Repetitive Variety and Other Balancing Acts: Debussy’s Transcendental Oscillations

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Since the late nineteenth century, a favorite harmonic device of composers both popular and classical has been what I call the transcendental harmonic oscillation, or *transcendental oscillation* for short. The term refers to any alternation between two harmonies that goes beyond traditional tonal syntax. In Example 1, from a modal jazz composition by Freddie Hubbard, a repeated oscillation between A♭ minor and B♭ minor seventh chords supports the trumpet melody. This cyclical harmonic background, which suggests the mode of A♭ Dorian, persists for nearly the entire track and lies outside the common practice of tonal music. In this article, I begin with theory—what are transcendental oscillations?—and proceed to analysis. Specifically, I examine transcendental oscillations in the music of Claude Debussy (1862–1918), a devotee of the technique.¹

In the seventeen decades since Richard Wagner oscillated between A major and F♯ minor root-position triads at the opening of *Lohengrin* (1850), innumerable composers have used transcendental oscillations. Indeed, we could spend many pages discussing the functions of these harmonic devices in the symphonies of Jean Sibelius, the Broadway musicals of Stephen Sondheim, or the pop songs of bands such as Destroyer or the Cars. However, Debussy is in some respects the catalyst for the pervasive use of transcendental oscillations in the twentieth and twenty-first centuries, so it is on his music that I focus in the second half of this article. In texted or program music, transcendental oscillations tend to coincide with three overlapping categories of affect: the natural, the sensual, and the meditative. Debussy’s oeuvre furnishes examples from each category.

Most discussions of foreground harmonic oscillation have appeared in studies of popular music rather than art music. For instance, Christopher Doll investigates “two-

¹ Michael Friedmann introduced me to Debussy’s “two-chord riffs.” Thanks also to Nicholas Stoia, R. Larry Todd, Philip Rupprecht, Jacqueline Waeb, the anonymous reviewers, and my family for helpful comments on drafts of this article.
chord loops” as a common device in rock. 2 David Temperley gives examples of such alternations, like the i7–vi7 cycle in the Doors’ “Light My Fire.” 3 Mark Spicer observes that many popular songs start with an introduction “built upon an oscillating two-chord vamp.” 4 Peter Bouffard has shown that the five sections of “Flamenco Sketches,” a 1959 jazz track by Miles Davis and Bill Evans, are each governed by a harmonic oscillation in the piano part. 5 And Philip Tagg devotes considerable space to two-chord “shuttles” within his broader discussion of progressions in popular music. 6 Yet notwithstanding the popular focus of most analyses of harmonic oscillation, several musicologists have noted Debussy’s repetitive chord cycles. For example, Arthur Wenk argues that Debussy often prolongs sonorities by means of chordal oscillation over a pedal point, halting forward motion and rendering the music static. 7 James Hepokoski observes that cyclic chordal openings in Debussy’s music connect “the ‘normal’ . . . world with the purer world of enchantment and art”; they also “exorcise the expectation of the conventional world . . . by negating the presumption of the forward thrust of time itself.” 8 Sylvene Bourion studies Debussy’s “duplication” processes, in which the composer restates an

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5 Peter Bouffard, Foundations for a New Mode of Expression in Modern Jazz (DMA diss., New England Conservatory, 2004), 12.


idea once before moving on to something new. She theorizes that Debussy’s duplicative impulse emerged from the principle of ABA ternary form.\(^9\) Many of Bourjon’s examples of duplication contain oscillating progressions. Against this backdrop, the present article shines a spotlight on a particular type of repetitive progression: harmonic oscillation that goes beyond the conventions of traditional tonality.

1. TRANSCENDENCE

In this article, I treat traditional tonality as synonymous with common practice.\(^10\) It is difficult, if not impossible, to define the concept in a way that satisfies everyone. Is the common practice a set of pieces, a set of composers, or a set of progressions? When did it start and end (if at all)? And what exactly is meant by the word “common”? Despite these and other uncertainties, the idea persists because it describes a real phenomenon, what Daniel Harrison calls a “voluntary restraint of trade” among Western composers of a certain era.\(^11\) Although the styles of composers such as François Couperin, Giaochnino Rossini, and Johannes Brahms differ markedly from one another, certain harmonic devices—such as the V\(^2\)–I authentic cadence—are common to all three. For the sake of clarity, I consider common practice to be the set of harmonic progressions found in eighteenth-century Western music. This practice is common in that it overlaps significantly with the harmonic tendencies of earlier and later eras and continues to saturate our day-to-day musical experience. The definition’s focus on the 1700s is somewhat arbitrary, but not entirely: the eighteenth century is a nexus of important developments in music history such as Viennese Classicism, the flowering of instrumental genres, and the rise of opera buffa, not to mention such legendary composers as J. S. Bach, Handel, Haydn, and Mozart. All available definitions of the common-practice period include the eighteenth century, yet they often disagree on how far the practice extends on either side of the 1700s.\(^12\) Moreover, defining traditional tonality as progressions found in eighteenth-century music precludes


\(^10\) The latter term was coined by Walter Piston, Harmony (New York: Norton, [1941] 1987), xv.


excessive “caviling about how and when ‘traditional tonality’ died and ‘contemporary tonality’ began.”

With this notion of common practice in mind, we can define transcendental harmony as progressions of the nineteenth, twentieth, and twenty-first centuries that deviate from eighteenth-century harmonic norms. In the decades following Alexandre-Étienne Choron’s pioneering description of tonalité in 1810, composers gradually added new elements to the harmonic lexicon. This departure from (or, according to some accounts, expansion of) the common practice accelerated over the course of the nineteenth century in approximately exponential fashion until the groundbreaking experiments of such composers as Debussy, Igor Stravinsky, and Arnold Schoenberg.

As an example of a transcendental progression, consider an oscillation between chords related by chromatic mediant. Chromatic-median motion appears often in nineteenth-century music, including works by Beethoven, Rossini, Schubert, Tchaikovsky, Wagner, Brahms, and Bruckner. David Kopp argues that, in nineteenth-century music, chromatic-median motion is a legitimate tonal function, in the same conceptual sphere as dominant or subdominant. Chromatic-median oscillations form a subset of chromatic-median progressions; we find examples in music by composers such as Tchaikovsky and Brahms (Example 2). However, the device is atypical of Baroque and Classical music. As a result, I would venture that although it is an important ingredient of nineteenth-century practice, this type of oscillation lies outside the category of traditional tonality. Indeed, the increased prevalence of chromatic mediants in the nineteenth century represents an early expansion of the harmonic lexicon to include elements external to the common practice. Hence, harmonic oscillations between chromatic mediant-related chords are transcendental.

