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THOMAS ADÈS, CONCERTO FOR PIANO AND ORCHESTRA. ANALYSIS, PATTERN AND FORM OF THE FIRST MOVEMENT

Abstract

This paper will explore the first movement of Thomas Adès' *Concerto for Piano and Orchestra* [2018], focusing on its harmonic, structural, and melodic components. The analysis will examine the unconventional treatment of harmonic patterns, including the circle of fifths, chromaticism, and the use of the (025) pitch class set. Additionally, the sonata form will be discussed, highlighting how Adès integrates and manipulates traditional elements within this framework.

The study will also investigate Adès' use of melodic sequences, particularly those based on intervals of the fifth and fourth, showing how they evolve throughout the movement.

The overall goal is to demonstrate how Adès blends traditional techniques with modern innovation, creating a distinctive compositional style.

Keywords

Thomas Adès | Music Analysis | Orchestra | Contemporary Music | Artistic Research



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1. Introduction

Thomas Adès' *Concerto for Piano and Orchestra* was written in 2018 and premiered on March 7th, 2019, by Kirill Gerstein and the Boston Symphony Orchestra. The piece received great acclaim from critics as it reached back to traditional elements while also utilizing unconventional techniques. Adès, a British composer, conductor, and pianist born in 1971, is known for blending diverse musical styles. He gained attention with his first opera, *Powder Her Face* (1995), which showcased his unique approach to composition.

The first movement of Adès' *Concerto for Piano and Orchestra* is incredibly unique in its treatment of old materials. Through its unconventional use of harmonic patterns (such as circle of fifths and chromaticism) that are treated in unexpected ways, sonata form, and repetitive melodic sequences that subtly evolve, Adès' first movement differentiates itself from other contemporary works. This innovative approach is characteristic of Adès' style, as demonstrated in his other notable works such as *Asyla* (1997), a symphony exploring themes of nightclubs and dance culture, and *The Tempest* (2004), an opera based on Shakespeare's play. Adès' ability to blend traditional and modern elements creates captivating pieces that bridge the gap between classical and contemporary music.

2. Harmonic Patterns

On a general level, Adès' entire first movement is made up of different harmonic patterns that eventually evolve. In an interview between Kirill Gerstein and Thomas Adès¹, they discuss the way that harmonic refraction plays a role in the first movement of the *Concerto for Piano and Orchestra*. The piece combines coherent patterns and intentional breakings of those patterns. In this case, the breaking of patterns acts as a means of capturing the attention of the audience. If there was not a deliberate interruption of the patterns, the musical mechanisms would continually cycle, thus getting stuck in a loop, and never having a chance to unfold and develop.

Kirill Gerstein refers to these patterns as "cellular automata", which are made up of atoms or cells that discretely evolve through a series of small changes. Each pattern change depends on the change that came before.¹ Although the piece begins simply, the group of patterns eventually becomes complex enough to make up the canvas of an elaborate painting. A small unit that supposedly continues to reoccur does persistently emerge. However, the modified version of itself repeats and takes over.

THOMAS ADÈS: Each time, each bar, it modulates again the further away in the same – it's almost as I've taken a characteristic structure that's in the chain – like a knuckle or something and reproduced it but it's a logical place wasn't the place that it happens in

¹ E. W. WEISSTEIN, "Cellular Automaton", from Wolfram MathWorld, accessed November 7, 2022, <https://mathworld.wolfram.com/CellularAutomaton.html>.

the tune I've reproduced it at the next joint so that instead of going on the same direction it goes like that and it goes somewhere else.

