that is contrary to the right hand's motion. The score includes dynamic markings: *mf* (mezzo-forte) at the beginning of the right hand's first quartal sonority, and *fff* (fortissimo) with the instruction *en dehors* (out of the instrument) above the right hand's notes in the later measures. There are also some handwritten annotations above the right hand's notes.

2.5.2 Split-Third Chords

Instances of split-third chords in *Rudepoéma* can be seen in the reduction in figure 2.11.

Figure 2.11. Split-third chords.

The image shows a musical score reduction with four measures of split-third chords. Each measure is labeled with its measure number: m. 42, m. 77, m. 493, and m. 515. The score is written in two staves, treble and bass clef. Measure 42 shows a split-third chord with notes D# and F## in the top voice and D# and G in the bottom voice. Measure 77 shows a split-third chord with notes D# and F## in the top voice and D# and G in the bottom voice. Measure 493 shows two parallel-moving split-third chords. Measure 515 shows a split-third chord with notes D# and F## in the top voice and D# and G in the bottom voice.

Measure 42 shows a split-third chord that consists of a D-sharp major seventh harmony with a minor third in the top voice (F-double-sharp is enharmonically spelled as G in the original). Simon Harris proposes an alternative to viewing some of these chords.²³ In his dissertation, he introduces a system for classifying common twentieth-century vertical constructions. He argues that a great body of sonorities in the twentieth century can be seen as derivatives from basic chords such as the dominant, triad, augmented triad and diminished chord, with the derivatives containing non-chord notes added to the existing harmony.²⁴ Dominant derivatives are further divided into octatonic and non-octatonic chords, depending on whether the sonorities are subsets of the octatonic collection. According to this system, m. 42 is classified as an octatonic dominant derivative, designated Dd1. Measure 77 presents a more complicated example with both an added 6th and a split third. In m. 493, two parallel-moving split-third chords can be seen. Due to the missing fifth, Harris classifies them as members of Rdd1 (reduced dominant derivatives in octatonic form). Measure 515 can easily be described as a

²³ Simon Harris, "A Proposed Classification of Chords in Early Twentieth-Century Music" (New York; London: Garland Publishing, Inc., 1989).

²⁴ *Ibid.*, 96.

polychord, as it consists of an F major harmony in the bass juxtaposed with an augmented chord on A-flat in the top, but at the same time, the resulting harmony contains a split-third when viewed as an F major chord with added notes. Within this interpretation, the E that forms part of the chord can be described as an added major seventh.

2.5.3 Added-Note Chords

Some of the constructions used by Villa-Lobos can best be described as triads to which foreign, non-chord notes are added (see fig. 2.12).

Figure 2.12. Added-note chords.

The figure displays five musical examples of added-note chords, each consisting of a triad in one voice and a single note in the other voice. The first three examples (m. 50, m. 58, m. 104) feature a treble clef with a triad of F#4, A#4, and C5, and a bass clef with a single note F3. The last two examples (m. 105, m. 462) feature a bass clef with a triad of F#3, A#3, and C4, and a treble clef with a single note F4.

The examples from m. 50 and m. 52 show chords to which both a seventh and another non-chord tone is added: in the first, the added note is a minor 6th, and in the latter, the non-chord note is an added tritone. The examples from m. 104 and m. 105 show added 6ths (respectively minor and major), whereas the final example from m. 462 has the added note (minor 6th) in the bass rather than in the top voice. According to Harris's method of classification, m. 50 is in fact a non-octatonic dominant seventh derivative designated as Dd7, as C is added to an existing E

dominant seventh harmony. Similarly, m. 58 can be described as Dd2, an octatonic dominant seventh derivative.²⁵ He also prefers to classify chords such as those found in m. 104 and m. 105 according to their augmented structure. According to his system, they could both be designated as Ad2, augmented derivative chords.²⁶ This is especially clear in the example of m. 462, as the augmented constitution is audible from the inversion used.

2.5.4 Extended Tertian Harmony

Extended tertian harmony constitutions fit well within the diatonic collection: a diatonic chord with all of the possible added thirds encompasses the complete diatonic scale. It is also these chords that Villa-Lobos is most attracted to, as the examples in figure 2.13 indicate. Furthermore, extended tertian harmonies are also compatible quartal harmonies and polychords, the two other chord types that Villa-Lobos frequently employs. The second example of m. 446 shows how the combination of a quartal sonority in the left hand with a triad in the right hand can be re-written to form an extended tertian harmony with an added 7th and 11th. Similarly, the two examples from m. 517 indicate that the two polychords (the first, a combination of A minor and G major, the second, a combination of D minor and F major) are in effect equal to extended tertian harmonies, as is illustrated in the simplified reduction.

Figure 2.13. Chords based on extended tertian harmony.

m. 18 m. 446 m. 446 m. 517

²⁵ Ibid., 159.

²⁶ Ibid., 240.

notes of the diatonic scale are used. Again, it is typical of Villa-Lobos's style that he retains the tritone in the diatonic collection, rather than using perfect fourths by combining the black- and white-note scales. This signifies his preference of keeping sonorities perfectly 'white' or 'black' rather than preserving intervallic consistency.

Quartal sonorities lend themselves well to the inclusion of seconds (usually major rather than minor) as can be seen in the examples of m. 159 and mm. 517-518. In m. 159, two interlocking fourths form a major second, and in mm. 517-518, the division of the octave into two adjacent fourths also form a major second interval. The latter example shows an instance of a series of figurations that are essentially formed by four descending, diatonic quartal sonorities, as is elucidated in the reduction given beside the example.

Measures 17 to 24 constitute a fascinating section in *Rudepoêma*, as these measures serve as a precursor to many of the constructions favored by Villa-Lobos later in the work. An example chord from this passage thus appears under many of the headings found in this chapter. The quartal sonority formed in m. 17 ([4567E1] belonging to set class 6-Z41 (012368)) divides into two trichordal subsets of 3-5 (016) and could thus be rewritten to encompass two superimposed quartal sonorities: G-C-sharp-F-sharp, and F-B-E. Additionally, the manner in which Villa-Lobos integrates these two sonorities forms two groups of adjacent seconds (F-G, B-C-sharp), demonstrating an additional method according to which he uses quartal sonorities to generate major seconds.

2.5.6 Chords based on Scales or Collections

Villa-Lobos frequently employs chords based on collections. His special affinity towards the pentatonic and diatonic collections has been discussed extensively, but two other collections also appear often in his chord constructions: the whole-tone and the octatonic collections. Both these collections are favored in twentieth-century music because of their high degrees of symmetry. As is well known, the whole-tone collection has the highest possible degree of

symmetry, and its set class contains only two distinct members. They are referred to as WT0 [02468] and WT1 [13579E], or the ‘even’ and ‘odd’ collections, respectively. The octatonic collection, 8-28 (0134679T) maps onto itself at four levels of transposition and four levels of inversion, and thus only has three distinct forms. When written as a scale, the octatonic collection consists of alternating semi- and whole-tones. The three distinct octatonic collections are designated as OCT0,1 [0134679T] OCT1,2 [124578TE] and OCT2,3 [235689E0]. Figure 2.15 shows several instances of chords informed by these two collections.

Figure 2.15. Chords informed by the whole-tone and octatonic collections.

The figure displays six musical examples, each consisting of a treble and bass staff. The set class labels are as follows:

- m. 17: [7 9 E 1 3]
- m. 18: [T 0 2 4 6]
- m. 417: [9 E 1 3]
- m. 39: [3 4 6 7 T 0]
- m. 253: [4 5 7 8 T E]
- m. 343: [0 1 3 4 6 7 9 T]

In measures 17 and 18, Villa-Lobos employs the only two distinct members from the whole-tone scale in adjacent bars: first a chord based on the odd whole-tone collection, and then one based on the even whole-tone collection. In the section from m. 417 to m. 421 and again from m. 431 to m. 434, the whole-tone scale is used completely differently: instead of basing a complete chord on the collection, Villa-Lobos uses four notes of the scale repeatedly in the

middle voice of the texture, in contrast to the other voices that form part of an F-sharp minor environment.

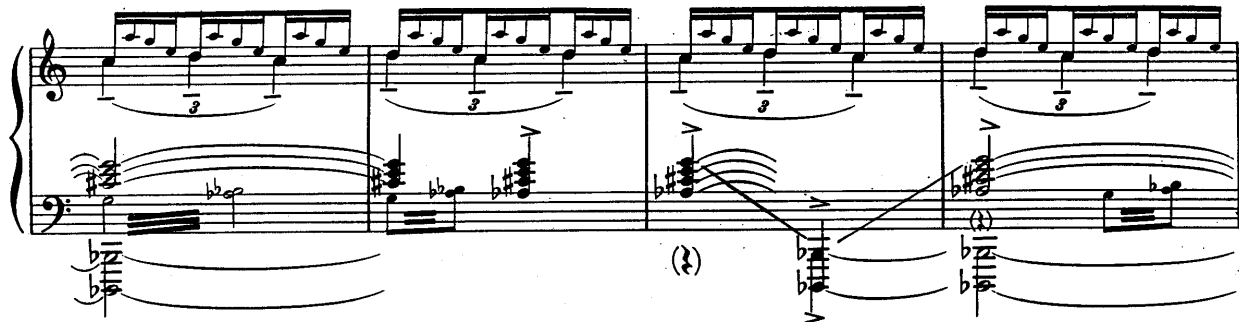
The octatonic scale is often a result of Villa-Lobos's superimposition of chords, as can be seen in the first example of m. 39 that was also mentioned in the section concerning polychords. The combination of D-sharp minor and C major results in pitch-class set [3467T0], member of OCT0,1. Measure 253 shows a hexachord belonging to the OCT1,2 collection, in which the alternating semi-whole-tone constitution is well-pronounced despite of the fact that the scale is only partially present. In m. 343, the quick succession of a black-note sonority followed by a white-note sonority forms the complete OCT0,1 scale. The octatonic scale is also mirrored in the other subsets contained within the horizontal lines of this section: [34679T], member of 6-Z13 (013467) (m. 337) and [3679T], member of 5-16 (01347) (mm. 339-340, top line).

Villa-Lobos's unique attraction to the black-note pentatonic collection and the white-note diatonic collection is present throughout *Rudepoêma*, but at times, these scales' counterparts are also seen: (predominantly) black-note diatonic collections and white-note pentatonic collections. The first appears in the passage in mm. 14-16, where a D-flat major scale effects the transition into the next section (see fig 2.16). The white-note pentatonic scale is presented in the right hand figurations from m. 191 to m. 208 (see fig 2.17).

Figure 2.16. Predominantly black-note diatonic scale in mm. 13-16.



Figure 2.17. White-note pentatonic scale in mm. 193-196.



2.5.7 Polychords

One of Villa-Lobos's favored approaches to building chords comprises adding two contrasting sonorities together in one simultaneously sounding polychord. Indeed, this characteristic is very common amongst twentieth-century music, and it is thus important to investigate which specific chords Villa-Lobos chooses to combine, as this constitutes the uniqueness of his language.

