# Thomas Aquinas College

# An Analysis of the Harmonic Unity of Debussy's Prélude à l'Après-midi d'un faune

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CD Track List		21	MEASURES 79
Trac	**	22	MEASURES 86
01	Prelude a l'Apres-midi d'un faune (Entire), Claude Debussy	23	measure 94
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11	measure 98	34	MEASURE 61
12	MEASURE 27	35	MEASURE 68
13 14	MEASURES 48-49 MEASURE 1	36	MEASURE 75
15	MEASURE 11	37	MEASURE 96
16	MEASURE 21	38	MEASURES 39
17	MEASURE 23	39 40	MEASURE 47 MEASURES 51
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19	MEASURE 31	42	MEASURE 74
20	MEASURE 34	43	MEASURES 95
11557	Claude. La Mer and Prélude à l'Après-midi d'un	44	MEASURE 62

# Introduction

"There is nothing in the world of music more beautiful than that piece.

I would like to have it played to me on my deathbed."<sup>1</sup>

Maurice Ravel, an impressionist composer, said these words about Debussy's *Prélude à l'Après-midi d'un faune*. He was not alone in his feelings. Paul Dukas called the music "imponderable, but extremely persuasive." <sup>2</sup> Stravinsky was also an admirer of Debussy's music. Many people who hear the *Prélude* call it ethereal, soothing, delicate, and just beautiful.

One principle of beauty is unity. It is the highest principle. This can be seen by looking at criticisms leveled most often against art. Criticisms like, the two parts are good, but they just don't seem to work together or the picture looks like it's two or the colors don't match. The list goes on indefinitely.

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<sup>&</sup>lt;sup>1</sup> Albert M. Petrak, Booklet *Bolero, Daphnis et Chloe – Suite No. 2, and Pavane pour une infante defunte.* (Telarc, 1980) 4.

<sup>&</sup>lt;sup>2</sup> Claude Debussy, *Prélude to "The Afternoon of a Faun."* Ed., William W. Austin, (New York: W.W. Norton & Company Inc., 1970) 156.

Of course, each of the fine arts has a unifying principle specific to that art. For paintings, it is the unity of subject, of style, of color, and of many other things. For architecture, the building to be constructed must be unified so that each part serves the other to keep the building up and functioning for its purpose.

For music, the most essential unifying principle is the common measure, or tonic. This statement follows from music's nature, music being made up of numerically quantifiable parts, the pitches through time. Scientists have discovered that music is made up of numerically quantifiable parts, thanks to the experiments of Pythagoras and Helmholtz among others, while the tonic has been proved to be a common measure, thanks to Molly Gustin, who illustrates this in her book *Tonality*. In music then, the tone is the essential and necessary principle of unity.

If this is true, then there is a problem when we call Debussy's *Prélude à l'Après-midi d'un faune* the most beautiful music in the world. The *Prélude* is one of the first Impressionist works, Impressionist works are considered not tonal, and therefore the *Prélude* is not tonal.<sup>3</sup> If it is not tonal, then it lacks unity.

However, there is still debate about whether the *Prélude* has a tonic. Definitely, the *Prélude* is not atonal in the strict sense, and tonality admits of degree. In particular, his harmonies are noted by many to be among the most beautiful aspects of the piece, but these harmonies appear to be minimally tonal.

So are people wrong to consider Debussy's harmonies beautiful? Do the harmonies have tonal unity, or does Debussy supply another type of unity instead?

Through several analyses it will be seen that Debussy's harmonies lack tonal unity and

<sup>&</sup>lt;sup>3</sup> Molly Gustin, *Tonality* (New York: Philosophical Library, 1969) 81, note 5.

that rather continuity and sameness are the unifying principles of the *Prélude à l'Après-midi d'un faun*.

# Part I- Tonal Unity in Debussy's Prélude

#### Overview

Debussy was young when he began the rebellion against the established notions of tonal harmony. At the Paris Conservatoire, his harmony teacher would find fifteen year old Debussy creating his own chords and harmonies. Later in life he continued this rebellion against established practices. In one letter, he spoke about the Prix de Rome, a compositional competition for students, and said that "tonic and dominant had become empty shadows of use only to stupid children."<sup>4</sup> His attitude towards consonance was also anti-traditional and suggested a departure from the common practice of the time. "Nothing is more mysterious than a perfect chord! Despite all theories, both old and new, we are still not sure, first, why it is perfect, and second, why the other chords have to bear the stigma of being imperfect, or dissonant." In a conversation with his former teacher, Ernest Guiraud, Debussy made other comments that give evidence to his attitude towards harmony. Debussy said, "Music is neither major nor minor. Minor thirds and major thirds should be combined, modulation thus becoming more flexible. The mode is that which one happens to choose at the moment. It is inconstant." Later in

<sup>&</sup>lt;sup>4</sup> Matthew Brown, "Tonality and Form in Debussy's '*Prélude* à l'Après-midi d'un Faune'" *Music Theory Spectrum*, Vol. 15, No. 2., Autumn, 1993: 127.

Here perfect is synonymous with consonant.

Francois Lesure, *Debussy on Music* Trans., Richard Langham Smith, (New York: Alfred A. Knopf, 1977) 155.

the conversation Guirard played a French sixth chord,<sup>7</sup> telling Debussy, "When I play this it has to resolve." Debussy merely replied, "I don't see that it should."

Although Debussy rejects the ideas, then traditional at that time, about consonance, function, and cadence, there is debate whether with the *Prélude* Debussy actually did abandon tonality altogether. On one side with Schenker are those who hold that meaningful tonal analysis cannot be applied to the *Prélude*. Others believe that Debussy's music is primarily tonal, but that the tonality is obscured by certain practices. Among these is Matthew Brown, who states that the piece may be "explained by tonal procedures." According to him and others, tonality remains in Debussy's work.

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Brown 143.

<sup>&</sup>lt;sup>7</sup> The French sixth chord is a chromatically altered chord, akin to the Neapolitan sixth and augmented sixth. The notes for the French chord are for example, c-e-g<sub>b</sub>-a<sub>g</sub>. Through common practice of the time, this chord would then resolve to b-d<sub>g</sub>-f<sub>g</sub>-b.

<sup>&</sup>lt;sup>8</sup> Austin 130.

### The Gustin Graph

The *Prélude*, however, is not tonal because it does not unfold a single tone. <sup>10</sup> This may be seen by analyzing a Gustin graph of the *Prélude*.

Gustin graphs are explained in Chapter 8 of *Tonality*. This method of analysis is essentially Roman numeral analysis, but instead of merely being an analysis of chords, it is an analysis keys and higher order sets. 11 Figure 1 is an example of a Gustin A-Graph. 12 An A-Graph is the I, these are found in the higher order key of I' and may be interpreted thus. Similarly, if the second order keys form other higher order sets, then this may be simplified into a C-Graph.<sup>13</sup>

However, if the adjacent keys do not remain in the diatonic set, then there is no hierarchy, and there can be no C graph. For example, the key progression V'- V' of V' of V' of V' of V'- IV'-IV' of IV' of IV'-II'-V'-IV'-V'-I' may not be compounded into another graph, because none of the first four keys may be found together in a higher order set. Thus the graph of these keys is the highest graph that may be completed. It must be noted that one long distance move, the move to the parallel minor or major, does not deemphasize the tonic, because in such a move the tonic remains the same.

Figure 1 is an A-Graph of the *Prélude à l'Après-midi d'un faune*. When constructing Figure 1, we had recourse to the rule: "In the event that a group of tones

Higher order sets are sets in which keys are functions. So as chords are labeled I, V, VI, etc., as functions in a particular key, the keys are labeled I', V', VI', etc. as functioning analogously in the higher order keys. See Gustin, page 56.

Figures, table and examples may be found in the back of this paper.

Gustin 56-62.

<sup>&</sup>lt;sup>10</sup> Gustin 59.

belongs to several different sets, that set was chosen which lasted the longest." <sup>14</sup>Besides this we added the rule that when a chord could be found in a more distant or closer key, the closer key was chosen.

Figure 2 was constructed in the same way, but in this graph keys were spelled enharmonically from Debussy's score in order to make the keys appear more closely related to E, and to make them appear closer together, so as to give Debussy's *Prélude* the greatest argument for being tonal. This gives us a change for example from E<sub>b</sub> major to D<sub>#</sub> minor, in measures 5 and 8-10.

Even with this graph, no B-Graph may be constructed. The keys do not make higher order keys. This would take place for example in measures 9-11, where there is a progression from the key of d<sub>#</sub> minor to D. This is four rungs away on the circle of fifths, and cannot be explained by any justifiable change in the second order key. Some especially problematic areas are measures 21-37. Measures 21-30 fluctuate often, even between keys five rungs away on the circle of fifths. In measures 31-37, Debussy makes use of the French sixth chord<sup>15</sup> which cannot be found in any key. Therefore these measures have not been graphed. Because there are many places where no second order key is present, no B-Graph may be constructed.

Since a B-Graph may not be constructed of the entire piece but only of parts, the Prélude à l'Après-midi d'un faune does not unfold a single tone. No one hierarchy is established where there is one tonic.

Although the piece as a whole is not tonal, a couple observations from the graph make it appear that sections of Debussy are tonal. First, from the graph it is clear that

For example, c-e-g<sub>b</sub>-a<sub>tt</sub>.

<sup>&</sup>lt;sup>14</sup> Gustin 57.

Debussy favors certain tonal areas more than others. In measures 5-20,  $D_{\sharp}$ ' plays an important role. In measures 38-44, A' is used more than any other key. Measures 53-74 are predominantly  $D_{\flat}$ '. However, since the keys change with nearly every chord change, it may be that the chord is the highest level of tonal order for Debussy.

Second, in certain places, tonal areas may be constructed into a B graph. For example, for the length of measures 15-16, these keys are graphed:  $D_{\sharp}$ ' to  $C_{\sharp}$ '. These two keys can be found in together in a higher order set,  $C_{\sharp}$  or  $F_{\sharp}$ . There are many other places like this.<sup>16</sup>

However, even in these places it is arbitrary which key to put it in. Second order keys are usually better established when three keys are present, one in the middle and the others a fifth above and a fifth below. If measures 15-16 had gone  $F_{\sharp}$ -  $C_{\sharp}$ - B –  $F_{\sharp}$ , the key  $F_{\sharp}$  would have been better established.

A new question now arises. Although the *Prélude* does not unfold a single tone, parts of the piece appear to be diatonic. Are these actual keys that are formed by chords, or are the individual chords the highest order sets in the *Prélude*?

 $<sup>^{16}</sup>$  For example, measures 4-10, 24-25, 44-46, 82-85, and 108-110.

### Roman Numeral Analysis

If Roman numerals may be applied to the chords, then the chords are not the highest order sets in the *Prélude*. But before we can know whether or not to apply Roman numerals, Roman numeral analysis must be properly understood.

Molly Gustin in Chapter 8 of *Tonality* makes several rules for proper Roman numeral analysis. "The very existence of the Roman numeral as a meaningful symbol depends upon the exclusion of altered tones from the key."<sup>17</sup> For example, to say VII flatted VII, would actually be to say IV of IV. If one were to speak another way, Roman numerals would lose their meaning. The proper meaning of these symbols is as a name for a function. <sup>18</sup> In the case of analyzing chords, Roman numerals should represent the function of a chord.

These distinctions prevent many problems, one of which is equivocation. If altered tones are allowed, then we equivocate when we say II sharp IV, because the same chord functionally, is V of V. If we do not make the distinction of function, then we equivocate and analysis becomes less meaningful.

Besides this distinction, it is also important to label only those sorts of chords which may have functional significance under some circumstance. For example, a one seventh chord <sup>19</sup> would be a misnomer, since there is no hierarchy of tones in this chord. <sup>20</sup> If there is no hierarchy in this chord, then how will it be part of another hierarchy, or even the principal chord of the hierarchy?

Gustin 55.

Or I<sup>7</sup>. For example: c-e-g-b.

<sup>&</sup>lt;sup>17</sup> Gustin 54.

The chords that may be legitimately given Roman numerals, which have functions in certain tonal contexts, are the major triad, <sup>21</sup>minor triad, <sup>22</sup> major-minor seventh, <sup>23</sup>minorminor seventh, <sup>24</sup> and minor ninth. <sup>25</sup> Other chords like the half diminished seventh, <sup>26</sup> do not admit of any extra functionality, but rather weaken the functionality of the chord, and so may be analyzed as having a function, although this function is weakened. Chords like the major ninth<sup>27</sup>should not be labeled since there is no hierarchy within the chord itself.