The prolongation of traditional tonal functions constitutes one of the two principal ways in which transcendental oscillations emerged in Romantic music. During the transition back to the home key of C major in Example 2, the dominant G major harmony

13 Harrison, Pieces of Tradition, 5.
14 I recognize that harmony is not the only domain in which nineteenth- and eighteenth-century music differ. Consequently, a nineteenth-century composer may use an eighteenth-century progression in a way that is foreign to Classical style—for example, by employing a particular collection of timbres. However, I do not consider such uses of eighteenth-century harmony to be transcendental harmonic progressions, since their harmonic content is still idiomatic to the eighteenth century.
18 Chromatic-median relations sometimes occur across section boundaries in Baroque and Classical music, but they are extremely rare within phrases (ibid., 18).
Example 2: Johannes Brahms, Piano Trio No. 2 in C Major, Op. 87 (1880), first movement, mm. 121–28

Example 3: Antonín Dvořák, Symphony No. 9 (1893), finale, mm. 10–17

is prolonged by an interpolated Eb chromatic mediant; this interpolation creates the transcendental oscillation. In addition to prolongation, the other primary avenue for transcendental oscillations in Romantic music is substitution, in which an unconventional chord substitutes for a traditional one. For instance, the main theme of the last movement of Antonín Dvořák’s Symphony No. 9 (“New World”) features a diatonic mediant chord (III) where a dominant chord would be expected (Example 3). Indeed, the consequent phrase of Example 3 seems to “correct” the antecedent by replacing III with V.
2. Structure

At a minimum, every oscillation contains two chord changes: a motion from the first harmony to the second and from the second back to the first. If the oscillation ends at that point, it has the form ABA, where each letter stands for a chord. I call this type a minimal oscillation. Because the temporal structure of much Western music is founded on multiples of two, minimal oscillations are often embedded in four-chord progressions with the form ABAC or CABA, where C stands for a chord that differs from those in the minimal oscillation.

If a minimal oscillation is part of a progression with the form ABAC, I call the progression responsorial. I use this term because in such progressions, the “C” chord seems to respond to the “B” chord as follows:

\[
\begin{array}{ccc}
B & C & A \\
A & A & \\
C & & \\
\end{array}
\]

Taken from a pop song made famous by Michael Jackson, Example 4 demonstrates a responsorial progression: the statement Eb\(^{m9}\)–B\(b\) in mm. 1–2 (not counting the anacrusis as a measure) is answered by Eb\(^{m9}\)–Cb/D\(b\) in mm. 3–4. This statement-response structure creates a transcendental oscillation of one and a half cycles between the chords Eb\(^{m9}\) and B\(b\).

I hear the A\(b\)/B\(b\) chords in mm. 2 and 4 as ornamental; the main chords in those measures are B\(b\) and C\(b\)/D\(b\), respectively. The structure of responsorial progressions resembles the parallel period familiar from Classical music. A period has the form basic idea 1—contrasting idea 1—basic idea 1—contrasting idea 2—in other words, ABAC, the same structure as a responsorial progression. The C component responds to the B component just as the authentic cadence at the end of a parallel period answers the half cadence at the end of the antecedent. In the case of “Rock with You” (Example 4), the C\(b\)/D\(b\) sonority in m. 5 responds to the B\(b\) chord in m. 3.

When a minimal oscillation is embedded in a progression with the form CABA, the progression is an arch. We can visualize these progressions as having an arch shape:

\[
\begin{array}{ccc}
B & & \\
A & A & \\
C & & \\
\end{array}
\]

If such a progression is followed by a return to the “C” chord, the impression of an arch-like structure is all the more apparent, for we hear the palindrome CABC.
Example 4: Rod Temperton, “Rock with You” (1979), chorus

I wanna rock with you. (All night.)

Example 5: Dvořák, Vodník (1896), 9–18 mm. after rehearsal number 13

Example 5 contains two arch progressions side by side. The first arch progression has the basic form CABA, with the letters A and B standing for B♭ augmented and D major, respectively. The second arch progression is extended to create the palindromic form CABAC (with A standing for the D♭ minor chord and B for the F♯ minor). The first oscillation involves B♭ augmented and D major triads, while the second involves D♭ minor and F♯ minor chords.

When an arch or responsorial progression immediately repeats, the result is a double oscillation, in which one harmony alternates with two other harmonies. For example, if the responsorial progression ABAC is repeated, we obtain the form ABACABAC, which contains the oscillations ABA and ACA. Thus, the “A” chord oscillates between the two distinct harmonies “B” and “C” and creates a double oscillation. Depending on which chords occur on strong hypermetric beats, it is possible to hear a double oscillation as evoking either an arch or a responsorial form. Example 6, from Sibelius’s last tone poem, shows how a possible shift in placement of the hypermetric downbeats can create the impression of a responsorial progression (m. 64) as opposed to an arch (m. 51). At the start of the excerpt, the E chord occupies a hypermetric downbeat; accordingly, I interpret the ensuing four-measure progression as an arch form. However, if we hear the B minor
Example 6: Jean Sibelius, *Tapiola* (1926), mm. 51–68, reduction

hypermetric downbeat

\[
\begin{array}{cccccc}
\text{E} & \text{Bm} & \text{C}\flat m^7 & \text{Bm} & \text{E} & \text{Bm} & \text{C}\sharp m^7 \\
\text{[Allegro moderato]} & & & & & & \\
\text{Vla.} & & & & & & \\
\end{array}
\]

triad in m. 64 as a new hypermetric downbeat, then the subsequent progression has a responsorial (ABAC) structure.

If a single oscillation contains at least two statements of each harmony such that its form is ABAB \ldots, I call it *complete*. In a complete oscillation, each AB pair is called a *cycle*; thus, an oscillation with the structure ABAB lasts for two cycles. If a four-chord progression contains an oscillation, the progression must have one of three forms: ABAC (responsorial), CABA (arch), or ABAB (complete oscillation). Example 7, from Debussy's *Préludes*, shows a complete oscillation with two cycles. Here, the harmony starts with two cycles of a transcendental oscillation between two dominant (major-minor) sevenths. It proceeds to a more traditional progression from pre-dominant (vi\(^7\)) to dominant (V\(^9\)) to tonic (I).