As can be expected, polychords provide Villa-Lobos with the ideal opportunity to add together black- and white-note constructions, as they do not only represent different tonalities and pitch collections, but also present a physical, visual contrast on the piano. There are many polychords that are divided into only black notes in the one hand, and only white notes in the other hand. These chords are stated in figure 2.18.

Figure 2.18. Polychords divided into black-note and white-note chords.

The figure displays five musical examples of polychords, each presented in two parts: the original notation and a simplified version with brackets identifying the constituent chords.

- m. 31:** The original notation shows a complex polychord. The simplified version shows a bracketed F# major chord in the left hand and a bracketed C major chord in the right hand.
- m. 39:** The original notation shows a complex polychord. The simplified version shows a bracketed D# major chord in the left hand and a bracketed C major chord in the right hand.
- m. 69:** The original notation shows a complex polychord. The simplified version shows a bracketed C major chord in the left hand and a bracketed D# major chord in the right hand.
- m. 505:** The original notation shows a complex polychord. The simplified version shows a bracketed C major chord in the left hand and a bracketed D# major chord in the right hand.
- m. 191:** The original notation shows a complex polychord. The simplified version shows a bracketed C major chord in the left hand and a bracketed D# major chord in the right hand.

The examples show the chord in the original form first, followed by a simplified version, clearly indicating the chords that the resulting sonority is a combination of. The polychord in m. 31 contains F-sharp major in second inversion in the left hand, coupled with an extended tertian C major harmony that contains an added 9th, 11th and 15th (F, the 13th, is omitted, as indicated in brackets in the example). The chord in m. 39 comprises D-sharp major in the left hand and C major in the right hand. Conversely, m. 69 is a combination of C major in the left hand and D-sharp major in the right hand (A-sharp is enharmonically spelled as B-flat in the original).

Whereas these chords all comprise the combination of two triads, m. 506 shows two polychords of which one or both of the distinct chords are built on quartal harmony. The black-note scale is especially suitable for the inclusion of fourths and thus for the construction of quartal sonorities. This can be illustrated simply by looking at the interval-class vector of the set

class (5-35 (02479)) that represents the pentatonic scale: 032140.²⁷ The vector shows that there are 4 occurrences of interval class 5, which means that the set contains 4 instances of perfect fourths or perfect fifths,²⁸ an exceptionally high number when taking in account that only 4 other set classes of cardinal 5 have any interval class that is presented 4 times. The pentatonic scale thus presents Villa-Lobos with an ideal vehicle for construing chords built on fourths instead of thirds. This can be seen in the examples of m. 505 indicated in figure 2.18, which both have quartal constructions in the black notes in the left hand. The first example also has a trichord in the right hand that contains a fourth and a second rather than triad. In the second example of m. 505, C major is heard in the right hand together with the left hand's quartal sonority.

Although Villa-Lobos's polychords are usually constructed so that each hand represents a different tonality or sonority, the example of m. 191 shows that the left hand divides into two sonorities, and in effect, the two top notes of the left hand chord should be seen as part of the right hand's C major added 6th chord, juxtaposed against a black-note trichord in the lower voices.

These above-mentioned examples deal with chords that are strictly divided into black and white collections, but figure 2.19 shows other polychords that show a freer division, with the black-note right hand chords containing one white middle-note. Yet, in all of these examples, Villa-Lobos uses the two contrasting pitch collections to create the maximum amount of dissonance, seen in the high number of semitones that are formed especially between the black and white notes. In fact, every pair of chords forming a polychord in both figure 2.18 and figure 2.19 has at least two semitones formed between the two contrasting sonorities, while some have

²⁷ The interval-class vector of a set class indicates its interval content - how many of each interval is represented within the set class (taking in account only unordered pitch-class intervals, which represents the shortest distance between two pitches). The first number represents the number of occurrences of interval class 1, the second, of interval class 2, and so forth.

²⁸ Perfect fourths and perfect fifths are equal in the interval class vector, as only distance and not direction is taken in account when calculating unordered pitch-class intervals.

as many as three semitones. Measure 61 shows a good example of two triads that are semitone transpositions of one another, creating a maximum degree of dissonance. By dividing the chords into two relatively spread-out sonorities, Villa-Lobos manages to retain the inherent character of every chord. If the chords were grouped together closer in register, they would start resembling clusters and the character of the two contrasting sonorities would be lost.

Figure 2.19. Other polychords.

m. 61 **m. 66**

The image displays two musical examples, labeled 'm. 61' and 'm. 66'. Each example consists of two staves, a treble clef staff on top and a bass clef staff on the bottom. In measure 61, the treble staff contains a triad of notes: F#4, A#4, and C5. The bass staff contains a triad of notes: F#2, A2, and C3. In measure 66, the treble staff contains a triad of notes: E4, G4, and B4. The bass staff contains a triad of notes: E2, G2, and B2. The notes in measure 66 are spaced out across the staff, with E2 being the lowest note and B4 being the highest note.

The two examples in figure 2.20 show a different approach: instead of using two contrasting sonorities to constitute a polychord, Villa-Lobos also at times employs two different sonorities that share two or more common tones. Measure 66 shows the combination of E minor and a dominant 7th on A in second inversion, sharing both E and G, and creating a relatively homogenous result despite of the chord's bitonal character. Measure 508 represents the combination of two chords that share three common tones (F, G and B) but are stated in two contrasting sonorities. In this last example, dissonance is mostly created within the left hand chord rather than by the interaction of the two chords with one another.

Figure 2.20. Polychords of which the two sonorities share common tones.

m. 66 **m. 508**

A last observation with regard to Villa-Lobos's use of polychords is his approach to the spacing of the chords. It is significant that the chords are always spread-out in the bottom register with smaller intervals in the top, seemingly mimicking the spacing of the overtone scale. Considering his fascination with natural sounds, this can be interpreted as a way of releasing the fullest amount of resonance from the instrument.

2.5.8 Completing the Aggregate

As can be seen in Villa-Lobos's own comment on *Rudepoêma*, his pitch organization frequently employs elements of the twelve-tone scale. The first instance of this phenomenon can be observed in the very first section of the work. After maintaining an F-sharp Phrygian environment for the first thirteen measures of the piece, drawing on [45679E12], member of 8-22 (0123568T), Villa-Lobos uses a major scale on D-flat, [568T013] member of 7-35 (013578T), in mm. 14-16 to transition to the next section. By the combination of these two diverse pitch collections, he completes the pitch aggregate in the first sixteen measures of the work. In other words, he states every one of the twelve tones of the scale within the first section. Set 7-35 is also an abstract subset of 8-22, and thus the two sets are related structurally despite of their diverse pitch content in this specific situation.

Furthermore, Villa-Lobos's juxtapositions of the white-note diatonic and black-note pentatonic scales often result in all notes of the twelve-tone scale being present in a short span of time. This is the case in mm. 130-131, as can be seen in figure 2.21.

Figure 2.21. Completing the twelve-note scale.

The musical score consists of four staves. The top two staves are in treble clef, and the bottom two are in bass clef. The music features complex rhythmic patterns and dynamic markings such as *rf > mf* and *rff >*. A large bracket on the left side groups the staves. A thick black bar is drawn across the top two staves in the middle of the passage. Arrows point from the caption to specific notes in the score.

2.5.9 Other Relationships

Although set theory yielded some sets that correspond, they were usually too remote from one another in the structure to be considered as significantly related. However, examining the sets that Villa-Lobos has special affinity to, does give us a better comprehension of his chord and motivic constructions, and oftentimes confirms conclusions that were also made by other methods. For example, when looking at sets of cardinal 5, one sees that the sets that Villa-Lobos employs more than once include 5-19 (01367), 5-23 (02357), 5-24 (01357), 5-26 (02458) and 5-33 (02468). 5-33 signifies the whole-tone collection and 5-26 is closely related to 5-33, with

shared subset 4-24 (0248). 5-23 represents the diatonic collection, whereas 5-24 corresponds to the first 5 notes of the Phrygian scale. 5-19, on the other hand, is a subset of the octatonic collection, and its frequent appearance suggests Villa-Lobos's attraction to this scale. By examining sets of cardinal 5 that he frequently uses in *Rudepoêma*, it gives an insight into his favored collections, which are used both vertically and horizontally.

Another relation emerges when examining hexachords that appear more than once in the structure. Set 6-9 (012357) appears both at the start of section *Animé* (mm. 85-86, top voice) as well as in *Vif* (mm. 139-158), where it represents the complete pitch content of the section. Set 6-9 is a self-complementary hexachord,²⁹ and thus two instances of 6-9 could together encompass all 12 notes of the scale. Looking at the two instances of 6-9 ([123468] and [579TE0], respectively) it is possible to observe that these two specific pitch-class sets indeed complete the pitch aggregate. Although this could by no means have been intentional on Villa-Lobos's part, it does signify his preference for diverse collections that draw on all twelve notes of the scale.

The octachords also yield some overlapping sets. 8-22, the pitch content of the first 13 bars, is seen again in the succeeding section as the composite of the chord on the first beat of m. 18, at a transpositional level of T=5. It appears again as the complete pitch content of m. 51, at a transpositional level of T=2 from the original. As was mentioned before, 8-22 is a superset of the 7-35 (the diatonic collection), and its frequent appearance (especially at the beginning, that represents more consonant collections in contrast with the increasing dissonance of later sections) thus confirms Villa-Lobos's preference of chord constitutions that grow from the diatonic scale.

In this section, I gave an insight into Villa-Lobos's manner of constructing chords by highlighting the types of chords that appear several times throughout the work and thus represent a special place in Villa-Lobos's harmonic language. Although most of these are commonplace in

²⁹ A complement of a set is the pitch classes it excludes; thus any set plus its complement will contain all twelve pitch classes.

twentieth-century music, Villa-Lobos's approach is characterized by his eclectic manner of juxtaposing different elements (both within his chord constructions as well as between adjacent sonorities). The most striking example of this technique can be seen in the chords of measures 17-24, where he draws on most of the collections that become important later in the work. In these mere eight bars, there are chords based on the whole-tone collection, extended tertian harmony and quartal constructions, combined with a statement of the main left-hand motive (based on the Phrygian scale), as well as appoggiaturas in the left hand that horizontally also form an iteration of the whole-tone scale. Although none of these chord constructions or scale collections are foreign within the language of the early-twentieth century, Villa-Lobos's imaginative (and often unsystematic) combination of these represent an integral part of his unique compositional language.