Applying any type of Roman numeral analysis to Debussy is difficult for two reasons: because of the types of chords he uses, and because of the way he uses them. William Austin in his article on the *Prélude* says, "In every phrase there are novel, questionable progressions along with the strong traditional ones, and the sense of chromatic freedom is so pervasive that the effort to label every chord seems out of proportion with any resulting insight."

Measures 4-13 will serve as an example of this difficulty. A spelling out of the chord progression is as follows:

As II, III, VI in the major and I, V, IV in the minor.

See Gustin 37.

21 As I, V, IV in the major and VI in the minor.

<sup>&</sup>lt;sup>23</sup> Abbreviated M.m. 7<sup>th</sup>. An example is c-e-g-b<sub>b</sub>. The chord functions as the V in the minor or major.

 $<sup>^{24}</sup>$  Abbreviated m.m.  $7^{th}.~$  An example is c-e\_b-g-b\_b. This chord functions as  ${\rm II}^7$  in the major.

Abbreviated m. 9<sup>th</sup>. An example is c-e-g-b<sub>b</sub>-d<sub>b</sub>. This chord functions as V<sup>9</sup> in the minor. The diminished seventh chord and the diminished chord function tonally as incomplete minor ninths and major minor

<sup>&</sup>lt;sup>26</sup> Abbreviated ½ dim. 7<sup>th</sup>. An example is c-e<sub>b</sub>-g<sub>b</sub>-a. This chord functions as II<sup>7</sup> in the minor.

<sup>&</sup>lt;sup>27</sup> Abbreviated M. 9<sup>th</sup>. An example is c-e-g-b<sub>b</sub>-d.

 $A_{\sharp} \sqrt{2} \dim 7^{th} (c_{\sharp}-e-g_{\sharp}-a_{\sharp}) - B_{\flat} M.M. 7^{th} (b_{\flat}-d-f-a_{\flat} \text{ or } a_{\sharp}-c_{x}-e_{\sharp}-g_{\sharp}) - A_{\sharp} \sqrt{2} \dim 7^{th} - B_{\flat}$  M.M.  $7^{th}$  —D M.M.  $7^{th}$  —D M.M.  $7^{th}$  —D M.M.  $7^{th}$  —G M.m.  $7^{th}$  —D M.M.  $7^{th}$  —G M.m.  $7^{th}$  —D  $\frac{1}{2} \dim 7^{th} (d_{\sharp}-f_{\sharp}-a-c_{\sharp})$  —B M.  $9^{th} (b-d_{\sharp}-f_{\sharp}-a_{\sharp}-c_{\sharp})$  —C  $\frac{1}{2} \dim 7^{th} (e-g_{\sharp}-b-c_{\sharp})$ .

This may most simply be reduced to Roman numerals by making E major our I':  $VII^{7} \text{ of V} - V^{7} \text{ of VI of II} - VII^{7} \text{ of V} - V^{7} \text{ of VI of II} - IV^{7} \text{ of IV} - V^{7} \text{ of IV of IV} - V^{7} \text{ of IV} - V^{7} - I^{6}.$ 

The first problem with this method is that the chord progressions are unfamiliar except for VII<sup>7</sup>—V<sup>9</sup>—I<sup>6</sup>. However, even this progression contains V<sup>9</sup> which in the major mode is a major ninth chord, not a minor ninth, and hence has no hierarchy in its members. The I chord is also weakened by the added sixth. Because of these difficulties, Roman numerals may not be applied here.

Matthew Brown in his article, "Tonality and Form in Debussy's *Prélude à l'Après-midi d'un faune*," proposes a solution that would allow one to apply Roman numerals to this passage, and many other passages. Through the use of Schenkerian diagrams, Brown proposes that this passage can be "interpreted as a transformation of the progression VII<sup>7</sup> of V—V<sup>9</sup>—I in E." Brown's Schenkerian diagram appears as Example 1 in the back of this paper.

Schenkerian diagrams are analytical tools designed by Heinrich Schenker, a late nineteenth century to early twentieth century music theorist. Schenkerian analysis is also termed layer analysis, due to the appearance of several layers of the diagram. The first layer, which appears at the bottom of the page of analysis, is the foreground. This layer includes most of the note-to-note motions. The next layers are the middle grounds, and these are successive simplifications of the note-to-note motions. At the highest level of

the middle ground, all that remained were the basic harmonies of the piece, the triads, and even these could represent entire keys at this level. At the very top of the page is the fundamental structure, the Ursatz, which could represent the entire piece by a triad. The Gustin graphs are similar, since they include several graphs of lesser or more detail.

Schenker's diagrams differ from the Gustin graphs in an important way. Not only does he show what keys are gotten to, but he also shows exactly which notes are the most important in establishing this order. This is both a strength and weakness. By bringing in the individual notes, the diagrams not only allow a study of harmony, but also of voice leading and counterpoint. Unfortunately, since the relative importance of notes varies from analyst to analyst, Schenker's diagrams could be used in many different ways by many different analysts and applied to many different types of music.

Schenker himself only intended his methods to be applied to tonal music, since this is the only music which contains separate levels of hierarchical structures. As with the Gustin diagrams, Schenker's diagrams only make sense in music that unfolds a single tone. Otherwise, it would be to represent the disunified with the unified.<sup>28</sup>

Brown in his article realizes that Schenker would disapprove of having his methods applied to Debussy's music. For that matter, so would Debussy. Brown gets around this difficulty by positing the well accepted idea of harmonic transformation, or chordal mutations, <sup>29</sup> which may be defined as a gradual harmonic change from a given chord. <sup>30</sup>

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<sup>&</sup>lt;sup>28</sup> Don Michael Randel, ed., *The Harvard Dictionary of Music* (Massachusetts: The Belknap Press of Harvard University Press, 2003) 759-761.

Brown 132.

In Example 1, the layer d shows chord transformations in measures 4-5, then measures 11-13. This simplification shows that the lowest voice ascends from an  $a_{\sharp}$  to  $b_{\flat}$  to d to  $d_{\sharp}$  then descending to b, then e. The three middle voices likewise ascend chromatically. Thus we see a gradual harmonic change from Brown's VII<sup>7</sup> of V to his  $V^9$ . In subsequent diagrams c, b, and a, Brown weeds out the harmonic transformations, to get to the chords that he believes are the most important. The last diagram a shows the progression without harmonic transformation and in its most simplified form.

This solution presents new problems. In reducing measures 4-10 to  $VII^7$  of V, Brown is making a statement that the  $B_b$  M.m.  $7^{th}$ , in measure 5 and 8-9, is only a chromatic transformation, and essentially an embellishment of the  $A_{\sharp}$  ½ dim.  $7^{th}$ . Enharmonically, the notes  $a_{\sharp}$  and  $g_{\sharp}$  are equivalent to  $b_b$  and  $a_b$ , and there is chromatic movement from  $c_{\sharp}$  to d and e to f.

However, looking at the roots of the two chords here, we see that they have slight relation to each other, the relation of an augmented second, or minor third, or diminished fifth. Since the  $B_b$  chord does not strengthen the dominance of the  $A_{\sharp}$  chord, measures 4-9 cannot be reduced to the  $A_{\sharp}$  chord alone.

Likewise, neither can measures 11-13 be considered a V<sup>9</sup>, for although the voices of the D M.M. 7<sup>th</sup> chord and G M.m. 7<sup>th</sup> chord may be considered as leading to B<sup>9</sup>, the roots of these chords do nothing to strengthen this relationship and do not point to B<sup>9</sup>.

Measures 4-13 cannot be considered to be the progression VII<sup>7</sup> of V-V<sup>9</sup>-I, as Brown suggests. To label them this way would be to use the Roman numerals not as functions, but as names representing chords.

In many sections of the piece, similar problems pose themselves, and Roman numerals may not be given. We are only able to assign Roman numerals to small

sections, such as the  $V^7$ -I in measures 54-55,  $^{31}$ and the I-VI in measures 67-68. $^{32}$  In a few other places Roman numerals may be assigned. Everywhere else, because of the types of chords Debussy uses, and the ways he uses them, Roman numerals may not be assigned, if they are to remain symbols of functions.

Since Roman numerals may not be applied to the *Prélude* (except for certain measures), the chords do not form higher structures, the diatonic sets. Tonally, the chord is for the most part the highest order set in the *Prélude*.

It must be concluded from the previous analyses that the harmonies of the *Prélude* à *l'Après-midi d'un faune* lack tonal unity.

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The progression here is from the chord  $a_b$ -c- $e_b$ - $g_b$  to  $d_b$ -f- $a_b$ . In measure 54, the strength of the  $V^7$  is greatly weakened by the chromatic descent and ascent of the middle voice, but it may be still called a  $V^7$ , at least on the last eighth note of the measure.

This progression is from  $g_b$ - $b_b$ - $d_b$  to  $e_p$ - $g_b$ - $d_b$ . It repeats in measures 69-70. The labeling of Roman numerals is here more arbitrary, as the chord progression is not in a determinate diatonic set as the  $V^7$ -I progression in measures 54-55.

# Part II-Other Types of Unity in the *Prélude*

#### Overview

Although the relationships between notes are obscured in the harmonies of the *Prélude*, Debussy's music has another type of unity that many people perceive. William W. Austin hits upon this in his article about the *Prélude*, "Toward an Analytical Appreciation." He states, "Every part of this music clings to every other part so firmly, so naturally, that it is hard to identify parts when we want to talk about them...While we listen, the parts seem to overlap each other, so that the continuity of the whole work is extraordinarily smooth, and our recollection of it at the end is imprecise, though intense."<sup>33</sup>Debussy's music is strongly unified by continuity, sameness, and the overlapping of parts. A more basic analysis than Roman numeral analysis reveals just how Debussy achieves unity by making the work extraordinarily smooth and continuous. The new analysis attempts to investigate non-tonal music at an elemental level.

At this level, chords are pitches perceived as being simultaneous. These pitch relations are perceived by us and from these we perceive roots and consonance. From effect to cause, by looking at roots and consonance, we may better understand the pitch relationships, and the pitch relationships between chords. How the *Prélude* is unified by sameness and continuity may be investigated by looking at these two elements: roots and consonance.

<sup>&</sup>lt;sup>33</sup> Austin 71.

"Consonance is the property of some sets of tones of sounding as they fit together."<sup>34</sup>Consonance, implied from experiments even as far back as Pythagoras, is generally accepted to go up as complexity goes down.

By representing pitches by numbers, one might measure the complexity. The degree of complexity of a set of tones may be represented by the least common multiple of the tones in a set. For example, the simplicity of the perfect fifth, which may be represented by 2:3, is 6, the least common multiple.<sup>35</sup>

Gustin also posits another factor that goes into consonance. Because men are creatures of habit and have greatest experience with the lower partials, the lower the combination of tones appears in the overtone series, the more the tones will sound like they go together. The lower the set appears in the overtone series, the more consonant it will sound.

The problem comes when deciding how to combine these two properties of consonance. There is no definite answer. The combination of these two numbers must be somewhat arbitrary. Gustin has chosen the following method: position in the overtone series (Property I) \* 100 + simplicity (Property II). The higher the number goes, the more dissonant the set is.<sup>36</sup>

Although the combination of these factors is somewhat arbitrary, the numbers in Table 1 may be verified empirically to be close to what most people perceive. These values for consonance will be used in our table, not as absolute numbers, but approximations which are compounds of properties I and II in the way described. This

<sup>&</sup>lt;sup>34</sup> Gustin 92.

Gustin 25-26.

compound number can be said to be a fairly accurate guide in creating an ordinal scale, not a cardinal scale.

Besides consonance, roots are properties of many intervals. Roots are defined as "that tone of a set of tones which is heard as being most important, apart from its duration, orchestration, spatial or temporal position relative to other tones."<sup>37</sup> The root is an octave transposition of the fundamental that generates the set. Depending upon how many octaves higher the root is than the fundamental, the root may be more or less strong. The closer it is to the fundamental, the stronger it is.