KIRILL GERSTEIN: Cellular automata assembling themselves on ever-escalating levels.²

The Circle of Fifths is one of the most prominent patterns that Adès adapts over the course of the piece. In the first movement, however, rather than a straightforward chain of interlinked descending fifths like one could expect from a traditional circle of fifths sequence, Adès' pattern is elusive and subtle. From the strike of the kettle drum that marks the very beginning of the piece, harmonies are closely interlinked in chains of perfect fifth/fourths. The full cycle is not always completed, as at times, the harmonic chain of fifth/fourths appears only across two to three chords as a brief linkage. After two to three iterations of fifth/fourth sequences, the cycle relocates to progress to another series of fifth/fourth sequences; the tendency establishes a persisting pattern that veers away from the standard continuum of the circle of fifths. It is hard to label Adès' patterns as it depends upon a great deal of spontaneity, but it is clear that it is still modeled after the circle of fifths.³

Although the pattern does not follow the rules as strictly as the circle of fifths, it can still be defined. The directions of the chords either go up or down a major second and evolve to a minor third when modulating. As shown in example 1, the FM and CM chords in measure two are related by an ascending fifth/descending fourth sequence, and the whole foundation shifts a major second down from C to Bb. This series of intervals repeats throughout. The sets [Bb-F(m-M)-C(M-m)] are related by an ascending fifth/descending fourth sequence, and then they shift up a major second from Cm to Dm, arriving at [D(m-M)-A], which is also linked in an ascending fifth/descending fourth chain. It again goes up by a major second and reaches [B(m-B7)-E(m-M)-A] interlinked in the descending fifth/ascending fourth sequence. Subsequently, the chords progress from A to F#7, which moves down the minor third/up the major sixth, breaking out from the pattern. The harmonic progression is illustrated in *Example 1*.

What is especially compelling about Adès' pattern is that it differs from tradition but is still guided by conventional rules. The direction of intervals, as well as how many times the fifth/fourth chains extend over, are not predetermined, modifying irregularly. To define the harmonic model of the A1 section in the first theme, it is an interplay and reaction between the list of components: chain of fifth/fourths, "quivering" by major seconds, and fluctuating with major/minor thirds. It is a way how Adès utilizes familiarity and diverges from it.

² K. GERSTEIN, *Thomas Ades: "Roots, Seeds & Live Cultures" – Kirill Gerstein Invites @ HfM Eisler Berlin*, YouTube, 2020, https://youtu.be/I0kHP_npxJA [00:16:25].

³ C. R. JENSEN, *A Theoretical Work of Late Seventeenth-Century Muscovy: Nikolai Diletskii's Grammatika and the Earliest Circle of Fifths*, «Journal of the American Musicological Society», 45, II, 1992, pp. 305-331, <https://doi.org/10.2307/831450>.

The musical score consists of two staves of music. The top staff is in 4/4 time, and the bottom staff is in 3/4 time. The score is annotated with various harmonic and structural markings. Red brackets with blue arrows indicate Interval P5/P4 Relation (e.g., F to C, B♭ to F, C to Cm, Dm to D). A blue bracket with an arrow pointing right indicates Interval M2 Direction (e.g., C to Cm, Dm to D). A blue bracket with an arrow pointing left indicates Interval m2/a1 Relation (Chromatic Scale) (e.g., B♭ to F). A blue bracket with an arrow pointing right indicates Modulation (Mod) (e.g., Dm to D, D to A, A to A, A to F♯). A green bracket indicates Interval m3&M3 Relation (e.g., G to G, G to Em). The score also features various time signatures (2/4, 3/4, 6/8, 4/4) and key changes.

*Example 1: Reduction of the score with root position analysis of harmonies and the directions and relations.
All the chords are analyzed in root positions.*

Adès' musical conception is deeply rooted in the idea of a spiral. While spiral is similar to repetition, it differs in that it appears differently at each restatement. Adès comments on how integral the use of spiral is in his works:

KIRILL GERSTEIN: Could you explain Spiral in music and your fascination of spirals?

THOMAS ADÈS: It could be a number of things. One obvious thing in terms of harmony would be transpositions that within progression it repeats itself but in a different level. It's a built-in modulation, it keeps going on.⁴

Adès' explanation of harmonic spiral perfectly denotes the behavior of a harmonic cycle that associates with the same melodic line. The harmonic chain spirals by having the same melodic line in a loop; nonetheless, the chordal sequence comes back slightly modified at every instance. He keeps rearranging the piece repeatedly but discovers a way for the system to self-progress that correlates with "built-in modulation".