So far I have classified transcendental oscillations by their form, but they can also be categorized by content. In this respect, transcendental oscillations comprise two large groups: modal and chromatic. Modal transcendental oscillations (or simply *modal oscillations*) are transcendental oscillations whose pitches belong to a single diatonic collection. Chromatic transcendental oscillations (*chromatic oscillations* for short) are transcendental oscillations that are not diatonic.
Example 7: Claude Debussy, “La Fille aux cheveux de lin” (1910), mm. 8–10

3. MODAL OSCILLATIONS

I understand “modal music” to mean diatonic music that does not adhere to the common practice. Thus, a passage need not be in one of the seven diatonic modes to be considered modal, for there might be no clear tonic. However, some modal music is in a particular mode. In addition to the modes of Dorian, Phrygian, Lydian, and Mixolydian, transcendental oscillations also appear in Ionian and Aeolian. (I do not discuss Locrian owing to its extreme rarity.) Two pieces of information determine the mode of a diatonic passage: the tonic pitch and the macroharmony, or collection.19 For example, if the tonic is D and the macroharmony is the A major scale, the mode is D Lydian.

Tonic determination depends on two types of clues: direct and auxiliary. Direct clues are qualities of a sonority that make it sound like tonic. These include long duration, accent, repetition, and internal consonance (in the case of a chord). Presence is also a direct clue: while it is possible for a tonic to be implied in its absence, the actual presence of that sonority in the music helps confirm its tonic status.20 By contrast, auxiliary clues are qualities of sonorities that make another sonority sound like tonic. For example, preceding the tonic with a dominant seventh whose root is a fourth below the tonic’s is extremely common in Western music. As a result, the mere appearance of a dominant seventh can lead the listener to assume that the local tonic is a fourth above the root of the seventh chord. More generally, Brett Clement gives five attributes of “tonicizers,”

chords that make the following sonority sound like a tonal center. One such attribute is the inclusion of one of the pitches of the diatonic tritone in the tonicizer. That is, if a chord contains one of the tritone notes, the chord that follows it is more likely to sound like the tonic.21

When we try to deduce the mode of a passage of music, Ionian (major scale) and Aeolian (natural minor) are the default choices because they are so deeply ingrained.22 Ramon Fuller posits that Ionian and Aeolian became the two most common diatonic modes because their tonic triads do not contain notes of the diatonic tritone; therefore, these triads are unlikely to tonicize other chords.23 If the intervocal rivalry theory is correct, “any note will suffice as a tonal centre until a better candidate defeats it.”24 Ionian and Aeolian have an advantage over other modes from the start because they are the defaults. Therefore, in order for another mode to “defeat” them, there must be strong evidence that the tonic of that mode is the true tonic of the passage. Because this evidence needs to be compelling, it generally includes direct clues and not just auxiliary ones. At the very least, the tonics of Dorian, Phrygian, Lydian, and Mixolydian passages are always present somewhere in the sounding music. Tonic repetition—another direct clue—can reinforce the mode and prevent the default assumption of Ionian or Aeolian from retaking control.

As mentioned above, tonic pitch and diatonic macroharmony together indicate the mode. We have tools for identifying tonic, but how can we deduce the macroharmony? Every diatonic collection is defined by three pitches: the two notes of the diatonic tritone and one other pitch. For example, the tritone G–C♯/D♭ (pitch classes 7 and 1) belongs to both the D major and A♭ major collections, but when we add A♭ (pitch class 9), the only diatonic set containing all three notes is the D major collection.25 Therefore, any diatonic progression that contains a tritone defines a particular diatonic collection, since every harmonic progression contains at least three distinct pitch classes.26 These are collection-defining progressions, of which collection-defining oscillations form a subset.

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21 Auxiliary clues correspond to “intrinsic factors” (Clement, “Diatonic and Chromatic Tonicization,” 7) and “systemic indicators” (Wile, “Collection in Neocentric Music,” 104).
26 If the harmonic material contained only two pitch classes, it would be either a single sustained dyad or a monophonic alternation, neither of which is a harmonic progression.

Oscillation unfolds in the right hand over a tonic pedal in the left.

Many modal oscillations imply a particular collection and have a clear tonic. In such cases, the mode is well defined. Example 8 contains a Lydian oscillation from a Sondheim musical. The F♯(add2)–G♯(add2) oscillation, which begins four measures before the start of Example 8, occurs in relation to a tonal center on F♯. We infer that F♯ is tonic—at least temporarily—because of the F♯ pedal in the lowest voice and its embellishment by the C♯ a perfect fourth below. And because the oscillation F♯(add2)–G♯(add2) defines the C♯ major collection, we conclude the passage is in F♯ Lydian. True, Sondheim quickly modulates to C♯ major, with the F♯ and G♯ chords serving as IV and V in retrospect. But that modulation does not invalidate the genuine Lydian modality present at the start of the verse, an impression conveyed by the characteristic oscillation between major chords a whole step apart.

The use of modality invites harmonic oscillation. I have argued that the establishment of tonic in Dorian, Phrygian, Lydian, or Mixolydian generally requires direct clues such as repetition of the tonic chord. An oscillation is well suited to this purpose precisely because it is repetitive: one of its chords can serve as tonic, reinforced through reiteration. Furthermore, tonic triads in these four modes include one of the pitches of the diatonic tritone, and if the other chord in the oscillation contains the other tritone pitch, the diatonic macroharmony is determined. In this way, a transcendental oscillation can define the mode, establishing the tonic by means of repetition and specifying the collection by including a tritone. Thus, if a composer wishes to create the sense of being in a particular mode, transcendental oscillation is a convenient and effective method.
Example 9: Erik Satie, *Gymnopédie No. 1* (1888), opening

[Image of sheet music]

Example 10: Kendrick Lamar, “Feel” (2017), chordal and melodic aspects

[Image of sheet music]