Unfortunately, there is no real way of telling how much stronger a root an octave higher than the fundamental is from another root which is two octaves higher. Like the consonance strength, the root strength developed by Gustin is accurate as an ordinal scale, not a cardinal scale. Tables of values for dissonance and consonance, according to the manner described may be found in Table 1, which is a compilation of the figures from Gustin's consonance and root tables, pp. 28-29 and 36-37 of *Tonality*. Table 1 contains a few additions.

Table 2 applies the values from Table 1 to Debussy's *Prélude à l'Après-midi d'un faune*. The first four columns of Table 2 give information about what the chord is and where and how it appears in Debussy's piece. The first column shows where the chord appears in the *Prélude*, at what measure: beat: sub-beat. The second shows the accepted name of the chord. The third column, "letter," tells what note is considered to be first position. The fourth column tells what position the chord that appears in the piece is in. ("Root" refers strictly to first position, as chords with multiple roots have many root

Gustin 21-29.

<sup>37</sup> Gustin 94.

positions. This is used however, so as to avoid confusion between first position and first inversion.)

The fifth column gives the consonance value according to the method discussed.<sup>38</sup> The sixth column entitled "Root" is subdivided into three columns. The first contains the roots that are found in the chord, and the second shows which one of those is predominant. The values in the third column, root strength, once again, should be considered ordinal numbers and not cardinal numbers. The value for this is taken from chapter three of "Tonality." The seventh column shows what diatonic set is established by the chord. For chords that establish multiple keys, multiple keys are listed. For major triads, only the major keys have been listed, their relative minors being understood, and for the minor triads and m.m. 7<sup>th</sup> chords, the minor keys have been listed, their relative majors being understood.

<sup>&</sup>lt;sup>38</sup> Gustin 1-29.

Gustin 30-39.

### New Analysis Applied to the Prélude à l'Après-midi d'un faune

From the table, we see that the *Prélude* is unified harmonically in four ways: by resembling tonality, by continuity, by repetition, and by sameness. These four factors contribute to the flow and smoothness of the piece. While tonal unity may be compared to the unity proper to numbers, the type of unity of the *Prélude* may be compared to a collection of parts. Here the parts are chords and groups of chords.

Debussy uses these techniques on a large scale. The highest level of unity is created by repetition of certain chords. It may be seen in column one that Debussy's harmonic vocabulary consists mostly of triads, seventh chords, sixth chords, and ninth chords. Of triads, Debussy uses the major, minor, diminished, and augmented chords. Of sevenths, Debussy uses primarily the M.m. 7<sup>th</sup>, 41<sup>th</sup> the m.m. 7<sup>th</sup>, 42½ dim. 7<sup>th</sup>, 43 M.M. 7<sup>th</sup>, 44 and the French sixth chord. Of ninths, Debussy primarily uses the M. 9<sup>th</sup>. By using only these chords and variations of these, Debussy creates a sameness of sound throughout the piece.

By repetition of certain chords in certain sections, Debussy creates unity in the *Prélude*. For example, in measures 55-80 Debussy uses the major and minor triads more frequently than in any other part of the piece. This lesser dissonance and stronger

 $^{43}$  c-e\_{b}-g\_{b}-b\_{b}.

<sup>&</sup>lt;sup>40</sup> For example: c-e-g<sub>♯</sub>.

<sup>&</sup>lt;sup>41</sup> For example, c-e-g-b<sub>b</sub>.

 $<sup>^{42}</sup>$  c-e<sub>b</sub>-g-b<sub>b</sub>.

<sup>&</sup>lt;sup>44</sup> c-e-g-b.

<sup>&</sup>lt;sup>45</sup> с-е-g<sub>b</sub>-а<sub>#</sub>.

rootedness sets the section apart from the rest of the piece. The similar timbres and dissonance of measures 55-80 makes this area sound unified.

Another unified area is section 31-36. Along with the whole tone scale, the French sixth chord is used almost exclusively in this section, creating a tense atmosphere that continues for all six measures.

Besides the frequent use of certain chords in certain sections, Debussy distinguishes these sections from each other by creating articulation points at the end of each section. The primary way he does this is by ending the section with a major triad. An example of this is at the end of the entire piece in measure 110. This tends to give stability to the section.

Large level shifting of sections creates both sameness and continuity. For example, measures 34-36 are measures 31-33 shifted by a minor third. Measures 86-92 are measures 79-85 lowered a semi-tone.

Debussy also creates unity in these large sections by applying near tonal procedures. For example, in the beginning of the piece, two chords are emphasized by repetition, the E major triad and  $A_{\sharp}$  ½ dim. 7<sup>th</sup> in first inversion, or  $C_{\sharp}$  minor chord with an added sixth. Later on in measure 30, there is a resting spot in the B major triad. This makes measures 1-30 resemble the movement from I' to V' in the exposition of sonata form.

The *Prélude* also resembles ternary form, <sup>46</sup>if we look at the  $C_{\sharp}$  chord as a minor with an added sixth chord. In the middle area of the piece, measures 55-80, the  $D_{\flat}$  major, or  $C_{\sharp}$  major, becomes a primary chord. Here we see an approximation of the key change

<sup>&</sup>lt;sup>46</sup> The so called A-B-A form.

to the relative parallel major in the large structure of the Pr'elude. At the end, the  $C_{\sharp}$  minor sixth chord comes back. The  $C_{\sharp}$  minor sixth chord is important as the first chord and the second to last chord of the piece. This repetition of certain chords resembles the tonal forms and does much to unify the piece.

On a smaller scale, Debussy uses continuity, repetition, sameness, and resemblance to tonality to effect a sort of unity. Debussy has certain procedures by which he does this. His rules are not clear cut because of his attitude toward composition. "There is no theory. You merely have to listen. Pleasure is the law."<sup>47</sup>However, patterns become apparent when listening to the *Prélude*. Four categories of progressions may be found: first, progressions that are tonal or resemble tonal progressions; second, progressions where one root remains the same; third, sensory continuity; and fourth, where the type of chord remains the same, but the set of notes changes.

In the first category are movement of the predominant root to the chord with the root a fifth below, and the same type of movement between chords with multiple roots. An example of the first case takes place in measures 54-55 (CD Track 2). Here, the progression is from the chord a<sub>b</sub>-c-e<sub>b</sub>-g<sub>b</sub> to d<sub>b</sub>-f-a<sub>b</sub>. In measure 54, the strength of the A<sub>b</sub> M.m. 7<sup>th</sup> is greatly weakened by the chromatic descent and ascent of the middle voice, but it may at least be still called a progression down by a fifth on the last eighth note of the measure.

An example of the movement by fifths between chords with multiple roots may

<sup>&</sup>lt;sup>47</sup> Austin 131.

be found in measures 29-30 (CD Track 3). Here we have a motion from the chord  $f_{\sharp}$ -e- $g_{\sharp}$ - $c_{\sharp}$ -b to the B major triad. In the first chord, there are multiple roots. These are  $f_{\sharp}$ , e, and  $c_{\sharp}$ . Here no one root predominates. Since the root of the next chord is b, the interval  $f_{\sharp}$  to b is a fifth, and the progression is analogous to a V-I. The strength of this progression is considerably diminished by the multiple rootedness of the first chord, but the chord change still sounds like an acceptable solution and is not jarring.<sup>48</sup>

One interesting thing to note is that the progression in measures 29-30 also resembles a plagal cadence, or IV-I. This sound is achieved by the movement of the e root in the first chord to the b in the second chord. Thus the progression from measures 29-30 resembles both an authentic cadence, or V-I, and a plagal cadence.

In the second category are progressions where a root remains the same. In these progressions the two chords are united by the constancy of that element. There are two subdivisions of this category. First is a progression where there is a positive or negative change in consonance, or clarity. Second are progressions in which there is a positive or negative change in root strength, or integrity. These two changes often go hand in hand.

An example of a negative change of both clarity and integrity may be found in measures 79-82 (Track 7). In measures 79-80, the chord is an E major triad in first inversion. This chord is more dissonant and more ambiguous by being in first inversion. Next, in measure 81 Debussy adds a  $c_{\sharp}$  in the base, which changes the chord to a  $C_{\sharp}$  m.m.  $7^{th}$  in root position ( $c_{\sharp}$ -e- $g_{\sharp}$ -b). This chord still has a strongest root, which is the E, although its strength is greatly diminished. Dissonance also goes up with the addition of the  $C_{\sharp}$ . The next chord is  $f_{\sharp}$ - $c_{\sharp}$ -e- $g_{\sharp}$ -b. No root predominates in this chord, and so it

Other examples: measures 13 (Track 4), measures 50-51 (Track 5), measures 105-106 (Track 6).

sounds more ambiguous than the two previous chords. The addition of the  $F_{\sharp}$  also increases dissonance. This same change occurs again in measures 86-89.

An example of positive change in clarity and integrity may be found in the last measures of the piece, measures 108-110 (Track 8). In the beginning of measures 108 and 109, the first chord is an  $A_{\sharp} \frac{1}{2}$  dim.  $7^{th}$  in root position. This chord is relatively dissonant, and  $c_{\sharp}$  is its predominant root, although e is the other root found in the chord.

The movement to the E major triad in the end of these measures has several effects. First, it is a move from a more dissonant chord to a less dissonant chord.

Second, the root e in the first chord is strengthened by the addition of the other notes.

The increase in clarity and integrity would explain why one might describe the end of the piece as brightness coming forth.

The third category is progression by sensory continuity. <sup>50</sup>An example of this occurs in measure 18 (Track 9), the  $A_{\sharp}$  M.m.  $7^{th}$  ( $a_{\sharp}$ - $c_x$ - $e_{\sharp}$ - $g_{\sharp}$ ) progressing to an  $E_{\sharp}$  ½ dim.  $7^{th}$  ( $e_{\sharp}$ - $g_{\sharp}$ -b- $d_{\sharp}$ ). Here the  $e_{\sharp}$  and  $g_{\sharp}$  from the first chord remain the same in the second chord, and the  $a_{\sharp}$  and  $c_x$  proceed up a half step to b and  $d_{\sharp}$ . Since here there is an absence of any strong root relationship (the roots neither progress by a fifth, nor do any of the roots remain the same), the relationship of the chords is not perceived. The progression sounds right because of the smooth motion of the parts. Other examples are measures 4-5 (Track 10) and measure 98 (Track 11).

The fourth and last category of progressions is by shifting. By shifting, I mean

4

More examples of this may be found in measures 14-15, 41, 50.

<sup>&</sup>lt;sup>50</sup> Sensory continuity: The continuous is something that is unable to be divided into discrete parts. A progression of notes is considered to have more sensory continuity, when the change of vibrations per unit time closely approximates a continuous motion. For example, glissandi and vibrato have high levels of sensory continuity. So also does movement by semitone or whole tone. Since two notes a semitone apart are more nearly the same than two notes a whole tone apart, chromatic movement has more sensory continuity than whole tone movement.

leaving the chord the same, but shifting the set of notes used to make the pattern. Since the pattern remains the same, sameness is the unifying element. However, here the roots have no relationship to each other. An example of this is found in measure 27 (Track 12). Here the  $G_{\sharp}$  ½ dim. 7<sup>th</sup> in first inversion alternates with the A ½ dim. 7<sup>th</sup> in first inversion. Another example of this may be found in measures 48-49 (Track 13).

All these changes are catalogued in Table 2, column eight. It is organized as follows. "5" stands for a progression down a fifth, and "5mult." indicates, that the chord progressed from and/or to has multiple roots, one of which progresses down a fifth to the next chord. "+Int." stands for greater integrity, that is, one root is strengthened by the chord progression, "-Int." means that one root strength is lessened by the progression. "+Cons." means that the consonance is increased, and therefore perception of the root strengthened, and "-Cons." means that consonance decreases, and perception of the root weakens.

"S.C.-1" stands for sensory continuity from one chord to the other, and the following number represents how many notes of the chord remain the same. Notes enharmonically equivalent are included in this number. "Shift" stands for sensory continuity where there is no perceivable root relation, and no notes remain the same, but the type of chord remains the same. (Note that the chord labeled is the chord progressed to, not from.)

"1 root the same" means that one root remains the same although there is insufficient data to determine if there is a ±Int. or ±Clar. value. "N.E." stands for no explanation for the progression.