Typically, melodies are harmonized the same way over the duration of a movement. The spiral, however, adds an element of change to this piece so that when melodies come back, they are harmonized each time differently. The way the harmonies reemerge does not follow the melodic repetition of the A1 section of the first theme. The A1 theme repeats more than six times through the first movement, and there are four instances (m. 2, m. 33, m. 111, and m. 144) where A1 appears with the same melody. Other times, the melodies are either transposed to another key or rhythmically intertwined between the piano and orchestra. With the reoccurrence of the identical melodic line, the harmonic

⁴ K. GERSTEIN, *Thomas Adès: "Roots, Seeds & Live Cultures"* – Kirill Gerstein Invites @ HfM Eisler Berlin, YouTube, 2020, https://youtu.be/I0kHP_npxJA [01:25:25].

progression underneath alters every time, appearing differently in each presentation. The established harmonic pattern is relevant to the other A1 themes throughout the piece, meaning the pattern alternates between fifth/fourth linkage, major second, and thirds. Except for a few moments that share the same chords, the specific chords are coordinated differently while assigned to the same melodic pitch.

The changes are subtle chronologically, but the spiral becomes more obvious over the course of the piece. In many moments, as the piece moves forward, more complex chords that share the same root chord move from one to the other. Furthermore, the frequency of chordal changes develops over time. For example, at the beginning of the piece, the chords change from major to minor and vice versa, but as the piece progresses, the types of chords that exchange intensify: diminished chords move on to minor, minor 7th to major 7th, and half-diminished chords emerge. The evolution of the chord progression is shown below in *Example 2*.

Melody Pitch	F	G	Bb	C-A	G	A-F#	E	F#-A	B	C#	E
m.2	F	C	Bb	F(m-M)	C(M-m)	D(m-M)	A(M-m)	B(m-B7)	E(m-M)	A	F#7
m. 33	Dm	Gm	Gb	A(°-m)	G(M-m)	D(m-M)	E(M-m)	B(m7-M7)	C#(m-7)	A	F#7
m.111	Fm	Cm	Bb(m-M)	Am	G(M-m)	D(m-M)	E(M-m)	B	C#(m-M)	F#m7	F#7
m.144	F(M-m)	C(m-M)	Bb(M-m)	A(°-M)	G(M-m)	D(m7-M7)	E(M-m)	B(m7-M7)	C# o7	Different Melody	

*Example 2: Progression of chords compared to A1
(m.2: Exposition, m. 111: Development, and m.144: Recapitulation)*

3. Sonata Form

The treatment of sonata form in the first movement goes beyond expectations of a standard sonata form, mixing between the old and new. While Adès introduces the piece as being in a sonata form, he does not further elaborate on the details. His explanation of the form is demonstrated through a program note written by Adès himself.

The first movement *Allegamente* opens with a statement of the theme by piano and then tutti. A march-like bridge passage leads to the more expressive second subject, first played by the piano and then taken up by the orchestra. The development section interrogates the first theme before an octave mini-cadenza leads to the recapitulation ff. There is then a solo cadenza based on the second subject, first played tremolo and then over many octaves, the piano joined first by the horn and then by full orchestra. The movement ends with a coda based on the first theme and the march.⁵

⁵ T. ADÈS & T. SERVICE, *Thomas Ades: Full of Noises: Conversations with Tom Service*, Faber and Faber, London 2012, p. 33.