Sometimes a modal oscillation defines the diatonic collection but leaves its tonic ambiguous. The opening of Erik Satie’s first *Gymnopédie* alternates between Gmaj7 and Dmaj7, defining the D major collection (Example 9). However, it is not clear which of the two chords has the tonic function. They are equally dissonant, and although the G chord receives greater hypermetric stress, D is the Ionian tonic and hence the default choice. I hear the excerpt as hovering between two possible tonics, one Lydian and the other Ionian.27

At other times, the modal oscillation has an obvious tonic but the macroharmony is unclear. In the cyclic chord pattern that underlies Kendrick Lamar’s “Feel” (2017), we know the tonic is A because the melody emphasizes it and because the only consonant chord is an A minor triad (Example 10). However, the chords do not present a complete diatonic collection. If they contained a B♭, the mode would be A-Aeolian; if there were a B♭, the mode would be A Phrygian—but neither note appears in the excerpt. Eventually the entrance of a new bass-guitar line clarifies that the mode is Aeolian, but until then the mode is ambiguous.28

27 Tagg claims that ambiguous Dorian-Mixolydian and Lydian-Mixolydian oscillations are particularly common in popular music (Tagg, *Everyday Tonality II*, 368).
28 Thanks to Scott Lindroth for pointing me to this example.
4. CHROMATIC OSCILLATIONS

Although there are a seemingly infinite variety of subtypes within this category, my focus is on chromatic oscillations between transpositionally related chords. Probably the most common type of chromatic oscillation, and one we have already seen, is the chromatic-mediated oscillation. This is a chromatic oscillation between two transpositionally related major, minor, major seventh, minor seventh, or dominant seventh chords (or their extended-tertian forms) whose roots are a third apart.

We can further divide chromatic-mediated oscillations into four categories depending on the quality of the transposed chord and the interval of transposition. In this respect, I follow Erik Heine’s labeling:

\[ M_4 = \text{oscillation between major chords separated by four semitones. Example:} \]
\[ F^\#_7 - D. \]

\[ M_3 = \text{oscillation between major chords separated by three semitones. Example:} \]
\[ A - C. \]

\[ m_4 = \text{oscillation between minor chords separated by four semitones. Example:} \]
\[ Dm - F^\#m. \]

\[ m_3 = \text{oscillation between minor chords separated by three semitones. Example:} \]
\[ C^\#m - Em. \]

An M4 oscillation between G and Es was already presented in the Brahms excerpt (Example 2). Debussy’s “Flûte de Pan” (1897), from Chansons de Bilitis (text by Pierre Louÿs), includes an M3 oscillation between C# and E (Example 11).30 Here, the vocal line emphasizes the G# common to both chords. During this chromatic oscillation, it is not clear which chord is tonic, or if a tonic even exists. Still, the end of the phrase emphasizes E major immediately after the oscillation; thus, E has a local cadential function.

Another class of chromatic oscillation is the tritone oscillation. This is an oscillation between two harmonies that are interval class-6 transpositions of one another. The coronation scene from Modest Musorgsky’s Boris Godunov (Example 12) furnishes a prime example.


\[ 30 \text{ In neo-Riemannian terms, the progression from C# to E is PR and the move from E back to C# is RP. In an abstract sense, oscillations are apt Riemannian objects because they embody a dualism between the two alternated chords. The modern resurrection of Hugo Riemann’s ideas may be traced to David Lewin, “A Formal Theory of Generalized Tonal Functions,” Journal of Music Theory 26/1 (1982), 23–60, https://doi.org/10.2307/843354.} \]
Example 11: Debussy, “La Flûte de Pan” (1897), m. 6

Example 12: Modest Musorgsky, Boris Godunov (1868–73), Coronation Scene, piano reduction

Another subgroup of chromatic oscillation involves motion by half step. A Neapolitan oscillation is an alternation between two transpositionally related chords a half step apart. The term “Neapolitan” comes from the nickname for the iiI chord in tonal music. Indeed, the oscillation I→iiI→I is one kind of Neapolitan oscillation. Example 13 contains a Neapolitan oscillation between minor chords. If we treat pitches in Example
Example 13: Maurice Ravel, “Surgi de la croupe et du bond” (1913), piano-vocal version by the composer, mm. 2–3

\[
\begin{array}{c}
\text{Ebm}^{(1)}(\text{maj7}) \\
\text{Dm}^{(1)}(\text{maj7})
\end{array}
\]

13 enharmonically, the harmony consists of an Eb minor chord with added major seventh (plus a “blue” eleventh with the high A♭) and a D minor chord with added major seventh. Since the roots of these chords are separated by half step, the oscillation is Neapolitan.

A whole-step oscillation occurs between two chords transpositionally related by interval class 2. Example 14 contains a responsorial whole-step oscillation in which the responsorial chord is itself a whole-step transposition of one of the oscillating chords. First, a G dominant seventh alternates with an F dominant seventh to create the oscillation. But in m. 13, instead of returning to F⁷, Debussy turns to an A⁷ chord, which is the other whole-step transposition of G⁷.

Finally, when the two chords in a chromatic oscillation are separated by interval class 5, I call it a Q oscillation, short for “quartal or quintal.” Compared to other chromatic oscillations, Q oscillations are somewhat rare because transpositional pairs of chords separated by interval class 5 are common in the diatonic collection. For example, C major and G major triads are found together in two diatonic collections and are ic5 transpositions of one another. Similarly, Em is a transposition of Am by ic5, and both chords belong to the
Example 15: Debussy, “Canope” (1913), mm. 13–16

same diatonic scale. So, when a composer oscillates between triads that are transpositionally related by perfect fifth or fourth, the result is likely to be diatonic rather than chromatic. For this reason, many of the Q oscillations we find involve seventh chords or extended tertian harmonies. As an example, Debussy alternates between dominant ninth chords in mm. 14–15 of his prelude “Canope” (Example 15).

5. NATURAL

Debussy was one of the first composers who adopted transcendental oscillation as a ubiquitous component of style. Although we find unconventional two-chord alternations in nineteenth-century art music before Debussy, no composer before him used transcendental oscillations so often. These devices were by definition uncommon in traditional tonality, but they became part of his personal “common practice.”

As a young man, Debussy drank from the proverbial grail and became intoxicated with Wagner’s music. Wagner uses transcendental oscillations from time to time; the opening of Lohengrin alternates between root-position tonic and submediant, while the “Tarnhelm” motive of the Ring oscillates between G♭m and Em. However, Debussy eventually came to mistrust the composer he called “old Klingsor.”

