THE DEVELOPMENT AND SYNTHESIS OF FOUNDATIONAL IDEAS IN FOUR
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Introduction

Claude Debussy began several of his *Préludes* by presenting multiple discrete themes—I will call these “foundational ideas” (FIs)—and weaving them together over the course of each piece. Four pieces from Book I have this construction in common: “Voiles,” “Ce qu’a vu le vent d’Ouest,” “La cathédrale engloutie,” and “La danse de Puck.” Though the method of development in the preludes varies, Debussy’s themes in general are presented as discrete pieces, then developed, and finally form a previously unforeseen synthesized whole. This differs from “traditional” thematic development, which presents a theme, dissects it, and then reassembles it. The development that I observe is based on a change or addition of pitch rather than a change of rhythm or expansion.

Many scholars have delved into the work of Debussy and I have chosen to use excerpts from textbooks to summarize the prevailing opinion about this composer. There are regularly identified features characteristic of the composer’s music, such as Debussy’s use of scales other than the major or minor. Joseph Auner wrote, “In all but a few cases, Debussy showed little interest in remaining within any one scale, preferring instead a subtle interchange among diatonic, whole-tone, and octatonic elements.”¹ This preference for a variety of scales is generally accepted.

 Debussy’s treatment of form and phrase structure has also drawn attention. Regarding the composer’s melodies and deviation from traditional phrase structure, Auner wrote: “Debussy’s melodies tend to be short and static, often circling back to

where they began rather than creating the directional sense of tension and repose associated with traditional thematic phrase structure.”

The claim that Debussy’s melodies are circular seems to be common. Joel Lester wrote, “Many works of Claude Debussy . . . do not follow tonal formal models. Often in these works, traditional notions such as statement, variation, and development of themes seem to have been abandoned . . . Themes enter and exit, recurring among other themes in new surroundings, but without the same sense of ordering as in tonal forms.” Debussy used his themes differently than did his predecessors, incorporating his own kind of development. Also on the topic of form is the following excerpt from Robert P. Morgan’s Twentieth-Century Music:

The dynamic and progressive nature of large-scale Classical and Romantic designs gives way in Debussy to ‘additive’ structures, in which musical segments of varying degrees of similarity follow one another in an essentially ‘flat’ and nondevelopmental linear order… The basic formal technique involves subtle variations of repeated musical units, often by means of apparently insubstantial transformations, and the mediation of contrasting units through the retention of common elements.

Although I disagree that Debussy’s musical segments are nondevelopmental, it is true that varied musical themes often intersect with contrasting material in the preludes. On the surface, a Debussy piece in comparison to a large-scale Classical or Romantic work with a familiar formal structure can seem as though form has been abandoned. However, closer examination of what Morgan calls “apparently insubstantial transformations” can reveal a different kind of formal structure. In a typical Classical or Romantic piece, the themes once presented are then developed through a process of fracturing, which creates

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2 Ibid.
a large portion of the work. I argue that Debussy’s themes in these four preludes do not develop by being fractured and reassembled but rather are initially presented separately and eventually combined to create a whole. Rather than taking apart an established theme to develop it, Debussy will instead use the same theme but place it in a different context. That context may be beginning at a different pitch level, transporting the theme to a new pitch-class collection, or layering the theme with other musical textures.

Debussy preferred a variety of scales, such as octatonic, whole-tone, and pentatonic, and acoustic, not just diatonic collections. Often, the way in which Debussy chose to move between these scales was by the use of pitches that occur in both collections. He also tended to write short melodies that end the same place they begin. The form of his music was non-traditional, employing recurring themes that were varied subtly and contrasting elements written between repetitions of themes. These recurring and varied themes are what I have labeled “foundational ideas” (FI s) and are an integral part of my analyses.

Literature Review

Several articles and books were beneficial to this study. The sources consulted were general analyses of the piano preludes, articles about specific compositional devices used (such as the octatonic scale), and articles about formal structures. Of special value was an article by Allen Forte about Debussy’s use of the octatonic scale that contains information about specific places in the preludes where Debussy tended to use the octatonic scale as well as the connection between pitch-class structure and form.  

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Another useful article James Hepokoski’s “Formulaic Openings in Debussy.” Hepokoski’s work helps the reader better understand how Debussy constructs the openings of his pieces by laying out three formulas commonly used by the composer: the monophonic opening, the modal/chordal opening, and introductory sequences/expansions. Both articles reveal general patterns in the music of Debussy, which is similar to my analysis of the development and synthesis of foundational ideas.

Although the general impression is that Debussy’s music is nondevelopmental, closer examination reveals a developmental structure under the surface of seemingly simple, traditional forms. Richard Parks set theory useful to analyze Debussy’s music—specifically one of the preludes, “Brouillards.” He posited that smaller pitch-class sets are combined either to produce larger or new sets, and that later in the piece the larger sets are split into new subsets. Additionally, Parks argues that while pieces may contain common characteristics, each individual piece is ultimately “its own master.” I have found this statement to be true—while foundational ideas are present in each piece I will analyze, they are used and developed differently in each prelude. Roy Howat delved into Debussy’s use of the Golden Section in his book, “Debussy in Proportion.” Howat examines two piano pieces and a symphonic poem and explores how each piece is built around the ratio of the Golden Section. Additionally, a chapter in the book is devoted to whether the composer arranged his pieces in this way consciously or not. More recently, Richard Hoffman compared one of the preludes, Canopes, to traditional narrative

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structure, which includes an introduction, rising action, a peak or climax, falling action, and a conclusion. His paper uses this lens to interpret the unfolding of the piece and he posited that the Golden Section occurs at the climax of the prelude. He also used the programmatic title to help shape the narrative of his analysis, which I will do in my analyses as well. Hoffman states that traditional formal analysis would make this piece appear nondevelopmental, but he found that explanation “not wholly convincing.” In his 2004 article, “Scale Networks and Debussy,” Dmitri Tymoczko discussed Debussy’s techniques for moving between scales based on shared subsets or efficient voice leading using common tones. His work is similar to that of Parks, but Tymoczko attempted to specify not only that Debussy used certain scales but also why he did. Tymoczko also included graphs that demonstrate common-tone and voice-leading relationships between selected scales. Tymoczko applied these techniques directly to analyses of four piano pieces, two of which were preludes. In this thesis I will use a similar approach to show the development of foundational ideas, as common tones are an essential part of Debussy’s development.

Building on his earlier work on Debussy, Hepokoski examined the large-scale form of the first of Debussy’s Nocturnes, “Nuages” in 2010. He claimed that although studies of the piece consider the form to be more or less a traditional ABA’ format, a better reading would be five cycles that fall into a “rotational structure.” He traced two

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motives and their variants, which he called CLOUDS and SONIC SIGNAL. This tracking of repetitions and variants is similar to what I will call development of foundational ideas. His terms CLOUDS and SONIC SIGNAL are specific to the two motives in “Nuages,” whereas the conception of foundational ideas is more general and not limited to one specific piece.

Methodology

The preludes I have chosen to analyze all share a similar compositional aspect: in each of the pieces, Debussy sets up short motives—foundational ideas—early in the piece, often developing them and finally weaving all the FIs together to form a synthesized unit at the close of the work. A definition of motive written by Schoenberg is one that I have borrowed for my conception of FIs: repeating intervals and rhythms combined to produce a “memorable shape or contour.”\(^\text{12}\) The shape or contour of the FIs is memorable even in different contexts throughout the preludes. My goal is not only to identify what and where the foundational ideas in these four pieces are, but also how they are developed and ultimately presented together.