Other characteristic aspects of Villa-Lobos's harmonic approach include the frequent appearances of dissonances (especially tones and semitones), which are formed in various manners: by adding foreign chord notes, by combining different triads or constructions in polychords, by frequently using quartal sonorities as well as by his much discussed interplay between black and white notes. He also often avoids using constructions that encompass the octave. Instead, he opts for chords spanning a seventh or ninth, which is highly compatible with his frequent use of extended tertian harmony and quartal sonorities. His language encompasses many contemporary practices, resulting in novel and daring harmonic processes, without ever losing sight of traditional chord constructions. It is exactly within this juxtaposition between old and new that much of the interest and color of Villa-Lobos's music can be found.

2.6 Black-White Key Juxtapositions and Alternations

The combination of black and white keys significantly influences and informs Villa-Lobos's approach in *Rudepoêma*. It could arguably be described as the compositional device that is the most consistently present in this work, as it pervades so many diverse aspects. This specific

feature is highlighted in Jamary Oliveira's study as the single most important characteristic that distinguishes Villa-Lobos's approach in his piano works.³⁰ Considering the general lack of analytical depth that marks studies on Villa-Lobos, the many problems and controversies that arise from his specific compositional language, as well as the general discourse on his idiom (that brands him as an 'instinctive' or 'intuitive' rather than as a 'logical' composer), the systematization of this important compositional device marks an important step in establishing a different perspective in Villa-Lobos's works. Examination of the manner in which Villa-Lobos manipulates and adapts the black-white-key device sheds light on a much more logical, systematic approach than was evident from the two preceding sections concerning his general horizontal and vertical constructions.

Oliveira discusses Villa-Lobos's use of black-against-white-key juxtapositions from two main angles: firstly, focusing on the nature of the alternation and the number of notes used (and thus distinguishing between two-, three-, four- and more-note patterns)³¹ and secondly, discussing the alternation's influence on the beat subdivision and melodic aspect (the latter with specific reference to black-white neighboring relationship).³² The rhythmic aspect will be omitted from my analysis, not only because it falls outside of the scope of the project, but also because I do not agree with the assertion that a certain black-white alternation produces a polyrhythmic arrangement (as the alternation is only visual and not truly audible, and can thus not influence one's perception of rhythm). Although I will take Oliveira's article as a point of departure in terms of the analytical principles used, I will propose a somewhat different approach, as I believe the idea of imperfect "black-white" transpositions lies central to *Rudepoêma*, a notion that is not discussed specifically in the article, probably because the author

³⁰ Oliveira, "Black Key Versus White Key," 46.

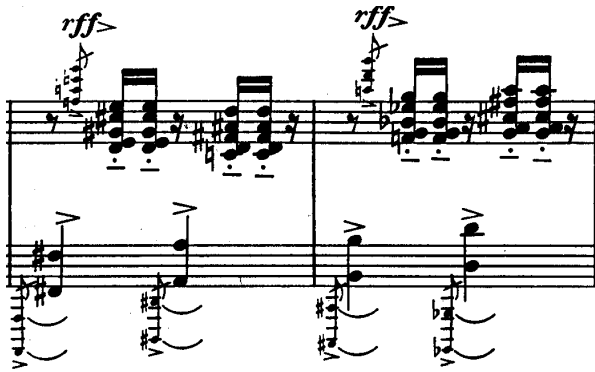
³¹ *Ibid.*, 35.

³² *Ibid.*, 39.

does not believe it to be significantly distinguished from other alternations. I designate “black-white”-transpositions as the cases where a series of motives or chords are translated according to their specific alternation of black-and-white notes rather than by actual transposition, even though they resemble one another both audibly and visually. I distinguish this feature from other black-white note alternations that are quick succession and often stand in contrast with other motivic material, as I believe these figurations to be coloristic rather than functional. These figurations are also usually circular, and repeated across several octaves.

The first “black-white”-transposition can be seen in mm. 23-24, shown in figure 2.22. When taking a quick look at the right-hand chords (not taking in account any appoggiaturas), it is easy to mistake them for transpositions of one another. Additionally, they all correspond in their range of a ninth and thus also audibly resemble one another. However, not even one of these pitch-class sets correspond in set class to any other, with the four contrasting chords respectively members of 5-24, 5-26, 5-30 and 5-20. These translations are rather consistently informed by their specific black-white note structure. The first chord (read from the bottom) consists of two adjacent white notes, then skipping the next black note, followed by a black note, another black note skip, then another black note, followed by one black note skip, and concludes with the next white note. Applying this structure to every chord in the series shows that they are all perfectly consistent according to this black-white-construction, even though they don’t correspond either in intervallic or pitch construction.

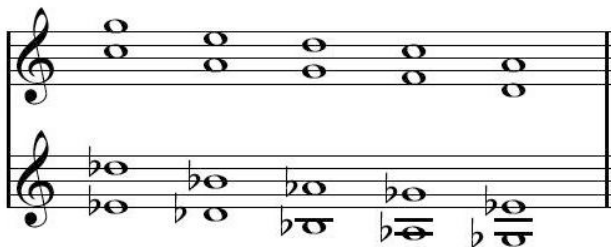
Figure 2.22. Mm. 23-24.



Measures 25 to 28 present a completely different example. The reduction in figure 2.23 simplifies the constructions found in these measures, portraying one instance of the repeated, descending pattern. Breaking down its pitch content into black and white sets, it is clear that the figuration is informed by the black-note pentatonic set that is presented both in the left and right hand pattern. This is coupled by a descending white-note pentatonic set in perfect fifths. Again, the figuration itself seems to be inconsistently structured, but when taking a look at its black-and-white alternations, it is clear that it is, on the contrary, completely coherent according to the pattern that Villa-Lobos establishes. The ‘unevenness’ in the black-note set (at times forming sevenths, and at other times, forming sixths) is simply a result of two parallel-moving pentatonic sets, that would due to the asymmetrical nature of the collection never be able move in perfectly parallel intervals.

Figure 2.23. Reduction of mm. 25-26.

mm. 25-26



As Oliveira accurately asserts, the white-note scale is mostly dependent on the black-note scale, whereas it is rare to see cases where this relationship is reversed.³³ It is therefore common to see black-note pentatonic sets generating corresponding pentatonic white-note sets, as is also the case in this example. Furthermore, white pentatonic sets also generate their own parallel pentatonic sets. This pattern combines pentatonic on C with pentatonic on F, a perfect fifth below it (thus generating consistent intervals all along the pattern). As an aside, it is important to make the obvious observation that the relationship between the black-note and the white-note scales is always asymmetrical, dividing the twelve-tone scale in a 5:7 ratio. Furthermore, the black-note-scale's division into one group of 2 and one group of 3 notes adds to the disproportion. It is clear that this asymmetry does not bother Villa-Lobos, and in fact, he seems to relish the diverse possibilities that are a result of this unevenness.

In mm. 47-48, the figurations that originated in the preceding measures' arpeggios exhibit another case of black-white-transpositions. The bottom notes are structured according to an ascending pentatonic G-scale (with starting note A) and again, the shifting of these motives only yield corresponding sets in some cases despite of their obvious visual resemblance. A reduction of these two measures together with the pitch-class sets and set classes that they generate can be seen in figure 2.24.

Figure 2.24. Reduction of mm.47-48.

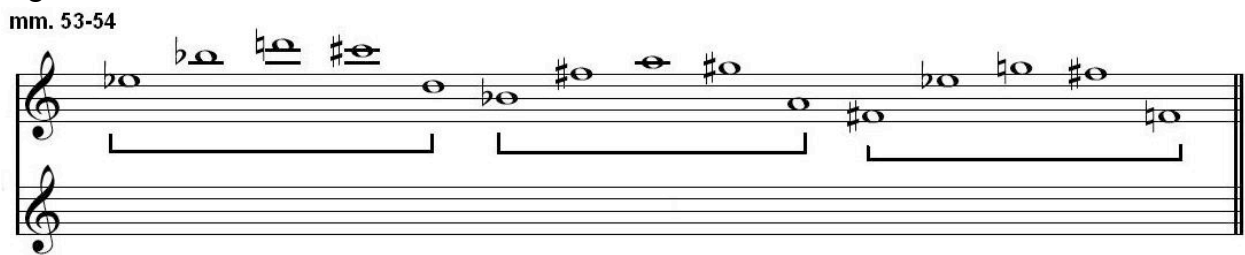
mm. 47-48

[3 6 8 9] [6 8 T] E [8 T 1 2] [T 1 3 4] [1 3 6 7]
 4 - 13 (0 1 3 6) 4 - 11 (0 1 3 5) 4 - Z15 (0 1 4 6) 4 - 13 (0 1 3 6) 4 - Z15 (0 1 4 6)

³³ Ibid., 40.

The figuration found in mm. 53-54 represents a combination between a black-white-transposition and a coloristic figuration. Although the top three notes of the motive are black-white-transpositions of one another, the bottom two notes (moving in semitones) are actually perfect transpositions (see fig. 2.25). The starting notes of each figuration maps out the E-flat minor triad, a sonority that was frequently in use in this section (compare mm. 39-43). These figurations, in contrast with the preceding examples, are not consistent (according to the pattern, the third motive should have consisted of F-sharp-C-sharp-E-D-sharp-F). The reason for these small inconsistencies remains unclear, and could in some cases even be editorial.

Figure 2.25. Reduction of mm. 53-54.



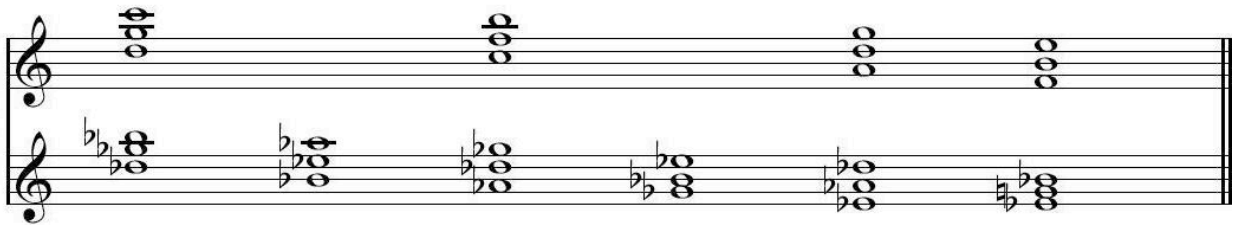
In mm. 116-120, the black-white-note-alternation is easy to follow, with black notes in the right hand and white-note chords in the left hand. As Oliveira notes,³⁴ this is the distribution more often found than its reverse (black-note sets in the right hand coupled with white-note sets in the left hand), which probably is due to technical rather than musical considerations (the high register makes it easier for the left hand to play above the right hand on the black keys). The pattern consists of three-note chords in the left hand on black keys, and each iteration ends unexpectedly with E-flat major, before resuming the black-key structure. This is coupled in the right hand with quartal sonorities on white notes, two of these divided in two, and the other two stated complete, in order to match the six-chord division of the left hand's pattern. As Oliveira

³⁴ Ibid., 34.

also stated, the black keys are more suitable for the construction of quartal harmonies rather than triadic structures³⁵ (as can be seen in the left hand chords that display three quartal harmonies and two triads) and the quartal harmonies in the right hand are generated by the left-hand's structure. The whole pattern is rendered somewhat imbalanced with the uneven distribution of notes in the right hand (see fig. 2.26).