It is to be understood in the table, that although a progression is labeled under one category, that does not mean it cannot be found under others. Although a progression might be labeled "5," that labeling does not necessarily mean that sensory continuity is absent. In putting down the labels, I have decided to put down first the ones I thought were more important: first 5, then 5m, ±Int., ±Clar., S.C., Shift, 1 root same, and finally N.E.

The table shows that Debussy applies these procedures to nearly all progressions. The most common of the procedures is by sensory continuity. This explains the general smoothness of the piece, and absence of progressions down a fifth accounts for the lack of motion in the piece. So does the presence of chords with the same roots. By keeping the same roots, an overlapping and general smoothness is created, but there remains less motion.

In conclusion from this analysis, both on a large scale and small scale, the harmony in *Prélude à l'Après-midi d'un faune* is unified by resembling tonality and by continuity, sameness, and repetition of its parts.

## Conclusion

Though the *Prélude à l'Après-midi d'un faune* lacks tonal unity, since it does not unfold a single tone, Debussy's use of chords allows harmony to be unified in the sense that continuous things and homogenous things are.

In the *Prélude*, each chord appears to flow into the next. The harmonies are not as jarring as they can be in more modern music, like Berg's, Webern's, and Schoenberg's, partially because they are not as dissonant, but also because the chords run smoothly, one to the other. The chord progression where one root stays the same also enhances this smoothness. It is like the Impressionist running together of colors.

Besides the continuity, the equality of many chords allows the unity of Debussy's harmony to resemble that of a solid piece of steel or lump of rock. By one part being no more important than the other, the piece holds itself together.

Harmony then becomes a continuous connection of rich sounds. Since root relationships are obscured, there is not as much motion. This lack of motion, however, allows one to pay attention to each chord in itself, not in relation to another. This is why Debussy begins to approach a collage of sounds. For Debussy, each chord is not a function, but a color, which is a mixture of dissonance and rootedness.

This explains why Schenker called successive sounds in Impressionist music valuable as, "an acoustic phenomenon, but certainly not as art." If music is a perceived relationship between tones, Debussy's harmonies have this minimally. His music blurs distinctions.

<sup>&</sup>lt;sup>51</sup> Brown 128.

But if the element of harmony is the sonority, or combination of timbres, then Debussy's Prélude à l'Après-midi d'un faune is a step in the right direction. It is a tame approach to the twentieth century music's notion that sonorities dictate the form of each individual piece.

Music of tone colors: this is the music that Schoenberg spoke of as the ideal, as he finished the pages of his Theory of Harmony. "Tone-color melodies! How acute the senses that would be able to perceive them! How high the development of spirit that could find pleasure in such subtle things!"52

Subtle things, yes, but how much more subtle and beautiful the music—unified, perfect, clear.

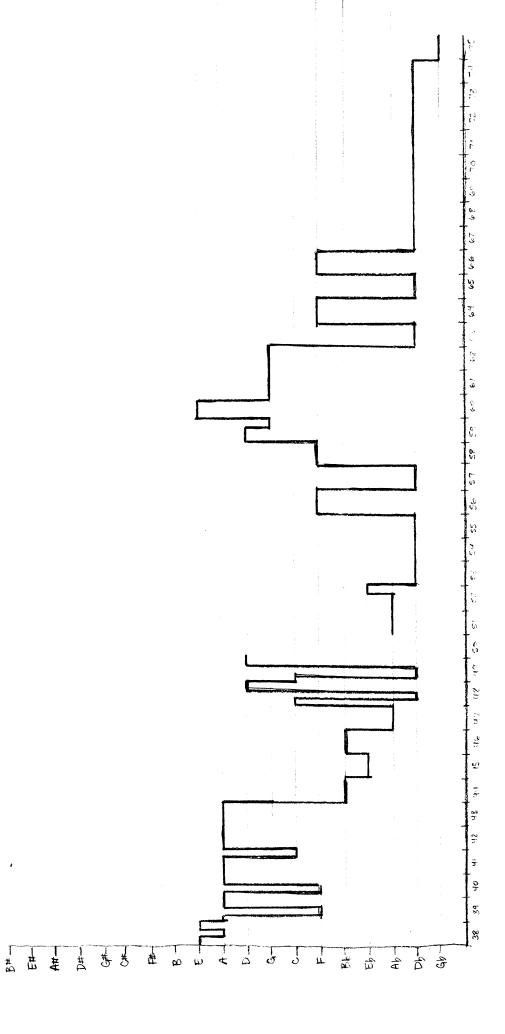
<sup>&</sup>lt;sup>52</sup> Arnold Schoenberg, *Theory of Harmony* Trans., Roy E. Carter, (Los Angeles: University of California Press, 1978) 422.

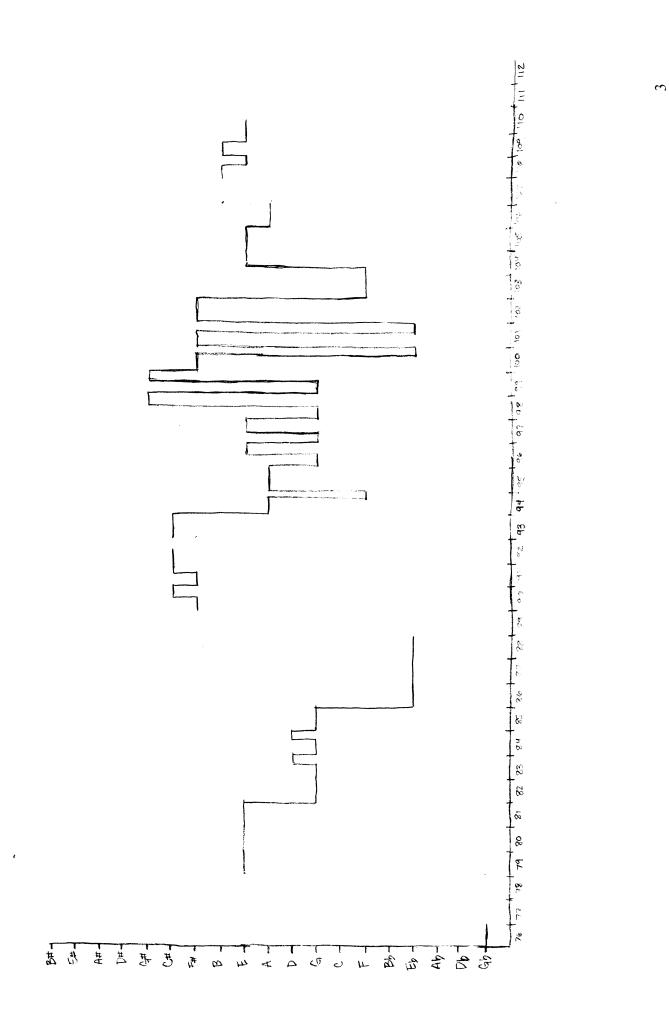
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Appendix A-Tables, Graphs, And Diagrams

Fig. 1. A-graph of the harmony of the Prélude.





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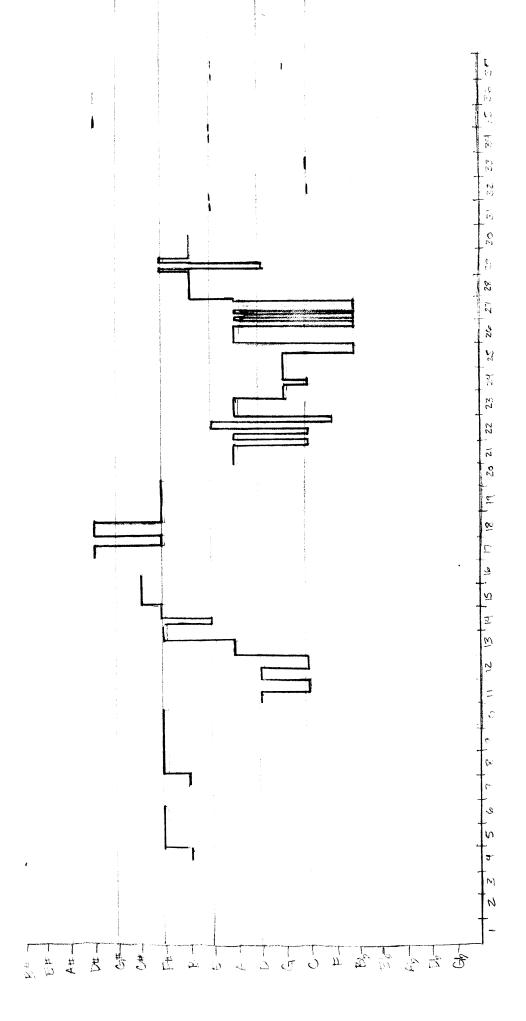
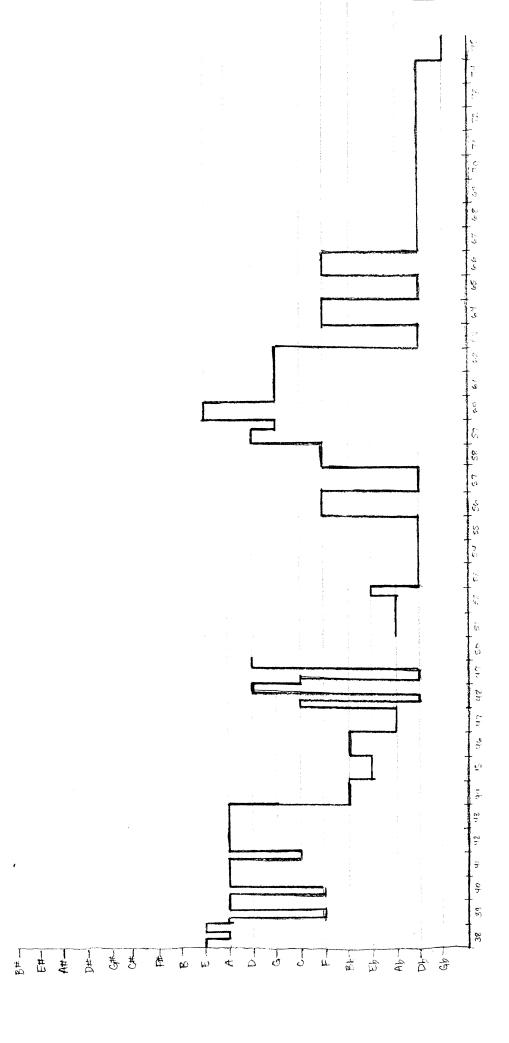
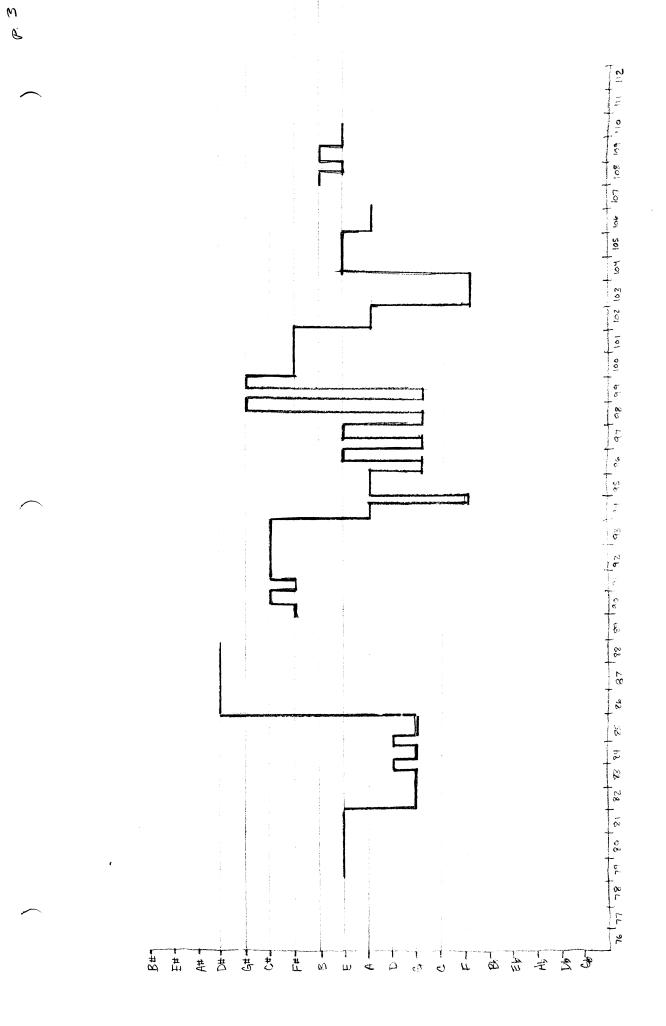
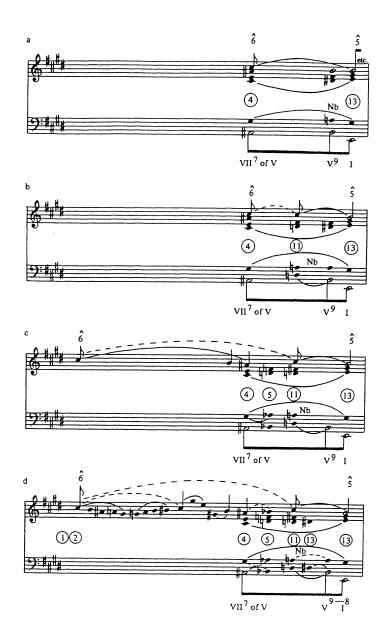


Fig. 2. A-graph of the harmony of the Prélude, simplified by enharmonic change.