Each of the four preludes I analyze has a programmatic aspect, and I use these aspects to help shape my analyses and interpret the development of the foundational ideas. In “Voiles,” there is the sense that a veil is concealing something from the listener, and whatever it might be is never clearly revealed. In “Ce qu’a vu le vent d’Ouest,” the west wind creates a whirlwind whose effects can be heard but not seen. “La cathédrale

engloutie” slowly reveals a cathedral that has been submerged, only to have it sink out of sight again by the close of the piece. “La danse de Puck” seems to tell the story of Shakespeare’s “A Midsummer Night’s Dream” with a particular focus on the character of Puck.

In each prelude, the foundational ideas are presented initially as isolated events. Over the course of the piece they are altered, and at the close of the piece are synthesized. In general, the simultaneous or adjacent occurrence of all the FIs is the signal that synthesis has been achieved. While it is possible for two FIs to coincide during the piece, the combination of all FIs is withheld until the close of each piece. How this union happens is dependent on common tones between the FIs. Common tones enter in a variety of ways, as the FIs develop through gradual transformation, a change in collection, or the addition of a pitch. In each piece the FIs are woven together differently and I will ascertain how this is done by tracing their development and observing what ultimately causes synthesis to occur. Throughout this thesis I will show set classes in square brackets and pitch-class sets in parentheses, following the practice of Robert Morris.\textsuperscript{13}

\textit{Motivation}

J. S. Bach’s preludes were the Baroque pinnacle of the genre. \textit{His Das wohltemperierte Klavier} is a collection of twenty-four preludes in fugues, one in each major and minor key. The prelude paired with a fugue continued to be standard until the

late eighteenth century.\textsuperscript{14} The prelude made a reappearance in the 1800s in works inspired by Bach, for example Mendelssohn’s opus 35, a collection of six preludes and fugues. The prelude then evolved into the more typical Romantic genre, an independent piano piece. Chopin’s collection of twenty-four preludes (opus 28) were the prototype for the reworking of the genre (although Hummel’s \textit{Préludes} predate Chopin’s, Chopin has received the credit). Like Bach before him, Chopin also wrote a prelude in each major and minor key. Chopin’s preludes established the genre as a non-programmatic character piece.\textsuperscript{15}

In general, preludes were not given programmatic titles. Debussy’s set of twenty-four is a rarity in that regard, since he included programmatic titles at the end of the pieces. The decision to place the titles at the close of the preludes was deliberate, as the composer wanted to allow the listener to form their own programmatic ideas without interference. In addition to being placed at the end, the titles were also enclosed in parenthesis and preceded by an ellipsis. The deliberate displacement of focus on the titles shows how little Debussy was concerned with listeners adopting his own ideas about the images or emotions evoked by the music.\textsuperscript{16}

Debussy did not reveal much about his thought process or reasoning behind writing the preludes, but a few concrete facts are known. The fact that Debussy wrote twenty-four preludes is not coincidental, since this number of preludes was established

\begin{flushleft}
\textsuperscript{15} Ibid.
\end{flushleft}
well before his time. A convention that Debussy did not continue was writing one prelude in each key. Debussy’s preludes were written quickly—he wrote Book I between December 1909 and February 1910 and Book II was written about three years later, sometime around the end of 1912 and beginning of 1913 (precise dates are unavailable). The first performances of these pieces were done in groups of three or four—the first selection Debussy played for a public audience was Danseus de Delphes, Voiles, La cathédrale engloutie, and La danse de Puck. Debussy’s intention for writing the piano preludes seems to have been in response to his own internal impetus rather than anything external. This impulse can best be summed up in a quote by the composer about his compositions in general: “I write music only in order to serve Music as best I can, and without any other intention.” My motivation for studying his music is in response to this—serving music alongside Debussy by analyzing the way in which he pieced together these preludes.

“La danse de Puck” Analysis

This prelude has four main sections that are shown in example 1.1 and are labeled: A (mm. 1–17), B (mm. 18–52), C (mm. 53–86), and D (mm. 87–96). There are four foundational ideas in this prelude, shown in examples 1.2–1.5. These are the opening dotted melody, an ascending scalar pattern (usually made up of sixty-fourth or thirty-second notes), a triplet figure, and a chromatic dyad leaping an octave. Each of these foundational ideas spans an octave. Over the course of this piece, the listener hears the drama of Shakespeare’s A Midsummer Night’s Dream unfold—the impish character of Puck is given the most attention. The piece is lilting and dreamlike, full of seemingly abrupt changes and the quickly-moving “footsteps” of Puck.

19 Every musical example is taken from Claude Debussy’s Préludes.
Example 1.1. Form diagram of La danse de Puck.

The opening dotted melody (FI 1) is the longest of the four foundational ideas and is a distinctive, easily recognizable theme. It traverses the space of a fifth (F4 up to C5) and then immediately balances the upward motion with an octave descent down to middle C. The dotted rhythm changes to an even sextuplet that marks the ending of this theme. The character of Puck is expressed in this theme: a mischievous, unpredictable jester sent to wreak just a little bit of havoc.

The first time the ascending scalar pattern (FI 2) appears it is a complete F Dorian scale and it interrupts the opening melody (m. 3). Throughout the prelude, this
foundational idea interrupts or displaces other elements of the piece. One might imagine that FI 2 represents the characters of Hermia and Lysander, running into the forest and unwittingly crossing paths with Puck.

The third foundational idea, the triplet figure (FI 3), has a balanced contour like the first foundational idea but is an inverse image of it, descending first and then ascending rather than the other way around. The descending motion covers an octave as the first foundational idea does, and then the balancing ascending motion travels up a perfect fifth. This can be thought of as the entrance of King Oberon, usually significantly louder than the surrounding material as befits his regal standing, coming on the scene to dispatch orders to his shrewd servant Puck.

Like FI 3, the chromatic dyad, FI 4, also begins with a descending octave that is repeated several times. This is the only foundational idea that includes harmony, as though compensating for its static character. This foundational idea is like the character of Helena, unchanging and insistent as she chases after Demetrius.

Example 1.2. First foundational idea, La danse de Puck, mm. 1–2.20

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20 Every musical example is taken from Claude Debussy’s Préludes.
Example 1.3. Second foundational idea, La danse de Puck, m. 3.

Example 1.4. Third foundational idea, La danse de Puck, m. 6.

Example 1.5. Fourth foundational idea, La danse de Puck, m. 30.

Interruption drives this prelude forward—when a foundational idea is interrupted, this produces a push of forward motion that anticipates the moment when the foundational idea is finally heard in its entirety. Puck creates his fair share of trouble, just as Oberon ordered, but his execution is far from perfect and the plan often goes a little awry. Despite this, in the end the plan works just as it was meant to regardless of the missteps along the way. There are three different types of interruption that occur, all of which involve the first foundational idea. Type 1 interruption occurs when the opening melody is being interrupted by a different foundational idea. Type 2 interruption occurs when the opening melody interrupts another foundational idea. Type 3 interruption is
similar to Type 1 and occurs when the opening melody is being interrupted by two other foundational ideas. The most common type of interruption in this piece is Type 1; Types 2 and 3 each only occur once.

A significant aspect of this piece is the use of T1 transformation. I have borrowed from Michael Friedmann’s process of mode-mapping, in which the transformation from one element to another depends on the prevailing tonal system you are operating within.21 This idea is also explored by Tymoczko.22 Through this process, foundational ideas are developed by being placed in different contexts. For example, a T1 transformation in diatonic pitch-class space would change C to D, but a T1 transformation within chromatic pitch-class space would change C to D-flat. Example 1.6 demonstrates the process of mode-mapping within four different collections. The column on the right shows which collection is being used. The column on the left outlines the collection in pitch-class space and shows what a T2 transformation would be within that space—the row directly beneath each collection shows the order number. Though each is an example of T2 transformation, the results vary greatly depending on the collection. The collections are all modular spaces—for example, a T2 transformation starting on pitch-class 2 within the F Dorian scale would end on pitch-class 5. T1 transformations occur in multiple places throughout this piece, affecting three of the four foundational ideas.