Figure 2.26. Reduction of mm.116-117.

mm. 116-117

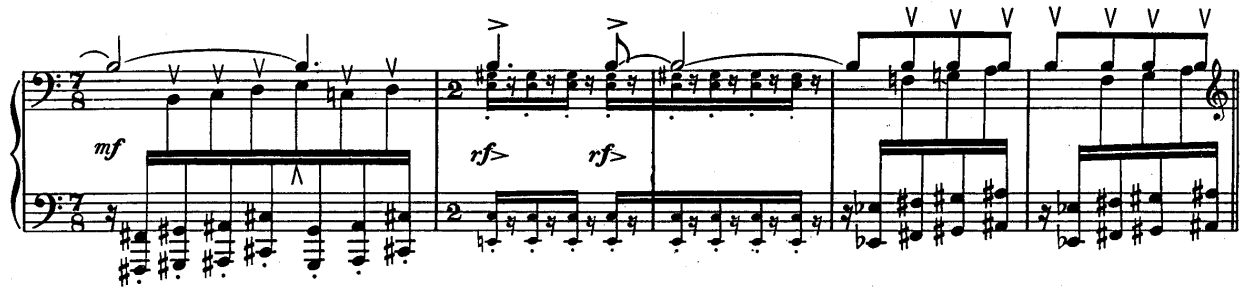


Measure 134, as well as mm. 136-137, show a similar division between a white right-hand set and a black left-hand set, as indicated in figure 2.27. The set found in the right hand serves as a precursor to the theme of the following section, and is coupled with a “black-note” transposition of it in the left hand that follows the same contour but represents the pentatonic scale in contrast with the diatonic collection of the right hand. Oliveira indicates that this pattern is an example of a contraction of intervals resulting from the scalewise motion of black and white keys, starting with a perfect fourth presented between the two voices (F-sharp and B) and ending with a semitone (A to A-sharp).³⁶

³⁵ Ibid., 44

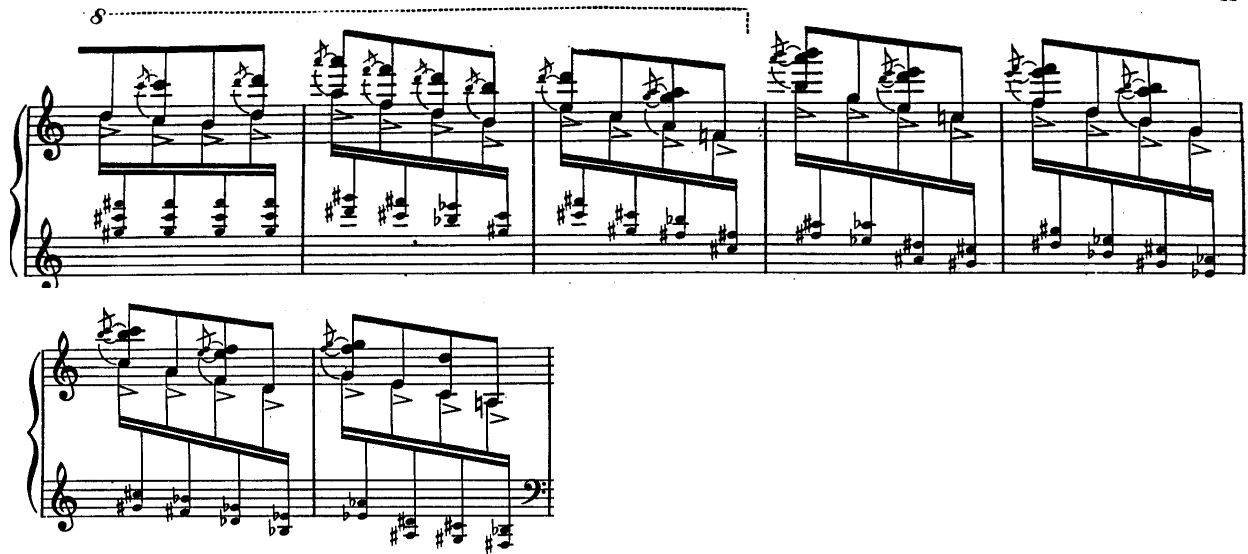
³⁶ Ibid., 44.

Figure 2.27. Mm. 134-138.



The following example, comprising mm. 165-170, shows a complicated instance of black-white-juxtaposition that is nevertheless relatively consistently executed by Villa-Lobos. Again, the right hand comprises only-white sets and the left hand only-black dyads. The right hand follows a repeating pattern of four notes a third apart, with every new iteration starting a fourth lower than the previous instance (with six iterations of this motive, it is just one short of completing the full circle of fourths). This procedure is combined with a complicated alternating-dyad pattern in the left hand that consists for one measure out of two interlocking intervals, and for the second measure of two pairs of dyads, each sharing one common tone. This pattern repeats three times. Breaks of the pattern occur in m. 167 (between the second and third dyads, that are further spaced from one another than their counterparts in m. 165 and m. 169) and in the final measure of the sequence, m. 170, that represent two interlocking dyads rather than two that share a common tone, like the counterparts in m. 166 and m. 168. This passage marks one of the few instances where the white notes seem to move completely independently from the left hand figurations (see fig. 2.28).

Figure 2.28. Mm. 164-170.



Another instance of Villa-Lobos's black-white-transposition appears in mm. 246-269, by means of a repeating pattern that involves four ascending chords, each of which is divided into two. In the pattern, he retains the outside interval of a sixth in the right hand, with one black middle note. The specific pitches he chooses results in four contrasting sonorities, of which only two correspond (the two augmented chords) and the other two generate respectively a diminished chord and major triad, as can be seen in figure 2.29. Despite of these inherent differences between the chords, the passage is played so rapidly that they resemble transpositions of one another. When taking in account the complete pitch content of the passage, it is significant that the only three pitches not represented by the collection of four chords, is [37E], E-flat-G-B. Villa-Lobos could easily have fit these three pitches into the pattern, as the transposition B-E-flat-G corresponds to the rest of the chords (a sixth on white notes with a black middle note). His omission of it, however, is probably more fascinating than an inclusion would be, and again shows his fundamental characteristic of establishing patterns that he does not follow through completely.

Figure 2.29. Reduction of triads found in mm. 246-249.
m. 246

The image shows a musical score for measure 246. It consists of two staves. The upper staff contains four triads, and the lower staff contains a sequence of notes. Below the staves, four sets of intervallic structures are listed, each corresponding to a triad in the upper staff. The structures are: [9 1 5] with 3-12 (0 4 8) below it; [6 9 0] with 3-10 (0 3 6) below it; [4 8 0] with 3-12 (0 4 8) below it; and [7 2 5] with 3-11 (0 3 7) below it.

In m. 324, two two-note black groups and one three-note group are alternated with four-note groups of white notes, as can be seen in figure 2.30. Again, it is obvious that Villa-Lobos makes the most of the inherent unevenness of the white-versus-black scale, as well as the natural two-versus-three way in which the black scale is grouped. At the same time, this is really only a visual contrast, and in the tempo that this measure is played even the most observant listener will only hear the juxtaposition of pentatonic versus diatonic, regardless of the uneven division.

Figure 2.30. M.324.

The image shows a musical score for measure 324. It features a piano part with a treble clef and a 3/4 time signature. The score is marked 'Plus vif' and includes a '10' measure indicator. The piano part consists of a sequence of notes, with a 'rff >' marking. The score is presented in a stylized, somewhat abstract format with overlapping staves and a large bracket over the top staff.

Measures 341-346 and 350-353 show all-black-note tetrachords 'sliding' to all-white-note tetrachords (marked 'gliss' in the score). These measures were also mentioned in the discussion on scales and collections, as the first of these 'slides' generates the octatonic scale. Although this does not truly fit into either of the two categories that have so far been mentioned

(black-white-note transposition, or coloristic figurations based on black-white-note alternations), it does demonstrate how the alternation of color-chords can be used to create contrasting sonorities (see fig. 2.31).³⁷

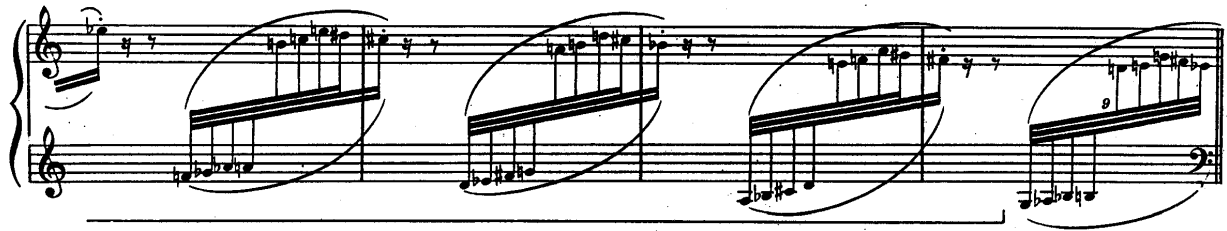
Figure 2.31. Mm. 350-352.



The succeeding passage in mm. 353-357, consisting of a series of translated figurations, clearly takes its intervallic construction from the preceding section that was pervaded by semitone constitutions and appearances of the octatonic scale, as can be seen in figure 2.32. Closer examination reveals that this is yet another case of black-white-transposition. It can be comprehended best when dividing the figuration into two parts, the first of which consists of an ascending white-black-black-white alternation (without any skips) and the second of which constitutes three ascending white steps (skipping one white step between the second and third notes), followed by two descending black notes without any skips. These two structures are consistently applied, with the only inconsistency arising from the spacing between the two adjacent groups that at times includes a skip, while at other times occurs stepwise.

³⁷ A similar instance can be seen in m. 430, where all-black chords ‘slide’ to white octaves, again marked with ‘gliss’.

Figure 2.32. Mm. 354-357.



Measures 391-392 show a short example of a motive's transpositions informed by the black-white-structure rather than its intervallic content. As was indicated in the previous section, mm. 337-357 were based on semitone constitutions (usually black-white-semitones), and motivic material from this section returns in the ostinato heard from mm. 381-390. The black-white structure of the second beat of the ostinato is then used in mm. 391-392 to transition to the next section, with the second beat of m. 391 and both beats of m. 392 forming a descending pattern that is based on the same black-white note constitution, as can be seen from figure 2.33.

Figure 2.33. Mm. 390-392.



Measure 464 (see fig. 2.34) shows a black-white-juxtaposition that does not follow the same amount of structure as the preceding examples: in fact, it is difficult to find any degree of consistency in the manner that it is organized, save for the fact that it consists of only white notes in the right hand and only black notes in the left hand, with some instances of quartal sonorities in the right hand. The left hand does not follow any specific pattern, except that it starts and ends

with A-flat and E-flat, with a G-flat major scale contained in the middle. This passage stands in direct contrast to Villa-Lobos's more meticulous approach to other black-white-note alternations.