A more sustained source of inspiration was Russian music. After encountering works of Tchaikovsky, Rimsky-Korsakov, and Borodin in the 1870s and ’80s, Debussy made an exhaustive study of Musorgsky’s Boris Godunov in May and June of 1893. All these composers used transcendental oscillations

to varying degrees, and in a more general sense they suggested to him the possibility of freeing his style from the dominant Austro-German idiom.

Debussy understood that music analysis could never substitute for the listening experience. However, I hope the following analyses will deepen the listener’s appreciation of the style and worldview of this singular composer. The discussion comprises four sections: three dealing with the affective categories mentioned above—natural, sensual, and meditative—and a final section on the late sonatas.

Debussy uses transcendental oscillations as plateaus, or moments at which the forward motion of the music briefly halts. Whether these plateaus represent a decrease or an increase in tension depends on the context in which the oscillation appears and the specific characteristics of the oscillation. Debussy’s style showcases the paradoxical nature of transcendental oscillations: they can be calm but also intensifying, simple yet complex, static but also dynamic. One of Debussy’s motivations for using transcendental oscillations was to break away from the strictures of the common practice and manifest an idiom that seemed closer to the freedom of nature itself. And if a composer intends to employ unusual harmonies, a harmonic oscillation can ensure that these disruptive sounds remain comprehensible. Therefore, while Debussy’s progressions may break with traditional expectations, his repetition of those chord motions in oscillating contexts allows the audience to grow accustomed to the new language. In this way, transcendental oscillations balance the complexity of their unusual harmonic motion with simplicity in their repetitive aspect.

In some situations, harmonic oscillation seems relaxed, shuttling hypnotically back and forth between two chords. However, as in the coronation scene from Musorgsky’s Boris Godunov, Debussy also knew how to use transcendental oscillations in musical climaxes. This is repetition as intensification: the music strains against the boundaries of the two-chord progression, as if seeking to shatter the confines of repetition. The end of the first movement of La Mer (1903–5) demonstrates the use of alternating harmonies to deliver a climax (Example 16).

In Example 16, the horns enter at rehearsal number 14 with a chorale motive that contains two distinct minimal oscillations. The first is chromatic, alternating between G♭ and G♭5 (m. 1 of Example 16). In conventional tonality, the G♭5 would resolve to F5 major, so the return to the G♭ chord is non-functional. The next minimal oscillation is modal: E♭♭—Dbm—E♭♭ (m. 2 of Example 16). We could consider E♭♭ to be an ephemeral tonic by virtue of

Example 16: Debussy, *La Mer* (1903–05), end of first movement, partial reduction

![Musical notation](image)

that chord’s duration in m. 2; accordingly, the oscillation would be Lydian, I–vii–I. In the third measure of the excerpt, Debussy returns to the first minimal alternation. In this way, Debussy creates a hyper-oscillation, an oscillation between oscillations. This structure serves to prolong the first minimal oscillation. Debussy then proceeds to a complete R (relative) oscillation between Db (the tonic of *La Mer*) and Bbm. At the end of the first measure of rehearsal number 15, the R oscillation’s grip on the melody seems to give way with the arrival of an Eb major sonority. But the Eb chord is part of yet another oscillation, this one between Bbm and Eb (rehearsal number 15 in Example 16). Thus, Debussy elides two transcendental oscillations, with the Bb minor chord serving as the intersection between them.

As the oscillations in Example 16 progress, the musical tension increases. The iambic snap figure begins to occur more frequently; whereas in the Db–Bbm oscillation it occurred once per measure, it appears once every half measure during the Bbm–Eb oscillation. Moreover, the Dorian nature of this latter oscillation contributes to the sense of straining upward, for the sixth scale degree in Dorian is raised relative to the natural minor.\(^{35}\)

Finally, in the measure marked “Retenu,” the melody breaks the restrictive bounds of oscillating harmony, and we hear what is virtually the first non-oscillating progression.

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\(^{35}\) It would be a stretch to say we have “modulated” to Bb Dorian at this moment, but Bb Dorian is tonicized by the sheer emphasis and repetition of the Bb minor chord.
of the excerpt. Through their repetitive quality, the transcendental oscillations provide resistance against which the melodic subject struggles before cresting in the second measure after “Retenue.”

It is instructive to compare the close of the first movement of La Mer with the end of the third movement, which recapitulates the chorale idea (Example 17).

The chorale theme in Example 17 distills the oscillations of the first movement into a more concise statement. Specifically, the first chord of Example 17 is B♭ minor, whereas if it were an exact transposition of the first-movement chorale (Example 16) it would be B♭ major. By making the first chord in Example 17 minor instead of major, Debussy re-creates the final oscillation from Example 16—namely, the Dorian B♭m–E♭ (i–IV) oscillation. This change allows Debussy to skip the latter phases of the first-movement chorale (Example 16) when recapitulating it in the third movement (Example 17). Indeed, in the ninth measure of Example 17, Debussy arrives on the tonic E♭ even though an exact transposition of the first-movement chorale would require an F major chord instead. In the third movement, Debussy bypasses two of the transcendental oscillations from the first movement—those between G♭ and C♭ and between D♭ and B♭m—in favor of arriving on the D♭ tonic sooner rather than later. He accomplishes this by distilling two ideas into one: the chorale melody is combined with the Dorian i–IV oscillation (Example 18).