Example 1.6. Examples of T2 transformations.

**First Foundational Idea**

The first foundational idea is introduced in m. 1, a lilting theme consisting of dotted rhythms and a sextuplet—this introduces Puck, intent to cause trouble. After the first complete occurrence of the first foundational idea in mm. 1–2, FI 1 attempts a repeat in m. 3 but is interrupted by the second foundational idea—this is the first occurrence of Type 1 interruption. When FI 1 appears again in m. 6 there is another abrupt Type 1 interruption, this time the result of the third foundational idea intruding—King Oberon announcing his orders for Puck.

In mm. 28 and 29, the rhythm of the first foundational idea reappears, but the pitches have changed. One can imagine this is Puck arriving and turning Bottom’s head
into a donkey head, then making Queen Titania fall in love with Bottom. The notes used are G, F-sharp (or G-flat), and E-sharp (or F-natural). This is an inverse, chromatic fragment of the first four notes of the original FI 1, which were F, G, C, and A-flat.

Example 1.7 below shows this fragment and its relationship to the original form of FI 1. This altered succession of pitches is repeated three times. The starting pitch of FI 1 has ascended a whole step, an example of T1 transformation in diatonic pitch-class space.

In mm. 57-58 and 61-62, the first foundational idea returns—it begins a second above its previous appearance in mm. 28-29, having once again undergone T1 transformation in whole-tone pitch-class space. Here Puck has enchanted Demetrius and Lysander, making them both fall in love with Helena and driving them to duel over her. Example 1.7 shows the change in FI 1 as it undergoes T1 transformation. The first line is the first four notes of FI 1 in its original form (m. 1). The second line shows the altered version of these four notes that occur in m. 28. The mapping is imperfect in this instance, as the pitch class set-classes are not preserved between m. 1 and m. 28—a form of [027] is transformed into a form of [012]. However, one can hear contour relations. The plus and minus signs are used to illustrate the inverse relationship between the transformations of FI 1—a plus sign indicates that the second note has risen, regardless of interval and a minus sign indicates that the second note has fallen, again regardless of interval.23 The third line shows the final transformation of FI 1 in m. 57. This transformation has returned to the contour and interval spacing of FI 1 in m. 1, but begins at a different pitch level.

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Example 1.7. T1 transformation of FI 1 from diatonic to chromatic to diatonic.

When the first foundational idea occurs in mm. 57–58, its function is to interrupt the second foundational idea. This is a Type 2 interruption, and the only time FI 1 is doing the interrupting rather than being interrupted. The second foundational idea as well as the interrupting first foundational idea are shown below to demonstrate the contrast between FI 2 interrupting (as in the A section, mm. 3 and 5) and FI 1 interrupting.
Example 1.8. Type 2 interruption, La danse de Puck, mm. 60–62.

With the return of the original key signature in m. 63 is the original first foundational idea, an octave higher than in the A section. FI 1 is played in its entirety twice and continues (albeit altered chromatically again in mm. 67 and 68) until it is interrupted by the FI 3. The chromatically altered first foundational idea and the interruption of FI 3 are shown in example 1.9. The interruption shown in example 1.9 is like the opening, but rather than the second foundational idea getting the first chance to interrupt, the third foundational idea cuts in.

Example 1.9. Type 1 interruption, La danse de Puck, mm. 67-69.

In m. 71, the first foundational idea returns in its original register with the direction en cédant (rallentando), as Puck begins to undo some of his mischief. Measures 71 and 72 are nearly identical to mm. 3 and 4—the first foundational idea begins but is
interrupted by the second foundational idea. A complete statement of FI 1 is thwarted until the close of the piece. The back-to-back interruptions of FI 1 in mm. 69 and 71 create a double interruption, which was referred to earlier as Type 3 interruption—this is the only occurrence of this kind of interruption in the piece. This is when the Puck story is at the height of its chaos. Lysander and Demetrius are on the brink of a duel for the affections of Helena, and Puck prepares to clean up the mess he has created on the orders of the king by drawing the two deluded men away from one another and their fight. A transitional section begins in m. 73 which incorporates another ascending thirty-second note pattern like the second foundational idea (four pitches again, like mm. 55-56 and 59-60, but this time E-G-A-B) as well as a vestige of FI 1—the same rhythm is used. The final time the first foundational idea is heard is in the closing section, which will be discussed later in this analysis.

Second Foundational Idea

As previously stated, the second foundational idea interrupts the first foundational idea in mm. 3 and 5, as Hermia and Lysander cross paths with Puck. Both instances delay a complete statement of the first foundational idea. The arpeggations in mm. 8–13 are like two of the foundational ideas, FI 1 and FI 2. The first arpeggiation is similar in contour to the second foundational idea, as both are rapidly ascending patterns. The descending arpeggiations maintain the rhythm of the first foundational idea. Both arpeggiations are shown in example 1.10.
Example 1.10. La danse de Puck, m. 8.

A stepwise succession of starting pitches occurs in mm. 8–18—the pitches are F (mm. 8 and 10), G (mm. 9 and 11–12), A-natural (m. 13), B-flat (mm. 14–15), and finally A-natural again, which ultimately leads to B-flat in m. 18. This elongated stepwise succession is similar to the first four notes of the second foundational idea, with the exception of A-natural replacing A-flat. This is another example of T1 transformation that continues through the piece (similar to the gradual change that occurred with the first foundational idea). In this instance, the transformation is occurring in chromatic pitch-class space.

The next occurrence of the second foundational idea arrives in m. 53. The transformations this FI undergoes mirror the confusion Hermia and Lysander experience as Lysander falls under Puck’s enchantment and inadvertently falls in love with Helena. Instead of including an entire scale in m. 55 as he did with the F Dorian scale in mm. 3 and 5, this time Debussy only wrote four notes and then repeated them an octave higher (F, G, A, B). These four notes (0246) are a subset of the whole-tone scale, a common resource for the composer. Measure 55 is identically repeated three times (mm. 56, 59, and 60). The four pitches used are nearly identical to the stepwise succession in mm. 8–18, but T1 transformation in chromatic pitch-class space has altered B-flat to B-natural.
This process of transformation that incrementally alters a Dorian tetrachord into a whole tone tetrachord is shown in the following example.

Example 1.11. T1 transformation of FI 2.

*Third Foundational Idea*

The third foundational idea is the triplet figure. Its first appearance in m. 6 was already mentioned, as it interrupted the first foundational idea. Here King Oberon coming on the scene and instructing Puck to wreak havoc on the love lives of several people—including Oberon’s wife—in order to get what Oberon wants. The pitch content of FI 3 is C-flat and G-flat. In m. 41, the fourth foundational idea appears in the right hand and is played together with the third foundational idea. This is the first time that two foundational ideas occur simultaneously. Though this time FI 3 features chords rather than single notes, the upper notes are the same pitches as the first time the triplet appeared. When FI 3 returns in m. 69, it is still a perfect fifth but the pitches used are D-
flat and A-flat. A comparison of the first and last pitches of both instances of FI 3 reveals that a foundational idea has undergone a version of T1 transformation in whole-tone space. Example 1.12 shows this—the T1 transformation pushes each pitch-class to the next pitch-class within its whole-tone collection. For example, T1(6)=8 in whole-tone space.