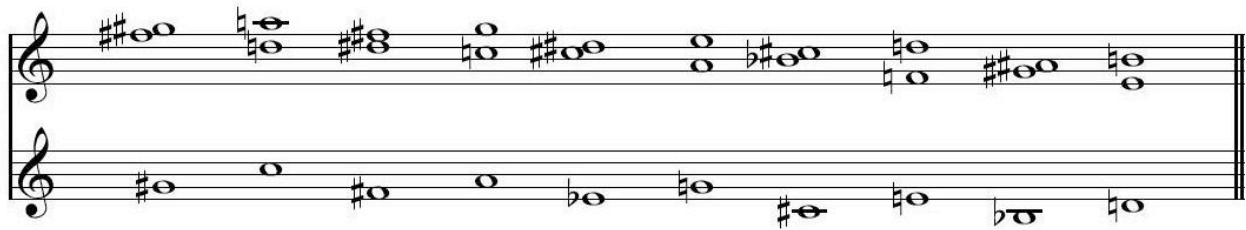
Figure 2.34. M. 464.

Measure 518 shows an intricate case of black-white-alternation. Again, the right and left hands should be viewed separately, and the right hand can be divided into its separate black- and white- sets for further clarity. The result can be seen in the reduction given in figure 2.35. It is clear that the left hand figurations (with some enharmonic spellings) actually correspond to the series found in m. 25, with the only change that F in the original is replaced with E in this section. The reason for this difference is merely that the first section employed the pentatonic scale on F in the left hand white line, whereas this section uses the pentatonic scale on C. The right hand in effect consists of alternating black- and white dyads, with the top white line of the right hand tracing the pentatonic scale on G. The seeming inconsistencies in the bottom white line of the right hand actually take their structure from the pentatonic white line of the left hand, forming seconds right above this scale. A passage that at a first glance seems incredibly complex and unstructured can be reduced to a perfectly logical and systematic approach. An understanding of methods such as these are as vital to the performer as they are to the analyst, as

a lack of comprehension of the structure could render these figurations highly difficult to learn and even more so to memorize.

Figure 2.35. Reduction of m. 518.

m. 518



Measure 525 represents an example of a two-voiced, “out-of-phase”-alternation,³⁸ also illustrating the use of white upper neighbors of black notes. Oliveira mentions that these neighboring relationships that are generated by the close juxtaposition of black and white keys represent an integral part of Villa-Lobos’s approach.³⁹ The upper neighbors of E-flat and B-flat are F and C, rather than E and B, breaking the semitone pattern slightly.

Measures 553-555 show three measure-long patterns, that are each divided into three segments, as can be seen from figure 2.36. The first and second segments in the right hand are based on black-white-neighboring relations, demonstrating both upper- and lower- white neighbors, as illustrated by Oliveira.⁴⁰ Additionally, these measures are black-white transpositions of one another, with every pattern starting a perfect fifth above the preceding one. This is coupled in the left hand by contrary-moving “white-note”-transposed inversions of the sets found in the right hand. In this passage, the single set found in the right hand generates both the following right hand sets as well as the left hand set.

³⁸ Oliveira, “Black Key Versus White Key,” 35.

³⁹ *Ibid.*, 39.

⁴⁰ *Ibid.*, 40.

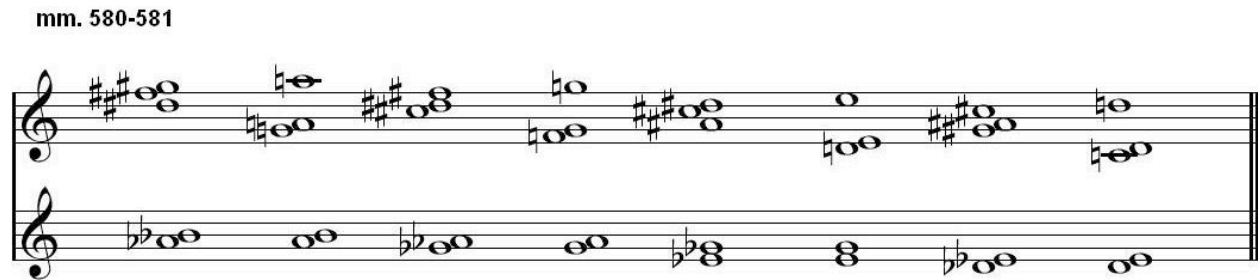
Figure 2.36. Mm. 553-555.



The final section of the piece, *Large et violent*, has all the main themes presented within a complex pitch-structure, drawing on all elements of the twelve-tone scale. Although many of the chord figurations that are found in the middle voices don't seem to follow any specific patterns, and rather just serve to create a mass of sound, there are some instances that are informed by black-white-note transpositions. One of these passages can be seen in mm. 580-582. Separating the black notes from the white notes in the right hand (as can be seen in the reduction in figure 2.37) shows that the sets are composed of black trichords alternating with white note octaves with a second added at the bottom. As Oliveira rightfully notes, the black sets make inclusion of triads difficult (as there are only a few sets that can be generated by thirds — E-flat minor, E-flat minor 7, and G-flat major) and thus it is these types of trichords (composed of major seconds and minor thirds) that are most frequently seen in the black sets.⁴¹ These are coupled with black-note-dyads in the left hand, repeated in groups of two. In contrast with previous figurations that were often grouped in five (presumably due to its connection to the five-note pentatonic scale) this figuration only has four components before it repeats itself. The interaction of the bottom white-note dyad of the right hand with the black-note dyad of the left hand results in two semitones between three of the four components. Together with the semitones found in the right hand, as well as the close grouping of the chords, the descending figuration sounds cluster-like, tying in with the general pitch structure of this section.

⁴¹ Ibid., 44.

Figure 2.37. Reduction of mm. 580-581.

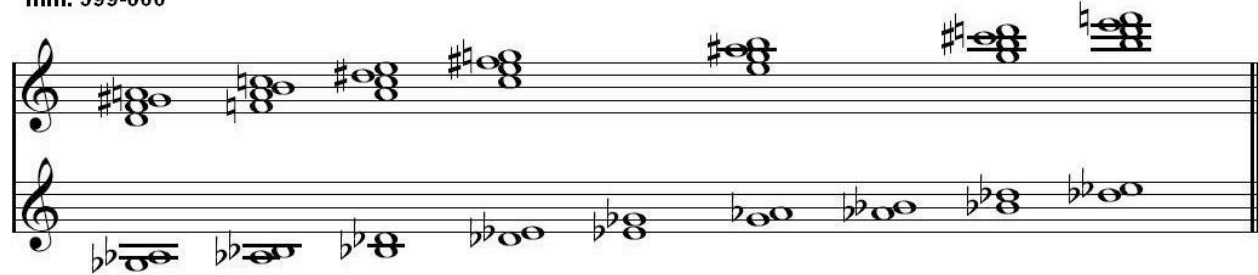


The final example, taken from mm. 599-600, shows a combination between actual transposition and black-white transposition (see fig. 2.38). In this passage, seven white diatonic chords are seen in the right hand, with the root notes a third apart. Oliveira believes the chord formation by thirds to be “color chords” rather than essential to the black-white-neighboring structure.⁴² Added to these chords is the note a semitone below the top note of the chord. Contrary to what one would expect, the two chords of which a semitone addition yields a white rather than a black note (F major and B-diminished) are not changed to include a black note, but rather retain their true, original transposition, which includes a white note in contrast with the other chords in the section. In combination with this, there are black-note dyads in the left hand, of which some are repeated and others not, seemingly in an inconsistent fashion, with the result that when the pattern restarts in m. 600, the left hand dyad does not correspond to the one found at the original starting point in m. 599.

⁴² Ibid., 43.

Figure 2.38. Reduction of mm. 599-600.

mm. 599-600



The image shows a musical score reduction for measures 599-600. It consists of two staves. The top staff is in treble clef and contains a series of chords: a triad of G4, B4, and D5 (with a sharp sign before G), a triad of A4, C5, and E5 (with a sharp sign before A), a triad of B4, D5, and F#5 (with a sharp sign before B), a triad of C5, E5, and G5 (with a sharp sign before C), a triad of D5, F#5, and A5 (with a sharp sign before D), a triad of E5, G5, and B5 (with a sharp sign before E), and a triad of F#5, A5, and C6 (with a sharp sign before F). The bottom staff is in bass clef and contains a series of notes: B2, D3, F#3, A3, C4, E4, G4, B4, D5, F#5, A5, C6, E6, G6, A6, and C7. The notes are grouped into pairs, with a sharp sign before the first note of each pair.

From the examples given in this section, it is clear that the alternation of black and white notes is a widespread phenomenon across the whole *Rudepoêma*, informing a variety of pitch structures. Although its influence is most pronounced in coloristic figurations, this approach is also present in constructions such as chords and motives, and thus also accounts for many of the inconsistencies that were picked up by set theory when examining these structures. From the point of view of attempting to determine and characterize Villa-Lobos's specific language, the most important aspect of his use of this device is the high degree of consistency with which he applies it.

Most analyses of *Rudepoêma* only comment on the black-and-white aspect superficially despite of the fact that it is such a prevalent aspect of Villa-Lobos's piano idiom. Perhaps it is thought to be too elementary; perhaps its implications are considered too inconsistent in its influence of structure. Oliveira's article thus represents a refreshing approach in the systematization of this device, and with this in mind, my analysis also ventured to prove that it is not only central to Villa-Lobos's approach, but also represents a specific, tangible method of pitch organization in a structure where other principles are less consistently applied.

CHAPTER 3

MACROSTRUCTURE

An extensive body of twentieth-century music is organized around referential pitch centers. This also holds true for *Rudepoêma*. Certain tones are thrown into sharp relief because of their metrical placement, statistical predominance, or location within a melodic contour. Many sections include pedal points in the bass, repeated notes in the middle register, or both. Melodies typically highlight certain tones as more important than the rest. All of the pitches involved in these procedures act as centers, creating environments and providing audible points of orientation for the work. By so doing, they ultimately solidify the piece's formal structure.

According to Straus, "Centricity in post-tonal music can be established by various kinds of direct emphasis and reinforcement: centric pitches are usually stated longer, louder, more often, and higher (or lower) than noncentric pitches."¹ The focus on specific pitches or pitch classes is an important way of organizing post-tonal music in the absence of functional harmony. Although these referential tones rarely operate like tonal centers, they have a formal function in the sense that all other pitches are heard in relation to them. In a work such as *Rudepoêma* that contains a multitude of sections and tempo changes, pitch plays an important role in establishing continuity in the form.