 $\alpha$ 



Ex. 1. Schenkerian Diagram, measures 1-13 \*

\*Brown 133

Table 1. Table of Chords.\*\*Table Guide:

A is Fundamental

Consonance I is first Consonance Property II is second Consonance Property B is Predominant root C is number of rooted intervals

III is  $(I \times 100) + II$ D is number of roots

E is strength of predominant root

Roots

	Numbers Letters Consonance										T
Name	Numbers	Letters	Cons	sonance		Root	ts				Key present in (if any)
			I	II	III	A	В	С	D	Е	
M. Triad	4:5:6	Ceg	4	60	460	С	С	2	1	56.25	C,F,G
	5:6:8	Egc	5	120	620	С	С	2	1	12.5	C,F,G
	3:4:5	Gce	3	60	360	C	С	2	1	12.5	C,F,G
m. Triad	6:7:9	се,в	6	126	726	F	С	1	1	50	c,f,g
m. Triad	10:12:15	сеьд	10	60	1060	A	С	2	2	43.75	c,f,g
	12:15:20	е, дс	12	60	1260	A <sub>þ</sub>	-	2	2	_	c,f,g
	15:20:24	gce,	15	120	1620	$A_{\flat}$	С	1	1	6.25	c,f,g
M.m. 7th	4:5:6:7	cegb,	4	420	820	С	С	3	1	62.5	F
M.m. 7th	20:25:30:36	cegb,	20	900	2900	A	С	2	1	56.25	F
	25:30:36:40	egb,c	25	1800	4300	A,	С	2	1	12.5	F
	15:18:20:25	gb,ce	15	900	2400	$A_{\flat}$	С	2	1	12.5	F
	18:20:25:30	b,ceg	18	900	2700	$A_{\flat}$	С	2	1	56.25	F
D. Triad	5:6:7	се,д,	5	210	710	A <sub>þ</sub>	_	_	_	_	Ьь
D. Triad	25:30:36	се,д,	25	900	3400	F	_	_	_	_	b,
	15:18:25	еьдьс	15	450	1950	F	_	_	_	_	b,
	18:25:30	g <sub>b</sub> e <sub>b</sub> c	18	450	2250	F	_	_	_	_	b,
A. Triad	16:20:25	ceg#	16	400	2000	С	_	2	2	_	a
M.M. 7 <sup>th</sup>	8:10:12:15	cegb	8	120	920	С	_	4	3	_	С
	10:12:15:16	egbc	10	240	1240	С	Е	3	2	50	С
	12:15:16:20	gbce	12	240	1440	С	-	4	3	_	С
	15:16:20:24	bceg	15	240	1740	С	С	3	2	50	С

<sup>\*</sup>Gustin 28-29, 36-37

7th	10.12.15.10		10	100	1100			2	2	6.25	
m.m. 7 <sup>th</sup>	10:12:15:18	се,дв,	10	180	1180	A,	E,	3	2	6.25	$E_{\flat},B_{\flat},A_{\flat}$
	12:15:18:20	е,дыс	12	180	1380	A	E,	3	2	50	$E_{\flat},B_{\flat},A_{\flat}$
	15:18:20:24	gb,ce,	15	180	1680	A	-	2	2	_	$E_{\flat},B_{\flat},A_{\flat}$
	9:10:12:15	b,ce,g	9	180	1080	$A_{\flat}$	С	3	2	37.5	$E_{\flat},B_{\flat},A_{\flat}$
½ D. 7 <sup>th</sup>	25:30:36:45	се,д,Ь,	25	900	3400	F	E,	2	2	43.75	b,
	30:36:45:50	е,д,ь,с	30	900	3900	F,	E,	2	2	43.75	b,
	36:45:50:60	д,Ь,се,	36	900	4500	F,	-	2	2	_	b <sub>b</sub>
	45:50:60:72	b,се,д,	45	1800	6300	F,	E,	1	1	6.25	b <sub>b</sub>
M. 9 <sup>th</sup>	20:25:30:36: 45	cegb,d	20	900	2900	A,	-	4	3	_	F
	25:30:36:40: 45	egb₅cd	25					3			
	30:36:40:45: 50	gb,cde	30								
	36:40:45:50: 60	b,cdeg	36								
	40:45:50:60: 72	cdegb,	40								
	45:50:60:72: 80	degb,c	45								
D. 7 <sup>th</sup>	125:150:180 :216	се,д,Ь,,	125	5400	17900	_	_	_	_	_	d,
m. 9 <sup>th</sup>	100:125:150 :180:216	cegb,d,	100	5400	15400	F	С	2	1	56.25	f
Cluster	8:9:10	cde	8	360	1160	С	С	1	1	6.25	C,G,F
Cluster w/ fifth	8:9:10:12	cdeg	8	360	1160	С	С	2	1	50	C,G,F
Cluster w/ fifth in the bass A◊	9:12:16:20:	dgce	9	720	1620	С	С	2	1	6.25	C,G,F
French	128:160:180 :225	ceg <sub>b</sub> a <sub>#</sub>	128	28800	41600		_	2	2		None, Whole
		едьа <sub>#</sub> с					G,	1	1	6.25	
		g <sub>b</sub> а <sub>#</sub> се					_	2	2		
		a <sub>#</sub> ceg,					С	1	1	6.25	

Table 2. Harmonic Analysis of Debussy's *Prélude à l'Après-midi d'un faune* 

Measures	Name of chord	Letter	Position	Conson ance	Roots			Diato nic	Type of Progress
				unce	Total root	Predomi nant root	Stren- gth	Set	ion
1-4:3	N/A	_	_	_	_	_	_	_	_
4:4-9	½ dim. 7 <sup>th</sup>	A♯	1 <sup>st</sup> inversion	3900	E, C♯	C <sub>#</sub>	43.75	В	N/A
5	M.m. 7 <sup>th</sup>	Вь	Root	2900	Вь	Вь	56.25	E,	S.C2
6	N/A	_	_	-	_	_	_	_	-
7	½ dim. 7 <sup>th</sup>	Α <sub>#</sub>	1 <sup>st</sup> inversion	3900	E, C#	C <sub>#</sub>	43.75	В	N/A
8-9	M.m. 7 <sup>th</sup>	Вь	Root	2900	Вь	Вь	56.25	E,	S.C2
10	N/A	_	_	_	_	_	_	_	_
11:1-6	M.M. 7 <sup>th</sup>	D	Root	920	D, F <sub>#</sub> , A	_	_	D	N/A
11:7-9	M.m. 7 <sup>th</sup>	G	2 <sup>nd</sup> inversion	2400	G	G	12.5	С	5m
12:1-6	M.M. 7 <sup>th</sup>	D	Root	920	D, F <sub>#</sub> , A	_	_	D	N.E.
12:7-9	M.m. 7 <sup>th</sup>	G	2 <sup>nd</sup> inversion	2400	G	G	12.5	С	5m
13:1-2	½ dim. 7 <sup>th</sup>	D <sub>#</sub>	Root	3400	A, F#	F#	43.75	C#	N.E.
13:3	M. 9th	В	Root	2900	B, F <sub>♯</sub> , A	_	_	Е	5m
13:4-9	m.m 7 <sup>th</sup>	C <sub>#</sub>	1 <sup>st</sup> inversion	1380	C <sub>♯</sub> E	Е	50	E, B,	5m
14:1-3	M.m. 7 <sup>th</sup>	C <sub>#</sub>	3 <sup>rd</sup> inversion	2700	C <sub>#</sub>	C <sub>#</sub>	56.25	F#	+Int.
14:4-9	M.m. 7 <sup>th</sup>	Вь	2 <sup>nd</sup> inversion	2400	Вь	Вь	12.5	E,	S.C2
15:1-3	$d_{\sharp}$ - $g_{\sharp}$ - $f_{\sharp}$ - $a_{\sharp}$ - $c_{\sharp}$	_	_	_	G <sub>#</sub> , A <sub>#</sub> ,	_	_	C <sub>♯</sub> , B,	-Int.
					F <sub>#</sub> , C <sub>#</sub>			F#	
15:4-6	M.m. 7 <sup>th</sup>	G <sub>#</sub>	2 <sup>nd</sup> inversion	2400	G#	G <sub>#</sub>	12.5	C#	+Int.
15:6-9	$d_{\sharp}$ - $g_{\sharp}$ - $f_{\sharp}$ - $a_{\sharp}$ - $c_{\sharp}$	_	-	_	G <sub>#</sub> , A <sub>#</sub> ,	_	_	C <sub>♯</sub> , B,	-Int.
					F <sub>#</sub> , C <sub>#</sub>			F#	
16:1-6	M.m. 7 <sup>th</sup>	G <sub>#</sub>	1 <sup>st</sup> inversion	4300	G#	G <sub>#</sub>	12.5	C#	+Int.
16:7-9	French sixth	F	3 <sup>rd</sup> inversion		F	F	6.25	_	S.C1

17:1-6	M.m. 7 <sup>th</sup>	$A_{\sharp}$	Root	2900	A#	A#	56.25	$\mathrm{D}_{\sharp}$	S.C1
17:7-9	½ dim. 7 <sup>th</sup>	E <sub>#</sub>	2 <sup>nd</sup> inversion	4500	B, G♯	_	_	d <sub>#</sub>	S.C2
18:1-6	M.m. 7 <sup>th</sup>	$A_{\sharp}$	Root	2900	$A_{\sharp}$	A <sub>#</sub>	56.25	D#	S.C2
18:7-9	½ dim. 7 <sup>th</sup>	E#	Root	3400	B, G <sub>#</sub>	G <sub>#</sub>	43.75	d <sub>#</sub>	S.C2
19	½ dim. 7 <sup>th</sup>	E#	Root	3400	B, G♯	G#	43.75	d#	-
20:1-3	½ dim. 7 <sup>th</sup>	E <sub>#</sub>	Root	3400	B, G <sub>#</sub>	G <sub>#</sub>	43.75	d <sub>#</sub>	-
20:4-9	N/A	_	_	_	_	_	_	-	_
21:1-9	m.m 7 <sup>th</sup>	C <sub>#</sub>	1 <sup>st</sup> inversion	1380	C <sub>#</sub> E	Е	50	E, B,	N/A
21:10-12	Major Triad	С	1 <sup>st</sup> inversion	620	С	С	12.5	C, F,	S.C1
22:1-3	m.m 7 <sup>th</sup>	C#	1 <sup>st</sup> inversion	1380	C <sub>#</sub> E	Е	50	E, B,	S.C1
22:4-6	Augmented Triad	Е	Root	2000	E, C	_	_	a	S.C1
22:6-8	M.M. 7 <sup>th</sup>	Е	Root	920	E, G <sub>♯</sub> , B	_	_	Е	S.C2
22:9	½ dim. 7 <sup>th</sup>	Е	Root	3400	Вь, С	G	43.75	d	S.C1
23:1-9	M. 9th	В	Root	2900	B, F <sub>♯</sub> , A	_		Е	S.C0
23:10-12	Minor Triad	A	Root	1060	A, C	A	43.75	a, d, e	+Int.
23:12:2	Minor Triad m.m 7 <sup>th</sup>	F	3 <sup>rd</sup> inversion	1080	F A	F	37.5	$A_{\flat}, E_{\flat}$ $D_{\flat}$	S.C1
24:1-2	M.m. 7 <sup>th</sup>	D	Root	1180	$D_{\sharp},F_{\sharp}$	F#	6.25	F, B <sub>b</sub> ,	S.C1
24:3	$e_{\sharp}$ - $a$ - $c$ - $g_{\sharp}$	_	_	_	E <sub>#</sub> , G <sub>#</sub>	F	43.75	a	S.C2
24:4	½ dim. 7 <sup>th</sup>	F#	Root	3400	C, A	A	43.75	e	S.C2
24:5	m.m 7 <sup>th</sup>	В	Root	1180	b	D	6.25	D, G,	5m
24:6	m.m 7 <sup>th</sup>	A	Root	1180	A, C	С	6.25	C, F,	Shifting
24:7	½ dim. 7 <sup>th</sup>	F#	Root	3400	C, A	A	43.75	e	+Int.
24:8	m.m 7 <sup>th</sup>	В	Root	1180	B, D	D	6.25	D, G,	5m
24:9	m.m 7 <sup>th</sup>	A	Root	1180	A, C	С	6.25	C, F,	Shifting
25:1-6	½ dim. 7 <sup>th</sup>	F#	Root	3400	C, A	A	43.75	e	+Int.