Example 1.12. T1 transformation of FI 3.

*Fourth Foundational Idea*

The fourth foundational idea, the chromatic dyad, first appears in m. 30. The octave leap in the right hand is a salient feature of mm. 30-41, as Helena chases Demetrius through the woods, desperate to make him love her. In m. 42 a descending triplet pattern enters, counterpointed by the fourth foundational idea. FI 4 is still present as the two sustained highest pitches (though no longer leaping down an octave), occurring simultaneously with the descending triplets. This pattern repeats and then is altered, leaping down a fifth, then a fourth, and ultimately ending an octave below where
it began. FI 4 is the only foundational idea that remains the same throughout the entire prelude—Helena’s love for Demetrius is unwavering.

_Synthesis_

The synthesis of all four foundational ideas begins in m. 87. The original key signature returns as well as the first foundational idea, again in the higher octave as it was previously in mm. 63-66. Underneath FI 1 is a trill as well as another mostly stepwise line. The first foundational idea is heard twice in its entirety and a fragment of it is played directly after in m. 91—much like m. 3. The difference between m. 3 and m. 91 is that the fragment of the theme begins and concludes on F, providing a circular closure previously lacking. Underneath the sustained F, the third foundational idea enters (it has maintained the pitches D-flat and A-flat from its last appearance in m. 70) and then closes on a sustained A-flat. While the F and A-flat are still sounding, the fourth foundational idea is played. The closing section is the only time in the entire prelude that these three foundational ideas sound simultaneously. The overlap of these three foundational ideas (plus the sustained low E-flat) is shown below in Example 1.13. There is no interruption occurring in this section of the piece—each foundational idea is complete. Foundational ideas have been interrupting one another and preventing complete statements since m. 3, so this lack of interruption is a significant change.
Example 1.13. Synthesis of FI 1, FI 3, and FI 4, La danse de Puck, mm. 91-92.

In the world of the Puck story, everything has been arranged so that each of the characters is at peace and has received what they wanted. Lysander has been disenchanted with Helena and his love for Hermia returns. The two are allowed to wed. Demetrius is still enchanted and in love with Helena (Helena is certainly happy, Demetrius is still enchanted which seems a little upsetting, but I digress). They are also to be married. King Oberon’s faithful mischief-maker, Puck, has carried out the king’s every order, however imperfectly. As the problems are resolved, the drama is ending.

The overlap of the foundational ideas as well as the lack of interruption both contribute to a sense of closure in this final section. The T1 transformation undergone by FI 3 has ensured that it has pitch-class material in common with both FI 1 and FI 4. The T1 transformation is an integral part of the synthesis, especially because FI 1 and FI 4 appear exactly as they did on their first appearance. An essential part of what brings the drama to a close is the commonality that is now shared between foundational ideas.

The last two measures are an occurrence of the second foundational idea. This time several pentachords, which are subsets of diatonic collections, follow one after the
other—A-flat major, E major, and C minor. This final time that FI 2 appears, it is not an interruption but rather the element that wraps up the end of the piece. The direction given for mm. 95-96 is “rapidly and fleeting.” One can imagine Puck’s flying exit, having completed all he was asked while simultaneously assuring the audience it was nothing but a dream. Example 1.14 shows these back-to-back pentachords that occur in mm. 95-96. The final note of each pentachord is a half-step away from the starting pitch of the next pentachord—T1 in a chromatic universe. The T1 transformations and the mischief of Puck are present throughout the entire piece.

Example 1.14. T1 transformation of FI 2, La danse de Puck, mm. 95-96.

The occurrence of common tones is what makes synthesis possible and in this piece the common tones are produced by way of T1 transformation. Of the four foundational ideas that are used to build this piece, three of them undergo T1 transformation at some point during the prelude. The other driving force behind the work is the interruption—and then subsequent lack of interruption—that is found throughout. These two aspects are what make the synthesis of all four foundational ideas possible.
“Voiles” Analysis

A hallmark of Debussy’s compositional style is his penchant for using collections that were less traditional during his time, such as whole-tone or pentatonic, a preference that is highlighted in his second prelude, Voiles. This entire work consists of two pitch-class collections, a whole-tone scale (02468t) and a pentatonic scale (1368t). The inversional symmetry inherent in these two collections limits the presence of an obvious tonal center and a sense of shrouded mystery is further enhanced by an attempt to define the ambiguous title of the piece. When translated into English it could mean one of two words, either “sails” or “veils.” The imagery of a veil is more compelling, as it is easy to imagine a veil blurring or hiding something when listening to this piece. The whole-tone scale encompasses most of the piece, whereas mm. 42–48 are comprised of pentatonic material.

The large-scale formal structure of the piece is ternary (ABA), with whole-tone outer sections framing a contrasting pentatonic central section, which example 2.1 shows. I have labeled each of the larger sections by their pitch class collection rather than a letter (mm. 1–41 are whole-tone, 42–47 are pentatonic, and 48–64 are whole-tone). The smaller sections within the larger sections are labeled by letter. There are five total smaller sections, labeled A through E. There are three foundational ideas in this piece, shown in examples 2.2–2.4.
<table>
<thead>
<tr>
<th>Whole Tone (02468t) Measures 1–41</th>
<th>A Section Measures 1-21</th>
<th>B Section Measures 22-41</th>
</tr>
</thead>
<tbody>
<tr>
<td>• First and second foundational ideas</td>
<td>• New melody</td>
<td>• New melody</td>
</tr>
<tr>
<td>• Rhythmic low B-flat</td>
<td>• Syncopated accompaniment</td>
<td>• Syncopated accompaniment</td>
</tr>
<tr>
<td>• FI 2 with filled in chords (m. 15)</td>
<td>• Sustained low B-flat</td>
<td>• Sustained low B-flat</td>
</tr>
<tr>
<td>• Ascending version of FI 1 (m. 18)</td>
<td>• Return of filled in FI 2 (m. 33)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pentatonic (1368t) Measures 42–47</th>
<th>C Section Measures 42-47</th>
<th>D Section Measures 48-57</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Scalar pattern (FI 3)</td>
<td>• Scalar pattern (FI 3)</td>
<td>• Continuation of FI 3 in whole tone space</td>
</tr>
<tr>
<td>• Climax of piece on forte quartal chord (m. 44)</td>
<td>• Climax of piece on forte quartal chord (m. 44)</td>
<td>• High repeat of FI 2—single notes</td>
</tr>
<tr>
<td>• Brief absence of low B-flat</td>
<td>• Brief absence of low B-flat</td>
<td>• Sustained low B-flat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Whole Tone (02468t) Measures 48–64</th>
<th>E Section Measures 58-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Synthesis of FI 1 and FI 3—six note version of FI 3</td>
<td>• Synthesis of FI 1 and FI 3—six note version of FI 3</td>
</tr>
<tr>
<td>• Chords and middle voice from C section</td>
<td>• Chords and middle voice from C section</td>
</tr>
<tr>
<td>• Low B-flat</td>
<td>• Low B-flat</td>
</tr>
</tbody>
</table>

Example 2.1. Form diagram of Voiles.1

The first twenty-one measures of this piece (the A section) introduce the first and second foundational ideas. The third foundational idea is an ascending scalar pattern that does not appear until the pentatonic section of the piece in m. 42. All three foundational ideas are shown below.
Example 2.2. First foundational idea, Voiles, mm. 1-5.

Example 2.3. Second foundational idea, Voiles, mm. 7-13.

Example 2.4. Third foundational idea, Voiles, m. 42.