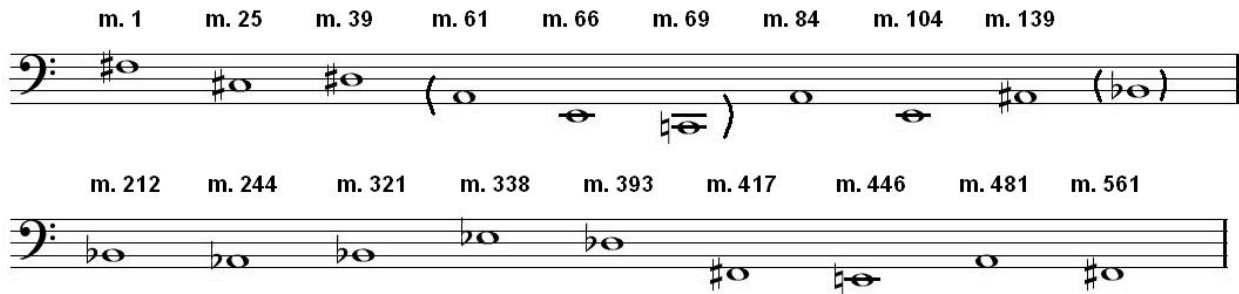
3.1 Pedal Points in Conjunction with Form

Figure 3.1 shows a basic succession of the most important pedal points in *Rudepoêma*. The piece contains other pedal points not included in the example, as they are not statistically relevant. The included pedal points were selected on account of their durations and the number of times they appear. This reduction, demonstrates that the pitch movement of the pedal points

¹ Straus, *Post-Tonal Theory*, 133.

carries important structural connotations. Contrary to the notion that there is a relatively loose connection of the pedal pitches to the structure,² this part of the analysis illustrates that pedal pitches play an indispensable role in demarcating different sections.

Figure 3.1: Basic reduction of pedal points.



Rudepoêma can be divided into three sections: the first comprising mm.1-211, the second mm. 212-416, and the third mm. 417-636. Rubinsky’s designation of the structure as resembling sonata form is problematic for a few reasons: the harmonic progression slows down as the piece proceeds, thematic material becomes increasingly less fragmented towards the end of the work, and the “development” does not truly represent any additional development of the themes (Motive 3 is also only introduced in the middle section). An alternative to this notion would be to view *Rudepoêma* as being composed backwards, with highest degree of harmonic and textural integration only achieved at the end. From this point of view, the first section could be described as an exposition representing fragments of the themes. The middle section is a first attempt at some more continuous discourse. The final section, with the return of the F-sharp pitch environment, shows the themes emerging in their complete form, transformed later into the presentation of the *Terezinha*-motive, and finally progressing towards the most integrated section of all, which contains all three of the main themes (mm. 561-636).

² Rubinsky, “Villa-Lobos’ *Rudepoêma*,” 48.

The first section mainly employs pedal points that bear a direct relation to the main motive. F-sharp is the main pedal point for the first 24 bars, followed by C-sharp as ‘dominant’ of the F-sharp pitch environment. A appears in mm. 61-65 and mm. 84-88, with E following in mm. 104-133. Curiously, the other note that appears in the main motive (G) never appears as pedal point, neither in the exposition nor in subsequent sections. At the end of the first section, A-sharp (later enharmonically spelled as B-flat) becomes an important pedal point, as can be seen in mm. 139-160 and mm. 186-204. The pitch movement of the first section can thus be described as moving from the familiar pitch environment of F-sharp towards A-sharp/B-flat.

The middle section (starting in m. 212) opens with a B-flat pedal point, and significantly, all pedal points found in this section are on black notes, including the whole black-note scale with the exception of F-sharp, whose appearance is saved to mark beginning of the third section. The next centric pitch, that is represented both as pedal point, as well as repeated pitch in the middle structure, is A-flat/G-sharp, heard in mm. 235-303, followed by A-sharp/B-flat in mm. 321-337 and 358-380 (presented in the middle of the register rather than in the bass), E-flat in mm. 381-392, and finally D-flat in mm. 393-397 and again in mm. 403-416. The middle section can thus be described as exploring remote pitch environments that do not relate to the pedal points found in the first and last sections. The appearance of D-flat in the section signifies a preparation of the return of an F-sharp environment. It is also not coincidental that D-flat is enharmonically spelled as C-sharp, representing a type of ‘dominant’ before the F-sharp pitch environment returns.

As was noted previously, the environment of F-sharp returns before the two motives of the beginning make their appearance. The return to F-sharp already occurs in m. 417, whereas the two main themes is only heard some measures later in m. 439. The effect is such that the themes emerge from the structure seamlessly. The next important pedal point is heard on E in 446-459, and A in mm. 481-486, as well as mm. 519-552. Measure 519 corresponds in material

to an earlier section (m. 191) but whereas the first section employed a B-flat pedal point, this section employs A as pedal point, in contrast with the similarity of the texture and motivic material. This corresponds to the observation that the exposition section can be described as ‘modulating’ to a more remote B-flat area, whereas the third section is based on pedal points that are in closer connection with the familiar environment of F-sharp and the other notes of the main motive.

Another return to F-sharp is heard at the m. 561. Contrary to the expectation that is preserved right until the last few measures, it is not F-sharp that is heard as the final pitch of the work, but A, which nevertheless represents an important connection to the beginning of the work and the four-note motive that informs it throughout. Another possibility would be to read the piece as if in A (especially when one considers the notion of piece ‘beginning’ at the end), as most of the important referential centers of the work could also be described according to their relationship to A (F-sharp as subdominant substitute, E as dominant, and B-flat as Phrygian upper neighbor).

An examination of the pedal pitches of the work already points forward to an observation that the following sections will be devoted to: pitch plays an integral role in the formal structure, creating both unity and contrast. Given the vast amount of pedal points throughout the piece, it is easy to come to the conclusion that pitch environments merely serve to create color, and are not structurally significant. However, when omitting subsidiary pedal points from the structure, the form becomes much clearer. The mere fact that F-sharp as pedal point only occurs for an extended amount of time on three places proves that pitch supports the structure. F-sharp as pillar marks the beginning of new sections. Further proof of the importance of pitch can be found in the other pedal tones, which show a movement from more familiar notes in the first section to remote pitch areas in the middle section (with additional contrast found between the frequent

appearance of white notes A and E in the first section, in contrast with the only black notes found in the middle section) and back to the familiar area of F-sharp, A and E in the third section.

3.2 Pitch Continuity

The interest in pitch organization in *Rudepoêma* lies in the manner in which the different centric pitches in the work intertwine through the structure, attaining different functions as the work progresses. Furthermore, the centric pitches play an important role in their relation to the other pitch material that surrounds them, either by forming part of the pitch environments (for example, functioning as support to the harmonic environment) or by creating dissonance with the chords it is heard against.

In the first section, *Modéré*, F-sharp is established as a centric pitch by the bass ostinato, supported by C-sharp as important pitch in the right-hand melody. In mm. 13-16, the C-sharp in the right-hand texture attains a different function as starting pitch of an ascending scale (enharmonically transformed to D-flat) that serves as transition to the following section. Whereas F-sharp acted as support to the harmonic environment of the first section, which was based on a Phrygian mode, the bass ostinato in *Un peu moins* (mm. 17-24) rather serves as contrast to the chords found in this section, never fusing with them. The ostinato follows the same pitch structure as in the first section, but halts on C-sharp in m. 25 (compare m. 7), which then becomes the pedal point of the *Animé* section, acting as bass note to the black-white-note figurations found in the top voices.

Très peu modéré (mm. 31-38) retains C-sharp as pedal point as well as in the middle texture. C-sharp also forms the bass of the polychords that represent a bitonal tension between F-sharp in first inversion and C major extended. The bass ascends chromatically from C-sharp to D, and then to D-sharp in the first measure of the following section, whereas the C-sharp from the middle voice becomes the starting pitch of the next section's melody.

In *Plus mouvementé* (mm. 39-54) D-sharp in the bass forms the harmonic support of the D sharp minor harmonies that are heard in the arpeggios, to which C major is added. The culmination of the melody fixates on G-sharp, which is repeated incessantly in mm. 49-50. G-sharp disappears in the middle of the chord heard in m. 51, and the harmony and melody heard at the beginning of the section, based on D-sharp, also closes it.

In *Mouvt calme de marche* (mm. 55-83), D-sharp is taken from the bass and becomes the spill in the middle texture around which all chords are built. Yet, these relations are always highly dissonant, and D-sharp can thus be viewed rather as adding color to the chords than truly supporting their construction. In the bass, A, E and C are heard as pedal points, and are similarly all in dissonance with the repeated instances of D-sharp that pervade the middle texture. The same chord that appeared frequently in the preceding section, a polychord composed of A minor and D-sharp minor, starts *Animé* (mm. 84) while D-sharp retains its importance in the middle voice. Descending motion in the bass voice leads to E-flat, heard against chromatic motion in the right hand. In a surprising harmonic turn, the bass moves one step up to end on E, the most significant pitch of the next section.

In *Un peu plus* (mm. 104-138), E as bass note supports an E major triad with added minor 6th, while B in the top voice also attains importance in its prominent place in the melody, again showing a fifth relation between bass and top. In instances such as mm. 116-120 and again in mm. 130-132, this added-note E major triad is used as a sustained chord to contrast the black-white-note figurations in the top voice. Most of these coloristic patterns are in the upper register and supported by a bass chord, presumably to release a more complex overtone resonance from the instrument. In mm. 134-138, a black-pentatonic and white-diatonic scalar motive is heard while B continues to be iterated in the top, and it is the ending note of the black scale (A-sharp), together with B (final beat of m. 138), that become the pitch background for the next section in a seamless transition.

Both B and A-sharp continue to be heard in mm. 139-158, with A-sharp's importance strengthened with a pedal point also based on this pitch. Against this background, Motive 2 is presented in a diatonic collection, creating dissonance with the overpowering presence of A-sharp, later also presented in octaves in the very bass register (m. 154). Furthermore, G attains importance in the melody, as can be heard especially from mm. 146-158. The pitch material consisting of A-sharp and B is extended in m. 171 to also include D-flat and C, and the black note dyad of A-sharp and D-flat alternates with the white-note dyad B and C until the end of this section.

In *Un peu moins* (mm. 178-190), the diatonic collection is introduced against chromatic movement in the left hand, similarly to the previous section, but this time all of the diatonic collection is employed (presented in parallel-moving quartal sonorities) against a tremolo consisting of G, A-flat and B-flat (with B-flat and G taken as important pitches from the texture heard in the previous section). B-flat continues to be iterated in the bass. The succeeding section (also *Un peu moins*, starting in m. 191) employs a similar pitch collection, with B-flat in the bass, A-flat and C-sharp in the middle texture, and the white-note collection in the upper voices. After the whole section from m. 139 was built on A-sharp (B-flat in the bass), m. 205 shows a surprising turn, with F-sharp (mm. 205-207) and D-sharp (mm. 207-211) stated briefly as pedal points before a *poco rit* leads into the next section, which marks the beginning of the middle section (m. 212). The change in pitch environment right before *Un peu calme* (mm. 212-234) can presumably be ascribed to a similar process of introducing pitches that will become important in the next section: F-sharp is presented subsequently as G-flat in the middle register, and D-sharp (E-flat) as the main note of the melody that appears. The E-flat in the bass, right before the start of the next section, also represents a preparation for the B-flat-environment that is to follow.