Music theorist Edward Venn identifies the form of the first movement as a «threefold rotation of a single tonal plot beginning in F, the second of which is truncated, and the third considerably expanded».⁶ The piece is, in fact, an extended sonata form containing two significant thematic ideas in the first theme, the 'march-like' notable transition, and the second theme. Nevertheless, the harmonic structure in the first theme begins in F major, and the second theme begins in d minor, adhering to the old tradition of the relative minor. The structure is analyzed in detail in *Example 3*. If the piece were not to be molded into a Sonata form scheme, it could be a piece containing four distinct and stand-alone themes. Furthermore, the extensive coda section constructs the form rather unusual. How he interplays with the overarching structure remains pertinent to the notion of 'spiral' as the piece strictly remains true to each section (First Theme, Transition, and Second Themes). Themes repeat themselves, however, with varied versions of harmonic progressions, exuberant orchestration, and rhythmic intricacy utilizing 2/6 meters.

Measures	Key	Formal Division
1-25	F	Exposition A1 (First Theme)
26-32	(dm)	A2 (First Theme)
33-43	F	A1' (First Theme)
44-51	(Bb)	A2' (First Theme)
52-64	F	A1 + A2 (Semi Solo)
65-81	quintal	Transition
82-110	dm	B (Second Theme)
<hr/>		
111-124	fm	Development A1
125-128	(C)	A2
129-136	C	A1
137-140	(Bb)	A2
141-143	(f#)	A1 (Short Octave Cadenza)
<hr/>		
144-157	F	Recapitulation A1
158-165	(F#)	A2
166-193	Db	B (Cadenza)

⁶ E. VENN, *Adès and Sonata Forms*, «Tempo», 75, 298, 2021, p. 37, <https://doi.org/10.1017/s0040298221000371>.

		Coda
194-202	G	A1
203-207	(Bb)	A2
208-215	D	A1 (A1 in piano+A1 in orchestra)
216-220	(Db)	A2
221-228	quintal	Transition
229-237	F	A (Ending)

Example 3 : Concerto for Piano and Orchestra structure of the form analysis

4. Melodic Patterns I. Fifth/fourth

Melody is one of the most apparent elements in the piece, and in this case, the melody could be understood better through patterns. In addition to the significance that the fifth/fourth relationship has to the harmony, it is also vitally important to the melody. In the “March-like” transition, there is another exemplification of the fifth/fourth relationship, and it is overtly present throughout the whole section.⁷ This pattern applies to three different aspects of the transition: melody, underlying motion, and percussive parts. Especially noticeable is the series of prolonged perfect fifths in Clarinet 1 and Marimba in the underlying part.

Two segments constitute the underlying part sequence – one jumping back and forth between three pitches connected in fifths and the other falling in fifth. Those two different fifth motions are connected by major seconds, similar to the previously mentioned harmonic progression from the A1 section. The first sequence repeats [C, G, D, G, C, G, D, ...] that consolidate into [C, G, D], and the whole layer moves up a major second. After the major second shift, the entire base arrives at the second series of the segment of straightforwardly falling fifth sequence [E, A, D, G, C, F]. After the falling fifth sequence, the first sequence takes back the role and goes back and forth between [F, C, G, C, F, C, G, ...]. Finally, the consolidated [F, C, G] goes up a major second to falling fifth sequence [A, D, G, C, F, Bb]. The pattern persists until measure 74 – the swaying fifths and falling fifths linked in a major second.

⁷ T. ADÈS, *Concerto for Piano and Orchestra Program Notes*, Faber Music, accessed November 7, 2022, <https://www.fabermusic.com/music/concerto-for-piano-and-orchestra>.