The first foundational idea enters immediately—it is a motif of falling harmonic thirds, often in sixteenth notes and all in the right hand. There is an antecedent and consequent relationship, the first two measures being the antecedent and the second two the consequent. E, G-sharp (or A-flat), and C are structural pitches, an idea which is reinforced by the falling contour as well as the rhythm of the theme. It begins on E and G-sharp and sustains for a little over a beat which helps establish those two pitches, pauses on A-flat and C, and finally rests on C and E. Everything in between can be
thought of as passing tones, especially because the note values are typically shorter than those of the structural pitches. Salience defines the structural pitches here, in the absence of pitch stability.\textsuperscript{24} It is as though E\textsuperscript{5} and G-sharp\textsuperscript{5} are the top of the hill and gravity pulls the line all the way down to C\textsuperscript{4} and E\textsuperscript{4}.

The second foundational idea enters in m. 7. FI\textsuperscript{2} is a melody moving in octaves. It has an arch shape, rising from A-flat to E-flat and eventually returning to rest on A-flat once again. Like FI\textsuperscript{1}, there is a continued emphasis on A-flat, C, and E—A-flat is the beginning and the end of the line, C is the midway point where the melody rests in mm. 8 and 10, and E is the peak attained in m. 11. Unlike FI\textsuperscript{1}, which traverses the span of a little over an octave from beginning to end, FI\textsuperscript{2} traverses only a fifth and begins and ends in the same place.

The third foundational idea does not enter until m. 42. It is a quickly moving, continuously ascending scalar pattern. It begins in the pentatonic section of the piece but is eventually developed to fit into the final whole-tone section as well. To balance the other two foundational ideas, FI\textsuperscript{3} moves upward but the amount of space it traverses is not fixed.

First and Second Foundational Idea

Measures 1-4 are the initial presentation of the first foundational idea, and mm. 7-9 introduce the second foundational idea. Beginning in m. 5, both foundational ideas are accompanied by the rhythmic recurrence of a low B-flat. Measures 10-21 synthesize both themes as the two themes overlap one another. The almost immediate and extended synthesis of the first two foundational ideas is a unique feature of this prelude. This synthesis is shown in example 2.5. Measure 9 is included in the example in order to see the beginning of the second theme, despite the fact that it is the only voice sounding at the time. The first foundational idea is on the upper staff after the clef change and the second foundational idea is on the lower staff (the accompanying low B-flat is shown as well, but it is not part of either foundational idea).

Example 2.5. FI 1 and FI 2 simultaneously, Voiles, mm. 9–14.

Both themes are altered eventually—in m. 15, the octaves in the second foundational idea are filled-in to form chords. In m. 18, the rhythm of the first foundational idea changes from sixteenths to a dotted rhythm, and the thirds rise rather than fall. The pitches of the altered first foundational idea rise until the right hand returns to its initial position on the
first notes played in m. 1, G-sharp and E. The reversal of FI 1 in mm. 18–21 is shown below in example 2.6. The first foundational idea is not heard again until the close of the piece, during the synthesis of all three foundational ideas. Because of this, this analysis does not include a separate section dedicated only to the first foundational idea.

Example 2.6. Altered rising version of FI 1, Voiles, mm. 18-21.

Second Foundational Idea

Beginning in m. 33, the middle voice brings back the second foundational idea, the filled in octave melody previously heard in mm. 15–20. The low voice maintains its constant B-flat. This pattern continues until m. 38. Measures 38–41 are a transition into the next section, which begins at m. 42. This is the only time in the piece where FI 2 occurs without being accompanied by FI 1.

Transition: Whole-tone to Pentatonic

The third foundational idea is introduced in the pentatonic section of the piece, but is preceded by the three pitches that both the whole-tone and pentatonic collection have in common, B-flat, A-flat, and F-sharp. These pitches are used as transitional material beginning in m. 40. Moving back and forth between collections by way of common tones is not unusual in the music of Debussy. In m. 41 the repetition of common tones is pared down to B-flat and A-flat. The four-note gesture that begins m. 42

25 Tymoczko, “Scale Networks and Debussy.”
(A-flat, B-flat, A-flat, G-flat) reinforces the ties to the whole-tone scale because it also includes all the pitches the two scales share. This gesture is repeated four times throughout the next two measures, but is not part of any foundational idea. The example below shows the transition that occurs in mm. 41–42 from the whole-tone to the pentatonic collection. Each collection is bracketed, as well as the portion of the transition that belongs briefly to both collections. This short transition introduces the third foundational idea.

Example 2.7. Common tones of whole-tone and pentatonic collections in Voiles, mm. 41–42.

**Third Foundational Idea**

The third foundational idea is a flying, scalar pattern that begins in m. 42 and recurs throughout the rest of the piece. FI3 is made up of the pentatonic collection (1368t) rather than the whole-tone scale that has been in use up until this point. The pentatonic scale is only used for six measures, but the climax of the work is reached during its brief appearance in m. 44. The dynamic level rises gradually from piano in m. 42 to mezzo forte at the end of the same measure, and finally reaches forte in m. 44. The climactic chord on which the forte occurs is quartal, sustained, and one of the only moments in the
entire piece where the low B-flat is not sounding, and distinguishes this moment from the remainder of the prelude. After this, some familiar elements return—in m. 45 the low B-flat is once again a rhythmic punctuation and there is once again a syncopated accompaniment. The return to the whole scale is made smoother by the repeated A-flat and G-flat octaves in the middle voice—much like a common-tone modulation in the common practice period—because these two pitch-classes are common in both collections. Debussy once again used pitches in both scales for transitional material, reinforcing the importance of common tones to the composer.

Measure 48 is the beginning of the D section and the return of the third foundational idea. FI 3 continues repeating until the close of the section in m. 57. This is like the previous version of FI3 in mm. 42 and 43, but now the collection is whole-tone rather than pentatonic—this is another example of mode-mapping, like in Le danse de Puck. The similarity to the pentatonic scale is enhanced because Debussy only used five notes of the whole-tone scale at a time, rather than all six notes. Eventually in mm. 62–63, all six pitches are used in a single occurrence of the ascending pattern. The gradual alteration of FI 3 reacquaints the ear with the whole-tone scale. The following example shows both the pentatonic and whole-tone versions of FI 3 from m. 42 and mm. 48 and 49. Several things create a link between the pentatonic and whole-tone versions of this foundational idea—the use of common tones, common rhythmic content, similar contour, and a cardinality of five notes.

---

Example 2.8. Pentatonic and whole-tone versions of FI 3, Voiles, m. 42 and mm. 48-49.

The two variations of the pattern used are (68t02) and (8t024). Debussy chose to begin the altered third foundational idea with the pitches F-sharp, G-sharp, and B-flat. These are the three pitches that both the whole-tone and pentatonic collections use, and this commonality makes the switch back to the whole-tone scale happen smoothly. The upper voice is a repeat of the second foundational idea, but this occurrence is single notes, similar to what it was the first time it appeared in mm. 7–12. After the third foundational idea is moved into the whole-tone collection, the synthesis of the piece begins.

**Synthesis**

The last seven measures of this piece synthesize elements heard previously in the A and C sections. The first foundational idea, which has not been heard since the A section, makes its final appearance in mm. 58–61. The chords that accompany FI 1 in mm. 58–61 were first heard in the C section. The lowest voice is again the B-flat. Measures 62–64 bring back the third foundational idea, the scalar passages from the C
section, but this time all six notes of the whole-tone scale are used in the thrice-recurring pattern. The upper melody resembles the melody in mm. 25-27, but it is not identical. The piece ends simply and softly, on a *pianissimo* C and E.