25:7-9	Minor Triad	С	Root	1060	C, E,	С	43.75	c, f, g	+Int.
26:1-9	M. 9th	Е	Root	2900	E, B, D	_	_	A	S.C0
26:10-12	½ dim. 7 <sup>th</sup>	A	1 <sup>st</sup> inversion	3900	E₀, C	С	43.75	g	S.C0
27:1, 3, 5, 8	½ dim. 7 <sup>th</sup>	G#	1 <sup>st</sup> inversion	3900	D, B	В	43.75	$f_{\sharp}$	Shifting
27:2, 4, 6, 7	½ dim. 7 <sup>th</sup>	A	1 <sup>st</sup> inversion	3900	E, C	С	43.75	g	Shifting
27:9	Major Triad	Е	Root	460	Е	Е	56.25	E, A, B	5m
28	M.m. 7 <sup>th</sup>	F#	Root	2900	F#	F#	56.25	В	S.C1
29:1	M.m. 7 <sup>th</sup>	Вь	1 <sup>st</sup> inversion	4300	Вь	Вь	12.5	E	S.C1
29:2	½ dim. 7 <sup>th</sup>	G <sub>#</sub>	2 <sup>nd</sup> inversion	4500	D, B	_	_	f#	S.C2
29:3	M.m. 7 <sup>th</sup>	Вь	1 <sup>st</sup> inversion	4300	Вь	Вь	12.5	E	S.C2
29:4-6	c#-f#-e-a#-b#	_	_	_	F#	_	_	E, B, A	S.C0
29:7-9	Cluster ◊ with added sixth	Е	F#	_	F <sub>#</sub> , E, C <sub>#</sub>	_	_	E, B, A	3 same roots
	$f_{\sharp}$ -e- $g_{\sharp}$ - $c_{\sharp}$ -b								
30:1-9	Major Triad	В	Root	460	В	В	56.25	B, E,	5m
30:10-12	N/A	_	_	_	_	_	_	_	_
31:1-9,11	French Sixth	C#	Root	_	C♯, G	_	_	_	N/A
31:10,12	M.m. 7 <sup>th</sup>	A <sub>b</sub>	2 <sup>nd</sup> inversion	2400	$A_{\flat}$	Α <sub>þ</sub>	12.5	D <sub>þ</sub>	N.E.
32:1-2	French Sixth	C <sub>#</sub>	Root	_	C♯, G	_	_	_	N.E.
32:3	M. 9 <sup>th</sup>	G	Root	2900	G, D, F	_	_	С	1 same root
33:1-2	French Sixth	C <sub>#</sub>	Root	_	C♯, G	_	_	_	1 same root
33:3	M. 9 <sup>th</sup>	G	Root	2900	G, D, F	_	_	С	1 same root
34:1-9,11	French Sixth	Е	Root	_	E, A <sub>#</sub>	_	_	_	N.E.
34:10,12	M.m. 7 <sup>th</sup>	В	2 <sup>nd</sup> inversion	2400	В	В	12.5	Е	N.E.
35:1-2	French Sixth	E	Root	-	E, A <sub>#</sub>	_	_	_	N.E.
35:3	M. 9 <sup>th</sup>	Вь	Root	2900	Вь, Г, Аь	_	_	E	1 same root
36:1-2	French Sixth	Е	Root	_	E, A <sub>#</sub>	_	_	_	1 same root

	41.	1	1						1
36:3	M. 9 <sup>th</sup>	Вь	Root	2900	B <sub>♭</sub> , F, A <sub>♭</sub>	_	_	E,	1 same root
37:1	M. 9 <sup>th</sup>	В	Root	2900	B, F <sub>♯</sub> , A	_	_	Е	Shift
37:2	½ dim. 7 <sup>th</sup>	F#	1 <sup>st</sup> inversion	3900	C, A	A	43.75	e	+Int.
37:3	m.m 7 <sup>th</sup>	C <sub>#</sub>	2 <sup>nd</sup> inversion	1680	C <sub>♯</sub> E	_	_	E, B,	S.C2
38:1:1	M. 9 <sup>th</sup>	В	Root	2900	B, F <sub>♯</sub> , A	_	_	Е	5m
38:1:2	Cluster ◊	A	В	_	e, a	A	6.25	E, B,	5m
38:2:1	Cluster ◊	A	В	_	e, a	A	6.25	E, B,	_
38:2:2	m.m 7 <sup>th</sup>	В	Root	1180	B D	D	6.25	D, G, A	5m
38:3	Minor Triad	G <sub>#</sub>	1 <sup>st</sup> inversion	1260	G♯, B	_	_	c#, g#,	1 same root
	44							d♯	
39:1	M. 9 <sup>th</sup>	Е	Root	2900	E, B, D	_	_	A	5m
39:2	Diminished	Е	Root	_	_	_	_	F	S.C2
39:3	M.m. 7 <sup>th</sup>	Е	Root	2900	Е	Е	56.25	A	S.C2
40:1	M.m. 7 <sup>th</sup> M. 9 <sup>th</sup>	Е	Root	2900	E, B, D	_	_	A	-Int.
40:2	Diminished	Е	Root	_	_	_	_	F	S.C2
40:3	M.m. 7 <sup>th</sup>	Е	Root	2900	Е	Е	56.25	A	S.C2
41:1	M.m. 7 <sup>th</sup> M. 9 <sup>th</sup>	Е	Root	2900	E, B, D	_	_	A	-Int.
41:2	Quartal chord e-a-d-b-f#	_	-	_	D, E, B,	_	_	A, D, G	3 same roots
41:3	m. 9 <sup>th</sup>	Е	Root	15400	Е	Е	56.25	a	+Int.
42:1	m.m 7 <sup>th</sup>	В	1 <sup>st</sup> inversion	1380	B, D	D	50	D, G, A	S.C0
42:2	Major Triad d-a-e-g <sub>♯</sub> -b	Е	D-A pedal	_	D, E, A	_	-	E, B,	5m
42:3:1	Major Triad	D	2 <sup>nd</sup> inversion	360	D	D	12.5	D, G, A	1 same root
42:3:2	M.m. 7 <sup>th</sup>	Е	D-A pedal	_		_	_	A	1 same root
43:1	m.m 7 <sup>th</sup>	В	1 <sup>st</sup> inversion	1380	B D	D	50	D, G, A	1 same root
43:2	Major Triad d-a-e-g <sub>♯</sub> -b	Е	D-A pedal	_	D, E, A	_	-	A	5m
43:3:1	Major Triad	D	2 <sup>nd</sup> inversion	360	D	D	12.5	D, G,	5m
43:3:2	M.m. 7 <sup>th</sup>	Е	D-A pedal	_	D, E	Е	6.25	A	1 same root

44:2,4	½ dim. 7 <sup>th</sup>	В	1 <sup>st</sup> inversion	3900	F, D	D	43.75	g	1 same
44:1,3	Minor Triad	D	Root	1060	D, F	D	43.75	d, a, g	root 1 same root
45	M.m. 7 <sup>th</sup>	Вь	Root	2900	Вь	Вь	56.25	E,	S.C2
46	½ dim. 7 <sup>th</sup>	G	1 <sup>st</sup> inversion	3900	D <sub>b</sub> , B <sub>b</sub>	Вь	43.75	f	-Int.
47	m.m 7 <sup>th</sup>	Вь	1 <sup>st</sup> inversion	1380	В,	D,	50	$D_{\flat},G_{\flat},$	+Int.
					D,			A	
48:1	M.m. 7 <sup>th</sup>	G	Root	2900	G	G	56.25	С	S.C2
48:2	M.m. 7 <sup>th</sup>	A	Root	2900	Α <sub>þ</sub>	Α <sub>þ</sub>	56.25	D <sub>b</sub>	Shift
48:3	M.m. 7 <sup>th</sup>	A	Root	2900	A	A	56.25	D	Shift
49:1	M.m. 7 <sup>th</sup> M.m. 7 <sup>th</sup>	G	Root	2900	G	A G	56.25	C	Shift
49:2	M.m. 7 <sup>th</sup>	$A_{\flat}$	Root	2900	A <sub>b</sub>	Α <sub>þ</sub>	56.25	D <sub>b</sub>	Shift
49:3	M.m. 7 <sup>th</sup>	A	Root	2900	A	A	56.25	D	S.C2
50	French Sixth	A	Root	_	A, D <sub>#</sub>	_	_	_	-Int.
51:1	M.M 7 <sup>th</sup>	$A_{\flat}$	Root	920	A₅, C, E₅	_	_	$A_{\flat}$	
51:2-3	m.m 7 <sup>th</sup>	F	1 <sup>st</sup> inversion	1380	F	A <sub>b</sub>	50	A <sub>ν</sub> , E <sub>ν</sub>	+Int.
					A <sub>b</sub>	$A_{\flat}$			
								$D_{\flat}$	
52:1	M.M 7 <sup>th</sup>	A	Root	920	A,, C, E,	_	_	Α <sub>þ</sub>	-Int.
52:2	m.m 7 <sup>th</sup>	F	1 <sup>st</sup> inversion	1380	F, A,	Α <sub>þ</sub>	50	Α <sub>ν</sub> , Ε <sub>ν</sub>	+Int.
								D <sub>b</sub>	
52:3	M.m. 7 <sup>th</sup>	Вь	Root	2900	Вь	Вь	56.25	E,	5m
53:1	M.m. 7 <sup>th</sup>	A	Root	2900	A <sub>b</sub>	A <sub>b</sub>	56.25	D <sub>b</sub>	Shift
53:2-3:1	m.m. 7 <sup>th</sup>	$A_{\flat}$	Root	1180	A, C,	C <sub>b</sub>	6.25	G♭,	-Int.
								C <sub>b</sub> , F <sub>b</sub>	
53:3:2	M.m. 7 <sup>th</sup>	A	Root	2900	A <sub>b</sub>	A	56.25	D <sub>b</sub>	+Int.
54:1	M.m. 7 <sup>th</sup>	A	Root	2900	A <sub>b</sub>	Α <sub>b</sub>	56.25	D <sub>b</sub>	Same
54:2-3:1	m.m. 7 <sup>th</sup>	$A_{\flat}$	Root	1180	A, C,	C,	6.25	G♭,	-Int.
								C, F,	
54:3:2	M.m. 7 <sup>th</sup>		Root	2900			56.25		+Int.
J <b>⊤.</b> J.∠	171.111. /	$A_{\flat}$	Koot	2900	$A_{\flat}$	$A_{\flat}$	50.45	$D_{\flat}$	TIIIL.