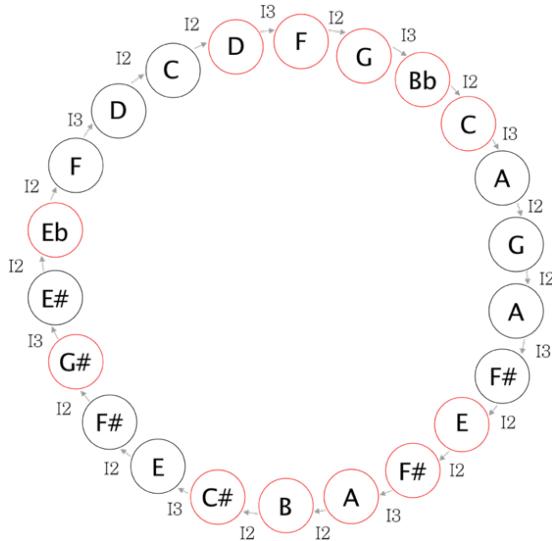
A melody on top of the underlying fifth/fourths pattern in the transition section also shows a pattern of the fifths motion. However, in the top melody, Adès yet intermittently incorporates major/minor thirds in the sequence. As can be seen in *Example 4*, the beginning note Bb goes up a minor third up reaches a fifth/fourth linkage [C#, F#], then the whole relation ascends for a major third (augmented second), landing on the fifth/fourth sequence [F, Bb, Eb]. The pitch moves to F# from Eb, shifting a minor third. The melody bounces between two harmonic regions between [C#, F#, B] and [F, Bb, Eb] disconnected by a minor third. In measure 71, at the end of the falling fifth sequence [C#, F#, B], note B moves on to D, connecting the series by a minor third. Immediately after a major third from D, the sequence moves back to the [Bb, Eb]: the fifth sequence. The transition section showcases how the entire musical idea could be constructed from the fifth/fourth sequence but still be innovative.



Example 4: C part melodic line from oboe (grace notes are removed)

5. Melodic Patterns II. Pitch class set (025)

In any piece of music, familiar or repeated material helps listeners recognize connected ideas. In the first movement of the *Concerto for Piano and Orchestra*, the melodic line is clearly grouped in three notes made up of the same pitch class set (025). While this melodic continuity holds the movement closely together, it is also subtle and concealed, building a framework that the rest of the movement follows. The melodic line pattern maintains continuity for the listeners by sharing the recognizable pattern that occurs in every A1 theme. The first opening melodic line of the A1 section appears interchangeably between the piano and orchestra. Melodic motives of theme A1 are woven into a set of three note groups, forming a rhythmic talea: short-short-long rhythmic scheme. The three-note figures also construct a pitch class set of (025), and *Example 5* demonstrates the repetition of the melodic chain. The directions of the pitch sets differ from one another. Still, the chain of groups of [F-G-Bb], [C-A-G], [A-F#-E], [F#-A-B], [C#-E-F#], [G#-E#-Eb], [F-D-C], [D-F-G] initiates a pattern of the beginning notes being separated from the ending note of the previous group by ascending major second intervals. The penultimate three-note group [F-D-C] shares [C] as an overlapping pitch with the ending group [C-D-F] before the orchestra repeats the same melodic pattern starting in pitch F.



Example 5: Melodic cycle of notes repeating itself: 2-3-2 | 3-2-2 | 3-2-2 | 3-2-2 | 3-2-2 | 3-2-2 | 3-2-2 | 3-2-2 | 3;
Combination of the red circles make up 12 tones.

As aforementioned, the concept of spiral is deeply rooted in Adès' idea and it could be applied to both the harmonic and melodic levels.

THOMAS ADÈS: You can have other forms of melodic spiral that essentially form what is known spiral looks like. And things would go again that might be like a branch or a vine that's its natural way of moving but then in order to create something that goes somewhere, it has to be trained to go on a different way but I think it's probably the nature because the material I'm looking at, let's say tonic, dominant, in a geometrical way rather than a narrative way that does have spiral. It will get moved like a spiral if you leave it.⁸