Common tones are essential to the synthesis of the piece, but there are also three other factors that bring the piece to close: a return to the whole-tone scale, synthesis of the third foundational idea with each of the other foundational ideas, and transformation of the third foundational idea. These factors are not independent from the necessity of common tones, but they are specific to Voiles. When the whole-tone collection returns in m. 48, the first two foundational ideas remain almost the same as they were at the beginning of the piece. For the first time, the third foundational idea is played simultaneously with the other two foundational ideas—first with FI 2 in mm. 50-53, and then with FI 1 in mm. 62-63. The transformation of FI 3 happens gradually over the course of mm. 48-64. The last three times FI 3 appears, it is fully acclimated into the whole-tone scale and uses all six notes at once instead of five as occurred in mm. 48-49. Once the third and final foundational idea has been fully transformed, the piece comes to a close.
“La cathédrale engloutie” Analysis

The title of this piece, which means “the sunken cathedral,” conjures an image of a large Gothic cathedral looming out of the misty darkness. Over the course of the prelude the listener hears the cathedral emerge from the watery depths, only to sink back into obscurity by the close. There are three foundational ideas in this prelude: simultaneously struck static low and high chords, a series of rising open fifths, and a series of block triads. This piece is written in arch form ABCBA, with the introduction included in the first A section. Example 3.1 is a form diagram which illustrates the major sections (including the binary form within the A1 section), their measure numbers, and important features of this piece. The sections are labeled A1, B1, C1, B2, and A2.

<table>
<thead>
<tr>
<th>A1 Section</th>
<th>Measures 1-27</th>
<th>Introduction Measures 1-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>\cdot Small arch ternary form in intro: A (mm. 1–6) pentatonic collection, octave melody, C (mm. 7–13) new melody, preview of larger C section, return of A (mm. 14–15)</td>
</tr>
<tr>
<td></td>
<td>Measures 16-27</td>
<td>\cdot Continuation of octave-based melody</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Features pentatonic collections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Running LH accompaniment until m. 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Scalar pattern leads into B section</td>
</tr>
<tr>
<td>B1 Section</td>
<td>Measures 28-46</td>
<td>\cdot Slow-moving block chords accompanied by low sustained C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Measures 41–46 transition material</td>
</tr>
<tr>
<td>C1 Section</td>
<td>Measures 47-71</td>
<td>\cdot Repeat of melody heard in mm. 7–13, first single notes and then octaves</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot New melody mm. 53–67</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Transition to return of B in mm. 68–71</td>
</tr>
<tr>
<td>B2 Section</td>
<td>Measures 72-83</td>
<td>\cdot Melody an octave lower than before</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot LH running accompaniment</td>
</tr>
<tr>
<td>A2 Section (coda)</td>
<td>Measures 84-89</td>
<td>\cdot Repeat of opening theme</td>
</tr>
<tr>
<td></td>
<td></td>
<td>\cdot Ends on sustained pp C chords</td>
</tr>
</tbody>
</table>

Example 3.1. Form diagram of La cathédrale engloutie.
All three foundational ideas in the piece are shown in example 3.2 and 3.3. The first two ideas are shown together (the high and low sustained chord as well as the opening ascending open fifths). I have chosen to show the first five measures of the B1 section as a representation of the third foundational idea. In general, the first foundational idea is a sustained chord that simultaneously demonstrates the low and high registers of the keyboard. Often, but not necessarily, these chords are repeated and the left and right hands are mirrors of one another. Of the three foundational ideas, this one is the most varied in regard to pitch-class. It begins as just two pitch-classes, but most often includes four pitch-classes.

The second foundational idea is a series of rising open fifths that are part of a pentatonic collection. The rhythm is steady, always quarter notes. The direction given at the opening of the piece is profondément calme, dans une brume doucement sonore (profoundly calm, in a softly resonant mist), which gives the impression that Debussy was seeking ambiguity in the performance of this piece. Given the “misty” playing instruction and title of the piece, it is easy to imagine an immense shape that will eventually be recognized as a cathedral emerging out of a haze.

The third foundational idea begins as a white-key collection and is shown in example 3.3. The complete cycle of FI 3 is relatively long, thirteen measures, so for the sake of brevity the first five measures are shown in the example. This excerpt demonstrates the rhythmic as well as the tonal character of the foundational idea. FI 3 is made up of block triads with a center of C. It begins and ends on a C triad and is perhaps the most melodic of the foundational ideas in this piece, as the roots of the chords provide a singable and memorable line.
Example 3.2. First and second foundational ideas, La cathédrale engloutie, m. 1.

Example 3.3. Third foundational idea, La cathédrale engloutie, mm. 28–32.

An intrinsic feature of this piece is an abundance of fifths. In “La cathédrale engloutie,” there are many references to pentatonic collections and the significance of fifths in general, as well as octaves. There are four pentachords that are of significance; [02479], [01368], [01357], and [02368]. These four prime forms do not account for the entire prelude, but they do capture much of it.

There is a digression between the statement and restatement of the first and second foundational ideas. This occurs in mm. 7–12, when the switch from [02479] and [01368] happens. Continuity is achieved in the contrasting set classes of the introduction by the overlapping E, the only tone that both pentatonic groups have in common. The
pitches of these two pentachords are almost as different as is possible, because first
collection is all white keys (G, D, A, E, and B) and the second is nearly all black keys (E,
C-sharp, D-sharp, G-sharp, A-sharp). The common tone between the two collections, E,
is used to transition between the two pentachords. The transition from [02479] to [01368]
can be seen in example 3.4.

Example 3.4. Transition from [02479] to [01368], La cathédrale engloutie, mm. 5-8.

The E and B fifth in m. 5 of the piece recall the opening G and D fifth. The [01368]
section offers contrast to the opening, but also serves as a preview for a more sustained
appearance of that pentatonic collection and melodic material later in the piece. The
theme that begins in m. 7 is made up of octaves, and the only note that is played
simultaneously with the melodic line is the sustained E (for example, in m. 9 the pitches
E and G-sharp are heard together). The E is sustained for the duration of the melody
(mm. 7-13). The melodic material used in mm. 7–12 returns in the C1 section of the
prelude and is expanded then. The interaction of [02479] and [01368] gives the
introduction its own small arch form within the scope of the larger arch of the entire
prelude.
The first portion of the C1 section returns to the [01368] pentatonic collection. The G-sharp that transitioned into the section remains in force in the bass for nearly the entire section (mm. 47–71). Each time a new G-sharp sounds it is on a downbeat, which creates a steady left hand rhythm. The right hand melody is obscured and a little blurry because of the presence of chords extended over barlines. The melody that begins in m. 47 and extends to m. 53 recalls the introduction portion of the A1 section, specifically mm. 7–13, where the same melody was utilized but in a different octave. In m. 55, [02368] supplants [01368]—mm. 55–62 are the only time this pentatonic collection appears. This is new material, connected to the preceding measures by the extended G-sharp in the bass and similar rhythmic content. The bass G-sharp makes a final appearance in m. 67 and gets a low F-sharp added to it, along with a low C. The addition of C reintroduces it as the tonal center and begins the transition to the beginning of the B2 section. The transition ends with two measures of eighth notes, vacillating between C and D.