55	Major Triad	D	Root	460	D,	D,	56.25	Dþ,	5
		20			20				
								$G_{\flat}, A_{\flat}$	
56	Augmented	D,	Over base of G	_	D₀, F	_	_	d	-Int.
57	Major Triad	D,	Root	460	D <sub>b</sub>	D,	56.25	Dþ,	+Int.
								$G_{\flat},A_{\flat}$	
58	Augmented	D,	Over base of G	_	D₀, F	_	_	d	-Int.
59:1-2	Minor Triad	F#	Root	1060	F <sub>#</sub> , A	F#	43.75	f <sub>#</sub> , b,	5m
59:3	Diminished Triad	F#	Root	_	_	_	_	c <sub>#</sub>	S.C2
60:1-2	M. 9 <sup>th</sup>	В	Root	2900	B, F <sub>♯</sub> , A	_	_	Е	S.C2
60:3	m. 9 <sup>th</sup>	В	Root	15400	В	В	56.25	e	+Int.
61	Minor Triad	A	Root	1060	A, C	A	43.75	a, d, e	S.C2
62	Minor triad with Pedal	A	D pedal	_	A, D	_	6.25	a, d, e	-Int.
63	Major Triad	D,	Root	460	D,	D,	56.25	D <sub>β</sub> ,	S.C1
								G <sub>b</sub> , A <sub>b</sub>	
64	Augmented	D,	Over base of G	_	D₀, F	_	_	d	-Int.
65	Major Triad	D,	Root	460	D <sub>b</sub>	D,	56.25	$D_{\flat},$ $G_{\flat}, A_{\flat}$	+Int.
			0 1 6						T .
66	Augmented	$D_{\flat}$	Over base of G	_	D₀, F	_	_	d	-Int.
67	Major Triad	G,	Root	460	G <sub>þ</sub>	G <sub>þ</sub>	56.25	G♭,	5m
								C₀, D₀	
68	Minor Triad	E,	Root	1060	E <sub>b</sub> , G <sub>b</sub>	E <sub>β</sub>	43.75	е <sub>ь</sub> , а <sub>ь</sub> ,	-Int.
								b,	
69	Major Triad	G,	Root	460	G <sub>þ</sub>	G <sub>þ</sub>	56.25	G♭,	+Int.
								C₀, D₀	
70	Minor Triad	E,	Root	1060	E <sub>b</sub> , G <sub>b</sub>	E,	43.75	е <sub>ь</sub> , а <sub>ь</sub> ,	-Int.
						1			

71:1,3	Minor Triad	E,	Root->1 <sup>st</sup> inversion	620	E <sub>♭</sub> , G <sub>♭</sub>	E,	12.5	e, a,	-Int.
								b <sub>b</sub>	
71:2	Minor Triad with pedal	E,	A, pedal	_	Ε <sub>b</sub> , Α <sub>b</sub> ,	_	_	e,, a,,	-Int.
	a <sub>b</sub> , e <sub>b</sub> , g <sub>b</sub> , b <sub>b</sub>				G,			b <sub>b</sub>	
72:1,3	Minor Triad	E	Root	1060	$E_{\flat}, G_{\flat}$	E <sub>β</sub>	43.75	e <sub>b</sub> , a <sub>b</sub> ,	+Int.
								b <sub>b</sub>	
72:2	Minor Triad with pedal	E,	A, pedal	_	$E_{\flat}, A_{\flat},$	_	_	e,, a,,	-Int.
	a, e, g, b,				$G_{\flat}$			b <sub>b</sub>	
73:1	Minor Triad	E	Root	1060	$E_{\flat}, G_{\flat}$	E,	43.75	e, a,	+Int.
								b <sub>b</sub>	
73:2-3	Minor Triad with pedal	E,	A, pedal	_	$E_{\flat}, A_{\flat},$	_	_	e,, a,,	-Int.
	a, e, g, b				$G_{\flat}$			b <sub>b</sub>	
74	m.m 7 <sup>th</sup>	Вь	1 <sup>st</sup> inversion (over D <sub>b</sub>	1380	Вь	D,	50	D₀,	5m
			pedal)		$D_{\flat}$			G♭, A♭	
75:1	Minor Triad	A <sub>b</sub>	Root	1060	A <sub>ν</sub> , C <sub>ν</sub>	A,	43.75	a <sub>b</sub> , d <sub>b</sub> ,	S.C1
								e <sub>b</sub>	
75:2-3:1	Diminished Triad	F	Root	3400	_	_	_	G,	N.E.
75:3:2	Major Triad	D,	Root	460	D,	D,	56.25	D <sub>b</sub> ,	N.E.
								G♭, A♭	
76:1-2:1	Minor Triad	A <sub>b</sub>	Root	1060	A <sub>ν</sub> , C <sub>ν</sub>	A <sub>b</sub>	43.75	a, d,	5m
								e <sub>b</sub>	
76:2:2-3	Major Triad	D,	Root	460	D,	D,	56.25	D <sub>♭</sub> ,	5m
								$G_{\flat}, A_{\flat}$	
77-78	½ dim. 7 <sup>th</sup>	F#	Over D,	_	F#	_	_	n/a	N.E.
79-80	Major Triad	Е	pedal 1 <sup>st</sup> inversion	620	Е	E	12.5	E, A,	S.C1
17-00	wiajoi iiiau	E	1 mversion	020	E	E	12.3	B B	S.C1

81	m.m. 7 <sup>th</sup>	C <sub>#</sub>	Root	1180	C <sub>♯</sub> E	Е	6.25	E, B,	-Int.
0.0	<b>a</b> th	#			C# L			A	*
82	m.m. 7 <sup>th</sup>	$\mathrm{C}_{\sharp}$	F# pedal	_	C <sub>♯</sub> E	_	_	E, B, A	-Int.
83:1-3	m.m. 7 <sup>th</sup>	A	2 <sup>nd</sup> inversion	1680	A C	_	_	C, F,	5m
83:4	M. 9th	A	Root	2900	A, E, G	_	_	D	1 same
84:1-3	m.m. 7 <sup>th</sup>	A	2 <sup>nd</sup> inversion	1680	A C	_	_	C, F,	root 1 same root
84:4	M. 9th	A	Root	2900	A, E, G	_	_	D	1 same root
85:1,2,3, 4	Major Triad	С	1 <sup>st</sup> inversion	620	С	С	12.5	C, F,	5m
85:1:2,2: 2, 3:2, 4:2	m.m. 7 <sup>th</sup>	Е	Root	1180	E G	G	6.25	G, C, D	S.C2 4
86-87	Major Triad	E	1 <sup>st</sup> inversion	620	E,	E,	12.5	Ε <sub>ν</sub> , Α <sub>ν</sub> ,	S.C0
								Вь	
88	m.m. 7 <sup>th</sup>	С	Root	1180	С	E,	6.25	Ε <sub>ν</sub> , Α <sub>ν</sub> ,	-Int.
					E			B <sub>þ</sub>	
89	m.m. 7 <sup>th</sup>	С	F pedal	_	C, E,	_	_	Ε <sub>ν</sub> , Α <sub>ν</sub> ,	-Int.
								Вь	
90:1-3	m.m. 7 <sup>th</sup>	G#	2 <sup>nd</sup> inversion	1680	$G_{\sharp}$	_	_	B, E, F#	5m
90:4	M. 9th	G#	Root	2900	B G <sub>#</sub> , D <sub>#</sub> ,	_		C#	1 same root
					$F_{\sharp}$				
91:1-4	m.m. 7 <sup>th</sup>	G#	2 <sup>nd</sup> inversion	1680	G#	_	_	B, E, F#	1 same root
91:4	M. 9th	G#	Root	2900	B G <sub>♯</sub> , D <sub>♯</sub> ,	_		C#	1 same root
					$F_{\sharp}$				
92:1-2	M. 9th	G <sub>#</sub>	Root	2900	G <sub>#</sub> , D <sub>#</sub> ,	_		C <sub>#</sub>	1 same root
					F#				
92:3-4	French Sixth	D	Root	_	D, G <sub>#</sub>	_	_	_	S.C3
93	M. 9th	G <sub>#</sub>	Root	2900	G <sub>#</sub> , D <sub>#</sub> ,	_	_	C#	S.C3
					F#				

94:1-3	13 <sup>th</sup>	Е	Root			Е	43.75	Α	5m
74.1-3		L	Root	_	C♯, E	E	43.73	A	JIII
	e-b-g <sub>#</sub> -d-c <sub>#</sub>								
94:4	M.m. 7 <sup>th</sup>	С	3 <sup>rd</sup> inversion	2700	С	С	56.25	F	S.C0
95:1-3	13 <sup>th</sup>	E	Root	2700		Е	43.75	A	S.C0
75.1 5			Root	_	C♯, E	L	43.73	11	5.0.0
	e-b-g <sub>♯</sub> -d-c <sub>♯</sub>								
95:4	M. 9th	Е	Root	2900	E, B, D	_		Α	-Int.
					_, _ , _	_	_		
96:1-2	dim. 7 <sup>th</sup>	E	E pedal	_	A	_	6.25	e	5m
		$F_{\sharp}$							
96:3-4	m.m. 7 <sup>th</sup>	-	1 <sup>st</sup> inversion	1380	ОЕ	Е	50	E, B,	S.C1
		$C_{\sharp}$			C♯ E			A	
97:1-2	dim. 7 <sup>th</sup>	Г	E pedal		A		6.25	e	S.C1
		$F_{\sharp}$	1	_		_			
97:3-4	m.m. 7 <sup>th</sup>		1 <sup>st</sup> inversion	1380	C F	Е	50	E, B,	S.C1
		$C_{\sharp}$			C♯ E			A	
98:1-2	½ dim. 7 <sup>th</sup>	-	3 <sup>rd</sup> inversion	6300	C, A	A	6.25	e	S.C1
		$F_{\sharp}$			- /				
98:3-4	Dim. 7 <sup>th</sup>		2 <sup>nd</sup> inversion	_					S.C3
, , , ,		$A_{\sharp}$		_	_	_	_	$G_{\sharp}$	
99:1-2	½ dim. 7 <sup>th</sup>	_	3 <sup>rd</sup> inversion	6300	C, A	A	6.25	e	S.C3
	, 2 01111 ,	$F_{\sharp}$		0000	0,11		0.20		3.0.0
99:3-4	Dim. 7 <sup>th</sup>		2 <sup>nd</sup> inversion					_	S.C3
,,,,,	<i>D</i> 11111 /	$A_{\sharp}$	2 111, 6151611	_	_	_	_	$G_{\sharp}$	3.0.0
100:1-3	M.m. 7th	_	2 <sup>nd</sup> inversion	2400	_	_	12.5		S.C1
		C#			$C_{\sharp}$	$\mathrm{C}_{\sharp}$	1	$F_{\sharp}$	
100:4	M.m. 7th		Root	2900			56.25		S.C1
10011	111111111111111111111111111111111111111	Вь	11001		Вь	B♭	00.20	$E_{\flat}$	3.0.1
101:1-3	M.m. 7th	_	2 <sup>nd</sup> inversion	2400	_	_	12.5		S.C1
10111 0	111111111111111111111111111111111111111	C#	2 111, 6151611	2.00	$C_{\sharp}$	$\mathrm{C}_{\sharp}$	12.0	$F_{\sharp}$	3.0.1
101:4	M.m. 7th	_	Root	2900	_		56.25		S.C1
1011.	111111111111111111111111111111111111111	Вь	11001	_, 00	Вь	B♭	00.20	$E_{\flat}$	3.0.1
102	M.m. 7th		2 <sup>nd</sup> inversion	2400			12.5		S.C1
102	171.111. 7 611	$\mathrm{C}_{\sharp}$	2 mversion	2.00	$C_{\sharp}$	$\mathrm{C}_{\sharp}$	12.0	$F_{\sharp}$	5.6. 1
103:1-6	Major Triad	С	1 <sup>st</sup> inversion	620	С	С	12.5	C, F,	S.C0
103.1 0	Wagor Triad		1 mversion	020			12.3	G, I,	5.0.0
103:7-9	M.m. 7th	С	1 <sup>st</sup> inversion	4300	С	С	12.5	F	-cons.
104:1-3									
104:4-6	Minor Triad	E	Root	1060	T7 A	E	43.75	f h	N.E.
		$F_{\sharp}$			F♯, A	F#		f♯, b,	
								C#	
104:7-9	½ dim. 7 <sup>th</sup>	D	1 <sup>st</sup> inversion	3900	A 17:	E.	43.75	0	-cons.
		$\mathrm{D}_{\sharp}$			A, F <sub>#</sub>	$F_{\sharp}$		C#	
105:1-9	M. 9 <sup>th</sup>	В	Root	2900	D E A	_	_	Е	5m
					B, F <sub>♯</sub> , A				
106	M.m. 7 <sup>th</sup>	Е	Root	2900	Е	Е	56.25	A	5m
107	N/A	_	_	_	_	_	_	_	_
108:1-6	½ dim. 7 <sup>th</sup>	$A_{\sharp}$	Root	3400	E, C♯	C#	43.75	σu	N/A
					"			g#	
108:7-12	Major Triad	E	2 <sup>nd</sup> inversion	360	E	E	12.5	E, A,	+Int.