As was mentioned in the preceding section concerning pedal points, the first section can be described as a gradual move from the more familiar pitch environment of F-sharp, C-sharp, A

and E (all forming part of the F-sharp Phrygian scale and presenting sharp keys) to the darker, more remote pitch environment of B-flat and E-flat, and subsequently, also the other flat keys. It is also significant that it is exactly the left hand bass ostinato that is now heard in the top voice as haunting melody, built on an open spacing in the other voices that adds to the desolate feeling of the section. This makes a connection to the beginning material, but it also represents a break from it in the contrasting pitch collection used.

The B-flat that is stated continuously as pedal point in *Un peu calme* becomes the starting sustained pitch of the following section, *Vif*, resuming the rhythmic momentum (mm. 235-320). A is first presented hesitantly in the lowest register, and then repeated more incessantly until it descends a semitone to A-flat, which is to represent a central pitch (both as repeated pedal point and in the middle texture, changing enharmonically to G-sharp) for the whole of the next section. In mm. 268-317, an example of Villa-Lobos's experimentation with the overtone scale is heard. He asks the performer to start sustaining D-sharp quietly, first in the top register and later also as an octave in the bass, while the repetition of G-sharp continues and is later extended to include four-note clusters in accents. In m. 283, all these notes are released, revealing a strong major sonority formed by the harmonics of D-sharp that is still sustained. This forms a connection with the prevalence of E-flat in the melody in the preceding section. Against this ringing sound, the second main motive is stated in semitones, before it dissolves and the texture is taken over by more repeated G-sharps. The process repeats itself, and it is the repetition of the last two dyads of the semitone motive that propels the music into the next section.

Vif toujours (mm. 321-336) is a typical instance of black-note figurations in the left hand (centering on B-flat) coupled with the white-note diatonic scale in the right hand. This linear division makes place for a much more integrated juxtaposition of black and white in *Un peu moins*, starting in m. 337, with the chromatic motive that was previously shown to have close subset relations to the octatonic scale. E-flat is presented in the bottom register, with B-flat

attaining importance in the top register. In the ensuing section, *Animando*, it is B-flat that remains as central pitch, again juxtaposed against the diatonic collection (mm. 358-380). The end of this section (mm. 381-392) shows a return to the pitch material from the preceding *Un peu moins*, with a black-white-transposition (as was illustrated previously) in mm. 391-392 leading into the new pedal point of D-flat.

As was mentioned before, D-flat (later enharmonically spelled as C-sharp) serves as an important pitch preparing the return of an F-sharp environment. At the beginning of *Un peu moins* in m. 393, a pentatonic black-note collection in the top voice anchors it in a D-flat major environment. *Furioso* and *A tempo* represents a break from this pitch environment, based on F, before the same theme on a D-flat major pedal point returns in *Muito animando* (mm. 403-416). A similar process will be observed later in the following section, with an “interruption” heard between two sections sharing the same pitch and motivic material. The D-flat environment soon spills over in a series of chords taken from the beginning section (mm. 17-24) accompanied with an iteration of the pentatonic ascending scale in the left hand (mm. 412-413), changing to white-note diatonic in its descent before ending on C-sharp (m. 415), accompanying a chord that can be interpreted as a dominant function of F-sharp. In contrast to the black-note pentatonic scale in the left hand, the top notes of the right hand chords form an ascending diatonic scale, ending on A, which is also the starting pitch of the melody of the next section.

Moins, mais très rythmé (mm. 417-424) shows a return to the F-sharp pitch environment of the exposition, but in contrast, it does not have the G-natural that characterized the Phrygian scale. Furthermore, chromatic figurations in the top register of the piano add color and dissonance to the otherwise homogenous pitch environment. As in the preceding section, this is abruptly interrupted by a section of complete contrasting pitch collections, as can be seen in mm. 425-430, based on a B and B-flat pedal point. The same material resumes in m. 431, with chromatic interjections now forming part of the middle voice.

It is only in m. 439 that the two themes of the beginning are finally presented, emerging from the pitch environment almost unnoticeably. As was mentioned in the Chapter 2.4, the left-hand retains its centrality on F-sharp as at the beginning, but the right hand rather forms part of the white diatonic collection, as can be seen in mm. 439-440 as well as mm. 443-445. In mm. 441-445, the left hand's bass notes start forming a descending scale, until it ends on a B pedal point that serves to prepare the next section centered on E, *Très animé*.

This extended section on E with its parallel chords and rhythmic energy can be said to correspond to the section on E found in the first section (mm. 104-138). Even the small fragments that foreshadow the *Terezinha*-motive (F-sharp, A, E) can be interpreted as part of E Aeolian. It is one of the few sections where the bass note also corresponds to a temporary center. The sense of centrality is somewhat disturbed with the addition of A-flat as pedal point in m. 462, and D-flat in m. 465. In *Moins* (mm. 467-473), it is the top pitches rather than the bass that carries the continuity over to the next section, as the final two notes presented in m. 473 in the top (E to G) is stated in *Lento* as the start of the *Terezinha*-motive.

Modéré presque lent (mm. 481-503) employs A in the bass as pedal point, together with a murmur of diatonic quartal and triadic formations in the middle texture. Against this texture, the *Terezinha*-motive emerges in its complete form, this time with E lowered to E-flat in the melody, contrasting with the white diatonic collection in the supporting voices. In addition to this, the bass follows an ascending line from A to G to E and finally to D, echoing the pitch set in *Lento* that introduced the *Terezinha*-motive. In m. 492, the melody seems to have come to rest on D, which is reflected in the pedal point that is stated in the bass. At this point, it is as if the melody and supporting voices switched collections, with the motive now heard only on white notes and the middle voices attaining more chromatic notes. Furthermore, the bass introduces a new theme (marked *Bien chanté la basse*, mm. 496-502) which can be identified as an intervallically altered and inversional form of the main left hand motive (D – C-sharp – A – B-flat). As frequently

happens after a section of relatively homogenous pitch collections, the development of the *Terezinha*-motive employs a much more varied pitch collection (mm. 504-518) with frequently changing bass notes. The section first takes A and B-flat from the previous segment, but then also employs pitches such as E-flat, C, C-sharp and F, and finds its culmination in the ascending quartal harmony passage and succeeding black-white note descending figurations found in m. 518, employing all notes of the twelve-tone scale.

Moins in mm. 519-533 corresponds to *Un peu moins* from mm. 191-211. The left-hand chords represent an exact repetition of those in the first section, but with A as pedal point. In the following section, *Andante un poco tranquillo*, the same pitch collections are used in a different manner. The theme that emerged in the top voice (notated on the middle staff in 520-521) is stated repetitively in eighths in the top voice; the combination of the left hand chords and the A pedal point from the preceding section are presented on the first beat; and finally, the chord that was formed by the right hand figurations in *Moins* is now reiterated vertically on the second beat. Against this texture, another instance of the *Terezinha*-motive materializes, as well as some inverted iterations of Motive 3 in the left hand's top voice (mm. 541-542, mm. 544-545). A descending line in the bass leads to a final statement of A, before *Très animé* (mm. 553-560) with its diverse pitch material transitions into the final *Large et violent* section.

Measures 561-636 of the work represent a challenge in terms of the systematization of Villa-Lobos's pitch approach, especially in the chromatic dissonant middle voices. The section is based mostly on quartal harmonies, with the greatest amount of coherence created between the left hand and right hand thumbs, moving in zig-zag motion. Judging by the enormous amount of notes found in this section, one can assume that this is truly an instance where the pitch organization, at least in the middle voice, serves to create color rather than structure, and more importantly than the actual pitches is the crescendo and the general upwards surging motion of every bar's figurations. In the outside voices, mm. 561-576 are clearly centered on F-sharp, and

similarly to the beginning, the next important pedal pitch is found on C-sharp, closely related to it. It is not surprising that B-flat, as most important pedal pitch of the middle section, also appears briefly here, mainly in support of the pentatonic melody found in the bass voices, in itself a derivative of the third main motive. In m. 618, a return to F-sharp is seen, and it is in this pitch environment that the work remains almost until the end.

The final few bars bring up a reiteration of the important main pitches of the work, with A represented in the chords in mm. 626-629 and E stated in a major triad as part of the texture in mm. 630-631, marked to sustain until the end of the work. As was highlighted before, the final most important pitch of the work is A, heard as the bottom note of the fist pounds.

An examination of pitch movement from one section to another yields several significant observations. The most important of these is that although there is usually a great amount of collection contrast between different sections, there is an almost continuous thread of pitch movement. Important notes are always in some way derived from the tones that preceded them, as can clearly be traced throughout the work. Pitch can thus be said to represent an essential way of connecting the form. The continuity ceases only in very rare instances. In fact, the only instances where this thread is broken, is seen in the ‘interruptions’ of sections, where a passage of contrasting notes is deliberately used to create a moment of diversion in the middle of sections, before the preceding material returns. This can be seen for example in *Furioso* (m. 398), the contrasting section on an F pedal point that serves to separate two similar pitch environments based on D-flat (also sharing the same motivic material), as well as *Dans le même Mouvt* (m. 425), that separates the two F-sharp minor areas (also sharing the same theme) by introducing a harmonic area that could be described as related to B.

3.3 Interaction of Pitch Environments and Collections

Whereas single notes serve as connection between the sections, the overall pitch structures of every section create contrast. There are several examples of where pitch plays an integral role alongside other factors such as rhythm to distinguish one section from another.

An example of contrast manifested in pitch can be seen in the first and second sections of the work. They employ the same left hand ostinato, but are diversely different in their pitch content and constructions: whereas the first section lies in a F-sharp-Phrygian environment with all lines drawing on this collection (except for the D-flat major scale appearing in the last 3 measures), the second section is conversely based on all notes of the twelve-tone scale. The ascending scale found in mm. 14-16 (completing the aggregate of the first section, as was illustrated earlier) represents a pitch-transition from the more homogenous pitch environment of the first section to the more diverse pitch collections of the second section. Another example of pitch creating contrast can be seen in *Un peu calme*, the first part of the middle section of the work. The darker, black-note pitch collections used (centering on E-flat and A-flat above a B-flat pedal point) stand in direct opposition to the primarily white diatonic collections of the preceding sections. Another instance of pitch contrast can be seen in sections drawing on limited collections (such as mm. 358-378, employing the diatonic scale plus B-flat) that are always contrasted with more varied pitch environments, as can be seen in the preceding and succeeding sections, drawing on more chromatic figurations.