While patterns unify a movement, instances of when patterns break are the moments that propel the piece to proceed to a next section. Supposedly the melodic cycle of (025) could go on forever; however, pattern-breaking points and so-called disruption in patterns let cadence occur, and the music move on to another section. Unless there is an intentional adjustment to the “spiral”, the cycle will go on without interruption, thus repeatedly reiterating the process. From the Recapitulation in measure 144, the fourth sequence of (025) pitch class cycle of [F-G-Bb], [C-A-G], [A-F#-E], [F#-A-B] does not continue to [C#-E-F#] as it does consistently in measure 2, 33, and 111. Instead, the last two pitches – A and B - overlap and modulate to different pitch cycles while maintaining the (025) pattern. The modified cycle is as follows: [F-G-Bb], [C-A-G], [A-F#-E], [F#-(A-B)-D], [E-C#-B], [C#-A#-Ab], [Bb-Db-Eb]. The modified sequence continues to share the same pattern as the original sequence. The last note of the three-note group is distanced by a major second from the first note of the next three-note group. Adès attaches a geometric shape of (025) to another (025) figure that

⁸ K. GERSTEIN, *Thomas Ades: "Roots, Seeds & Live Cultures"* – Kirill Gerstein Invites @ HfM Eisler Berlin, YouTube, 2020, https://youtu.be/I0kHP_npxJA [01:26:03].

builds up a 'spiral'; the spiral of connected geometric shapes of (025), however, the shapes gradually become reshaped like "a branch or a vine". The deliberate decision on adjustment happens naturally; almost unnoticeably, the models take a slightly regulated direction – but that gentle change embodies an unforeseen butterfly effect. A minute adjustment brings about an immense change in the following measures, and the melodic cycle expands boundlessly.

From measure 151, the single melodic pattern of (025) chains diverges into six disparate lines entangled together. All melodic lines concurrently happen together, thus generating a rich underlying and unresolvable harmonic scheme. In measure 158, A2 of the first theme section of the Recapitulation begins in F# Lydian which entails F#, G#, A#, B, C#, D#, and E#. All six intertwined melodic lines progressively prepare to be modulated to F# Lydian by measure 157, and delicately crafted lines arrive in the key of F#. Some of the melodic patterns drift away from the exact (025) designs in order to be molded into F# Lydian along the way. Similar to inherently spreading out vine, the materials' quiver' and take their unpredicted direction instead of submitting to mathematical exaction and repeating in the same way.

Example 6: One melodic pattern evolving into six separate lines

The repeating A1 theme melodic line that exchanges between the piano and orchestra – previously analyzed as a set of (025) cycles – can also be examined from a different angle. In *Example 7*, Melodic lines are divided into larger groups of 4 (indicated as A, B, C, and D). A and B are primary dividers between two distinct melodic types in contrasting harmonic domains. At the same time, C and D are smaller segments that support the spiral motion to expand and advance into the next section. Measure 21 marked Ab does not follow the repeated pattern preparing the sequence as a cadence. Although [F, Ab, Bb] could be understood as an inverted (025), the note Ab is the only divergent pitch out of three exact repetitions of the melodic chain that leads into the next section.

□ : G changed to Ab

Example 7: Beginning of the piece melodic lines grouped in A, B, C, D

Adès focuses on materials and leaves room for the natural way in which they could evolve. The materials become a set of guidance that navigate through the piece, but an emphasis is not on how to be bound by them. While they are a set of abstractions, each takes life and bloom.

I don't believe in stability, I don't think it exists, in life. At least, it seems to want its own destruction, just as instability wants resolution. The moment I put a note down on paper it starts to slide around on the page. And the writing that I could see when I look at a note under the microscope, you would see with any living thing.⁹