La Mer demonstrates that Debussy’s music is, in its own way, goal directed. The end of the first movement synthesizes various motives that were introduced earlier in the piece. For example, the chorale’s rhythm derives from the theme presented in the twelfth
Example 18a: Debussy, *La Mer*: first movement

Chorale theme

\[ \text{major chord} \]

Dorian oscillation

Example 18b: Debussy, *La Mer*: third movement with simultaneous presentation of chorale and Dorian i–IV idea

Chorale theme

\[ \text{minor chord} \]

Dorian oscillation

Dorian oscillation

Tonic chord

Example 19a: Debussy, *La Mer*, first movement: rhythm that reappears in the chorale

Chorale rhythm

Example 19b: Debussy, *La Mer*, first movement: snap figure

Snap rhythm

Oboe

measure of the movement (Example 19a), and the upward sixteenth-note snap figure originates as early as the oboe’s melody in m. 6 (Example 19b). While the oscillating harmonies in *La Mer* are static in that they are repetitive, their use at climactic moments turns them into the culmination of a dynamic process.\(^\text{36}\)

As another demonstration of Debussy’s teleological approach, the third-movement excerpt (Example 17) is a recapitulation of a recapitulation. It restates elements of the first-movement climax, which is itself a recapitulation of earlier ideas, before moving to

Example 20a: Debussy, *La Mer*: climax of first half of first movement

Example 20b: Debussy, *La Mer*: climax of first movement

Example 20c: Debussy, *La Mer*: climax of entire piece (third movement)

a triumphant coda. *La Mer* has clear goals and points of arrival on both the scale of the movement (such as the climax of the first movement) and on the scale of the entire piece (such as the climax of the third movement, which brings the entire piece to a satisfying end). Debussy tended to foreshadow arrival points, creating a nested structure: in *La Mer*, the third-movement climax is adumbrated by the end of the first movement, which in turn foreshadowed by a subsidiary arrival at the end of the first half of the first movement (Example 20).\(^{37}\)

Just as *La Mer* depicts elemental nature, so does Debussy’s opera *Pelléas et Mélisande* inhabit a natural world far removed from modern, civilized experience. The medieval forest setting is painted in austere, impersonal tones by the oscillation that begins the work (Example 21). The open fifth in m. 1 and the parallel fifths in mm. 8–11 recall medieval organum, lending an ancient flavor to the proceedings. In Debussy’s music, this kind of chordal, modal opening tends to suggest the archaic or the sacred.\(^{38}\)

Example 21 contains two modal oscillations centred on D: the first alternates between the open fifth and a C major triad, while the second is a more elaborate arch progression.

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38 Hepokoski, “Formulaic Openings,” 54.
Example 21: Debussy, Pelléas et Mélisande, act I, scene 1

that includes seventh chords on F and A. These modal oscillations provide the drama with a primordial backdrop. However, a chromatic oscillation follows each. In mm. 5–6, Debussy alternates between two whole-tone chords. And in mm. 12–13, a Gm–A oscillation in the right hand of the piano reduction unfolds over a B♭ pedal. In their rhythmic profile as well as their pitch content, these chromatic oscillations give a comparatively florid answer to the stark modal oscillations. Thus, Debussy oscillates between types of oscillation: modal—chromatic—modal—chromatic. This alternation of tone resonates with the play’s tension between the impersonal sterility of the text and the characters’ ostensible passion for one another.
Example 22: Debussy, “C’est l’extase” (1887), mm. 6–9

6. SENSUAL

The suggestive power of transcendental oscillations and their resonance with Symbolist aesthetics are on full display in Debussy’s setting of Paul Verlaine’s poem “C’est l’extase.” This mélodie is replete with oscillating progressions whose chromaticism conjures up the same languorous ecstasy as Verlaine’s text.

After an eight-bar introduction, we arrive on the tonic E major chord. But the preceding dominant B⁹ chord is embellished by G♯⁷ chords that suggest another tonal center—namely, C♯ (Example 22). The interpolation of the G♯⁷ chord in Example 22 resembles a tritone substitution in jazz in that one dominant chord substitutes for another. However, in this case the relation between the two chords is not by tritone but by minor third (B to G♯). So Example 22 contains an M₃ oscillation: an alternation between two dominant chords three half steps apart.

Debussy had acquired several songs of Aleksandr Borodin during his 1879 sojourn in Russia. In “The Sea Princess” (French title: “La Reine de la mer”), Borodin frequently oscillates between chords built on F and D⁹. For instance, in mm. 4–5, an F dominant ninth alternates with a D⁹ dominant ninth, creating an M₄ oscillation (Example 23). It is tempting to speculate that Borodin’s chromatic-mediant oscillation between dominant chords inspired Debussy’s adoption of the technique in “C’est l’extase.”

39 Vallas, Claude Debussy et son temps, 39.
Example 23: Aleksandr Borodin, “La Reine de la mer” (1868), French translation by Charles Grandmougin, mm. 4–5

Just as the Symbolists in poetry offered suggestions of things rather than the things themselves,40 Debussy in his settings of that poetry gives allusions to functional keys rather than the keys themselves. For example, in the next transcendental oscillation in “C’est l’extase,” Debussy alternates between a suggestion of E major (the E major seventh chord) and a hint of F major (the C dominant ninth chord) (Example 24). The C dominant ninth prolongs the global E major tonic by means of chromatic neighbor motion; the sustained E pedal also emphasizes the two chords’ close contrapuntal connection. In Example 24, the addition of notes—whether the added seventh in the tonic E major seventh chord or the altered B♭ in the C dominant chord—renders the tonality hazy and obscure, like the inscrutable nature imagery to which the oscillation is accompaniment.

Another chromatic-median alternation between dominant chords appears later in the song (Example 25). This progression occurs about two-thirds of the way through “C’est l’extase” during a passage of music that avoids settling on a clear tonic. Here we find another M3 oscillation between dominant sonorities, in this case D7 and B7. The cross-relation between the Cs in the left hand and the Ds in the right foregrounds the chromatic nature of this oscillation and gives voice to the text’s “lamento” and “plainte.” The first chord after the oscillation ends is another major-minor chord: G7. As it turns out, G and C disrupt tonal stability throughout “C’est l’extase.” For instance, the Cs in m. 36 turns the temporary stable D major of the preceding bars into an unstable major-minor seventh (Example 25). And C7 is used as a foil to the tonic E major chord in m. 11 (Example 24). Debussy’s emphasis of these chromatic-median areas, chords, and pitches (relative to the overarching E tonic) is part of what separates his idiom from traditional

tonal practice. Additionally, his M3 oscillations between chords other than E major—like the one between D7 and B♭ in Example 25—rhyme with his use of the chromatic mediants of E.