First Foundational Idea

The first foundational idea occurs in the A1 section: the introduction is mm. 1–15 and the remainder of the A1 section is mm. 16–27. The introduction is made up of two pentachords, [02479] (mm. 1–6, 13–15) and [01368] (mm. 7–12). The first foundational idea in this prelude is the only one that begins to change immediately after its initial appearance. In m. 1, it begins with just two pitch-classes, G and D, which fit into the [02479] pentachord—the pitches used in the pentachord are A, B, D, E, and G. From there, the bass line of FI 1 makes a stepwise descent and remains in [02479], only veering
briefly from it in mm. 3-4. The stepwise descent is shown in the example below and eventually leads to the pitch-classes C and G in m. 14—the G fits within the aforementioned pentachord, the C does not. In the example, each change of the foundational idea is given one measure regardless of actual duration to show the descent. The D that appears in the fourth measure of the example is the only step that is an octave with no fifth between, as well as being the bass note with the shortest duration of the descending line.

Example 3.5. Stepwise descent of bass line.

When the C reappears in the bass in m. 14 as part of FI 1, it marks the arrival of tonic. FI 1 has been developed to include four pitch-classes rather than two. It is significant that the chosen pitch center falls outside of the pentachord that is in force—this is not the only place that the combination of [02479] and C happens in this prelude. To continue the mental picture of rising from the mist, the moment when C overlaps with [02479] is when it can be realized that what is emerging is a cathedral.

In m. 22 the first foundational idea appears with the same pitch content as m. 1, but in a slightly different configuration. Measures 22–27 are still a part of the [02479] collection, but those measures are also a return to a white-key collection. In contrast to the white-key collection at the beginning of the piece, F and C are used rather than E and B which keeps C present—in fact, there is not another occurrence of a white-key
collection that excludes C for the remainder of this piece. E and B do appear briefly, but only as passing tones in the scalar pattern that appears in mm. 23–27.

**Second Foundational Idea**

The second foundational idea begins on the second quarter of m. 1 and rises the span of a ninth over the course of the measure. This series of rising open fifths is repeated identically in m. 3 and nearly identically once more in m. 5. FI 2 is counterpointed against the first foundational idea. When FI 1 reaches C and G in m. 14, FI 2 is restated once again. The right hand begins the same, but it eventually rises further than it has thus far and then descends to return to its starting point. The left hand part of FI 2 is different during this iteration, but still fits within [02479].

Though the pitch content of the remainder of the A1 section (mm. 16–27) differs in general from the original content, the intervallic content is the same and the reliance on [02479] remains. Measures 16–18 share only B in common with the opening. As the cathedral begins to surface from the haze bit by bit, the right hand retains its slow, octave-based melody. The pitch content stays within a pentatonic collection (the notes in mm. 16-18 are B, F-sharp, D-sharp, G-sharp, and C-sharp—a mostly black-key collection, in contrast with the opening; the notes in mm. 19-21 are E-flat, B-flat, F, G, and C) but the left hand changes to a quickly moving and wide ranging line up until m. 21. Measures 19–21 are almost entirely different from the pitch content of the preceding three measures, sharing only E-flat. D appears occasionally in the accompaniment, but it serves as a passing tone. Though mm. 16–21 differ in some ways from the original two foundational ideas, it is not difficult to hear transformed versions of both FIs. In mm. 17–
19, there are sustained high and low chords (FI 1), and in mm. 16–21 there is a consistent quarter note rhythm and general arch shape in the right hand material (FI 2).

**Third Foundational Idea**

The B1 section (mm. 28–46) is where the third and final foundational idea enters, made up almost entirely of slow moving block chords accompanied by a low, sustained bass note. While the first few measures are still a white-key collection, this is the first time in this piece where the cardinality of the pitch-class collection exceeds five. This is also the first time the dynamic is *fortissimo*—both of these factors make this section significant. C is the center, relentlessly present and reinforced in the bass up until m. 42. Measures 28–39 are made up of triads, utilizing planing, as in the opening of the piece. Because of the block triads, these measures are the most tonal sounding of the entire work, with C established as a solid center. C, D, and G are used in mm. 40–41 in order to begin the transition from the B1 section to the C1 section. These measures also have a new pentachord, [01357], which is the only occurrence of this pitch-class set in the piece. The transition from mm. 42–46 is shown below in example 3.6.

This pentachord lasts until m. 45, getting gradually softer as the transition winds down. The A-flat is the only pitch still sounding, then the enharmonic equivalent G-sharp replaces it, crossing the bar line of m. 46 and leading directly into the C1 section.

**Synthesis**

The second occurrence of the B1 section (mm. 72–83) returns to familiar territory. The center is still C, and the chords from the first appearance of the B section are used once again. The main difference in this appearance is the left hand, which is a motoric pattern of six eighth notes that is repeated until the section ends in m. 83. The three pitches used in this pattern are G, D, and C. The G and the D recall the original version of the first foundational idea, and the addition of C is the contribution from the third foundational idea.

The final A section (mm. 84–89) is the last occurrence of [02479]. This is the same pitch-class set as the opening, but with the addition of C. These measures are the only place in the prelude where elements from all three foundational ideas are intermingled. FI 1 is almost exactly as it was at the beginning of the piece, but C has been added to it. FI 2 is, again, almost identical save for the addition of C. C is the common tone that was needed for the piece to be complete, and the pitch came from FI 3. Measure 86 to the end is made up of a repeated block C chord, the last breath of the third and final foundational idea. The altered form of FI 1 accompanies it and the piece ends pianissimo as the cathedral sinks again into misty obscurity, drifting away on a C major triad.
“Ce qu’a vu le vent d’Ouest” Analysis

Debussy’s seventh prelude is one of the most difficult and technically demanding of the set of twenty-four—and even his piano works in general. The prelude is hurried, like a blustery storm tumbling through the atmosphere. It moves quickly from start to finish, with no rest or sense of finality until the close. The piece has four major sections which I am labeling A (mm. 1–14), B (mm. 15–34), C (mm. 35–53), and D (mm. 54–71). Like the other preludes I have analyzed, at the close of this prelude the composer brings back several previously separate foundational ideas and ties them all together.
<table>
<thead>
<tr>
<th>Section</th>
<th>Measures</th>
<th>Details</th>
</tr>
</thead>
</table>
| A Section | 1–14 | - Arpeggiated D7 chord  
- Repeated series of major triads  
- Whole-tone dyads  
- Key signature has three sharps |
| B Section | 15–34 | - Arpeggiated major triads ascending chromatically from E-sharp to A in RH  
- New melody over repeated series of triads  
- Return of whole-tone scale (m. 19–20)  
- Introduction of B-flat sextuplet  
- Key signature change in m. 23, back to three sharps at the close of the section |
| C Section | 35–53 | - Section begins with repetitions of B-flat sextuplet  
- Return of whole-tone dyads  
- Series of seventh chords interspersed with whole-tone dyads  
- Double voice exchange in m. 43  
- Measure 46 begins chromatic series of dominant seventh chords  
- Return of whole-tone dyads in m. 51 |
| D Section | 54–71 | - Alternation between F-sharp and G, then F-sharp and G-sharp  
- Return of D7 chord, major triads, and whole-tone dyads from A section |

Example 4.1. Form diagram of Ce qu’a vu le vent d’Ouest.

All three foundational ideas featured in this piece are shown below in examples 4.2–4.4. The first FI is condensed onto one stave. The first foundational idea begins in m. 1 and is a motoric pattern made up entirely of thirty-second notes—with the exception of one sixteenth note. This pattern begins as an arch-shaped arpeggiation of a D dominant chord.
seventh chord, but other notes are soon added to it. This foundational idea is not particularly melodic, but sets up the tumultuous feeling of this prelude quite well.