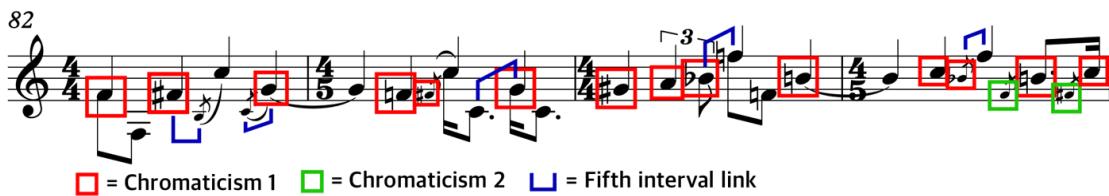
An example of a musical material being a 'living thing' is self-explanatory in measure 141, right before Recapitulation. The idea of a small cell (025) abruptly bursts as if the material is alive and eager to be noticed. A succinct but fierce piano solo is a culmination of omnidirectional (025) sets grouped as five-pitch collections: [B, G#, [F#], A, B], [D, C, [A], B, D], [E, C#, [B], D, E], [G, F, [D], E, G], [A, F#, [E], G, A], [C, Bb, [G], A, C], [D, B, [A], C, D]. Another (025) sequence can be constructed with the beginning pitches of the sequence itself: [B, {D, (E), [G]}, {A}, (C), D}, F], ultimately reaching the note F that is the tonic of the A1 theme in F major.

⁹ T. ADÈS & T. SERVICE, *Thomas Ades: Full of Noises: Conversations with Tom Service*, Faber and Faber, London 2012, p. 25.

6. Melodic Patterns III. Chromaticism

The last melodic pattern that transforms the past materials into Adès' own way is the use of chromaticism. Adès evidently manifests chromaticism in the second theme combined with elusive perfect fifth motions. Broken chromaticism slowly builds up from the beginning of note F; nonetheless, the chromatic scale is intermittently broken up with a fifth intervallic link. As indicated in *Example 8*, all the red boxes represent the gradually building up chromaticism. While the beginning pitch goes from F - F# - G, the F# is briefly followed by a grace note B, which is connected in interval fifth/fourth. The following note G is also associated with grace note C beforehand, which establishes a definite fifth/fourth link pattern, which abruptly interferes with a continuation of the chromatic scale. Furthermore, the pattern connects the movement as a whole, as the same patterns have continually been implemented from previous harmonic and melodic patterns previously set forth.

The chromatic scale does not continue in one direction. However, the line occasionally falls back by a major second. Even though the chromatic line is fragmented by major seconds, the direction of the line unalterably ascends; it is like a wind-up toy only designed to go in one way. There sporadically are second chromatic line that is generated as a byproduct of the fifth intervallic link's intervention and it is marked as green boxes in *Example 8*. The chromatic line reaches the highest note A5 (*indication of an octave) in measure 174, and the chromatic line falls by linked fifth step by step, eventually arriving back to the starting pitch F for the orchestra to pick up the melody of the A1 theme in Development.



Ex 8: Chromatic pattern in B section and linkage of fifths

7. Conclusion

The first movement is tightly interwoven with detailed patterns in multilevel layers – harmonic, melodic, and a pitch-class set which becomes a pillar in each section. On top of the multilayered pillars, Adès' deeply rooted views regarding 'spiral' and 'chain' become a cohesive means of connecting each section. The piece, however, deviates from the anticipated repetition of patterns that construct distinctive characteristics in the end. The *Concerto for Piano and Orchestra* demonstrates a substantial use of familiar materials, but they are artistically employed, which makes the piece compelling. The manifestations of a series of patterns and circumvention that breaks out of the rules are the imprint of the first movement, and it is how Adès not

only manipulates traditional materials but also transforms them. The established ground of the series of patterns and its twists make Adès' freshness bloom, and it may be why the piece is acclaimed by listeners and critics while maintaining its intricate design and complexity.

Subsequent research on Adès' composition could further explore how his manipulation of conventional forms and harmonic techniques carries over into remaining movements of the Concerto or his larger oeuvre. Examining how his treatment of a small cell of pitch-class sets, such as (025), in various compositions may provide more depth on his harmonic language. Additionally, investigating Adès' compositional methods within the context of contemporary music could reveal new perspectives on his role in reshaping of classical traditions by encouraging the development of a new, innovative voice while upholding and honoring tradition. Expanding this research to include a comparative analysis of his works with those of other contemporary composers might provide a broader understanding of how his methods compare to other modern pieces.

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