The polarity between E and its chromatic mediants appears once again at the end of the song (Example 26). In an exact parallel to the first establishment of E major as tonic chord, this last reinforcement of E major as tonic likewise alternates between E major and C major sonorities. When E major was established as tonic earlier in the song, it immediately alternated with a C dominant seventh chord (“C’est tous les frissons . . . ,” Example 24). At the final reinforcement of E major (Example 26), we again have an oscillation between E and C, though this C chord is not a major-minor seventh but a major triad. We also hear a
Example 26: Debussy, “C’est l’extase,” mm. 46–50

G major chord immediately after the transcendental oscillation, just as a G chord served as a departure from the transcendental oscillation in mm. 36–39 (Example 25). Thus, the song’s last transcendental oscillation (Example 26) synthesizes attributes of two earlier ones: it alternates between E and C and is ended by a G chord. In sum, “C’est l’extase” shows how important transcendental oscillations are to Debussy’s lexicon and structural approach. In at least four places in the song, transcendental oscillations have formal roles that affect our interpretation of the song’s musical unity.

Debussy’s breakout tone poem Prélude à l’après-midi d’un faune (1894) does not include a vocal part, but its inspiration by a poem of Stéphane Mallarmé links the work to Debussy’s mélodies of the same period. Like “C’est l’extase,” Mallarmé’s poem is sensual; it also presents an exotic aspect owing to its setting in classical mythology. In Debussy’s instrumental interpretation, two transcendental oscillations occur immediately after the solo flute’s opening phrase (Example 27).

The first oscillation in Example 27 is between an A♯ half-diminished seventh and a B♭ dominant seventh. Although these chords are connected by smooth voice leading in pitch-class space (E moves to F and D♯ to D♯), Debussy places them far apart in pitch space, with the A♯ chord higher than the B♭ sonority. This registral displacement, along with the chords’ spelling, makes the chords sound more disjunct than they otherwise would, like Mussorgsky’s tritone oscillation in Boris Godunov. The second oscillation of Example 27 harmonizes the flute’s melody (mm. 11–12) by alternating chromatically between D major seventh and G dominant harmonies. Unlike the first oscillation, this one preserves the chords’ common tone (D) as a pedal. Just as the prelude “La fille aux cheveux de lin” starts with an unaccompanied melody that is later harmonized by a transcendental
Example 27: Debussy, Prélude à l’après-midi d’un faune (1894), mm. 4–13, melody and chords

common tones in pitch-class space, but not in pitch space

common tone in pitch space

oscillation, so in the Prélude à l’après-midi d’un faune does the flute’s opening monophony (mm. 1–3, not shown in Example 27) return in mm. 11–12 with oscillating accompaniment.

7. MEDITATIVE

To illustrate this third affective category, I draw examples from two works that partake of Christian mysticism. First, consider the opening of Debussy’s cantata La Damoselle élue (Example 28).

In mm. 1–2 of Example 28, Debussy deploys oscillations between Dm and C and between Dm and Em. The repetition of the arch progression Em–Dm–C–Dm produces the double oscillation; in this way, Dm oscillates with two different chords (Em and C) rather than just one. On the other hand, if we hear the Dm chords as passing sonorities, the passage simplifies into a fluctuation between Em and C.

The austere triads of the first oscillation in La Damoselle élue give way to the lush texture of the second oscillation. If the first two measures depict the serene setting of heaven, the following measures evoke the earthly passion that colors the damsel’s experience of heaven. The dissonance of the C–B♭ appoggiatura on the G minor chords in m. 3 communicates her longing, adding another dimension to the setting given by the rather expressionless oscillation of mm. 1–2.
Example 28: Debussy, *La Damoiselle élue* (1887–89), opening, piano reduction

Successive statements of a CABA arch create a double oscillation

\[ \text{Em} \quad \text{Dm} \quad \text{C} \quad \text{Dm} \quad \text{Em} \quad \text{Dm} \quad \text{C} \quad \text{Dm} \]

\[ \text{Lent et calme} \]

A later work by Debussy that also deals with holy mysticism and begins with transcendental oscillations is *Le Martyre de saint Sébastien* (1911), incidental music for the play of the same name by Gabriele D’Annunzio. Debussy’s musical numbers were designed to augment the play’s transcendence and mystery.\(^4\) The work opens with incantatory chords in the same manner as *La Damoiselle élue*.

Example 29 starts with a responsorial progression embellished by an inserted chord. Specifically, the progression Ebm–Fm–Ebm–Bbm is responsorial, since the Bbm chord responds to the Fm. Within that progression, Ebm–Fm–Ebm is a modal oscillation that defines the Db major collection. However, another Bbm chord is inserted between the

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Example 29: Debussy, *Le Martyre de saint Sébastien*, opening, piano reduction

The first E♭m and the Fm chord. Because of this B♭m chord’s short duration compared to the surrounding chords, we can hear it as an embellishing sonority. The second half of the responsorial progression becomes the basis of another oscillation, this time between E♭m and B♭m. If the passage were clearly in the key of B♭m, then this oscillation would not be transcendent— it would be simply i–iv–i in common-practice minor. However, the mode is far from certain. Indeed, E♭ Dorian is a plausible designation for the passage because E♭m is presented as a possible tonic: the excerpt starts with an E♭m chord and E♭m is reiterated on strong beats in mm. 5 and 6. (The E♭ minor key signature may also contribute to our sense that E♭m is tonic, although C♭ is foreign to E♭ Dorian.) Because E♭ Dorian is the most likely mode of the passage, the E♭m–B♭m oscillation is transcendent.

8. Sonatas

Near the end of his life, Debussy embarked on a project of six sonatas, three of which he completed. The turn to such a venerated, abstract instrumental genre as the sonata marked a new phase of his career. Before, Debussy had created very few works in the standard forms of instrumental music. Two examples are the early Piano Trio (1880) and the String Quartet (1893). The trio imitates Fauré, and while the quartet is a masterpiece, its sequential counterpoint, motivic rigor, and violent accents distance it from the typical Debussy sound. Indeed, the quartet owes a considerable debt to both Beethoven and César Franck. Debussy appears to have composed the trio and quartet while aware of the pedigree and rich tradition behind these lofty genres. In attempting to add to the already vast corpus of trios and quartets— both “serious” forms— Debussy seems to have suppressed qualities that make much of his other music instantly recognizable to us. For example, transcendent oscillations are uncommon in both works. Significantly, in both trio and quartet the movement that contains the most salient transcendent oscillations is the scherzo; it seems likely that Debussy felt least encumbered by the weight
Example 30: Debussy, Cello Sonata (1915), first movement, mm. 6–8

of tradition in these “joke” movements. By contrast, when he returns to serious abstract genres in the late sonatas, he is entirely confident in his own personal idiom. These late abstract works are quintessential Debussy throughout, exemplified by their reliance on oscillating harmony.