The second foundational idea is a repeating series of three triads, F-sharp, E-flat, and A, that begins in m. 7. This foundational idea maintains the arch shape that FI 1 began. FI 2 falls within an octatonic collection, which is something Debussy was wont to do near the beginnings of his pieces.27

The third foundational idea shifts from the octatonic collection in mm. 7-9 to an almost entirely whole-tone collection in m. 10. The whole-tone scale is another often-used resource of the composer—the only note outside the whole-tone collection in mm. 10-14 is the F-sharp played by the left hand. FI 3 is more melodic than either of the previous foundational ideas. The right hand plays a series of major seconds over an alternation between F-sharp and G in the left hand.

Example 4.2. First foundational idea, Ce qu’a vu le vent d’Ouest, m. 1.

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27Forte, “Debussy and the Octatonic.”
Example 4.3. Second foundational idea, Ce qu’a vu le vent d’Ouest, mm. 7–9.

Example 4.4. Third foundational idea, Ce qu’a vu le vent d’Ouest, mm. 10–12.

First Foundational Idea

The A section is mm. 1–14 and it begins with an arpeggiated D dominant seventh chord, the first foundational idea. FI 1 makes up mm. 1–6 of the piece to form a smaller group within the larger A section. FI 1 continues almost identically through m. 4, but in m. 3 an E-flat appears above the arpeggiation on beats two and four (on beat four it is preceded by two grace notes). The pattern changes in m. 5—instead of retaining the ascending and descending D major seventh chord, there is a descending three-note sequence (A-flat, G-flat, E-flat) followed by the descending arpeggiation of the D major seventh chord. The addition of these three notes helps to prepare the listener for the upcoming second foundational idea, in which F-sharp and E-flat are instrumental. This continues until m. 7, first ascending to what is seen in the example below, and then descending back to where it began.
Though the first foundational idea does not return in its entirety until m. 57, there is a piece of it in mm. 55 and 56 at the close of the C section. The grace notes are a descending arpeggiation of the now familiar D dominant seventh chord. In m. 56 the grace notes from mm. 3 and 4—A-flat and G-flat—are reintroduced. However, instead of A-flat and G-flat leading to an E-flat as they did before, they lead to its enharmonic equivalent, D-sharp. All of this is occurring over a bass line that alternates between either F-sharp and G-natural or F-sharp and G-sharp. This is a familiar bass line, as it is almost identical to what accompanied the third foundational idea previously.

The first foundational idea returns in m. 57. FI 1 reappears as it was in m. 5, ascending first and then immediately followed by the descending A-flat, G-flat, E-flat and the descending arpeggiation of D dominant seven. This continues through m. 58—the only change in mm. 57 and 58 from mm. 5 and 6 are the final two notes. During the first occurrence they were D and C, but this time they are C-flat and B-flat.

Second Foundational Idea

The second foundational idea begins in m. 7—a series of major triads with roots a minor third (or augmented second) apart—as aforementioned, these triads are F-sharp, E-flat, and A. The minor-third spacing of the chords gives the clue that this is a subset of
the octatonic scale (0134679). The F-sharp chord is the lowest, and the pattern rises through E-flat to A and then falls back down through E-flat to F-sharp.

The return of FI 2 is immediately after the return of FI 1 in m. 57. In m. 59 the same rhythms and contour as before are used, but the chords are C, G-sharp, and D and do not conform to the octatonic collection. However, the octatonic collection and previous chords return in m. 62—this measure is identical to m. 8. The bass line during the last beat of m. 61 helps make the switch back to the octatonic collection by climbing stepwise from C to D to E and finally back to F-sharp. This is shown in example 4.7.

Example 4.6. Return of FI 2, Ce qu’a vu le vent d’Ouest, mm. 59–62.

Third Foundational Idea

In m. 10, the octatonic collection gives way to a whole-tone collection in the right hand, and the third foundational idea begins. The pitches are C-sharp, D-sharp, G, A, and B. In the left hand there is a tremolo between F-sharp and G. This continues through m. 14. The first instance of all three foundational ideas can be found in the A section.

An alternation between C and D begins in the second half of mm. 23 and 24, and although only two notes are used the emphasis on the dyad is like the third foundational
idea. The alternating dyad is played continually from m. 25 until the first half of m. 30. B-flat, F-sharp, A, and B-natural appear over the dyad, creating a fragmented sort of melody as well as the set class (023458). The dyad begins to rise chromatically in the second half of m. 30 and lands on E and F-sharp on the downbeat of m. 31. Over the dyad D-sharp, A-sharp, C-sharp, and D-natural are played, which is again the set class (023458).

In mm. 33 and 34, there is a chromatically ascending whole-tone pattern that prepares the way for the return of the third foundational idea as well as the beginning of the C section in m. 35. The pattern leads directly into FI 3 by way of chromatic half steps, from F and G up to C-sharp and D-sharp. In m. 35, the accompaniment is different for this iteration of FI 3 than it was in mm. 10–14. This time it is a thirty-second note sextuplet playing a C-sharp spanning two octaves—though this accompaniment is not part of a foundational idea, it is familiar material. The same rhythm and wide range of octaves previously appeared in mm. 21–24. This repetition of the foundational idea with the same pitches but a different rhythm continues until m. 38 and then is interrupted by a *fortissimo* new dyad which still conforms to the whole-tone scale—D-sharp and E-sharp—as well as a series of seventh chords (E-sharp half diminished, B major, D-sharp minor, and G-sharp minor). Measures 39–42 are a repeat of mm. 35–38.

*Synthesis*

The synthesis of the foundational ideas in this piece happens over a much shorter span of measures than the other preludes I have analyzed. It takes place during the last three measures of the piece before coming to an abrupt close. This sudden resolution is in
keeping with the programmatic aspects of the piece—the west wind flies by and is swiftly gone. Measures 69 and 70 are made up of material from FI 3. The C-sharp and D-sharp in the second half of m. 70 are played again in m. 71 simultaneously with pieces of other foundational ideas. The final chord of this piece interesting. It is an F-sharp major triad with an added sixth, and it represents several elements of the piece all at once. First of all, it is the beginning of FI 2 and FI 3 played simultaneously—the C-sharp and D-sharp dyad comes from FI 3 and the F-sharp triad comes from FI 2. This is shown in example 4.8—there are boxes around the pieces from FI 2 and FI 3. Not only is this moment a synthesis of two foundational ideas, but it is also a T1 transformation of FI 1. Finally, the F-sharp has been maintained as the lowest sounding note, a feature which has returned repeatedly throughout the prelude.

Example 4.7. Synthesis of FI 2 and FI 3, Ce qu’a vu le vent d’Ouest, mm. 69–71.
Conclusion

The two general conditions for the synthesis of all the foundational ideas in “Voiles,” “Ce qu’a vu le vent d’Ouest,” “La cathédrale engloutie,” and “La danse de Puck” are (a) the presence of common tones and (b) the occurrence of foundational ideas either simultaneously or consecutively. Common tones between the foundational ideas are created differently from piece to piece—they can be manufactured by way of T1 transformation, addition of a pitch, or transfer of a foundational idea to a new collection. Friedmann’s process of mode-mapping is helpful when examining the subtle development of foundational ideas. Over the course of each prelude I analyzed, I suggest that Debussy gradually created common tones between the foundational ideas as well as arranged them either consecutively or simultaneously. The pieces I analyzed had three or four relatively short foundational ideas each.

The subtle changes Debussy made are the way he developed the foundational ideas to create a synthesized whole at the close of each prelude. It is likely that he used this method of development in his other works. Possible avenues for future research include finding foundational ideas and eventual synthesis in larger-scale works by beginning an analysis from the conclusion of a piece and working backwards to discover the discrete foundational ideas rather than focusing only on solo piano pieces.
Bibliography