Similarly, there are many instances where a short figuration derived from a diverse pitch collection serves as quick contrast to the prevalent pitch material. These patterns are mostly the black-white-alternations that were discussed extensively in the previous section. Examples of this can be seen in mm. 116-120, as well as mm. 129-131 (heard in the middle of the more homogenous pitch environment that constitutes the *Un peu plus* section, mm. 104-138). Another example is the black-white-note juxtapositions found in mm. 159-170, within the *Vif* section

(mm. 139-177). Even shorter instances can be seen in *Vif toujours* (mm. 321-336) which employs a black-white-scale in two instances (m. 324 and m. 329) and the *Moins* section (mm. 519-533) with black-white note alternations found in m. 524 and m. 526.

The juxtaposition of diatonic and pentatonic collections (and in one instance, also the octatonic collection) also plays an important role in the pitch contrast found between sections, in accordance to Villa-Lobos's fascination with the possibilities that the black and white keys yield. Examples can be seen between the *Vif* section followed by *Un peu moins* (mm. 139-189) which draws heavily on the complete white-note scale (as seen especially in the right hand and in the use of motives), whereas the following *Un peu moins* (191-211) is largely based on a pentatonic white-note collection in the right hand (with the exception of the final three bars, that represent a transition to the next section and revert to the white-note diatonic scale). The middle section is especially rich in these types of collection contrasts. In *Vif* (mm. 235-320), two pentatonic scales are heard a semitone apart (mm. 286-291 and mm. 307-320), which is followed by the *Vif toujours* section, in which the double note idea forms part of the white-note diatonic scale. This is followed by *Un peu moins* (mm. 337-357) and yet another collection contrast, with motives and chords from this section drawing on the octatonic scale. The ensuing *Animando* (mm. 358-380) reverts to the white note diatonic scale, with *Un peu moins* (mm. 393-416) demonstrating the use of the black-note pentatonic collection, as can be heard especially in the theme in the right hand.

At the same time, the return to certain pitch environments serves as a manner of providing consistency in the form. Whereas most of the contrast that was discussed is arguably also be effected by other parameters such as rhythm, texture, and motives, the continuity found between corresponding pedal-point harmonic areas could not be so easily explained by other factors, and thus pitch serves an integral role in the preservation of the form. The most notable of

these are the E and A environments that are found both in the first and last sections, as well as the three F-sharp areas that form pillars of the structure.

An examination of the macrostructure refutes notions such as that pitch does not play any structural role or is not consistently applied. Villa-Lobos's obvious emphasis on certain tones already alludes to an observation that they are essential to understanding the structure. Pedal, centric or repeated notes, however, should not be mistaken for tonal centers. Although there are only some cases that a pedal point or repeated tone actually represents a tonal or harmonic pull, the frequent use of repeated and pedal pitches causes all other voices to be heard in relation to these notes. The use of centric pitches thus constitutes an important manner in which Villa-Lobos is able to create dissonant environments without losing the sense of structure.

CHAPTER 4

CONCLUSION

Authors continue to grapple with identifying the defining characteristics of Villa-Lobos's compositional style. This issue is complicated by an array of factors: his unique position as Brazilian composer assimilating elements of the European avant-garde; his own contradictory and fabricated assertions about himself and his music; the reputation he earned as “instinctive” composer; his massive oeuvre of more than a thousand works; perceived inconsistency in quality of his output; the lack of certainty regarding the true dates of his compositions, which he often purposefully dated incorrectly; the frequent editorial problems, to name but a few. The cloud shrouding his style was encouraged by Villa-Lobos himself, who grew increasingly fearful throughout his life of the general misunderstanding of his theoretical ideas and compositional intentions, and as a result did not make any clear statements to elucidate his methods.¹ He did, however, leave us with the statement: “I think that, if my works were studied profoundly and seriously, one would realize that I have a very personal and different style from the others.”²

Unfortunately, the controversies surrounding Villa-Lobos as person and composer have prevented exactly that which he wished for: a profound and serious study of his compositional style. Instead, the authors who have ventured to define the characteristics of his music were often blinded by its most obvious and superficial aspects: the influence of folk music and the prevalence of rhythm. Other authors avoided the problem altogether by declaring his style too diverse for an academic analysis.

Luckily, researchers are becoming increasingly aware of the lack of serious analysis in the discourse on Villa-Lobos and the limitations, if not outright poverty, of the frequent

¹ Oliveira, “Black Key versus White Key,” 33.

² Villa-Lobos in Oliveira, “Black Key versus White Key,” 33.

generalized, descriptive statements that often crop up in analyses of his works. More and more attempts are seen that challenge simple description of his style in favor of making deeper conclusions about what truly constitutes Villa-Lobos's style. Despite of the movement towards a more profound understanding of his style, there is still much work to be done in this regard, and my research represents an effort to help fill this void. More than enough general analysis about a variety of compositional aspects has been done about Villa-Lobos's style. Much more pressing is an in-depth study of specific aspects of single works. Although one can evidently not produce any general conclusions after only examining one work mainly from one aspect, such an analysis proves that detailed studies can and do yield important results, and that these often challenge common perceptions. Furthermore, the findings generated from such an investigation can serve as point of departure for other analyses, and may help to start a critical reassessment of the composer's style, informed by the specific rather than the general.

An examination of the pitch content of *Rudepoêma* raises important questions regarding the concept of analysis. A pure and raw examination of pitch content, disregarding any connections to folk themes or outside influences that pitch might have, is mostly reliant on finding coherence or consistency within the work. This idea causes problems when applied to *Rudepoêma*, as overall consistency is not present to a high enough degree that the method would yield satisfactory results. This is probably what many researchers found when examining Villa-Lobos's pitch organization, and it is presumably also why so many abandoned the task.

In my analysis of *Rudepoêma*, I propose a different manner of looking at pitch organization. Instead of searching for absolute coherence in the work (manifesting itself mostly in pitch and intervallic consistency), I shift the emphasis rather to searching for relative consistency in Villa-Lobos's approach to pitch. The common mistake to make is to believe that the absence of pitch or intervallic coherence equals the absence of method or thought process. Both the thought process and the method are definitely present; they are simply not always

steadily applied, or alternatively, due to the specific nature of the method, do not necessarily yield constant results. These distinctions will be made clear subsequently as the analytical assessments are recounted.

Set theory and contour segments point out important resemblances between motives, shedding light on the manner in which Villa-Lobos generates a diverse array of themes from the same material. It is clear that he does not only use the intervallic composition of the motives to create variations, but also relies on other parameters of resemblance. Motive 1 is often recognizable due to its close connection to the pitch F-sharp that forms part of many of the derivatives generated from it. Motive 2's derivatives are most frequently related to the original by means of contour segments. Motive 3 repeatedly generates derivatives that are exact intervallic resemblances, and are also recognizable due to their close connection to the pentatonic scale, from which the original stemmed. These different methods of variations also enables Villa-Lobos to cross-connect themes; for example, to generate motives that resembles the contour segment of the Motive 2 but forms part of the pentatonic collection. Additionally, new melodies are created by the combination of themes, of which the most important example is arguably the *Terezinha*-motive that resembles a Brazilian children's song, as well as a hybrid between the first and second main motives of *Rudepoêma*. Villa-Lobos's ingenious way of varying and combining themes allows him to create many transformations of the basic material, extending beyond traditional means of variation.

In the examination of vertical constructions, the consistency is more evident in Villa-Lobos's approach rather than in the results it generates. For the most part of *Rudepoêma*, chord constructions can be traced back to basic building blocks, namely to added-tone chords, extended tertian harmonies, quartal sonorities, polychords, or chords that belong to pitch collections. Three procedures inform these chords: high degrees of dissonance, the juxtaposition of black and white keys, and their presentation over sustained pedal points. These basic characteristics of Villa-

Lobos's harmonic style generate a wide variety of constructions, very few of which correspond to one another in in pitch or intervals. Although his harmonic approach is in line with common early-twentieth-century practices, it is his inventiveness in the combination of different constructions that yields such diverse results.

Villa-Lobos's perception of the physical contrast that the piano's black and white keys possess, in relation to their sonorous disparity, accounts for one of his most unique stylistic attributes. This device is exclusive to his piano music,³ and thus represents an integral consideration in the analysis of one of his most important works for the instrument. The effect that this technique has on his compositional idiom stretches over various parameters of the microstructure (and even affects the macrostructure), influencing construction of his chords, the selection of coloristic examples, the collections he draws on, and his choice of pedal points. Due to the inherent asymmetry of the device, the results are never symmetrical, despite of the high degree of consistency with which Villa-Lobos applies it. Villa-Lobos, however, was presumably attracted exactly to the spectrum of possibilities that this quality of unevenness represents.

In the macrostructure, pitch attains importance in a completely different way. Responding to criticism-leveled against Villa-Lobos regarding the lack of structure in his works, this analysis shows that pitch continuity in large dimensions plays an integral role in establishing form in *Rudepoêma*. In the absence of tonality, the work is organized around referential centers. Pedal pitches form important pillars in the structure, demarcating sections and representing familiar as well as remote pitch areas. Additionally, pedal pitches and other centric pitches connect the contrasting sections of the work by always continuing a thread of consistency that weaves through the complicated, layered structure. Lastly, pitch environments, generated by the interaction of centers with the surrounding context, are also responsible for creating both contrast and unity.

³ Oliveira, "Black Key versus White Key," 34.

Rudepoêma, in equal parts a portrait of Rubinstein and a selective portrayal of Villa-Lobos's native Brazil, represents Villa-Lobos at the height of his creative powers. The friction between the imagination of his home country and his assimilation of the European avant-garde generated one of the most unique piano solo compositions in the Latin-American twentieth century. *Rudepoêma* represents an excellent example of Villa-Lobos's diverse, colorful and experimental attitude towards pitch, attributes that stand on the foreground and are often mentioned in descriptions of the work. However, a deeper analysis of pitch also yields conclusions that challenge common perceptions about *Rudepoêma*.

In *Rudepoêma*, pitch is responsible for structure and continuity, not only for color and interest. The imbalanced assessment of Villa-Lobos's oeuvre arguably has its roots in the widely-held stereotype that value in Latin-American music lies in its rhythm and folk influences rather than in harmony, melody and pitch organization in general (the perceived hallmarks of Western music). This study proposes that Villa-Lobos's *Rudepoêma* stands its ground also when the dimension of pitch is subjected to analytical scrutiny. Even though it does not comply with the widely held Western value of general coherence and consistency, Villa-Lobos's approach to pitch in *Rudepoêma* reveals many deeper, internal relationships that serve the structure in manners that are not obtained to the same extent by foreground attributes. I hope that the findings of this research represents a starting point for other studies to redress the one-dimensionality in analytical assessments of Villa-Lobos in favor of a more multi-dimensional approach that considers pitch as essential to a true understanding of the composer.

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