For instance, a Dorian i–IV oscillation adorns the opening of the Cello Sonata (1915) (Example 30). The tonic Eb alternates with Ab major to define the Di major macroharmony. This oscillation occurs at the close of the rhapsodic introduction of the first movement; the last measure of Example 30 is the first measure of the main theme. As always, this transcendental oscillation is a plateau. In this case, the plateau creates a calming effect or a release of tension. The oscillation is like a placid lake into which the stream of musical activity flows, and it brings the introductory section to an end. After a break, the music starts on another course at Poco animando.

Another instance of transcendental oscillation in Debussy’s late sonatas appears at the start of the Violin Sonata (1917), the composer’s last major achievement (Example 31). Recalling the Cello Sonata, the Violin Sonata opens with a Dorian i–IV oscillation between Gm and C. Debussy presents the oscillation unadorned, as if to highlight the harmonic content. The Eb minor chord in m. 8 recalls the opening of La Damoiselle élue (Example 28), which also moved from a modal oscillation (Bb–Gm) to an Eb chord, although in La Damoiselle élue the Eb chord is major rather than minor. Listening to the opening of the Violin Sonata, one hears the compositional process itself. In contrast to the opening of

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42 We are reminded of Franck’s Violin Sonata (1886), whose opening melody is accompanied by a V–ii–V oscillation in A major.
Example 31: Debussy, Violin Sonata (1917), first movement, opening

La Damoselle élue, which quickly moves to an ornamented passage, the opening of the violin sonata offers little ornamentation. The harmonies seem purposeful and efficient. For instance, the Gm–C progression in mm. 12–13 of Example 31 cleverly reverses the relationship presented by the oscillation of mm. 1–7. In the oscillation, the C chord is subservient to the Gm (it is IV in relation to i), but in the Gm–C cadence it is the Gm chord that is subservient to the C (as v in the mode of C Mixolydian). Except for m. 9, every note of the violin part in Example 31 is a chord tone. The oscillation’s influence is felt even at the movement’s end when the Gm–C trajectory is reversed. Forceful C major chords in the piano at the marking “au Mouvement” yield to a G minor chord at the very end of the movement. This progression ties off the movement’s form in a satisfying way because the opposite shift occurs at the beginning of the movement, creating a palindrome.

Like the violin and cello sonatas, the Sonata for Flute, Viola, and Harp (1915) contains a transcendental oscillation near the start of the first movement. Following the first cadence—an arrival on an F major tonic on the first beat of m. 9—the harp states a transcendental oscillation over an F/C pedal in the viola (Example 32).
Example 32: Debussy, Sonata for Flute, Viola, and Harp (1915), first movement, mm. 9–12

Figure 1: Comparison of formal functions of transcendental oscillations in Debussy’s three late sonatas

Violin Sonata:
start of section: tonic Gm–C \(\rightarrow\) melodic activity, roving harmony

Cello Sonata:
melodic activity, roving harmony \(\rightarrow\) local tonic Ebm–Ab: end of section

Sonata for Flute, Viola, and Harp:
melodic activity, roving harmony \(\rightarrow\) tonic F–Dm \(\rightarrow\) melodic activity, roving harmony

In neo-Riemannian terms, the harp’s oscillation is an embellished R alternation: instead of moving between simple D minor and F major triads, Debussy decorates the chords with added tones to produce Dm\(^{11}\) and F\(^{maj7}\) chords. In fact, these decorations make it so that it is not entirely obvious that there is a chord change at all, because the two chords share so many notes. In any event, the oscillation yields in mm. 11 and 12 to chords that include Eb. The incursion of Eb breaks the tranquilizing spell cast by the oscillation, as does the flugy entrance of the flute in m. 12. Recall that a similar process happens in the Violin Sonata and La Damoiselle élue: an Eb sonority cuts off a transcendental oscillation. But the example from the Sonata for Flute, Viola, and Harp (Example 32) also resembles the excerpt from the Cello Sonata (Example 30) in that the oscillation releases tension. In the case of the Cello Sonata, the Dorian oscillation brought the rhapsodic harmonic motion of the introduction to a calm close, while in the Sonata for Flute, Viola, and Harp the R oscillation prolongs the F major tonic on which the players have finally arrived. Thus, the oscillation from the Sonata for Flute, Viola, and Harp combines the functions of the oscillations in the other two sonatas. It starts as an expansion of an arrival point and ends by leading into more active material (Figure 1).

Collectively, the late sonatas completed Debussy’s stylistic evolution. Whereas his earlier forays into serious Classical forms had resulted in works that sound quite different
from his typical mature style, the late sonatas show that Debussy could craft abstract instrumental works that plumbed the depths of his unique musical personality.

Debussy tamed the transcendental oscillation and made it a central feature of style, though its capacity to depict the extraordinary never vanished. The climactic IV–I oscillations in Wagner’s *Liebestod* showed the power of oscillating harmony to convey transcendent experience. Debussy took the Wagnerian example, along with that of Russian composers such as Borodin, and exploited it to a degree unseen in those models. As Debussy explained in 1908, modern music discards the old system of master and disciple in favor of one in which each individual creates a personal style.43 And never before Debussy had a composer relied so heavily on transcendental oscillations. The technique allowed him to balance novelty with comprehensibility and stillness with motion. Indeed, Debussy extended the applicability of this harmonic device and made it a cornerstone of his personal harmonic idiom. In so doing, he expanded the horizons of Western music.

Abstract
This article introduces the concept of the transcendental oscillation, in which two chords alternate with one another in a way that transcends traditional tonal practice. This harmonic device appears in a wide variety of settings from Wagner to modern pop music. After discussing some theoretical properties of transcendental oscillations, including their interactions with modality and chromaticism, I analyze transcendental oscillations in the works of Debussy, who made the technique a central component of his style. In Debussy’s music, transcendental oscillations may be either intensifying or calming. They are symptomatic of what Sylveline Bourion calls Debussy’s “duplication” tendency. As progressions foreign to common practice, they present a novel aspect, but as repetitive progressions, they are easy on the ears. These two central features of transcendental oscillations—their harmonic freshness and their repetitive quality—combine to make them well suited to Debussy’s compositional project and attractive to composers to this day.

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