								В	
109:1-6	½ dim. 7 <sup>th</sup>	A	Root	3400	E, C <sub>t</sub>	C#	43.75	g#	-Int.
		ff			<b>΄</b> π	п		∪ <b>#</b>	
109:7-12	Major Triad	Е	Root	460	Е	E	56.25	E, A,	+Int.
	,							В	
110:1	Major Triad	Е	Root	460	Е	Е	56.25	E, A,	_
	J.							В	_

Appendix B-An approach to melodic analysis of Debussy's Prélude à l'Après-midi d'un faune

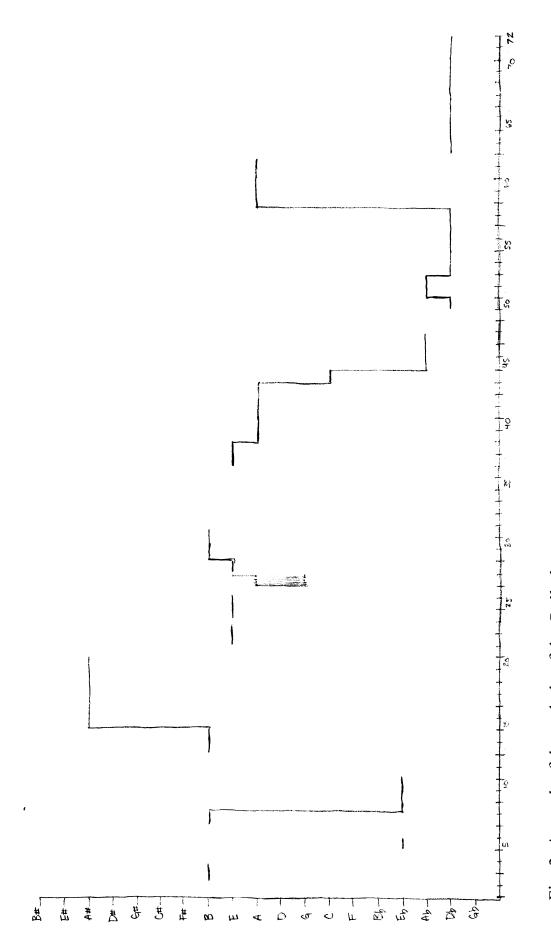


Fig. 3. A-graph of the melody of the Prélude.

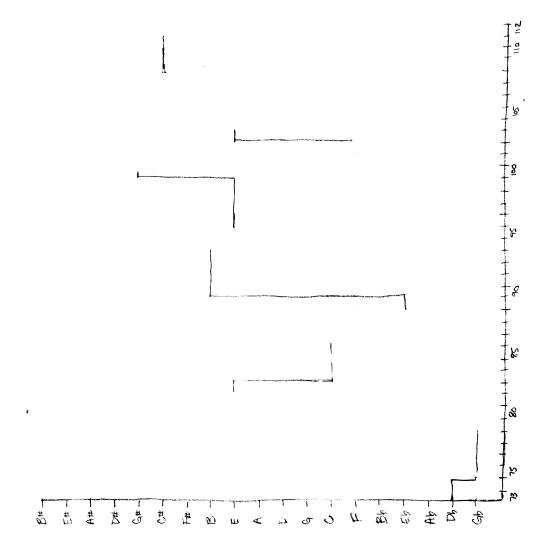
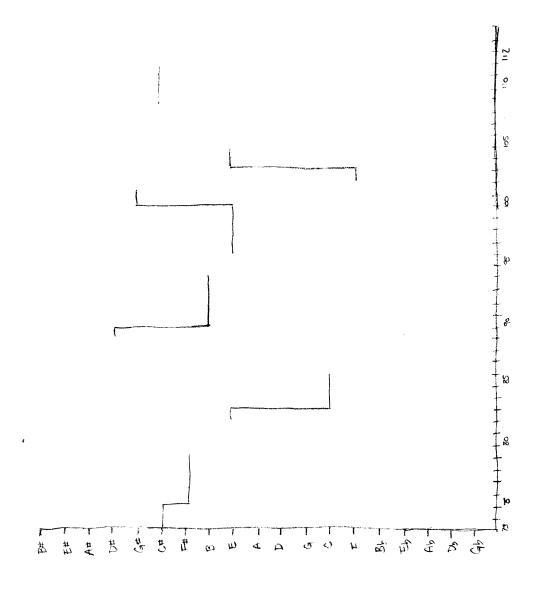




Fig. 4. A-graph of the melody of the Prélude, simplified by enharmonic change.



## Debussy's use of Sameness and Continuity in Melody

A similar approach may be taken to show that the melody of Debussy's *Prélude à l'Après-midi d'un faune* lacks tonal unity. By the Gustin A-Graphs, Fig. 3 and 4, one may show that a higher order B-Graph cannot be constructed. One also sees the constant juxtaposition of tonal and non tonal, which is the primary way Debussy creates a sort of antecedent-consequent relationship in the piece.

Debussy makes up for this lack of tonal unity by the continuousness of his melody and sameness of his motives. The entire piece may be shown to be derived from four motives. These motives are displayed and named on the page entitled Example 2. Closer analysis will show that most of the motives and phrases may be derived from the first phrase intoned by the flute, the faun phrase. The derivation is by interval relationships that are carried through from theme to theme and by the uses of certain fragments of one theme in another.

Besides this sameness between the primary phrases and motives, these motives are then repeated many times and changed in various ways throughout the piece. The excerpts in Tracks 14-25 show the various use of the faun motive: m. 1 (Track 14), m. 11 (Track 15), m. 21 (Track 16), m. 23 (Track 17), m. 26 (Track 18), m. 31 (Track 19), m. 34 (Track 20), mm. 79-82 (Track 21), mm. 86-89 (Track 22), m. 94 (Track 23), m. 100 (Track 24), and m. 107 (Track 25). Motives derived from the faun motive may be seen in m. 27 (Track 26), mm. 46-47 as a near inversion in the strings (Track 27), mm. 53-54 in the middle voice (Track 28), mm. 83-84 (Track 29), mm. 90-91 (Track 30), and m. 102 (Track 31).

Tracks 32-37 show the various use of the flowing motive. This motive is used in m. 24 as a sort of inversion (Track 32), m. 28 (Track 33), m. 61 (Track 34), m. 68 (Track 35), m. 75 (Track 36), and m. 96 (Track 37).

Tracks 38-44 show the use of the syncopated motive throughout the piece. This motive first takes place in mm. 39-40 (Track 38), then in m. 47 by the horns (Track 39), mm. 51-54 (Track 40) as a transition, m. 67 (Track 41), m. 74(Track 42), and mm. 95-98 in the violin duet and in diminuendo when the cello enters (Track 43). This motive is especially mixed with the flowing motive, for example in m. 62 (Track 44).

This use of motives is non-progressive, as the motives do not really develop by taking different forms in different tonal contexts. The effect of the melody is much the same as the harmony. By similarity and continuity, unity is created. Since the melodies are so similar, they seem to blend into one another. This is furthered by the mixing of the motives as the piece progresses. This also causes the melodies to lack motion, making the melody more contemplative, meditative.

Table 3. Melodic Analysis of Debussy's *Prélude à l'Après-midi d'un faune*.

Measures	Set Set	Root	Emphasized note
1-2	Ambiguous (If were to assign would have to be D or G  minor	N/A	C <sub>#</sub> , G
2-3	В	В	
5	E <sub>b</sub>	E,	
6	n/a		
7	В	В	
8-10	E,	E,	
11-12	Ambiguous	N/A	C♯, G
13-14 14-20	B  A <sub>#</sub> minor  (Pretty clear cut	В	
21	case) Ambiguous	N/A	C <sub>#</sub> , G
22	Е	Е	
23:1-9	E	Е	
23:10-12	Ambiguous	N/A	A, E
24-25	a, G or e	E	Emphasizes a-c-e; omits G
26	Ambiguous	N/A	C <sub>#</sub> , G
27:1,3,5,8	A or E	A	
27:2,4,6,7	C or G	G	
27:8,9	E pentatonic	Е	
28-30:9	В	В	
30:10	Ambiguous	N/A	
31	Ambiguous	N/A	G, D♯
32-33	F Whole tone	N/A	
34	Ambiguous	N/A	В <sub>ь</sub> , С <sub>ь</sub>
35-36	G, Whole tone	N/A	
37-38	B Pentatonic + E	E, B	
39-43	A	A	
44	C, G	C, G	
45-47	F minor/A <sub>b</sub>	A	
48-49	Ambiguous	N/A	
50	Seems like A <sub>b</sub> ,	D <sub>þ</sub>	

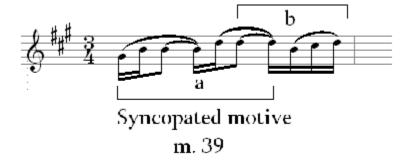
	could be D, or G,		
51-52	E <sub>b</sub> or A <sub>b</sub>	E♭, A♭	
53-54	D, or G,	D <sub>þ</sub> , G <sub>þ</sub>	
55-58:3:1	D, (pentatonic)	D,	
58:3:2-62:1	A or E	A, E	
62:2:1	This now makes last measure appear to be in A	A	
62:2:2-62:3	Now with the C <sub>b</sub>	N/A	
	the scales appears to be a varied whole tone scale		
63-66:3:1	D <sub>b</sub> pentatonic	D,	
66:3:2	D <sub>b</sub> (but not	D <sub>þ</sub>	
	pentatonic because of introduction of C natural		
67-74	D,	D,	
75-78	G,	G,	
79-81	Ambiguous	N/A	E, B
82	E,B,A	E	
83-85	F or C	C	
86-88	Ambiguous	N/A	
89	$E_{\flat}, B_{\flat}, \text{ or } A_{\flat}$	E,	
90-93	E or B	В	
94-95:3	Ambiguous	N/A	
95:4	E pentatonic	E	
96-99:2	Е	Е	
99:3	G <sub>#</sub> minor	E	
100-102	Ambiguous	N/A	C <sub>#</sub> , G <sub>#</sub>
103-104:8	F	С	
104:9-106	A or E	Е	
107	Ambiguous	N/A	E, G <sub>#</sub>
108-110	E,B,A or relative minor	C <sub>#</sub>	C <sub>#</sub> , G <sub>#</sub> , E

# Ex. 2. Motives in Debussy's Prélude à l'Après-midi d'un faune.

Faun Motive

## - mm. 1-4







Chopinesque Motive

### Praeces

"There is nothing in the world of music more beautiful than that piece. I would like to have it played to me on my deathbed."\*\* Maurice Ravel, an impressionist composer, said these words about Debussy's *Prelude to the Afternoon of the Faun*. This statement is important, because it implies that the piece has the requisites for beauty, among which the chief is unity.

This leads to a problem. Since the unity proper to music is the tonic, and the Prelude appears minimally tonal, it seems that the Prelude cannot be beautiful. This problem is especially evident in the harmonies of the piece.

However, there is debate as to whether the harmonies of the Prelude are tonal. On one side with Schenker are those who hold that meaningful tonal analysis cannot be applied to such harmonies. Others believe that Debussy's music is primarily tonal, but that the tonality is obscured by certain practices. Among these is Matthew Brown, who states that the piece may be "explained by tonal procedures." Through several analyses, using the Gustin Graph and Roman numeral analysis, it is seen that the harmonies are minimally tonal. On a large scale, the work as a whole cannot be called tonal because it does not unfold a single tone. On a smaller scale, meaningful Roman numeral analysis may not be applied, except for a few measures.

Although the Prelude lacks tonal unity, it is seen, through a new, elemental analysis, that the Prelude has another type of unity. It is unified by continuity, sameness, repetition, and overlapping of parts.

<sup>\*\*</sup> Albert M. Petrak, Booklet *Bolero*, *Daphnis et Chloe – Suite No. 2*, and Pavane pour une infante defunte. (Telarc, 1980) 4.